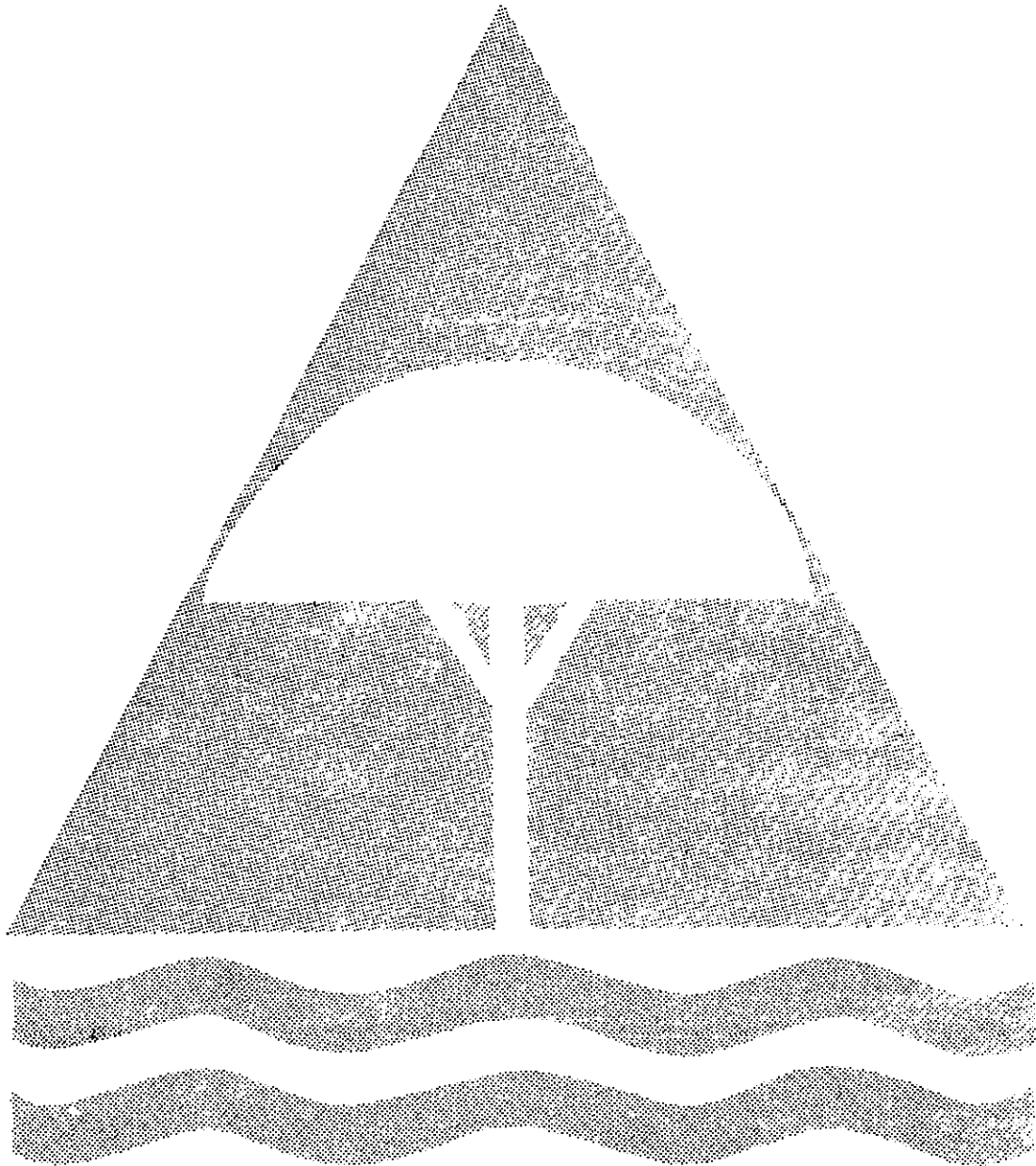


# NPA Bulletin

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



*Issued March, June  
September, December*

*Vol. 18 No. 1*

*September 1980*

Registered in Australia for transmission by post as a periodical Category B

**75c**

## FROM THE PRESIDENTS

There are two issues I'd like to mention at this time: South West Tasmania and Fraser Island. The fight to save Tasmania's Franklin River from being dammed is all but over since the Tasmanian Government made its decision on 20 July not to flood the Franklin and surrounding wilderness for hydro-electric power production. However, the conservationists' cause must continue, for should the HEC scheme go ahead on the Lower Gordon, as seems likely, it will produce adverse effects on the wilderness both above and below the dam. The fact that the South West is now on the National Heritage Register may be of some comfort as the Federal Government has now, as I understand, an obligation to ensure that environmental degradation associated with any development in National Heritage areas is kept to an acceptable minimum.

The sandmining issue on Fraser Island is in the national headlines again now that the defamation case against John Sinclair and the Hervey Bay Publishing Company has been settled. The mining company has followed this announcement by calling on the Federal Government to life export bans which have effectively stopped mining operations. The Queensland Government is reported in the press as being prepared to support the re-opening of mining on Fraser Island.

These two issues bring home forcefully the very simple fact that conservation issues are never really won, and that a constant vigil is necessary if we wish to conserve those samples of environment we believe in.

John Banks  
President, 1979-80

May I add my voice to the message John has given us above. In the coming year we as concerned conservationists will be faced with increasingly difficult decisions in confronting the conservation development conflict. In an energy hungry world, where options for development are shrinking, future choices will be more difficult, more complex and potentially more divisive than ever before.

We have already seen these factors operating in the debate on the Franklin-Gordon hydro-electric proposal: as we continue to battle to save the Gordon River they will become more evident. In our own immediate area we are facing a number of issues, the management and development of Kosciusko National Park, several proposals for development that would affect the Black Mountain Reserve, proposals to mine the Ettrema Gorge area, to mention just three.

The decisions made now about these and other issues will affect the natural environment for all time. It has been said that posterity has no votes; we must therefore make our concerns and our preferences known now so that examples of our unique environment, the natural heritage of all Australians, will remain not only for our enjoyment and education, but for all future Australians.

I look forward to your support in these and many other ventures in the coming year.

Neville Esau  
President, 1980-81

## NANCY BURBIDGE MEMORIAL

The official opening of the Nancy T. Burbidge Memorial in the National Botanic Gardens will be held on Sunday, 14 September, at 2.30 pm, in the presence of Her Excellency Lady Cowen. NPA will have two representatives in the official party but all members may, of course, attend the ceremony.

The memorial amphitheatre is located in the Eucalypts Lawn, a secluded but readily accessible area of the Gardens.

## TOURING THE NATIONAL PARKS OF QUEENSLAND

During August to October 1979, we made our first extensive visit to tropical Queensland in a fitted out two litre engine VW Kombi Van, and during this time, made a point of visiting and walking through the national parks that were easily accessible from the main route to the far north - the Bruce Highway. The parks we visited had features ranging from rugged mountains covered in lush tropical rainforest to calm waters and coral reefs. In this article, we will concentrate on the parks between Mackay in the south and Mossman in the north, a direct distance of some 840 kilometres.

### 1. EUNGELLA NATIONAL PARK (49,615 ha)

This park, in the Eungella Ranges, lies 83km west of Mackay via the Pioneer Valley and contains a large area of tropical rainforest and some grassy eucalypt woodland. The tropical rainforest is prolific because of the constant nurturing of the ranges by abundant mist and rains sweeping in from the Pacific, hence the appropriateness of the aboriginal name, Eungella - 'The Land of Cloud'.

The park itself is shaped roughly like a miniature South America. The broad northern section is a true forest wilderness of great gorges and high mountain peaks. The township of Eungella is situated on the narrowest section of the 'tail' and it is near here that the most accessible parts of the park are located. A further 6km from Eungella township is the Broken River picnic area and campsite, and it is from here that some magnificent walks commence. Tracks follow the river through rainforest and in places there are numerous pools and large boulders. Shorter walks lead from the road to scenic lookouts over the Pioneer Valley.

### 2. CAPE HILLSBOROUGH NATIONAL PARK (728 ha)

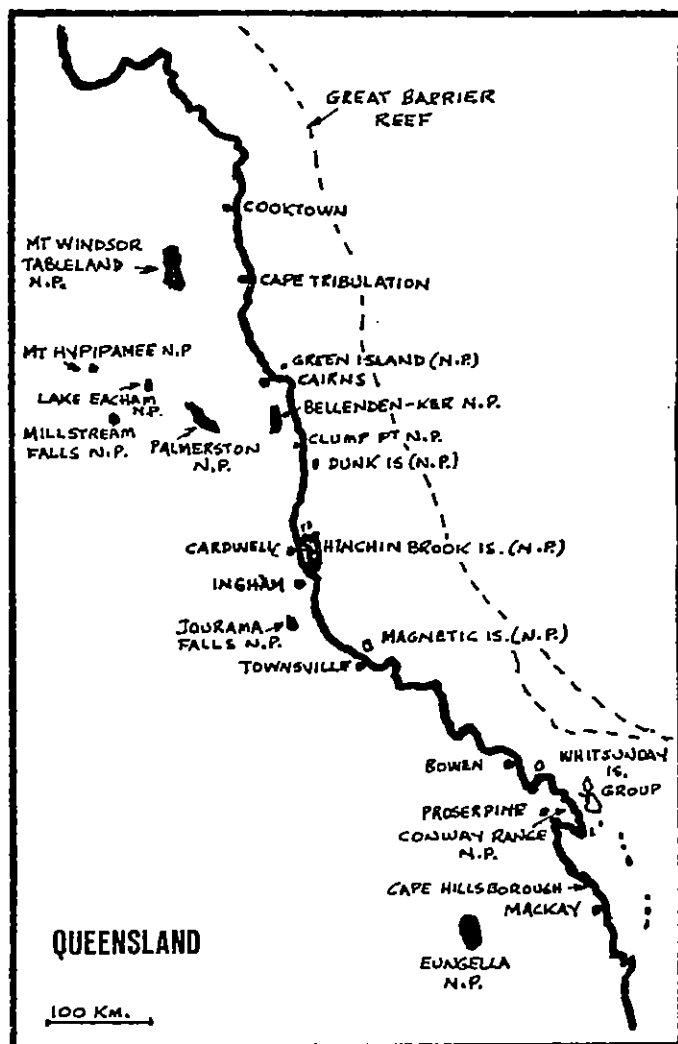
This coastal park, which is 45km north of Mackay along the Seaforth road, is dominated by Hoop Pine (*Araucaria cunninghamii*) rainforest, open eucalypt forest and fringing mangrove areas. The park essentially comprises two portions - the Cape Hillsborough National Park proper which is dominated by high conglomerate cliffs not unlike those encountered in the Budawangs area and the Andrews Point/Wedge Island area which consists of a long headland and island, connected by a low tide causeway.

