

Friends of the Royal Botanic Gardens Melbourne

Number 4, May 1983

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FROM THE DIRECTOR ...

Lawns were the first to respond to the low temperatures and sustained rains that broke the autumn season in the first week of April. However the drought has not yet broken in the soil 5 cm below the surface, so that deeply rooted shrubs and trees have remained at risk for about a month longer than the lawns. This accounts for the death of a lovely old oak surrounded by green lawn outside the Gardens between LaTrobe Cottage and the Herbarium during the past fortnight. It is therefore premature to assess the damage from the drought.

Within the Gardens we have used the drought affected lawns to attack as many drought weakened lawn weeds as possible. The targets were *paspalum*, *plantago*, and *lawn mentha*. However *kikuyu* was the first grass to respond to the rain!

It is not generally appreciated that once the lawns have been left without water, the fire risk to the Royal Botanic Gardens becomes acute. We discovered this in mid December when a tree was deliberately set on fire but found before the damage was sustained or spread.

The Banksia Festival Program has been completed with distinction. The Honourable Rod Mackenzie, Minister of Lands, has again enthusiastically supported the program initiatives of Beth Higgs, her team of Friends, and the Herbarium staff - particularly Helen Cohn, the Librarian. We are most grateful of course to Alex George from Canberra and Celia Rosser from Monash University for generously sharing with us their expert knowledge, skills and time.

DAVID CHURCHILL

Director and Government Botanist

TAX DEDUCTABILITY FOR DONATIONS

Last year a submission was made to the Treasurer on behalf of the Friends that gifts for the purpose of botanic gardens should be allowable tax deductions. We are delighted to inform members that advice has been received from Canberra that gifts to botanic gardens will qualify for deduction under the *Income Tax Assessment Act*. The Committee believes that this ruling will be of great benefit to the Gardens.

It will be necessary to set up an appropriate trust fund to which gifts can be made and Mr. Matthew Walsh, a partner of Messrs Mallesons has kindly agreed to assist us in this regard. We are most grateful to him and his firm. We will let members know when the necessary legal steps have been taken.

M.E.J. BLACK, Q.C.

FROM THE CONVENOR...

Although the drought has not officially broken the long awaited rains have come and our Botanic Gardens are looking wonderfully refreshed. We congratulate Dr. Churchill and his staff for their dedication through these difficult months.

Our Banksia Festival was a tremendous success as those of you who were fortunate enough to attend will know. It was our first 'joint venture' with the Gallery Society and we greatly appreciate their generosity in donating their share of the profits - \$176.00 to the 'Save the Lake' appeal. My thanks to Golda Isaac and her husband who provided accommodation for Mr. George, and to Helen Cohn - Librarian, Eve Almond, and Jill Jones for their excellent presentation of the accompanying exhibition. We hope this was the first of many opportunities to bring before the public the treasures held in the Herbarium Library.

We have undertaken, for a trial period, to staff an information desk at the Kiosk at weekends. This is an experimental venture at this stage, to try to provide a much needed service in the Gardens. If you could help, for even a few hours, at a future date, a phone call to Brenda Owen, 560 4414, would give us an idea of our ability to handle this on a more permanent basis.

As you read this I will have already left to spend 3 weeks looking at English gardens. Perhaps we can share these experiences when I come back.

BETH HIGGS
Convenor

STEERING COMMITTEE

Mrs. Beth Higgs
Mrs. Doreen Schofield
Dr. David Churchill
Ms. Eve Almond
Mr. Michael Black, Q.C.
Miss Jean Carter
Mrs. Sylvia Churchill
Mrs. Sue Higgs
Ms. Dianna McClellan
Mrs. Joan Nesbit
Mr. Stuart Turnbull

Convenor
Secretary
Ex Officio)
Liaison Officer) Royal Botanic Gardens
Mr. Hector Bourne
Mr. Martin Carlson
Mr. Lawrence Cohn
Mrs. Golda Isaac
Mr. Andrew Moore
Mr. Frank Phillips

