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A **BULLETIN**

NATIONAL PARKS ASSOCIATION A.C.T.



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Aboriginal stone arrangement - Gudgenby Nature Reserve

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PRESIDENT'S FORWARD

The Way Ahead

As it enters its twenty-second year, the National Parks Association of the ACT cannot only look back on twenty-one years of endeavour but should, I believe, look forward to the coming years to plan new policies and strategies for conservation of natural areas. It is already becoming evident that the conservation climate in Australia is changing from conditions prevailing over the past ten or fifteen years and changes may become even more far reaching than we can see now. Consensus on many environmental questions is becoming difficult to achieve even within the so-called conservation movement. A back lash on environmental questions is evident from many community and interest groups, local governments and, in particular, State and Federal governments. All groups including our own, are faced with having to take environmental decisions where the rules and conditions are less certain and less favourable than we have known previously. The rising cost of energy and the quest for economic growth in Australia have begun to overshadow environmental concern as the scramble for control and exploitation of resources intensifies.

If this concern seems vague or far away, consider a few of the decisions recently made at Government level affecting the environment: the excision of part of Kakadu National Park for uranium mining; the granting of exploration leases over parts of the Great Barrier Reef; proposals to mine coal under NSW national parks; the uncertain status of the Franklin and Gordon Rivers in Tasmania; and beach mining on Morton Island near Brisbane. These are a few of the major decisions which have been made or are under consideration where conservation of natural areas has to make way for development. There are many others now, and there will be many more in the future, both locally and throughout Australia. In our local area there are several development proposals threatening Morton National Park, there are proposals for woodchipping and conversion to pine plantations of large areas of natural forest in south-east NSW, to name but two important local conservation issues.

The dedication and management of national parks is also becoming more controversial as interest groups, local authorities, and governments seek to influence the way in which existing and potential parks are used and controlled. You will all be aware that the NSW National Parks and Wildlife Service has prepared a new draft Plan of Management for the Kosciusko National Park. This new plan involves many new proposals for developments within the Park including roads and skiing facilities which involve compromises between development and

conservation. Public comment is currently invited by the Service on these proposals. The National Parks Association has also recently responded to a call for submissions on aspects of the Morton National Park Plan of Management. A recent speaker at a general meeting, Mr Mark Butz, a senior ranger with the National Parks and Wildlife Service South-East Region, described to us clearly and forcefully the delicate, painstaking and often frustrating job of preparing proposals for new national parks and nature reserves. He reminded us of the many competing interests, government and private, in the land as a resource, and the need for the continued and indeed increased support of bodies such as National Parks Association for the policy of the Service for dedication of outstanding natural areas. Recently many rural organisations have again begun to bring pressure on State governments to halt the dedication of all new parks and reserves. Such pressure increases the difficulties faced by bodies such as the NSW National Parks and Wildlife Service and makes our support all the more vital.

These remarks are not intended merely as a pessimistic forecast, but rather as a realistic appraisal of the outlook for conservation bodies such as ours and a call for increased effort by our members. Our Association, along with other like-minded bodies, CAN influence the outcome of proposals and decisions affecting our environment if we apply ourselves wholeheartedly to this task. If you believe in the aims of the National Parks Association, if you believe that our quality of life is enhanced by the conservation of natural areas for active recreation, aesthetic appeal, for scientific and educational purposes, then we NEED your assistance and support. Australia boasts many outstanding natural areas where the works of nature delight the eye, where our unique flora and fauna can live and develop for ourselves and for future generations to love and enjoy. These areas are part of our natural heritage and we need your active support to safeguard and conserve these areas as parks and reserves, and to respond to many other conservation issues.

The National Parks Association urgently needs willing workers to help in playing our part in this vital task: preparing reports and submissions; responding to proposals; researching, documentation and many, many other tasks. If you can play a part in this work, even a tiny part, please come forward; contact the Secretary or President or any other visible office holder. Your help will be essential in meeting future calls on the National Parks Association to continue to fulfil its charter.

SOME DIFFICULTIES IN NAVIGATING WITH

AERIAL PHOTOS

These days we can take it for granted that the quality of our aerial photos is pretty near perfect. Even so, some intrinsic imperfections remain - they are distorted near the margins, particularly in mountainous country (so that one sometimes has difficulty in seeing which way a stream is running), they exaggerate the relief (so that the actuality is a disappointment for mountaineers and a pleasant surprise for the rest of us), and they are of little use unless they are viewed in pairs to give a 3D image. As you probably know, these pairs are not identical but are taken at intervals as the aircraft flies, and the bigger the interval the more pronounced the stereo effect. You would think from the foregoing that people whose eyes are wide apart would have better stereo vision than those with close-set eyes, but some strange reason close-set eyes are better. It follows logically that wide-set eyes are a primitive, not to say, reptilian character, in spite of what 'Women's Day' and 'Pix' will tell you; but whatever your eye-spacing, you do not need to carry a stereoscope around with you for a 3D picture because with a little practice and perseverance you can obtain this with the naked eye, or to be strictly accurate, the naked eyes. It is a most useful accomplishment and very restful, for the eyes do not have to converge as they do when you are reading but remained parallel as they do when you look into the distance.

Difficulties in photo-interpretation were well illustrated on Les Pike's recent trip up Middle Creek, which runs through dense bush with occasional clearings. These would be wonderful landmarks for navigation if they were big enough to figure on the map, but they are not. Why not then turn to the aerial photos, which do show this kind of detail? As this is what Les Pike did, he rang me and asked if they were available and if he might see them. Under stereo it was all perfectly straight-forward - go up the creek to the last clearing (which looked the best to camp in), pitch the tents, and go on with day packs to the bora ground, the one on the cover of this Bulletin. So straight-forward that I bent my inflexible rule of 'never under-estimating your enemy' and assured our unsuspecting leader that I could home-in on the best camping ground. As it happened I did, but it wasn't the one I thought it was.

What went wrong? Simply this - I carried with me only those aerial photos that covered the upper half of the valley, in the 'sure and certain hope' that I would be able to locate our position on them when I needed to. I thus had no

definite point to start from, and this hope is in fact far from sure and certain unless you have unlimited time to puzzle things out or unless you have stopped where some unmistakable feature is in view. The clearings were conspicuous enough, especially when we were in the middle and the clearing was all around us, but I soon found that one is very like another even though they may appear quite different on the photos. It takes a surprising amount of punctilious work to establish the character of each and then to see whether that character is reflected in the photos, and there is seldom any substitute for going on foot right along the length of the clearing before you can be sure that what appears to be the end really is the end and not merely a large bush clump or a traverse ridge or a bend in the creek. It is rather pointless to enumerate the pitfalls, there are so many of them and in any case you remember them only after personal involvement - also, and perhaps most important, when you think you know what clearing you are in, your capacity for self-deception (or mine, at least) will bend and twist and if necessary even eliminate each misfit until ground and photo image are reconciled.

