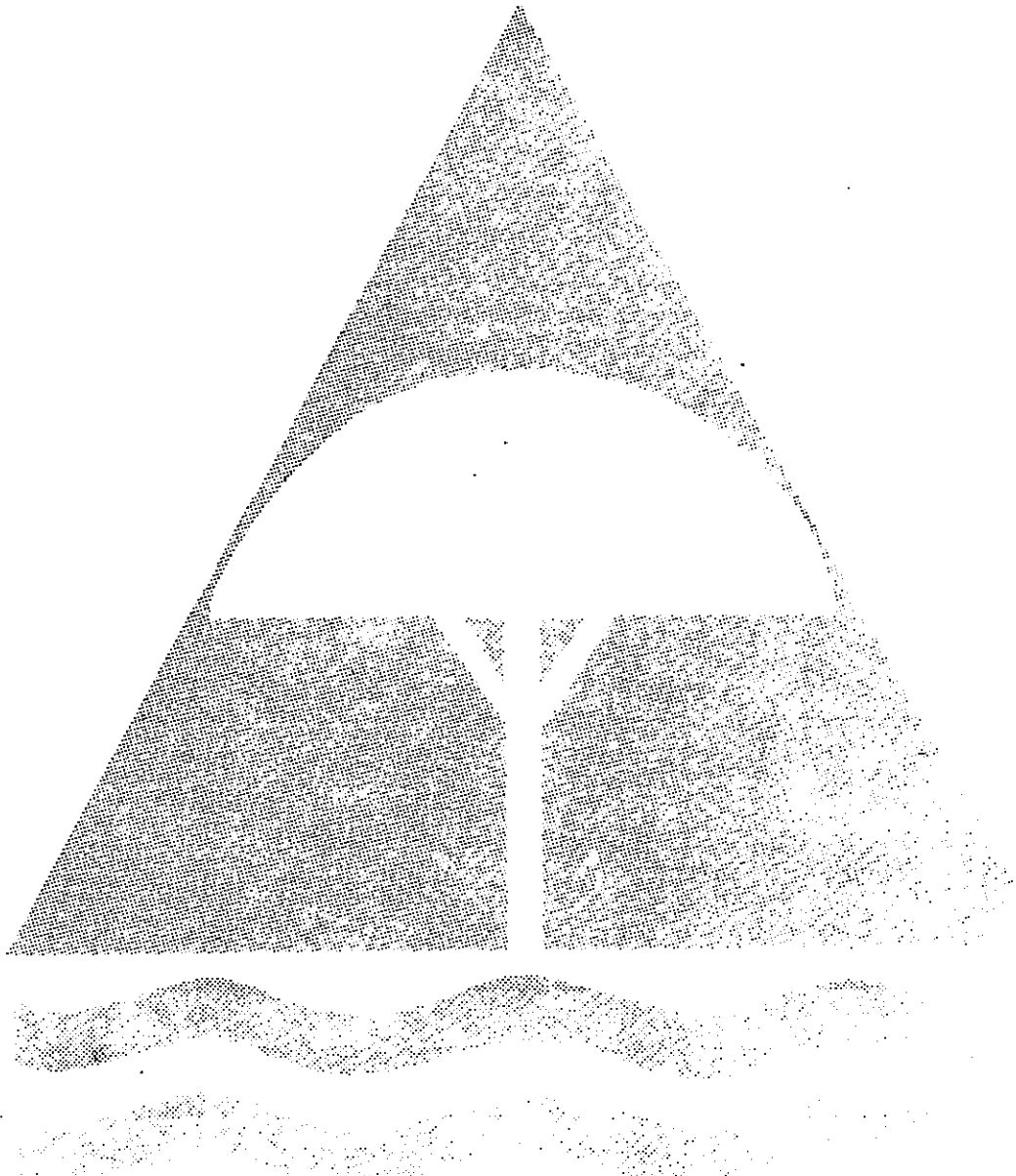


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NATIONAL PARKS ASSOCIATION OF THE A.C.T. INC.

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'A National Park for the National Capital'

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AIMS AND OBJECTS OF THE ASSOCIATION

- * Promotion of National Parks and of measures for the protection of fauna and flora, scenery and natural features in the Australian Capital Territory and elsewhere, and the reservation of specific areas.
- * Interest in the provision of appropriate outdoor recreation areas.
- * Stimulation of interest in, and appreciation and enjoyment of, such natural phenomena by organized field outings, meetings or any other means.
- * Co-operation with organizations and persons having similar interests and objectives.
- * Promotion of and education for nature conservation and the planning of land-use to achieve conservation.

Membership exceeds 300.

PRESIDENT'S FOREWORD

This Bulletin will coincide with the centenary of the first national park in Australia. On 26 April 1879 the Royal National Park at Port Hacking was reserved 'to the use of the public for ever as a National Park'. The event will be celebrated by all national park bodies throughout Australia.

A hundred years is a long time, especially the last hundred, when so much has happened and changed. Yet there will be a few people in Sydney who were alive when the first park was proclaimed in 1879. In that perspective it is not so long after all.

During this past hundred years the concept of a national park has evolved considerably in public thinking. The citizen of 1879 was very much an Englishman at heart in his view of parks. The new national park was to have zoological gardens, ornamental plantings, a racecourse, a rifle range and to be a place to exercise the Military and Naval Forces. It appears the land had been chosen in the first place because it was not suited for any agricultural purpose.

If the Australians of that time thought only of changing the bush, it was beginning to change them. The changes have gone on until a century later the majority of Australians love and respect the bush for its own sake.

As national park people we recognize the value and need of parks. They must be of sufficient size to adequately preserve the natural environment and at the same time cater for the recreational needs of the people who use them. They must be kept intact so that the unborn generations may come to know our natural history and experience wilderness.

What of the next hundred years? The emphasis will no longer be on the acquisition of parks, but on their proper management and on the in-depth study of their natural history. The bush has so many secrets that a multitude of them will not be unfolded, even in this next hundred years. For the task ahead Australia needs a host of botanists, zoologists, ecologists and other natural science specialists. Some may remark that this is a waste of public money. On the contrary it is a proper use of social resources for creative living.

THE ROYAL NATIONAL PARK 1879-1979

The National Park at Port Hacking (subsequently called the Royal National Park in 1954 after the visit by the Queen) has the distinction of being the first park in the world to be named a 'National Park' in an official proclamation or statute. This took place in 1879 when federation in Australia was still 22 years in the future.

However the world's first true national park was the Yellowstone Park in Wyoming U.S.A. Cornelius Hedge in 1872 argued in a moving speech before the U.S. Congress for the preservation of the Yellowstone region. In part he said:

'it is impossible that any individual should think that he can own any of this country for his own in fee. This great wilderness does not belong to us. It belongs to the nation.'

The history of the origin of that decision is recorded in The Official Guide to the National Park of New South Wales 1894 and is worth quoting.