THE BANKSIA FESTIVAL

It was a delight to see so many of our Friends and members of the Gallery Society enjoy the three day celebration of the Banksias. At the National Herbarium Alex George gave a very interesting talk, illustrated by colour slides, on the botany of the Banksias, showing many species and their habitats. The Hon. Rod McKenzie, Minister of Lands, graced the occasion by thanking those people who have contributed and worked so hard in response to the appeal for the restoration of the Lake. An extensive exhibition of books and prints on the Banksias added still another dimension to the occasion. At the National Gallery Celia spoke on the art of illustrating *The Banksias* and provided many amusing anecdotes. We had the opportunity to see Vol. 1 of the published work, page by page. The third day of the festival was designed to see the Banksias growing. Guided tours of Cranbourne (Annexe of the Royal Botanic Gardens) were organised. Prior to this a picnic lunch was arranged in the grounds of the McClelland Gallery. Mr. Francis, Director, introduced Owen Dawson, a lover of Banksias from the Frankston and Peninsula Field Naturalists' Club. Owen spoke about Banksias before the group went to Cranbourne to view the development of this challenging venture and of course to see the Banksias.

D. Mc.

COFFEE MORNING

Following the success of our Morning Coffee in March, we have decided to hold another Morning Coffee on Tuesday, 19th July, at 10.30 a.m. at our Headquarters in Birdwood Avenue. Our speaker, Eve Almond, will give a talk on *The Register of Significant Trees of Victoria*, one of the Gardens' more recent projects.

We look forward to seeing as many Friends as possible on this occasion, and very much hope you can join us.

For our newer members our Headquarters are situated in the Astronomer's Residence, the 2-storey brick building adjacent to LaTrobe Cottage in Birdwood Avenue.

R.S.V.P. 12th July

Joan Nesbit 211 8979
Sylvia Churchill 63 3564

Donation \$2.00

CAN YOU HELP?

We are seeking a person to handle publicity for the Friends. Is there anyone among you with contacts and knowledge in this field? If so, would you please ring Doreen Schofield, 277 1506.

BROCHURE KITS

Individual brochures from the Brochure Kit can be purchased at the Gardens' Administrative Office, in the Herbarium building, during office hours, for 30¢ each. The latest pamphlet deals with the history of the Gardens.

THE ROLE OF THE NATIONAL HERBARIUM OF VICTORIA

The recent exhibition of botanical material for the Banksia Festival provided an interesting introduction to the work of the Herbarium, the State Government's centre for botanical studies and authority on plant identification, classification and distribution. The following notes summarise that work.

Activities carried out at the Herbarium include:

1. Curation of Plant Collections
2. Plant Taxonomy
3. Botanical Surveys
4. Plant Information Services.

CURATION OF PLANT COLLECTIONS

The National Herbarium's reference collection of more than one million dried plant specimens is the largest in Australia. The collection includes specimens of most Australian species and is particularly rich in those from Victoria. There are also representative specimens of plants from around the world. Some plant groups, such as algae and lichens, receive special treatment but most plants are preserved by pressing and drying. Once identified, the pressed plants are mounted on sheets of stiff white paper, named and labelled with collection details. The sheets are stored flat in folders which are arranged for easy access in large cupboards. Delicate parts, such as flowers, may be preserved in spirit.

Thousands of sheets of dried specimens are lent to and received from other herbaria each year. This international loan system means that taxonomists can compare plants from all over the world in their investigations.

*The National Herbarium of Victoria
is also the scientific headquarters
of the Royal Botanic Gardens, Melbourne.*



Epacris impressa
Heath,
Victoria's floral
emblem



PLANT TAXONOMY

Plant taxonomists collect, describe and identify plants, and determine the relationships between them and their environment. Their basic sources of information are the Herbarium sheets of dried plant material, supplemented by examination of plants in the field, and published descriptions in the Library. (The Herbarium has an extensive botanical and horticultural library, housed on the first floor. Library facilities are available to visitors by prior arrangement.)

Detailed examination of collections, with associated field work, may show a taxonomist that some of the plants cannot be matched with specimens of known species. If these plants warrant recognition as a new species, then a complete botanical description and drawings are made and an appropriate scientific Latin name is chosen. This information is then published in a recognised scientific journal. The description and the name must conform to principles laid down in the International Code of Botanical Nomenclature. The specimen on which the description is based is the 'Type' specimen or standard reference for the new name. The National Herbarium of Victoria contains several thousand of these Type specimens.