The photos - and the map, for that matter - taught us all a further sharp lesson that day. They showed that the most direct way would be to follow the creek to where it forked and then to go up the fork to our right. It developed into a perfect example of 'you can't miss it'. By the time a wide-awake tail-ender had spotted that the direction was not quite right, the head-end of the party was well on its way up the wrong fork, and again nobody could be quite sure until our scouts had crossed the intervening ridge and reported that the main stream was indeed over to our right. How conspicuous that fork was on the photos and how well it was hidden in that rocky, forested country!

I have one more happy ending error to share with you to drive home the point that there is no substitute for personal observation - as the saying goes, on your own flat feet. The scene is set near Judds Cavern in Tasmania, those concerned being the ones (mainly from this NPA) who visited that area in January. The cavern is in a very rough limestone area near Federation Peak, and the map shows it half-way up a steep forested slope, this spot being pin-pointed on the aerial photos by a conspicuous gap in the otherwise unbroken forest canopy. We had had a pasting that day, up-up-up and down-down-down, scrambling under and over and around windfall trees in beech forest or pushing through a six foot tangle of scrub, mostly waterless. It was heaven to come eventually to the swift, clear, and very cold stream that we knew must rise in the cavern, and to have a rest and a drink. We then pulled ourselves together and started the last 250 foot climb over the last half-mile to the cavern. It took

us about three minutes to discover that the climb was all of eighteen inches and the distance all of a hundred yards.

Again, what went wrong? Perfectly legitimate deduction on the part of the map-makers, but deduction which turned out to be incorrect. On checking the aerial photos it was easy to see why - they knew from various records just about where Judds Cavern was and that it was at the head of a strong perennial stream. The photos show this area to be forest except for one unmistakable break in the canopy which is at the head of a conspicuous valley. It all adds up - the cavern is where the break is. It isn't, of course. Once there, it is easy enough to establish that, but to establish the correct position is quite another matter. It took a good hour with map, photos, compass, and protractor to work out where it really was.

On returning I wrote to the Tasmanian Survey Office to let them know the position, and as a follow-up they gave a small duty to perform as you will see from the last sentence of their acknowledgment. This is what they said - "Dear Sir, 'Huon Sheet 3211 - Judds Cavern' - thank you for your letter of 31st January. Your location of Judds Cavern has been confirmed by Mr A. Goede of the Geography Department in the University of Tasmania, who is a member of the Nomenclature Board. A copy of your letter has been passed onto the Mapping Branch so that amendments can be made to the next edition of the Huon Map. I point out that it is the universal practice in nomenclature to omit possessive apostrophes and the Board urges your Council to adhere to and publicise this. Yours faithfully, ?, Secretary."

It's a good idea. SOME of us rarely get the apostrophe right anyway.

Bob Story

PINE PLANTATIONS

There are a number of myths regarding pine plantations that need to be explored:

(i) That pine plantations have the same values as natural forests - an impression created by calling pine plantations 'pine forests'.

(ii) That meeting timber needs through the development of pine plantations will ease the pressure on native forests, and so save native forests.

(iii) That it is good to plant marginal farmland as it will 'save' native forests, and that current forestry practice involves planting farmland rather than converting eucalypt forests.

(iv) That all the exotic softwood timber produced in Australia is needed for Australian consumption.

These misconceptions have been successfully propagated by the timber industry. When you live in rural community fast being eroded for pine plantations you tend to develop a somewhat different view.

Monocultures of wood production

The ecosystem of the pine plantation in no way resembles the living and vital communities of diverse and inter-dependent plants and animals found in the ecosystem of a natural forest.

Pine plantations are not forests. They are wood crops that cover many thousands of hectares of the tablelands of NSW.

Unlike more common, annual food crops, softwood timber crops are based on a 35-40 year cycle. There is no allowance for the usual crop rotation. Repeated rotations of the same crop, *Pinus radiata*, are grown on the same site. If second rotations don't do so well, foresters believe they can solve the problem with the addition of fertilizers.

Part of the appeal of plantation pines to the timber industry is their uniformity - straight trees growing in straight lines are perfect for the machines of the sawmillers. Efficient plantation management involving regular prunings and thinnings produce uniform trees of consistent diameter which lend themselves to mechanical harvesting and mechanical processing.

Any competing vegetation is eradicated. Wattles and eucalypts are the weeds of pine plantations.

The fact that some birds and animals can feed in a pine plantation is incidental rather than intentional.

Limited types of birds (for example, insect eaters, seed and berry eaters) and animals (for example, kangaroos, wombats) can find food at different stages of the crop's growth. Availability of food and provision of some habitat (e.g. transient native regrowth) is determined by the extent of canopy cover and possible "understorey". It is a story of displacement for animals as their living circumstances change with tending, thinning, and tree growth.

Displacement starts with the clearing of native forest. As the native forest is destroyed, so is the habitat of its birds and animals. Tree dwellers face a rude shock. The fate of greater gliders, for example, has been well studied and they have been found to have a 90 per cent death rate.

As with other severely disturbed environments, pine plantations harbour blackberries. Rabbits and wild pigs also do well.

Native forests still cleared

While it is true that total yield per hectare from an exotic conifer plantation is higher than yield from a eucalypt forest, it is difficult to fully accept the claim that development of a softwood resource does "save native forests";

- most pine plantations are on land that was covered with native forest;
- native forests are still clear-felled to make way for pines;
- there has been no easing of the pressure to log rainforests;
- coastal forests are still woodchipped for export.

During the past few months, 275 hectares of fine mountain gum, ribbon gum and peppermint forest has been cleared in the Buccleuch State Forest, east of Tumut and just west of Brindabella.

It is now almost impossible to find a really large sample of the grand old gums which once adorned these mountains, the pinks, browns, greys and whites of their magnificently patterned trunks having been lost to the drabness of pines.

Many future hectares of the younger remains of this wet sclerophyll forest are also doomed in the near future.

The total plantation size at Tumut was once set at 72,000 ha. It now seems that this figure has gone up in smoke, and the NSW Forestry Commission will not commit itself to a new figure. It is certain to be above 77,000 ha, and could go as high as 105,000 or even 120,000 hectares.

61,000 hectares have already been planted at Tumut. The Commission has 10,000 ha of farmland earmarked for planting. If no further farmland can be acquired, this means the remainder of the planned plantation size must be met by further clearing of native forest.

Some of the reasons for continued pressure on native forests are:

(i) The huge amount of capital investment in the softwood processing infrastructure means that once mills are established there is big pressure for a continuation of the softwood supply.

This is particularly a problem in the case of pulp mills.

Pulp mills - for the production of particleboard and paper - have been established to utilise plantation thinnings, which otherwise would be wasted and a liability to plantation owners as they inhibit the optimal development of the trees that will become sawlogs.

The ANM Paper Mill at Albury, established at a cost of \$160 million, will commence operations soon to take the bulk of the backlog of thinnings from Tumut's plantations. Once this backlog has been removed, the mill will be dependent on current and future plantings for its supply of roundwood thinnings.

Thus, a situation where an industry established primarily to utilise the 'waste' from the plantations may become the main thrust behind expanded plantation establishment, which must inevitably involve the clearing of further native forest.

