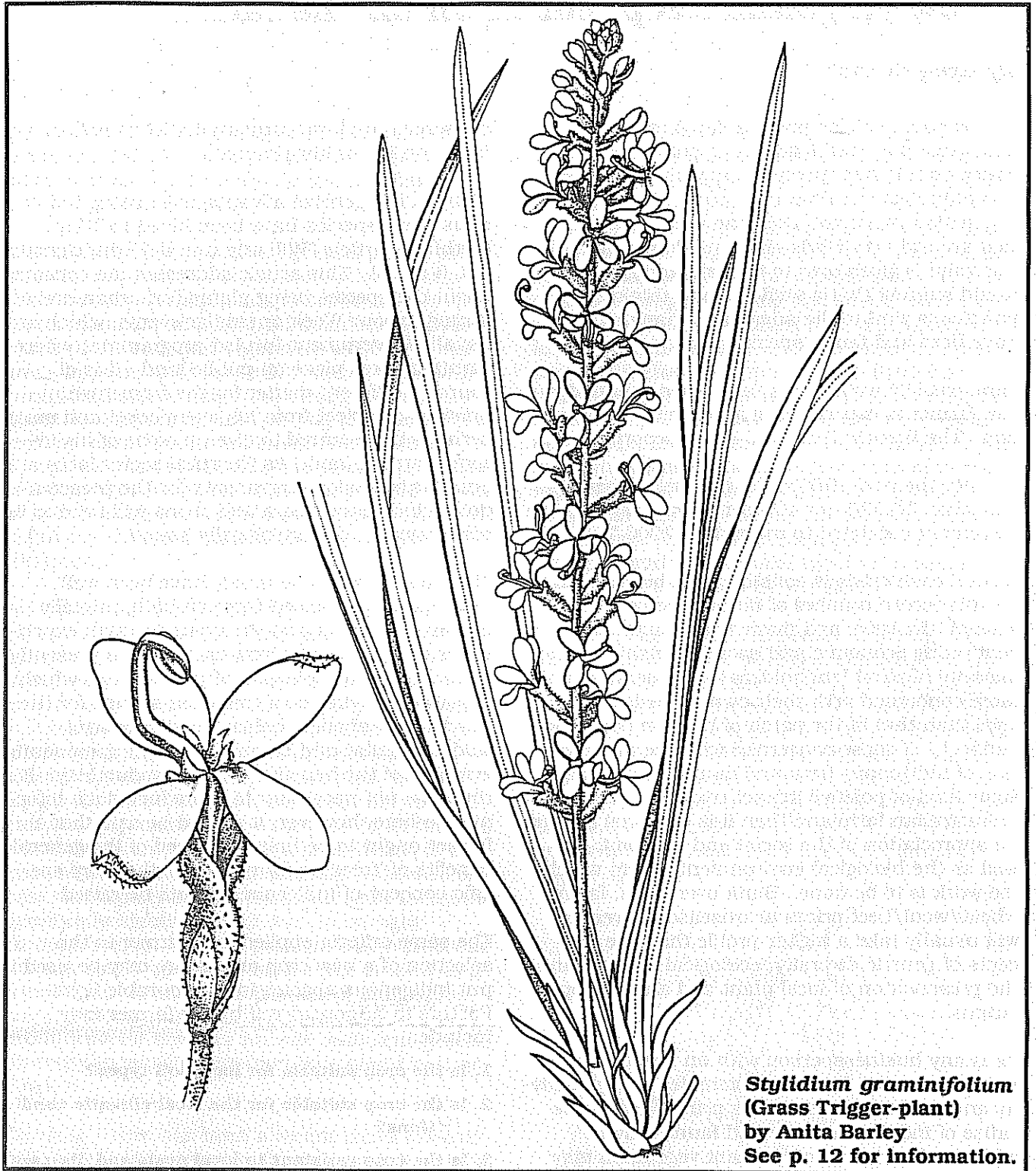
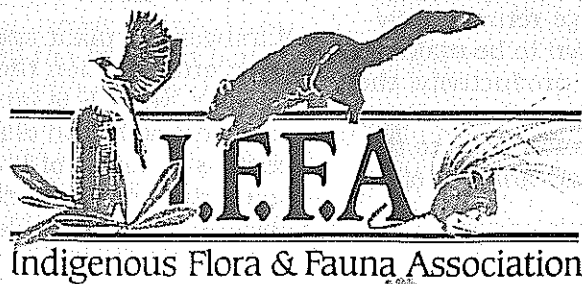


INDIGENOTES



Stylidium graminifolium
(Grass Trigger-plant)
by Anita Barley
See p. 12 for information.



Indigenous Flora and Fauna

- How ya gonna keep 'em down on the farm?

By Greg Stone*

A brief survey of the present day Australian rural landscape may well lead one to conclude that agriculture is not synonymous with the preservation of indigenous flora and fauna. If such a conclusion is correct, then the additional fact that around two-thirds of the total land area of Australia is given over to farming and grazing would suggest that a shift in rural thinking and practice is vital to the survival of many indigenous flora and fauna species.

Paradoxically we live in a time when the Australian farmer is experiencing a decline in population. The Weekly Times of 4 July reported that

"...since the mid-1960's, the number of farmers has fallen 10,000 - or 400 per year. Last year the movement escalated to more than 2000."

A rural cash crisis is considered to be responsible for this record number of farmers being forced to walk off the land, and many who remain face continuing economic and social hardships. The majority of rural landholders are understandably more concerned with their own immediate survival than that of the patch of bush in the back paddock. If those concerned with the preservation of indigenous flora and fauna wish to make some kind of positive impact upon the vast tracts of Australian farmland then it is essential to gain an appreciation of the social and economic as well as the biological environment within which the work is to be done. Bank overdrafts, falling wheat/wool/beef prices or unseasonal weather will usually take a higher profile than the concepts of genetic diversity, ecological balance and the preservation of local plant and animal populations.

