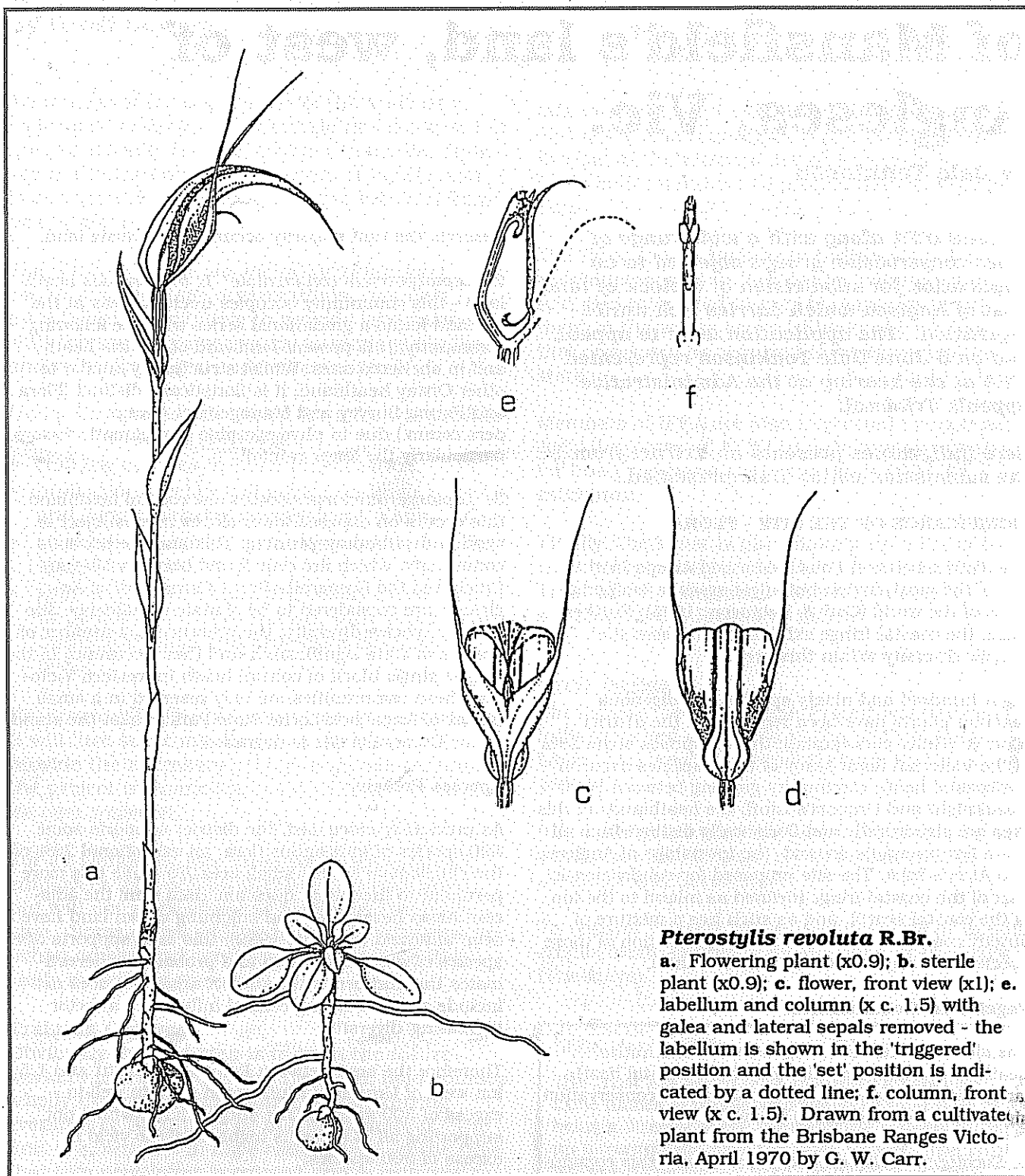


INDIGENOTES



***Pterostylis revoluta* R.Br.**

a. Flowering plant (x0.9); b. sterile plant (x0.9); c. flower, front view (x1); e. labellum and column (x c. 1.5) with galea and lateral sepals removed - the labellum is shown in the 'triggered' position and the 'set' position is indicated by a dotted line; f. column, front view (x c. 1.5). Drawn from a cultivated plant from the Brisbane Ranges Victoria, April 1970 by G. W. Carr.



IFFA submission on subdivision of Mansfield's land, west of Anglesea, Vic.

By Dale Tonkinson

In 1989 IFFA along with a wide range of other conservation groups objected to an application for subdivision of a block of land west of Anglesea which carries rich native vegetation. The application went to appeal, and on 5 June Dale Tonkinson represented IFFA at the hearing at the Administrative Appeals Tribunal.

Here Indigenotes presents an extract from the submission which Dale presented.

SIGNIFICANCE OF THE SITE - FLORA

The district between Point Addis and Airey's Inlet is one of the most diverse botanical areas in temperate parts of the world (Carr & Robinson, 1985). Furthermore, the coastal fringe exhibits the highest site specific diversity within this area.

Eight hundred and ninety species of indigenous vascular plants have been recorded in the district (Carr & White, pers.comm.); this comprises some 28% of the Victorian flora. Many of these species occur in the coastal heath community growing between Point Roadknight and Urquart's Bluff; the heathlands of this area are structurally and floristically distinct from all but a few remnants around the townships of Anglesea and Airey's Inlet. The site proposed for subdivision is part of the coastal fringe (defined as inland to the top of the coastal scarp), and as such has a mixture of strictly coastal species and a large proportion of those species occurring on heaths further inland.

Vegetation Communities:

The site supports three vegetation communities: heathy woodland, heathland and low coastal heathland; their composition, distribution and conservation significance are discussed below.