(ii) *Pinus radiata* cannot meet all consumer's timber requirements - there will still be a demand, for example, for hardwoods as decorative timbers. Native forests will still be pressured for these timbers.

(iii) Concentration of the bulk of the State's timber resources in certain localised areas means mills and associated employment opportunities must also be located in these areas. Meanwhile native forests have been depleted in other parts of the state. Threatened loss of jobs now puts pressure on rainforests - this could have been avoided by more balanced planning for timber provision that should include native reforestation.

The Myth of Marginal Farmland

No one really knows what 'marginal farmland' is.

The land acquired for plantations is not, as might be expected, the badly eroded, severely denuded hillsides close to existing plantations and desperately in need of reforestation.

Acquired land falls into two categories:

(i) 'Bush blocks' - woodlands, or regenerating forest;

(ii) Cleared and pasture improved country.

I suppose the bushland that is acquired could be considered 'marginal' if one considers that it is usually the farmer's 'scrub paddock' and does not have a high immediate economic return. It seems more lucrative for the farmer to swap this for the pasture improved country the Forestry Commission is offering from next door.

360 hectares of such a bush block, or more appropriately a regenerating forest, has been recently clearfelled, windrowed, and burned at Tomorroma. It was mostly a mess-mate-stringy bark association occurring with wild cherries, a variety of wattles, diverse perennials and native grasses. Substantial amounts of stringy bark logs were removed before clearing

occurred.

The Story of Tomorroma

Tucked in the hills to the north-east of Tumut, Tomorroma was an active rural district with over 25 landholders before the 1960s. There are now about 15 landholders, and a looming threat of advancing pines.

This is a high rainfall area with potentially highly productive land. As beef and sheep country, it produces top quality fat cattle, and high quality fine wool.

Varied fruit trees in the orchards surrounding old home-sites bulldozed for pine plantation establishment bore tribute to the rich potential of the area. Sufficient vegetables can be grown for year-round survival.

When times are hard for the farmer, the cash in hand offered by the Forestry Commission plus the option to continue running his stock via a lease is too great a temptation.

The 282ha farm most recently cleared was in no way 'marginal'. It was a well tended, well watered, gently undulating farm, with tree corridors, bush paddocks, and little weed growth. A perfect choice for anyone wishing to live off the land. Two permanent creeks and ample springs assured water for the survival of several families, possible if the land was developed according to permaculture principles for example.

With such a spurious case for continued pine planting, and food provision being a far more basic need than timber provision, there seems little justification for this unquestioned change in land use.

There is no attempt to assess land and water resources, and to set the most appropriate options for land use accordingly.

Softwoods for Export

The rationale behind such massive pine plantation programmes has been so that Australia will be self-sufficient in its wood supplies by the year 2000 (FORWOOD Conference, 1974).

That this has been based on a gross over-estimation of anticipated consumption has been well covered in a previous 'Bogong' (see D. Dumaresq - The Myth of Wood Demand, 'Bogong' Vol. 1, No. 4).

Basically, the Forwood Conference's proposed planting rates were based on figures far in excess of actual population increases and wood consumption levels. In fact, Australian per capita consumption of all forest products has actually been declining since the 1950s.

Despite this, Australia-wide planting rates have exceeded those recommended by the Forwood Conference.

The fact that an excess of softwoods has been planted is now confirmed by the increasing trend in the industry to look towards exports.

The particleboard industry particularly is developing export markets, and a new pulp mill planned for the Bathurst area is to be export based.

A recent report of the Forest Products Industries Advisory Council expresses intentions to increase export sales, with long-term aims of Australia becoming a net exporter of forest products ('Australia's Forest Products Industries', Australia Government Publishers, 1980, pp.24-25).

To this end, Government assistance is requested in the form of industry restructuring, with grants, loans and tax concessions.

Proposed Planting Increases

At present, 5000 ha of pinus radiata are planted annually in NSW. Mr Gordon, NSW Minister for Forests, has expressed intentions to increase this to 6,500 ha (Australian Forestry Council Meeting, Hobart, August 1980).

This would mean a 600 ha increase in the annual planting rate at Tumut to make a total of 2,600 ha of additional land that is cleared and planted with Pinus radiata each year.

Other areas to be further affected are Bathurst and Bombala.

Before going ahead with such a proposal, the NSW Government will have a public responsibility to explain:

- (i) The proposed uses for further supplies of softwoods.
- (ii) How the spending of further public money in this way can be justified.
- (iii) Where the land for expanded plantations is to be found.
- (iv) Given all other community needs, costs and land use considerations, how such a development would be in the best interests of all the people of NSW.

Marie Jamieson

GUIDELINES FOR LEADERS

The Outings Committee has produced a leaflet for the use of leaders of walks and camps. It discusses the necessary preparation, what should be done before and during a walk, and procedures to be followed in an emergency.

A BIRDING HOLIDAY IN THE GLENELG, COORONG
AND KANGAROO ISLAND NATIONAL PARKS

A three-week safari with a bus load of bird enthusiasts (Birdos) may not be everyone's idea of a holiday, but recently I enjoyed just this on a trip which had been arranged for members of the Bird Observers Club (this Melbourne-based organization was founded there in 1905 and has more than 3,000 members scattered throughout Australia).

Our group consisted of 35 keen Birdos - plus a cook and, of course, the coach driver. Meals were produced in many out-of-the-way places from the mobile kitchen which was towed behind the coach and accommodation was mostly in bunk-houses (which are just that!) or on-site caravans.

The daily programme was usually arranged according to the habitat of the local birds and our birding involved walking along marvellous beaches and through bushland and forest, tramping over sand dunes and heathlands as well as several boat trips.

Port Fairy was our first overnight stay and the highlight was to have been a visit to Lady Julia Percy Island. However rough seas made it impossible to land and a rather subdued boat load of Birdos had barely recovered by the evening when a local ornithologist escorted us to the mutton bird hatchery on Griffith Island to witness the noisy return of the birds to their nests.

At the nearby Tower Hill Game Reserve our visit coincided with the opening of the duck-shooting season, and it was a disturbing situation for us to be seeking water birds with our binoculars while the hunters were stalking them (and possibly us too!) with their shot guns.

The Glenelg National Park is on the Victorian/South Australian border and we stayed there, at Nelson, for 5 days. This coastal area includes the Kentbrush Heath which is noted for its wildflowers and our birding highlight was provided by a large flock of blue-winged parrots. Nearby Port MacDonnell will be remembered not only for its succulent crayfish, but also for the lovely beaches and the extraordinary sight of about 30 black swans in the surf, actually riding into the shore on the waves.

The Coorong country varies from wild and windswept, sandy and barren to lush green irrigated farmlands and is a magnificent haven for hundreds of species of birds (the official listing is 421 species recorded to date). Our five days there were busy ones, again driving and/or walking to good birding areas. Here, the nightly Bird Call ('Bird Bingo'), at which the sightings for the day are recorded

(and debated!) became quite lively - with the NAPES and GAPES of the various honey-eaters and the NECKS and TOES of the stints causing not a little concern.