As is any businessperson with an aim to remain in business, the farmer is interested in productivity and profit and it is to this principle that the cause of indigenous flora and fauna may be addressed. An area of remnant vegetation may not be fenced off to encourage regeneration, for example, if the cost of fencing is seen purely as a financial outlay for no productive return. However, if the exercise can be shown to be making a contribution to improving farm productivity, then the 'bit of scrub' may be viewed in a better light. In short, we must be able to demonstrate to the rural landholder the economic advantages of

conserving and encouraging indigenous flora and fauna on his or her property.

Many of the general advantages of using indigenous plant species have been listed in Tony Faithfull's article "Will any tree do?" (Indigenotes Vol. 3 no. 5). This article addresses the concerns about the species being planted in urban areas during Arbour Week or similar events, which are usually Government-funded programmes where planting takes place on public land. It is of course a different matter for the farmer who finances a project from his own pocket and must perhaps be prepared to give up some of his income-earning land. As the rural sector faces a possible recession, arguments for the preservation of indigenous flora and fauna will need to be economically and ecologically sound.

The value of 'trees on farms' have been well proven and publicised through both specially constructed trials and the down-to-earth experiences of enlightened farmers. There is presently available a wide selection of publications which expound the virtues of trees and shrubs for the provision of shade, shelter, erosion control, wildlife habitat and so on along with documented evidence of the benefits to farm productivity. It is therefore not necessary to reproduce such information here, however, it should be said that a farmer ought to be first convinced of the general benefits of 'trees on farms' before the more specific concept of indigenous plants be raised.

The same criteria applied by a farmer to the selection of a new crop or pasture may be used to put indigenous species in a favourable light. Factors to be considered by the farmer may include:

1. Is the crop suitable for local soil types?
2. Is the crop suitable for the local climatic conditions?
3. Is the crop resistant to local pests and diseases?
4. Is the crop likely to increase farm productivity?

If indigenous plant species are examined by the same criteria, then the answer to each question must be 'yes'. It is fairly obvious that local plants suit local soils and climatic conditions and the benefits in terms of likely success, lower water and fertilizer requirements and so on are equally obvious but nevertheless worth reiterating.

*Rural Revegetation Consultant,
Moss Vale, NSW.

Lower establishment costs and maintenance requirements than those needed for imported plant species is good news for the landholder short of time and money.

A healthy community of indigenous plants provides its own natural resistance to local pests and diseases as relationships between flora and fauna maintain an ecological balance. Of course much of the remnant vegetation existing in rural areas appears to be far from healthy, and many rural landholders might have second thoughts about the aesthetic value or long term survival of local species. This is understandable, but it should be pointed out that the present condition of the indigenous plant community is the result of poor management and that a similar fate would befall any crop or animal suffering similar mal-treatment.

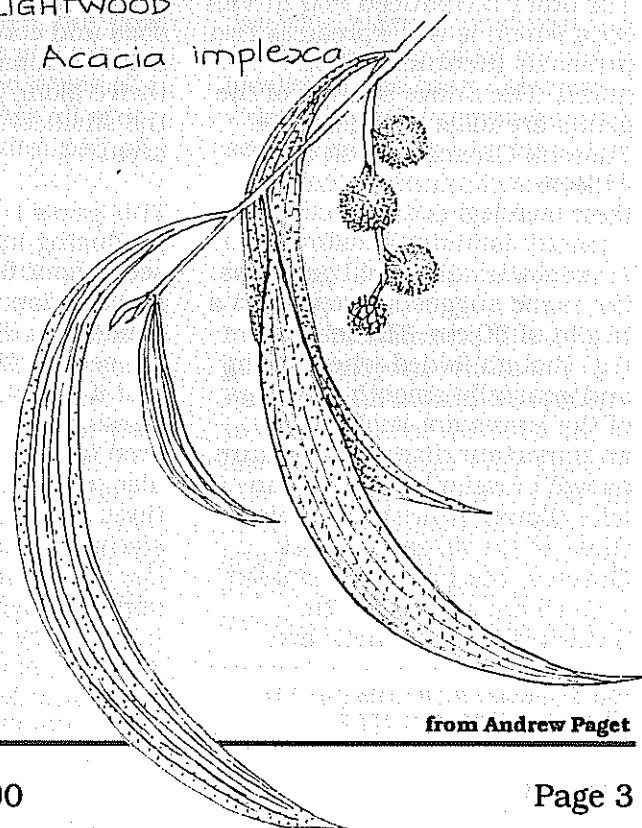
An advantage of this natural pest and disease control is that it is obviously inexpensive when compared with the commonly used fungicides, drenches and so on that are essential elsewhere on the farm. Certainly indigenous plants may be vulnerable in the early stages of establishment after replanting or regeneration, especially in extensively cleared or degraded areas, but the long term benefits will far outweigh the costs of early management and protection. Most farmers would be aware of the potential problems of a 'mono-culture' where, for example, a disease or pest can rapidly spread from one plant to another genetically identical plant and so on right through a crop. Such a problem can even occur when a single species of native tree is used as a windbreak. A natural collection of indigenous trees, shrubs (and ideally grasses and groundcovers) however provide sufficient genetic diversity to avoid decimation by a single pest or disease.