'In the early part of the year 1879, several public men, both within and without the walls of Parliament, raised their voices in favour of the Government providing public parks, pleasure grounds, and places of recreation adjacent to all thickly populated centres in New South Wales. A set of resolutions was submitted to the Legislative Assembly, affirming that the health of the people should be the prime consideration of all good Government; and to ensure the sound health and vigour of the community it was necessary that all cities, towns, and villages should be possessed of pleasure grounds as places of recreation. This necessity was recognised by the leading statesmen of the day, but the resolutions were of a nature so sweeping that their adoption would have imposed an entire change in the policy of the country. At this time Sydney possessed several breathing spaces favoured by nature, but the more densely populated parts of the metropolis and suburbs were destitute of such provision. While the ardour of these well-meaning though impracticable philanthropists was still burning for additional city lungs, the late lamented Sir John Robertson as the acting head of the Government, conceived and developed the idea of bequeathing to the people of this State a national domain for rest and recreation. His first choice was fixed upon a stretch of country, 18,000 acres in extent, having an ocean frontage, immediately south of Port Hacking, and comprising sections in the Parishes of Sutherland, Heathcote and Bulgo and the whole of the Crown lands within the parish of Wattamolla. On March 31st, 1879, Mr. James Hoskins, who had by this date accepted the portfolio of Minister for Lands in the Parkes-Robertson Government, reserved this area from sale, and on 26th of the succeeding month the Lieutenant-Governor, with the advice of the Executive Council, dedicated the reserve to the use of the public for ever as a National Park.'

The NSW Government is commemorating the event by holding the South Pacific Conference on National Parks and Reserves during the centenary week.

Darryl Hawke

AN INTERVIEW WITH PROFESSOR KENNETH MELLANBY

The portents didn't seem the best for interviewing Professor Kenneth Mellanby. I had just taken him to task in 'New Scientist' magazine for his reported comments when he visited Australia as a guest of the Association for Regional Parks and Countryside Commissions. In the article I had also roundly abused his hosts. And the 'New Ecologist' had printed, the same week, a somewhat scurrilous article entitled 'What makes Kenny run?', in which it too castigated Professor Mellanby for, among other things, his Australian performance. The suspicious mind might have perceived collusion in what was in fact a coincidence.

Our first attempt at a meeting failed. Bernard Dixon, the editor of 'New Scientist' had arranged for the three of us to meet on hostile territory at the Nature Conservancy Council's Monks Wood Experimental Station, where Professor Mellanby still has an office. Some disaster at 'New Scientist' meant that the whole thing had to be called off at the last moment. However, Professor Mellanby was going to be in London the following week, and he agreed to come and talk at the offices of 'New Scientist' where I was working.

I recognised the man immediately he walked through the door. He looked very much as he had looked in newspaper photographs - a fairly fit man in his seventies. He had a tanned leathery skin. Bernard Dixon introduced us and left us to our private quarrel - if that was what our conversation was going to be.

We sat and talked cordially about Australia. Had he realised before he came how polarised attitudes had become in this country? No, he hadn't. The last time he visited Australia he did so as a guest of the Australian Conservation Foundation, but that was before that body took its radical lurch.

What worried him about conservation in Australia now? As may be expected, he thought that the division between conservationists and the rural community was unfortunate. He felt that conservationists were as much to blame as anybody. He also questioned the wisdom of taking land that had been farmed or heavily grazed for many years and including this in national parks.

Did he disapprove of the American concept of national parks, which we have adapted to our conditions? It seemed not - provided of course that the land included had not been greatly altered by farming. And what about the contentious issue of wilderness areas? Once again, to my surprise, he didn't object to them. In fact, he could see their virtues. Zoning areas in national parks for different uses was, he seemed to feel, the best approach. So we had no quarrel there.

We then moved on to the idea of regional parks, and he accepted that our various States had already embarked along the road to such parks, unprompted by the Regional Parks Association. Did he think that his hosts realized what restrictions setting up such parks would put on the farmers living within the park boundaries? No, he said, they didn't.

We finished on the subject of Gudgenby park - a regional park if ever there was one. He had no knowledge of the proposal. When I described how this large area of land would be managed, with its zoning to cater for different interests in the community, he seemed to think that the right approach was being adopted. The size of the park didn't seem to concern him - yet his host (and my old foe) Oliver Moriarty has publicly claimed that the far smaller Tidbinbilla Nature Reserve is too big to manage.

From this interview I gained the impression of a pleasant, ageing man with whom the backers of national parks don't really have much to quarrel about. He said very clearly that he doesn't agree with everything that Mr Moriarty says. However, Professor Mellanby does seem to have a penchant for lending his name to surprising causes - that of Mr Moriarty and his friends is but one. Perhaps he should choose his friends better!

Brian Lee

Many things have changed since I first walked the Wales watershed. The physical appearance of the landscape has changed profoundly. Central Wales in my day was a green desert. Now much of it is buried in pines and huge reservoirs have drowned many valleys. I am not against planting as such but I think it has gone too far. I don't want the wide open landscape of Wales to be reduced to bridle paths in a dark gloom.

Wynford Vaughan Thomas

THE LONE CRY

I have just finished reading a bulletin in which there was quite a plug for conservation and it caused me to wonder whether an experience over recent years from the Kosciusko backwoods might be of interest. I am not really in the habit of talking conservation on account of I was born of a pioneering family to whom the only good gum-tree was a dead one, preferably cut up ready to burn in the kitchen stove. Only a couple of years back we reported to our father (aged 90) that we had cleared the front paddock - a crime really - and he replied 'Great work - the boys must be very proud of themselves!' His values were back in the days of hand-saws, axes and timber-jacks - he had never seen a big forestry 'dozer at work.

When, after 30 years in Sydney, I returned to our little valley near the edge of Kosciusko National Park, I was tremendously happy; this was my world and it was intact! There, incredulous, I noticed the town side of our sheltering Range was criss-crossed with new roads, the trees had come down and were pushed into great rows - you all have seen this of course. But here they were destroying one of the most beautiful aspects in the country. The lovely sunlit eucalypts in the foreground were being replaced by a steadily-creeping dark green 'fungus', reflecting no light. We were surrounded on all sides by thousands of acres/hectares of radiata - the unbroken monoculture is awe-inspiring indeed, but this denuding of the immediate prospect was desecration!

I approached the townsfolk: to a man they changed the subject. I brought the matter up at the Garden Club meeting; positively no response. I talked to my closest friends - 'Yes, it is dreadful' they agreed, 'but you can't do anything about it - don't try'. 'But why?' I expostulated. 'You just try calling a public meeting and you'll see. No one would go. The Forestry means too much to this town'. It was true, of course; to the Chamber of Commerce the Forestry means business, to the farmers an opportunity to sell their peripheral land at a good price, to 'mum, dad and the kids' it means access roads to beauty spots, picnic grounds (well appointed) and fishing - and prospects of employment. (In ten years time they will need to drive many miles through dense, dark green pine forests to see a gum-tree!)

So I went it alone through the Local Member to the Forestry Commission and the Department of the Environment (or whatever it was then). Many months and a great many letters later, the Department of Environment agreed to send an Investigating Officer. But that was at the time Departments were falling like nine-pins, and this lot fell. I began all over again with a new Department and wrote many more letters. Their final words made me feel like a psychiatric patient when they wrote that mine was a purely subjective opinion not confirmed by anyone else in the district! So what? That didn't make it any less true! Meanwhile, I had been hammering away at the Forestry Commission who are really very nice people (the local representatives are, of course, our very good friends) and I had a word by the grape-vine that they were getting rattled - public relations is one of their 'sensitive areas'; the other sensitive area is, one way or another, to get their quota of acres/hectares under softwoods. Anyway, I poured in all my small supply of ammunition and I received their assurance that they intended to go no further along the Range - they even supplied me with a very nice map of the area in question! Maybe there is a moral in all this 'conservation in a nut-shell' - small towns are very educating places!

