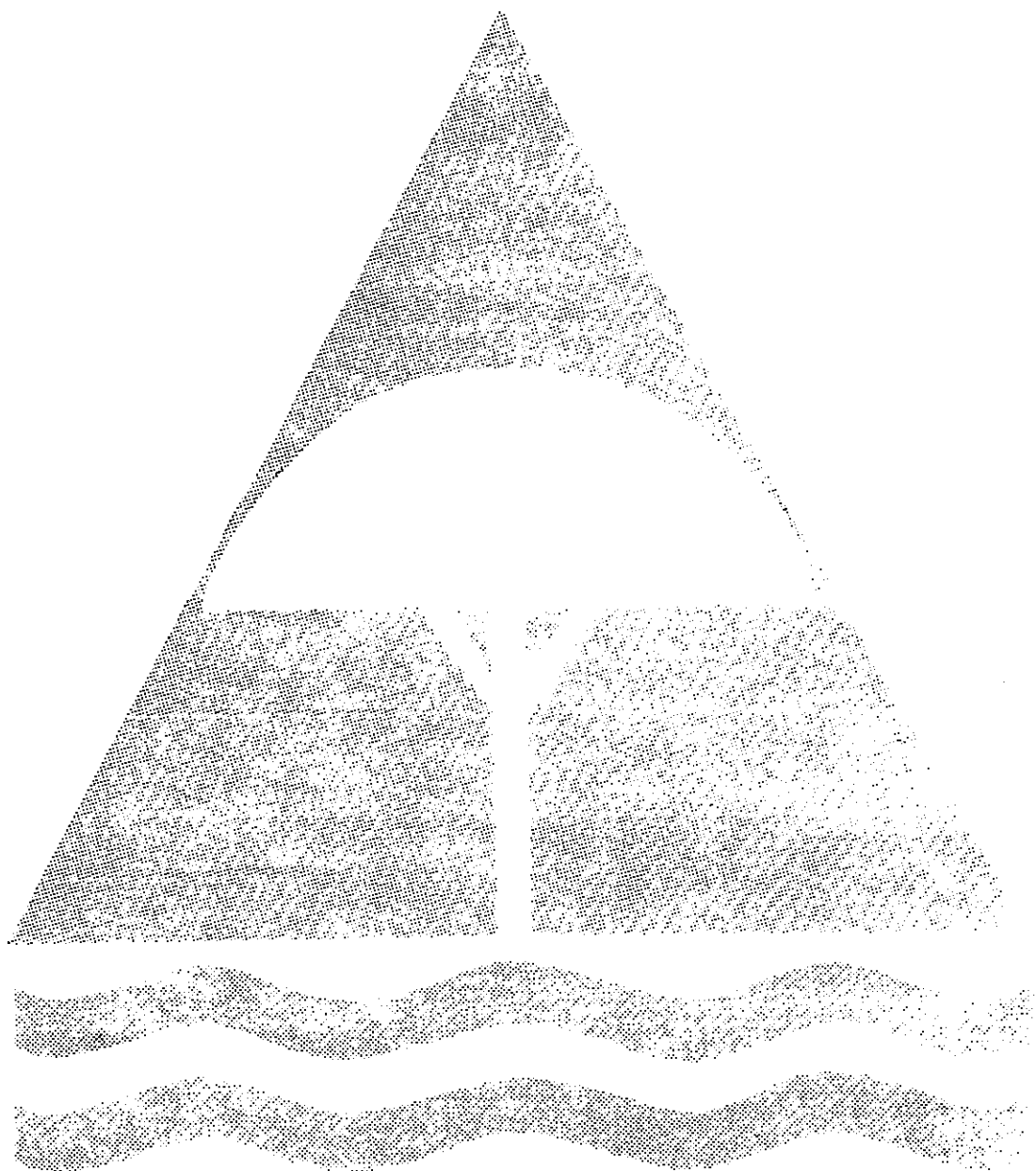


NPA Bulletin

National Parks Association of the A.C.T. Inc.



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PRESIDENT'S FOREWORD

The dedication of Wollemi National Park west of Sydney comes some 30 years after its original conception. It covers some 450,000 hectares and is second only in size to the Kosciusko National Park in NSW. Its focal point is the steep and rugged Colo Gorge. The park goes a long way to ensuring that this large and essentially untouched wilderness is conserved in its natural state especially as commercial interests have eyed this region for its coal and water resources. With this dedication NSW now has 2.8 million hectares, or 2.44% of the state, in national parks.

More parks and reserves are in the pipeline and closer to home the N.P.W.S. has indicated its interest in the Commonwealth lease lands to the north and west of the ACT. This area of NSW was leased to the Commonwealth for bushfire protection of the national capital following a long history of disastrous fires in the region up to and including the 1939 inferno. The lease expires shortly and it is then that we can expect the N.P.W.S. to make its final move. The proposed park, being referred to as the Brindabella National Park, will add significantly to the lands under national park or similar management in the local region, e.g. Kosciusko National Park, Cotter River Catchment, Tidbinbilla and Gudgenby Nature Reserves, and importantly strengthen the physical link between these areas.

Gudgenby Nature Reserve management plan - where is it? Recent probing indicates that it's likely to surface some time in the future, but when is unknown. The reason for its non-appearance is lack of staff and money. Meantime the reserve exists, almost a year has gone since it was declared and has to be managed - ad hoc at best - on a day-to-day basis. This is an unsatisfactory state of affairs for it means that the interested public are unable to become involved and indeed unable to see changes made in the name or management in the same perspective as the manager. It must also mean that long-term management decisions and actions must either be delayed or made in an atmosphere of uncertainty.

The feral animal front has been fairly quiet this summer and wild pigs, seen in large numbers in recent summers, may be in decline. In recent weeks they have been reported close to permanent water in the local mountains. Time for forestry and national park managers to really get on top of this nasty pest!

All members will be pleased to know that our Association is participating in the erection of an open air education centre in the grounds of the National Botanic Gardens. The centre will be dedicated to the memory of Dr Nancy Burbidge, one of our foundation and most active members.

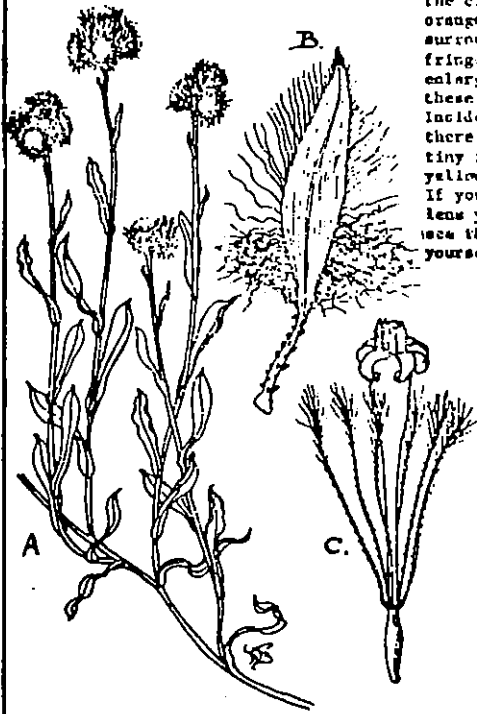
DR NANCY BURBIDGE, D.Sc., A.M.

Before and since her death in early 1977, many tributes have been made to the life and work of Dr Nancy Burbidge. Her outstanding professional achievements as one of Australia's leading botanists, her contributions to the community in other fields particularly in conservation, her personal and professional integrity, enthusiasm and dedication made her the recipient of the Medal of Australia - A.M. - in the 1976 Queen's Birthday Honours.

Over the past three years it is now possible to look back and realize even more fully the contributions she had made during her lifetime and for which she will continue to be remembered.

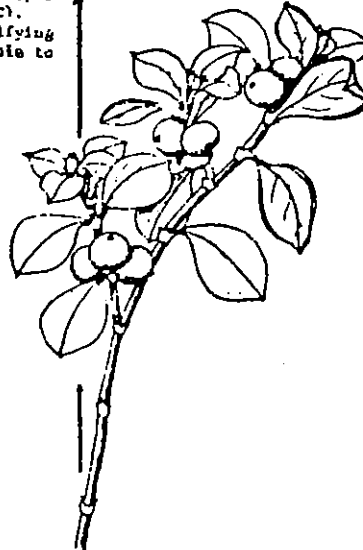
Eyes or No Eyes, Nancy Burbridge

YELLOW BUTTONE



Plants of Yellow Buttons, (*Helichrysum apiculatum*) are very common among grasses in sunny places. The stems and leaves are pale grey and the clustered heads are orange-yellow. Each head is surrounded by beautifully fringed yellow bracts. An enlarged drawing of one of these is shown (B). Inside the circle of bracts there is a dense mass of tiny flowers of a deeper yellow or orange (C). If you have a magnifying lens you will be able to see the bracts for yourself.