These two portions are joined by a narrow isthmus with beach on one side and mangroves on the other. On this a privately run caravan and camping park together with picnic and barbecue areas (provided by the Queensland National Parks and Wildlife Service) are located. There is also a small Parks Information Office regularly attended by a ranger.

Walking trails have been constructed round the Andrews Point headland and from several points along these magnificent panoramic views of all the park's features can be obtained. Owing to the ruggedness of the Cape Hillsborough park, there is only one short walking track leading to Beachcombers Cove and Cascade Creek, where there is a deep hole suitable for swimming during the wetter months.

The proprietors of the camping ground refer to Cape Hillsborough as 'The island you can drive to' - this is very appropriate because the features present are similar to those encountered on offshore Brampton Island and the islands of the Whitsunday Group, some 100km to the north.

Along the Cape Hillsborough road there is the small Mt Jules National Park (229 ha). This is largely an area of bare rock with rainforest and eucalypts growing in protected gullies where soil has developed. It is similar in appearance to Mt Tibrogargan in the Glasshouse Mountains National Park immediately to the north of Brisbane and is completely surrounded by sugar cane fields. Between Mt Jules and Cape Hillsborough there is a magnificent panoramic lookout overlooking the two parks and surrounding sugar cane fields.



### 3. CONWAY RANGE AND WHITSUNDAY ISLANDS NATIONAL PARKS

#### (i) CONWAY RANGE NATIONAL PARK (19,460 ha)

Conway range can be reached by taking the Airlie Beach-Shute Harbour road from Proserpine, 134km north of Mackay. The park forms the western and mainland edge of the Whitsunday Passage which is quite rugged and clothed in dense tall tropical lowland rainforest. For this reason there are only a few walking tracks and these are limited to the northern end around the camping area just off the Shute Harbour road. There is also a resident ranger.

#### (ii) THE WHITSUNDAY PASSAGE ISLANDS

There are 55 islands in the Whitsunday Group which have been proclaimed as national park. Five of these have been extensively developed for tourist activities, such as South Molle, Lindeman and Long Islands, whilst the others, including the largest in the Group, Whitsunday Island (10,930 ha) are completely uninhabited and are ideal wilderness areas. The vegetation types and landforms encountered are much the same as those at Cape Hillsborough and many of the islands have fringing coral reefs. The Great Barrier Reef itself is some 32km seaward from the northern end of the Whitsunday Passage. Access to several islands can be made via the tourist launches and small craft operating from Shute Harbour.

4. MAGNETIC ISLAND NATIONAL PARK (2,533 ha)

Magnetic Island may be reached by launch from Townsville Harbour, the journey taking about 45 minutes. Only part of the island is declared national park with the remainder (namely along the eastern foreshores) given over to tourist development. The natural features comprise rugged hillsides strewn with granite boulders and clothed with Hoop Pine and Eucalypt forest. There are a number of walking tracks (total length being 22km), including one to the highest peak, Mt Cook.

This park, being so close to a large city, is experiencing a number of management problems resulting from heavy visitation and the competing demands for additional tourist facilities.

5. JOURAMA FALLS NATIONAL PARK (1,070 ha)

This national park is located 35km south of Ingham, 6km off the Bruce Highway, and is well endowed with picnic areas and walking tracks. There is also a camping site. The park is centred round the Jourama Falls, which are a series of cascades tumbling over granite rocks amid lush vegetation favoured by the moist condition of the valley. This vegetation suddenly gives way to eucalypt forest along the surrounding hillsides, and the creek levels are subject to seasonal fluctuation. The volume of water was considerably low during the time of our visit in mid September.

6. HINCHINBROOK ISLAND NATIONAL PARK (39,350 ha)

This is by far the largest of Queensland's island national parks and is situated offshore from Cardwell, approximately 160km north of Townsville. It is separated from the mainland by the Hinchinbrook Channel, a drowned river valley. The shoreline on each side of the channel is dominated by large areas of mangrove forest which abruptly give way to high rugged mountain peaks on the island side. The highest of these is Mt Bowen (1,095 metres). Much of the rugged area is inaccessible and is dominated by tropical lowland rainforest. There are some walking tracks in the lower lying northern areas - one leading from Cape Richards (the location of the island's only habitation - a small tourist resort) and another across a mangrove boardwalk in Missionary Bay. Access to the island can be obtained via launch from Cardwell to Cape Richards in the north-east. The fare for a return trip per person at the time of our visit was \$14.

7. CLUMP POINT NATIONAL PARK (301 ha)

This park, about 2km north of Mission Beach (24km north of Tully) is dominated by Bicton Hill, a spot where one can view splendid panoramas of the coast, offshore islands, mountains and rainforest. The views look out across Dunk and Hinchinbrook Islands to the south and Bingil Bay to the north.

Bicton Hill may be reached by a 2km walking track leading through tall lush tropical lowland rainforest frequented by brush turkeys and the Blue Ulysses Butterfly (the symbol for Dunk Island). Dunk Island, in part a national park and part a popular tourist resort, may be reached by launch from Clump Point immediately below Bicton Hill. The fare for a return trip per person was \$6.

8. NATIONAL PARKS OF THE ATHERTON TABLELAND

The Atherton Tableland may be reached via three main routes - the first (from south) along the Palmerston Highway from Innisfail; the second along the Gillies Highway from Gordonvale and the third along the Kennedy Highway about 10km north of Cairns.

(i) PALMERSTON NATIONAL PARK (2,556 ha)

This long elongated park covers part of the rugged eastern slopes of the Atherton Tableland, and is clothed in luxuriant tropical rainforest. It is dissected along its length by the Palmerston Highway and, in many places along its route, roadside picnic areas have been provided. From these many walking tracks lead off into the rainforest to some of the park's well known features. The first of these is Crawfords Lookout from where one can obtain magnificent views into the North Johnstone River Gorge below. From this spot walking trails lead off to a number of waterfalls along the North Johnstone River such as Tchuppalla and Wallaca.

At the time of our visit considerable roadworks were being undertaken with much widening and realignment. Although this would make driving much easier it is a shame that it necessitates the destruction of some of the beautiful rainforest.

(ii) MILLSTREAM FALLS NATIONAL PARK (372 ha)

This park is located about 1km off the Kennedy Highway, 6km from Ravenshoe. It is an area of open eucalypt forest traversed by a Casuarina-Buttlebrush bordered stream and features what are reputed to be the widest falls in Australia (65 metres across).

(iii) THE CRATER (MT HYPIPAMEE) NATIONAL PARK (364 ha)

This park is located immediately off the Kennedy Highway 29km south of Atherton. It contains some of the most beautiful short rainforest walks in the Atherton Tableland area. The main feature is a huge circular depression with a structure similar to a volcanic crater and containing water up to 56 metres in depth. There are also some beautiful waterfalls, for example the Dinner Creek Falls, all of which are completely surrounded by dense rainforest. There are well laid out picnic and barbecue facilities at the park entrance, from where the short walks commence.

(iv) THE TWIN LAKES - EACHAM AND BARRINE

Both the Lake Eacham and Lake Barrine National Parks can be reached via the Gillies Highway between Gordonvale and Atherton.

(a) LAKE EACHAM NATIONAL PARK (490 ha)

Lake Eacham (Aboriginal = yeetchum, meaning water) has been described by the author Xavier Herbert as being 'eerie, secret, sacred-seeming, as if the very Spirit of the Land lurks in its depthlessness'. This description is very appropriate for it is a most unusual experience viewing the lake bottom almost as clearly as the reflected sky in its deep sparkling greenish blue waters. The lake itself is a maar - the name given to a lake within an extinct volcanic cone - and is surrounded by dense tropical rainforest, known to contain the Carpet Python and Ulysses Blue Butterfly. There are picnic and barbecue facilities along the eastern side and there is a circuit walking track round the lake.

(b) LAKE BARRINE NATIONAL PARK (491 ha)

This is another crater lake situated 5km east of Lake Eacham. Like Lake Eacham, Lake Barrine is surrounded by tropical rainforest and through this there is an encircling walking track 3km in length. Along this walk one can view the majestic twin Kauri Pines, each over 6 metres in circumference. On the northern shore near the park entrance there is a small tourist resort from where lake cruises are available.

## 9. BELLENDEN-KER NATIONAL PARK (31,000 ha)

This park, which covers the eastern slopes of the Bellenden-Ker range, lies to the west of the Bruce Highway between Innisfail and Gordonvale and includes Queensland's highest mountain, Mt Bartle-Frere (1,657m.).

At the southern end are the Josephine Falls (about 6km from the highway via the small township of Bartle-Frere) which may be reached via a 1km walking track through tropical rainforest. Near the falls there are picnic and barbecue facilities.

Further north there is a turnoff at Bibinda to the Babinda Boulders picnic ground which lies immediately outside the park and is managed by the Mulgrave Shire Council. At this spot a walking track commences which winds through rainforest along the bank of Babinda Creek. At various points along the way there are huge granite boulders which have been shaped by torrents of water over successive wet seasons.

At the most northerly end of the park is the high peak, Walshs Pyramid. There are no roads or graded tracks to the summit. However, climbs are regularly arranged by the Cairns Bushwalking Club.

## 10. GREEN ISLAND MARINE PARK (3,000 ha)

This park comprises the Green Island Cay and all of its surrounding reef. It may be reached by launch from Cairns, the return fare at the time of our visit being \$6.50. Part of the island is set aside for tourist facilities. However, through the remainder, there are walking tracks which pass through rainforest, fringing casuarinas, pandanus and tournefortias which initially originated from seeds drifting across the ocean or from bird transportation. Unfortunately much of the assessable part of the reef has suffered from damage by the Crown of Thorns Starfish or from excessive trampling by tourists. More spectacular coral growths can be viewed from a glass-bottomed boat.