N. Whiddon

VISIT TO YARRABEE - BRINDABELLA

On 26 November three committee members, Daryl Hawke, John Schunke and John Banks visited the Franklins of Yarrabee in the Goodradigbee valley. The purpose of the visit was to discuss land use problems of mutual interest to graziers of the valley and the National Parks Association. This visit follows an earlier one to the Dowlings at Brindabella last year. The major topics of interest were feral animals, noxious weeds and the wildfire problems.

We arrived at the property after a pleasant drive over the Brindabella range to be met by Mr and Mrs Franklin, who, after morning tea, took us on a guided tour to see at first hand some of the problems facing the man on the land.

We were shown the pelt of a feral dog and photographs of others recently shot on the property and told that sheep losses in the valley last year amounted to over 600 head. None of the dogs appeared to be a full-blood dingo and many looked very much like city dogs. These dogs come down from the surrounding forest mostly from the south-west. We were told that the feral dog problem was a recent phenomenon and that if it continued the viability of wool production and the very livelihood of some landholders in the valley were at risk.

Next we went up Power Line trail to Wombat Grounds, once used as a sheep camp. Here along the creek banks blackberries flourished and once we got our eyes in, we saw that all the flats along the trail were similarly infested. If left unchecked this problem must get worse, because blackberries are readily dispersed by birds and easily become established in the undisturbed forest. The present situation results largely from changes in land management - the withdrawal of grazing and conversion to national park, and the difficulty of eradicating this persistent exotic. Its threat to the adjacent grazing land comes from its potential to spread rapidly from a secure base in the forest into the fertile lands along the valley.

The third major concern is that of wildfire. The last major fire through the region was in 1957. Since then, apart from the occasional lightning strikes, there has been no burning until recently when a patch burn was done using aerial incendiaries. In places little appears to have been burnt from this operation. This is in stark contrast to the graziers' practice of the past 100 years when the forest was burnt regularly, on average about every three to four years, to produce a green pick, keep the forest free of woody regrowth and allow access of grazing animals. What concerns graziers today is that they see the massive regrowth of shrubs and saplings as creating conditions for a devastating forest wildfire which will threaten their properties.

A second meeting with Mr Franklin was held after Christmas to continue discussions on dingoes and fires.

MONOLITH VALLEY - BUDAWANGS

John Banks

The Federation of Bushwalking Clubs (NSW) in response to a request from the Budawangs Committee and the Superintendent of Morton National Park is asking all walkers not to camp in Monolith Valley. This should ease pressure on campsites, vegetation and firewood. Several pleasant campsites are available in the near vicinity.

GRA ED NOTION

Crossing over Dartmoor during that glorious May Bank Holiday weekend, my mind turned to how people carry their value systems from one part of the world to another. 'Mad dogs and Englishmen', wrote Noel Coward, 'go out in the midday Sun'. Certainly the British have been as good as anybody in carrying their prejudices around with them, and the fact is particularly apparent in the country where I choose to live - Australia.

The Spanish have their *siesta* and the Italians their *reposo* to sleep off the midday heat. Most Australians live a good deal closer to the Equator than either the Spaniards or the Italians, yet still they insist on British-type working days from about 9 am to 5 pm - even in the tropics.

Dartmoor may seem a strange place for such thoughts, but there is a connection. Dartmoor is a national park. Back home from time to time I raise my voice (or more often my pen) in defence of our own national parks.

My particular *bête noir* is a man called Oliver Moriarty. We who regard ourselves as friends of national parks thought him like his namesake on the *Goon Show* a joke when he first appeared on the scene. But he's a persistent fellow who pops up like a jack-in-the-box every time you slap him down. His most recent line is that we should abandon our present national park management methods and use the British approach.

Our dispute arises from the meaning of the words 'national park'. We can't claim our Australian parks are national since each is run by the government of the state in which it is situated. However, this apart, they do conform fairly closely to the definition of a national park put out by the International Union for the Conservation of Nature (IUCN). Most of their landscapes represent not-too-battered relics of what was there before the European settlers moved in about 150 years ago. What we have may not be far removed from the primeval scenery.

Britain's national parks do not conform to the IUCN definition. Dartmoor, the Lake District and other British national parks are exceedingly pleasant, rural landscapes that have come to be what they are as a result of several thousand years moulding by man.

My friend Moriarty won't have such ideas. He is wedded, on the flimsiest evidence, to the curious notion that before we arrived the Aborigines kept the landscape looking like an 'Englishman's park'. Since they managed the landscape, the current practice of preserving it as wilderness by locking it away in national parks must be disastrous. Instead, he maintains, the land must be grazed to keep it healthy - a view I notice that is echoed in the *One Europe, One Environment* manifesto of the European Environmental Bureau, which states 'the traditional farmer was both food producer and caretaker and conservator of the landscape'.

Of course, such thoughts are music to the ears of Australian sheep and cattle farmers who in no way can pose as benefactors of the landscape. They have never forgiven the government of New South Wales in particular for banning their animals more than ten years ago from the high country of the Southern Alps where they used to roam for summer pasture. Those farmers would dearly like to get them back there, and Mr Moriarty keeps popping up to champion their cause.

Usually, answering the farmers and their self-appointed spokesman has created little difficulty. For one thing, they were causing serious erosion. Also, a combination of forest fires and grazing was killing off the forest cover. More than two decades of painstaking ecological research have shown that while the local ecosystems can cope with fires since they evolved with these as a not infrequent event, they can't stand the pressure of grazing - which is not so surprising when you think that until 150 years ago there were no large grazing animals in the area except a relatively small number of kangaroos.

Here is a place where the northern European attitude that farmers have traditionally been the best landscape conservators doesn't apply. (When comparing the present arid condition of Lebanon or the plain of Thebes - one time bread bowl of ancient Greece - with their comparative lushness in historical times, one wonders if it applied in these rather similar latitudes either.)

No doubt reason will prevail in Australia. However, to the astonishment (not to mention the irritation) of the local scientific community, who should recently appear and muddy the waters but Professor Kenneth Mellanby, former director of the Nature Conservancy's Monks Wood Experimental Station, and current editor of the journal *Environmental Pollution*. He was in Australia to address several seminars and to make a tour of selected national parks as a guest of a new 'conservation' association that was pushing the idea of a commission in each of our states modelled on the British Countryside Commission. Closer inspection revealed that this new association represented nothing less than the farmer backlash under a new guise aided and abetted by - guess who - my old friend Moriarty.

One can only wonder what Professor Mellanby thought he had been invited to. At a carefully arranged set of press conferences he was quoted as extolling the idea of conserving the landscape of national parks through controlled grazing, and he even succeeded in appearing to label the mainstream of academic opinion as an 'idiotic fringe'.

In a British context his remarks, as quoted, looked sensible enough. But the Australian landscape is far from like the British, and British experience in land management isn't necessarily applicable. The first settlers found that out at Sydney Cove exactly 190 years ago. They very nearly starved!

Brian Lee
New Scientist, June 1978

CARE OF THE FEET

Some of the commoner minor ailments encountered when bush-walking concern the feet. The following notes, drawing on the experience of various people, might be useful, particularly for new walkers.

The feet have a very important part to play as they carry the weight of the body and protect it from jarring. The foot bones are held together by ligaments, tendons of the strong muscles of the leg and by the small muscles of the foot itself. The principal bones of the feet used for standing and walking are arranged in two arches which act like springs. One arch extends from the heel to the ball of the foot and the other extends from side to side across the foot. In walking, the bones of the arches are pressed closer together and then spread apart again as the feet are flexed and the weight of the body transferred from one foot to the other. When carrying a heavy load, the feet will probably lengthen and spread more than usual.

