

INDIGENOTES

A poor quality reproduction of the output from the new Victoria Butterfly Database described on page 15. The colour and detail in the printouts is very impressive and this cover does not do them justice.

Vol. 9, No. 11

November/December/Xmas 1996

In honour of the anniversary of Baron Ferdinand Von Mueller IFFA presents transcripts of the first and second reports of the Government botanist on the vegetation of the colony. With many thanks to Paul Silberberg for the loan of his copies of these reports. Please note that the plant names have not been updated from the original reports.

Report of the Government Botanist

**Botanic Gardens, Melbourne,
5th September 1853**

Sir, In obedience to His Excellency's command, I have the honour to transmit to you my General Report, partly compiled from those documents which I forwarded on several occasions during my journey, from February until June last, and partly resting on the subsequent examination of the specimens which I brought home.

Before I enter into any details on the classification of our indigenous vegetable world, on its relation in comparison with the plants of the adjacent countries, and on the practical uses to which we might possibly apply many of its productions, it may be considered necessary to delineate the route which I pursued during my last expedition.

I proceeded, at first, with deviations from the usual road wherever it appeared favourable for my pursuits, to Futter's range, which rears, like some other granitic mountains in its vicinity, a host of very peculiar plants. Thence I directed my course to May Day Hills, from which place I advanced, after a brief stay, to the Buffalo ranges, where I ascended Mount Aberdeen and another peak more than 4000 feet high, and examined the rich, almost tropical, vegetation which borders the rivers rising in these mountains. It was in this locality that our exertions were rewarded with the discovery of the high, majestic *Grevillea Victoriae*, and other rarities. Indications of gold have been observed here, as well as in some parts of Gipps' Land which I subsequently visited. The Superintendent of the Melbourne Botanic Gardens, who was engaged during this part of the journey in collecting seeds, here parted from me, being obliged to return homeward to resume his duties at the Botanic Gardens.

As Mount Aberdeen offered hardly any plants of a true alpine character, I resolved to ascend Mount Buller, whose summits, at an elevation of more than 5000 feet, are covered throughout the greater part of the year with

snow. Travelling quite alone since leaving the Buffalo Ranges, the ascent was not accomplished without considerable danger. But I was delighted to observe here, for the first time, this continent's Alpine vegetation, which in some degree presented itself as analogous with the Alpine Flora of Tasmania (*Ranunculus Gunnianus*, *Euryomurtus alpina*, *Celmisia astelifolia*, *Gentiana Diemensis*, *Podocarpus montana*, *Trisetum antarcticum*, &c), and which was also by no means destitute of its own peculiar species (*Phebalium podocarpoides*, *Goodenia cordifolia*, *Hovea gelida*, *Oxylobium alpestre*, *Brachycome nivalis*, *Anisotome glacialis*, &c). Remarkably enough, only one of these exhibits any similarity to the singular subalpine forms discovered by Sir Thomas Mitchell on the Australian Grampians. Mount Buller had never before been scientifically explored; and Mount Aberdeen, up to this time, had not even been ascended.

After some other less elevated mountains in the neighbourhood had been also botanically examined, I resumed my journey along the Goulburn River and some of its tributaries to the King Parrot Creek, where I crossed the Yarra Ranges. The unusually heavy rainfall in the autumn would have frustrated any attempt to reach, as I then contemplated, the alpine mountains of Gipps' Land, and I considered it therefore more advisable, at the already advanced season, to devote my time rather to the examination of the maritime plants which are in an almost equal state of development throughout the year.

I went, accordingly, for some distance along the LaTrobe River, to the south-eastern coast of Gipps' Land, passing some rich ravines, luxuriantly filled with two species of fern tree, *Alsophila australis* and *Dicksonia antarctica*; the former of which seemingly never accompanies the *Dicksonia* far inland, but remains in the valleys which slope toward the sea. Notwithstanding these geographical limits, the *Alsophila*, occupying generally the drier localities on the hills, recommends itself better for transplanting

After several weeks travelling in the neighbourhood of Port Albert, and many excursions through Wilson's Promontory, I quitted Gipps' Land, returning homeward along the coast.

This journey, the lines of which extended over more than 1500 miles, enriched my collections formed during the spring so far that they comprise probably now more than half the indigenous vegetation of this colony. For according to the index which I have annexed, including also several plants discovered by Sir Thomas Mitchell and by His Excellency the Lieutenant Governor, there are known to me now already 715 species of Dicotyledoneae, belonging to 286 genera and 83 natural orders; 201 species of Monocotyledoneae, comprehending 100 genera and 21 natural orders; and 47 ferns, containing 27 genera. About 50 other species, however, which I have not included in this general account, are not yet so exactly examined as to receive their true systematic position, and are consequently not enumerated in the list; while fifty others, not indigenous, but introduced species (marked with *) are likewise not taken into account, although they are not only naturalised beyond the possibility of extirpation, but even overpower the more tender indigenous plants. I regret that I was also obliged to omit from this Index all the

lower Acotyledoneae (Mosses, Lichenastra, Lichens, Algae and Fungi), to the amount of at least 200 species, of which I could examine this winter too few to display them in a systematic arrangement. The full amount of species, therefore, considerably exceeds 1100, belonging, with exclusion of the above-mentioned Acotyledoneae and the foreign plants, to no less than 430 genera and 108 natural orders — proportions which far surpass those of Western Australia, where more than twice this number of species (according to the collections of Dr. Priess) are only divided into exactly the same number of genera already discovered here (430), and only into 91 families.

The Index might have been increased without difficulty to a two-fold number of names; but through a long continued examination of the Australian plants in a living state, I had the advantage of learning how great is the uncertainty of many characteristics, which are deemed even by our greatest authorities in science, sufficient for distinction. According to the annexed enumeration, the proportion of the Dicotyledoneae to the Monocotyledoneae will be found, for that part of the country over which my investigations this year extended, nearly as seven to two, and corresponds, therefore, exactly with the position which these great divisions of the vegetable kingdom hold to each other in South Australia up to the thirty-fourth degree south latitude (as shown in my observations on the South Australian Flora, lately read before the Linnean Society in London.) and holds likewise, the mean between the proportions ascertained by Robert Brown for Van Diemen's Land and New South Wales; while in Western Australia, as well as in South Australia, including the country there to the thirty first degree south latitude, the number of the Dicotyledoneae exceeds in the proportion of nine to two that of the Monocotyledoneae.

The Cryptogamic plants, however, favoured by a more humid atmosphere, are twice as numerous in our province as in the last mentioned Colonies, being about equal to a third of the Dicotyledoneae.

Excluding all Cryptogamic plants, not less than 200 species, as testified by the index, are proved to be as yet undescribed. Some of these occurred to me in South Australia; and the descriptions of several others will probably find a place in Dr J. Hooker's forthcoming *Flora of Van Diemen's Land*. These novelties enabled me already to establish seven new genera (*Psuedomorus*, *Basileophyta*, *Tetrachaeata*, *Minuranthus*, *Psoraleopsis* and *Rhytidosporum*).

The descriptions, not only of almost all the new plants, but also critical notes and observations on the phytogeographical range of the species already known, will be forwarded to Sir William Hooker before my departure for the interior, and will afterwards constitute, together with the scientific elucidations of such plants as may be added during the ensuing season from the yet botanically unexplored districts the foundations of the *Flora of Victoria*.

That the vegetation of the southern parts of our province accords greatly with the Tasmanian flora may be demonstrated by the fact that more than half of all the enumerated species are known to inhabit Van Diemen's Land, amongst them many of great interest, which had

been considered as belonging exclusively to that island, some adding even new genera to the Flora of New Holland: *Fagus cunninghami*, *Bauera Billardieri*, *Tasmania aromatica*, *Weinmannia biglandusola*, *Pleurandra monadelphica*, *Ranunculus Gunnianus*, *Capsella australis*, *Pittosporum bicolor*, *Rhytidosporum procumbens*, *Rhytidosporum Stuartianum*, *Boronia dentigera*, *Eriostemon verrucosus*, *Correa Backhousiana*, *Meionectes Brownii*, *Bossiaea horizontalis*, *Brachycome decipiens*, *Celmisia astelifolia*, *Scaevola Hookeri*, *Monotoca lineata*, *Lissanthe montana*, *Lissanthe ciliata*, *Prostanthera rotundifolia*, *Myosotis suaveolens*, *Wilsonia Backhousii*, *Gentiana Diemensis*, *Sebaea albidiflora*, *Hakea micorcarpa*, *Podocarpus montana*, *Phyllanthus Gunnii*, *Micranthea hexandra*, *Diplarrhenamoraea*, *Uncinia tenella*, *Triodontium Tasmanicum* and a great number of ferns.