## 11. MOUNT WINDSOR TABLELAND NATIONAL PARK (56,450 ha)

This park incorporates a large wilderness area covering the scenic features and rainforest vegetation of the upper Daintree and Adeline Creek Gorges. The only accessible part of the park is at the southern end about 8km west of Mossman. A dirt road leads 2km beyond the park entrance to a picnic area and from here there is a 1km walking track leading to Mossman Gorge, where cascading water rushes over granite boulders within a valley densely clothed in tropical rainforest.

*John Baker*

## TRAMPING IN NEW ZEALAND

New Zealand is a trumper's paradise, both for the splendour of its scenery and for the excellence of its park management, north island no less than the south.

Urewera, the largest national park in the north island and the third largest in New Zealand, was founded in 1954. It is rugged, densely forested and deeply gorged, and has some of the most beautiful lakes, rivers and waterfalls in the whole country. The Ureweras are dominated in the north by the Ikawaenua Range and the Whaketane River, the home of the mist maiden, which flows into the Bay of Plenty. In the south is Lake Waikeremoana, whose outlet the Waikaretaheke River flows into Hawkes Bay.

There are numerous possibilities for walking, winter and summer, wet and fine : on shoe tracks, on trumper's tracks of varying distances and difficulty, and on trails that should only be undertaken under experienced leadership. Park huts are set an easy day's tramp apart on the main routes, and trampers may also make use of forestry huts.

Access to the Ureweras is by highway 38 which connects Rotorua in the centre of the island with Wairoa in Hawkes Bay. The NZRRS bus leaves Rotorua 9.15 a.m. Monday, Wednesday, Friday, arrives at Ruatahuna, the start of the Whakane trail, at midday, and reaches the Park Headquarters and the motor camp, on the eastern shore of Lake Waikeremoana, at 2.00 p.m. The bus travels up from Wairoa Tuesday, Thursday and Saturday.

The Waikeremoana track is on the opposite side of the lake to the highway, away from the sights and sounds of civilisation. The track can be tramped solo by a backpacker of moderate ability in 5 days, 4 hut nights. Pack in 13 kilos, pack out 9 kilos, allowing 1 kilo a day for food and 9 kilos for pack, sleeping bag, protective clothing, swimsuit, sandals, spare socks and oddments. In the mild summer, bread, butter, cheese and salami will stay fresh. There is a dry stage for which water should be carried.

The track can be walked from either end, but if journeying by bus from Rotorua, it is best to start from the south. The bus from Rotorua arrives at Onopoto, near the outlet of the lake at 2.30 p.m. and from there it is a 5 hours tramp to Panekeri hut, high on Panekeri bluff. From Panekeri, mist permitting, one can see the lights of Wairoa, Hawkes Bay. The next three days are easy stages, a maximum of 6 hours tramping on the third day, which includes a detour to Koroko Falls. On the fifth day, there is a 2 hour walk out from Whananui hut to Hopuruahine landing, to join the bus at 11.00 a.m. back to Rotorua.

For a gentle tramp camp, go with Te Ruhewal Safaris down the Whakatane River. You will be met off the bus at Ruatahuna, and from there taken to Mataatua Marae, from where the safari starts. Supplied items, - tents, sleeping bags and food - go by packhorse. Camp sites are on Maori lands deep within the park. The fare can include venison, wild pig and trout. You may even sight a kiwi in the wild. Spend the last night in the ceremonial hall at Mataatua Marae, watched over by splendidly carved figures of Maori legend.

Tongariro is the oldest national park in New Zealand, the principal peaks having been given to the nation, as a national park, by chief Te Heuheu in 1887. It is arguable the second oldest national park in the world. National Park in New South Wales, though older, was originally dedicated as a recreation area.

The principal mountains are Ruapehu, 2797 metres, Ngauruhoe, for ever steaming, and sombulent Tongariro. Crater lakes abound. Regions of recent volcanic activity are moonlike in their desolation.

Starting on boxing day, there are 14 days of ranger led day and half day tramps (transport arranged), children's activities and evening lectures. Climbs include : Ruapehu Crater Lake, Tama Lakes and Hauhungatahi.

The independent walker, even on a day walk, should be well equipped for bad weather and for enveloping mists. Watch for volcanic activity.

Mount Egmont (Taranaki), the smallest of the north island's national parks, can be seen from high up in Tongariro, snow clad and misty.

Geraldine Spencer

## ANTARCTICA - THE SOUTHERN CONNECTION

The existence of a large and populated southern continent was widely accepted until Captain James Cook circumnavigated the southern hemisphere in high latitudes in 1772-74 and concluded that whatever land lay to the south must be 'doomed by nature to lie buried under everlasting snow and ice'. Bellingshausen similarly circumnavigated Antarctica in 1820-21 and was probably the first to make a landfall, in this case on what is now known as the Antarctic Peninsula. In this area he encountered Nathaniel Palmer, an American sealer, and there is some controversy, at times heated, as to who 'discovered' Antarctica.

Australia now claims sovereignty over a large territory in 'East' Antarctica and is widely thought by geologists to have once been adjacent to it. The exploration of East Antarctica really began with Cook and Bellingshausen but the first landfall was made at Enderby Land by John Biscoe in the 'Tula' (150<sup>34</sup>/94 tons) in February 1831. Later in that decade three national expeditions, led by Dumont d'Urville from France, Charles Wilkes from the United States and James Clark Ross from Great Britain explored the East Antarctic Coast. D'Urville landed on a small island and named the nearby land Adelie Land while Wilkes charted a lengthy stretch of what is now the Wilkes Land Coast although he was able only to land on a capsized iceberg. Vessels from these two expeditions briefly encountered each other rather unexpectedly during some stormy weather and the incident served to further dramatise the expeditions' activities. A year later Ross discovered the sea that now bears his name and sailed south to discover the active volcano Mount Erebus and the great ice barrier the Ross Ice Shelf. Ross was in no doubt that he had charted a great new southern continent.

Then followed something of a pause in Antarctic exploration (apart from Moore's 1845 Royal Navy expedition to the area of Dronning Maud Land) until in 1872 H.M.S. Challenger, carrying a joint Royal Society/Royal Navy scientific expedition, became the first steam-powered vessel to cross the Antarctic circle. Dredgings from the sea floor northwest of the site of the Davis ANARE base led the expedition scientists to deduce the presence, not far to the south, of a continental land mass and to further define the shape and composition of Antarctica.

The first landing on East Antarctica was made in 1895 at Cape Adare by a party from the 'Antarctic' whaling expedition led by H.J. Bull and including C.E. Borchgrevink. Borchgrevink returned to the same area 3 years later with the 'Southern Cross' expedition which was the first to overwinter in Antarctica. (Borchgrevink's hut still stands though it is filled with ice; it was visited recently by the 'Solo' expedition of Dr David Lewis.)

This was the start of the 'heroic' age of Antarctic exploration which saw a series of nationally identified but privately organized Antarctic expeditions. The exploratory exploits of these ventures are well known but in geology the foundations of modern Antarctic studies were laid in large part, at least in East Antarctica, by Australian geologists. In particular T.W. Edgeworth David, Griffith Taylor, Frank Debenham, Douglas Mawson and Frank Stillwell should be mentioned. (Taylor on returning from Antarctica became geologist with the Australian Federal Capital Survey and is commemorated by Mount Taylor between the Woden Valley and Tuggeranong satellite cities; he also produced a paper relating to Lake George's 'mysteriously' fluctuating water levels.)

By the end of the 19th century also geological comparisons between continents had become of great interest to geologists and sunken land bridges were most commonly invoked as the explanation for similarities between widely separated regions. Such comparisons clearly exercised the minds of geologists travelling to Antarctica with the heroic age expeditions and indeed Griffith Taylor was loaned by the Australian Commonwealth Government to Scott's Terra Nova expedition for the specific purpose of making such a comparison, in this case between Victoria Land in Antarctica and southeastern Australia.

The heroic age of Antarctic exploration effectively ended with the First World War but the scientific results of some of the expeditions contributed to the growing geological debate on the feasibility of 'continental drift' as an explanation for geological similarities between widely separated areas. This radical idea, first substantively proposed by Alfred Wegener, a German meteorologist, was strongly opposed by physicists and more traditional geologists but was kept alive in the English-speaking world by a South African geologist Alexander du Toit who described East Antarctica - the geology of which was then but imperfectly known - as the 'key piece' to Gondwanaland, the hypothetical reassembly of the southern continents and peninsula India.

This key piece was further examined in the 1920's and 1930's by privately arranged expeditions that used such innovations as aircraft, radio communications, and aerial photography to map out in some reasonable detail the East Antarctic coastline between the Ross and Weddell Seas. The major geological contributions of these expeditions were the knowledge that most coastal outcrops consisted of continental granitic and metamorphic rocks and that the coal bearing strata in the Transantarctic Mountains extended to the head of the Ross Ice Shelf. Little was discovered that could either confirm or deny du Toit's characterization of East Antarctica as the key piece to the Gondwanaland puzzle.

The 1940's and 1950's saw a resurgence of nationalism in Antarctica matters, especially in the Antarctic Peninsula area where Britain, Chile, and Argentina had overlapping territorial claims. National Antarctic expeditions were organised by Governments to occupy bases in attempts to 'stake out' Territorial claims; these bases were equipped for scientific research. The U.S.A. and U.S.S.R. however did not make territorial claims and also declined to recognise other nations' claims. The scientific research function of Antarctic bases assumed greater significance in the mid 1950's when the International Geophysical Year was organized and was enhanced by the international co-operation that was such a feature of the IGY. The IGY-related co-operation, which contrasted so markedly with previous political and military posturing in Antarctic affairs, gave rise, after 61 preparatory meetings, to the 1959 Antarctic Treaty, the regime that presently influences Antarctic affairs. Under the Antarctic Treaty the issues of territorial sovereignty are placed in abeyance until 1991.

In Australia the research work of the Australian National Antarctic Research Expedition (ANARE) continues in implementation of Government policy which quite explicitly states that Australia's basic position in Antarctica is that of a sovereign power. In geology our research effort has lately concentrated on the Prince Charles Mountains and Enderby Land areas near Mawson base. There, we have been able to unravel, at least to a first approximation, the geology of the great mountains that protrude through the ice cover and have determined that rocks as old as 3000 million years - that is 2/3rds as old as the earth - are exposed and are bounded by highly contorted and altered rocks formed

at a later time. Results are presented on maps, the like of which have proved very useful in the mineral exploration of Australia: the Antarctic maps even though they only refer to 3% or so of Antarctica which is accessible for geological study are basic to any meaningful assessment of Antarctic mineral resources. Furthermore much of the information generated is of value in a scientific sense as well; a good example are some rocks from Enderby Land that were formed at unusually high temperatures. Other aspects of our work include the unravelling of Antarctica's geologically recent climatic and flacial history (Antarctica has only been glaciated since about 20 million years ago) - a potentially important field bearing in mind the Antarctic ice cap's fundamental role as the driving force for the climate of the southern hemisphere. Scientists in other disciplines also have extensive Antarctic research programs all of them yielding information on just what is in Antarctica, how it works and how it might affect, or be affected by, man's activities.