1. *Eucalyptus obliqua* heathy woodland - this community has the highest species diversity of the communities at the site. It occurs along drainage lines, some easterly aspects and on remnants of the original scarp surface at the inland extremity of the site. The presence of the newly described *Eucalyptus alaticaulis* R. Watson (Watson, 1989) in much of this community, in addition to many other understorey species not present further inland, results in this community being distinguished from all other woodlands outside the Anglesea-Airey's Inlet area. This community is considered to be of regional significance and is very poorly reserved, with small patches in the Anglesea Flora

Reserve, the vast majority occurring on private land.

2. *Leptospermum continentale* - *L. myrsinoides* heathland - this community occupies treeless areas at the site and forms a gradational series with the following community; it is present landward of the low heath and in sheltered sites. Whilst structurally similar to other Otway heathland, it is floristically distinct (Flora and Fauna Survey and Management Group, pers.comm.) due to physiographic and climatic factors, particularly the lower rainfall.

3. *Leptospermum myrsinoides* low coastal heathland - this occurs on exposed lower slopes most subject to wind and salt-spray pruning. This and the previous community, which are only found between Moggs Creek and the Eumeralla Scout Camp (east of Anglesea), are considered to be of state significance due to their species diversity, the presence of a number of species of state significance, and their occurrence in the largest single block of coastal heath in western Victoria. These communities are only reserved in a small corner of Angahook-Lorne State Park, whilst the stand at the Eumeralla site is degraded.

Species Present:

As previously discussed, the district supports some 890 species of indigenous flora, an exceptional 28% of the state's flora in this small area. To make this more pertinent to the site in question, data from the adjacent Alcoa Lease Area and adjoining crown land have been analyzed (Yugovic, 1989); this area supports 308 species of indigenous flora and probably underestimates the number in the subject area as it does not include areas of strong coastal influence - a factor increasing diversity.

Therefore the area between Point Roadknight and 1.5 km west of Urquart's Bluff would contain well in excess of 300 species. The subject land, whilst not supporting all of these, is highly likely to yield in excess of 200 species.

Table I.

Area	Source	Indigenous species	% State total
Airey's Inlet - Anglesea	Carr & White	890	28
Alcoa Lease	Yugovic	308	10
Site	Tonkinson (calculated)	>200	>6

Continued on page 10

Save The Bush Project

By Geoff Edwards*

Awareness of the importance of the bush as a major part of Australia's heritage has increased in the last decade, but the ability of councils, drainage authorities and other owners of public land to convert that awareness into protection of bush has lagged behind.

The National Trust, as one of Victoria's long established heritage organizations, has now established an initiative to provide land managers with the resources necessary to manage the land and water frontages under their control.

Under this project, the Trust for a fee will provide one or more of the following:

- training courses in bush regeneration,
- professional ecological advice on bush reserves and comprehensive management plans.
- schedules of works, cost estimates and works specifications;
- fully trained and equipped works crews able to carry out bush regeneration, with supervision, overheads, tools and protective clothing supplied.

The Trust will offer these services as a contractor. It will hire sub-consultants as necessary to provide the necessary professional advice, until the project is financially strong enough to employ its own ecologist.

For its workforce, the Trust will engage casual employees who will be paid above-award rates but will not work when no contracts are available. Some crews will specialize in restoration of urban creeks and rural rivers and will develop skills in 'soft' engineering.

Training Courses

Obviously the first step is to train the future workers and to do this the Trust will hold courses wholly during working hours, wholly during evenings or Saturdays or in a combination. The first is scheduled to have commenced by the time that this newsletter is printed and is expected to be full. Courses will be repeated in 1991.

Courses will cover basic ecology, plant growth, weeds and their control by "soft" methods, soils and erosion control (70 hours). Extensions will cover staff supervision and basic bookkeeping (35 hours) and river management (25 hours).

What you can do

Members and supporters of IFFA should welcome

this initiative, as it will allow municipal councils and other land managers to give practical effect to what at the moment are often simply tentatively held intentions to protect natural vegetation.

The Trust is now looking to build up a list of people interested in joining the training courses and also interested in casual, part-time employment in the works crews. Eventually we hope that crews will be required in every part of the state.

Members of IFFA are also requested to approach their local council NOW to have money put aside for bush regeneration purposes in 1990/91 estimates.

Finally, the Trust is also making up a list of bush reserves requiring renovation. Please let the Trust know of degraded sites which may be suitable for the Project to tackle.

STOP PRESS

The Trust's Save the Bush Project was successfully launched on 5 July at the MMBW Theatre, at a meeting attended by about 100 people.

It is anticipated that the first training course will commence late in July, on a combination of evenings and Saturdays.

To register interest in a training course or in paid employment, contact Rod McLellan at the Trust (Tuesdays).

IFFA Nominations for one Director

The Trust has asked IFFA to supply a panel of three names of people who would be interested in being a director of the company the Trust is setting up to control the Save the Bush Project. The Trust will select one person from the panel to act as a director with ecological background. Two other directors - one with business management background, and the other from the National Trust - will be appointed.

Here is our chance to demonstrate our commitment to good bush management, and influence the approach taken by the project. If you are interested in being IFFA's representative, please contact Michele Arundell before the July meeting, and attend the meeting, because the panel will be chosen then.

BUNYIP VALLEY : THE NEED FOR A MORATORIUM

By Greg Barber *

Land use planning

The Land Conservation Council published its Final Recommendations on the Melbourne Study Area in January, 1977. The recommendation for the public land in the Upper Bunyip catchment was that it be available for "Hardwood Production".

Flora

The Upper Bunyip Catchment was listed as a site of national significance for its flora by Opie et al (1984) because of the intact nature of the vegetation, and the presence of rare and notable species, such as *Astelia australiana* (Tall Astelia), *Lastreopsis hipsida* (Bristly Shield fern) and *Tmesipteris ovata* (Oval fork fern). Of the seven known colonies of *Astelia australiana*, two occur within the Upper Bunyip catchment. This species has been nominated by the Department of Conservation and Environment for listing under the Flora and Fauna Guarantee Act 1988.