No numerical comparison with the Flora of South Australia and New South Wales has been instituted, as those localities are not sufficiently examined which bear, perhaps in this respect, as great a resemblance to the adjacent Colonies as the southern tract of this province bears to Van Diemen's Land.

Still, there remains yet a considerable number of plants which impress on our vegetation a type of peculiarity; and I may be permitted, for this reason, to call attention to our remarkable species of *Panax*, resembling mainly those of the Mollucas; to *Trigonella suavissima*, as the only Australian clover; to the species of *Psoralea* and to *Crantzia*, as connecting links with the American Flora; to *Pseudomorus Australasica*, the indigenous mulberry tree; to *Myrsine Howittiana*, nearer connected with the New Zealand species than with those of New South Wales; and to the Alpine *Anisotome glacialis*, as a genus from Auckland and Campbell's Islands.

With regard to the Phytogeographia of this country, it may be deemed worthy of notice that, in the arid steppes beyond the Glenelg River, the vegetation undergoes a remarkable change, and a large number of such plants as are common to Victoria, New South Wales and Van Diemen's Land cease to exist, not even re-appearing farther to the westward, where the physical character of the country assumes once more equality or similarity to the eastern provinces. Others again, extend the geographical limits of certain genera or species which we thought to belong entirely to Western Australia: thus for instance, *Thomasia petalocalyx* and *Coleostylis Preissii* range to the 148th meridian.

It may also be worthy of remark, that the order of Leguminosae prevails decidedly here, as in Western Australia, over all others; and that the Compositae, far exceeding in South Australia, and almost throughout the world, any other groups, rank here as the second order. Both taken together show such eminent richness as to comprise nearly a fourth of all Dicotyledonar plants. The most prominent natural orders exhibit here, with regard to their number of species, the following series:— Leguminosae, Compositae, Myrtaceae, Algae, Filices, Cyperoideae, Gramineae, Musci, Proteaceae, Orchideae, Epacrideae, Fungi, Umbellifereae, Diosmeae, Liliaceae, Labiatae, Goodeniaceae, Scrophularinae and Salsolaceae.

Finally, and perhaps as to the most important point of my researches, I have to reflect upon the practical

usefulness of our vegetable creation, either with regard to medicine, manufactures or in a domestic point of view.

The inestimable truth, that we may safely deduct the closest affinities of the medicinal properties of plants from their natural alliances— a truth which achieved the most complete triumph of the natural system over all artificial classifications — has generally guided me in tracing out which plants might be administered in medicine. By this guidance I observed, that our Pimeleae are pervaded by that acidity for which the bark of *Daphne Mezereum* is employed; that our *Polygala veronicaea*, the only described Australian species of a large genus and in close relation to one lately discovered in the Chinese empire, not only agrees, like some kinds of *Comesperma* with the Austrian *Polygala amara*, in those qualities for which that plant has been administered in consumption, but also participates in the medicinal virtue of *Polygala senega* from North America. *Gratiola latifolia* and *Gratiola pubescens*, *Convolvulus erubescens* and the various kinds of *Mentha* are not inferior to similar European species. The bark of *Tasmania aromatica* appears to me to possess the medicinal power of the Wintera bark gathered from a similar tree in Tierra del Fuego; and its fruit is allied to that of the North American Magnoliae used in cases of rheumatism and intermittent fever. The whole natural order of Goodeniaceae, with the exception perhaps of a few species contains a tonic bitterness never recognised before and discernible in many plants in so high a degree, that I was induced for this reason to bestow upon a new genus from the interior the name of *Picrophyta*; this property, which indicates a certain alliance to Gentianeae, deserves the more consideration, as the true Gentianeae are so sparingly distributed through Australia, while the Goodeniaceae form everywhere here a prominent feature of the vegetation. Our Alps, however, enrich us also with a thick-rooted Gentian (*G. Diemensis*) certainly as valuable as the officinal *Gentiana lutea*; and in the spring, *Sabaea ovata*, *Sabaea albidiflora* and *Erythraea Australis* might also be collected on account of their bitterness. The bark of the Australian Sassafras tree (*Atherospermum moschatum*) has already obtained some celebrity as a substitute for tea;—administered in a greater concentration, it is diaphoretic, as well as diuretic, and has for this reason already been practically introduced into medicine by one of our eminent physicians. *Isotoma axillaris* surpasses all other indigenous Lobeliaceae in its intense acidity, and can be therefore only cautiously employed instead of *Lobelia inflata*. The root of *Malva Behriana* scarcely differs from that of *Althaea officinalis* and the Salep root might be collected from many Orchideae. Few may be aware that the Cajeput oil of India is obtained from trees very similar to our common Melaleuca; and that even from the leaves of the Eucalypti an oil can be procured of equal utility. The Sandarac, exuding from the Callitris or Pine tree, the balsamic resin of the grass trees, and, moreover, the Eucalyptus gum, which could be gathered in boundless quantities, and which for its astringent qualities might here at least supersede the use of kino or catechu, will probably at a future period form articles of export.

Several Acaciae are of essential service, either for their durable wood, or for the abundance of tannin in their bark, which has rendered them already useful, or for their gum; but the latter is even excelled in clearness

and solubility by that obtained from *Pittosporum acacioides*. This species, as well as many other plants of the same order, is distinguished by a surprising yet apparently harmless bitterness — a quality that warrants our expecting considerable medicinal power, and which deserves so much more attention, as till now we know nothing of the usefulness of the Pittosporae, although this order extends over a great part of the eastern hemisphere.

The Australian Manna consists in a saccharine secretion, condensed chiefly by the cicades from a few species of Eucalypti, but is chemically very differently constituted to the Ornus Manna, and much less aperient. All our splendid Diosmeae— a real ornament to the country— approach more or less in their medicinal effect to the South African Bucco-bushes.

Baeckea utilis, from Mount Aberdeen, might serve travellers in those desolate localities as tea, for the volatile oil of its leaves resembles greatly in taste and odour that of lemons— not without a pleasant, particular aroma. *Trigonella suavissima* proved valuable as an antiscorbutic spinage in Sir Thomas Mitchell's expedition; and the *Tetragonella implexicoma*, the various cardamines, *Nasturtium terrestre*, or *Lawrencina spicata*, may likewise be used for the same purpose. The root of *Scorzonera Lawrencii*— a favourite food of the natives — would form if enlarged by culture, an agreeable substitute for *Scorzonera Hispanica*, or Asparagus; and *Anisotome glacialis* — a large-rooted umbelliferous plant, from the snowy top of Mount Buller — will be added, perhaps, hereafter, to the culinary vegetables of the colder climates. Seeds of the latter plants, amongst many others, have been procured for the Botanic Gardens. *Santalum lanceolatum*, *Mesembryanthemum aquilaterale*, *Leptomeria pungens*, and *Leptomeria acerba*, deserve notice for their agreeable fruit.

It would lead too far to enumerate the numerous modest, but lovely, or even the more attractive ornamental plants, which will no doubt hereafter contribute to adorn the gardens here and at home. Still, in a general sketch of our vegetation, I ought not to pass unmentioned, in this regard, the magnificent *Grevillea Victoriae*; the splendid parasite of the Fern tree, *Basileophyta Friderici Augusti*, on which the name of the royal botanist has been bestowed; and the grand *Corraea Latrobeana*, three of the most gorgeous plants discovered during my last expedition.

In accordance with His Excellency's instructions a collection of dried specimens of plants has been commenced for the Government. This Herbarium will be at all times accessible to the public, and will hereafter contribute, I trust, to diffuse, more and more, knowledge of our vegetable world, and excite lovers of natural science to assist in my investigations. I began to form, at the same time, a similar collection for the Royal Gardens at Kew.