It is helpful to bear these facts in mind when choosing footwear. Shoes or boots for extended walking will, in general, need to be larger than those normally worn. They should be roomy across the toes, but fit snugly around the heel, and under the long arch. Paddy Pallin, in his useful handbook on Australian bushcraft Bushwalking and Camping, suggests testing for length by pushing a pencil behind the heel when the toes are well forward in the boot. Certainly boots should not be short - this can produce pressure on the toes when going down steep slopes - nor long and pointed as this can cause the wearer to trip over or kick small obstacles like roots, fallen branches and stones. The soles of boots must always give a firm grip and for this reason plain leather, which acquires a polished surface, especially on dry grass and leaves, can be dangerous. Crepe rubber soles and desert type boots with deeply indented crossribs, both slip on wet surfaces. Soles with a continuous surface from sole to heel are also regarded as dangerous, as some heel helps considerably to retain a grip on steep slopes. The most popular type of sole is of heavy moulded rubber, e.g. the 'sherpa'. Needless to say, thongs, sandals and thin slipper-type shoes can all be dangerous and should never be worn. However, as Paddy points out, boots require more energy than shoes, simply because they are heavier, and quotes U.S. Army experiments showing that adding 1 lb to the weight of footwear requires additional energy during walking equivalent to adding 4-5 lbs to the pack. The above factors and the type of terrain to be covered need to be kept in mind when choosing boots or shoes.

When trying on new boots always do so with thick walking socks and remember that socks too can cause trouble. They should not be tight causing any constriction of the toes; must be free of lumpy seams, and fit smoothly with no tendency to wrinkle. Thick wool, which is soft and absorbent, is usually regarded as the most satisfactory material.

Attention to toenails can also avoid trouble. Particular care should be taken when cutting the nails to cut straight across and to leave no sharp corner at either end of the nail and file down thick or rough nails.

Hygiene is always important, but especially so if feet perspire freely. This can increase the tendency to blister or exacerbate a tinea infection. The latter is a fungal infection which produces soft whitish skin between the toes or, in more severe cases, small blisters and raw areas. Washing, followed by careful drying, especially between the toes, and regular application of Boracic Acid, will control it. A change of socks and shoes for wearing around camp in the evening is also worth carrying.

Despite our care blisters from rubbing of the skin often occur, especially in hot weather. Paddy says that in his experience blisters are usually caused by boots that are too tight. Whatever the cause, do not wait and let a blister develop. It is better to protect the tender area straight away with a generous piece of broad elastoplast. Some walkers find the strapping with the smooth shiny finish (Leucosilk 1 1/2", or Elastoplast Plastic Adhesive Strapping) good in this regard, as it reduces any tendency to friction or sticking between plaster and sock which if it occurs can still cause trouble. Others suggest that soap rubbed inside the sock over the affected area or vaseline on the skin can be helpful.

If a blister has formed, the treatment is the same unless it is already very large and ready to burst in which case it is better opened. Clean the area thoroughly with soap and water and insert a needle which has been sterilised with a match, just beyond the edge of the blister and passing into

the blister. Gently press the fluid out and cover with a clean dressing. Should a blister have already broken it is treated like an open wound with thorough washing and application of a clean dressing. If a band-aid type dressing is used it should be the large size, the edges of which will not rub up easily. Again, porous 1 1/2" Leucosilk is useful.

Happy walking!

PLANTS AS HITCHHIKERS

Cynthia Hook

Dr Nigel Wace of the Department of Biogeography and Geomorphology of the ANU gave an address on the above subject on Thursday, 19 October 1978, to the Association. The following article is a summary of his address.

In the milleniums to come the effects of man moving plants around the globe will cause stratographic confusion. A large-scale effect is the establishment of eucalypts and pines on continents where they were formerly not indigenous. To a lesser extent, investigations have been made on exotic flora to determine how seeds get around.

To this extent the audience was used for an experiment as to what is being carried on its clothes and it was hoped that the clothes of the Canberra audience would not be as sterile as the clothes of those attending the ANZAAS conference. Clothes contribute to the dispersal of seeds as do the coats of domestic, wild and feral animals. One modern innovation which is contributing considerably to seed dispersal is the motor car when mud is washed from it or falls off.

Some idea of the extent to which dispersal can take place can be gained from the fact that there are 5 - 7 million vehicles in Australia and that sealed roads approach in area (if placed side by side) that of the ACT. To the idea of area of roads, Australian audiences have a much closer appreciation of the number of vehicles and road areas than do American audiences. The tyres of vehicles, shoes, thongs, etc. all pick up sharp pointed seeds and eventually drop them off in another location.

Socks and trouser cuffs are another source of seed collection and reject socks were used to make collection and classification easier. Contact was made with dry cleaners to examine the sludge from the machine but the fluid used was hard on germination and little information was gained. Bird seed is another source of dispersal as the birds in cages scatter seed around or cages are carelessly cleaned. Cannabis is no longer included in bird seed mixtures so at least one source of procurement and dispersal has been stopped. Another place for dispersal is alongside rail tracks when grain crops being carried spill onto the tracks and germinate.

The main source of seed for the study was taken from the sludge collected in the sediment pits at a Canberra commercial car wash. It takes about three hours to wash a car thoroughly by hand and the use of the sediment gained from car washes made the job much easier. Sludge was collected weekly over a period of 2½ years when the normal sludge disposal operation took place. The water is recycled after passing through the settling tanks. Samples of the sludge were taken from the bottom, the oily water level and on top of the dividers. The design of the tanks could be improved to make collection more complete but the tank designers could not be persuaded to make the simple modifications. Samples were taken in 1-litre jars and naturally contained a large amount of gunk and extraneous matter - bristles off the brushes, plastic pieces, chewing gum, broken glass, parts of motor cars, leaves, match sticks, etc.

There was very little germination yield from straight sludge and it needed to be washed and separated to expose the seeds. The sludge is a signature of the city from which it comes.

An attempt was made to identify seeds. This was found to be too slow so they were planted in sterile soil. Although some 18,000 seedlings were grown it was difficult to identify small plants, so these were thinned and friends were co-opted to grow and identify the plants. Seeds were found that were not grown on the tablelands and no doubt many more seeds were carried by cars than were separated from the sludge at the car wash. The radiator grill would trap many wind-blown seeds and also these could be trapped in various parts of the under body of a car.

There was no limit to the variety of seeds collected: wattles, casuarinas, eucalypts, tableland grasses, Canberra street trees, hedge plants, garden scrubs, clover, weeds, Patterson's curse, garden herbs. Altogether 19 species not native to Canberra were found. Control trays of sterile soil were used to eliminate the chance germination of varieties not collected in the car wash. Probably a large number of seeds did not germinate because of the detergents and oil in the car wash sludge. It is probably one thing to disperse but another problem to establish.

The meeting concluded with questions and examples from the audience on their experiences in plant dispersal.

A GREAT WHITE BIRD

A *Great White Bird* - a colour film, by courtesy of the Canadian High Commission, was shown at the November general meeting. The film followed efforts to breed 'Josephine', the sole female crane in captivity, and to understand and conquer the high mortality rate of chicks and young adults. Later, artificial insemination was tried on a lady crane, much to her amazement. She was descended from eggs taken from the wild flock in the Northwest Territories and artificially hatched in Maryland (USA). Later eggs were hatched by wild sandhill cranes in Gray's Lake, Idaho.