Fauna

Andrew et al (1984) includes the entire Upper Bunyip catchment within a site of national zoological significance because of the presence of the Sooty Owl, Leadbeater's Possum and other significant wildlife species. No management plan for the Possum currently exists, despite a State Conservation Strategy commitment to produce one by 1988.

Rainforests

"Upper Bunyip" is listed as a site of national significance by the Department of Conservation and Environment. No information is currently publicly available on the boundaries of this site.

Stream naturalness

Seymour (1987) stated that the "most outstanding segments of streams with high naturalness values are those of the Upper Bunyip River catchment. They form the only group of pristine streams within the whole Western Port basin. The immediate threat to this area is its delineation as a hardwood harvesting area"(p60).

Proximity to other reserves

The Upper Bunyip valley has as its south-western border, the proposed Bunyip State Park. The Bunyip State Park and the Gembrook Regional

Park, with a combined total area of 15,800 hectares were delineated by the L.C.C. in 1977. Both these parks are still undeclared at the time of writing.

The population of the South Eastern Growth Area (Berwick-Pakenham Corridor) is expected to increase by 270,000 people in the next 13 years. It is clear that, in this area, there will be a high demand for recreation in bushland areas over the following decades. The consequences of this will be a greater human impact on the existing reserved areas, which also have a nature conservation function.

Water abstraction

The Bunyip weir, at the lower end of this catchment, supplies water to the Mornington Peninsula and Pakenham through the Mornington Peninsula and District Water Board. Research by the MMBW has clearly shown that a decline in water quantity and quality results from logging and associated roading activities in Mountain Ash forests.

Future Activities and their Impacts.

The Department of Conservation and Environment has plans for road upgrading and timber harvesting in the Upper Bunyip catchment, in fact such activities have already occurred. It seems likely that any economically harvestable timber will be harvested, subject only to regional prescriptions.

Conclusions

The State Conservation Strategy says that, as a general rule, "those sites significant at the State level or above will be preserved for nature conservation purposes". It is clear from the evidence summarized in this article that the Upper Bunyip valley is undoubtedly one of the most valuable natural areas in the state. **For this reason the Conservation Council of Victoria has asked that no further logging and associated road upgrading should be permitted in this catchment.**

The Land Conservation Council is currently conducting a review of land use in the Melbourne Area (District 2). It appears that at this stage the study report will be released "some time in 1991". A Special Investigation of Rainforests has been mooted but at the moment the Council does not

*Forests Campaign Officer, Conservation Council of Victoria
ph (03) 6544833

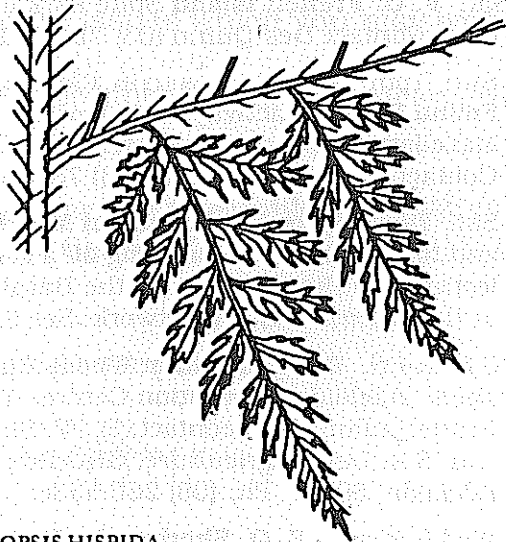
have the resources to carry this out. As a result, some of the very values which will be considered by the L.C.C. will be under threat over the next twelve to eighteen months.

For this reason, the Conservation Council of Victoria has called for a moratorium on any activities which will lead to environmental disturbance, on public land in this catchment, (particularly new logging or road upgrading proposals), until such time as the L.C.C. has examined and made recommendations on the area, through its Melbourne district 2 and Rainforests studies. We recommend that resources be urgently directed to the L.C.C. so that these studies can be completed as soon as possible.

Please write to the Minister for Conservation and Environment, Mr Steve Crabb, 240 Victoria Pde. East Melbourne, 3002 and show your support for this moratorium.

References

- Andrew, D.L. Lumsden, L.F. and Dixon, J.M. (1984) Sites of Zoological Significance in the Westernport Region. Department of Conservation, Forests and Lands.
- Opie, A.M., Gullan, P.K., van Berkel, S.C. and van Rees, H. (1984) Sites of Botanical Significance in the Westernport Region. Department of Conservation Forests and Lands 1984.
- Seymour, B.S. (1987) Assessment of the Conservation Values of the Rivers and Streams of the Western Port Region. Dandenong Valley Authority 1987.



LASTREOPSIS HISPIDA
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What is IFFA?

The Indigenous Flora and Fauna Association (IFFA) is an organisation dedicated to the conservation of the indigenous Australasian biota. Its members, comprising both amateur and professional workers come from diverse backgrounds including botany, zoology, ecology, horticulture, environmental management, education and other fields.

The organization believes that conservation of plants, animals and the communities they form, must be based on sound knowledge of their biology, ecology, distribution, status and management requirements. To achieve these ends, we aim to foster a broad multidisciplinary approach, bringing together expertise from a wide range of professions which are too often independent and narrowly focussed. We believe this approach is necessary to maximise the conservation, social and economic benefits of responsible resource management.

In particular we wish to encourage participation and involvement in the important emerging disciplines of conservation and restoration biology, habitat reconstruction, revegetation and the active management of vegetation and fauna - on public and private lands.