CURRENT BUSH

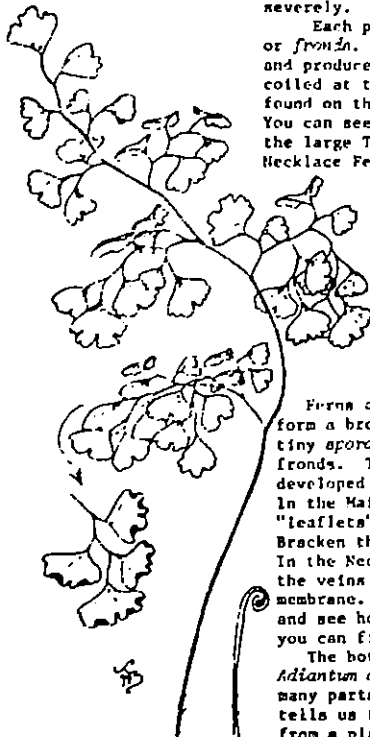


The Current Bush is a common shrub in our mountain areas. It grows in the forests of the upper slopes and is usually about 60 to 100 cm high. The plants are easily overlooked except when they are bearing the bright red or orange-red berries late in the summer months. The berries are a very attractive colour but not much good to eat. There is little flesh around the hard centre and the taste makes the mouth feel dry. If you look closely you will see that the leaves are paired and opposite. There is a minute tooth between the members of each pair.

The plants of Current Bush, which botanists call *Coprosma hirtella* are of two kinds. One has female flowers and develops berries. The other has flowers which only produce pollen and are therefore called male or staminate plants.

A good place to look for the current bush in fruit is along the Mt. Franklin road.

MAIDEN HAIR FERN



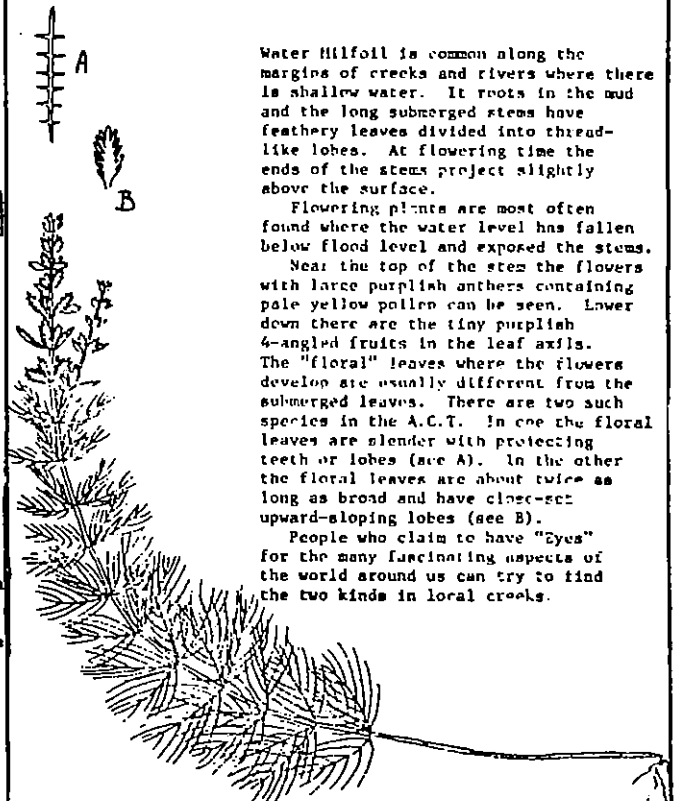
A very common fern of shaded creek and river banks is the Maiden Hair Fern. It likes earthy crevices or banks where there is light but the heat of the sun is not so great as to dry the soil out too severely.

Each plant has a number of leaves or fronds. The stems are underground and produce the new fronds which are curled at their tips. This curling is found on the young leaves of all ferns. You can see it on Bracken as well as on the large Tree Ferns and the slender Necklace Fern so common in our forests.

Ferns do not produce seeds. They form a brown dust of minute spores in tiny sporangia on the undersides of the fronds. The way the sporangia are developed differs in each kind of fern. In the Maiden Hair the edges of the "leaflets" turn down to form a cover. In Bracken the whole margin is curved in. In the Necklace Fern they develop along the veins but are protected by a delicate membrane. Look at a number of ferns and see how many different arrangements you can find.

The botanical name of Maiden Hair is *Adiantum aethiopicum*. It is common in many parts of Australia but its name tells us that it was first described from a plant from Ethiopia in Africa.

WATER MILFOIL



Water Milfoil is common along the margins of creeks and rivers where there is shallow water. It roots in the mud and the long submerged stems have feathery leaves divided into thread-like lobes. At flowering time the ends of the stems project slightly above the surface.

Flowering plants are most often found where the water level has fallen below flood level and exposed the stems.

Near the top of the stem the flowers with large purplish anthers containing pale yellow pollen can be seen. Lower down there are the tiny purplish 4-angled fruits in the leaf axils. The "floral" leaves where the flowers develop are usually different from the submerged leaves. There are two such species in the A.C.T. In one the floral leaves are slender with protecting teeth or lobes (see A). In the other the floral leaves are about twice as long as broad and have close-set upward-sloping lobes (see B).

People who claim to have "Eyes" for the many fascinating aspects of the world around us can try to find the two kinds in local creeks.

Dr Burbidge was born in 1912 in the small village of Cleckheaton in Yorkshire and came with her minister father and mother to settle in a large country parish in Western Australia. She was educated in a boarding school founded by her mother who had been an early graduate of Lewisham College Cambridge and later Nancy Burbidge took out her first university degree of B.Sc. with honours in Botany at the University of Western Australia. Her first step in her professional career to the study of Australian flora was the study of the grasses of the north west of the state in the W.A. University's Institute of Agriculture.

Her research work took her to the Royal Botanic Gardens at Kew where a world famous collection of Australian flora is housed. Returning to Australia in 1944 to the Waite Institute in Adelaide she was awarded a M.Sc. with Honours by the University of W.A. with the publication of her first volume on the native grasses of north west Australia. This work was followed some years later by volumes on the native grasses of the Northern Tablelands of NSW and the Southern Tablelands of the ACT. In 1961 she was awarded her D.Sc. in Botany for distinguished scientific work by the University of W.A., the first time such a degree had been awarded.

In 1946 she was appointed Curator of the Herbarium in the Division of Plant Industry at the CSIRO in Canberra, which became a major centre in the study of Australian and introduced flora. Besides being an educational centre the Herbarium became the major collecting and recording centre for Australian flora, much of which was done for the local region by Dr Burbidge herself.

During these years she continued to produce a stream of scientific papers, monographs and books on the Australian flora. Of special interest are Wattles of the ACT and Eucalypts with illustrations by the author as also are an Australian Plant Genera and a Phytogeography of the Australian Region. The climax of her career was when she was seconded to devote herself full time to the development of a new Flora Australia which became the first such publication since Bentham's Flora Australiensis published last century. This new publication completed just before her death contained a comprehensive index of Australian plant names as well as a list of available botanical publications. The Flora will remain a magnificent legacy for all students.

Besides her professional work she devoted herself unstintingly to other community activities. She served as President of the Royal Society and on a number of its committees, President of the Canberra branch of the Australian Federation of University Women, President and International Secretary of the Pan-Pacific and South East Asian Women's Association which resulted in many warm friendly relationships being established. She had a great affinity with children and introduced a children's Christmas Party where members danced in their national costumes.

Her work with the founding and as President of the National Parks Association of the ACT provides a lasting memorial of her service to the ACT community. She was a great lover of the Australian bush in either her professional role or for its enjoyment for pleasure and beauty. One of her greatest enjoyments was to introduce people to the bush by leading many excursions and patiently pointing out many features which to the untrained would have gone unnoticed.

Some moves towards conservation and development of nature reserves in the ACT had already been made officially and Dr Burbidge served with distinction on both the ACT National Conservation and Tidbinbilla Fauna Reserve Committees. Two small

areas, the Molonglo near Queanbeyan and the Gibraltar Falls area were being developed as bush recreation areas and the Tidbinbilla Fauna Reserve was being reclaimed from grazing use to provide an area where native fauna could be seen by the public and under controlled management become an area for recreation, bush-walking and a place of education for the public.

But Dr Burbidge had a greater vision and the Gudgenby Nature Reserve proclaimed in 1979 after years of negotiation is the result to a large extent of her earlier dedication and enthusiasm for the establishment of reserves for recreation and study.

Her work was one of great achievement and of fulfilment and her friends in the National Parks Association would like to feel that the work she did for the Association contributed in some measure to this fulfilment. For this we offer our thanks.

K. McDonald

PHOTOGRAPHING ALPINE FLORA

At the November meeting of the National Parks Association a large group of members and friends were treated to a viewing of slides taken by Colin Totterdell, official photographer for CSIRO's Division of Plant Industry. Visits to the Kosciusko Alpine Area in all seasons over a period of several years enabled him and his colleagues to study the flora and to investigate the ecological relationships of each species of plant.

In January 1855 Ferdinand Mueller, Government Botanist of the Melbourne Botanic Gardens, paid his first visit to the area. He began the extensive record of specimens continued enthusiastically by other botanists and naturalists, such as Maiden and Helms, ever since.

The snow lease system of land tenure introduced in 1889 led to summer grazing of sheep and cattle, with burning off of vegetation to promote regrowth. Grazing rights were withdrawn in 1944 and the damaged areas are gradually being restored.

Concern for the condition of the alpine area, especially following development of the Snowy Mountains Scheme and the growing tourist industry, was expressed by scientists and the general public alike. Although initially in the regeneration operation soil conservationists used non-local plant varieties, more sensitive management has led to the planting of local species. Many rare species are now making a recovery and the Kosciusko Alpine Region is returning to only a slightly modified version of what climatic improvements began after the glacial period 15,000 years ago.