I am happy to report that the Botanic Gardens are in a very prosperous state, and that the establishment does great honour to the able management of its Superintendent. The addition of a large greenhouse, which His Excellency has been pleased to sanction, upon the recommendations of the Committee, will be most useful a receptacle for tropical productions; and a considerable piece of ground has been prepared, this year, to rear all

the seeds which have lately been collected for the garden, or which were liberally presented.

The Committee deemed it also desirable that an iron footbridge for crossing the Yarra should be procured from home, to afford easier access to the Garden for the inhabitants of the eastern part of Melbourne; and by this means the number of visitors — already (chiefly on Sundays) very considerable — will, doubtless, greatly increase.

I trust, therefore that the Botanic Gardens, as an establishment so desirable for the diffusion of knowledge, for the experimental introduction of foreign plants into our adopted country, or for multiplying the treasures which our own Flora offers, and as a healthy locality for recreation, will continue to receive the support of the Government and the Legislature; and I hope that, by still further extending the communications of this establishment with the Botanical Gardens of other countries, we shall succeed in keeping pace the general advance of this great and flourishing country.

I have the honor to be,
Sir,
Your most obedient and humble servant,

DR FERDINAND MUELLER

Government Botanist.

Report of the Government Botanist

Botanic Gardens, Melbourne
5th October, 1854

Sir, In obedience to instructions from His Excellency the Lieutenant Governor, I do myself the honour of transmitting to you the Second Annual Report on the progress of my botanical researches.

Requested by the Government in October, 1853, to examine the vegetation of the Grampians and of the adjacent ranges, and to visit afterwards such districts as I deemed most advisable to explore, I commenced my journey in accordance with those instructions on the 1st of November, 1853.

The low land between Melbourne and Mount Sturgeon offered but very few novelties to the collections formed during the previous season, but in the Grampians, the Serra and the Victoria Ranges I had an opportunity by ascending the most prominent heights to increase considerably the series of plants already discovered in these localities by Sir Thomas Mitchell during his exploration of the country. Many of these plants

belong not only exclusively to this colony, although interspersed with such as inhabit the mountains of New South Wales, Van Diemen's Land and South Australia but are even in some instances restricted to solitary heights, an observation confirmed by similar instances of isolation of certain species occurring at the Table Mount of the Cape of Good Hope, in the mountains of North America and other parts of the globe. The subalpine summit of Mount William proved in this respect to be exceedingly interesting. I was informed that these mountains contain malachite, and judging from their similarity to the Mount Lofty and Barossa Ranges of South Australia, in which several copper mines have been opened, I feel convinced of the correctness of this statement.

The early heat and the consequent scantiness of water during the last spring, rendered it impossible, in proceeding from the Grampians to the Murray, to pursue a more westerly course than along the Avoca : but to obtain the advantage of observing the gradual change of the Mallee vegetation from south to north, I bore away westerly to Lake Lalbert, and thence reached the Murray in the beginning of December. Following partially the course of this river and partially the tracks through the desert, I travelled as far westerly as the junction of the Darling. During this excursion it was surprising to me to observe in the north-western parts of the Colony a remarkable accumulation not only of those plants formerly observed along the Lower Murray, but also numerous species from the steppes around Lake Torrens, which I had but recently commenced disclosing to botanical science, and it appears that the subtropical desert flora terminates only in this latitude. Besides several hitherto unknown plants, descending along the Darling and Murrumbidgee from the north-east into our Colony, others even reappeared here from the west coast of Australia, so that for these reasons the materials for the *Flora of Victoria* became at this time considerably augmented, more particularly in the natural orders of Compositae and Salsolaceae. The saltplants here alluded to contribute largely to render these desolate places fit and often preferable for sheep pastures. The following useful plants from these localities are entitled to particular notice : *Myoporum platycarpum*, a graceful tree, exuding a saccharine secretion, *Cucurbita micrantha*, a small species of melon, as bitter and probably as valuable as the medicinal colocynth; *Santalum persicarium*, a dwarf kind of sandal tree, of which the root-bark furnishes an amylaceous food to the natives. It has been repeatedly related by travellers, that a small supply of water may be relied upon from the root of *Eucalyptus dumosa*, one of the mallee bushes. The Murray lagoons, which are periodically dry, furnished a small number of plants, allied or identical to foreign, chiefly Indian or African species, and consequently important to phytogeography— (mollugo, *Glinus*, *Ammannia*, *Jussiaea*, *Epaltes*, *Lycium* &c)

Returning from the Darling, I resumed my journey along the Murray River, with a deviation to Mount Hope, up to Albury, where arrived about the middle of January of this year.

Desirous to devote the summer months to the exploration of the Australian Alps, I chose the Mitta Mitta line for further operations, ascended and crossed the Gibbo Ranges at an elevation of 5000 feet, and followed once

again the course of the Mitta Mitta into Omeo. At the Gibbo River argentaceous lead ore has already been discovered by the Rev. Mr. Clarke.

From here I attempted in vain to reach the Bogong Range, probably the highest point in this island-continent, being compelled to retreat by the extensive bush fires then raging in the intermediate mountains. The summit of this range, covered with eternal snow and glaciers, can hardly be estimated of less altitude than 7000 feet.

In order now to accomplish the examination of the Alpine Flora on the eastern frontiers, I started for the Cobberas Mountains, the most prominent points of the Great Dividing Range within the borders of this Colony. Not only these mountains, but also the greater part of the interjacent plains or plateaus are of a truly alpine or of a subalpine nature, ranging in elevation from 5000 to 6000 feet above the level of the ocean. As some of the highest sources of the Murray and of the Gipps Land rivers rise in this vicinity, the supply of water is plentiful. The valleys are either covered with spongy mosses (chiefly sphagnum), which become transformed into peat, or produce nutritious grasses, some luxuriant enough to recommend their introduction into countries of the arctic zone—(*Hierochloe antarctica*, *H. submutica*, *Agrostis frigida*, *A. nivalis* &c). The vegetation of the Cobberas Mountains does neither fully agree with that of Mount Buller, examined last year, nor with the Alpine Flora of Van Diemen's Land, although the following series of its plants may indicate its partial identity with both:—*Ranunculus pimpinellifolius*, *R. scapiger*, *Geranium brevicaulis*, *Acacia bossiaeoidea*, *Hovea gelida*, *Oxylobium alpestre*, *Anisotome glacialis*, *Didiscus humilis*, *Celmisia astelifolia*, *Eurybia megalophylla*, *Brachycome nivalis*, *B. multicaulis*, *Ctenosperma alpinum*, *Ozothamnus hookeri*, *O. cinereus*, *Antennaria nubigena*, *Senecio pectinatus*, *Goodenia cordifolia*, *Gaultheria hispida*, *Leucopogon obtusatus*, *Lissanthe montana*, *Richae dracophylla*, *Prostanthera rotundifolia*, *Euphrasia alpina*, *Gentiana diemensis*, *G. montana*, *Grevillea australis*, *Pimelea gracilis*, *Podocarpus montana*, *Exocarpus humifusa*, *Juncus falcatus*, *Restio australis*, *Oreobolus pumilio*, *Lomaria alpina*, *Polytrichum dendroides*, &c. Here all these plants are alpine, notwithstanding some of them descend in Tasmania to the low land. But to those already known I had the gratification of adding several new species, probably peculiar to the Alpine Flora of Australia, namely:—*Phebalium phyllicoides*, *Asterolasia trymalioides*, *Mniarum singuliflorum*, *Bossiaea distichoclada*, *Centella cuneifolia*, *Anisotome simplicifolia*, *Eurybia alpicola*, *Ozothamnus planifolius*, *Gnaphalium alpigenum*, *Hierochloe submutica*, *Glyceria hookeriana*, *Agrostis gelida*, &c.

From the Cobberas Mountains I continued travelling over a large tract of subalpine country in a north-easterly direction to the Snowy River, as far as the boundaries of New South Wales. Out of several curious plants observed in the valleys of this stream, I ought to mention *Brachyciton populneum* (*Sterculia heterophylla*, All. Cunn., not Beauv), a beautiful tree from the tropics, growing with its turgid stem out of the bare granite rocks, washed by the tremendous floods of the melting snow. With many of its usual companions, it reaches here its most southerly limits. The seeds of this *Sterculia* were used for food in Dr. Leichardt's expedition, and "produced not only a good beverage with an

agreeable flavour, but also appeared to be very nourishing."