New species are usually discovered and described in critical studies of a particular plant group. These revisions of plant groups often require the examination of hundreds of specimens from Australia and beyond, and reveal new knowledge concerning geographical distribution, range in variability of size and shape, and the correlation of that variability with the environment. It may result in the refinement of earlier systems of classification. The practical implications of such taxonomic research are many.

When Bentham wrote his treatment of the bitterpeas (*Daviesia*) for *Flora Australiensis* in 1864, 55 species were recognised but as a result of recent taxonomic research and field studies 110 species are classed as 'rare, vulnerable or endangered'. Taxonomic investigation and recognition of these plants has meant that the first step towards their conservation can be taken. Plant taxonomists are also involved in the preparation of handbooks, floras (systematic accounts of plants found in a particular area) and field notes which provide condensed information for general use. At present, Herbarium staff are working on the *Illustrated flora of Victoria* project. Each volume deals with a different region of the State and will be illustrated with coloured and line drawings. The first volume will cover the Upper Yarra Valley and



Daviesia sp.

and Dandenong Ranges.

BOTANICAL SURVEYS

Closely linked with the taxonomists' work is the research of the ecologists. Staff in this section are particularly concerned with the geographical distribution of plants, their habitats and the range of other plants with which they may be associated. Much of their work involves primary botanical field surveys in areas of natural vegetation in Victoria.

Survey information is fed into a computer data bank for analysis, storage and rapid retrieval. (The computer is housed in offices behind the Astronomer's Residence on the Observatory Annexe.) The final product may be a map showing the distribution of a species which provides essential information for government and private organisations involved in the conservation of species. Such data is important in framing conservation policies, for other ecological studies, and for vegetation mapping by geographers and climatologists. In addition, the Survey Team can compile plant species lists for certain areas. This information may be of particular value to local naturalists and councils.

HERBARIUM SERVICES

The Herbarium provides a Plant Identification and Information Service for the general public, private industry and other government departments. Thousands of native and exotic plants are identified through this service annually. Information on plant distributions, properties, characteristics and cultivation is provided in conjunction with Gardens staff.

The Herbarium has the legal responsibility under the Poisons Act (1962) to identify plant material for the Forensic Science Laboratory of the Department for Police and Emergency Services. Specimens are brought in by members of the Police Force and identified while the officers wait.



The National Herbarium of Victoria, together with the Royal Botanic Gardens, form a division within the Department of Crown Lands and Survey. The Friends pledge their support for both the Gardens and the Herbarium.

LET US BE SEATED

The Friends have been given some cedar chairs of the Guilfoyle era to use and to hold in trust for the National Herbarium. If there is a furniture restorer in the Friends who would like to undertake the necessary restoration work, we would be very grateful. Please contact Eve Almond, 639 294 if you can help.

Renovating the Ornamental Lake

Royal Botanic Gardens, Melbourne

Work on excavating the Ornamental Lake is now well underway. Although it may be hard to imagine at present, the Lake will be transformed in a comparatively short time into that lovely clear sheet of water envisaged by Guilfoyle in his master landscape plan.

DEVELOPMENT OF THE LAKE

The Lake has its origins in swampy lagoon which, on the first maps of the Gardens, is shown adjacent to a meandering Yarra River. An early visitor described it thus:

*... the lake or lagoon at the bottom, covering some acres of ground, looked wild with rushes and aquatic plants, and a good portion of it occupied with a jungle of tea-scrub.
... "There were two black swans sailing amongst the flags and bushes of the lagoon, giving it a truly Australian look. 1*

Several years later, another visitor observed:

... Upon this lagoon, islands are being formed for the purpose of affording habitation to the clouds of natatores which haunt the place. 2

From the outset, this stretch of water has been an important landscape feature; however, it was not until the 1890's that it took its final form.

The creation of the Ornamental Lake, with its adjoining smaller Central Lake, may be considered in three phases. Although the first two Superintendents, Arthur and Dallachy, made some attempt to deepen the Lagoon and constructed paths around it, it was Baron von Mueller who undertook the first substantial alterations. In an effort to control the periodic flooding (the floods of 1863 were particularly severe), the swamp was excavated on several occasions. A stone wall and causeway were built along its northern perimeter. Several islands were formed and a fountain installed on one of them. They were mainly planted with native species, particularly *Melaleucas*.