Kangaroo Island was reached by car ferry and in the 5 days there we traversed most of it. As well as the expected birds on twig and wing, there was the early history of the island itself to claim our interest, and seals and kangaroos to meet, colourful shells to gather and rugged coastal scenery to admire. We spent many hours in Flinders Chase looking for the glossy black cockatoos known by the locals to be there, which unfortunately did not care to show themselves to visitors on that particular day. Then there was the time when we came across an enormous flock of white-faced herons, literally hundreds of them, feeding so intently in a paddock near the sea that even our enthusiastic presence hardly caused a flutter.

The final few days of the safari were spent at an Environmental Centre in the Grampians, a delightful spot, where the birding highlight was undoubtedly the 10 wedge-tailed eagles we watched seemingly playing together in a thermal - a beautiful sight to have 'in' one's binoculars.

In all, it was a most refreshing and interesting holiday and I enjoyed making the acquaintance of not only new Birdo friends, but also the Purple Gapes and the White Napes, the Red Necks and Red Knees. And now my wish is that one day I shall catch up with the Long-toed and the Flesh-footed and perhaps too with the Thick-knees.

Betty Campbell.

MORTON NATIONAL PARK - PLAN OF MANAGEMENT

The National Parks and Wildlife Service of N.S.W. invited the public and this Association to comment on present and desired access points to Morton National Park.

The Association replied in a comprehensive letter that as the Park was visited frequently by its members, particularly to the central and southern sections, it was in a position to make substantive comment.

In summary the Association's comment covered the following main points.

- Present access is distributed somewhat unevenly and reflects the disposition of existing roads and tracks.
- Construction of new access roads within the park would destroy the natural values of the Park.

- As a general rule there should be no changes to existing roads which would increase vehicle intrusion into the Park, however if the Park boundaries were extended it may be feasible to improve or change existing access without detriment to natural values.
- Present difficulties of access at some points need to be better defined and leave no doubt as to right of access.
- In the northern area there could be some improvement in visitor information.
- In the central area the boundaries are generally remote from public roads and should remain in this condition to preserve wilderness values.
- In the Nerriga area traditional access is along former logging roads and fire trails, but the right of way status is not clear and visitors are generally uncertain whether they are trespassing. This uncertainty needs to be resolved. The right of access through Wog Wog Station needs to be resolved since the present occupant is denying even walking access, although N.P.W.S. publications say this is permissible.
- The newly proposed north of Wog Wog Station access to Corang Peak requires further investigation as it will be much longer and more difficult than the present traditional access. Further consideration needs to be given to this proposal.
- The Yadboro Creek area access requires signs showing the Park boundaries, camping and parking areas and limitations on vehicle access.
- At Pigeon House the access trail requires better definition to confine access to one route, and the ladder system at the top requires repair.
- In the final summary, this Association emphasised that the management plan for Morton National Park should exclude all activities from the Park except those concerned with nature and the need, if there are further extensions to the Park, to maintain existing vehicular access points, at or near their present location, so that visitors' expectations are not suddenly altered.

As a result of the public response, the National Parks and Wildlife Service of NSW and the Morton National Park Advisory Committee held a seminar at Nowra in July to consider submissions on access to the Park as part of its overall Plan of Management. The NPA was invited to

present a verbal submission to the seminar on behalf of the Association and the Canberra Bushwalking Club, the only two ACT clubs which had submitted written comments.

Other societies represented at the Forum included the National Trust, South Coast Conservation Society, Four-Wheel Drive Association of NSW, National Parks Association of NSW, NSW Canoe Association, NSW Federation of Bushwalking Clubs, Bundanoon Community Development Association, and Richardson Bros High Country Walks.

Proceedings were quite lively. Each organisation was asked to enlarge on its written submission and to answer questions from the Committee and from other delegates and observers. A number of controversial and important questions were canvassed, including access to the Park through private property (Wog Wog), four-wheel drive access along logging roads and fire trails, proposals to close some trails to vehicular access, extension of the wilderness areas within the Park and extension of Park boundaries.

ABORIGINAL SITES IN THE SOUTH-EASTERN

HIGHLANDS

The south-eastern highlands is the region of mountains and tablelands extending from the Southern Tablelands in the north to the foot of the Victorian Alps in the south. Its western boundary is the foot of the Western Slopes and its eastern one the edge of the coastal escarpment. This is a region of some 150,000 square kilometres, and was occupied by a number of Aboriginal tribes, the Ngunawal of the Southern Tablelands, the Ngarigo of the Monaro, the Walgalu of the Upper Tumut Valley area, and the Jaimathang, Djilamatang and Minjambuta of the Victorian Alps. These upland tribes spoke the same language - Ngarigo - or closely related dialects of it and were apparently known by coastal Aborigines as Bemerinal or mountain people.

The Aborigines of the highlands were thinly spread on the ground. Information from historical sources on population density is meagre, but suggests that density might have been in the order of one person to between 25 and 38 square kilometres. It is therefore not surprising that there are far fewer traces of Aboriginal occupation in the uplands than in the richer, more densely populated zones of the coast and of the large inland rivers.

The types of Aboriginal site found so far in the highland region are rock paintings, stone arrangements, earth-built ceremonial grounds, burials, axe quarries, open air camp-sites and occupation deposits in rock shelters.

The most common type of site is a simple scatter of stone artefacts on an old camp-site. Such camp-sites tend to be near water, on well-drained ground facing north or east and in fact are often the places where present-day bush-walkers also decide to camp. At some of these camp-sites stone tool manufacturing was carried out, using local sources, of rock such as quartzite, silcrete, chert and quartz. Many granite and sandstone rock shelters were also used for occupation, and excavation of some of these occupation deposits has produced a chronological framework for the pre-history of the highlands.

The earliest site so far found in the region is Cloggs Cave in the Buchan Valley in eastern Victoria, where human occupation goes back almost 18,000 years. The limestone environment of Cloggs Cave provides excellent preservation conditions for organic remains, such as animal bone and bone tools, and below the human occupation levels, remains of extinct giant kangaroos and the Tasmanian tiger (or thylacine) were found. There was also fossilized dung of herbivores, which was analyzed by the Department of Biological Sciences, A.N.U. and found to contain a variety of grasses. From this and other evidence it emerged that the ice age environment of this region was several degrees colder than today and that 20,000 years ago the climate in Canberra would have been similar to the present conditions on top of Mount Kosciusko.

Further up the Snowy River, near Murrudal, another cave has yielded 10,000 year old occupation, and inside has markings on the limestone walls which appear to be early rock engravings. This site is still under investigation by the Victoria Archaeological Survey and Paul Ossa of La Trobe University.