After beginning with beautiful scenes north of Carruthers' Peak towards the Sentinel, the slides took us to the tall herbfield above Lake Albina. Billy Buttons (*Craspedia*), Snow Daisies and *Euphrasia* emerge in November each year as the snow melts to form the Snowy River. Colin Totterdell used Leica cameras which, although of a high quality, are in basic design the same as many single lens reflex cameras available to any photographer. Focal length lenses 21, 28, 50, 90 and 135mm were used. Scenic shots, such as those taken from Mueller's Peak and Mount Townsend, were hand held at 1/125 second, usually with 50mm lens. Other equipment consisted of exposure meter, polaroid filter, bellows, extension tubes, flash and a range of tripods and unipods. Kodachrome film was used exclusively, initially 25 ASA film and latterly 64 ASA, all being given standard Kodak processing.

Glacial erosion which resulted in the Club Lake Cirque below Carruthers' Peak, was accentuated by steep rock walls and the short Alpine herbfields. Close up photographs of tussock grass and Ranunculus were taken with the camera on a Shianski tripod which allows its legs to spread right out and so be placed close to the ground. A range of placements was also facilitated by the unipod, a metal spike. Colin Totterdell advised us to remember that at 7,000 feet some walkers may need time to acclimatize. For greater understanding of the diversity of the flora, he recommended looking closely at one area, rather than ranging widely. Visits should be made at different times of the year.

Amongst the glacial debris of Lady Northcote's Canyon and Lake Albina, heath communities are at their best in mid January. The sod tussock grasslands between the Blue Lake and Hedley Tarn are washed with colour from the red stems of *Danthonia nivicola* once the snow has melted. At the end of January, herb field species such as *Celmisia*, or Silver Snow Daisies, are abundant. The bog area at Club Lake, damaged in the drought of 1967/68, has regenerated, and its growth of sphagnum moss and *Carex* make beautiful photographs. The best time for these varies each year according to the prevailing snow conditions. Forethought given to a glorious photograph of Ribbon Grass high above Lake Albina demonstrated the way in which a backdrop of scenery can show the habit and habitat of plant life.

We were all entranced by the sight of Alpine Marsh Marigolds (*Caltha introloba*) which flower under the snow and remain flowering under water after the thaw. Slight environmental differences in petal length, flower colour and colour of leaf were illustrated. Variation within a species means that for identification purposes one needs not only detail of leaf, but also of both flower and fruit stages.

Single flower heads of Buttercups flowed from the slides against dark backgrounds. Lighting is particularly important and individual decisions must be made for each shot about the choice of front, back, subdued or side light. The background can be enhanced by casting a shadow with nat or cardboard sheet, by placing it out of focus with a long focus lens, or by securing the colour contrast of grass, rocks, sky or water. Flash is rarely used and shadow illumination, if necessary, can be made by simple card or handkerchief reflectors. Wind is a problem and one must wait for a lull.

Wind blown heath (*Epacris*) 80-100 years old, lay flat against the stony ground on the slopes near Mount Twynam. Another damp site plant with succulent red fruits, *Nertera depressa*, brought the comment that it is better to use a rule for measuring rather than to spoil pictures with matchboxes and hats! Colour can be affected by time of day, state of the sky, type of light present, or reflections from nearby objects, and can be distorted for special effects by underexposure or polarising filters.

A visit to the Kosciusko Alpine region is rewarding at any time of the year and with patience and attention to detail one can secure the type of photographs so ably taken by Colin Totterdell. Many of those shown at the meeting appear in the book Kosciusko Alpine Flora published by CSIRO/Collins in 1979. An analysis of these pictures will serve to illustrate the techniques discussed in the lecture and will give valuable hints on composition.

Beverley Hammond

GUDGENBY NATURE RESERVE



Mt Clear Homestead

homestead requires care. The fire trail beyond the homestead should not be followed by car as turning is difficult at a locked gate within a short distance.

A Gudgenby Park Bird Checklist of 126 sightings has been compiled from observations by staff and is now available. Because the checklist is constantly being revised, additional sightings or other information is requested by the Conservation and Agriculture Branch of the Department of Capital Territory, P.O. Box 158, Canberra City 2601.

THE PENNINE WAY LONG DISTANCE FOOTPATH

The Pennine Way, a long distance footpath of 250 miles, starts from the Peak of Derbyshire in England and continues along a broad uplift which forms the central watershed to the Scottish border. The Pennines are the remains of a plateau in which rivers have caused the valleys. There are great stretches of shaggy moorland, long ridges digging sharply into valleys, gently swelling heights endlessly repeating themselves and areas of solitude.

The heather moors flaunt their bright colour in summer and even in winter the sombre hues are not altogether without some beauty. Although the Pennines may appear desolate, they have a fascination for those who frequent the area. The High Pennines often exceed 2,000 feet, but although the high points are named they have little separate identity as they rise but a small amount from the surrounding moorland. In the high moorlands the route crosses expanses devoid of landmarks and only strong walkers prepared to use map and compass venture across them in bad weather.

Progress in the management plans for the Gudgenby Nature Reserve is becoming apparent. The woolshed of the Mt Clear Homestead has been demolished, some new paint put on the homestead buildings, the home paddock fenced and up to three days of camping approved in its precincts. The gate at the entrance (first turn on left after passing Naas Creek on the Adaminaby Road) has been removed and the access to the

The idea of the Pennine Way was first suggested in 1935 and at that time there was no hope of legislation or concessions to allow the scheme to come to fruition. An Access to Mountains Bill, which proposed subject to certain conditions that access for recreation or study could not be denied to persons wishing to pass over uncultivated mountain or moorland under private ownership, had never been accepted by Parliament for 50 years. One did reach the Statute Book in 1939, but being a Private Members Bill failed because it did not allow for compensation and was unacceptable to rambblers because it did not give them the freedom for which they had been campaigning.

Rambling clubs formed and grouped themselves into federations after the first world war and with the formation in England and Wales of the Youth Hostels Association in 1930 it was then possible for young persons to economically venture out into the country. Generally they could do this without restriction but in the Pennines at the southern end large areas were not crossed by right of ways. These areas were reserved for grouse-shooting and other parts were the watersheds for dams. Warnings of prosecution for trespass abounded on the basis of pollution of water supplies and disturbance of the grouse for shooters. There were many demonstrations and in 1932, four hundred people gathered for a mass trespass involving scuffles with police and for some arrests and imprisonment.

From 1935 continued demands were made for a path and in 1938 the Pennine way Association was formed. Committees surveyed the route and by 1939 it had been established that there were 180 miles of existing paths and tracks and that 70 miles of new paths would be required. In 1942 and 1945 recommendations were made by committees and commissions that the Pennine Way and other similar routes should be legalised and formed. The National Parks Access to the Countryside Act of 1949 gave a National Parks Commission the responsibility to make proposals for long distance footpaths. In 1951 a proposal put forward was approved and it then remained for local authorities to negotiate for the necessary rights of way. The Pennine way was opened in 1965 and so ended 30 years of lobbying, negotiation and construction.

There are lessons to be learnt from the continuing struggles in Great Britain to maintain and establish rights-of-way over private and public ground for persons wishing to enjoy the beauty of the countryside and for study and recreation purposes. In recent years there have been an increasing number of instances in the ACT where access that has been a common right is now denied by fences and locked gates over what were public roads. The legal position of persons found on the 'wrong side of the fence' is becoming increasingly confused and for the ordinary recreationist not easily established as rangers and notices proliferate. Your Committee would like to hear of specific instances of denial or doubtful access rights so that they may be investigated and representation made to appropriate authorities.

Ray Abner.

NEW MEMBERS: Mr & Mrs Max Allen, Curtin; Dr Ian Beveridge, Acton; Betty & Lindsay Brand, Deakin; Richard Cusbert, Downer; Pat Kelsey, Hackett; Dirk Kroon, Flynn; Jon Luly; Lydia Rojicek, Narrabundah; Jocelyn & David Solomon, Aranda; Josephine Vandermark, O'Connor.

MEMBERSHIP RENEWALS: A. & Val Campbell; Dr & Mrs Cumpston; Betty Garvin; R.S. & M. Johnston; Dr K.H.L. Kay; J. & Jean Kløv Dahl; E. Koch-Emery; L.C. Lawrence; Audrey & Gordon Lawrie; Brian Lee; Glynn & Shirley Lewis; R. & J. Mathews; Dr Julie Munro-Ashman; Margaret Porter; Muriel Rafferty; Robyn Rawson; Bill & Edna Watson; Jean Weber; John & Judy Webster; Sir Frederick & Lady Elizabeth White; Jocelyn Wilson; Jo Vandermark.

KOSCIUSKO ALPINE FLORA

At the end of January, when the Australia Day long weekend comes round, I shall be heading off to the Snowy Mountains. To most people these highlands are a place to go skiing. Others go to look in wonder at the dams and power stations of the Snowy Mountains scheme. I'm one of an increasing number of people who go there in January for another reason - namely to look at the wildflowers.

High mountain areas always turn on magnificent mid-summer wildflower displays, and the high country of Kosciusko National Park is no exception. No edelweiss or wild crocuses grow there, but I find the carpets of yellow Billy Buttons and white alpine daisies, the spectacular flowering shrubs and the subtle beauty of the anemone buttercups, a joy to behold. In one two-week period at the height of the short alpine summer, the showy herbs and bushes combine to give a crescendo of colour.

In previous years I've merely been able to savour the sight in its entirety. This year, armed with Kosciusko Alpine Flora, I'll actually be able to find out what I'm seeing. This book's name belies its contents. The term flora evokes an image of a dry and crusty technical description of plants. This one's different. To quote Alec Costin, author of the early parts: 'In producing this book, we have aimed to combine scientific merit and popular appeal. We believe that such a combination is possible, and that science should keep the community as well as the scientist in mind.' Thus the authors hope (and I quote again) that other people 'will learn to understand and appreciate this unique and wonderful flora and, in doing so, become committed to conserving it.'