However the burning issue in Antarctic affairs is the question of resources and their possible exploration and exploitation. This was not a realistic consideration in 1959 when the Antarctic Treaty was formulated but was brought into focus in 1973 when a drilling ship exploring the sea bed off Antarctica for scientific reasons (including a test of continental drift theories) encountered a small and unmeasured amount of gas. Since then there has been growing interest in the possibility of mineral exploitation in the Antarctic region. The mineral resource most likely - or rather, slightly the least unlikely - to prove economic is offshore petroleum. Exploration for and assessment of the offshore petroleum prospectivity of the Antarctic region will require expensive geophysical surveys and, eventually, exploratory drilling, but such work is as yet beyond the capacity of ANARE logistics. In the meantime the Antarctic Treaty nations consider the resources issue in a dim light of poor information that hardly eases their task. Australia maintains its ownership stance, but perhaps this will be reassessed as possible scenarios for the future, perhaps international management of Antarctica and its resources, emerge.

POSTSCRIPT: What happened to continental drift? The theory of continental drift remained unpopular and staunchly opposed by many eminent geologists (including Sir Douglas Mawson) until the 1950's. Then it became possible to measure the palaeomagnetism of certain rock types - that is, the preserved record of the earth's magnetic field at the time rocks were laid down or solidified. Such measurements on rocks of several different ages revealed that continents had different apparent polar wandering curves for the more recent part of geological history. However at various stages the disposition of certain continents relative to the poles appeared to coincide. This generally supported the previous continental reassemblies that had been based on geological comparisons and the shapes of continents (Africa and South America fit together particularly well). Continental drift thus became geologically fashionable especially after the concept of seafloor spreading permitted an explanation of drift by a conveyor belt mechanism rather than one which demanded that the 'light' continents plough through the denser mantle which underlies them. These various ideas became codified in the 1960's in the theory of Plate Tectonics which is now commonly invoked by geologists to explain a wide range of geological phenomena as well as continental drift. East Antarctica remains the 'key piece' of Gondwanaland but its roughly circular outline makes it hard to fix other continents against it especially since rock exposures in Antarctica are so sparse. Comparisons with other continents remain an interesting but somewhat frustrating geological activity - but there seems little doubt that the

drift of continents away from Antarctica was responsible for the climatic isolation and subsequent glaciation of Antarctica. Perhaps my talk would have been better titled Antarctica - the southern disconnection!

R.J. Tingey, Bureau of Mineral Resources, Canberra

(This article, published with the permission of the Director, Bureau of Mineral Resources, was the subject of the lecture to the Association on 17 April 1980. It was supported by the showing of an excellent series of slides of the geological features of Antarctica.)

#### WESTERN AUSTRALIAN CAVES

Mr Andy Spate, with a background of considerable experience as a speleologist, gave the Association at the General Meeting of 19 June a very vivid visual experience and commentary on the limestone caves and deposits of Western Australia. All types of caves, deposits, outcrops, depositions etc. were illustrated and they showed if one was prepared to travel the great distances involved to see all, what a great variety the State has to offer.

In the far North West large deposits of limestone deposited in the manner of the Barrier Reef are now uplifted from the sea, inland and eroded to give rise to fantastic shapes and formations 30 to 100 metres above the surrounding plains. Within 200 kms north of Perth there are pavements of limestone where water has dissolved the limestone to form pipes to which there has been a secondary hardening process around their entrances. Caves forming under these areas of holes produce caverns with dozens of light holes in their roof. In some caves in dry weather bees have taken possession and attached their hives to the ceilings - dangerous places to enter! In caves near the Margaret River, columns had developed on a mud base which was subsequently washed away to leave the column suspended with its extended foot. Many fine examples of helectites which defy gravity in their formation were shown, scientists being able to give 27 separate reasons as to why they should form in the manner they do. The Nullabor caves are famous for their size and length, camping equipment being almost necessary to carry out a once through look. In some there are jeep and car trails. The exposed pavements of some Nullabor limestone deposits have deep pipes forming wells and in some pavements grooves have been cut to channel water to them, thus providing the aboriginals with a permanent water supply.

Many examples of cave photographic techniques were shown which reinforced the belief that cave photography is an art and not a science. So many factors come in to the lighting that exposure becomes an inspired guess reinforced by many failures.

Reg Alder

#### VICTORIA'S SMALLEST NATIONAL PARK

The area from the west of Melbourne to the border of South Australia contains, it is claimed, the second largest volcanic plain in the world.

Explored by Major Mitchell in 1836 and dubbed Australia Felix, this rich province has at least five volcanoes which were active until quite recently (in geological terms), some as lately as 10,000 years ago. As we now know that Aborigines occupied the land at least 30,000 years before the present time, it is not unlikely that they would have witnessed the eruptions.

One of these volcanoes, Mount Eccles, was proclaimed a National Park in 1962. Although its area is only 400 hectares, its diverse features are of much interest.

Originally named by the explorer Mount Selles (subsequent name-making nomenclature corrupted this to Eccles), the large rounded hill some 180 metres above sea-level, is situated roughly half way between Hamilton and Port Fairy approximately 330 kilometres from Melbourne. It is a small volcano, some east of the principal crater and has presumably been built up by the prevailing westerly winds. The summit of Translucation Station in the Geodetic Survey, provides an extensive panorama.

Ground water fills the crater, now named Lake Surprise, in which are fish and water birds such as Little Egrets and Cormorants. The lake is about 300 metres across, some 10 metres at its widest and about 10 metres at its deepest. Two scenic walking tracks encircle the lake, one just above water level and the other skirting the top of the crater. Trees and shrubs provide a good habitat for many birds and about the precipitous cliffs of the mountain, Peregrine Falcons and Wedge-tailed Eagles make their nests. Koalas, Possums, Koalas and Echidnas are among the reported fauna.

From the crater the lava had flowed, in a serpentine fashion, at places only 100 metres wide, south and west across the plains to the sea some 30 kilometres distant. In cooling much of this lava formed stony rises.

Within the park, not far distant from the edge of the lake - the former crater - a sizable cave has been formed, probably from the collapse of a gas bubble in the molten lava. Elsewhere there is a natural bridge across the lava canal and a number of minor subsidiary craters are to be seen.

Both picnic and camping areas have been provided in the surroundings.

About two-thirds of the way to Hamilton, as the road goes, another volcano stands out above the plains. This is Mount Napier, about 439 metres, also named by Mount Selles. It is located in a Lands Department Reserve and offers some good panoramic views. From here Mounta Stanger is visible, southern outliers of the Grampians are much more prominent. Below quite nearby is Buckley's Swamp. Here, according to the ethnographic records, was an Aboriginal exchange centre for Stone Axes.

This volcano contrasts with that of Eccles for it is a steep and cone-shaped rather than low and rounded. The floor of its crater, well above the surrounding plains, is not subject to inundation by ground water and consequently remains dry. A large breach in the wall of the crater shows how the lava flowed away during the last phase of volcanic activity.

A visit to this little known National Park (and if time permits Mount Napier) is recommended to anyone travelling in the general area.

Tail Piece.

THE HERALD, Monday March 3, 1960

"Tokyo Sun AAP - Mount Ontake exploded last October, after lying dormant for 10,000 years."

111000

#### VERMIN APPEAR AFTER PARK DECLARATION

Park authorities are puzzled by the sudden appearance of vermin after the declaration of the Bella Brinda National Park. Observers say the vermin were first sighted shortly after the park was proclaimed but this has not yet been confirmed.

Many theories have been put forward to account for this sudden appearance but the most popular is the belief that vermin were able to read the Government Gazette and so know precisely when to appear. This of course has been hotly denied by landowners in the immediate area but the park management is taking the allegations seriously. A Royal Commission is to be established to determine possible misuses of Government Gazettes by unauthorised animals.

Another related problem baffling the park officials is the direction of travel of the vermin. It was previously believed that the animals could travel in all directions but apparently the vermin have only been seen moving in one direction as they left the park. A scientific team has been sent to investigate this phenomenon.

Animals of the vermin shot by property owners are being taken to Government scientific bureaux. While early reports of the animals are nothing more than poodles, dachshunds and Afghan hounds, farmers are certain that the animals are diverse.

Another cause of contention is the growth of noxious weeds in the park. Tales of overnight growth that would put Jack-in-the-bush out of the Guinness Book of Records are in circulation. One senior park ranger (who did not wish to be identified) said he thought that the noxious weeds had been spread accidentally by cattle but had only come to light when the park was declared. However many are adamant that the weeds are indigenous to the park and are now spreading everywhere.

Park officials are confident that the matter will be settled amicably and meetings have been arranged with property owners to settle the grievances.

Darryl Hawke

#### WALKING TO GRASSY CREEK

Now that the Judgenby Nature Reserve has been declared a National Park it is likely to visit that area. Some of the best walking tracks for the spry and energetic but there are also some very pleasant easier walks to be found. One of these would be a visit to Grassy Creek. The walking is easy but you may get wet feet so take a spare pair of socks in your car for the return journey.

Grassy Creek is a tributary of the Nass Creek. It occupies the shallow valley running between the NSW border and the Boboyan valley. Formerly it was accessible from Boboyan Homestead by a small road which ran up the unnamed creek east of Sheep Station Creek and so over to Grassy Creek and then to Bradley's Creek in NSW. In places it remains as a quite well made little road but in others it has disappeared into the swampy valley bottoms. It forks some way up the unnamed creek. The left hand track goes over the divide to a place a little lower down Grassy Creek. The walk described follows the line of the first track over to Grassy Creek, then down the creek to the start of the other track and so back to Boboyan. The track to Bradley's Creek (and the old Boboyan Road) is shown on the 1:50,000 map, sheet 8626-11 entitled Yaouk.