It is a primary objective of the Association to research, collect and disseminate information concerning conservation matters to relevant agencies, groups and individuals through *Indigenotes* and our new journal *Advances in Nature Conservation*. We also aim to participate on debate in environmental issues and help in the formation of conservation policies at the local, state or national levels.

The resources of IFFA are available to both the public and private sectors of the community to help establish appropriate conservation and management strategies.

Coming events:

JULY

- 20 Fri 8pm. **Propagation and cultivation of daisies** by Esma Salkin. Warrnambool branch of the Society for Growing Australian Plants. Mozart Hall (behind RSL Hall) Gilles St. Christine Sullivan (055) 62 9568.
- 21 Sat 1pm. EGC's family film extravaganza. **The Bear** and TWS's new release **The Last Tall Forests** (set in Tasmania) at the Astor - cnr Chapel St & Dandenong Rd, St Kilda. \$10, \$5 (under 16yo), \$28 (family). (03) 650 8011.
- 22 Sun 10am. **Merri Creek Management Committee**, planting at Robinson Reserve, Preston. Melways map 30, ref B2. Tony Faithfull (03) 484 7687 (BH).
- 22 Sun 2 pm. **Friends of Victoria's 1st Settlement site** - Sorrento, activity day. 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.
- 22 Sun. Victorian National Parks Association, **Walk Talk & Gawk, Pyrete Ranges** - medium. Leader: Tony Davis (054) 26 2344.
- 23 Mon 7-9pm. **History of the Basalt Plains**. Lecture in series "Natural History of the Basalt Plains". Speaker: Naturalist, Geologist, Roger Jones. Venue: Nat. History Network, 140 Queensberry St., Carlton. (03) 347 7918.
- 23 Mon 7.45pm. **Marine Research Group** meeting. Theaterette of the Museum of Victoria. Clarrie Handreck (03) 870 3647 (H).
- 28 Sat 1.30 pm. **Paratea Reserve** Mount Eliza Association for Environmental Care project day. Melways map 106, ref E3. (*Pterostylis vittata* the Banded Greenhood is out at the moment!). Contact Anne Read (03) 787 2034.
- 28 Sat 2.00pm. **Friends of Sherbrooke Forest** project afternoon. Ridge Track - meet at entrance gate, Melways map 75, ref E5 on Belgrave-Ferny Creek Rd. Ivy, Tutsan. Margaret Finger (03) 754 3548.
- 28 Sat 10am. **F. O. Warrandyte State Park** family day - propagation at the nursery. Ian or Margaret Burke (03) 844 1060.
- 28 Sat 9.30am. **F. O. Werribee Gorge and The Long Forest Mallee**. Project day - tree planting and checking tree guards. Judy Douglas (053) 67 2672.
- 28 Sat. Museum workday of **Marine Research Group of Victoria**. For further details contact Clarrie Handreck (03) 758 1873 (BH).

- 28 Sat. VNPA **Walk Talk & Gawk - Hanging Rock** - easy. Leader: Doug Meyers (03) 306 6560.
- 29 Sun 10am **MEAFEC** project day. See 28 July.
- 29 Sun 10am-4pm. **LaTrobe University Wildlife Reserves Support Group** activity day. George Paras (03) 479 2871.
- 29 Sun 10am. **Men of the Trees** - planting at Deep Rock Melways map 2D, ref D6. Contact Minette Russell-Young (03) 898 1364.
- 30 Mon 7-9pm. **Vegetation of the Basalt Plains**, by Botanist, Doug Froud. Natural History Network. See 23 July.
- 31 Tues 8pm. **IFFA meeting**. For details see back cover.

AUGUST

- 1 Wed 7.30pm. **The first meeting of the NSW branch of the IFFA**. Speakers: Geoff Carr on the history of IFFA, and Dale Tonkinson on the aims and objectives of IFFA Melbourne. Dr Paul Adam, University of NSW, Chairman of Bushland Management Committee, Coastal Conservation Committee, wetlands expert. At the National Trust Centre, Observatory Hill, Sydney. Contact Judy Rawling (02) 499 2172 (AH).
- 1 Wed 5.15pm. **Macropod Population Studies** by Graeme Coulson (School of Science and Mathematics Education, Melb. Uni.) Healesville Sanctuary 1990 lecture program. Theatre, Healesville Sanct. (059) 62 4022.
- 4 Sat. **Friends of Gellibrand Hill Park** activity day. Kerryn Pratchett (03) 306 8180
- 4 Sat. **F. O. French Island State Park** activity day. Contact Des Quinn (03) 791 2315.
- 4 Sun 1pm. **F. O. Langwarrin Flora and Fauna Reserve** activity day. Meet at the McLelland Drive car park, Melways 103 C10. Contact Leon Costermans (03) 783 5015.
- 6 Sat. **Day trip to Grasslands of Merri Creek** and its tributaries. Rounding off a series of lectures on the Nat. Hist. of the Basalt Plains at the Natural History Network. See 23 July.
- 6-10 Mon-Fri. **9th Australian Weeds Conference**. Adelaide Convention Centre. For further information contact: D. W. Stephenson. S.A. Dept. Agriculture, GPO Box 1671, Adelaide, 5001. Ph: (08) 266 8333.
- 8 Wed 9.30am. **F. O. Sherbrooke Forest** project morning - Asparagus. Meet at Micawber



Dear friend,

I would like to introduce you to the Indigenous Flora and Fauna Association, and to invite you to a meeting to set up a NSW branch of IFFA.

IFFA is an organisation dedicated to the conservation of the indigenous Australasian biota. Its members, comprising both amateur and professional workers come from diverse backgrounds including botany, zoology, ecology, horticulture, environmental management, education and other fields.

IFFA obviously aims to aid the conservation of nature, but it also offers great benefits to its members.