Kosciusko Alpine Flora's a new type of flora. It still contains the traditional botanical keys - which incidentally have been most concisely written by Max Gray of the Herbarium Australiense in Canberra - these appear at the back. What the authors have come up with is a cross between a glossy coffee-table book on flowers, a technical flora, and a book on conservation. This may sound like an ungainly hybrid, but it's not.

I know of nothing quite like this book. It's a scientific work that's enormously interesting for the layman. I hope it sets an example that other technical flora will follow. The book's divided into four parts. An introductory section describes the general features of the Kosciusko Alpine region, and its geological and climatic histories. Then comes a summary of how first the Aborigines and more recently Europeans have used it. A treatise follows which explains where the plant communities came from, how they're related to other alpine vegetation on other continents, and the way they fit into their environment. Last come the botanical keys; but if you're an amateur like me, you don't have to read this technical part at all. Colin Totterdell has provided superb colour photographs of all but half a dozen of the 200-odd species that grow in the alpine region. These appear all together in the midst of the botanical keys to which they are cross-referenced. To identify his or her plant, all the amateur botanist or tourist has to do is look at the pictures.

The photographs make Kosciusko Alpine Flora. No less than 350 large colour plates and 20 black and white photos bring the subject alive - right from Colin Totterdell's double spread of the flowers around Lake Cootapatamba at their glorious peak at the start, to his last evocative shot of a late autumn snowfall at Kosciusko. The book is worth buying just for these - even though the technical difficulties of printing the pastel tones of alpine landscapes, which often lack contrasting features, has pushed Griffin Press, the printers, to their limit.

Alec Costin's somewhat academic style makes reading the early chapters rather harder work. But perse, he's culled from his enormous knowledge a most interesting selection of facts. They range from such topics as what the place was like during the ice ages, to the expeditions of the great botanist Ferdinand von Mueller, and to how the Aborigines treated the region before the White man arrived.

By the way, what the alpine zone really is has been a matter of some dispute. In this book the term includes all vegetation that grows above the treeline, which in the Kosciusko National Park occurs at an altitude of about 1830 metres. But some authorities argue that in other parts of the world at similar latitudes the treeline often occurs several hundred metres higher up. They suggest that Australia's is kept artificially low by peculiar local features like shallow and poorly drained soils. In the Colorado Rockies, for example, the treeline is at about 3000 metres. Mount Kosciusko, our highest peak, reaches a mere two thousand two hundred and twenty eight so, the argument goes, we don't have any alpine vegetation at all.

Alec Costin disagrees. He points out that regardless of where the treelines are - be they on high mountains either side of the equator, or near the North or South poles - they all have one feature in common: the mean annual temperature of the warmest month is always about 10 degrees Celsius. Kosciusko is no exception. If the average mid-summer temperature is less than this, the trees just can't get enough solar energy to keep on respiring, renewing their leaves, and developing their stem and roots. So shrubs and herbaceous plants take over.

Perhaps the most contentious issue that concerns all of Australia's alpine regions - including those in Victoria and Tasmania - is the question of how much they've changed since Europeans first saw them. Did the Aborigines burn these areas regularly, hence were they in a pristine condition when settlers first drove their sheep and cattle up there late last century? The answers crucially affect the way that we should treat these lands.

Twenty years ago the New South Wales Government decided in favour of totally protecting the Snowy. It finally created the Kosciusko National Park in 1967. I need hardly remind Victorian listeners of the current turmoil on their side of the border. The Victorian Government is finding itself pushed by strongly opposed community interests into making a decision on whether cattle should continue to graze parts of the Bogong High Plains and other bits of what's come to be called the Victorian Alpine Area. On the Tasmanian Central Plateau summer grazing by sheep and cattle continues unabated. What's more, the local stockmen still regularly burn the area, as did their opposite numbers in New South Wales until 29 years ago.

Did the Aborigines also regularly burn off the alpine regions, as the advocates of the grazing community claim? And if so, is protecting the high country in the Kosciusko National Park a dreadful mistake?

In Kosciusko Alpine Flora the authors weigh up the evidence and conclude that in the Snowy at least the answer's no. For one thing Josephine Flood's archaeological studies at alpine altitudes have turned up very few aboriginal tools. They're common lower down though - which rather suggests that the Aborigines did not permanently occupy the high country. They visited the area to be sure, but apparently only fleetingly in summer to feast on the bogong moths that migrate there in huge numbers at that time. But then when you think about it, there's no reason why they should have wanted to remain up there very long. The country's relatively poor in game, and burning off the vegetation to flush it out, which certainly happened lower down, would have been pointless. So 150 years ago the alpine region still probably did remain pristine, and the current

protective management provides circumstances not dissimilar to the primeval conditions.

I can't believe that the authors choose to place a portrait of the beautiful and vulnerable anemone buttercup on the dust cover purely because of its pretty face. Rather, I feel, this flower symbolises what this book is all about. By the late 1930s this and some other plants had practically disappeared from around Mount Kosciusko. Erosion had become a serious problem, and cattle and sheep were destroying the alpine bogs by trampling through them. Happily things have changed, and several of these near extinct plants - including the anemone buttercup - have made a remarkable comeback since the alpine region received protection. What's more many species not previously known in the area have now been discovered for the first time. Make a date with these and all the other alpine flowers next January long weekend. But please, take care not to trample them to extinction!

Talk by Brian Lee (Science Bookshop, ABC, 16 December 1979)

BEYOND THE COTTER

One of our members, Allan Mortlock, has combined with Klaus Hueneke to produce a new illustrated book which collects together a number of interesting day adventures by car to the Brindabella Mountains and beyond.

Included in the volume are trips to Mt Blundell, the Bullen Range, Moonlight Hollow and the Bendora Hut, Flea Creek, Koorabri, the source of the Murrumbidgee, Cooleman Caves and the Blue Water Hole, Three Mile Dam, and Yarrangobilly, to mention a selection.

The book has a number of pen sketches by Allan's talented daughter, Allison, many photographs, and concludes with a collection of games for the younger members of the family to play in the car during the longer journeys.

Allan says that the book was great fun to do and allowed him and Klaus to meet a number of interesting folk and visit out-of-the-way places that they would not have met and been to otherwise.

The book is published by the ANU Press as one of their Canberra Companion Series and is on sale in all good bookshops and especially the ANU Co-operative Bookshop.

OUTINGS COMMITTEE MESSAGE

The Outings Committee welcomes suggestions for outings and walks to new areas, and anyone interested in leading day walks or weekend camps to places of interest is requested to contact the outings convenor. Walks have to be planned at least six months ahead, so get your suggestions in early.

We hope to continue to arrange meeting places on the outskirts of Canberra, with the intention of promoting transport sharing arrangements. It is hoped that those who leave their cars at the rendezvous will contribute towards costs of those who drive, especially over rougher roads, where wear and tear on the vehicle is a large factor.

John Webster

ADVERTISING

The Association has received an enquiry from a Canberra business concerning whether the Association would accept an advertisement from it for inclusion in our Bulletin and the cost. Enquiries have been made as to the rates charged by similar publications and other firms have been circularised to determine their interest in advertising in the Bulletin.

DONATIONS

The Association has donated \$50 to the Kosciusko Committee's fund to keep Kosciusko National Park free from over-development by commercial interests and \$25 to the Southern Highlands Rescue Service Inc. (previously ACT Bush Rescue Service) towards the purchase of a new rescue vehicle.

ACF WILDERNESS CONFERENCE, SYDNEY, 23-25 NOVEMBER 1979

The conference got off to a somewhat shaky start when the Minister for Science and the Environment did not arrive to open it as he was supposed to do - apparently some break-down in transport. So after waiting and waiting, the organisers sensibly decided to deem the conference open and brought Judith Wright McKinney to the microphone for the keynote address - Wilderness, Waste and History. All this took place in the evening of Friday 23 November, and the session proper began the next morning, in the women's residence of Sydney University where most of the delegates also stayed.

Among those present, as the saying goes, were the Hon. D.P. Landa (NSW Minister for Planning and Environment), Mr Don Johnstone (Director, NPWS of NSW), Dr D.F. McMichael (Secretary, Department of Home Affairs), Mr Milo Dunphy, Mr John Sinclair, Mr Murray Wilcox, Dr Geoff Mosley, Dr R. Jones, Mr Darryl Hawke (all of the ACF), Prof. D. Ovington (ANPWS), and Paul Barnes, Eva Browne and Bruce Davis (all of the ANPC). Representatives of government and non-government organisations and people attending in their private capacity made a total of about 150 and an impressive pool of knowledge, as one could soon find out by striking up a conversation with the nearest person.

It is a strange thing how greatly personal contact will ease and enhance future letters and phone calls, and how very few exceptions there are to this rule even with respect to the occasional impossible person; and as with most conferences, the main value of this one was in the opportunities it presented for meeting people with the same interests. I felt that the organisers had rather lost sight of this most important matter, for the programme was too crowded, and rushed accordingly, with very little formal or informal discussion time. This is not a reflection on the quality of the papers that were presented, nor is it meant to be. Many of them were first class. The point is that if one wants information formally presented it is far easier to obtain it by reading than by listening. It was of course not the fault of the organisers that a few speakers were not speakers at all, but readers, and it takes a combination of a very good paper indeed and a reader to match to hold the attention of an audience. I must add that this combination was at times amply fulfilled, and that I hope I have not given the impression of praising faintly. I offer my felicitations to the ACF for its choice of speakers and subjects, a strict insistence on the timing, and a most useful and enjoyable conference.