By a circuitous route along the Tambo to the south, and steering thence once more easterly I reached, in the middle of march, the country beyond the mouth of the Snowy River, the most southerly locality in which palms exist in the Australian continent. The vegetation here assumes, at a latitude nearly equal to that of Melbourne, at 37° 30' S., entirely a tropical character, with all its shady groves of trees producing dark horizontal foliage,— so rarely to be met with in Australia,— with all those impenetrable and intricate masses of parasites and climbers overrunning the highest trees, and with so many typical forms never or but rarely transgressing the torrid zone, unless sheltered against the cold and under the favourable influence of the mild humid atmosphere of the coast tracts. The stately *Corypha* palm or *Livistona australis*, one of the "princes of the vegetable world," attains here the height of more than sixty feet, and may be deemed one of the most useful productions of our Flora, furnishing in its young leafstalks and terminal bud the palm cabbage, a food equally wholesome and delicious, whilst the fan shaped leaves are eagerly collected for the manufacture of hats. The occurrence of so many plants of a really tropical type, as *Cissus australasica*, *Coccoluys harveyanus*, *Celastrus australis*, *Tristania laurina*, *Acmena floribunda*, *Morinda jasminoides*, *Tylophora barbata*, *Marsdenia rostrata*, *Smilax spinescens*, *Eustrephus latifolius*, &c, bears a sufficient testimony not only to the geniality of the climate but also to the capability of the soil in this district. Transitions to the Flora of New South Wales were here perceptible everywhere.

After a short journey to the Buchan River, I returned home, in consequence of the early commencement of the rainy season, in the middle of April, having traversed the country in various directions to the extent of more than 2500 miles. How far the material for the Flora of Victoria has been enriched during this journey, may be observed by referring to the annexed enumeration, which comprises, in addition to those plants brought forward in my last years report, 391 Dicotyledoneae, and 105 Monocotyledoneae, of which nearly the fourth part was formerly unknown. Thus also 130 genera and 20 natural orders of cotyledonous plants have been incorporated into our Flora, one of the latter, menispermeae, formerly foreign to Australia. Ten of the additional genera were also formerly unknown in this part of the globe (*Myosurus*, *Cocculus*, *Hutchinsia*, *Ammannia*, *Glinus*, *Celastrus*, *Centella*, *Erigeron*, *Antenneria*, *Udora*) whilst six others are entirely new or hitherto undescribed (*Asterolasoa*, *Halothamnus*, *Eriochiton*, *Osteocarpum*, *Juncella*, *Electrosperma*). Others again were previously thought to be confined to Van Diemen's Land, together with some here also indigenous Mammalia, amongst the latter the Tasmanian Hyaena (*Thylacinus cynocephalus*) and the Tiger-cat (*Dasyurus maculatus*).

The entire sum of species contained in the accompanying list, comprising, for the first time also, the lower Cryptogamic orders, amounts to 726, with 250 additional genera, by which the number of Victorian plants enumerated last year will be advanced to nearly 1700 really indigenous species, comprehending 680 genera and 134 natural orders, — numbers to be considered already as proportionately high for the extra-tropical

latitudes and the areal of this Colony. It is probable that these comprises more than three-fourths of the indigenous plants, if the fungi are excluded, of which it is yet impossible to ascertain the number with any approach to correctness. In the compilation of that part of the catalogue which contains the lower Acotyledoneae I have enjoyed the services of some botanists of the highest rank, who made these branches of phytology their more exclusive study, and whose assistance I most gratefully record on this occasion. Messrs, Hampe and C. Mueller performed the examination of the Mosses; Professor A. Braun that of the Characeae and Dr. W. Sonder, for the greater part, that of the Algae. I have further to acknowledge the aid which I experienced in the classification of others of those subtle plants from Professor Harvey, of King's College, Dublin, who intends to pursue his algological researches during this summer on our shores, and from whose long experience and extensive knowledge we may expect the most perfect elucidation of our Marine flora.

The general proportions of Dicotyledonous plants to Monocotyledoneae remain, by the additional species of this year, materially unaltered, namely about 7 to 2, as formerly stated, with regard to the southern and south-eastern parts of the Colony; although, by a decrease of Monocotyledoneae in the north-western desert, an approach is perceptible there to that relation which these divisions of the vegetable kingdom bear to each other in Western Australia and in the sub-tropical part of South Australia. The series, however, of natural orders, with reference to their greatest number of species, received considerable alteration by the large increase of the Compositae and several other orders in the desert tracts, and by the disappearance again, at various places, of other groups which predominated in the south. But as nearly all the main localities have now been traversed, the series of the most prevailing natural orders may be at this time considered fixed for the whole colony in the following arrangement, if we omit as not yet sufficiently examined, the lower Acotyledoneae, namely:—Compositae, Leguminosae, Graminae, Myrtaceae, Cyperoidae, Salsolaceae, Proteaceae, Filices, Orchideae, Epacrideae, Diosmae, Umbelliferae, Liliaceae, Labiatae, Cruciferae, Goodeniaceae, Scrophularinae, Euphorbiaceae.

Probably the descriptions of the new plants discovered last season will receive an abridged publication in the Transactions of the Philosophical Society or of the Melbourne Institute. Manuscripts have also been periodically transmitted to Sir William Hooker for his journal, accompanied by corresponding specimens. All these scattered notes will be hereafter collected in a popular form for a Flora of Victoria.

Seeds of the indigenous plants have been collected during my journey, as far as season and opportunity permitted, not only for our own establishment, but have been also distributed, to the amount of nearly 2000 lots, to the Royal Gardens at Kew, the Botanical Gardens of Hobart Town, Sydney, Cape of Good Hope, Mauritius, Calcutta, &c.

I beg to conclude these remarks with a few observations on the utility of such of our vegetable productions as were not alluded to in my last report.

The woods stand in this regard prominent in importance. The Blue Gum tree of Van Diemen's Land (*Eucalyptus globulus*) is found abundantly in some of the forested districts, principally of the south, and is already so well known for its colossal size, as to render it superfluous to quote the statements made of its vast dimensions. Of the circumference of the stem instances are on record by which this tree ranks only second to the famous Baobab from the Senegal. The experiments instituted in Van Diemen's Land have shown "that its elasticity and strength exceed generally those of all woods hitherto tested - it is equal in durability to Oak and superior to it in size;" and therefore highly esteemed for ship building. Other Eucalypti likewise deserve attention, on account of the beauty and durability of their wood, in consequence of which qualities one of them from the south-eastern frontiers received there the name of the Mahogany tree. The wood of *Callistemon salignus*, although seldom of considerable size, stands here, perhaps unrivalled for hardness. The fragrant Myall wood, so well adapted for subtle ornamental work, is obtained from *Acacia homalophylla*, and some allied species in the Mallee desert. The well known Blackwood (*Acacia melanoxylon*) in some localities called lightwood, attains in the fern-tree gullies an enormous size, and yields a splendid material for furniture, at once most substantial and capable of a high polish, being also recommended for the finishing work of vessels. The Myrtle tree of Sealer's Cove and the Snowy River (*Acmena floribunda*) is also remarkable for its straight growth and its excellent wood. The Australian evergreen Beech (*Fagus cunninghami*) forms a noble tree, sometimes more than 100 feet high, of which the wood receives a beautiful polish. Omitting such kinds as are more generally known, I may yet mention as useful, chiefly for ornamental work, the Sassafras wood (from *Atherospermum moschatum*) the Lomatia wood (from *Lomatia polymorpha*), that of the Tolosa tree (*Pittosporum bicolor*), the Musk wood (from *Eurybia argophylla*), the Iron wood (from *Notolaea ligustrina*), that of the Oil fruit tree (*Elaeocarpus cyaneus*), the Zieria wood (from *Zieria arborescens*), that of the Heath tree (*Monotoca elliptica*), and of the Australian Mulberry tree (*Psuedomorus Australasica*). Samples of those kinds, which are met with on Wilson's Promontory, have been procured for the Paris Exhibition, and these may give some additional proof that we possess woods here for any purpose, with the exception perhaps of such as are fit for larger ships masts.