You can start from several places but my wife and I have usually set off from the knoll to the south of the Boboyan Road which adjoins the second gate after you pass the old homestead site going west. The 2nd gate is at approximately MR 775325 on the ACT 1:100,000 map.

From this knoll you walk south west up the unnamed creek to reach some stockyards a little up on the western side. The creek, which has to be crossed, can be very boggy. One possible crossing place under such conditions is a rocky hillock adjoining the creek where there is dead timber which might be used for a walkway. Alternatively it may be better to follow the old Boboyan Road until you have crossed the creek and then follow the higher ground on the other side.



To reach the Bradley's Creek track you walk a little way beyond the stockyards to a marshy little side valley. The track runs up the far side of this side valley. It is, however, easier to follow the fence which runs uphill from the stockyards. When you get to the top the track is just off to your left. From there the track runs through a little open woodland to some grassland with views to the slopes of Sentry Box Hill, then into a little more woodland before debouching on Grassy Creek. Beyond Grassy Creek the track runs into more woodland and then down to Bradley's Creek on the road to Yaouk. Just where the track used to reach the Yaouk Road is not at all clear now.

Eastward Grassy Creek runs down through a small gorge and then emerges into more level land with a fence to the left. You pass a partial transverse fence and just before you reach another running right across the valley there is a gap in the fence on the left. This is the start of the other track running back to Boboyan. Just beyond the transverse fence - to the east of a small knoll on the other side of the creek - there is a small hut which is shown at MR 761290 on the 1:100,000 map.

On the Boboyan side the track comes down a tongue of higher ground between two small swampy sub-valleys. You cross the one on your left to reach the Bradley's Creek track, i.e. there are two small and potentially swampy little valleys to pass before you reach the stockyards.

At a geriatric pace with stops for birds and photos it took us 2 hours from the Boboyan Road to Grassy Creek, one hour downstream to the start of the other track and one and a half hours back to our starting point. In some ways it is more attractive to talk in the reverse direction because you then look up towards Sentry Box Hill but it is a little more complicated to find the start of the track. We have seen fair numbers of birds - including Fuscous Honeyeaters evidently breeding in November - but very few kangaroos. Perhaps the latter have been eaten out by the rabbits which in dry open places exist in truly plague proportions. It is not the sort of thing which endears National Parks and Nature Reserves to the farming community.

*Alastair Morrison*

NEW MEMBERS: Thomas Allen, Barton; Valerie Chapman, Campbell; Margaret Costen, Aranda; Richard and Pat Cumpston, Deakin; Mr and Mrs M.T. Elford, Aranda; John Fraser, Ainslie; Kevin Frawley, ANU; Paul Grainger, Mawson; Ann and Martin Grieve, Stirling; Mr L. Miller, Queanbeyan; Garry and Lee Newman, Griffith; John Palmer, Scullin; Ruth and David Pfanner, Campbell; Denis and Wendy Rose, Waramanga; Alan Sauran, Lyneham; Peter Shepherd, ANU; David Stradwick, Aranda; Catherine and Leigh Triffett, Griffith.

RENEWALS: 79/80 Roy Tait, Nerolie Weeks; 80/81 Reg and Doris Alder, Cla and Rose Allen, Mr and Mrs J.N.R. Anderson, Alan and Majorie Ashley, Tony Bayes, Olive Buckman, Jeff and Carol Bennetts, D. and L. Balfour, Patricia Brown, Gene Butcher, Betty Campbell, Ian and Jean Currie, John and Helen Cumpston, George and Thelma Chippendale, Bruce and Helen Drake, R. and J. Emerton, Neville and Maxine Esau, Rev. E. Favier, Philip and Pam Gatenby, Lyn Harasymin, Cec and Merril Hunter, Joan and Ray Hegatty, Mr and Mrs Peter Hegatty, Stephen Johnston, Lynne James, Gerry Jacobson, Mr and Mr K. Kerrison, Hela Lindemann, Jean and Harold Marshall, Ian and Betty McFarlane, Alastair and Hedda Morrison, Norm Morrison, Adrienne Nicholson, Norma Price, Peter Roberts, John and Moira Rowlands, John Schunke, Andrew Sneddon, Geoff and Maureen Snellgrove, Don and Phyl Spencer, Diana Spencer, Betty Temple-Watts, Mieke van den Bergh, Neville and Patricia Windeyer, L.A. and D.M. Whitfeld.

Compiled 18 August 1980

### SOUTH WEST TASMANIA - A WILDERNESS IN DANGER

The theme for our May meeting was prompted by the above topic which has been in the news recently and occupying the energies of conservationists. To provide our members with more current information we invited two speakers from the local S-W Tasmanian Committee; Jennifer Whinam and John Kjar, each chose certain aspects of this complex problem, giving us respectively a geographical and historical sketch and the economic facts. The powerful Hydro Electric Commission which has apparently entrenched itself since the 1950's has made it clear that it wishes to place dams on another part of the Gordon River and to start a scheme on the Franklin River - the latter is the last untouched wild river in the South West.

Early in the 1970's a small band of conservationists fought a tough but losing battle to save the original Lake Pedder - the beautiful lake became a sheet of water, filling up as damming of the Serpentine and Huon

Rivers became a reality. This was despite the fact that the area had been proclaimed a scenic reserve back in 1955. The Lower Gordon River had a dam built on it and electricity was produced in 1977.

Not content with all this inundation, further dam construction was begun in 1973 on the MacKintosh and Murchinson Rivers, to be incorporated in the Pieman Scheme. This all went along swiftly because the conservationists were still getting over the Pedder loss and hardly realised that more flooding was taking place.

Each occasion that 'development' is made on a river, changes take place in the ecology of the area, including the sad loss of irreplaceable fauna and flora. The rare Huon Pine is becoming increasingly rare.

Although the Bell Bay power station is not being fully used by the HEC, they are now pressing for more dams to be built, another on the Gordon near Macquarie Harbour and at the confluence with the Franklin River. When full it will inevitably affect the lower reaches of the Franklin and cause another, the last untouched wild river, to have its freedom lost and beauty marred.

Is all the hydro electric power really necessary? Economists question the millions of dollars that are being spent on the continuation of these hydro developments, soaring interest bills and highly priced electricity to the household consumer in Tasmania. Special rates are quietly offered to the five or so industries that benefit from what is provided by the turbines which have taken the place of unique scenery that is irreplaceable.

The call is out for people to ask the Tasmanian Government to declare the whole of the South West a national park to be kept free of development of any kind - hydro electricity, forestry, mining or exploration. The audio visual presented at the end of the talks gave viewers an excellent impression of the beauty along the Franklin River. Unfortunately one had also to see the scarring quarries and power lines that are already in parts of that wonderful area. Waiting for further development? This is a grim warning of what may increase, the same applies to what one saw of forestry activities.

S. S.

P.S.

Our Association has written to Premier Lowe and sent a telegram to him asking for the South West to be proclaimed a national park and preserved from any development. Letters have also been written to Tasmanian politicians.

Stop Press: 11 July. After prolonged discussion the Tasmanian Government has suggested a compromise hydro electric scheme on the Lower Gordon thereby saving the Franklin River. Conservationists are delighted to hear this and the recommendation of the Labour caucus that the Franklin and its catchment should be designated a national park, including the Davey River, further south. However, the HEC has been directed by the Government to investigate power development on other rivers, supposedly outside the proclaimed area.

Second best? This is the time when help is needed from everybody to ask Premier Lowe and the Tasmanian Legislative Council to preserve the South West and all the rivers from further exploitation. The recommendation still has to be passed by Parliament therefore we cannot relax in any way.

## A NOTE FROM THE EDITOR

The following article has been typed on a word processing machine which besides giving a small clear type allows a space saving of 60% or 33% above that of the typewriters now in use for the Bulletin. In addition it cleans up the right hand margin to give a clean edge to the lines. Subject to the members' and Committee's acceptance future issues will be printed in this format as articles already typed are used up.

### THIRD MAP USERS FORUM

NATMAP has problems in trying to meet all the public's demands for items to be included on new maps.

This became apparent at the third forum at the Queanbeyan Office on 24 June. The Director of National Mapping, Mr Tony Bomford, welcomed a full house of interested users and set the tone for the meeting by saying that he was glad to receive all comments. He promised that his organisation would do everything possible to meet suggestions. However, it is sometimes necessary to rule that a particular valued item, for some user group, just cannot be made to fit a map series and must be omitted. The Director hoped that those getting such a reply will accept the verdict (all maps must be a compromise) and suggested that such acceptance be seen as a condition for public access to input to the mapping system.

The meeting Chairman, Mr Byrne Goodrick, then summarised benefits gained from previous forums. He felt that NATMAP had helped to identify users and uses for its products, as well as receive some indication for user special requirements. For example, the wide demand for improved definition of road access will be recognised by a new road classification on the new Australia-wide 1:250,000 series. The universal demand for economy will be met, in this case, by a reduction of print colours to four. A hint that such economy might then spread to the larger scale 1:100,000 maps may be cause for concern to users. This writer would contend that the increased information requirement at the larger scale will continue to demand six or seven colour printing to maintain legibility.

The idea of a winter snowfields map has led to the proposal, supported by N.P.W.S., of a 1:100,000 Kosciusko National Park map. This is recognised as an appropriate job for the Division since the park area just fits onto two sheets; and if these are backed up, the whole park can be included in one publication.

Mr Jeff Parkinson then took over to summarise the results of a user survey undertaken to set standards for such a map. Contours, roading, rivers and vegetation are prime requirements. Specialist demands include details of access, huts, boundaries, ski routes and areas, emergency facilities and tourist features. Interest is high in a special 'winter' map with requirements for layer tinting for heights, stronger contour designation and relief shading and snowline designation. A simplified vegetation portrayal has been suggested - to help accommodate the other features. Generally there is preference for a large double-sided format (about one metre by three quarters of a metre and printed on plastic) - a similar publication to the popular A.C.T. map with, incidentally, a small meeting overlap between these two maps.

The area covered can then be extended to the south and, as suggested by the Victorian N.P.S., include the proposed Cobberas and Tingaringy parks. Part of the area will also be covered by C.M.A. 1:50,000 mapping and by a proposed B.M.R. map of geological features.

Mr Bob Robinson then described the map design action to cope with the expressed user requirements. He stressed the three considerations that NATMAP uses:

1. What is the customer's requirement for items on the map?
2. Is the information available on time, reliable and reasonably stable?
3. How can it be shown CLEARLY?