The whooping crane is a large, satiny-white bird with a long neck, long dark, pointed bill and long thin black legs. When erect, a large male stands more than five feet tall - the tallest of all North American birds. At close range it is an imposing and beautiful bird, with its cap of crimson skin, its bright yellow eyes, and its arched, drooping tail plumes. In the air it is even more magnificent. The white wings measure six feet or more between the tips of the long, black flight feathers that fan out like fingers. In flight the head is extended forward like a lance, and the legs trail equally straight behind. In normal flight the great wings beat in powerful, slow rhythm, at about two beats per second, with a quick, strong, upward flick. Normal flying speed is about 45 miles per hour. It has a loud, clear, bugle-like call. There are about 14 species of crane in the world, found on all continents except South America. Two species are found in North America - the whooping crane and the sandhill crane. Sandhill cranes, smaller than whoopers, are grey in colour and relatively numerous.

Whooping cranes have probably never been numerous. By 1850 there were probably only 1,500. Their winter range then extended from North Mexico through Texas to the Louisiana coast, with scattered groups in the Atlantic coast. They nested over a wide area from the southern end of Lake Michigan, to the Peace

River country of Alberta, with scattered breeding population throughout the Mackenzie River system and northward to the Arctic coast. In contrast to this original large range, the present known range of the whooping crane is tiny. The nesting area is 500 square miles and the wintering ground only about 15 square miles. Whooping cranes have exacting territorial requirements. In winter they select an area of salt marsh which they defend against other cranes and which provides all their food; blue crabs, crayfish, freshwater minnows, mullet, and aquatic insects like dragonflies, beetles and water boatmen. These winter territories average over 400 acres a pair.

The whooping crane's requirements for nesting are also rigid. Each pair needs a considerable area of shallow water or marsh, with sedge, grasses, bulrushes, and abundant water animals and insects for food. This need for isolation and a specialized environment made their great nesting range unsuitable with the coming of settlement. Under pressure of farming, cattle grazing, settlement, hunting, even egg collecting, whooping cranes disappeared from central North America. Since 1922, when a pair nested near Davidson, Saskatchewan, not a single nest has been found in settled regions; in fact for nearly three decades, until 1954, the whereabouts of the nesting ground remained a mystery. It was discovered accidentally when a forestry officer and a helicopter pilot, carrying equipment to a forest fire, spotted a young bird with two adults south of Great Slave Lake. This sighting was confirmed the next day, and the location of the nesting ground definitely established by ground search in 1955.

Although capable flyers, whooping cranes seem equally at home on the ground, spending about half their daily lives walking about in sloughs, marshes, and low-lying flat areas in search of food. In fine, calm weather they may fly, apparently for pleasure, sometimes rising a mile or more in great, slow spirals, circling and whooping with their melodious Ker-loo, Ker-lee-loo. They may circle for an hour or more, dots in the blue sky barely perceptible to the observer below. They may descend in long spirals, or may swoop and dive quickly down to within 50 feet of the ground, finally settling to the ground on outspread wings. A crane in flight, seen at close range, with sunlight on its satin-white plumage, presents a magnificent picture of grace, strength, and beauty.

In mid-December the mating dances begin. The dance has several variations. In one the male pumps his head up and down in a series of bows, at the same time flapping his wings slowly and leaping lightly off the ground. He may bow until his bill almost touches the ground, then may raise his head and point his bill in the air at a steep angle, then bow again, and perhaps rotate a full or half circle, leaping, whirling and fanning the air with his wings. The female sometimes participates in the dance. It is thought that the birds mate for life. The mating dance occurs annually, but with reduced intensity.

The whooping cranes usually leave their wintering grounds in the last week of March or the first half of April. They move north in 200 or 300 mile stages, and may rest for several days at staging areas in Nebraska or Saskatchewan. They may roost in river bars at night, and in the morning feed on the egg masses of frogs and toads or on other aquatic life. Often they walk over adjoining fields seeking beetles and other insects.

By the first or second week of May the nesting pairs arrive at their nesting grounds. Mated pairs dance on the nesting area and while nest building. Not all the cranes are breeding birds. There is evidence that cranes do not breed until they are at least two years of age or older. Others may be past breeding age. Still others may not be able to find a mate in the very small population that now exists.

The nesting area, like the Texas wintering grounds, is a low-lying area of marsh, sloughs, and mud flats, much of it grown to bulrushes, sedges, cattails, and other semi-aquatic plants. The area is nearly inaccessible to man except by aircraft. These sloughs and marshes contain abundant food; a few small fish such as brook stickleback and fat-head minnows, and many wood frogs, chorus frogs, and many species of molluscs, especially snails and small clams. Insects of the area include dragonflies, damsel flies, may-flies, backswimmers, and many diving beetles, water mites, caddis flies and bristle-worms. The nymphs of the first three undoubtedly form a large part of the cranes' spring and early summer diet. The nest is usually set in 15 or 16 inches of water, but may be on firm ground near water. It is built of rushes and reeds, with a covering layer of grass and rises 10 to 15 inches above the water surface.

The female usually lays two eggs, but occasionally only one. The shells are smooth and somewhat glossy. The colour varies from cream buff to olive buff, and is blotched quite heavily near the large end with various shades of brown. Only one egg is raised, although both may hatch. The second chick either dies or is destroyed. It seems that there is not room for more than one chick on the high-crowned nest.

The incubation period lasts about 34 days. One bird is always on the nest or closely guarding it. The male takes his turn at incubating and always seems preoccupied with guarding the nest. He will fly or run at any invader, uttering loud whooping noises, and is well able to chase away coyote, fox, raven, eagle, bittern or other intruder. The reddish-yellow young hatch during the second week of June. From then until about December the parents capture food for the young birds. They often break shell-fish and snails to prepare them for eating by the young birds.

The young birds practise flying in September and by late September or early October are ready to try their wings on the long 2,500 mile journey southward. The young of the year are not as large as the adult birds, and their plumage is buff, cinnamon, and russet mixed with white. The young remain with their parents during the first winter. They make the return flight north alone and unfortunately mortality is very high, probably owing to the young birds' inexperience. Biologists do not know exactly what mortality factors affect the young birds, but few reach the nesting grounds.

Naturalists had been concerned for many years that this great bird might become extinct. Destruction of habitat was the main reason for the decline of the whooping crane to less than 100 in the 1920s. In 1957 the United States Government established the National Wildlife Refuge at Aransas to preserve at least a remnant of winter range suitable for whooping cranes.

The Canadian Wildlife Service and the U.S. Bureau of Fisheries and Wildlife decided to build up a captive flock by artificially incubating nests in Wood Buffalo Park. The first pick-up occurred in 1967 when a team of scientists took six eggs from nests and flew with them by jet aircraft to a special rearing station at Patuxent, Maryland. Ten more eggs were picked up in the following year and ten in 1969. There was no pickup in 1970. It is hoped that the captive flock hatched from the eggs, which totalled 22 in 1970, will increase to a point where some young birds can be released to the wild.