Many other plants of practical value were noticed during my last expedition, amongst them a kind of New Zealand spinach (*Tetragonia inermis*): an undescribed Elder tree (*Sambucus xanthocarpa*); a sort of Hottentot fig (*Mesembryanthemum praecox*), from the Murray desert, deserving cultivation for its agreeable fruit. To the series of native fruits enumerated last year might be farther added *Nitraria billardieri*, and several other species *Exocarpus*, *Leucopogon* and *Lissanthe*. Under the name of Australian Sarsparilla, either the stems of *Hardenbergia monophylla*, or of *Muehlenbeckia appressa* and *complexa*, are employed; whilst a plant closely allied to the American root (*Smilax spinescens*) remained hitherto unnoticed.

Turning, finally to our future prospects, as afforded to us by the enjoyment of the serenest climate and by the extensive fertility of the soil, I venture to say, that no

praise too high can be bestowed in a general view on the productiveness of our adopted country. We possess in the southern hemisphere, what the Ancients in the Northern called *regiones felices*, those happy latitudes of a warm temperate zone, in which Nature with a prodigal hand offered prominently, amidst so many other gifts, the Cerealia, the Olive, and the Vine, and to which we have added from the far east, the Orange, the Tea; from India, the Rice; and from the New World, the Maize, Cassava, Arrowroot, Tobacco, and so many other treasures of the vegetable world, on which mankind now rely for luxury and support. All these may be here successfully produced along with those which we enjoyed in the country of our youth, and will, I trust, with the mighty resources of our mineral wealth, render this country one of the most delightful and prosperous of the globe.

I have the honor to be,

Sir

Your most obedient humble servant,

FERDINAND MUELLER,

Government Botanist.

Conservation Action

or Please Write Letters or send Email

Horses for Courses but not in Greens Bush

Conservation of Greens Bush - now part of the Mornington Peninsula National Park - has been the most important environmental issue on the Mornington Peninsula in the past decade. The Main Ridge Equestrian Ground which cuts a 17 hectare wedge into the northern section of Greens Bush was purchased by the former Shire of Flinders in 1987. Local conservation groups have consistently argued that the site was purchased to be incorporated into the Park and that equestrian use is incompatible with bushland conservation both within the site and in the adjoining National Park.

A Land Capability Study was commissioned by the Mornington Peninsula Shire Council in 1996 for the Main Ridge Equestrian Ground and has been prepared by J Kowarsky and Associates. The study brief was to assess the ecological significance of the site's vegetation, the extent and severity of the *Phytophthora cinnamomi* fungus and the impact of the site's current land use on both the equestrian ground and the adjoining Mornington Peninsula National Park. The study found that the vegetation of the equestrian ground has high conservation significance, that current equestrian use and land management practises have the following present and future impacts: Degradation of native vegetation and loss of species diversity, with concomitant increases in weed species;

Erosion of unprotected slopes and siltation of the Creek; and

The spread of *Phytophthora* leading to further vegetation death.

In addition, the study identified siltation of the creek, spread of weeds along the creek and spread of *Phytophthora* as future impacts on the National Park with current use of the equestrian ground.

The study concludes with the recommendation that relocation of equestrian activities to another site is the preferred option, ideally occurring in no longer than five years time.

The Mornington Peninsula Shire Council is now exhibiting the Kowarsky study and will engage in a process of community consultation before making a decision regarding the long term land use for the Main Ridge Equestrian Ground. Council has proposed the following as potential Options on the basis of the study:

Option 1: relocating the equestrian user groups to a new site in the local area; or

Option 2: implementing the management recommendations of the study, and maintaining the current land use, accepting that there will be some loss of conservation value on the site in the medium to long term.

Write to the appropriate Ministers and the Mornington Peninsula Shire Council urging them to adopt the recommendations of the (costly, but very well researched and prepared) Kowarsky Report and specifically support the implementation of Option 1 relocating the equestrian user groups to a new site in the local area. Make the point that Equestrian activities can occur on any bit of land but indigenous bushland is a rare commodity on the Mornington Peninsula.

**The Chief Executive Officer
Mornington Peninsula Shire Council
Private Bag 1000
Rosebud 3939**

**The Honourable M T Tehan
Minister for Conservation and Land Management
240 Victoria Pde
East Melbourne 3002**

**The Honourable R R C Maclellan
Minister for Planning & Local Government
3rd Floor, Olderfleet Buildings
477 Collins St
Melbourne 3000**

For more information contact the Southern Peninsula Flora and Fauna Association, P.O. Box 480, Rosebud 3940 or the President, Jon Greening on (03) 5985 5561 or the Secretary, Richard Pew on (03) 5982 2613.

HANDS OFF THE PROM!

Wilson's Promontory was first dedicated as a National Park in 1898. For a long time, it has been a place of pilgrimage for Victorians. This is

due to its early reservation as a National Park, and a public recognition the Prom's unique character. This unique character comes from the Prom's place as the southernmost extension of Victoria, and its connection to Tasmania. These links are both geological, through a huge granite massif that connects both states, and due to that link being a corridor for species movement during periods of low sea level. The Prom is also separated from the rest of Victoria by geologically recent sands, almost making it an island in biogeographic terms.

In 1970, J Ros Garnet, the noted Victorian naturalist, wrote:

The flora (and fauna) of Wilson's Promontory is remarkable in that it has survived so well in the vicissitudes of more than a century and a half of interference by man. In spite of timber milling, cattle grazing, mineral prospecting, tin mining, attempts at settlement, military occupation, frequent devastation by bushfire and now, the regular annual invasion by upwards of 80,000 people and their motor cars, it lives on and continues to exert its fascination.

I, for one, would like to believe that what will be there in 2070 will not be vastly different from what is there today and that it will give the people of future times as much pleasure and inspiration as it has already given to several generations of admirers.

Today, J Ros Garnet is still alive (see *The Age*, 18/12/96), though his dream may not be for much longer. As part of Draft Management Plans for Wilson's Promontory and Tidal River, commercial elements such as a 150 bed 3-4 star serviced lodge, a 45 bed group walker lodge and assorted serviced outstations, huts and camps are being proposed. Although an improvement in facilities is needed, these proposed developments are not compatible with the ecology of the Prom, nor do they solve the structural weaknesses posed by current facilities. They are, in short, a cynical grab for income, that has been made necessary by the incremental loss of funding allocated to the National Parks Service.

All those who believe that these proposals are unfit for Wilson's Promontory are encouraged to voice their dissatisfaction. There is a public review period operating until December 31, 1996 and objections are being sought by groups such as the Victorian National Parks Association, The Field Naturalists Club of Victoria and IFFA. The specific elements objected to are:

a 150 bed 3-4 star fully serviced licensed "lodge" (read hotel) at Tidal River for commercial operations.

a 45 bed serviced "guided walker accommodation" lodge

continued on page 14

Coming events:

For IFFA events see back cover

Conferences/Workshops 1997

Sun 19 Jan, 9.20am - 1.30pm. Natural History of Gresswell Forest Nature Reserve. A workshop presented by La Trobe Wildlife Reserves. An introduction to the ecology of Gresswell Reserve's River Red Gum woodland habitats. Naturalists will lead participants through a field workshop covering animals of woodlands and their complex lifestyles, their interdependence and interaction with other species. This tour is designed for birdwatchers, local residents, family groups, amateur naturalists and students alike. BYO binoculars and bird books, notebook, pencil, morning snack & picnic lunch. Morning tea & coffee provided. Wear appropriate outdoor clothing. Meet at car-park entrance, Gresswell Forest, Greenwood Dve, Bundoora. Cost \$36, \$27. Bookings essential (03) 9479 2871.

Mon 20 Jan, 8pm. Society for Growing Australian Plants, Victoria - Slide night. Four SGAP members will show colour slides covering Victoria, NSW, Qld and WA. Venue: Conference Room, Astronomer's Residence, Royal Botanic Gardens, Birdwood Ave, South Yarra, 3141. Contact Enid Bowman (03) 9882 5297.