Additional features for this special map (as compared with standard 1:100,000 work) will be:

- . Roads shown with intermediate distances and if 4WD.
- . Recognised walking tracks named.
- . Emphasis on underwater data, cliff symbols, power lines, police, medical, ranger, telephones and shelters.
- . Recreation information to include ski, boating, camping, picnic and parking areas.
- . Designation of restricted areas.

Marginal notes will indicate restrictions for off-road activities, wheel-chain and fire trail restrictions, sources of information on road conditions and a warning on weather and protective clothing.

This 'shopping list' has resulted in NATMAP's problem - at 1:100,000 they foresee difficulties with the legibility of the finished map. Printed proofs were displayed and suggested variations described as 'not yet acceptable'. It may be necessary to delete relief shading to avoid difficulty in reading contour layer-shading and vegetation. Clarity is essential for a special 'winter edition' used under bad field conditions.

Comment from the meeting was, in the main, favourable and all were appreciative of the work done by NATMAP staff in mounting the exhibition and in the preparation of trial map systems. It is difficult to persevere with high technical standards when it seems likely that an experimental job is going to prove unsuccessful - but this is how progress is made and all concerned have demonstrated that the Division is going to make progress in this production.

There is strong demand for information on compass anomalies, and there is some pressure for additional marginal notes on back country touring facilities. The latter is resisted by many on the grounds that it is not an appropriate 'map' detail - people should have track and hut notes with the fullest available information in such circumstances.

The Chairman concluded by illustrating a basic technical difficulty at contour intervals of 20 M. in this relatively steep country. The physical demands of the scribing led to impossible situations with contours blurred into a mass - this can be on slopes of less than 1/1. Possible solutions are by breaking or by merging contour lines - but this leads to digitising problems.

Users were appreciative, and attempted to be constructive; and the NATMAP staff exhibited, as is to be expected, a proper professionalism in dealing with their problems. It is encouraging to find a highly technical organisation willing to share its problems and adopt an open attitude to the public. The meeting was left in no doubt that proper technical judgements will be made, and, as the Director had foreshadowed, the necessary pruning of features to ensure good topographical presentation for 'our' National Park map will result.

Some details of the user survey are held in our library.

Brian Hammond

#### UREWERA NATIONAL PARK, NEW ZEALAND - PROGRAMME & POLICY

The park is administered by a Board whose policy is based on two criteria: the need to preserve the park's wilderness character, and the need to assist people to enjoy the park so that, in time, they will understand why national parks are necessary and how they must be cared for. All policy and management programmes start from here. A positive attitude towards caring for the environment means that all management policies are designed primarily to ensure the park's natural features, its unique ecosystem viewed as the product of the total area, are protected and encouraged. This means that nothing is done which can harm the total environment. Only an expert with years of experience can forecast accurately what effect an apparently trivial change may have. A few metres of road, for instance, may make it easier for visitors to get to a particular scenic spot. But if it affects runoff after heavy rain, or if it attracts more visitors than one small area can stand without damage - as has happened in parks overseas - then the

temporary advantage may cause incalculable long-term harm. On the other hand, without visitors, the park is a closed museum. So the living balance must be maintained by continual vigilance and expert knowledge, but you too can help by protecting all the native flora, fauna and natural features.

It may seem that so large a park needs little protection, but an ecosystem is a fragile thing. A park can be worn down by an apparently insignificant accumulation of uses, and damage is often irreversible.

To ensure the park retains its character of undeveloped wilderness, the policy is that only essential facilities are provided, and these are not allowed to sprawl along any road or waterway, or around any lake. The Board plans to develop service facilities only where it can solve the aesthetic, technical, ecological and human problems that could result. These will be sited and designed to have the least effect on the park environment. Where buildings are necessary, they will be integrated with the landscape. Where the Board

considers they are not necessary, they will not be permitted. The Board's policy is to provide for a range of camping experiences, from the undeveloped site with the minimum of facilities, to areas offering services for caravans. All services will be graded for the expected user. As an example, the Board points out that on some remote tracks where experienced trampers are prepared to rely entirely on their own resources, 'a hut or a well-developed track could be considered an unacceptable intrusion on a really true wilderness.'

This policy and this care are unseen parts of the park that we hope you will enjoy. You may find it interesting to remember, as you travel and explore this most exciting of all our North Island forest areas, that the guardians of the park are working to ensure that all this will still be here, magnificent and unspoilt, for your children - and theirs.

#### NATIONAL PARKS ASSOCIATION OF A.C.T. LETTERS

The Planning Officer,  
Kosciusko National Park.

6 May 1980

Dear Sir/Madam,

#### THE SUMMIT AREA

My Association appreciated receiving copies of the first booklet - The Summit Area - asking for public comment on the revised Plan of Management of the Kosciusko National Park. Time and thought has gone towards making this brochure easy to read with ideas clearly set out - thank you.

Members of this Association visit the summit area quite frequently in summer, especially when the alpine flowers are in bloom and they have experienced the fickle weather which the Kosciusko region can provide in supposedly very hot conditions - sleet and snow are not unknown in January.

The following suggestions are offered regarding certain sections of the future planning you have in mind -

#### 1. General:

The National Parks Association supports a program of visitor education on features of the summit area; it is important for them to understand the fragile nature of alpine environment and the risk of spoiling its outstanding values by careless use. We applaud the NPWS providing leaflets, signs, etc. explaining these points while encouraging visitors to appreciate the qualities of the area.

#### 2. Vehicular Access:

NPA supports closing the Summit Road to protect the summit area. The effect of vehicles is incompatible with preservation of the area on account of the fragile alpine environment and its beauty.

Will closure of the Summit Road mean vehicular congestion at Charlotte's Pass and subsequent degradation of this area? Overcrowding of parked vehicles is already evident along the road near the gate with danger to pedestrians and vehicles alike. There is only a small area at Charlotte's Pass suitable for car parking without extensive disturbance of environment along the valley floor.

Would it be feasible to run buses from say Perisher to Charlotte's Pass during peak season and avoid parking problems at Charlotte's Pass?

Why not restrict traffic during the summer as is done in winter?

#### 3. Walking Tracks

The National Parks Association supports the policy on walking tracks. It is important that long term research be undertaken in this area and its results applied progressively to stabilise this influence on the environment.

Do horse parties use these tracks? In boggy areas severe damage is caused by the hooves.

#### 4. Overnight camping

NPA accepts that both walking and overnight camping above the treeline can significantly damage the environment. We support NPWS proposals to minimise these effects. It is important that visitors be made aware of the overall problems and thus the need to restrict activities in certain areas.

Could there be rules restricting camping within certain distances (say 1 km) of lake shores? The Blue Lake area certainly needs protection.

a. Pollution of streams, build-up of rubbish, waste etc. is directly proportionate to numbers of sight-seers or overnight campers and the most direct way to control these effects is to control the number of visitors.

Could the area be zoned into camping/no camping areas, these areas to be changed from time to time as necessary? This might be difficult to implement and supervise.

b. Perhaps a booking system could be instituted with appropriate fees to cover cost of administration, supervision and clean-up of areas. Visitors should be educated to carry out empty containers that they brought in and have used.

#### 5. Rehabilitation:

NPA supports policy of NPWS to progressively restore the Summit area to its natural (original) state.

Can interested groups (i.e. an Association like ours etc.) contribute either directly or financially to projects like this?

Last, but not least

#### 6. The Weather:

This aspect does not appear to have been mentioned.

We do feel that far more emphasis should be given to the extreme danger of abrupt changes, winter and summer. Most of the day trippers, who often come from cities, have no conception of the speed with which a mild summer's day can change to a blizzard, or of what to do if this happens.

Is it possible to mention these facts in one of the useful leaflets that the Service provides?

What about warning signs at strategic places e.g. where the shuttle bus takes off at Charlotte's Pass and perhaps even further back, to give people sufficient notice about alpine weather conditions which are unpredictable at any time of the year?

Thank you for providing this opportunity to comment on your ideas. Our Association wishes you well towards wise planning.

#### SOUTH WEST TASMANIA

The Association wrote on the 24th April to the Australian Heritage Commission requesting them to consider urgently the inclusion of the South West Region of Tasmania on the Register of the National Estate.

The following reply dated 1st July has been received:

GREAT BARRIER REEF REGION- SOUTH WEST TASMANIA- KAKADU.

At its meeting on 19, 20 June 1980, the Commission placed its common seal on public notices relating to the entry of the above places in the Register of the National Estate.

The Commission carefully reconsidered its original proposals for these three areas (see Commonwealth of Australia Gazettes of 17 January 1978 and 5 September 1978 - Great Barrier Reef; 19 December 1978 - South West Tasmania and Kakadu Region) in the light of the comments and objections received to these proposals and with the aid of expert independent advice.

The Commission has decided that:

- there will be no change to its published proposal for the Great Barrier Reef Region, i.e., all reefs, and all islands or parts of islands which are either National Parks or owned by the Commonwealth, within the Region as defined in the Great Barrier Reef Marine Act 1975, as amended, will be entered in the Register,
- there will be no change to its published proposal for South West Tasmania, i.e. the whole of the proposed Conservation Area will be entered in the Register,

parts of the Kakadu Region as originally proposed should not be entered in the Register (subject to consideration of any objections), these being the whole of the Wildman River catchment, the whole of the 'Nabarlek' and 'Ranger' Project Areas, the whole of the proposed Jabiru Town Lease Area, and those parts of the 'Jabiluka' and proposed 'Koonarra' Project Areas which do not contain any significant Aboriginal sites. The remaining areas will be entered in the Register.

Public notices giving effect to the above decisions are scheduled to appear in the Gazette and in the press on 8th July 1980

The Hon. A.R.L. Gordon, M.P.,  
Minister for Water Resources,  
Lands & Forests,  
c/o. NPS NSW

Also sent to:  
Hon. S.L. Bedford,  
Minister for Planning &  
Environment  
24 April 1980

Dear Mr Gordon,

The National Parks Association of the A.C.T. has noted with some concern recent reports of calls by some NSW Members of Parliament and spokespersons for primary producers for national parks to be used for emergency stock agistment during the current drought.

We realize that widespread lack of feed for livestock is causing hardship for some producers. Our members travel widely throughout south-west New South Wales and we have appreciated these conditions at first hand.