We do not yet know how early human occupations began in the Snowy Mountains and Monaro region, but it must have been sometime between the end of the ice age (14,000 to 10,000 years ago) and the oldest radiocarbon date yet obtained for the region - that of 1,600 years ago for the occupation deposit of Caddigat Cave, near Adaminaby. In the coastal ranges a rock shelter near Sassafras in the Morton National Park contained occupation going back almost 4,000 years. There is also a possibility, but no proof as yet, that prehistoric hunters visited Lake George some 20,000 years ago, or even earlier.

Art sites are rare in the highlands and indeed in the south-eastern corner of Australia in general. The coastal ranges contain very few engraving or painting sites south of the Shoalhaven River, although the sandstone belt continues right to the southern end of the Budawang Range. However, the Budawangs have not been intensively surveyed for sites, and a new painting site was found this month near the top of Quilty's Mountain. Other

art sites exist at Quiera, Nerriga and Bundanoon. On the tablelands granite rock shelters containing paintings are known from Bigga, near Crookwell, and at Yankee Hat and Rendezvous Creek in the Gudgenby Nature Reserve in the A.C.T. Faint traces of red ochre have also been found by David Kerr on a small shelter by Nursery Swamp, just to the north of Rendezvous Creek. It is very possible that other art sites exist in the highlands, for new sites of various types are being discovered all the time.

When I began my research on the region in 1970 only two stone arrangement sites were known - the boomerang-shaped one on Green Hills station, Jerangle and the magnificent barred kidney-shape on the top of Quilty's Mountain. Over the last decade another seven have been discovered, three of which are in the Australian Capital Territory. Outstanding among these is the Namadgi stone arrangement on top of the watershed between the Gudgenby and Upper Cotter Valleys. Other exciting new finds are axe quarries in the Fiery Range and Snowy Valley and a canoe tree - a tree from which a large piece of bark has been removed to make a canoe - near the Murrumbidgee River opposite the Lanyon museum.

The picture which emerges from all the various strands of evidence - archaeological and historical - is of a small Aboriginal population moving around the highlands to exploit the varying food resources of the river, tableland and highland. Their material equipment was sparse. A few spears, clubs, boomerangs, a shield, stone axe, digging stick, coolamon, and a voluminous possum skin cloak for keeping warm. In winter, weatherproof huts were quickly constructed out of sheets of stringy-bark, in summer a windbreak of boughs was sufficient.

The only distinguishing feature of the highlanders' life was moth-hunting. The small brown Bogong moths, 'Agrotis infusa', have become well-known to Canberra residents from their annual migrations from the western plains to the mountains. Each October they appear, sometimes by the million, in Canberra en route to the mountains, where they aestivate for the summer months in dark crevices on the granite summits. There they were easily gathered by Aborigines, roasted and eaten. There are eye witness accounts from the 19th Century of hundreds of Aborigines trekking up to the mountains looking thin after the lean winter months, only to return after several weeks' feasting, sleek and with glossy skins after a diet of fat from the roasted abdomens of the moths.

Moth camps are found on Mt Coree, Mt Gingera, Mt Kelly, the Tinderries and other peaks on the Australian Capital Territory, on the Bogong Mountains above Blowering, in the Snowy Mountains on the

Ramsheads, Mt Twynam and elsewhere, and in the Victorian Alps. A few high-level camp-sites associated with moth-hunting have been found together with isolated finds of stone ground-edge axes, pebble choppers, and round river stones which may have been pestles for grinding up the moths into a paste to carry down to the valley below.

Archaeological evidence that moth-hunting has been going on for over a thousand years has come from the Bogong Cave up near Billy Billy Rocks south of the Tidbinbilla Nature Reserve. The Cave is a moth aestivation site and was used as a camp-site by Aborigines. Charcoal from their fires proved to be one thousand years old, and in the lowest level of occupation was a smooth pestle-shaped stone carried up from a river in the valleys below.

It is hoped to find further sites in the Australian Capital Territory, Snowy Mountains and elsewhere which will cast still more light on the culture, economy and prehistory of the moth-hunters. This is what makes it particularly regrettable that there is still no legislation to protect Australian, or indeed historic, sites and artefacts in the A.C.T. Anyone who finds an Aboriginal relic should leave it in place, record its position precisely and report the find to the appropriate State or Territory authority - N.P.W.S. Archaeology Branch in New South Wales, the Victorian Archaeological Survey, Ministry for Conservation in Victoria, and the Registrar of Sites, Australian Institute of Aboriginal Studies, Acton House, in the A.C.T. Those who have Aboriginal artefacts from the A.C.T. in their possession are requested to donate them eventually to the Institute of Anatomy, which currently serves as the local museum, and anyone who wishes to pursue further an interest in prehistory is encouraged to join the Canberra Archaeological Society (c/o Department of Prehistory and Anthropology, A.N.U.), which engages in local field work.

Talk, supported by slides, by Josephine Flood, Ph.D. of the Australian Heritage Commission (P.O. Box 1567, A.C.T. 2601, telephone 724544) to the Association on Thursday 21 May, 1981.

Further Reading-

- * 'The Moth Hunters: Aboriginal Prehistory of the Australian Alps', Josephine Flood. Published 1980 by Australian Institute of Aboriginal Studies, Canberra. (\$11.95 s.b., \$16.95 h.b.)
- * 'The Aborigines of New South Wales'. 1981. N.P.W.S. of N.S.W. (P.O. Box N189, Grosvenor Street P.O., N.S.W. 2000). \$6.00.

ASSOCIATION LETTERS

To: The District Forestry, Forestry Commission of New South Wales, 7 May, 1981.

Dear Sir,

The National Parks Association of the A.C.T. has recently been investigating the current conservation status of the Micalong Swamp, near Tumut. One of our committee members has recently inspected the area together with an NPWS ranger/naturalist.

From this inspection, and subsequent information received, it is clear that this area is a valuable example of an upland peat swamp of particular pre-historic and present-day botanical interest, and that the whole swamp area is rich in aboriginal relics and may be important as a prehistoric site.

We understand from the NPWS that the swamp lies wholly within the Buccleuch State Forest, and that the management of the area is therefore the responsibility of the NSW Forestry Commission. As you will be aware, the area is subject to a number of pressures, notably grazing, forestry, and recent applications for mining permits.

The National Parks Association would be very interested to learn of the Forestry Commission's future management plans for the swamp area. We are convinced that the protection of the natural and archaeological values should receive high priority. We understand that few areas of this type and quality survive within reserves in south-east New South Wales and would like to be assured that the natural values of the Micalong Swamp will be protected from the long-term effects of pastoral, forestry and mining activities.

We assume that the Forestry Commission itself places a high value on the Micalong Swamp and has plans for its protection for competing pressures. We should be grateful if you would let us know something of your management plans for the area.

In Reply:

The Commission stated that the significance of this peat swamp was recognized several years ago when the Commission resisted a proposal to mine the peat, that the significance of aboriginal activity was being investigated, and that in the light of recent mining proposals the management plans were being reviewed. It said "Planning will take cognizance of the issues raised by you and we will be consulting with those who can contribute during these processes. No new proposals or developments will be undertaken which will be inconsistent with these plans".

To: The Editor, The Canberra Times, Mort Street, Canberra City, 2601, 15 May, 1981.