Sun 26 Jan, 9am - 4pm. Growing Indigenous Plants, a workshop presented by La Trobe University Wildlife Reserves. Participants will cover all aspects of propagation including seed collection, cleaning, storage, treatment (including smoking), sowing, propagation by cuttings, nursery operations and plant establishment. Use of indigenous plants in beds will also be covered. This workshop is designed for naturalists, gardeners and conservationists. Wear sturdy footwear, hat, sunscreen, insect repellent and bring a notebook and pencil. Please bring a picnic lunch. Morning snack and tea and coffee provided. Cost \$60, \$50 concession. Venue: Bundoora, Wildlife Reserves, Visitor Centre, Melway map 19 H5. Bookings essential (03) 9479 2871.

Thu 30 Jan, 9.30 am - 4pm (Also 2 Feb) Planning & Management of Bushland Blocks. A workshop presented by La Trobe University Wildlife Reserves. Participants will cover all aspects of planning and management as it relates to bushland area. The day will cover site assessment, layout of tracks, dams & fences; physical design improvements for farm dams and wetlands, wildlife breeding habitat provision, water quality management, typical problems & troubleshooting. Designed specifically for rural land holders. Morning snack provided, please bring picnic lunch. Morning tea & coffee provided. Held in Bundoora, Wildlife Reserves, Melways 19 H5. Cost \$60, \$45 Conc. Bookings essential (03) 9479 2871.

13 Feb, 16 Feb, 9.30 am - 4 pm. Introduction to Farm & Bush fencing. Workshops presented by La Trobe University Wildlife Reserves. The day will introduce participants to the basic skills to construct & maintain farm fences. Ideal for those with rural blocks or wishing to protect native vegetation from grazing. Morning snack provided. Bring a picnic lunch. Held in Bundoora, Wildlife Reserves, Melways 19 H5. Cost \$75, \$60 Conc. Bookings essential (03) 9479 2871.

Sat 19 & Sun 20 April 1997 - The Eighth Biennial Friends Conference, to be held at the Lord Somers Camp. The conference will have a 'wetland' theme. If the area you care for has a wetland, learn more about protecting and preserving it. If it doesn't, learn the value of a wetland and how it can be established. The program is to be developed by the Conference Committee. For

more information or suggestions contact The Friends Network News, C/O VNPA, 10 Parliament Place, East Melbourne 3002.

Excursions and field trips 1997

Platypus 'Behind the Scenes' Tours - Presented by the Australian Platypus Conservancy. Includes illustrated talk on platypus by Conservancy researchers, learn about platypus research techniques, try your skills at spotting platypus in the wild. Tour dates in January are the 12th, 19th & 26th, for February 9th, 16th and 23rd. January tours commence at 4.30pm, and February Tours at 4pm. Each tour, including a platypus spotting opportunity lasts about two hours. Cost: Adults \$6.50, Children/students \$4.00, Family (2 adults, 3 children) \$17, Friends of Platypus members are free. Bookings essential. Contact the Australian Platypus Conservancy, PO Box 84, Whittlesea 3757. Tel (03) 9716 1626, fax (03) 9716 1664.

Bush Discovery Walks for Children - guided tours presented by La Trobe University Wildlife Reserve. Introduce children from 5 to 10 years old to the wonders of Australian animals and plants. Surprise a spider, spy on sunning lizards, discover some bones. The easy walk around the La Trobe University Campus Reserve is designed for the younger biologists. Children should be dressed for the weather, including sturdy footwear, hat & sunscreen. A morning snack and beverage is provided. January tour dates are 13, 15, 20, 22, 27, 29. Cost \$5. Time 9.30 - 11.00 am. Venue: Bundoora, Wildlife Reserve, Visitor Centre, Melway map 19 H5. Bookings essential (03) 9479 2871.

Mon 13 Jan, 8.30 - 11pm. Gresswell Forest Nature Reserve by Night. A guided spotlight tour presented by La Trobe University Wildlife Reserves. Visit the sleepy River Red Gums woodland of Gresswell Forest by night, and the nocturnal wildlife they support. This guided tour is designed to intrigue local residents, family groups, naturalists and students alike. Wear sturdy footwear & dress for the weather. BYO mosquito repellent, a torch, portable snack & drink. Meet at carpark entrance, Gresswell Forest, Greenwood Dve, Bundoora. Cost \$8 Adults, \$6 Concession, \$20 Family. Bookings essential (03) 9479 2871.

Sat 18 Jan, Stagwatch & spotlighting for Leadbeater's Possum in Victoria's Central Highlands. Contact Ray Gibson, Fauna Survey Group of the Field Naturalists Club of Victoria on (03) 9874 4408.

Sat 25 Jan, 7.30 - 10 pm. 'Readings Under the Ironbarks'. Presented by La Trobe Wildlife Reserves. Take the opportunity to be entertained with stories & poems told to generations over the last 40,000 years. Staged in the idyllic surroundings of the Wildlife Reserves Ironbarks Hut, a Billy tea and damper supper will be provided. Readings will be outdoors so dress for warmth and bring a rug. Where? Bundoora, Wildlife Reserves, Melways 19 H5. Cost \$12, \$9.50 Concession. Bookings essential (03) 9479 2871.

3 Feb, 8.30 - 11.00 pm. The Wilds of La Trobe by Night - guided spotlight tour with staff of the La Trobe University Wildlife Reserves. See La Trobe University's unique Campus Reserve on a nocturnal walk through woodlands and wetlands - a fascinating insight rarely experienced by day visitors. Learn about the success of the restored habitat and wildlife populations through work undertaken on the Reserve by University staff and volunteers. This tour is designed local residents, family groups and naturalists. Wear sturdy footwear, dress for the weather. Bring mosquito repellent, a torch, portable snack and beverage. Tours are offered once a month throughout the year. Venue: Bundoora, Wildlife Reserves, Melways 19 H5. Cost \$8 adult, \$6 Conc, \$20 family. Bookings

essential essential (03) 9479 2871.

Restoration Activities

December

Thu 19 Dec 1996, FO Warrandyte State Park, Morning activities - Stocking Removals. Meet on site at 10am. We will be revisiting sites on The Common and Fourth Hill to remove all the stockings placed around the various plants a few weeks ago. Meet at Haslams Track, the first car park on the left (Melways ref. map 36 A4). Contact Cathy Willis (03) 9844 1841.

January

Sun 12 Jan 1997, FO Sherbrooke Forest Mapping Survey. 9.30 am. Meet at Nation Road entrance (Melways 75 K10). Bring clipboard, compass and pen. Contact Vivien Freshwater (03) 9754 3093.

Sat 25 Jan 1997, FO Sherbrooke Forest Project afternoon. 2pm. We will be working on mostly ivy along the Ridge Track site via Woodfall Track. Meet at Woodfull Track Entrance (Melways 75 E6). Bring gloves, secateurs, a cup and sunscreen. Contact Vivien Freshwater (03) 9754 3093.

Regular Restoration Activities

1st Saturday of the month:

Greenlink Box Hill - 10am. Also every Monday and Tuesday morning. 41 Wimmera St, Box Hill North. Contact Minette Russell-Young (03) 9898 1364.

FO Gellibrand Hill State Park - 9.45am. Mark Corr (03) 9557 2783

Loughies Bushland - Nth Ringwood 9.30 am. Meet cnr Kubis & Werac Drv. Carole Clarke (03) 9870 8126.

1st Sunday of the month:

FO Evans Street Grasslands - 9.30am. Helen Graesser (03) 9744 4097 (Mel 113 B10)

FO Fourth Hill - 10 am to 12 noon. Meeting place varies. Dave V. Bockel (03) 9844 2659.

Heathmont Bushlinks - we work in 5 different areas 10 am to 1 pm. Roger Lord (03) 9870 5262.

Greenlink Oakleigh - 10am to 1pm. We hold working bees every Sun (except on long weekends) at the nursery, southern end of South Oakleigh Secondary College, Bakers Rd. Doug Evans (03) 9579 4686 AH, (03) 9556 4433 BH.

Riverlands Conservation Society: Yarra Flats Park 10am (between May & Nov). Contact Yarra Valley Parklands (03) 9846 4499.