We understand that a Cabinet sub-committee has been appointed to review measures for drought relief throughout the State. May we make a plea to this committee, on behalf of all those who use and enjoy national parks, for the most careful consideration of the effects of opening up national parks before any decision is made for their use for agistment. National parks are areas preserved for their natural values, for their scenic, faunal and floral resources. These attributes are quickly degraded under pressure from grazing. Indeed, Kosciuszko and Warrumbungles National Parks, to name a few, are only now beginning to recover from earlier grazing and to show to full effect the variety and beauty of the Australian landscape.

We are not opposing aid for primary producers, or even the use of resources at national parks in some other way to provide drought aid. We are concerned, however, that national parks, which even now are only a tiny fraction of all arable land and which support in many cases a fragile environment, are not degraded by precipitous action. We trust that you will take these factors into account in reaching your decisions.

The Minister for Planning and Environment replied on 9 June 1980:

"... At no stage during the recent drought was consideration given to allowing agistment on national parks. However, I did approve the removal of fodder and water from national parks where this could be achieved without causing environmental damage. Most of the lands concerned had only recently been reserved and regeneration of native species had not been attempted."

E.L. Bedford

Mr Bruce Leaver, 13 May 1980  
Regional Director, National Parks and  
Wildlife Service S.E. Region

Dear Mr Leaver,

During a weekend (April 26-27) walk in the Murray-Bimberl area of the Kosciuszko National Park, NPA members found recent evidence along the Lone Pine and Murray Gap service tracks of incursions by trail bikes and four-wheel-drive vehicles. They found that the gate onto the Lone Pine track at the Yook Valley end was open, demounted from its hinges, and without a chain and lock.

As a temporary restorative measure our members re-mounted and closed the gate. The lack of any means of securing the gate remains, however, and this provides open access to bikes and other vehicles. Can a chain and lock be provided to discourage vehicular access? If NPA can help in any way, by providing and attaching a lock, for example, we should be happy to do so.

In the same area our members noted extensive damage caused by pigs. Large areas of snow gums and moss had been uprooted in wet areas, particularly on Bimberl. We realize that this is a serious and ongoing management problem which has no easy solution. Again, if there is any specific way in which NPA could assist the NPWS in fighting this problem we should be pleased to help.

Hon. Secretary,  
National Parks Association of the ACT. 20 May 1980

Dear Ms Kruse,

Thank you for your letter of 13 May concerning the Lone Pine and Murray Gap service trails and feral pig problem.

Thank you for your comments and offer of assistance. The difficulty is that the particular area is very remote from existing staff locations and as a result does not rate very highly in the priority list for essential works.

There is an investigation looking at the existing allocation of staff resources and there is an indication that some staff may be posted to work out of Adaminaby. This would of course mean depleting resources elsewhere.

Your offer of assistance is very much appreciated however any assistance your members could contribute would be a drop in the feral animal ocean.

I am forwarding your letter to the Superintendent Kosciuszko District for his information and action where appropriate.

B.H. Leaver  
Regional Director, S.E. Region  
NPWS

Senator Tony Malvikhill, 4 June 1980

Dear Senator Mulvanhill,

Thank you for your letters of 19 and 26 March and 14 May 1980 concerning any possible mining operations which might be undertaken in the Kakadu National Park and the Coburg Peninsula wetlands.

You inquired whether, following action to list these areas on the World Heritage List, future mining operations would be banned in them. You also proposed that the Commonwealth Government should adopt a lands policy in the Northern Territory similar to that exercised by the United States Federal Government in Alaska.

I might mention that no action has been taken to list the Coburg Peninsula wetlands on the World Heritage List, but that this area is already listed under the Convention on Wetlands of International Importance especially as Waterfowl Habitat.

I should like to emphasize that the Australian concept of State self-government is quite different from that which exists in the United States. This can be clearly seen in the land provisions of the Northern Territory (Self-Government) Act and the Alaska Statehood Act. Under the latter Act the U.S. Federal Government granted 102 million acres to the new State while retaining some 373 million acres under its own jurisdiction. Under the Northern Territory (Self-Government) Act Australia has adopted a quite different approach. The Commonwealth has retained control only over those lands necessary to carry out Commonwealth functions, including control of the lands in the Alligator Rivers Region which were recommended by the Ranger Uranium Environmental Inquiry to be a national park or to be considered for possible addition to the national park. As you know, the Commonwealth has also retained ownership of all 'prescribed' minerals in the Northern Territory.

In respect of the specific areas of your concern, the Coburg Peninsula Wildlife Sanctuary is under the control of the Northern Territory Government. There is no conflict between Northern Territory control of the Sanctuary and Commonwealth nomination of the area as a wetland of international importance. Indeed it was the reservation and protection of the area under Northern Territory law which enabled the Commonwealth to make the nomination in the first place. In the case of Kakadu National Park the position is precisely as set out in the answer to your question which was printed in Hansard (page 711) on 13 May 1980.

In the Alligator Rivers Region the protection of the environment will be achieved not only by the application of the Environment Protection (Impact of Proposals) Act but also by the whole package of legislation which was enacted especially to implement the recommendations of the Ranger Inquiry and to give effect to the Government's policies for the Region.

I am confident that the existing Commonwealth and Northern Territory legislation and policies will ensure that no mining operations will be commenced without a full and responsible consideration of all conservation aspects of the affected areas.

Yours sincerely, Malcolm  
Malcolm Fraser

#### METROPOLITAN PLANNING ISSUES

Letter from the Association to the NCDC on 10th July.

Thank you for your letters of 23 and 26 June and copies of the NCDC Public Discussion Paper on Metropolitan Issues.

The NPA of the ACT takes this opportunity to comment on the Settlement Options. It may at a later date send comments on other aspects of the Planning Issues.

#### Option 3

The NPA prefers Settlement Option 3 - 'develop north - eastern Tuggeranong to a population of 50,000, with a small centre, and then settle Gungahlin; to either other option.

It considers that Option 3 envisages less environmental damage, and lower transport costs and energy consumption for commuters.

#### Option 1

Urban development west of the Murrumbidgee River, as proposed in Option 1, is strongly opposed by this Association, primarily on environmental grounds but also on the cost of establishing settlements in the area.

Environmentally, the greatest impact would fall on the Murrumbidgee River as a result of:-

- \* development within metres of the water.
- \* the number of bridges spanning the river that would be required.
- \* river environs being over-utilised as a recreational resource.
- \* the degrading of water quality due to the increased run-off, much of which would be polluted, and
- \* the visual impact of bridges, power lines, residential, commercial and institutional development over or close to the Murrumbidgee which would detract from the aesthetic qualities of the river landscape.

Another objection on environmental grounds is the close proximity of the proposed residential area to the northern boundary of the Gudgenby Nature Reserve. This would not allow for an adequate buffer zone between urban development and the Reserve to protect the area from over-exploitation, but would bring the large population right to the border of the Reserve.

On financial grounds, the cost to the taxpayer of providing above-flood-level bridges, sewerage and other services across the river would surely be far in excess of the cost of developing Gungahlin. Greater transport costs for commuters and increased consumption of energy in the form of fuels would be incurred if west of the Murrumbidgee, rather than if Gungahlin were to be developed.

The National Parks Association strongly urges that Settlement Option 3 be given priority over Options 1 and 2.

#### MORTON NATIONAL PARK

A letter was sent from the Association on the 11th July to the National Parks and Wildlife Service NSW concerning the intrusion of 4 wheel drive vehicles into near the base of Quilty's Mountain since the track had been improved from the Sassafrass road. A suggestion was made that a gate be placed at the entrance of the Park near Newhaven Gap and that the Association could offer some assistance. Further comment was made on the confusing sign 'Trespassing Prohibited' on the gate at Sassafrass from the Nowra road, which gives access to the road to the park. Comment on the status of this notice and road access to the park was requested.

#### FRANKLIN AND LOWER GORDON RIVERS FLOODING.

The following telegram was sent to the Premier of Tasmania:-

NATIONAL PARKS ASSOCIATION OF THE ACT INC SUPPORTS PROTECTION OF SOUTHWEST TASMANIA FROM HYDROELECTRIC DEVELOPMENT. ESSENTIAL AREA BE PERMANENTLY PRESERVED DUE TO OUTSTANDING NATURAL VALUES. OVERWHELMING MAJORITY AUSTRALIANS SUPPORT THIS.

A further letter to 10 Tasmanian M.P.'s was forwarded giving details of the telegram and urging them to adopt options which would preserve rivers in the area.

#### GUDGENBY NATURE RESERVE

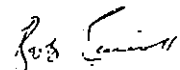
The June Bulletin published a letter from the NPA to the Minister of the Capital Territory, dated 15 April, which contained the correspondence of the upgrading of the Boboyan Rd. The following reply, dated 7th July has been received from the Minister:

Thank you for your letter of 15 April, 1980 bringing to my notice your concern with the upgrading of the Boboyan Road through the Gudgenby Nature Reserve.

I am advised by the National Capital Development Commission that it is aware of the potential environmental effects and management difficulties associated with upgrading the road, and that in liaison with my Department and the Department of Science and the Environment, it is taking these factors into account in the planning and design of the road.

The Commission has informed me that it appreciates the interest of the National Parks Association in the Gudgenby area, and has suggested a meeting with you to discuss the issues. I understand that the Commission will be contacting you directly about such a meeting.

Yours sincerely,



R.J. Ellicott  
Minister for the Capital Territory

## COMMITTEE NEWS

KAKADU NATIONAL PARK. The Committee received a copy of the plan of management of the Kakadu National Park from the Australian National Parks and Wildlife Service and was invited to comment. With the valuable co-operation of a graduate student, comments on three recreational aspects of the Plan-movement within the Park; management for recreational use; and visitor charges were submitted. The Plan of Management and the Committee's submission are available for perusal.

KOSCIUSKO NATIONAL PARK: REVIEW OF PLAN OF MANAGEMENT. The Committee has received copies of three Planning Issue Statements of the NSW National Parks and Wildlife Service, calling for comment on The Summit Area, Huts and Resort areas. Submissions have been made on each of these three issues. They are too lengthy to publish in the Bulletin but the file is available for perusal.

BOOK SALES In the last twelve months, books to the value of approximately \$4000 have been sold. The Association's profit \$114.

VICTORIAN NATIONAL PARKS ASSOCIATION, has moved to 2nd Floor, 419 Lonsdale St., Melbourne, and looks forward to seeing any NPA ACT members who may go to Melbourne. They say their new home is much handier to the city and much better than the former one in William St..