Sir,

Your article 'Spare a thought for the trees' (Canberra Times, Saturday, March 21) requires some comment. It quotes the remarks of a forester of the NSW Forestry Commission on World Forestry Day, advertising the attractions of Tallanganda State Forest.

What Mr. Beckhouse failed to mention was that up to 2200 ha of this native forest is under threat of imminent clear-felling for the wood chip industry by the Forestry Commission itself, in order to convert the area to a pine plantation.

The National Parks Association of the A.C.T. questions the benefits of this operation and a similar, more extensive, one between Brindabella and Tumut. Vast areas of prime native forests in the south-eastern regions of New South Wales are being destroyed to make way for pine plantations. Is the need for wood chips and softwoods so great that we must convert ever-increasing areas of native forest to pines, destroying in the process not only the trees, the understory of shrubs, herbs and grasses, but the animals which rely on this environment for habitat? Do we wish to sacrifice the varied beauty of our bushland for a harsh monoculture of introduced species which could equally well be grown on non-productive, already cleared, land without the inherent devastation associated with clear-felling of native forests? Surely it is time to call a halt to this sort of activity by the NSW Forestry Commission until the cost to the community of this destruction is assessed. At the present rate of clearing the Commission is in danger of being known as the greatest and most rapid de-forester in the history of white man's settlement.

Within our native forests there is an extremely rich and diverse collection of flora and fauna, adapted over thousands of years to the Australian environment. Our native forests form part of the natural heritage of all Australians. We need to preserve as large an area of this unique environment as possible so that future generations can know and enjoy its wonder and beauty.

The National Parks Association believes there should be a halt to further clearing of native forests for conversion to pines until a full public enquiry is held into the economic, social and environmental impact of such action. We believe the proposed Tallanganda forest operation should be subject to a full Environmental Impact Statement before any clearing is begun.

SCABBY RANGE

The NPWS South-East Region, replying to our enquiry (June Bulletin), told us that the Scabby Range area had been recommended for reservation as a nature reserve; details of boundaries were not available as the proposed reservation had not at that stage received local Council consent but the NPWS was able to give us the following information:

"The proposal is composed almost entirely of Crown Lands (Vacant and Leasehold) and is made up of the steep fall from the Scabby Range to the Gabramatta Plain at Yaouk. The proposal is intended to adjoin the ACT boundary from north-west of Mt Scabby to south of Sentry Box Hill. At this stage it is not intended to acquire land to join the proposal with Kosciuszko National Park as the environments are seen to be 'linked' through the upper Cotter area. In addition, the intervening land is in secure tenure, and therefore more expensive and difficult to acquire."

FRESHWATER BIOLOGY OF THE A.C.T.

At our General Meeting of 23 April, 1981, Stella and Bob Humphries of the Australian National University addressed members and visitors on the 'Freshwater Biology of the A.C.T.'

Bob Humphries commenced the evening's talk by discussing the types and habitats of running waters. Rivers and streams have unidirectional flow and transport organisms, detritus and sediments downstream. The resistance to or avoidance of high flows characterizes the form and/or behaviour of many stream dwelling organisms. The fluctuating flow rate and water level of rivers and streams makes it necessary for organisms to have characteristics which they have the ability to rapidly recolonize after washouts or have the means to resist or escape dessication and washout. These fluctuations in flow cause instabilities of bottom and shoreline areas which leads to frequent disruption of the resident plants and animals.

The linear form of running waters leads to predictable changes in water flow rates and hence erosive power, composition of the stream bed from boulders to fine muds and types of organism present. The major habitat types near the head of a stream are riffles and slower moving pools, and as the water moves downstream the range of habitats increases as does the biological diversity. At times of low flow these lower reaches resemble standing water bodies.

The shallowness of most running waters sharply contrasts with the greater depths or large bodies of standing waters. In the upper reaches of streams light for photosynthesis tends not to limit plant growth as scouring of organisms by high flows are more important.

Most organisms are adapted to flowing water. Adaptations include:

- (a) some method of firm attachment by most plants and some animals;
- (b) flattened body form of sedentary organisms;
- (c) production of propagules (eggs, seeds or fragments for downstream transport and regeneration); and
- (d) stream-lined body form, powerful swimming ability and sometimes suckers in stream-dwelling tadpoles and fish. Many of these animals also orient themselves into the current and tend to maintain contact with the bottom.

In contrast to standing water bodies, the upper reaches of streams depend on the importation of energy and nutrients (e.g., nitrogen and phosphorus) from terrestrial sources and litter from the catchment to sustain animal and non-photosynthetic micro-organisms such as fungi and bacteria. Such streams have a strongly developed fauna of insects specialized to break down leaves and other terrestrial material into detritus. Simultaneous attack by micro-organisms releases nutrients in inorganic form, suitable for plant growth. The lower reaches of rivers and streams more closely resemble standing water bodies, and support large populations of aquatic plants.

Streams tend to be better oxygenated (due to turbulence) and more turbid than standing water bodies. Temperature variation is also greater. The characteristics of running water habitats may be changed by inputs from terrestrial source and two such problems of human origin are apparent in the A.C.T.

The first is nutrient enrichment, by sewage, urban and agricultural run-off of various streams. Sullivans Creek receives a variety of discharges from urban sources, while the lower Murrumbidgee River receives treated sewage via the Molongolo Water Quality Control Centre, and the river above Lake Burrinjuck has been choked with massive summer growths of filamentous algae. These growths were due to high concentrations of inorganic nitrogen and phosphorus entering the river in treated sewage effluent. Since this Centre became fully operational, the lower Murrumbidgee River had been reinvaded by rooted aquatic plants and the filamentous algae have declined.

The second major problem was the poisoning of the Molongolo River and Lake Burley Griffin by heavy metals from abandoned mines at Captains Flat, N.S.W. High concentrations of zinc and other

metals leached into the river from various sources, killing all but the most resistant plant and animal species. The only conspicuous fauna were adult water beetles and water bugs, which breathe air and had probably flown from elsewhere. Virtually no gill-breathing organisms could survive. Recent rehabilitation of the slag dumps of the Captains Flat mines has improved the Molongolo considerably, but full recovery may take many years.

Stella Humphries continued the talk to state that there were no clear distinctions between standing and running water as streams and rivers have pools or embayments in which the water moves slowly enough to exhibit many of the characteristics of standing water. Impoundments and most natural lakes have a net flow of water from the inlets to outlets.

Standing waters can be classified according to size, depth and nature of catchment and these factors all affect the biology and ecology of the habitat. Size range can vary enormously from rock pools to farm dams, lakes and reservoirs. Size affects the ratio of shoreline to open water and therefore determines the relative importance of the shoreline (littoral) and open water (limnetic) biological communities.

The two communities are quite different structurally. The primary producers or plants in the littoral community are attached, rooted into the sediments in shallow water. The species changing from the very edge along the gradient of increasing depth. Those near the edge can withstand periodic drying whereas those further out in deeper water require to be continuously submerged. The zone of attached plants continues until the zone of light penetration and sediments become too far apart for the plant to receive sufficient light for photosynthesis. This depth can vary according to the clarity of the water. The area which the littoral zone covers can range from the entire water body to only the outer edge or none at all.