The proceedings will be available for purchase later and I shall accordingly not give what would have to be a superficial account of the twelve papers that were presented or of the workshops on various related topics. I chose to attend the workshop on the role of conservation groups in improving the parks. I was sorry to have to miss the final (plenary) session when the reports of the workshops were tabled, but it would have meant a big jump in my expenses had I not done so.

GEEHI CLUB

The Geehi Club has extended an invitation to NPA members to join their walks. Their 1980 programme is as follows:

<u>Date</u>	<u>Place</u>	<u>Leader</u>
19 January	Kosciusko to Dead Horse Gap	Aubrey Hosking
9-10 February	Guthega Power Station - Schlink Pass - Tin Hut - Disappointment Spur - Guthega Power Station	Bruce Semmens
8-9 March	Tibeaudos Hut (Jagungal Area)	Ted Hughes
19 April	Broken Dam (Kiandra Area)	Jim Box
24 May	Dry Plains Area	Peter Davis
15 June	Peakview-Jerangle Area	Jack Wilson
13 July	Hudsons Peak (Nimmitabel Area)	John McDonald
23 August	Ski-tour (Kiandra Area)	Alistair Jamieson
14 September	Mt Clear (Shannons Flat Area)	Jack Wilson
11 October	Gugenby Area (Aboriginal rock paintings)	Max Chapman
8 November	Ben Boyd National Park (South Coast)	John McDonald
6 December	Wolseleys Gap - Snakey Plain (Near Tooma Dam)	John Ashley

Further information can be obtained from the Jack Wilson (President), John McDonald (Treasurer) or Bruce Semmens (Secretary) - telephone Cooma 21777.

Because of the extensive use of a typewriter with a larger letter profile for part of this bulletin, this section is in reduced size to save extra printing and postal charges. Ten pages have been saved. If used again the type size would be larger.

MOODONG CREEK BACK-PACK WEEKEND

The petrol strike did nothing to help Bob Story with his plans for the above, but by the Thursday it was decided the weekend was DEFINITELY 'ON', and by the Friday the last of nine members had been allocated seats in just three cars. A weather report for a fine weekend was a joy to hear, but we wondered about the highest temperature predicted - 9°!

Nothing daunted, by 7 am on the Saturday the cars were on their way through Queanbeyan and Captains Flat - everywhere looking very lovely with the heavy frost on the ground and trees shimmering in the sun, while car heaters made us forget the low temperatures! Leaving the cars on private property (petrol thieves!) we had a slight shock to both physical and mental systems as we waded the icy Shoalhaven river in bare feet, but brisk walking past the Big Hole soon returned circulation, and we stopped for elevenses near the source of Moodong Creek. From here, it was a slow plod up a quite steep ridge, with fleeting views on our left, down to the Neringla valley.

Soon after lunch we left the track and proceeded to drop - very steeply and mainly on our feet, but often on our bottom! - about 500 metres over slippery rocks and fallen trees, to eventually make camp by the Moodong Creek, now very much wider and bubbling over large boulders. No grassy areas could be found, but the abundance of 'fish fern' made a reasonable sleeping pad. A fire was soon under way, and while it seemed a ridiculous hour, the group started cooking their evening meal soon after afternoon tea! - while we still had daylight. Menus varied from fresh chops to various experimental dehydrated meals, while I added boiling water to a Chinese 'meal in a cup' (light to carry). However, I accidentally spilt most of this and wondered about its contents when next morning I saw that the noodles had obviously been touched by animals - but not eaten! Cold came quickly into the valley, but luckily we were shielded from a roaring wind in the tree tops, and most members were tucked into sleeping bags by 9 pm.

Sunday dawned fine and by 9.30 am breakfast was over, tents down, rucksacks packed, and the long slog up a steep ridge soon got the warm blood flowing. The views down the valley into the sunshine were delightful - as was the whole walk back. This was through a great variety of scenery and vegetation, from open eucalypt forest, across grasslands, and frost pockets with small snow gums, their tops literally shimmering like silver; to hills in all shades of orange through to purple with their Casuarina Nana (scrub eucurine).

Once again we had glorious sunshine all day for a pleasant lunch stop with billy tea, and a slightly warmer wade across the Shoalhaven. By 3 pm we were speeding back to Canberra, noticing the great improvement to the ugly, bare open faced mining scars of Captains Flat of some years ago. A happy contented group, full of sun, fresh air, and God's natural beauties, we were soon swapping memories over Bob's homemade beer - and to our homes and beds.

Thank you, Bob and Sybil, for a wonderful weekend.

Oliver Buckman

COMMERCIAL FORESTS AND PRIMITIVE AREAS

(Marie B. Byles, the author of this article in 1945, died at the age of 79 in November 1979. She was a dynamic, diminutive, legendary figure, an ardent feminist but not adverse to eliciting the aid of men to the tasks she saw them fitted for or who could help her achieve her objectives. She was Sydney's first woman solicitor, travelled widely around the world on cargo steamers, climbed mountains in Norway, Canada, New Zealand and China, wrote books on her travels and other diverse subjects and above all was one of the original conservationists in N.S.W. The creation of Bouddi Natural Park in 1934 (N.P.A. Bulletin September 1979) was one of her achievements and her activities in the protection of the bushland in suburbs surrounding her home were the bane of the local councils. She held office in many clubs that had an interest in the bushland and conservation. She was a woman of great spirit and tenacity, used to getting her own way and in later years overcame many difficulties through meditation and other physically orientated activities. This article gives further argument to the management of forests and an insight to the debate on this subject 35 years ago. - Editor)

When Governor Phillip landed in Sydney with his convicts, bread and butter were the first concern and, as there was more than ample timber for building purposes, it interested them mainly as something to be cleared away to permit of cultivation. When, eventually, the timber trade did begin to develop it, too, was interested only in the bread and butter aspect, and conservation never entered anyone's head.

Jervis Bay Nature Reserve has an ecological fire plan.

So, although later far-seeing people advocated forest conservation, it was not until 1916 that the forestry baby was born; born of unloving parents into a hostile world. Already the best part of the timber resources of the State had been depleted, and, as if the forestry baby were not sickly enough already, its department was permitted to utilize for constructive purposes only half of the revenue from timber-getting; the rest went into Consolidated Revenue, and still does. Further, although the sawmillers had ravished the country's timbers, they were citizens with rights - as well as votes - and, incidentally, both foresters and bushwalkers willingly used the timber from the forests the sawmillers spoiled. Even if the early foresters had had the training, the inspiration and the data, they could not have clipped down on the sawmillers all at once. As a matter of fact, the few conservation-minded foresters of the early days had to start by recruiting others and training them in the ideals and practices of forestry. Not until that was achieved - and it is only partly achieved today - could they turn to converting the sawmillers to the wiser of conservation.

Although the forester's ideal - that the timber cut each year shall not exceed the amount of timber grown each year - has not been achieved, still progress has been made; there are now many State Forests run as well as limited resources will permit; and some of the sawmillers are beginning to appreciate the forester's ideal.

In some of these State Forests (as distinct from Crown Lands, on which permission is given to cut timber) you can see the result of years of freedom from fire, and the result of so managing the forest that every tree felled is a calculated step to the creation of a new forest. Such forests can be seen in the Manning River National Forest, near Taree, Pine Creek Forest near Kettley, the spotted gum near Sateban's Bay, and the alpine ash near Baticle. Here the forests are attended as carefully as is possible with the small staff and meagre resources of the department of Forestry. There are waterways, tele-phones, and telephones, and in consequence the forests, on large parts of them, have not known serious fires for nearly thirty years. You may even see an occasional primitive area along the commercial forest, and protected by the same fire-fighting services.

Each part of a properly managed forest is cut over fully once in a hundred years, and after that cutting it does not recover its beauty for perhaps ten to fifteen years. In between the full cuttings, there are minor cuttings about once in ten or fifteen years, and after these the beauty of the forest comes back in about three years. As only small areas are cut over at the one time, you never get the impression of general devastation that you do after a bush-fire, and bush-fires often nip on an average of every five years. After a bush-fire it takes anything from two to two hundred years for the bush to recover, according to the seriousness of the fire and the nature of the timber that has been destroyed. If, therefore, we had to choose between tree-felling and fire-protection on the one hand, and a primitive area and bush-fires on the other, there would be much to be said for the former.

To the bushwalker, no commercial forest, however lovely, can equal one in which the trees are untouched except by the forces of nature; forests in which the trees, felled only in the case of trees which have died naturally and, in the gullies, sink into the moss which covers them. Unfortunately, since white people came to Australia, the devastations of bush-fires have left very few indeed of such forests. After a fire the trees may regrow in a sort of way, but no one could call it a virgin forest, and to a naturalist the burned trees are like to many painted bodies.

How, then, are we to preserve our few remaining primitive areas? If they are near tourist centres, the local authorities might provide fire-fighting services, but in the outlying districts it is unlikely that any government would spare the funds available for this purpose, for it is only in the latter that government spends money on non-revenue-producing purposes. It may be, therefore, that we shall preserve our primitive areas only by attaching them to the commercial forests with their fire-fighting services.

Apart from fire-protection, the chief necessity is to prevent the primitive areas from being a temptation to the sawmillers, and that can only be done by increasing, not by such the extent of the State Forests, as the funds that are available for managing those that already exist are not in fact. Thus there would always be ample timber available for the sawmillers in forests where systematic reforestation was the rule. It is in the long run we shall have to persuade the Forestry Commission to have for constructive reforestation the whole, instead of half, of the revenue received from timber-getting.