Firstly there are the opportunities for meeting people. Among IFFA's existing membership are experts and experienced practitioners from a broad spectrum of related spheres: people who can help you expand the scope of your interest and knowledge. This will also help you get more satisfaction out of your own activities in the field or laboratory, and you'll be doing more good for nature.

IFFA also offers you a forum and an authoritative voice for addressing nature issues which you may want to pursue.

IFFA produces a monthly newsletter, a complimentary copy of which is enclosed.

The meeting to establish a NSW IFFA branch will be held at the National Trust Centre, Observatory Hill, Sydney on Wednesday 1 August, at 7.30 p.m.

Hope to see you there,

Geoff Carr
President.



Park behind restaurant Melways map 75, ref G7. Margaret Finger (03) 754 3548.

- 9 Thurs 8pm. **From Dalhousie Springs to Western Qld.**, Margaret Corrick. Botany Group meeting of the FNCV. National Herbarium Hall, Birdwood Avenue. Contact Margaret Potter (03) 889 2779.
- 11 Sat. **Jawbone Flora & Fauna Res. Walk Talk & Gawk.** Leader: Jane Calder (059) 65 2372.
- 12 Sun 10am. **Merri Creek Management Committee**, planting at Sumner Ave., Northcote. Tony Faithfull (03) 484 7687 (BH).
- 12 Sun 2pm. **F. O. the Point** (Pt. Nepean) project afternoon. Weeding, planting and fortifications study. Meet at the Orientation Centre inside Park. Stuart Sherrin (059) 84 1953.
- 12 Sun 10am. ANGAIR meeting Senior Citizens' Club. Mary White (052) 631 975.
- 12 Sun 10am. **Riverland Conservation Society of Heidelberg** - planting at Yarra Flats, Ivanhoe. Melways map 32, ref A11. John Merory (03) 499 6737 or Glen Jameson 846 1338.
- 12 Sun 7pm. **Upgrade Upfield Railway** film extravaganza! "Malcolm", "The Runaway Train" and special entertainment. Progress Theatre, Reynard St. West Coburg. Tickets \$12, \$8conc., from the Conservation Council of Victoria (03) 654 4833.
- 13 Mon 8pm. **Marine Life of Heron Reef** by Julie Marshall. FNCV. Herbarium, Birdwood Ave, Sth. Yarra. Margaret Potter 889 2779.
- 14 Tues 7.30pm. **Frogs.** Friends of Gould League Nat. Hist. Program. With field trip on 20 October. Sheryl Richards (03) 51 1493.*
- 15 Wed 7.30pm. **Nocturnal Life.** FOGL Nat. Hist. Program. With field trip on 22 September. Sheryl Richards (03) 51 1493.*
- 16 Thurs 7.30pm. **The Fern Society of Victoria.** Herbarium, Botanic Gardens. Birdwood Ave., Sth. Yarra. Robert Lee (03) 836 1528.
- 19 Sun 2-4pm. **Greenlink Camberwell** - weeding and planting, Outer Circle, Dion Street. Dianna Burgess (03) 809 2092 (AH).
- 19 Sun 10am. **Brunswick Tree Group** working bee. Meet at Moonee Ponds Creek at the end of Union St. Eric Ward (03) 386 0264.
- 21 Tues 7-10.30pm. **Direct Seeding / Natural Regeneration information evening.** Speakers include Darcy Duggan, Phil Kenyon, Rod Bird. A light meal will be provided from 6 to 7.00 pm, supper at approx. 10 pm. Cost: \$20; \$10 students. VCAH Burnley. Contact

Minette Russell-Young (03) 898 1364.

- 23 Thurs 5.15pm. **Biology of the Koala** by Kath Handasyde, Research Biologist, Melb. Uni. Healesville 1990 lecture prog. (059) 62 4022.

28 **IFFA meeting** 8 p.m. at the National Herbarium Hall, Birdwood Ave, South Yarra 3141.

SEPTEMBER

- 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.
- 18 Tues 7.30pm. **Wildflowers.** FoGL Nat. Hist. Program. With field trip on 20 October. see 14 August
- 19 Wed 7.30pm. **Orchids.** FoGL Nat. Hist. Program. With field trip on 22 Sept. see 14 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.
- 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.

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.

The Australian Trust for Conservation Volunteers coordinate plantings throughout Victoria and interstate. They take place throughout the week and on weekends, 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:

Grass and lily rescue

On Sunday night 17 June, Paula Judson, Secretary of Mt Martha Environment Group (MMEG) rang me and asked if I could help transplant grasses and lilies etc from some preserved natural heathland that was about to be bulldozed at Mt Martha. The next day members of the MMEG rescued about eighty foam boxes of local plants from part of the land before it was cleared. In the mean time we contacted the Australian Trust for Conservation Volunteers and managed to organize a crew to help before the next assault by the dozer (a week later on 25 June).

By Friday 22 June when the ATCV arrived, Georgie Stubbs (MMEG President) had organized a new home for the refugee plants at nearby Mt Martha Primary School. With the combined efforts of the ATCV and MMEG another fifty boxes of plants were rescued. Staff and students at the school were pleased to take part in the exercise by watering the plants in as they were planted into the school grounds. The main species moved were *Lepidosperma concavum* (Sandhill Sword-sedge), *Lomandra longifolia* (Spiny-headed Mat-rush), *Thysanotus patersonii* (Twining Fringe-lily), *Microlaena stipoides* (Weeping Grass), *Dichopogon strictus* (Chocolate Lily), *Dillwynia* sp, *Platylobium obtusangulum*, and *Bosseaea* sp. Many thanks to the Shire of Mornington's parks Superintendent, David Gray, for supplying the foam boxes.