Attached to these rooted plants is another community of smaller plants and animals. Sometimes they can be readily seen as filamentous algae, or hydra, flatworms, snails etc. or at other times can only be felt as a slippery film. These small attached plants utilize the nutrients dissolved in the water and by attachment are prevented from being swept away or sinking too deep for photosynthesis. In amongst the littoral vegetation live a variety of organisms, insect larvae are the most common. The sediments are colonized by burrowing worms and larvae. Frogs can generally be heard, if not seen, around the edges of smaller water bodies.

As the water increases in depth, the attached plants disappear and the littoral

community is replaced by the open-water or limnetic community. It is characterized by very small, mostly microscopic organisms which are suspended in the water. The primary producers are phytoplankton. Individual phytoplankton cells are too small to be seen by the naked eye, but can appear as a greenish tinge in the water if the population density is high. Some species particularly the blue-green algae group can be readily seen by the naked eye because the cells aggregate in clumps which are macroscopic. These are unique amongst the phytoplankton in that the cells contain vacuoles filled with gas which enables them to float. These species are indicative of very nutrient-rich conditions.

The zone of primary productivity is as deep as the penetration of light. In highly turbid water such as Lake Burley Griffin, this may only be a few centimetres where in clear lakes may extend for several metres. In deep lakes, most of the volume is below the depth of light penetration and phytoplankton therefore face the problem of sinking below the depth in which they can grow. A major characteristic of these unicellular organisms is a very rapid growth rate with generation times of 1-2 days which allows reproduction before the cells sink. The consumers in this system are fish and zooplankton which consist mainly of microcrustacea and ciliated protozoans.

A major physical feature of the open water community is the thermal stratification. This occurs when the input of heat by the sun at the water surface exceeds the rate at which heat is distributed downwards by wind-mixing and convection. This phenomenon is particularly pronounced in summer and under some circumstances phytoplankton benefit from this turbulent diffusion in the well-mixed layer as the cells are kept in suspension much longer.

The third factor which affects the biological communities of standing water is the nature of the catchment which affects the chemical, biological and optical qualities of the water. For example forested catchments have a much lower nutrient run-off than grazed catchments.

In summary, six morphological, chemical and physical properties can be used to predict the structure of the biological communities; most will fall on the gradient between:

Shallow water	<ul style="list-style-type: none"> • characterized by attached plants and a high diversity of associated consumers; • the water body is usually well-mixed; • ratio of light to dark zones is high;
Deep water	<ul style="list-style-type: none"> • dominated by suspended organisms microscopic in

Low nutrient	<ul style="list-style-type: none"> size; • thermal stratification is common; • ratio of light to dark is low; • biomass of plants and consumers low;
High nutrient	<ul style="list-style-type: none"> • biomass of plants is very high - often species diversity is reduced with one or two species dominating;
High light	<ul style="list-style-type: none"> • clear water, low in suspended solids; plant growth can occur to great depths;
Low light	<ul style="list-style-type: none"> • turbid water due to, e.g., clay particles, heavy algae growth or coloured water. The depth of potential plant growth is shallow.

The talk was supported by an extensive selection of colour slides.

Adapted from the lecturers' notes by Reg Alder.

MEMBERSHIP

The following new members are welcomed to the Association:

Noeline and Rober Denize, Kambah; M.K. Ebery, Hackett; Peter, Libby and Fiona Fielding; Jennifer Grant, Campbell; G.&B. Hartigan, Hughes; Michael and Mary Jenkins, Griffith; Mary Lindsay, Duffy; Ian and Pat Morrison, O'Connor; Graham and Uz Pratt, Pearce; Annet Petterson, Melba.

MEMBERSHIP RENEWALS

Erica and Max Allen; Marjorie and Alan Ashley; Margaret Aston; Rose and Cla Allen; Garth, David & Sarah Abercrombie; Bill and Phyllis Adams; Tony Bayes; Ian Beveridge; Bill Bswell; R.J. Bird; Fiona and Morag Brand; Louise & Don Balfour; Hazel and Normal Bancroft; Carol and Jeff Bennetts; Leslie Brown; Mollie Bouquet; T.K.E. Bunning; Gwenneth Butcher; E. Baillie; J.&M. Cumpston; J.A. Carnahan; Margaret Costin; Francis Christie; Frank Clements; Isobel Crawford; Ian and Jean Currie; Margaret and Mark Cashmore; Peter and Mary Cooper; Allan and Barbara Cashmore Cox; Betty Campbell; Thelma and George Chippendale; Barbara & Sid Comfort; Heather Clark and Family; Ross and Joy Carlton; Lincoln and Olive Day; Susan and Neil Donoghue; Bruce and Helen Drake; P.W.

Davidson; Nancy Dunn; Jack and Jan Doyle; Thea Exley; Ken Eldridge; Maxine & Neville Esau; Bill and Mary Elliott; Murial & Ted Edwards; Marilyn and Louis Folger; Kevin Frawley; Mr & Mrs M. Finnis; Elizabeth Garvin; Barbara Graham; P.C. Grainger; Phyl Goddard; Philip and Pam Gatenby; Shirley Gardiner; B. Holt; Hansen Hansin; Daryl Hawke and Family; Beverley Hammond; E. Hanlin; Erica Haas; Isobel and Bruce Hamilton; Maureen and Gregory Hartung; C.&M. Hunter; John & Kath Holtzapffel; Peter Hegarty & Family; Ray & Joan Hegarty; J.&A. Holland; Anne Heard; Rolf Iannuzzi; Stephen Johnston; Gerry Jacobson; Lynne James; Gladys Joyce; Peter & Robyn Judge; Ewin Kock-Emmery; Ken and Fay Kerrison; Pat Kelsey; Jeanne & Anna Klodahl; Dirk Kroon; Hela Lindemann; Audrey and Gordon Lawrie; Lyndall Langman; Leeta Lawrence; Brian Lee & Family; Glynn & Shirley Lewis; Hedda & Alistair Morrison; Jean & Harold Marshall; Jean & Joe Marshall; Ian and Beverley McLeod; Allan Mortlock; Mary MacDonnell; Kirrif Mackenzie; M. Michell; Harriet Michell; J. Munro-Ashman & Family; Norman & Jennifer Morrison; Ted & Pat Macarthur; Adrian Nicholson; W.E. Nicol; Gillian O'Lachlan; Les Pyke; Norma Price; Kim Pullen; Ruth & David Pfanner; Jean & Geoff Pettit; Trevor & Winsome Plumb; Janet Twigg-Patterson; John & Judy Payne; Jenny & George Rothchild; Peter & Clare Roberts; Lois & Fred Roberts; John Schunke; Don & Phyl Spencer; Josie Stoffell; Geraldine Spencer; Diana Spencer; Robert & Sybil Story; Paul Steele; Babette Scougall; J.&E. Smart; Alan Sauran; David & Joycelyn Solomon; James & Lyn Shelton; Gerbard & Rosemary Schneider; R.&F. Tomkins; Hubert van Doorn; Paul van Haven; Patience Wardle; Judy & John Webster; Andrew & Agnes Walker; Sir Fred & Lady White; L.A.&D.M. Whitfield; Betty Temple-Watts; Pamela & Eric Wright; Jean Weber; David Williamson; J. West; Prof. & Mrs Hill W. Warner; Veronica Waugh; David & Alison Yeoman.