Certainly there has been a recent trend towards the use of native trees on farms across Australia, but too often the choice of species has been prompted by the attractive appearance of a plant seen either photographed or growing sometimes hundreds of kilometres from the intended planting site. The major problem with this method of species selection is that the eventual height, form, growth rate, tolerance of climatic extremes and insect attack are unknown factors at the time of planting and the unsuitability of a species may not become apparent until some years have

passed. No farmer worth his salt would invest in an agricultural activity with such uncertain returns, yet this approach has often been used for tree planting projects. A common topic of conversation among farmers concerns who has used what techniques successfully, which breeds of stock are doing well on certain pasture, whose crop is looking promising and so on. New enterprises are often introduced onto a property following a farmer's observation of what has proved successful elsewhere in the local district and if this same method was used to ascertain the most suitable trees and plants then the indigenous flora would usually be the obvious choice. Looking along roadsides and similar areas of remnant vegetation, the mature height, form and so on of plants can easily be seen. The fact that these plants have survived through years of fire, droughts and floods make them an economically sound choice to plant on the farm.

The above arguments in favour of the use of indigenous flora are based on economic common sense - something that many rural dwellers believe is lacking in much of the conservation movement. If such a case is not put to the rural sector along with respect for the social, economic and biological environment in which the farmer lives, then we may be a few steps further along the road to agricultural productivity and the preservation of Australia's flora and fauna.

LIGHTWOOD



from Andrew Paget

Weed of the Month:

Poa annua (Annual Meadow-grass)

By Roger Jones*

Poa annua would be familiar to anyone, even though they might not know its name. It is a common plant of lawns, paths, roadsides, disturbed and cultivated areas. Familiarity with this grass begins during childhood, when we are all so much closer to the ground. When it is a component of lawns, it is a benevolent grass, giving grassed areas that beautiful jewel-like yellow-green colour during winter and spring. *Poa annua* is associated in my mind with sunshine, damp earth and footballs. It is also associated with the regeneration of indigenous flora and most areas subject to some form of disturbance, and as such is definitely an environmental weed.

Poa annua is a pantemperate grass, originally from Europe and Asia, which has now become cosmopolitan. It is certainly one of the world's most common plants as it is in Australia, occurring in all regions except the Northern Territory. Australia has 42 species of *Poa*, 7 of them introduced (1983). The other introduced *Poa* in Victoria which is widespread is *Poa pratensis* (Kentucky Blue-grass). The native species of the genus are most noted for the Tussock Grasses which form widespread communities in their own right.

P. annua is an annual grass, as the name suggests, growing to a height of 30 cm. The leaves are flat, though folded when young and generally smooth. The tips of the leaves are keel-shaped, an important diagnostic feature, as will be seen later. The panicles (flower heads) resemble those of the larger Tussock Grasses, but are much smaller – 1-15 cm in length. The branches of the panicle are

loose and occur singly or in pairs. The panicle itself is triangular to ovate. The spikelets, usually several at the end of each branch, hold 3-10 florets each.

P. annua was probably one of the first introductions of exotic plants to Australia, as seed was brought in deliberately by a number of people as well as through a variety of accidental means. Its wide use as a lawn and pasture grass meant that it spread quickly and widely. The grass has the ability to adapt to a wide range of conditions and it is able to produce large amounts of viable seed in the harshest of circumstances. All *P. annua* needs is moisture to germinate, and only one or two additions of moisture during the first few weeks of growth.

The plant can flower at any time of the year, but the main flowering period is during late winter and spring. It is inhibited by the heat of summer, but will thrive at any time if conditions are cool and moist. *P. annua* can also grow in a wide variety of soils and competes very well if soil is compacted, allowing it to thrive along pathways and in the smallest of cracks in paved areas.

This grass is a prolific seeder, producing large amounts of seed about 6 to 12 weeks from germination, depending on conditions. *P. annua* drops fertile seed while it is still green and if the plant is placed under stress can flower and produce seed in a very short time. This also means that several generations can be produced successively. The amount and size of the seed assures that it is spread widely, either water-borne or by mechanical means. The seed is viable as soil stored seed for at least a few years,

which means that it is something of a rabbit, popping up in large numbers if the conditions are right.

Poa annua is not a problem because of its vegetative properties. It is small, and tends not to take over large areas unless they are bare of other plants. However, it is a problem in areas where native grasses and herbs are sown or where disturbance has occurred, being able to recolonise faster than native species. Because of its ability to produce seed so quickly, and also the amount of soil stored seed that tends to occur in suitable areas, it is not worth treating the grass with herbicides. The weakness of *Poa annua* is that it does not take competition very well. This means that it is susceptible to mulching.

Any mulch is suitable. Straw, leaves, mulches similar to Eucamulch, opaque plastics and weedmat will all work well. If people are interested in converting standard exotic gardens to native grassland and herb areas solarise the area first. This entails covering the area to be sown by plastic during the warmer months. Air temperatures of over 30 C will produce much higher temperatures under the plastic, thus sterilising the upper centimetre of soil. This will inhibit the growth of all exotic annuals, which tend to be very competitive with the native plants in their early stages of growth.

Some weeding will be necessary, and *P. annua* will have to be weeded while it is still small if the native grasses are to be given a chance. The keel-shaped leaf tip is very diagnostic at this stage. Some of the native grasses can be identified in the seedling stage by small hairs around the ligule: the

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3031 Phone (03) 372 1582.

Review:

The Mornington Peninsula — A field guide to the flora, fauna and walking tracks. By Ilma Dunn, Caroline Graley and Stefanie Rennick.

From Shirley Diez*

sheath at the base of a leaf where a new leaf emerges, but some cannot. The leaf tip of *P. annua* will distinguish this from other seedlings as well as a crimping in the leaf which is quite common. It is also attacked by rust whereas most native species are not. Selective weeding will allow the native seedlings to survive. Once established, any vegetation tends to inhibit the growth of *P. annua* which will diminish in importance.