MMEG members are planting out other areas with the rescued heathland species with the view to use them as parent plants from which they can propagate many more plants to use in future bush regeneration work. They are currently also involved in such work on the foreshore, along creeks and in other local bushland reserves. For more information about MMEG you can contact Georgie Stubbs on (059) 74 2159 or Mark Adams (059) 85 1122.

Amendment S7

IFFA is concerned about the possible detrimental effects on roadside and other areas of land with remnant vegetation of local, regional or state significance of this amendment to Statewide planning schemes. The amendment devolves the power to grant planning permits to local authorities, and may see them responsible for granting themselves permits - a very unsatisfactory situation. Write to Andrew McCutcheon, Minister for Planning and Urban Growth, 477 Collins St, Melbourne 3001, urging public exhibition of the amendment, and emphasising the importance of preserving all remnant vegetation.

Peninsula Field Guide

"The Mornington Peninsula - a field guide to the Flora and fauna and walking tracks" by Ilma Dunn, Caroline Graley and Stefanie Rennick. This is a marvellous booklet, with great layout, superb photos of the Peninsula. Copies are available from Peter Tucker (03) 2674173, or at the July meeting for \$12.

Honeybee baddies?

Australian Natural History contains a review of the effects of Honeybees on Australian plants and animals. It indicates that a number of studies do show that Honeybees do have a deleterious effect on native flora and fauna, however it is unclear whether any deleterious effects of Honeybees are due to apiarists hives, or feral Honeybee colonies. Meanwhile, the Dept of Conservation and Environment (Vic) concludes that "The compatibility of Honeybees with land of high conservation significance is uncertain...".

Pyke, G. 1990, "Apiarists versus scientists - a bittersweet case", *Australian Natural History*, vol 23 no 5, pp 386 - 392.

Department of Conservation and Environment, May 1990, "Beekeeping on Public Land" Issues Paper, DC&E Vic.

Autumn fires?

Ian Lunt reports that an autumn fire at Derrimut Grassland Reserve, Melbourne promoted abundant regeneration of exotics from seed, particularly *Vulpia bromoides*, *Romulea rosea*, *Briza minor* and *Aira cupaniana*. He concludes that if vegetation management aims to promote natives at the expense of exotics, fire cannot be used as the primary tool of management. Integrated techniques of vegetation manipulation must be developed.

Lunt, I.D. 1990. "Impact of an autumn fire on a long-grazed *Themeda triandra* (Kangaroo Grass) grassland: implications for management of invaded, remnant vegetations" *The Victorian Naturalist*, vol 107 no 2 pp 45-51.

Seed Bank

By the end of July seed storage facilities should have been installed in the basement of the National Herbarium Vic. in Birdwood Ave South Yarra. These facilities are to be used for the development of a bank of seed of indigenous plants of Victoria, concentrating on the Melbourne region. A preliminary meeting was held on 11 July to discuss arrangements for depositing and withdrawing seed. A public meeting is to be held later in the year. Contact Michele Arundell, (03) 650 9424.

Articles of interest

Mammals of The Gurdies, Westernport Bay, a proposed Flora and Fauna Reserve. By C. G. Wilson, *The Victorian Naturalist*, vol 107 no 2 pp 52-57.

Tasmanian Giant Freshwater Lobster, by Premek Hamr, *Australian Natural History* vol 23 no 5, p 362-363.

Wingham Brush: resuscitation of a rainforest, by John Stockard & Glenn Hoye, *Australian Natural History*, vol 23, no 5, pp 402-409.

Seaford Foreshore Reserve Draft Management Plan, Melbourne Region Dept. Conservation, Forests and Lands, & Seaford Foreshore Reserve Cttee. of Management, Dec 1989.

Moths of Australia by I.F.B. Common. 544 page-hardcover book, 32 pages colour plates, rrp \$125 Melbourne University Press.

The Cooper Street Grasslands, by the Parrot Natural History Network. Collection of papers on the grasslands. 32 pp booklet. PNHN, 140 Queensberry Street, Carlton 3053.

Calls of Victorian Frogs, by Murray Littlejohn and Duncan Smith. Compilation of recordings of Victorian frog calls. One cassette available from Dept of Zoology, University of Melbourne, Parkville Melbourne 3052.

Australia's Endangered Species ed by Michael Kennedy, Ausworld publishing, Prepublication Offer \$39.95 plus \$5 p&p. P.O. Box 302, Avalon NSW 2107.

How to collect native tree seed easily, The understorey storey, How to germinate native tree and shrub seed enjoyably. Three pamphlets from Greening Australia of 13, 13, and 21 pages each.

Kakapo conservation management. "Last days of the old night bird" *New Scientist* 16 June 1990 pp19-23.

Borneo rainforest rape. "Hit and Run in Sarawak" *New Scientist* 12 May 1990 pp 24-27.

Association of Conservation Ecologists (ACE)

This new association has formed to protect the independence of biological scientists within the Department of Conservation and Environment. Scientific reports should not be 'edited' to make them conform to Departmental policy under any circumstances, but this is exactly what appears to have been happening. Furthermore when

reports are produced, they are increasingly ignored. For example the rainforest project team, part of the Department of C&E has produced a report identifying areas of significance throughout Victoria. One hundred and eleven logging coupes have been scheduled in these sites for next summer, despite a government policy to protect all rainforests from logging. DCE bureaucrats "reviewed" the currently accepted definition of rainforest to allow logging in many areas otherwise excluded.

Floating Islands

Preparation of a draft management plan for the Floating Islands Nature Reserve has begun; if you want to have input to this process, contact Mr David Harper, Dept of Conservation and Environment, Colac Region, on (052) 33 5533.

Corio Shire committment to native grasses.

The Shire of Corio is investigating changing their mown grass areas to native grasslands in order to reduce their mowing costs. IFFA will be contacting the Shire to ensure that they are aware of the problems involved in re-establishing native grasslands, and the dangers of using "native" grass species.