CONSTITUTION

Notice is hereby given that at the General Meeting on Thursday, 15 March 1979, the Committee will propose that the following amendments be made to the NPA Constitution:

1. That section 4, reading as follows, be deleted:

'The full annual subscription for each class of membership shall include a charge of \$3.00 per annum for one copy of each quarterly issue of the Bulletin. Subscriptions shall be as follows:

Ordinary Membership	\$8.00
Family Membership	\$10.00
Student Membership	\$3.00
Corporate Membership	\$5.00

The Committee may apply a concession of half the rate specified where for financial reasons special consideration is warranted.

The annual subscription shall be due and payable on 1st July of each year. Members joining on or after 1st January shall pay half the subscription for the current year. Members whose subscriptions are unpaid at 31st October shall be deemed to be unfinancial and be debarred from privileges of membership but may on payment of the overdue subscription be reinstated.',

and the following section substituted:

'Subscriptions shall be fixed at a General Meeting provided that the meeting shall be held at least one calendar month before the commencement of the period to which the subscriptions will apply.

The annual subscription for each class of membership shall include a charge for one copy of each quarterly issue of the Bulletin.

The Committee may apply a concession of half the rate specified where for financial reasons special consideration is warranted.

The annual subscription shall be due and payable on 1 July of each year. Members joining on or after 1 January shall pay half the subscription for the current year.

Members whose subscriptions are unpaid at 31 October shall be deemed to be unfinancial and be debarred from privileges of membership but may on payment of the overdue subscription be reinstated.'

The purpose of the above amendment is to remove subscription rates from the Constitution, to allow them to be changed without amending the Constitution.

2. That in section 6, the following sentence be deleted:

'The Annual General Meeting shall be held not later than 31 July.',

and the following substituted:

'The Annual General Meeting shall be held not later than 31 August.'

The purpose of this amendment is to allow more time for the auditing of the Association's accounts after the close of the financial year on 30 June.

3. That in section 8 the following sentence be deleted:

'An auditor shall be appointed annually.',

and the following substituted:

'An auditor who is not a member of the Association or the Public Officer shall be appointed annually.'

4. That the following two sections be added:

'A public officer shall be appointed and shall hold office according to the provisions of the Associations Incorporation Ordinance, and shall perform the duties required under that Ordinance.'

'The income and property of the Association however derived shall be applied solely towards the promotion of the aims and objects of the Association.'

The amendments proposed in 3. and 4. above were suggested by the Registrar of Companies.

MAP USER FORUM

Over 100 people attended a map users forum organised by the Division of National Mapping on 22 November 1978. Staff of the Division, led by Mr Bert Goodrich, explained the operations, and production goals, of the Division. NATMAP produces maps at scales of 1:100,000 and smaller, leaving the 1:50,000 and larger scale work to the State offices. Co-ordination is achieved through the National Mapping Council under the chairmanship of the Director of National Mapping, Mr Tony Bomford (who recently addressed a meeting of the Association).

Invited to comment on available maps, specialist users of small scale maps had criticism for the Air publications and there was discussion on the limitations imposed by International series specifications. A larger, more critical, group of field users in conservation, recreation, research and service activities was critical of the 1:100,000 map as a somewhat inadequate tool for rough country travel. Given the Division's terms of production it was, perhaps, somewhat unfair to pursue the lack of 1:50,000 cover - a complaint more properly addressed to the State authorities. As users we might wish that the dividing line between responsibility was not at the range of scales (50,000 to 100,000) most useful for broad ranging field activity.

In reviewing technical features of mapping there was detailed discussion on hydrological features. Mapping staff reported pressure to move away from the dotted line 'intermittent' stream classification towards a general water-course indication supplemented by marginal information to indicate when water would actually be present. This idea was not universally accepted. In considering cultural features there was a demand for a more detailed road classification and a strong need expressed for some indication of 'right of way' or 'no legal access' for delineated roads in back country and forest areas.

The availability of direct air photo and satellite records was discussed and the Division staff pointed out that much data was held by their office and could be used by the public. The actual procedures for this were not detailed. The purchasing cost of air photographs is very high.

In its efforts to be cost effective NATMAP is trying new materials and formats. The current ACT map on plastic and in alternative, back to back, form is an example. Some Victorian users have also been presented with maps 'backed up' - two adjoining sheets printed back to back. Another new presentation (so far limited to thematic work) is microfiche - enabling a map to be produced for about 30c.

As the Director had told us, and the forum indicated, the Division wants to increase sales. Hopefully, the forum was the first of a series and the staff promised to report back on the progress in ideas put forward. NATMAP is

to be congratulated on its efforts to reach its customers and it is up to us, the 'users', to respond. If we don't ask for the maps we want we have only ourselves to blame if we get 'lost' either in the system or - later - on the ground! Reg Alder would be able to see that any suggestions from members get to the next 'forum' so please give him your ideas for better maps. Map correction forms are available from the Association.

Brian Hammond

A National Parks pack walk party had their tents blown down at Nadgee. It seems that they might have been ill-prepared for such an eventuality.

Henry IV advancing against Owain Glyndwr in 1402 near Knighton, Wales, pitched his tents in a very pleasant meadow where everything seemed to betoken a calm and comfortable night, but in the first watch there came a flood of rain followed by a whirlwind which overthrew the king's own tent, whereby he might have been killed if he had not been sleeping in his armour! He returned bootless and weather-beaten back.

The moral of the story might be to sleep with your boots on also.

INSTRUCTIONS FOR JOINING OUTINGS

All persons joining an outing of the National Parks Association of the A.C.T. do so as volunteers in all respects and as such accept sole responsibility for any injury howsoever incurred and the National Parks Association of the A.C.T., its office bearers and appointed leaders are absolved from any liability in respect of any injury or damage suffered whilst engaged on any such outing. Essential equipment on all walks is a first-aid kit, torch (2 'D' size cells), map, compass, matches, protective rainwear, warm sweater and footwear adequate for off-track walking. In winter above 1300m in the A.C.T. area warm windproof clothing with scarf or cap and gloves (socks are a substitute) are needed. Woollen material will retain heat even if wet but it must be worn in association with a wind-proof garment. Clothing should be easily taken off, as climbing generates heat even in winter. At least 300 ml of drinking fluid per person should be carried (double in summer). When walking on roads, keep to the right. Dogs are not allowed on walks. Extinguish all fires with water or soil. Leave camp and lunchsites clean and tidy. It is essential to give reasonable notice to a leader if you wish to join a two-day or longer outing. The leader is expected to ensure the safety and scheduled return of the party and may decline any person's request to attend. New members and visitors are welcomed on walks and many walks have little difficulty for the normal family group. Inexperienced persons should discuss the route with the leader before attending a walk classified as 'medium' or 'hard'. Full details of the intended route should be left by the leader at home or with some responsible person who will be aware if the leader is overdue. If the party is overdue the chosen person should notify in the first instance one of the senior officers of the Association and not the police or press. The Walks Secretary would appreciate a report on the walk giving such details as numbers attending (members and non-members), travelling time to pick up point, route taken, meal locations, condition of route, distance, time taken (include rests and meal stops), suggestions for improving route and grading of walk.

AUSTRALIAN NATIONAL PARKS COUNCIL

At the Fifth Annual Conference of the Australian National Parks Council (ANPC) deep concern was shown at the growth of the anti-conservation lobby in Australia.

The anti-conservation lobby is funded by those who wish to continue uncontrolled exploitation of Australia's natural resources. Organisations, masquerading as conservationists, are attacking national parks and the conservation of wildlife in Australia.