Poa annua is not worth dealing with in natural bushland because there are always more threatening weeds. However, anybody wishing to establish the smaller indigenous flora in the home environment will have trouble with this plant and other annuals. I recommend solarising initially, because this will save much weeding later on. Subsequent direct seeding and mulching with the stalks and seed heads of native grasses (if they are obtainable without diminishing another site in the process), will save much time and effort.



Poa annua (from Hubbard 1954)

This book is a small 70 page, backpack-sized guide, costing \$14.95, and available from Southern Peninsula Tree Preservation Society (P.O. box 422, Dromana 3936) and local bookshops.

The book is conveniently divided into vegetation types, listing the plants and animals to be expected in each area. This really simplifies identification from the non-professional point of view. A grey bar appears at the edge of the page, noting the particular vegetation type, which could have been colour-coded. There is however, an easy to follow contents page which distinguishes the sections quite clearly. The introduction to each of these sections includes a broad photo of the vegetation — a great way of helping the reader to understand what a "Sheltered Gully" or an "Open Forest" actually feels like. Text book descriptions are all very well, but how do you know when you are actually there? The types of sheltered bullies vary all over the state. Having that sort of "all encompassing" photograph is very reassuring.

The photographs throughout are beautiful and crystal-clear. Even close up shots of orchids are perfect. Captions are concise and informative, often including flowering times which are very useful in the field. Shrubs and wildflowers have been presented in such a way as to show most characters necessary for easy field identification. Included are also some photographs of wildflowers with

their pollinators. There are some great close-ups of the flowers of grasses, but unfortunately no descriptions of leaves, texture etc. have been included.

Many colour plates depict the smaller fauna; butterflies, lizards and birds are dispersed throughout, making a nice change from just a whole bunch of plants. We are reminded that the place is alive with movement, and may be tempted to search more carefully amongst the thick undergrowth, or stop a while and listen. Also adding interest and a personal touch, are line drawings, often picking up on details difficult to capture on film.

A section at the back of the booklet covers weeds. Sadly, only two photographs appear — Boneseed (everybody's favourite), and Bluebell Creeper, although a list of other problem weeds is provided. A clear, readable index of botanical and common names of all species is located at the back. Also provided is a fairly comprehensive section on walks — a map and other vital information including local walking clubs, the bushwalker's minimal impact code, and local accommodation.

I would recommend this field guide to anyone who knows the Peninsula area and would like to learn more of the flora and fauna, or to those who would like to be persuaded to visit the area. It's a lovely book with great photography; it's easy to follow, obviously well researched and comprehensive.

*Department of Botany, Latrobe University, Bundoora Vic 3078.

Coming Events

AUGUST

- 23 Thurs 5.15pm. **Biology of the Koala** by Kath Handasyde, Research Biologist, Melb. Uni. Healesville 1990 lecture prog. (059) 62 4022.
- 25 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.
- 25 Sat. **Walk Talk & Gawk at Jawbone Flora and Fauna Reserve**. Easy, half day. Jane Calder (059) 65 2372.
- 25 Sat. **Museum workday of Marine Research Group** of Victoria. For further details contact Clarrie Handreck (03) 758 1873 (BH).
- 25 Sat 2pm. **Friends of Sherbrooke Forest project afternoon**, Micawber Park, Ivy, asparagus etc. David Wilson (03) 874 4969.
- 25-26 Sat-Sun. Campout - **Water Rat** study, Board of Works farm, Werribee. Julian Grusovin (03) 543 8627.
- 26 Sun 10am-1pm. **Nunawading Indigenous Plants Project** - workshop. Nunawading Council Horticultural Centre, 82 Jolimont Rd., Forest Hill. Les Smith (03) 874 2641.
- 26 Sun 10 am **Mount Eliza Association for Environmental Care** project day. See 25 Aug.
- 26 Sun 2 pm. **F. O. Victoria's 1st Settlement site** - Sorrento. Stuart Sherrin (059) 84 1953.
- 26 Sun 10am. **F.O. Warrandyte S.P. clean up and maintenance at Black Flat**. Followed by BBQ and concert in the Skip Moyle Hut. Ian or Margaret Burke (03) 844 1060.
- 26 Sun 10am-4pm. **LaTrobe University Wildlife Reserves Support Group** activity day. George Paras (03) 479 2871.
- 27 Mon 7.45pm. **Marine Research Group** meeting. Theaterette of the Museum of Victoria. Clarrie Handreck (03) 870 3647 (AH).
- 27 Mon. **Yarra Valley Tree Group** - field day. Haining Farm. Peter Davies or Anne-Marie Tenni (054) 42 1277.
- 28 Tues 8pm. **IFFA meeting**. Dr Geoff Marks on **toxic fungi in Victorian pine plantations & its implications for the future of pine forestry**. See p. 12 for details.
- 29 Wed 9 pm. **Natural History Network** pool night. Talk by David Cameron on **rainforests**. Spa, sauna and pool available. Dress optional, no glass. \$8.00 and \$7.00 concession. For info. contact (03) 347 7918.
- 30 Thurs 10am. **F.O. Warrandyte S.P. propagation day**. Meet at the depot, bring lunch. Learn how to grow, plant or regenerate bush. All age groups. Every Thursday. Margaret Burke (03) 844 1060.