Correction

In the article published in *Indigenotes* vol 3 no 6 entitled "Will any tree do?", on page 4, the gliders re-introduced to Corranderk Reserve were Sugar Gliders not Squirrel Gliders, and the group was a bachelor group of 6 males. For more details about the release see *Indigenotes* vol. 1 no. 17.

Development off French Island

French Island Park News reports that a large aquaculture development is proposed just off the western side of the Island near Elizabeth Island. French Island's coastline although not listed as a wilderness area fulfils most qualifications. The recent LCC wilderness report did not assess areas under 10 000ha, but mention was made of French Island as a possible exception to this rule "Notably the 8 300ha French Island State Park (which includes much of the natural land of the Island) may be expected to have such value" For further information contact Robin Clarke DC&E Dandenong Region (03) 706 7000.

IFFA's submission regarding Mansfield's Land (continued from page 2)

Further analysis of the above data sources indicate that orchids contribute disproportionately to the flora of the area (Table II). This observation requires further comment as orchids are indicators of diverse and intact ecological processes due to the intimate relationships between the orchid, specific pollinators and essential mycorrhizal fungi. In addition, many orchid species are reliant upon small scale and regular minor disturbance regimes that are readily overwhelmed by minor shifts in ecological processes. The high diversity in the area is thus indicative of a highly diverse and intact ecosystem (an extreme rarity in temperate parts of the world today). The area has been acknowledged (Carr & Robinson, 1985) as of international significance for its orchid flora, comparable only with a small part of South Africa for diversity.

Table II.

Area	Orchid species	Indigenous flora	%
Airey's Inlet - Anglesea	93	890	10
Alcoa Lease	78	308	26
Site	30-50	200-300	15
Victoria	264	3145	8

Significant Species

Six species of plant in the immediate vicinity are considered to be of state significance. After critical analysis of the data of Yugovic (1989), and the addition of records by Williamson (pers.comm.) and the author approximately 50 regionally significant species are listed for the area between Point Roadknight and Urquart's Bluff. It should be noted that these figures are considerably lower than those of Yugovic due to the author's more stringent criteria and the smaller number of vegetation types present on the subject land.

All six species of state significance are orchids, perhaps not surprising given the above discussion and their reliance on intact ecological processes. Two of these orchids are endemic to Victoria and are therefore also of national significance. It is possible that another orchid, *Thelymitra matthewsii*, may occur on the site as suitable habitat exists and the plant is known to occur near Point Roadknight; this species is listed as vulnerable (to extinction) Australia-wide.

Table III. Species of State Significance.

Species name	Source of rating	Status
<i>Caladenta cardiophila</i>	Carr (pers.comm.)	r
<i>C. sp.aff. reticulata</i>	Carr (pers.comm.)	r
<i>C. sp.aff. patersonii</i>	Gullan <i>et al</i> (1990)	Rr
<i>Prasophyllum truncatum</i>	" " "	r
<i>Thelymitra benthamiana</i>	" " "	r
<i>T. sp.aff. pauciflora</i> (Anglesea)	" " "	Ee

The last species, *T. sp.aff. pauciflora* (see Ross, 1990) is soon to be described. Its extremely limited distribu-

tion (between Anglesea and Airey's Inlet) and proposals for development of this area, lead it to be listed as "endangered" with extinction. This species will be nominated for listing under the schedules of the Flora and Fauna Guarantee Act once published, due to potential threats to its survival.

SIGNIFICANCE OF THE SITE - FAUNA

Birds:

Whilst not exceptionally rich in birdlife (cf. plants) the site supports a full complement of coastal heathland species and a number of significant species are known to occur either on, or adjacent to the subject land.

The significant species are: **Southern Emu-wren** - sighted at Urquart's Bluff 1980, 1982 and on site Feb. 1984; **Rufous Bristlebird** - on site Feb. 1982; and **Spotted Harrier** - just west of Urquart's Bluff, Jan. 1980.

All sightings were made by the author, those in 1980 being in conjunction with J. Starks. The Rufous Bristlebird has been accepted for interim listing under the Flora and Fauna Guarantee Act, and this area is important habitat, whilst not defined as "critical" for short term survival.

The Southern Emu-wren is restricted to dense and usually coastal heaths, and has suffered extensively due to habitat fragmentation, especially in western Victoria. Its habit of feeding and roosting close to the ground make it particularly susceptible to cat predation, and poor powers of flight over anything but short distances mean that dispersal is readily affected by habitat fragmentation. Further the closer settlement of much of its range has increased the incidence of dense understorey clearing for fire protection purposes.

The sighting of a juvenile Spotted Harrier, one of four juveniles seen above western Victorian coastal heaths by this author, is probably the result of dispersal from the main habitat of the species in inland Australia. Other sightings were at Port Campbell, Bay of Islands and near Portland. The number of these unusual sightings suggest that coastal heaths may be an important summer refuge for birds in their first summer.

Overall for birds, this is an important block of habitat for coastal heathland species in maintaining functional ecosystems, in particular for the three significant species discussed.

Mammals:

The high diversity of small mammals reported from the site by other workers (eg Wilson) suggest that similar considerations to those for birds apply to this, the largest contiguous block of coastal heath in western Victoria.

Biological Significance:

The above discussion of the flora, birds and mammals (other groups of biota are too poorly known to comment upon) clearly indicate that the interim listing of

the area on the Register of the National Estate is justified on biological grounds alone.

IMPACTS OF THE PROPOSED SUBDIVISION

An increase in the number of land managers in areas of significant biological resources is an insidious but very real source of degradation. Even slightly varying management regimes imposed by sympathetic managers may lead to fragmentation of habitat over the years. Despite the number of landholders in the Point Roadknight-Urquarts' Bluff heathland area only increasing from three to four, if the subdivision were to proceed under present zonings, no-one can suggest that the long-term management can guarantee the appropriate care of the site.