Professor Mellanby of the United Kingdom has referred to Kakadu National Park as 'mongrel scrub' and 'boring shrubs' but informed opinion endorses Kakadu as an area of prime conservation significance, with a rich diversity of wildlife and with anthropological, scenic and recreational values.

ANPC aims to ensure that all such natural resources are managed for the greatest benefit of present and future generations and stands for the principle of Australia establishing an adequate system of true national parks as defined by the International Union for the Conservation of Nature and Natural Resources (IUCN).

MEMBERSHIP RENEWALS

J.N.R. Anderson, A.J. Anderson, Heather Clark, J.A. Carnahan, Ruth Davis, Erik Davids, Nan Dunn, Bruce Elliott, S.C. and P.W. Ford, R.P. Fisher, Shirley Gardner, Barbara Graham, C. and M. Hunter, Hilary Hughes, Eathorne Hanlin, Hill and sons, R.S. and M. Johnson, Rae and Gerry Jacobson, K.H.L. Key, Brian Lee, Pat Lewis, Margaret Middleton, R.L. and J. Mathews, P.J. Roberts, Jo Stoffell, J.J. Shelton.

NEW MEMBERS

Norman and Hazel Bancroft, Margaret and Mark Cashmore, Ivan and Carole Thompson and family.

AUSTRALIAN ENDANGERED SPECIES LEAFLETS

As a contribution to participation in the convention on International Trade in Endangered Species of Wild Fauna and Flora the Australian National Parks and Wildlife Service is producing a series of leaflets describing Australian endangered species. Recent release of a further 20 leaflets brings the total number to 26 covering 12 mammals, 12 birds and 2 reptiles. Each leaflet contains a coloured illustration of the animal concerned, a photograph of its natural habitat and a map showing present and former distribution. The text describes the ecology, biology and conservation status of the species.

The leaflets have provoked considerable interest in the need to conserve Australian wildlife and are much in demand by schools, colleges and the general public. They can be obtained from bookshops of the Australian Government Publishing Service in all capital cities and the Australian National Parks and Wildlife Service, Canberra.

FOR SALE

Rambles around Canberra - NPA's book of walks - now selling to members at the reduced price of \$1.50.

NPA badges - 50c.

Books and badges may be purchased at General Meetings or from members of the Committee.

LOCAL NEWS

Affiliation. NPA has become a member of the Federation of Bush Walking Clubs (NSW). We are also affiliated with the Australian National Parks Council, the Canberra and South-East Region Environment Centre, the Kosciusko Huts Association and the Australian Conservation Foundation.

Committee Membership. Trevor Plumb resigned from the Committee at the end of 1978 and Lyn Leader has been co-opted to fill the vacancy.

Off-Road Vehicles Conference. NPA was asked to take over the Australian National Parks Council 'free place' at the Conference and sent a team of members to the week-long meetings: John Banks and John Schunke, Cynthia Hook, Sybil and Bob Story.

Remembrance Nature Park. A 14-hectare area of bushland behind the Australian War Memorial has been declared a Remembrance Nature Park by the Minister of the Capital Territory.

Pine Island. NCDC invited NPA to comment on its plans for extending the existing recreation facilities at Pine Island. These included realignment of access roads, additional barbecues, tables and seating, toilet blocks, car parking, and landscaping. NCDC pointed out that Pine Island was a popular river recreation area and that unless provision were made for orderly opening up and development people would make their own arrangements to gain access to the Murrumbidgee River. Already the river and banks were suffering environmental damage from uncontrolled usage. On the recommendation of two members who had examined the plans on display at NCDC, the Committee supported the proposals.

Bush Bottom. Representation has been made that Bush Bottom, an area of outstanding interest north of Goulburn, should be preserved. It is apparently a crop of Megalong conglomerate which crops up for about 20 miles through the district, rising to appreciable cliffs in some places. Some of the flora on top of the cliffs is equivalent to that of the dry heath on the north coast of NSW. Lyre birds are common. A visit to the area will probably be arranged in the late spring. Numbers attending may have to be limited.

ANPC News. Darryl Hawke has retired as the NPA-ACT delegate and secretary of the ANPC. The Committee voted unanimously for Bob Story to be the delegate to the ANPC and he has accepted the position as from 1 January 1979.

NPA OUTINGS

March 4th, Sunday

Leader: John Webster 476769(H)

Sentry Box: walk

Ref. ACT 1:100,000

Meet: Naas Creek on Boboyan Road at 9 a.m.

The walk commences at Sheep Station Creek and follows the ridge to the summit, a rise of 500 metres. Excellent views of the southern ACT are possible on a clear day. Total walking distance 15 km.

March 4th, Sunday

Leader: Cla Allan 953824(H)

Ginninderra Falls: walk

Ref. Brindabella 1:100,000

Meet: Charnwood Road, Macgregor, near Ginninderra Creek ford at 9.30 a.m.
(see UBD Canberra Tourist Map).

A short scramble should lead to the top falls.

March 10th, 11th, 12th,
Saturday, Sunday, Monday

Leader: Les Pyke 812982(H)

Wyangala Dam: Camp

Ref. Bathurst-Goulburn 1:250,000

Meet: Wyangala Dam State Recreation Area mid-day.

This lakeside resort (240 km from Canberra) has caravans and cabins available as well as camping facilities. Walks in this interesting open country (with large protruding boulders) are planned for the energetic, while those interested in a lazy weekend can enjoy the scenery as desired. (Don't forget to bring your bathers.) Please contact the leader no later than Monday 5th March.

March 11th, Sunday

Leader: Hela Lindemann 864920(H)

Honeysuckle Creek: walk

Ref. ACT 1:100,000

Meet: Tharwa Bridge (west side) 9 a.m.

An easy/medium walk proceeds from Honeysuckle Creek in a southerly direction following at first the valley floor and then ascending the local hill. Good views of Fitz's Hill area are possible from the summit.

March 18th, Sunday

Leader: Lyn Richardson 412425(H)

Bramina Ck/Goodradigbee River: walk

Ref. ACT 1:100,000

Meet: Goodradigbee Bridge at Brindabella at 10 a.m.

A medium walk with swimming and blackberry picking. A must for all blackberry fanciers.

March 24th, 25th, Sat., Sun.

Leader: Sybil Story 812174(H)

Whites River area: pack walk

Ref. Kosciusko 1:100,000

Meet: Guthega Dam 9.30 a.m. (sharp)

The route will include Mt Tate, Consett Stephens Pass, over the Rolling Grounds to the creek above White's River. This pack walk has some steep climbs and is recommended only for the 'fit'. Please contact leader if you intend to come.

March 31, April 1 - Sat., Sun.

Leader: Leigh McClintock 474587

Budawangs (Coorang): Pack Walk

Ref. CMW Budawangs

Meet: Braidwood War Memorial, 9 a.m.

A weekend walk in the Coorang area. Walking easy/medium, approx. 20 km.

March 31, April 1 - Sat., Sun. Burrinjuck Dam: Camp

Leader: Ian Currie 958112

Meet: Ranger office in park, 10 a.m.

Campsites, caravans and cottages are available in the park and may be booked by phoning 278114. Please contact leader if you intend to come. Walks, easy rambles in the local area.

April 1 - Sunday

Mt McKeahnie area: Walk (hard)

Leader: John Webster 476769

Ref. ACT 1:100,000

Meet: Orroral Valley Tracking Station, 8 a.m.