SEPTEMBER

- 1 Sat. **F. O. Gellibrand Hill Park** activity day. Ker-ryn Pratchett (03) 306 8180
- 1 Sat. **F. O. French Island State Park** activity day. Contact Des Quinn (03) 791 2315.
- 1 Sat. **September whale watch** cruise. The Australian Whale Conservation Society is planning a field trip to Hervey Bay. The number and activity of humpbacks is expected to be their peak at this time of year. For further details contact AWCS, PO Box 238, North Quay, Qld, 4002.
- 2 Sun 1pm. **F. O. Langwarrin Flora and Fauna Reserve** activity day. Meet at the McLelland Drive car park, Melways map 103, ref C10. Contact Leon Costermans (03) 783 5015.
- 2 Sun. Society for Growing Australian Plants - **Warrnambool, flower show**. Warrnambool CAE. Ms Christine Sullivan (055) 62 9568.
- 2 Sun. **Special two day Walk Talk & Gawk**. There is so much of interest in the **Brisbane Ranges** that the VNPA have organised their first ever two day WT&G. Bookings will only be accepted for both days - 2 & 9 Sept. Limit of 25. Geoff Durham (03) 523 5559.
- 3 Mon 7.30pm. **F. O. Helmeted Honeyeater AGM**. Montrose Town Hall, Mt. Dandenong Tourist Rd. Mrs P. Moore (059) 64 4494.
- 5 Wed 9 pm. **NHN. Talk by David Tatnall with slides**. For details, see 29 Aug. Talks will also be given on 12 & 19 Sept., topics to be announced.
- 8 Sat. **Leadbeaters Possum watch**. Fauna Survey Group of FNCV. Alex Kutt (03) 347 0012.
- 8 1.30pm. **Weeding in N. Warrandyte**. See p 11.
- 8 Sat 9.30am. **F. O. Werribee Gorge and The Long Forest Mallee**. Project day - Islington: clean and re-barricade car park area, track work. Judy Douglas (053) 67 2672.
- 9 Sun 10am-1pm. **Planting at Merri Park**, Sumner Ave, Northcote. Merri Creek Management Committee. Tony Faithfull (03) 484 7687.
- 9 Sun 2pm. **F.O. the Point** (Pt. Nepean) project afternoon. Weed eradication, planting and fortifications study. Meet at the Orientation Centre inside Park. Stuart Sherrin (059) 84 1953.
- 9 Sun 10am. **Riverland Conservation Society of Heidelberg** - planting at Yarra Flats, Ivanhoe. Melways map 32, ref A11. John Merory (03) 499 6737.
- 9 Sun 1.30-4.30pm. **Planting, Darebin Ck Reservoir**. Melways 19 E10. Enter from Blake St. Tree Project (03) 650 9477.
- 9 Sun 9.30am. **F.O. Sherbrooke Forest Mapping Survey**. Meet at the beginning of Foden Track on Grantulla Rd. (Mel 124 C6). Bring compass, pencil & clipboard. Discover the presence of "good" and "bad" vegetation in some of the lesser known parts of the forest. David Wilson (03) 874 4969.

- 12 Wed 9.30am. **F.O. Sherbrooke Forest project morning.** Ivy and some asparagus. Meet at entrance gate on Belgrave-Ferny Ck. Rd. (Mel 75 E5). David Wilson (03) 874 4969.
- 12 Wed 8pm. **Acacias** - SGAP Central Highlands meeting. Jeff Morrison room, Ballarat Community Education Centre, Hopetoun St, Ballarat. Mrs Paddy Marshall (053) 39 2687.
- 13 Thurs 8pm. Botany Group meeting of the FNCV. **Victoria's rainforest** by David Cameron. National Herbarium Hall, Birdwood Ave. Contact Margaret Potter (03) 29 2779.
- 13 Thurs 8pm. **Australian Epiphytic Orchids** by Rick Wootton. Melbourne SGAP meeting. VHS Hall 32 Victoria St Melb. Enid Bowman (03) 882 5297.
- 15 Sat 9.30am. **F. O. Organ Pipes** activity day. Meet at the workshop. Robert Bender (03) 49 2413.
- 16 Sun 10am-12 noon. **Brunswick Tree Group** activity day. Meet at Moonee Ponds Ck at end of Union St. Melways 29 B9. Eric Ward (03) 387 9490.
- 18 Tues 7.30pm. **Wildflowers.** F.O. Gould League Nat. Hist. Program. With field trip on 20 October. Sheryl Richards (03) 51 1493.*
- 19 Wed 7.30pm. **Orchids.** FoGL Nat. Hist. Program. With field trip on 22 Sept. see 18 Sept.*
- 19 Wed 8pm. Victorian National Parks Association AGM. Guest speaker: Dr Don Axelrad, Manager of the Marine Ecology section in DCE will speak on **Marine Conservation Issues.** VNPA (03) 650 8296.
- 20 Thurs 7.30pm. **The Fern Society of Victoria.** Herbarium, Botanic Gardens. Birdwood Ave., Sth. Yarra.
- 22 Sat 2pm. **F.O. Sherbrooke Forest project afternoon** at Coles Ridge. Meet at the gate at far south end of Grants Picnic Ground (Mel 75 K4). David Wilson (03) 874 4969.
- 22 Sat 10am. **Planting and weeding at Arbour Reserve,** ascot Vale. Melways map 29 A9. Enter from Brisbane St. Tree Project (03) 650 9477.
- 22-23 Sat-Sun. **ANGAIR Wildflower Show.** Annual event held by ANGAIR (Anglesea and Aireys Inlet Society for the Protection of Flora and Fauna). Ms. M. White (052) 63 1975.
- 23 Sun 10am-1pm. **Nunawading IPP.** See 26 Aug.
- 23-28 Sun-Fri. **Our Common Future: Pathways for Environmental Education.** An international conference organised by the Australian Association for Environmental Education. The central theme has been adapted from the Bruntland Report "Our Common Future" and will cover a range of issues designed to meet the needs of primary, secondary, tertiary and community organisations. Venue: Adelaide University. Contact: Brian Foreman, Ph: (08) 339 3237.
- 24 Mon 7.30pm. **Victorian Indigenous Nurseries Cooperative AGM.** See p 8.
- 24-8 Oct. **Australian Society for Growing Australian**

Plants Conference in Perth. 24-27 Sept, pre-conference tour. 28 Sept, Biennial GM. 30 Sept-4 Oct, Conference. 5-8 Oct, tour of south of Perth. PO Box 64, Nedlands WA 6009. (09) 383 1254.