CAR COSTS. Following the statements in the June Bulletin (p16-Local News, and p17 NPA Outings) reporting the Committee's belief that 4c/km rather than 2c/km was a realistic present-day contribution to car costs, the Committee was asked by some drivers who thought the 4c/km too high to look again at car costs. This the Committee did and adopted the following resolution: 'that passengers accepting a lift on outings should each offer the driver 3c/km.'

NANCY BURBIDGE MEMORIAL. At 30 June, a cheque for \$177.70 was sent to the Nancy Burbidge Memorial Fund. This represented the total amount, at that date, of the personal donations of NPA members to the fund. A contribution from NPA funds will also be made but donations from members who knew Nancy personally are still being accepted. (See p2 for details of the dedication ceremony of the Memorial Amphitheatre in the National Botanic Gardens).

ACCESS a new community newspaper (20c, six weekly) to which the Association contributed \$10 towards the cost of the first issue, published in that issue an article titled 'NPA seeks more members' which gave information on our aims objects and activities, and another 'Gudgenby Nature Reserve- At Last' submitted by John Schunke.

AUSTRALIAN NATIONAL PARKS COUNCIL's 1980 Annual Conference is to be held in Canberra on September 20-21 and our Association will be acting as collective hosts. A small sub-committee has been formed to arrange billeting of interstate delegates, catering and entertainment. The meetings are to be held in the CSIRO Division of Land Use Research, Black Mountain. Most members will know that Dr. Robert Story is the 1979-80 Chairman of the ANPC, and will be NPA ACT Councillor/delegate to the meeting.



NATIONAL PARKS ASSOCIATION OUTINGS

Please notify the leader by the previous Wednesday of your intention to go on any weekend outing.

The Committee suggests a donation of 3 cents per kilometer (calculated to nearest dollar) be offered to the driver by each passenger accepting transportation. Distances quoted, for one way only, are approximate and for guidance only.

There have been changes in dates from the previous programme.

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.

September 7 Sunday Lake Burley Griffin: Cycle ride  
Leader: John Webster 476769 Ref: UBD Tourist Map  
Meet: Acton Park 10 a.m. A family cycle ride around Lake Burley Griffin.

September 13 Saturday Capital Hill: Walk  
Leader: Cla Allen 953824 Ref: A.C.T. 1:100,000  
Meet: Capital Hill car park 2 p.m. An easy walk exploring the Capital Hill area.

September 14 Sunday Mount Clear: Walk  
Contact: John Webster 476769 Ref: A.C.T. 1:100,000  
A combined outing with the Geehi Club. 75kms.

September 13/14 Sat/Sunday Hidden Valley: Pack walk  
Leader: Fiona Brand 479538 Ref: Endrick 1:25,000  
A beginner's pack walk into the Bundawangs. 160 kms.

September 20/21 Sunday: Australian National Parks Council Annual Conference

September 28 Sunday Orroral River: Walk  
Leader: Neville Esau 864176 Ref: A.C.T. 1:100,000  
Meet: Mugga Road and Monaro Highway 8.30 a.m. An easy walk to Glendale Crossing in the Gudgenby Reserve. 50 kms.

October 4/6 Sat/Monday Upper Abercrombie River: Camp  
Leader: John Webster 476769 Ref: Mount Armstrong 1:25,000  
An outing to a new area with the Goulburn Field Naturalist Society. Road conditions may require about 2 1/2 kms of pack walking to reach the base camp. 250 kms.

October 11 Saturday Black Mountain: Walk  
Leader: George Chippendale 812454 Ref: A.C.T. 1:100,000  
Meet: Belconnen Way entrance 2 p.m. An easy walk in Black Mountain Reserve to view the wild flowers.

October 18/19 Sat/Sunday Grassy Creek: Pack walk  
Leader: Neville Esau 864176 Ref: A.C.T. 1:100,000  
A weekend walk in the southern part of the Gudgenby Nature Reserve. 75 kms.

- October 26 Sunday Bogong Creek: Walk  
 Leader: Ian Currie 958112 Ref: A.C.T. 1:100,000  
 Meet: Mugga Road and Monaro Highway 8.30 a.m. A medium walk up to Bogong Creek from Gudgenby. 70 kms.
- November 2 Sunday Pierces Creek: Walk/barbeque  
 Leader: Bernice Anderson 812082 Ref: A.C.T. 1:100,000  
 Meet: Cotter Road/Eucumbene Drive 1 p.m. A short walk from Pierces Creek followed by an evening barbeque. 35 kms.
- November 8/9 Sat/Sunday Micalong Creek: Car camp  
 Leader: Frank Clements 317005 Ref: Brindabella 1:100,000  
 A weekend camp near Wee Jasper, with local walks and swimming opportunities. 80 kms.
- November 16 Sunday Orroral Valley: Walk  
 Leader: John Hook 959666 Ref: A.C.T. 1:100,000  
 Meet: Mugga Road and Monaro Highway 8.30 a.m. A walk up the Orroral River valley with diversions for the more energetic. 40 kms.
- November 22/23 Sat/Sunday Mount Kelly Area: Pack walk  
 Leader: Les Pyke 812982 Ref: A.C.T. 1:100,000  
 (709.480)  
 A weekend walk to explore some new peaks in the Mount Kelly region. 70 kms.
- November 30 Sunday Past President's Barbeque - Blue Range  
 Leader: John Banks 816641 Ref: A.C.T. 1:100,000  
 Meet: Eucumbene Drive/Cotter Road 10 a.m. Rescheduled walk to an arboretum, followed by a mid-day barbeque. Bring your own food etc. 35 kms.
- December 7 Sunday Ginini-Gingera: Walk  
 Leader: Hela Lindemann 864926 Ref: A.C.T. 1:100,000  
 Meet: Eucumbene Drive/Cotter Road 8.30 a.m. A walk along the ridge from Ginini with views along the Brindabellas. 70 kms.
- December 14 Sunday Christmas Barbeque/Party  
 Venue: Yarralumla Nursery Picnic Area at the head of Nursery Bay. From 3.30 p.m. onwards. Walks around the nursery beforehand for the addicted walkers. Don't miss this annual get-together.

---

Variety, too, can be obtained by losing the way - a half-conscious process, which in a sense can no more be done of deliberate purpose than falling in love. And yet a man can sometimes very wisely let himself drift, either into love or into the wrong path out walking. There is a joyous mystery in roaming on, reckless where you are, into what valley, road, or farm, chance and the hour is guiding you. If the place is lonely and beautiful, and if you have lost all count of it on a map, it may seem a fairy glen, a lost piece of old England that no surveyor would find though he searched for it a year. I scarcely know whether most to value this quality of aloofness and magic in country I have never seen before, and may never see again, or the familiar joys of walking grounds where every tree and rock are rooted in the memories that make up my life.

G.M. Trevelyan, on 'Walking'

NATIONAL PARKS ASSOCIATION OF THE AUSTRALIAN CAPITAL TERRITORY INC.

Inaugurated 1960

President: Neville Esau, 11 Rymill Place, MAWSON ACT 2605  
49.4554(W) 86.4176(H)

Vice-President: Ian Currie, 10 Arnhem Place, RED HILL ACT 2603  
95.8107(W) 95.8112(H)

Secretary: Sheila Kruse, 50/C, Currong Flats, BRADDON ACT 2601  
48.6104(H)

Treasurer: Lyle Mark, 6/45 Hampton Circuit, YARRALUMLA ACT 2600  
49.7488(W) 81.6985(H)

Assistant Secretary: Fiona Brand, 11 Dyson Street, LYNEHAM ACT 2602  
47.9538(H)

Publicity Officer: Harriet Michell, 6 Raymond Street, AINSLIE ACT 2602  
47.3264(H)

Committee Members: Reg Alder, Ross Carlton, Darryl Hawke, Charles Hill,  
John Schunke, John Webster

Immediate Past President: John Banks, 9 Furphy Place, GARRAN ACT 2605  
49.3232(W) 81.6641(H)

Bulletin Editor: Reg Alder, 45 Stark Street, HIGGINS ACT 2615  
54.2240(H)

Membership Secretary: Fiona Brand, 11 Dyson Street, LYNEHAM ACT 2602  
47.9538(H)

Outings Convenor: John Webster, 46 Dumaresq Street, DICKSON ACT 2601  
47.6769(H)

Correspondence to: Box 457, PO CANBERRA CITY ACT 2601

Telephone: 48.6104 (Secretary) or 95.6037

Annual Subscription Rates

1 July - 30 June: Family members \$10 Student members \$3  
Single members \$ 8 Corporate members \$5

For members joining between:

1 January - 30 June: Half specified rate  
1 April - 30 June: Fifteen months' subscription

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 organised field outings, meetings or any other means.

Cooperation with organisations and persons having similar interests and objectives.

Promotion of and education for nature conservation and the planning of land-use to achieve conservation.

# National Parks Association outings summary

## SEPTEMBER

7	Sunday	Lake Burley Griffin	Cycle tour
13	Saturday	Capital Hill	Walk
14	Sunday	Mount Clear	Walk
13/14	Sat/Sunday	Hidden Valley	Pack walk
20/21	Sat/Sunday	Australian National Parks	Council Annual Conference
28	Sunday	Orroral river	Walk

## OCTOBER

4/6	Sat/Monday	Abercrombie River	Camp
11	Saturday	Black Mountain	Walk
18/19	Sat/Sunday	Grassy Creek	Pack walk
26	Sunday	Bogong Creek	Walk

## NOVEMBER

2	Sunday	Pierces Creek	Walk/barbeque
8/9	Sat/Sunday	Micalong Creek	Car camp
16	Sunday	Orroral Valley	Walk
22/23	Sat/Sunday	Mount Kelly	Pack walk
30	Sunday	Blue Range	Barbeque

## DECEMBER

7	Sunday	Ginini-Gingera	Walk
14	Sunday	Yarralumla	Christmas barbeque

## GENERAL MEETINGS

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

### Thursday, 18 September

Dr. Horwood Cossins, Queensland N.P.A.  
"Queensland National Parks,  
with special reference to rain forests"

### Thursday, 16 October

Dr. W.D.L. Ride, C.C.A.E.  
"Australian Biological Resources Study:  
surveying Australia's plants and animals"

### Thursday, 20 November

Dr. Robert Boden, Director, National Botanic Gardens  
"Galapagos Islands"