2nd Saturday of the month:

FO Timber Reserve - 2 to 3pm. Brian Phefley (03) 9844 2659 (Mel 35 G3)

FO French Island - Geoff Lacey (03) 9578 2873 or Francis Garner (03) 9783 4213

Tereddan Drive Reserve, Kilsythe - Graham Lorimer (03) 9728 5841.

2nd Sunday of the month:

Greenlink Camberwell - 3pm. Diana Burgess (03) 9809 2092 (Mel 60 E7)

URAGE - 1 to 3 pm. Bradly Curtis Ph (03) 9754 5640. Upwey, cnr Morris Rd & Deans Rd (Mel 74 K12)

Friends of the Yarra - 10am. Also Wednesdays. Judy Rutherford (03) 9347 2252 (Mel 2D D7)

FO Plenty River - 10am to noon. Alice & Kevin Ley (03) 9435 3840

(various sites).

FO Yandell Reserve - Graeme Paterson (03) 9432 0163 (Mel 21 B1)

3rd Saturday of the month:

FO Bradshaw Park - 10am (9am in Nov & Dec). Dave Bainbridge (03) 9580 5992 (Mel 87 E10)

3rd Sunday of the month:

Men of the Trees - 10am. planting at Yarra Bend Park. Minette Russell-Young (03) 9898 1364 (Mel 2D D6)

Meander (Menzies Creek & Emerald Tourist track) - 10am. Kate Forster (059) 685 828 (Mel 125 F12)

Brunswick Tree Group - 10am. Eric Ward (03) 9388 2123

FO One Tree Hill - Diane Silveri (03) 9710 1331

FO Wilson Reserve - 10am. Robert Bender (03) 9499 2413 (Mel 31 G10)

Osborne Peninsula Landcare - Margaret Dimech (03) 9844 3812 (Mel 23 J9)

FO Pigeon Bank Creek - 2pm. Linda Bromilow (03) 9844 2541 (Mel 23 J6)

Warringal Conservation Society - 10am. Karen (03) 9458 4152 (Various sites around Banyule Flats)

FO Tindals Wildflower Reserve - 11am. Kim Docwra (03) 9876 3807 (Mel 35 A3)

Last Saturday of the month:

FO Sherbrooke Forest - 2pm (1pm in Winter). Vivien Freshwater (03) 9754 3093

FO Koolunga Bushland Reserve - 10am to noon. Gordon Carter (03) 9762 2117

FO Organ Pipes National Park - 10am. Carl Rayner (03) 9331 2810

FO Valley Reserve, Glen Waverly - 1.30 to 4pm. Alf Salkin (03) 9802 6213

Last Sunday of the month:

Friends of Royal Park West - 10am. Mick Arundell (03) 9380 8075 (Mel 29 C12)

FO the Helmeted Honeyeater - 11am. Nursery activities - Healesville. Jeff Dickinson (03) 9568 2768.

FO Pecks Dam, Montmorency - 10am. Trina (03) 9439 9642 (Mel 21 G7)

FO St Helena Bushland Reserve - 10.30am. Lawrie Rigg (03) 9434 6685

Week day activities:

Wurundjeri Garden - 1st Tuesday of the month, from 10am to 12pm. Dorothy Sutherland (03) 9818 4706 (Mel 45 A11)

FO the Koornong - first Wednesday of the month at 10am. Cathy Willis (03) 9844 1841.

FO Sherbrooke Forest - 2nd Wednesdays, 9.30 am. Vivien Freshwater (03) 9754 3093.

Fred Rogers Reserve - Heathmont 12 am - 2 pm. Gwen Elliot (03) 9879 1427

FO the Koalas inc - Koala counts are held at the Koala Conservation Centre, Phillip Island, every 2nd Tuesday of the month. Contact (059) 522 407.

FO Stane Brae - second Wednesdays 10am. Ron Taylor (03) 9844 4285.

FO Warandyte State Park nursery activities - every Thursdays at 10am. Afternoon activities: walk, flora fauna park skills. Mike Coupar (03) 9844 1650

For Australian Trust for Conservation Volunteers activities, contact ATCV: (053) 33 1483

For Melbourne Parks & Waterways Activities Program contact the Hotline on 13 1963

For those interested in a range of volunteer activities run by the Royal Australasian Ornithologist Union please phone Michael Fendley at RAOU on (03) 9882 2622

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 on (03) 650 8296.

Visitors/participants are welcome to all events listed in *Indigenotes*.

Thank you to all the people who contact us regarding on-coming events their groups are organising. If you wish to have your events covered, or you can see corrections that need attention, please contact Elissa Kerassitis AH on (03) 8486 6768, BH (03) 9457 3024 or through IFFA's mailing address.

From The Editor:

If you didn't notice this edition is very late; I don't think we have ever had a Xmas edition before. I do have some good excuses: I become a father in late October and had to move house in early November...

The Annual General Meeting occurred on November 26th and I was voted in yet again as editor, by my agreement. I could use more help as well....

1996 was a reasonably good year *Indigenotes*. We had several 16 page editions because of the abundance of material from the readers and elsewhere although I would have liked more illustrations and discussions about conservation issues and natural history. *Indigenotes* is clearly about provoking/supporting discussions about important issues and providing basic information about events, books, taxonomy etc.

I will say it again... This newsletter is what all of the members make it; I just put it together. Please keep sending in articles, newsletters from other groups, drawings, photographs etc. to keep it going. I know people are out there, working hard, doing interesting and important activities but I don't get many of these important stories and news written down and into the newsletter. Merry Christmas...

Xmas Gifts and Beyond Australian Platypus Conservancy Fund-raising

The Australian Platypus Conservancy is a non-profit environmental organisation, dedicated to the conservation of the remarkable platypus. The Conservancy has recently produced full-colour greeting cards to help in raising funds for its research programs. This card features an illustration of a platypus by one of Australia's leading wildlife artists, Peter Marsack. It is printed on high quality semi-gloss card. The inside is blank and the back carries the APC logo and message "Sales of this card support the conservation of Australia's unique platypus".

Supplies of the cards (with envelopes) can be obtained from the Conservancy at the special price of 60 cents each (minimum quantity 10), plus \$2 per order to cover post and handling. *Sales or Return* conditions are available to approved bulk purchasers. The recommended retail price of these cards is \$1.20, so, in addition to being great value for personal use, they provide an excellent opportunity for your school, club, conservation group or business to raise funds by re-selling them, while at the same time helping platypus conservation.

OR... why not show your support for the conservation of the unique platypus by purchasing an attractive Australian Platypus Conservancy T-shirt, or long-sleeved sweatshirt? T-shirts are made from 100% unbleached cotton. Sweatshirts are a hard wearing, fleecy lined, cotton/polyester blend and come in an attractive light-grey. The APC logo on the front of both garments is coloured platypus-brown & blue. Available in sizes S,M,L & XL. T-Shirts \$22.50, Sweatshirts \$32.50 (postage & handling \$2 per order). The sales of these garments will also help fund the Conservancy's research programs.

To order the cards, T-shirt, or sweatshirt, contact: Australian Platypus Conservancy, PO Box 84, Whittlesea, Vic 3757 Tel: (03) 9716 1626 Fax (03) 9716 1664.

Hands off the Prom (cont.)

in a remote area of Tidal River for commercial operation.

a walking circuit incorporating new tracks from Waterloo Bay to the Lighthouse and from the Lighthouse to Oberon Bay "commercially serviced" by four "commercial huts" (or alternatively tent camps) at Horne Point (between Sealer's Cove and Refuge Cove), Horne Cove (south end of Waterloo Bay), near Halfway Hut at Martin's Hill and Oberon Bay.

a decision regarding the Lighthouse Track to await "finalisation of management arrangements for the Lighthouse" including "adequate access". The VNPA believe this track should not be extended and should remain for walkers only.

the concept of "intense development" in Tidal River.

Copies of the draft plans for both Wilsons Promontory and Tidal River can be obtained from the Department of Natural Resources and Environment at 250 Victoria Parade, East Melbourne for \$8 each plus \$6 postage, phone (03) 9412 4795. Submissions are to be made to:

**Chief Ranger
South Gippsland
PO Box 61
FOSTER 3960
Fax: (03) 5682 2245
Email: W.Promontory@dce.vic.gov.au**

Please also write to each of your State Members of Parliament (especially those in the ruling party). It is most important that strong opposition to these proposals be apparent from the number of letters to the Chief Ranger and Local Members.