This is an exploratory walk to cover the area on the eastern side of Mt McKeahnie. An attempt at the summit will be made if time permits.

April 8 - Sunday

Lowden Forest Park: Walk

Leader: Cla Allen 953824

Ref. Canberra 1:250,000

Bungendore: 1:50,000

Meet: Where the Hoskintown to Rossi road fords Yandyquinula Creek, 10 a.m.

Short walks from the barbeque.

April 13/14/15/16 - Easter

Tom Groggin: Camp

Leader: Charles Hill 958924

Ref. Jacobs R. 1:100,000

Meet: Leather Barrel Creek beyond Dead Horse Gap on Thredbo-Khancoban Road for lunch.

Camp beside the Murray R. Contact leader if you intend to come.

April 22 - Sunday

Mt Clear: Walk

Leader: Reg Alder 542240

Ref. ACT 1:100,000

Meet: Naas Ck on the Boboyan Rd, 9 a.m.

A long day walk to climb Mt Clear.

April 29 - Sunday

Blue Gum Creek: Walk

Leader: Lyn Richardson 412425

Ref. ACT 1:100,000

Meet: Gibraltar Falls parking area, 9 a.m.

A fairly long walk to Blue Gum Creek, between Corin Dam Rd and Booroomba Rocks. Marvellous views of the north end of Gudgenby. An ascent of a local peak and some scrub bashing is included.

May 6 - Sunday

Yankee Hat (Bogong): Walk/medium

Leader: Charles Hill 958924

Ref. ACT 1:100,000

Meet: Gudgenby Bridge (past Rendezvous Ck), 8.30 a.m.

Another walk in the Gudgenby area of the ACT. Note this walk will be to the Yankee Hat shown on the ACT map (748-417) which is marked differently on older maps. The rugged beauty of this region makes any walk in the area worthwhile. Yankee Hat provides an excellent viewpoint of the Upper Gudgenby Valley and to the west of Mt Kelly and KNP.

May 13 - Sunday

Tidbinbilla Range: Walk

Leader: Reg Alder 542240

Ref. ACT 1:100,000

Meet: Information Centre Tidbinbilla Reserve, 9.30 a.m.

An easy walk along the fire trail around the base of Tidbinbilla Peak. 10 kms.

May 19 - Saturday Mt McDonald: Walk
Leader: Cla Allen 953824 Ref. Rambles Around Canberra (NPA) p.45
Meet: Cotter Kiosk, 2 p.m.

Hilly walk but much can be done by car.

May 27 - Sunday Nursery Swamp-Rendezvous Cr.: Walk
Leader: Lyn Richardson 412425 Ref: ACT 1:100,000
Meet: Parking area just beyond Orroral Ck crossing, 9 a.m.

A medium walk in the northern end of the Gudgenby valley - approx. 12 kms.

May 26/27 - Sat., Sun. Budawangs: Mt Hoddle/Mt Houghton: Pack walk
Leader: Neville Esau 864176 Ref. CMW Northern Budawang Range
Meet: Nerriga, 9.30 a.m.

This walk traverses some of the most spectacular areas of the Northern Budawangs. Overnight camp will be in a camping cave (noted as 4-star amongst Budawang caves). Walking easy/medium, some rock scrambling, approx. 20 km.

June 3 - Sunday Mt Stromlo: Walk
Leader: Cla Allen 953824 Ref. ACT 1:100,000
Meet: At barbeque, 11.30 a.m.

Take Stromlo Forest Rd to the right for 700m, turn left to barbeques. After a barbeque, short walks in the area.

June 10 - Sunday Mt Booth: Walk
Leader: John Banks 816641 Ref. ACT 1:100,000
Meet: Gudgenby Bridge (past Rendezvous Ck), 9.30 a.m.

Mt Booth is the highest point in the Booth Range which forms the watershed between the Murrumbidgee and Naas valleys in the southern ACT. This walk is through open forest country along the foothills of the Booth range, a gradual ascent is then taken to the summit. Some of the most pleasant forest walking in the ACT (easy/medium).

June 16/17/18 - Queen's birthday Durras Lake: Camp
Leader: Les Pyke 812982 Ref. Bateman's Bay 1:100,000
Meet: At camping area, 11 a.m.

A camping weekend in the Murramarang National Park. Local walks along the foreshores and through the coastal forests. A trip to Pigeon House will be included if the mood and weather are right. Contact leader for detailed directions to camping area.

June 24 - Sunday Mt Palerang: Walk
Leader: Frank Clements 317005 Ref. Braidwood 1:100,000
Meet: Hoskintown, 9.30 a.m.

An easy day walk in the hills east of Canberra. Good views of the Clyde Range and over the Braidwood areas. Walking easy (10 kms).

June 30, July 1 - Sat., Sun. Araluen/Moodong Ck: Pack walk
Leader: Bob Story 812171
Meet: Braidwood War Memorial, 8 a.m.

A medium/hard walk, approx. 25 kms.

GENERAL MEETINGS

at 8.00 p.m. in Room 1, Griffin Centre,
Bunda Street, Civic

Thursday, 15 March 1979

Professor Richard Beidleman, Professor of Biology,
Colorado College, U.S.A.

'The Parklands of Colorado, U.S.A.'
(illustrated with colour slides)

Many members will remember the Beidleman family who were NPA members during Dick's first period of sabbatical leave in Australia. He has worked as a naturalist, interpretative planner, ecological consultant, historian and instructor for the National Park Service, and is Vice-President of the Colorado State Park Board and a trustee of Colorado Springs' William J. Palmer Park Foundation.

Thursday, 19 April 1979

Dr Bryan Pratt, Director of Conservation and Agriculture,
Department of the Capital Territory

'Community involvement in nature reserves and parks
in the A.C.T.'

26th April 1979 will be the centenary of Australia's first national park - the Royal National Park, in Sydney. N.S.W. and A.C.T. National Parks Associations will be commemorating the anniversary.

Thursday, 17 May 1979

Mr Peter Wilson, Officer in Charge of Engineering and Hydrology
Group, Bureau of Mineral Resources

'The application of geology to modify the earth's
surface - for better or worse.'

OUTING SUMMARY

MARCH

4 Sunday	Sentry Box	Walk
4 Sunday	Ginninderra Falls	Walk
10, 11, 12 Sat, Sun, Mon	Wyangala Dam	Camp
11 Sunday	Honeysuckle Ck	Walk
18 Sunday	Bramina Ck/Goodradigbee R	Walk
24/25 Sat. Sun.	Whites River area	Pack Walk
31/Apr. 1 Sat., Sun. do.	Burrinjuck Dam Budawang	Camp Pack Walk

APRIL

1 Sunday	Mt McKeahnie	Walk
8 Sunday	Lowden Forest Park	Walk
13/14/15/16 Easter	Tom Groggin	Camp
22 Sunday	Mt Clear	Walk
29 Sunday	Blue Gum Ck	Walk

MAY

6 Sunday	Yankee Hat	Walk
13 Sunday	Tidbinbilla Range	Walk
19 Saturday	Mt McDonald	Walk
27 Sunday	Nursery Swamp	Walk
26/27 Sat., Sun.	Budawang	Pack Walk

JUNE

3 Sunday	Mt Stromlo	Walk
10 Sunday	Mt Booth	Walk
16/17/18 Queen's B'day	Durras Lake	Camp
24 Sunday	Mt Palerang	Walk
30/July 1 Sat., Sun.	Araluen/Moodong Ck	Pack Walk