Even in our sadly depleted forests there is still ample space for both the commercial forest and the primitive reserve. The attitude of the Forestry Department towards commercial forests is definitely one of conservation and its previous superficial attitude towards applying the same principle to primitive areas is changing; but it yet remains to be seen whether it will cherish the primitive areas (museum forests, as it calls them) with the same tenderness as it is cherishing the commercial forests; whether it will realize that there is a beauty in virgin bush not to be found in tall, straight, cultivated timber, and that there is a spiritual value in a wilderness just as important to the well-being of the race as the material value of the commercial forest.

The answer to many an informed Reserve user's concerns about the controlled use and suppression of fire in the conservation context has been developed for this Nature Reserve. A plan has been drawn up which, even though it may be modified in the light of experience, is based on as deep an understanding of the fire biology of as many plant species as possible. At present, in the absence of such information in animal wildlife, a comprehensive approach to vegetation management as animal habitat will have to be accepted as a good approximation to wildlife management with respect to the fire factor.

Following widespread wildfires in summer 1972-3, an opportunity to study the characteristic responses of almost every vegetation type in the Jervis Bay Territory was seized and over four years, details of every species' particular response to burning was recorded by means of the permanent recording site technique. Groups of small measured areas permanently pegged (quadrats) were observed and such things as the month of each species' regeneration, its height, amount of the quadrat covered by it, time of first flower production and season of flowering were recorded at various intervals from a few months after burning up till the fifth year.

Within that time the author saw the lower vegetation, the shrub understorey of the forests and woodlands and the health of the open sandy country return to a condition usually similar to its pre-burn condition or, at least, clearly on the path to return to this state in a few years more. But that is what naturalists and bushwalkers more or less expect. The dramatic recovery of most Australian vegetation after one fire is not unexpected.

The questions in the minds of such people and those whose aim it is to manage the Reserve, preserving what are its presently perceived natural characteristics, were:

"How often can fires burn these communities of plants (and animals) without causing the local extinction of any species?"

"How long can or should fire be deliberately excluded from any community without causing the indefinite loss of any species?"

"How can we learn from the plant species' intrinsic biological behaviour?"

"What recurring pattern of fires (regimes) are likely to be tolerable if our aims of preservation are to be met?"

"How can the locally pressing needs of fire protection around public areas which are intimately associated with the Nature Reserve be blended with the most desirable prescriptions for the use and control of fire on an ecological basis?"

An approach to the last question had already been in progress in developed areas obviously had a high priority but that such areas were quite small. Elsewhere, there seemed little reason to assert any but ecological principles. These areas were quickly identified on management maps (F1 and F2) and the areas where the best of one fire protection strategy might complement those of the other were defined.

For example, in response to pine plantation management, it was agreed to burn the areas south of the plantations as often as good fire security required in terms of pine management. This amounts to burning every 2-4 years. Now adjacent to this area is more country of the same kind where only ecological burning priorities are really important. It would not be sensible to burn it on the same basis as the pine protection burning area and as a general rule, it was considered best to have a range of conditions of fire frequency within each major vegetation type. A different regime was established for the adjacent but similar forest type. The area now selected to be representative of a 2-4 year rotation of burning was thus placed where this could also enhance fire protection for other purposes. In the final fire plan such thinking was often applied.

But how were the limits of tolerance arrived at in the ecological priority areas?

The information yielded by each species in the quadrats that had been monitored for over four years showed how the main species recovered and resumed positions of relatively high or low abundance in terms of cover and height. This was useful in judging how soon a community had re-established its pre-fire condition which had been widely observed during a previous vegetation survey. But more importantly, the time taken for seed to be produced by those species which have no other means of regeneration was taken as a good guide to the minimum time that could be allowed between two fires. Such an estimate had to be modified in the light of other knowledge. For example, even if a 2-3 year interval were feasible without risking local extinction, it might be that the vegetation in question could not develop sufficient flammability in that time.

As a guide to the upper limits of burning intervals, the likely trends of the main species' growth were predicted as far as these data and field observations generally allowed. Most upper limits were great enough to make them irrelevant in terms of expected accidental fire incidence. More importantly, the trends following regular burning at several different intervals and then allowing indefinite fire protection were estimated and this suggested that important manipulation of vegetation structure and floristic content could be achieved if desired, e.g.

suppression of *Leptospermum laevigatum* (coastal ti-tree) and encouragement of *Banksia integrifolia* by burning every 2-3 years then protecting from fire as *Banksia* gained in height to form thickets or woodland.

The Reserve was divided into useful fire control compartments on the basis of existing access tracks or breaks and other edges e.g. cliff and beach. The main vegetation type in each compartment was identified and using the ecological information in hand, an appropriate minimum and maximum between fire interval was suggested for each. Preferred season of burning and other guidelines were also written into a "prescription" for that area.

These prescriptions are the orders for rangers who undertake fire control operations. They say approximately when to start a fire and when to suppress one. A fire accidentally starting is judged to be "within prescription" or not. If it is acceptable it is allowed to burn out its compartment, being controlled only at the edges. If it is "outside prescription" guidelines, then it has to be put out if possible. If this fails, the position of this compartment in the integrated fire plan for the area has to be re-allocated - an exercise which could prove to be the most difficult in this game.

It is a principle that fires are only controlled by means of existing access - that is, the compartment's edges. New cut tracks and bulldozed breaks (frequently useless and unnecessarily damaging) are not allowed to be made within a compartment. Only the most extreme fire danger situation could lead to this being over-ridden.

After each fire, a report is made and it is marked as being within prescription or not and this is checked by the vegetation ecologist. Pre-burn plans are similarly vetted for deliberate burns.

Is this just a big experiment, a vain hope for rational fire use and control, a game for educated rangers? We hope not. So far, the plan's implementation has done two things. Firstly, it has made everybody think really hard about each deliberate burn (accidental fires have so far not been significant). Secondly, it has drawn into a team work situation trained ecologists, managers and operational staff, rangers and reserve workers. It has generated a new confidence that as a prospect for the future, nature conservation in the Jarvis Bay Nature Reserve will work.

(Lecture to the Association on 16 July 1979 by Frank Ingwersen, Biologist, Conservation & Agriculture Branch, Department of Capital Territory)

THE NATIONAL ESTATE AND THE VOLUNTARY CONSERVATION MOVEMENT

In 1963 President J.F. Kennedy said "... we must expand the concept of conservation to meet the imperious problem of the new age. We must develop new instruments of foresight and protection and nurture in order to recover the relationship between man and nature and make sure that the National Estate we pass on to our multiplying descendants is green and flourishing".

Ten years later the Australian Government appointed a Committee of Inquiry under Mr Justice Hope to examine the state of the National Estate in Australia.

In this paper I want to look at the work of the Australian Heritage Commission which was the body established following Mr Justice Hope's report and try to relate this to the voluntary conservation movement, in which you, the National Parks Association, play such an important part.

The report of the National Estate when it was tabled by the Prime Minister in 1974 presented a dismal picture of the state of nature conservation in Australia. At that time there were a number of bodies at State Government level, which had existed in some cases for many years, with a stated aim being the conservation of nature and natural resources. There was in the early 1970s a very vigorous nature conservation movement which also had a long history. But somehow people interested and involved in nature conservation, as I was then, felt that it was very much a losing battle. Happily, I think, the decade of the 70s has seen a radical change in both the statutory protection of our natural resources and our ability to manage and conserve those resources. But as I shall argue this has not diminished by one bit the need for an active and radical nature conservation movement.

The Australian Heritage Commission came into being in 1975 to act as the Federal Government's advisor on the conservation and management of the National Estate. In our Act there is a definition of the rather vague term "National Estate", and the legislation defines it as: "those places, being components of the natural environment of Australia, or the cultural environment of Australia that have aesthetic, scientific or social significance or other special value for future generations, as well as for the present community".

But we, the Commission and its staff, were then set the task of actually prescribing what precisely constituted the National Estate. It includes aspects of the natural environment, the man-made or cultural environment including aboriginal culture, as well as European or historic cultural remains.

For the natural environment we decided that it should include such things as:

- the national parks, nature reserves and other places for the protection of native fauna and flora;
- the coastline and islands;
- inland water expanses, rivers, lakes and other wetlands;
- special land forms, geological features, caves, forests, woodlands, grasslands;
- areas of scientific interest.

The Commission has set out, as it is required by the Act, to develop a list or inventory of places which fit into these

categories, called the Register of the National Estate. The Register itself will be unique, to use that singularly over-worked word, in that it will be, to my knowledge, the first time any nation has set out to comprehensively catalogue those places within its boundaries which have a conservation value as distinct from an economic value. And this is one of the difficult problems we face in explaining to people the concept of the Register of the National Estate. It is an inventory and nothing more. The Commission has no power to protect places on the Register and there is only a requirement of Commonwealth ministers and agencies to consult with the Commission and seek its advice in relation to any proposals which might adversely affect places on the Register.

At present the Commission has proposed to enter in the Register some 6000 places in Australia, and has in fact entered in the Register approximately 4800 places. The process of entering a place in the Register requires public participation because in the first place nominations can be made by members of the public as well as by organisations, and in the second place if the Commission thinks a particular area should be entered in the Register then there is a minimum statutory period for consultation and objection of three months after it is first gazetted.