Further information on the draft plans can be obtained from:

**Graeme Davis (Chief Ranger), phone: (056) 822 133 (He is in favor of the proposals), or
Jim Whelan Ranger In Charge Wilsons Promontory
National Park Phone: (056) 809 500**

The Victorian National Parks Association (VNPA) is coordinating the HANDS OFF THE PROM campaign. For more information, donations, the purchase of campaign materials (t-shirts etc) or further involvement ring (03) 9650 8296.

Books and Resources

A Field Guide to Australian Butterflies

By Robert Fisher (Surrey Beatty & Sons, 1995)

**A book review by Mike Coupar...
From Friends of Warrandyte State Park Newsletter,
November 1996.**

This is a useful addition to the naturalists book collection. Its particular advantage is that it fits as comfortably in the glove box and pocket as on the book shelf. However, as with all pocket book field guides it can only provide limited information, so this is definitely not a book for the experts.

The main purpose of the book is to illustrate 200 of Australia's nearly 400 butterfly species. As emphasised in the preface, the selection comprises those likely to be encountered by the field naturalist in urban and natural environments, but some less common species are included because of their outstanding beauty. A case in point would be the magnificent Cooktown Birdwing described on page 84 and illustrated on page 85.

Robert Fisher has had a long-standing love affair with butterflies and his book entitled *Butterflies of South Australia* published in 1978 is still an authoritative work. The greatest attribute of this present book is the intimate closeup photography of the different stages of life cycles. This is shown in the introductory sections of the Families. The author reveals the detail of minute eggs and of tiny caterpillars hatching from them. It is also a joy to see so many sharp and colourful pictures of caterpillars and chrysalises. All too often these stages of the life cycle are neglected by other authors and publishers. Some of these photographs of the early life cycles in *A Field Guide to Australian Butterflies* are every bit as sensational as the adults. One that stands out is of a caterpillar of the Genoveva Azure offering secretions from its nectar glands to a *Camponotus* ant in exchange for protection against predators. The pictures also reveal the secret lives of some caterpillars, such as the Skippers, which build shelters and those that are not noticed because they blend with their surroundings.

At the other extreme they show how the conspicuous caterpillars protect themselves by displaying bright bands of colour or spiky projections. It is also refreshing to see so many of the adults in their natural state although, for practical and identification reasons, many pinned specimens from the South Australian Museum have been utilised.

This book is organised into an eight page introduction followed by descriptions of each species.

Scientific and common names are given followed by a relatively short description which relates to the male and female adults, distribution, and life history. It is a pity some of the foodplants have not been given common names because it can be a daunting task coping with scientific names of butterflies and plants all in the one go.

While on this issue of names, the words larva and pupa are used throughout the book, where "caterpillar" and "chrysalis" respectively would have been a better choice since they relate specifically to butterflies rather than insects in general. However, these are very minor criticisms.

The text information typically occupies half a page per species on the left hand page, while the colour photographs are on the right. There is a useful glossary and bibliography at the end.

Native Grasses - Identification Handbook for Temperate Australia.

**By Meredith Mitchell (Agmedia,
Melbourne, 1996)**

This little booklet is a much improved version of the earlier *Identification Handbook for Native Grasses in Victoria*, produced by Meredith Mitchell of the Rutherglen Research Institute in 1994. The new model now has 15 species, with the addition of Tall Windmill Grass, Cotton Panic, Spreading Umbrella Grass, Tussock Grass and Snowgrass. The photos provide an excellent guide for identification, showing habit, leaf blade and tips, ligule, seedhead and seed. The only hitch is that the earlier book was free - this one costs \$14.95, from government bookshops and some environmental bookshops.

Flora of Victoria, Vol. 3, Winteraceae to Myrtaceae.

**By Walsh, N. G. and Entwistle, T. J.
(Inkata Press, Melbourne 1996)**

The third volume of Flora of Victoria is as hefty as the Vol. 2 - and every bit as good. It is the definitive identification for taxa of 66 families, including Fabaceae (peas), Chenopodiaceae (saltbushes), Mimosaceae (acacias), Myrtaceae (eucalypts etc.) and so on. However, at \$295 this is definitely a book for the professional. Look for it in the library.

Native Grassland Schools Education Materials

"A Land of Sweeping Plains" has been developed by

the Zoo Education Service and has been trialled in selected schools. Primary, secondary and VCE materials are now available from the Zoo Education Service at Royal Park.

Victorian Butterfly Database

Viridans has just released the second in its CD-ROM, Flora and Fauna Database series. The Victorian Butterfly Database is similar to its predecessor, the Flora Database in that it has a very strong focus on informing the lay public about an otherwise very technical area.

Invertebrates are the poor cousins when it comes to research and conservation efforts. The effort to save the Eltham Copper butterfly a few years ago firmly established conservation planning for one group of invertebrates. Since then several other species of butterfly have been listed under the Flora and Fauna Guarantee Act but there has been no comprehensive publication on the butterflies of Victoria. The Victorian Butterfly Database is the first and one of its authors discovered and described the Eltham Copper - David Crosby. His partner in the project is his friend and colleague Nigel Quick and the combined information of the two men, along with data from the Museum of Victoria, make up the heart of the package.

The user of the database will be able to investigate every species of butterfly recorded for the State, view full colour photographs and concise descriptions of each one, determine their conservation status, their food plants and the environments in which they are found. It is an authoritative, up to date and complete reference on butterfly distribution and taxonomy which we believe will become a standard reference for serious and casual students of the Victoria natural environment.

Contact Viridans Pty. Ltd., Suite 4, 614 Hawthorn Rd., Brighton East, Victoria, Ph. (03) 9596 8592 or Fax (03) 0596 8612 for more information and where to obtain a copy.

Suggestion: If you don't have a computer and/or CD-ROM reader get your local library to purchase both databases for use in the library; most public libraries have computers for people to use and will purchase appropriate products.

IFFA activities:

IFFA (Vic)

Meeting/BBQ

Tuesday

January 28, 1997

7:30 PM

Location to be determined.

Please come along to discuss IFFA's future what do we want to do with the organisation? What is it's purpose in these interesting times?

Committee meeting:

The Committee meeting is now the second Monday of every month.

SPIFFA

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

Contact Jon Greening (03) 5985 5561.

Membership

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

Membership includes
11 issues of *Indigenotes* per year.

*Memberships should be sent to the
Membership Secretary.*

*Include your name,
address and phone numbers,
and a bit about yourself.*

Table of Contents

Reports of the Government Botanist By Ferdinand Von Mueller	2
<u>Conservation Action</u>	8
Horses for Courses but not in Greens Bush	8
Hands Off Wilsons Prom	9
<u>Coming Events</u>	10
<u>From the Editor</u>	12
<u>Xmas Gifts and Beyond</u>	12
Grassland Grants	13
<u>Books and Resouces</u>	14
(Butterflies, Native Grasses and the Flora of Victoria)	

Office Bearers:

President: Roger Jones, 20 Patterson St., Bon Beach 3197 Ph. (03) 9772 1707 (ah) or (03) 9239 4555 (bh). Fax (03) 9239 4688. Email: roger.jones@dar.csiro.au

Vice-President: Peter Tucker, (03) 9818 1537 (ah).

Secretary: Lill Roberts, P.O. Box 192, Blackburn South 3130, Ph. (03) 9878 0858.

Membership Secretary and Treasurer: Neil Gardiner, P.O. Box 2055, East Ivanhoe 3079, (03) 9499 7048.

Committee members: Libby Anthony (03) 9807 2834, Geoff Carr (03) 9481 7679(bh) and (03) 9380 8582.

Editorial team: c/o

P.O. Box 228, Preston, Victoria, 3072.

Editor: Lincoln Kern, (03) 9480 4680 (ah).

Coming Events:

Elissa Kerassitis (03) 9486 6768 (ah).

Contributions to *Indigenotes* should be sent to the editors — the deadline for the next issue will be November 9th. Contributions can be typed or hand written but computer disk copies on IBM-compatible format is preferred.

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