Mueller's successor, William Guilfoyle set about relandscaping the Gardens, including the Lagoon. He wrote in his Annual Report of 1876 that the deepening of the Lagoon would allow it:

... to take its proper place as one of the salient points in the landscape; and when the remodelling of the Gardens is complete, [it] will provide a most important feature in the views to be obtained from various points. 3

Many loads of silt and humus were carted away manually. Part of the large island at the eastern end was removed; the other islands were carefully planted with flowering shrubs. Promontories were built to give the Lake an interesting irregular outline. The long bridge which spanned the small channel between the main Lake and Central Lake was replaced with a rustic bridge of twisted branches.

However, the Lake was still plagued with intermittent flooding, and this problem was not resolved until the 1890's when the Yarra River was straightened between Princes and Church Bridges. Alexandra Avenue was constructed as a major causeway which completely cut off the Lake from the River. The Gardens gained an extra three acres and the truncated river bend was incorporated in the Lake. At last, Guilfoyle realized his dream for the Ornamental Lake as the central feature of the Gardens.

References:

1. Howitt, W. *Land, labour and gold*. Boston, Ticknor and Field, 1855, vol. 1, p. 31.
2. Anonymous. *News letter of Australasia*, no. 28, Dec. 1858.
3. *Melbourne Botanic Gardens Annual Report 1876*. Melbourne, Government Printer.

REASONS FOR EXCAVATION

The Lake is fed by surface run-off water from the Gardens and surrounding Domain Reserve. (There is a storm water outlet into the Yarra River.) Over the years the Lake has become clogged up with silt carried in the run-off water. The problem is compounded by the presence of an aquatic lily, *Nuphar luteum* (European Cow Lily) which was introduced as an ornamental into the Gardens last century. The lily flourished in Melbourne's mild climate and with the silt has formed a thick twisted choking mat across the main Lake. The smaller Central Lake and the Nymphaea Lily Lake are not affected. The most effective way to control the weed is to excavate the Lake to a depth of at least 1.5 metres for the plant can only grow in shallow water.

When the plant dies, it forms a stinking, rotting carpet of vegetation on the Lake bottom and harbours a botulism organism which can be fatal to wildlife. (The bacteria cause paralysis of the nervous system.) Dead birds were first picked up in the Gardens during the 1972 drought and since then hundreds of birds have died after feeding on the bottom of the Lake.

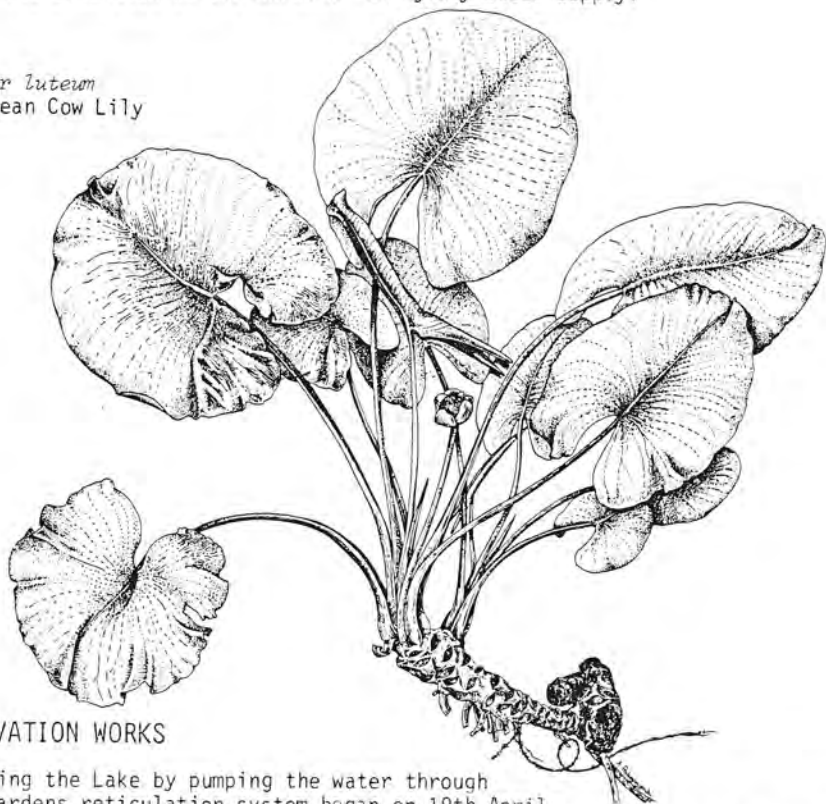


Anas superciliosa, Pacific
Black Duck- often seen in the
Gardens

Clearing out the Lake serves three functions. They are:

1. The restoration of the landscape beauty of the Lake;
2. The creation of a safe haven for wildlife;
3. The extension of the Gardens' emergency water supply.