25 **Tues IFFA meeting.** Tony Slater will speak on the **Biology of Orchids.** See p. 12 for details.

- 27-28 Thurs-Fri. **Humpback Whale Conference.** Queensland Museum. For further details contact Dr. Robert Paterson, Convenor, Qld. museum. PO Box 300, Sth Brisbane, Qld, 4101.
- 27-30 Thurs-Sun. **Campout-Nooramunga Marine Park survey.** FSG. Julian Grusovin (03) 543 8627.
- 28 Fri. F.O. Warrandyte S.P. slide night by Pat and Mike. **What's in flower and flight.** Margaret Burke (03) 844 1060.
- 29-30. Sat-Sun. **Grampians and Pomonal Native Garden Festival.** Mrs Jan Stewart (053) 56 6237.
- 29 Sat. Excursion to **Little Desert** lodge. Warrnambool SGAP. Ms Christine Sullivan (055) 62 9568.
- 30 Sun 10am. **Planting - Hall Reserve,** Collingwood. Merri Creek Management Committee. Tony Faithfull (03) 484 7687.
- 30 Sun 10am. **Stony Ck weeding** followed by wild-flower walk at Professors Hill. Mark Gardner (03) 844 3799.

OCTOBER

- 6 Sat 10am. **Planting - Cootamundra Walk.** Hundreds of willing hands wanted to help plant approx. 3,200 tubes of native grasses. This is the culmination of an enormous re-vegetation project organised by the Cootamundra Walk Management Committee. *If we are to succeed we desperately need your help.* Cootamundra Walk, Williams Rd, Blackburn, Melways 47 K8. Margaret Witherspoon (03) 878 5998.

- 20-28 **Bird Week.** Details of activities will be provided in the September issue of Indigenotes. If information is required before this date, contact the Bird Observers' Club (03) 877 5342.

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

The Australian Trust for Conservation Volunteers coordinate plantings throughout Victoria and interstate. They take place throughout the week and on week-ends, usually a specified number of volunteers is required and most plantings are indigenous. For further information contact ATCV (03) 583 3388 (Melbourne) or (053) 32 7490 (National Headquarters in Ballarat).

* Each lecture has a \$7.50 charge & includes excursion where offered.

The editors will be pleased to receive information about any relevant events for listing in Indigenotes.

Snippets:

Victorian Indigenous Nurseries Co-op.

VINC has been growing, promoting and selling flora indigenous to the lower Yarra and basalt plains since 1984. Apart from an employment grant which ceased in 1985 the nursery has been almost entirely self-funded. This has meant that the nursery has suffered the problems that seem to affect all community-based organisations, not the least of those in being undercapitalised and over-committed.

Recent problems in meeting demand has led to a review of management which is being carried out by the staff and directors. The two most pressing of the areas under review are the over-all management of the nursery and site capacity. One current challenge is to upgrade the management of the nursery so that it operates efficiently. This will release the staff of the nursery to better satisfy the growing demand for local native plants. Another challenge is to secure a site large enough to permit this.

VINC is calling for registrations of interest from those who wish to take part in this process. Firstly, the AGM is to be held at 7.30 on September 24 at the CERES Education Centre, Lee St, East Brunswick. The Board of Directors will be elected at this meeting. The board will oversee the targets set as part of the current review as well as supply ongoing management, finance and technical advice. Secondly it will appoint an Admin./Promotions Officer who will be taking on the management of the co-operative body.

NOMINATIONS FOR VINC DIRECTORS

There are seven directors on the board who will meet eight times a year to supply management and technical advice in addition to overseeing the long-term targets set in the review. It is also expected that the directors will meet all obligations to the Registrar of Co-operatives, and represent the nursery to other organisations, including IFFA. There is no remuneration for these positions except for expenses incurred in carrying out duties for the co-operative.

For a nomination form and a copy of the co-operative's aims, write to VINC, 8 Lee St, East Brunswick, 3057 or ring (03) 3874403.

ADMINISTRATIVE/PROMOTIONS OFFICER

This position requires a person who has an aptitude for administrative and promotional duties as well as an understanding of ecological principles. The A/P Officer will coordinate matters affecting the whole nursery including the finances and be in charge of promotion and customer liaison. One of the first duties is to secure the use of an additional area to boost nursery capacity during the next summer and autumn.

The applicant would have some proven administrative skills and show an ability to develop an efficient management structure in a co-operative environment. Remuneration and employment conditions are subject to negotiation. For more information and a job description write to the above address, or ring Roger Jones A.H (03) 372 1582. Applications close Sep. 21.

Zoo Horticulture

IFFA President Geoff Carr spoke to the Horticultural Division at the Melbourne Zoo on 8 August on the role of horticultural conservation of rare and endangered plants and habitat creation for animal exhibits/species in zoos.

Restoration Ecology

John Seebeck, Senior Scientist at the Arthur Rylah Institute writes:

"Recently I came across a text called 'Restoration Ecology' published through the University of Wisconsin. I'll be visiting Wisconsin later in the year so I wrote to the editor of the book (William Jordan) and asked if I could have a brief look at their prairie restoration project. An enthusiastic invitation resulted, together with a suggestion that I join their Society.

Enclosed was a flyer for said Society, which may be of interest to some members of IFFA, so I'm enclosing a copy. I gather that Tym Barlow is a member and has attended a couple of their conferences.

The Society produces a twice-yearly journal, and solicits contributions on appropriate subjects."