At this stage most of Australia's national parks, nature reserves, conservation areas, have been listed or are proposed for listing in the Register of the National Estate. As well, there are other very significant natural areas proposed for entry in the Register because the nature of the Register allows us to put more "rational" areas on the list than those included under the categories of national parks. Do not misunderstand me. I am not denying the national park system that exists in Australia, but there is a certain air of serendipity about the choice of national parks. In other words, many national parks have been created because the area happened to be vacant, or at the time was not being used for any commercial purpose, and the boundaries are often clearly unrelated to any rational geographical boundary. So, for instance, in the Register of the National Estate we could intend to include areas of natural ecosystems which may have an economic use and are not included in national parks. For example, we want to see an area of important natural grasslands such as a Mitchell grass system recorded (although there are not many left and none worthwhile included in national parks).

So we are progressing with the compilation of the Register and in time I believe even those opposed to the creation of the Register at present will come to see that having a rational resource inventory like this means that all sections of the community can make better decisions in relation to land use, whether their interests lie in economic development or in nature conservation.

The Register is stored in a variety of forms, located here in Canberra, and perhaps at some stage the association and its members might like to call on us to look at the way in which we compile it and store it.

Nature Conservation in the 80s

The beginning of a new decade seems as good a time as any to take stock of where we are going in nature conservation. As a professional conservationist I believe we have a duty to analyse where we have come from, but equally I believe members of voluntary associations such as yours should take stock and examine their future. In so far as our past has been closely linked with the aims and ambitions of the voluntary conservation movement, I would expect that to be the future also for the Australian Heritage Commission as the Commission itself is one expression of the community wish to see places and sights conserved for future generations.

I have often wondered why there is such a strong nature conservation movement in Australia relative to, say, movements in Europe. Possibly this goes back to our European historical roots where Australia was seen by Dutch and English explorers as a wonderland of natural oddities and weird phenomena. Indeed, the business of capturing in paintings and linographs as well as returning ark-like cargoes of our bizarre animals and plants to the northern hemisphere became a minor industry of the early 19th century. And being a nation of immigrants I feel that wonder at the curious in our natural ecosystems has continued. This of course has been a major stimulant in the creation of natural history societies, bushwalking groups, as well as scientific institutions aimed at the study of Australia's natural resources.

That brilliant landscape geographer Dr David Lowenthal made the point some years ago that "it used to be said that the views of nature held by any people determine all their institutions", but it may make more sense to stand this statement on its head: our whole way of life determines our views of nature. To be effective, therefore, planning and design should be grounded on an intimate knowledge of the ways people think and feel about the environment; this calls for a substantial familiarity with social and cultural history, with psychology and philosophy, with art and anthropology. All these fields contribute to our knowledge of how we see the world we live in, how vision and value affect action and how action alters institutions".

That certainly is my philosophy and I believe that the work of the Australian Heritage Commission in many ways enables one to work through that philosophy. Through our education programmes for children and all members of the community I hope we can tie together those points that Lowenthal is making.

Whilst I do not mind people being obsessive about the natural environment, and indeed it is none of my business whether or not they are, I do feel it is important to keep a rational perspective of the processes of nature conservation and perhaps this reflects more my scientific training than anything else. I very much subscribe to the prescription offered by Dr D. A. Ratcliffe, the Chief Scientist on the Nature Conservancy Council, who said: "The nature conservationist often has to argue his cause and engage in dialectical exchanges with highly intelligent people. It is then as well to be aware of the underlying

philosophical views even if they can be glossed over or forgotten for most of the time. And I do believe that any person should enquire as deeply as they can into what they do and why they do it - not to let it become an obsession, obviously, but in a genuine spirit of scientific enquiry".

I would like to close by saying that I believe the nature conservation movement, in particular the National Parks Association, has seen a great many of their aims and ambitions achieved during the decade of the 70s, and clearly this is to their credit. But the decade of the 80s will require just as active participation and action to maintain those achievements and expand them where necessary.

(Lecture by Max Bourke, Director, Australian Heritage Commission to the Association on 21 February 1980)

NATIONAL PARKS ASSOCIATION OF A.C.T. LETTERS

The Hon. R.J. Ellicott, Q.C., M.P.,
Minister for the Capital Territory.

Dear Mr Ellicott,

The National Parks Association of the A.C.T. has noted news reports announcing the calling of tenders for the upgrading of the first section of Boboyan Road through the Gudgenby Nature Reserve. These reports also predicted the eventual upgrading of the whole of the A.C.T. section of the road as part of the N.C.D.C.'s rural roads programme.

The N.P.A. views these developments with concern. No effort by your Department or the N.C.D.C. to prepare an Environmental Impact Statement for this work has been announced, nor has any formal opportunity been provided for interested groups or individuals to comment on such an important change in the Gudgenby Nature Reserve. In the absence of any other forum, therefore, we set out hereunder our comments on this development.

(1) The need to 'upgrade' the Boboyan Road cannot, we believe, be supported on economic grounds. The road provides access to a single rural (primary) production unit in the A.C.T. which does not require any greater road development for its continued viability. The road does not provide access to other rural production areas in N.S.W. which have not already existing alternate routes adequate for their needs.

(2) The existing road is adequate (with perhaps minor improvements) to cater for current and expected visitor access and movements within the Gudgenby Nature Reserve. We base this estimate on our own experience in visiting the Reserve frequently (often weekly) over the past five years, noting visitor movements within and through the Reserve and examining areas of likely interest to visitors in and around the Reserve. Further, no case can be made for providing improved access through the Reserve to areas in New South Wales. Adequate access already exists via the Monaro and Snowy Mountains Highways to recreation areas around Lake Eucumbene and the Kosciusko National Park. Any saving in running time and costs to reach these areas via the Gudgenby Nature Reserve would be minimal and would be provided only at great environmental cost to the Reserve.

(3) The general rise in the costs of private car usage (and further projected steep rises) calls into question the benefits of all road expenditures versus spending on other means of transportation. Access to major tourist areas such as Kosciusko National Park (and the Gudgenby Nature Reserve) may in future be by means of mass transportation, i.e. public transport, using bus, rail or a combination of these: this could come about for both economic and environmental reasons.

(4) Changes to the road contours within sensitive areas at the Gudgenby Nature Reserve could have major and longlasting environmental effects. Some of these are -

- (a) increased runoff and erosion due to clearing and cutting of hillsides: this could have serious effects owing to the steep terrain at many areas traversed by the existing road;
- (b) siltation of creeks and streams owing to increased runoff with consequent unassurable effects for the ecosystems of aquatic plant and animal life;
- (c) destruction of a large area of vegetation bordering the existing road; owing to the steep nature of much of the area any widening or re-routing of the road must mean the removal of large areas of forest or woodland. Revegetation of the cleared verges is likely to be difficult and time-consuming, and would in any case take many years to approach the original condition. Examination of the recently completed road upgrading to Uriarra will, we believe, confirm this view;
- (d) large-scale clearing and disturbance of the natural vegetation provides opportunities for the introduction of exotic weeds, grasses and other plants and their subsequent establishment on the disturbed areas. In an area being preserved for its natural qualities this effect poses a further threat to the quality of the area.
- (5) Improved road conditions mean higher road speeds and this immediately brings a threat to wildlife straying onto or crossing the road, particularly at night. This problem could be acute if high speed through-traffic were encouraged to use the road through the Gudgenby Nature Reserve. The N.S.W. National Parks and Wildlife Service has for many years had a policy of restricting road speeds within parks and reserves to protect fauna and we believe a similar policy is vital for the Gudgenby Nature Reserve.

(6) In summary, we believe the existing road provides adequate access for current and projected visitors to the Gudgenby Nature Reserve. The environmental costs of upgrading the road outweigh any benefits likely to accrue from this development. We therefore urge you to halt any further changes to the existing road. In addition, we believe that major changes such as road-upgrading, rerouting of roads or tracks, etc., should be subject to an Environmental Impact Statement. In the absence of a comprehensive plan of management for the Reserve, interested groups and individuals - who are the users and protectors of the Reserve - would then have a voice in decisions affecting the future of the Reserve. The Gudgenby Nature Reserve is a major part of our natural heritage and a major recreation and scientific resource within the A.C.T. Decisions affecting its ecology should not be taken without detailed examination of their long-term consequences.

The Hon. Paul Landa, M.L.A.,
Minister for Planning and Environment.

Dear Mr Landa,

Kosciusko National Park

The National Parks Association of the A.C.T. has noted with concern recently announced proposals to increase visitor accommodation within the Kosciusko National Park. Announcements have been made of proposed developments for the Tredbo and Charlotte Pass areas, and Shire Councils of surrounding shires are pressing the need for "development" at the northern end of the Park to increase tourism in their areas. Such developments, while responding to one expressed use of the resources of the Kosciusko National Park - its high country potential for skiing - may, in the medium to long term, have irreversible effects on other, more fragile but just as valuable, qualities of our alpine environment.

Members of the National Parks Association share with other groups and with individuals concern for the future care and maintenance of Kosciusko National Park. Because of its proximity to the A.C.T. our members are familiar with the many opportunities the Park offers for recreation and the study of flora and fauna. We believe that it is essential to preserve those qualities which make the Kosciusko National Park a unique resource within Australia, to conserve for present and future use the diversity and integrity of biotic communities of plants and animals within natural ecosystems. In addition, the unique scenic attractions of the Park, among its most outstanding qualities for visitors, summer and winter, could be permanently degraded by uncontrolled and uncoordinated developments of accommodation resorts with their inevitable requirements of roads, electricity, water and waste disposal.

We urge you, therefore, to defer decisions which may impair any of the natural values of the Kosciusko National Park, in particular the creation or extension of overnight accommodation within the Park, until a full review of the proposed plan of management for Kosciusko National Park is complete. We would hope, also, that interested groups will be allowed full participation in the review at the appropriate time.