Nuphar luteum
European Cow Lily



EXCAVATION WORKS

Draining the Lake by pumping the water through the Gardens reticulation system began on 19th April, 1983. This is in fact the third time this century that the Lake has been drained and cleaned out. The first occasion was in the 1900's when crews using shovels and wheelbarrows were employed. A second effort was made during the 1934/35 summer, using crude horse-drawn scoops.

This time 450,000 cubic metres of sludge are being removed by a swampdozer, hydraulic excavator and 10-15 trucks. The \$269,600 tender was awarded to the Able Rossi Group of Mitcham at the end of April. The men moved in on 17th May and are working two eight-hour shifts, starting at 6.00 a.m. It is anticipated the work will take up to three months and both the Central and Ornamental Lakes will be dredged. The silt is being carted to Northcote for use as filling in the Darebin Creek parklands reclamation project. We do apologise for the disturbance to the northern end of the Gardens, however the final outcome should be well worth it!

THE CAMPAIGN TRAIL

The 'Save the Lake Campaign' was launched on 17th September, 1982 by the Herald and Weekly Times Ltd. as part of the sixtieth birthday celebrations of *The Sun News Pictorial*. Alerted by the Friends to the deteriorating condition of the Lake, the Herald and Weekly Times had approached Treasury and the Department of Crown Lands and Survey and a target of \$250,000 was set. The Herald and Weekly Times generously gave \$20,000 to start the appeal. The State Government responded with a donation of \$50,000 and the guarantee of a further \$50,000 in the next financial year.

A vigorous publicity campaign followed. The Duke of Edinburgh, as President of the World Wildlife Fund, sent a telegram wishing every success with the project. The M.M.T.B. provided a most striking tram 'decorated' with a luminescent green skeleton on a black background to help promote the appeal. Various garden clubs, schools, scout and guide groups, sports clubs and conservation groups ran fund raising functions. The Friends, of course, manned collecting tables in the Gardens and in the Myer Melbourne store.

The response from business houses was limited. Myer Melbourne and J.G. Coles each gave \$5,000 but few other companies participated, reflecting the difficult economic situation. However the people of Melbourne, and indeed of Victoria, responded magnificently with thousands of gifts. By the end of April, 1983, when the tender was let, \$103,600 had been raised, excluding Government contributions.

Many thanks to all who gave so generously and to the Herald and Weekly Times for taking up the Friends' initial challenge. It has been a most worthwhile campaign!

E.A.



KNOW YOUR GARDENER . . . AND YOUR GARDENS.

Ladies, throw away your unguents, your creams and face salves, and take to gardening, such is my considered opinion following a very pleasurable chat with Mr. Ken Allan, Assistant Superintendent of the Royal Botanic Gardens. Living and working within the confines of a tree-filled garden, surrounded by the sights and sounds indigent thereto, fosters an enviable serenity of spirit and consequent youthfulness, I am now certain! Ken, his wife Jill, son and daughter David and Keryn, live in our lovely Gardens, and as Ken says 'it is hard to realise they are a mere 1½ miles from the GPO 'as the crow flies'. The Gardens are Ken's life, 'a marvellous place to work and to gain experience and knowledge'.



Speaking with Ken recently, I gleaned a little knowledge of his background to gardening and association with the Royal Botanic Gardens over some 27 years. This history is fascinating, giving an insight into some of the roles our gardeners play and of the various stages of development from an assistant to a senior gardener.

Ken's grandfather was a market gardener in England. Ken says you often find this background of gardening in one form or another, perhaps through farming, in most qualified gardeners. He considers he was fortunate in being able to take Gardening as a subject in his final two years of schooling at Raunds in Northhamptonshire, an important factor in his development. Country schools at that time had their own fruit and vegetable garden; Ken's school provided a 3 course lunch for 9d, with free milk, and garden produce supplementing kitchen purchases.