Indigenotes published an article on the Society for Ecological Restoration and Management called 'Restoration and Management in the USA' in vol. 2 no. 1, and a report by Tym Barlow on the 1989 SERM conference 'Restoration in the USA' in vol. 2 no. 4. These articles are still relevant. SERM's address is University of Wisconsin - Arboretum, 1207 Seminole Highway, Madison, Wisconsin 53711. - Ed.

Field guide to Australian birdsong

The Bird Observers Club of Australia has just released cassette no. 5 of A Field Guide to Australian Birdsong. This tape covers the parrots, cockatoos, cuckoos and owls. An accompanying annotated catalogue is included in the purchase price of \$11, which includes postage. Send cheque with order to the BOCA, P.O. Box 185, Nunawading Vic 3131. The 4 earlier cassettes in the series are also available at \$11 each.

Also from BOC is an educational package Australian Birds and Gardens, which consists of a 12 minute VHS video incorporating 260 35mm slides and a 20 page booklet. The video shows 45 of the most common birds found in Australian gardens, and the food plants they prefer. The booklet describes each species in more detail, and the notes include questions for further discussion, as an aid to speakers or in the classroom.

Environmental Weeds campaign

The IFFA/MEG Environmental weeds campaign, which was to have focussed on a seminar for nursery workers and others, has been deferred until spring 1991 because there was inadequate time for advertising, and some essential material (The list of environmental weeds) is not yet available.

Saving the Grey Box at Woodlands

As you stand on the front verandah of Woodlands Homestead looking west across Tullamarine Airport you will see a lovely forest with a radar dish rotating above the trees. This forest is now threatened with destruction due to the projected airport extensions.

Under the Melbourne Airport Strategy (MAS) it is proposed to lengthen the existing N-S runway and build another parallel N-S runway west of the existing one. Under International Airport Standards this would entail the destruction of 75% of the Grey Box forest. Extensions are also planned for the E-W runway.

These proposals did not meet with the approval of the Councils concerned. Consequently Bulla, Keilor and Broadmeadows Councils commissioned a review of the MAS. This review (cost \$100,000) has met with reserved approval by the Councils of Keilor and Broadmeadows, although the Council of Bulla Shire still has some objections. The main recommendation as far as we are concerned is the repositioning of the new N-S runway 1311 metres west. This would have far less impact on the Grey Box forest.

I was privileged to make an inspection of the proposed area with the advisory committee, and it is every bit as lovely as our own wonderful park. It has received interim Heritage listing and must be saved. Airport expansion is inevitable. Although progress cannot be stopped, it can however be controlled. Although extensions are not scheduled until the year 2000, we must be on our toes lest some bureaucrat jumps the gun.

The advisory committee has already submitted its objections and further objections will be submitted by the Friends of Gellibrand.

— *Friends of Organ Pipes Newsletter*, July 1990.

NSW IFFA meeting a success

Despite torrential rain and floods, and police warnings to stay at home, 35 keen NSW people attended the meeting which was held at the National Trust Centre at Observatory Hill in Sydney on 1 August. Dale Tonkinson and Tamzin Rollason from Melbourne attended the meeting and presented information about how IFFA works, and Dr Paul Adam from the university of NSW spoke. The meeting decided not to set up a separate branch of IFFA in NSW, but to participate in the existing structure. More members from outside Victoria will certainly be welcome.

The next meeting of the NSW people will be on 8 October. For further information contact Judy Rawling (02) 499 2172.

An invitation

All indigephiles interested in checking out a wonderful indig property overlooking the Yarra in North Warrandyte, and pulling some weeds in whatever time you've got are most welcome at Mrs Beatrice Murphy's Lot 21 Osborne Rd, North Warrandyte, on Saturday afternoon September 8th. BYO fork etc. Further info phone Geoff Carr (03) 205784 or Tym Barlow (03) 438 1197. Melways map 23 J9.

Snippets:

National Threatened Species Network

The World Wide Fund for Nature Australia (WWFA) and seven peak conservation organisations with the support of the ACF are in the process of establishing a 'National Threatened Species Network' to promote the conservation of threatened species and their habitats.

The programme has been supported financially by the Federal Government's Endangered Species Advisory Committee (ESAC). A national coordinator for the network will be working from the WWFA office in Sydney, and State and Territory Coordinators will be employed by the Conservation Council of WA, the Conservation Council of SA, the Queensland Conservation Council, The Tasmanian Conservation Trust, the Total Environment Centre in NSW, the Conservation Council of Victoria and the Environment Centre of the Northern Territory.

Each coordinator will be guided and directed by an Advisory Committee consisting of other major conservation organisations (including ACF, The Wilderness Society and Greenpeace) and scientific institutions.

The overall aim in establishing a National Threatened Species Network (NTSN) is to enhance community support for the National Endangered Species Programme and similar state initiatives.

The NTSN will operate in a number of ways, building on past experience in education and campaign efforts. It will distribute information on matters affecting the conservation of threatened species, participate in national and local campaigns to save species and habitats, monitor the implementation of treaties, legislation and strategies directed at wildlife conservation, and a host of other essential activities.

We need your participation in this process. If you would like to become involved in the efforts of the threatened species network anywhere in Australia, contact Michael Krockenberger at ACF's Melbourne office on (03) 4161455 or one of the organizations mentioned above. They will be eager to hear from you - the bigger the network, the more chance of success.

— Reproduced from an article by Michael Kennedy in *Conservation News* May 1990.

H.E.A.L

The Hamilton area in the heart of Victoria's Western District is the centre where positive environmental action is taking place. Hamilton's Environmental Awareness and Learning Project can arrange tours and accommodation for groups and individuals to take half, one, two or three day tours. Meet with some of the people that make the action happen. Visit the Potter Farmland Demonstration Farms, The Points Arboretum Coleraine, Farm Tree Groups and LandCare sites, Hamilton Institute of Rural Learning, The Aboriginal Keeping Place, Rural Trees Australia and Departmental trials.