The siting of one more house, and one more access road, and associated disturbance will lead to the direct loss of vegetation. Without adequate planning these facilities could result in the loss of significant species.

Indirect loss of vegetation may occur as the result of numerous inputs that would be associated with the construction of new facilities on the site. Altered hydrology from diverted runoff may lead to the water-logging of some areas resulting in the loss of species, in addition channeled water from building surrounds and roads is likely to produce soil erosion.

Nutrient addition from fertilizers, sewage and sillage may drastically alter the floristic composition of these heathlands on extremely poor lateritic soils. Further, any nutrient addition to the site will provide ideal conditions for weed invasion, with many invasive environmental weeds already present in the Anglesea area.

Introduction of pathogens may occur with the use of earthmoving equipment or from nursery stock imported to the site - of great concern would be Cinnamon Fungus (*Phytophthora cinnamomi*). The ongoing disturbance of soil, as is inevitable around a dwelling, would provide an ideal infection site for pathogens or exacerbate those present.

The introduction of weeds either as part of horticultural pursuits or by accidental means could be catastrophic for the sensitive and diverse vegetation of the site. The accidental introduction of weeds should not be under-estimated; imported soil being an obvious source, however vehicle borne seeds are a continuous problem (see Waste, 1977 who recorded 116 species from a carwash in Canberra).

An increase in disturbance and the number of dwellings will lead to the increasing frequency of introduced rodents and thus competition with indigenous species, this may in turn lead to the fragmentation of suitable habitat for local species.

Additional residents will inevitably lead to greater pressure for fire protection measures that impinge upon the vegetation. In my experience such activities are rarely sympathetic to the vegetation.

Visual attributes of this site are exceptional, with a predominantly treeless heath landscape in a rugged coastal setting producing views of wilderness character matched only on the south coast of New South Wales and the Freycinet Peninsula of Tasmania, both much touted for their scenery. Views of this site are important from both sea and land, and are enhanced by showy wildflowers for considerable periods of the year.

REQUIREMENTS IF SUBDIVISION IS TO PROCEED:

The present owners of the site and those of adjoining sites must be congratulated for the very good management of the area in recent times. However this guardianship that has been in place in the area has been very much one of personal choice that could change suddenly. Accordingly, our Association believes that now is the opportune time to provide the safeguards required to maintain sensitive management, in the longer term, of this outstanding area.

We propose that stringent and enforceable conditions be written into any approval to subdivide this site, and that such conditions be drawn up in consultation with the relevant expert practitioners in the fields of biology and landscape. These should include:

- o Controls on the siting of facilities - from both biological conservation and landscape perspectives;
- o Approved filter bed sewage disposal to minimize nutrient inputs to the vegetation;
- o The exclusion of stock and domestic carnivores (ie cats & dogs);
- o Restrictions on horticultural activities - no fertilizers or broad application insecticides, planting of only indigenous species or an approved list of horticultural species shown not to have invasive potential;
- o Specifications for appropriately designed and sited fire protection works; and
- o Design criteria and limitations on visible facilities.

SUMMARY

This site with its national and international values should be recognized as such, and the guardianship offered it to date be extended by appropriate planning controls. The long term maintenance of these values will require the co-operation of various levels of government and the local community.

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- Watson, R. & Ladiges, P. (1987). *Brunonia* 10:175.
- Yugovic, J. (1989). Anglesea botanical information. C, F. & L. Memorandum 1/11/89.

IFFA (Vic) July meeting:

Tuesday July 31, 8 p.m. at the National Herbarium Hall, Birdwood Ave, South Yarra (Melways map 2G, 12A). Light supper provided. Speaker: George Paras on 'Reproductive strategies in native freshwater fish and implications for conservation'.

IFFA (Vic) July committee meeting:

Tuesday 7 July, at Tony's, 10 Alsace St, East Brunswick 3057

IFFA (Vic) August meeting:

Tuesday 28 August.

IFFA NSW inaugural meeting:

Wednesday 1 August 7.30pm. Speakers: Geoff Carr on the history of IFFA, and Dale Tonkinson on the aims and objectives of IFFA Melbourne. Dr Paul Adam, University of NSW, Chairman of Bushland Management Committee, Coastal Conservation Committee, wetlands expert. At the National Trust Centre, Observatory Hill, Sydney. Contact Judy Rawling (02) 499 2172 (AH).

Illustration: *Carpobrotus rossii*
by Andrew Paget

Memberships

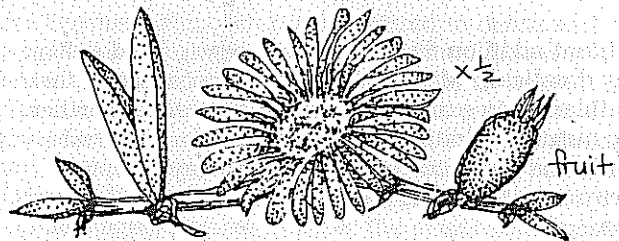
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Office Bearers:

President: Geoff Carr, 69 Spenseley Street, Clifton Hill Victoria 3068. Phone (03) 489 4191 (work), (03) 205784 (home).

Vice-President: Graeme Lorimer, 42 Gratten Road, Montrose, 3765. Phone (03) 728 5841 (home).

Secretary: Michele Arundell, 2/81 Alexandra Ave South Yarra Victoria 3141. (03) 267 4173 (home), (03) 6509424 (work).

Treasurer: Susan Lee, (03) 427 0061 (home).

Editors: Tony Faithfull & Dimi Bouzalas, 10 Alsace Street, Brunswick East, Victoria 3057, Phone (03) 386 0264 (home).

Contributions to *Indigenotes* should be sent to the editor — the deadline for the August issue will be Friday 3 August.

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