Emmigrating in 1951, Ken initially worked with the Moreland Plant Farm in Garden Construction, joining the Royal Botanic Gardens as a junior in the Nursery in 1955. In 1956 he was placed in charge of the central lawn area in the Garden proper, remaining there for the next 5 years. In those days this area contained a bulb bed, canna bed, and display of annuals - all long since gone. This particular lawn is just past the William Tell chalet, so called because of its architectural similarity to buildings in Switzerland related to the William Tell of legend.

In 1960 Ken rejoined the Nursery complex in a senior capacity and in 1964 he became Assistant Propagator and Nurseryman. At that stage staff in the Nursery were moved around so as to become familiar with the collections, for example Orchids, Bromeliads, Cacti and Succulents, and plant propagation techniques. This practice was phased out over the years but may be re-introduced, as it is a valuable method of familiarising personnel with varied aspects of gardening methods.

1969 saw Ken as Propagator and Nurseryman, with responsibility for management of Nursery and Glasshouses. In 1972 he was made Assistant Superintendent, a position created to relieve pressure of work on the Superintendent and entailing control of half the Garden area. Four years ago, when Allan Gardiner became the Horticultural Adviser, Ken was given responsibility for the day-to-day management of the whole of the Gardens. Recently he completed a course of External Studies at RMIT,

gaining his Certificate of Supervision for Parks and Recreation.

Ken has seen a great deal of streamlining of management over the years. Initially there were 34 sections with one man on each section. In 1974 this was reduced to 27 sections, then in 1978 the Gardens were again divided into 4 main supervisory areas with 2 section and 28 personnel per area, exclusive of apprentices. Ken has more to tell of anecdotes and history of the Gardens which we look forward to detailing in the future.

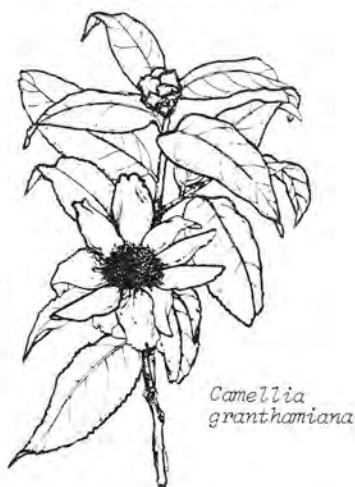
J.N.

WINTER WALKS

The Voluntary Guides have kindly offered to host a walk for our Friends and Friends of the National Museum of Victoria, on Sunday, 19th June, at 11.00 a.m., starting from "F" gate, next to the Herbarium. Bring a picnic lunch to have in the Astronomer's Residence after the walk which will take about 1½ hours. With Melbourne's unpredictable weather, sturdy walking shoes and wet weather gear are essential!

R.S.V.P. June 13th Joan Thomas 232 9821
Joan Nesbit 211 8979

If you're out and about in the Gardens, do look out for the brilliant red flowered *Stenocarpus sinuatus*, Firewheel Tree, on the southern side of the Princes' Lawn. It produces a mass of wheel-like flower clusters, on the old wood behind the leaves. Not far from there is the Camellia Bed which includes many colourful varieties of *Camellia japonica* and *Camellia sasanqua* as well as the early flowering *Camellia granthamiana* which originates from Hong Kong. South of the Camellia Bed is the Magnolia Bed containing species and varieties of Magnolia and allied plants. It is well worth a stop at this time of year and is not far from the Cacti and Succulent Display House where you can shelter if you are caught in a downpour. Brochures for the House are available at its entrance or at the Kiosk.



PLANT CRAFT COTTAGE NEWS

There is to be a morning of Camellias with Kay Fairley on Thursday, August 4th, 10.00 am - 12.00 pm. Meet at the Cottage for a talk and display and morning tea, followed by a guided walk around the Camellia Bed in the Gardens. There will be a charge of \$3.00. Please make cheques payable to the Plant Craft Cottage Group and send to Mrs. C. Hayward, 68 Domain Street, South Yarra 3141. Enquiries - Mrs Hayward, 273 835.