Tours can be arranged for farmers, educators, students and urban people who wish to see their country at work.

For further information contact Sue Marriott, HEAL Coordinator, "Clifton Hill", Branhholme 3304 Victoria. Phone/fax (manual) (055)786223.

Parks

A newly released book *Parks: Victoria's national and state parks* by Jane Calder is available from the Victorian National Parks Association, and various bookshops. It covers 81 of Victoria's most notable parks - national, state, wilderness, coastal, marine and historic. The parks have been grouped into eight regions. Practical information about available facilities and what to do and see is given in simple chart form for each region.

Designed by Ann Wojczuk, the 270 page book features 44 pages of colour photographs, sketches, and a map of each park.

Bush Invaders Poster

The Gould League (NSW) has produced a poster of common environmental weeds, based on those occurring around Sydney. Many of the species on the poster are also found in Victoria as weeds, and one is an indigenous plant (*Acaena anserinifolia*). However there are a few that as yet are not serious or widespread problems around Melbourne, including Cotton Bush (*Comphocarpus fruticosus*), Ochna (*Ochna atropurpurea*), Crofton Weed (*Ageratina adenophora*). The notable exceptions for the Victorian scene include the annual grassy weeds, hard-seeded weeds like the brooms, and wattles, and bird-distributed weeds like hawthorns and *Pittosporum*. Still a useful poster. Gould League Vic: PO Box 446 Prahran Vic 3181.

Springvale releases its Conservation Strategy

In February the City of Springvale published *Nature Conservation in the City of Springvale*, which incorporates *A conservation strategy for Springvale - section 1. Nature conservation; Conservation Policy*; and *A revegetation plan for Springvale*.

Natural History Network

The Natural History Network has opened the shopfront at 140 Queensberry St. There is a variety of items for sale including books- new and second-hand, hand-painted t-shirts, and crafted-works all relating to natural history; not to mention plants local to the inner suburbs. Also on display is a mural depicting the life found at St. Kilda harbour and many other items. Current specials include the Cooper's St. Grasslands Booklet at \$5.00, Plants of Central Australia, \$30.00 and McDonald's Birds of Australia, \$20.00. Please spread the word.

Basalt species census

Roger Jones is currently compiling a census of species found past and present on the basalt plains. He would appreciate copies of lists from anyone who has surveyed sites in this area. Please send any information to 90 Bayswater Rd. Kensington, 3031. Phone (03) 372 1582.

***Stylidium* (from page 12)**

2-lipped manner; of the 5 petals, 4 are obvious and arranged in pairs; the fifth petal forms a small lip (or labellum). The filaments of the 2 stamens are united to the long, bent style, forming a sensitive column that is bent down below the petals and when touched near the base by an insect or other agent, springs up across the flower with a quick trigger action; after a period, the column gradually moves back to its former position. If an appropriately sized insect triggers the united stamens and style, pollen is deposited on the back of the insect., which may go to another flower and transfer the pollen. The trigger action takes place until the flower is fertilized.

S. graminifolium is a perennial with numerous stiff, long, narrow, linear, radical leaves and pink flowers, and occurs in SA, Tasmania, Victoria, NSW and Queensland.

From Blomberry, A.M., 1979. *Australian Native Plants*, Angus and Robertson.

Remnant Vegetation Register

In an effort to establish a comprehensive database of the Melbourne Western Region's remnant vegetation, Tym Barlow is developing a register of all known remnants in and around the region (which covers most of the Keilor Plains areas). The database includes information on vegetation type, location, owner, municipality, land tenure and status, and an open 'comments' section. Quadrat data or species lists are most welcome.

Indigephiles who may be able to provide any information, or who wish to participate in data collection (N.B. it's a simple process - base level definition is okay at this stage) should contact Tym on (03) 317 9066, or if he is not there, leave your name and address and ask for a remnant vegetation register kit to be sent. Members with access to a Macintosh computer might like to get a copy of the database program and do the data entry themselves.

The project is funded by a grant of \$6000 from the Dept of Local Govt. Hopefully money will also be coming from the Dept of Planning and Urban Growth and Dept of Conservation and Environment.

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The Secretary,
IFFA,
Ms Michele Arundell,
2/81 Alexandra Ave,
South Yarra 3141.

August IFFA meeting

Tuesday 28 August, 8pm at the Herbarium hall, Birdwood Ave, South Yarra (Melways Map 2G, 12A). Dr Geoff Marks will speak on **Toxic fungi in Victorian pine plantations & the implications for the future of pine forestry.**

September IFFA Committee meeting:

Tuesday 4 September at Michele and Peter's, 2/81 Alexandra Ave, South Yarra.

September IFFA meeting

Tuesday 25 September, at the Herbarium Hall. Tony Slater will speak on the Biology of Orchids.

October IFFA meeting

Tuesday 30 October. Geoff Carr will speak on Victorian orchid flora, its ecology and management.

Front Cover:

***Stylidium graminifolium* (Grass Trigger-plant).** The genus *Stylidium* has approximately 110 species occurring in Australia, the greater number of which are found in W.A., although some of the species are represented throughout Australia. They are herbs with narrow, linear, crowded, mostly radical or scattered leaves; the flowers have a tubular calyx, with 5 lobes arranged in a
(continued on page 11)

Memberships

IFFA membership costs
\$40 for groups,
or
\$20 for individuals
and families.

Membership includes
11 issues of
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The Secretary,
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Contributions to *Indigenotes* should be sent to the editors - the deadline for the next issue will be 1 September.

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

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