The Editor,
Canberra Times.

Sir:

Our Committee is concerned to correct inaccuracies in a letter titled "Proposal for Brindabella" by R.H. and J.E. Franklin (Canberra Times 17.11.79). We are sure that no one would attempt to deny the Franklins their heritage of Brindabella or the enjoyment of its current environment. Many Australians have learnt, through the books of Miles Franklin, the story of the family and their life at Brindabella.

Just as important, however, is the preservation of our natural heritage for all Australians. The Kosciusko National Park contains a unique and fragile environment and is a recreational and scientific resource of priceless value. Thousands of Australians visit this area each year to enjoy its many attractions.

We know from firsthand knowledge that the National Parks and Wildlife Service, far from being "insensitive and torpid", is both dedicated and hardworking, and is particularly sensitive to the needs of visitors in addition to its job of monitoring and protecting the park environment. As with any other agency of government, funds are limited; this extends to the control of "weed infested wastelands" and to many other problems resulting from previous land practices before the park was proclaimed. It is the intention of the Service to return all areas to their natural state as far as possible and as funds permit. It is worth emphasising that it is owing to lack of foresight of our own forebears that many areas are now infested with blackberry, wort and other weeds, not to any quality of the natural environment.

The Kosciusko National Park is a vital part of the natural heritage of all Australians. The NSW National Parks and Wildlife Service deserves our wholehearted support to maintain and preserve this unique part of Australia.

NATIONAL PARKS ASSOCIATION OUTINGS

Please notify leader of intention to come on all weekend outings.

March 1/2 Sat-Sun Naas R.: Beginners' Pack Walk/Walk
Leader: Hela Lindemann 864926 Ref. ACT 1:100,000
Meet: Mugga Rd & Monaro Hwy 8.30 a.m.

A short walk with camping in or by a hut. Saturday day walkers will have time to go in and out.

March 9 Sunday Tidbinbilla Nature Reserve: Walk
Leader: Cla Allen 953824
Meet: Nature Reserve Information Centre 10 a.m.

Short walks along nature trails.

March 9 Sunday Middle Cotter: Walk
Leader Bernice Anderson 812082 Ref. ACT 1:100,000
Meet: Eucumbene Drive & Cotter Rd 8.30 a.m.

Medium walking/scrambling below Bendora Dam.

March 15/17 Sat-Mon Yadboro: Camp
Leader: Ian Currie 958112 Ref. Ulladulla 1:100,000

Yadboro is an ideal spot to enjoy the magnificence of the Budawangs from a fixed camp. Bush camping no facilities. Contact leader if coming.

March 23 Sunday Oallen Crossing: Picnic/Swim
Leader: Bill Adams 487584 Ref. Braidwood 1:100,000
Meet: Canberra Railway Station 8.30 a.m.

A swimming day on an infrequently visited spot on the Shoalhaven River.

March 29/30 Sat-Sun Mt Kelly: Pack Walk
Leader: Pat Michell 473264 Ref. ACT 1:100,000
Meet: Mugga Rd & Monaro Hwy 8.30 a.m.

A popular walk to climb Mt Kelly on the Saturday and camp below it on Sam's Ck.

March 30 Sunday Glendale Crossing-Half Moon Ck.: Walk
Leader: Penny Hebbard 814070 Ref. ACT 1:100,000
Meet: Mugga Rd & Monaro Hwy 8.45 a.m.

Medium walk across saddle above Half Moon Ck. Views of Naas Valley.

April 4/7 Fri-Mon Dingo Flats: Camp
Contact J. Webster for details 476769 Ref. ACT 1:100,000

A camp on John Schunke's property, not too far from Canberra. Walks from the area will be arranged.

April 13 Sunday Paddy's River: Walk
Leader: Cla Allen 953824 Ref. ACT 1:100,000
Meet: Cotter Kiosk 12 noon for lunch

An easy walk along the river bank - maybe a platypus or two.

April 20 Sunday Mt Lowden: Walk
Leader: Hela Lindemann 864926 Ref. Araluen 1:100,000
Meet: Canberra Railway Station 8 a.m.

A medium walk in the Talagandra Forrest with a possible ascent of Mt Lowden.

April 25/27 Fri-Sun (ANZAC Day weekend) Murray-Bimberi: Pack Walk
Leader: Reg Alder 542240 Ref. ACT 1:100,000
Meet: Yaouk 9 a.m.

A 3-day pack walk in the Murray-Bimberi area.

April 27 Sunday Nursery Swamp: Walk
Leader: Lyn Richardson 412425 Ref. ACT 1:100,000
Meet: Mugga Rd. & Monaro Hwy 8.30 a.m.

An easy walk in the Gudgenby Nature Reserve.

May 4 Sunday Blundell's Flat: Walk
Leader: Cla Allen 953824 Ref. ACT 1:100,000
Meet: Eucumbene Drive & Cotter Rd 11 a.m.

A half-day walk from Blundell's Flat.

May 4 Sunday Devil's Peak: Walk
Leader: Penny Hebbard 814070 Ref. ACT 1:100,000
Meet: Eucumbene Drive & Cotter Rd. 8.30 a.m.

A medium walk just across the NSW border into the Brindabellas.

May 11 Sunday Orroral Valley Rocks: Walk
Leader: Neville Esau 864176 Ref. ACT 1:100,000
Meet: Mugga Rd. & Monaro Hwy 8 a.m.

A walk to explore the rocks overlooking the Tracking Station with the alternative of easier walking along the open valley.

May 18 Sunday Blue Gum Creek: Walk
Leader: Les Pyke 812982 Ref. ACT 1:100,000
Meet: Eucumbene Drive & Cotter Rd 8 a.m.

A medium walk off the Corin Dam road. Some track, open grassland and bushwalking.

May 24/25 Sat-Sun Mt Houghton & Mt Tairn: Pack Walk
Leader: Neville Esau 864176 Ref. Corang 2": 1 mile
Meet: Contact leader Endrick 1:25,000

A weekend walk in the Budawang area.

May 25 Sunday Red Hill Slopes: Walk
Leader: Cla Allen 953824 Ref. UBD Tourist Map
Meet: End of La Perouse St on Mugga Way 9 a.m.

An easy walk along the slopes of Red Hill, with the opportunity of some bird-watching.

June 1 Sunday Connolly's Gap: Exploratory Walk
Leader: Les Pyke 812982 Ref. ACT 1:100,000
Meet: Mugga Rd & Monaro Hwy 8 a.m.

An exploratory walk in the Bredbo River area.

June 8 Sunday North Tinderry: Walk
Leader: John Webster 476769 Ref. ACT 1:100,000
Meet: Mugga Rd & Monaro Hwy 8.30 a.m.

Yet another attempt to brave the bad weather and scale one of the Tinderry peaks.

NATIONAL PARKS ASSOCIATION OF THE A.C.T. INC.

Inaugurated 1961

'A National Park for the National Capital'

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National Parks Association Phone Number: 486104 or 956037

Subscription rates: Family - \$10 Corporate - \$5
Single - \$8 Student - \$3

Subscriptions fall due on 1 July
GENERAL MEETINGS

8 p.m. Griffin Centre, Bunda St., Civic

THURSDAY 20 MARCH 1980

Mr Lindsay Best - "Wildlife and Park Management"

Room 1

THURSDAY 17 APRIL 1980

Mr Bob Tingey - "Antarctica - the Southern Connection"

NOTE CHANGE
REHEARSAL THEATRE
1st FLOOR

THURSDAY 15 MAY 1980

Film evening

June 14/16 Sat-Mon

N. Esau

Room 1

Contact J. Webster for details 476769

~~Mimosa ROCKS~~ area: Car camp

South Duma

A long weekend camp on the coast near Mimosa Rocks. Swimming for the hardy, walks along the foreshore.

June 21/22 Sat-Sun

Leader: Frank Clements 317005

Bendethra: Pack Walk

Ref. Araluen 1:100,000

A weekend in the Bendethra-Dura area and possibly down into the Shoalhaven valley.
NPA Bulletin 19 *March 1980*

National Parks Association outings summary

MARCH

1/2 Sat-Sun	Naas R.	Pack Walk/Walk
9 Sunday	Tidbinbilla	Walk
9 Sunday	Middle Cotter	Walk
15/17 Sat-Mon	Yadboro	Camp
23 Sunday	Oallen	Picnic/Swim
29/30 Sat-Sun	Mt Kelly	Pack Walk
30 Sunday	Glendale Crossing	Walk

APRIL

4/7 Fri-Mon	Dingo Flats	Camp
13 Sunday	Paddy's River	Walk
20 Sunday	Mt Lowden	Walk
25/27 Fri-Sun	Mt Bimberi	Pack Walk
27 Sunday	Nursery Swamp	Walk

MAY

4 Sunday	Blundell's Flat	Walk
4 Sunday	Devil's Peak	Walk
11 Sunday	Orroral Valley	Walk
18 Sunday	Blue Gum Ck	Walk
24/25 Sat-Sun	Mt Houghton & Mt Tairn	Pack Walk
25 Sunday	Red Hill	Walk

JUNE

1 Sunday	Connolly's Gap	Walk
8 Sunday	North Tinderry	Walk
14/16 Sat-Mon	Mimosa Rocks	Camp
21/22 Sat-Sun	Bendethra	Pack Walk
22 Sunday	Gibraltar Rocks	Walk
29 Sunday	Blue Range Hut	Barbeque