THE ASH WEDNESDAY FIRES

We extend our sympathy to all who suffered loss in the devastating fires of Ash Wednesday. Allan Gardiner, the Gardens Horticultural Adviser, joined a team of representatives from the Forest Commission of Victoria, Soil Conservation Authority, Country Roads Board, Royal Horticultural Society and Royal Institute of Parks and Recreation. The group toured the burnt-out-areas, providing an on-the-spot garden advisory service to victims. Here is part of the report.

My team's first stop was at a property on the hillside above Cockatoo township. What had been a lovely garden of about half a hectare was completely razed. We all agreed that few plants would survive there, the fire had been just too hot. This was the story at nearly all the gardens in the area. The fire did not appear to follow any pattern and did not make any distinction between brick or weatherboard buildings or between one tree or another.

The personal contact was well received and most of the people we spoke with, having coped with the initial shock of losing everything, were only too glad to talk about how to look after their gardens in the coming months. Our general advice was to wait and see, at least till Spring before removing 'dead' plants.

Our visit to the Macedon area differed from the previous sites in that most owners were absent and we had to rely on the Shire Engineer for information and directions. The area has to be seen to be believed. The devastation of the old gardens and particularly the large conifers and deciduous trees is a sickening sight: aged Sequoias, Western Red Cedars, Douglas Firs, Deodars and the like, have no chance of recovery and many of the Oaks, Maples, etc; if they do survive, will be misshapen.

There seems to have been a tendency in the area to go berserk with chain saws. No doubt some of the roadside plants may be dangerous but from an onlooker's point of view, it is being overdone. Again owners were advised to wait until nature indicated one way or the other before deciding on removal. The re-establishment of the Macedon area will be a long and massive task.

The following week we visited the Warrnambool area where the fire had started at Framlingham and spread south-east. It is mainly grazing country with some areas of native bushland including roadside plantations. The fire had burnt everything in its path, travelling across what appear to be bare-grazed paddocks in some instances.

On one property we visited where thousands of sheep had been lost, the homestead and outbuildings were saved by massive Cypress (*Cupressus 'Lambertina'*) hedges. I have always been under the impression these hedges are a fire hazard but we observed many instances many homes were spared because these wind breaks at least slowed down and even deflected the full force of the fires. I am

certain that if the same homes and buildings had been protected by Eucalypt wind breaks they would have been razed. This is borne out by the number of homes burnt out along roadways where native bushland has been left untended between the roadside and fences. Of course most of the Cypress wind breaks will have to be replanted as they will not recover but we have recommended they be left temporarily as protection for new planting.

From Warrnambool we travelled to Lorne via Dean's Marsh. There is little can be said about the devastation along the coast line from Lorne to Aireys Inlet. Apart from the loss of homes the Ironbark (*Eucalyptus sideroxylon*) forests at the back of Aireys Inlet are completely burnt out and even after 3 weeks the deep litter on the forest floor is still hot. It is likely that a comprehensive regeneration program spread over many years will be needed for the area.

ALLAN GARDINER
13.4.83

MOUNT LOFTY BOTANIC GARDEN

More than 50% of the 97 hectare Mount Lofty Botanic Garden, one of the annexes of the Adelaide Botanic Gardens, was burnt out in the Adelaide Hills fires of February. All the native areas were destroyed and 70% of the exotics were lost or suffered damage. The plastic pipes of the newly installed irrigation system melted and the new administration building was seriously damaged. Planning for restoration is now proceeding on the basis that in 20 years there will be (not 'may be') another disastrous fire.

From a recent copy of the *Friends of the Botanic Gardens of Adelaide Gazette*

FLOWER SHOW FOR SAVE THE LAKE CAMPAIGN

Thank you to the Fellows Group of the Royal Horticultural Society who staged a most successful flower show on the weekend of 18th-20th February, in the Herbarium Hall. Because of their hard work and generosity, more than \$1,000 was raised. Thanks also to the Friends who manned the collecting tables for the occasion.

BANKS FLORILEGIUM

Plates for Volume 1 of *Banks' florilegium* are now on exhibition at Gryphon Gallery, Melbourne College of Advanced Education, 757 Grattan St., Carlton. Gallery hours are 10.00 am - 4.00 pm Monday to Saturday (May 23rd to June 10th). Admission free.

BOOK REVIEWS

People and plants in Australia. Edited by D.J. and S.G.M. Carr. Sydney, Academic Press, 1981. [Pp xxi, 416 with illustrations] Price \$ 29.50 (cloth) \$ 19.50 (paper).

These excellent essays give us an insight into the development of plants in Australia from Aboriginal man until the end of the nineteenth century, expressly given in a social context. However, a fleeting glance is given into the twentieth century. In their preface the editors have identified six overlapping periods in which the history of the Botany of Australia can be considered.

- 1) The first period is that of the voyager-botanist, the collection of plants and description of them made by explorers, beginning with Dampier in 1699, and ending with Robert Brown and his *Prodromus*.
- 2) The second or settlement period 1788-1880, can be identified as that of the resident botanist and inland exploration. Ferdinand von Mueller, began to build in Melbourne what was to become the 'first great botanical collection in the Southern Hemisphere, and the future centre of all scientific work on the Australian flora'. From 1840-1880 Australia became wealthy from the discovery of gold; now institutions were established such as universities, State herbaria, Botanic gardens, libraries and the Royal Societies. George Bentham wrote *Flora Australiensis* 'next to Linnaeus' *Philosophia Botanica* perhaps the most monumental work in the history of botany'.
- 3) The third period, 1860-1920 saw the development of the botanical sciences useful to agriculture and forestry; Australian research in microbiology, plant breeding, plant pathology, and plant biochemistry. Forestry became a science while botanical investigation was largely carried on by 'natural historian' but with an increasing number of State government professionals. Journals of Science continued. Australian palaeobotany became important.
- 4) The fourth period, 1905-1946 began when A.J. Ewart was appointed to the first chair of Botany in an Australian University and finished with the end of the Second World War. The Federal government established research bases in the Forestry Research Institute and C.S.I.R. (forerunner of CSIRO), and the State governments set up agricultural and forestry research institutions.
- 5) The fifth period saw the emergence of nationalism in plant sciences; Australian botanists turned more to America than Britain with similar climate, soil and pioneering spirit. Research in plant physiology developed to its full which is today the chief strength of Australian botany.
- 6) In recent years a sixth period can be identified with the

development of a stronger liaison with German botany.

It is a sad but true observation that there has been a sharp decline in recent years of the contribution of amateur botanists to Australian botany despite the need for their valuable assistance. One of the possible reasons given by the Carrs is 'The teaching of biology from stereotype texts with little incitement to personal discovery and conveying no sense of the open-endedness of the subject'.

Of necessity the essays are selective in coverage and each may be viewed as a fragment of a greater whole which is interwoven with the personalities and events of the time portrayed. For example, an essay on Ferdinand von Mueller is not included although naturally reference is made to him in many of the essays because of his far-reaching influence. Women botanists are given some prominence so that we have an essay on the contribution of women to Australian botany; another is on women botanists in the nineteenth century as collectors and illustrators, as well as essays devoted to specific women botanists.

This engaging collection of essays has a companion volume *Plants and man in Australia*, edited by the Carrs and published by Academic Press, 1981. These two volumes of essays should be read by anyone interested in plants in Australia presented in a social/historical context.

D.McC.

Kew: gardens for science and pleasure. Edited by F. Nigel Hepper. London, H.M.S.O., 1982. [Pp viii, 196 with illustrations, mostly colour] Price £9.95 Stg.

No doubt you want to know more about the Royal Botanic Gardens Kew (as well as its Sussex annex, Wakehurst Place) if you viewed the recent television documentary 'A prospect of Kew' narrated by Richard Mabey in the ABC series 'Our world'. Hepper's volume provides the depth both in fact and in vision which only the printed medium can do with ease.

This is a beautifully produced book with clear photos. The contents have been organised under three main headings 'Gardens for pleasure', 'Living botanical collections' and 'Botanical research'. There is an introductory historical essay and a postscript entitled 'Kew in the future'. Wildlife in the Garden is covered by two chapters. A select list of references and a detailed index are useful. It is interesting to read that the plants grown at Kew and at Wakehurst Place total nearly 50,000 species and varieties, and constitute one of the world's most comprehensive collections of living specimens maintained for scientific study. A treat for all lovers of nature.

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The Main Gates, Kew