RIVER POLLUTION IN THE FEDERAL REPUBLIC OF GERMANY

A series of stringent regulations have been enacted in the Federal Republic of Germany to reduce the pollution level in all of its principal rivers. In 1957 only 10% of waste water was mechanically and fully biologically treated to reduce

the waste water to satisfactory purity standards. The aim is that by 1985-1990 the percentage of fully treated waste water will be raised to 90.

In closely settled countries where one city's sewage could be the next city's drinking water, pollution control is most essential. We may not have quite the same immediate need in sections of our rivers but it is nevertheless essential that strict controls be exercised so our rivers do not become biologically dead drains.

SOME OBSERVATIONS OF NSW in 1843

The Murrumbidgee River has its origin in the western ridge of the dividing range of the mountains in the district of Menaroo. The river pursues a long and tortuous course for upwards of 500 miles, without deriving the slightest increase from the country it waters. It traverses a great extent of fine country adapted for the abode of man offering to millions of the human race all the comforts that civilization and plenty can offer.

A summary of the altitude of the most remarkable mountains in NSW lists Mount Kosciusko as 6,500 English feet.

The three diseases most frequent in the colony are ophthalmia, dysentery and influenza. The first arises from hot winds, the glare of light and reflection of the rays of the sun from white surfaces and sandy soils, and toiling in the open air with the head uncovered - all this then conjoined with indulgence in ardent (alcoholic) spirits, frequently produces an entire deprivation of sight. Dysentery is chiefly confined to the lower classes of the population and is sometimes occasioned by drinking large quantities of cold water, in very hot weather, when the body is in a state of profuse perspiration; it arises also from the use of salt provisions, from injudicious exposure of the intense heat of the sun and too often from intemperate habits.

CONSERVATION COUNCIL FOR THE SOUTH-EAST

REGION AND CANBERRA

The National Parks Association took part in preliminary negotiations which resulted in the formal establishment, last April, of a Conservation Council representing 26 societies in the ACT and South-East NSW. The NPA, having a membership of over 100, is entitled to three Councillors. At the first annual general meeting on 29 April, Rosemary Walters was elected President, Ian Fraser Vice-President, Kym Day Secretary and David Pfanner Treasurer. The Council's office is at the Environment Centre at Acton.



NATIONAL PARKS ASSOCIATION OF THE AUSTRALIAN CAPITAL TERRITORY INC.

ANNUAL REPORT 1980-81

This is the twentyfirst annual report of the Association, covering the period 1 July 1980 to 30 June 1981.

OFFICE BEARERS

Committee Members

President	Neville Esau
Vice-President	Ian Currie
Secretary	Sheila Kruse
Treasurer	Lyle Mark
Assistant Secretary	Fiona Brand
Publicity Officer	Harriet Michell - to March 1981

Members:	Reg Alder
	Ross Carlton
	Darryl Hawke
	Charles Hill
	John Schunke
	John Webster
	Beverley Hammond - from March 1981

Past President	John Banks
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Committee Appointments

Membership Secretary	Fiona Brand
Librarian	Mavis Michell
Sub-Committee Conveners	See pp. 2 and 3
ANPC Councillor	Robert Story

<u>Public Officer</u>	John Schunke
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<u>Honorary Auditors</u>	Ernst & Whinney
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COMMITTEE

The Committee held eleven meetings during the year and the sub-committees, standing and ad hoc, met as the occasion demanded. The standing sub-committees are discussed in the next section. Small groups, usually including some non-Committee members, were formed from time to time to work on specific subjects such as the Kosciusko National Park Review, the Morton National Park Plan of Management, the Murrumbidgee River Inquiry, extensions to the National Botanic Gardens, the proposed aerial gondola system at Black Mountain, NCDC's Metropolitan Issues proposals. Many of these necessitated hours of paperwork, the examination of all relevant documents and the preparation of responses.

The Committee took an active interest in areas which it believed should be protected from proposed developmental works of one kind or another: the Franklin and Gordon Rivers in Tasmania; the Budawangs, where mining exploration leases had been applied for; Tallaganda and Micalong Swamp, threatened by forestry and mining proposals; Bowen Island, which we believe should be included in the Jervis Bay Nature Reserve.

Members of the Committee represented the Association at meetings of the Environment Centre, the Conservation Council for SE Region and Canberra, the ACT Council of Cultural Societies, a NPWS/CCAEE seminar on the Conservation Status of Kosciusko National Park, and the Seventh Annual Conference of the Australian National Parks Council.

SUB-COMMITTEES

Bulletin Sub-Committee

Editor: Reg Alder

Production: Bill Adams Betty Campbell
 Phyllis Adams Norman Morrison
 Fiona Brand

This year showed some advance in the layout, style and content of the NPA Bulletin with the decision of the Committee to employ a professional typist with word-processing facilities. The selection of a clear type with 8 lines to the inch has enabled the Bulletin to contain almost 50% more reading matter. New features adopted have been the text of talks given at meetings and either the complete text or a precis of important Association letters. A change in style of the cover to a photograph of an aboriginal stone arrangement in the Gudgenby Nature Reserve has been another important change to identify the Bulletin with the national park movement.

Outings Sub-Committee

Convener: John Webster

Members:	Cla Allen	Neville Esau
	Reg Alder	Beverley Hammond
	Betty Campbell	Charles Hill
	Frank Clements	Les Pyke
	Ian Currie	Babette Scougall

Again the Outings committee offered a varies and interesting programme of walks, pack walks, camps and field outings. They have tried to increase the latter, which are popular but can only be arranged when skilled leaders are available. The committee welcomes comments on its programmes and suggestions for new areas to be explored. Outings and leaders are listed in Appendix A.

Gudgenby Sub-Committee

Convener: Neville Esau

Members:	John Banks	John Schunke
	Ian Currie	Robert Story
	Les Pyke	John Webster

The long-awaited Plan of Management for Gudgenby Nature Reserve was not released and action by the committee has been confined to letters to the Minister about fire management policies affecting the Reserve and the Nature Conservation Ordinance, discussions with the Conservation and Agriculture Branch of the Department of the Capital Territory, with rangers at the Reserve, and with NCDC on its Land Use Plan for southern A.C.T.

Library

Mavis Michell has been in charge of the Library. Additions during the year - some purchased, some gratis - included:

Kosciusko - a sub-region study. NSW Planning and Environment Commission/NPWS, 1980
Kosciusko National Park Draft Plan of Management. NPWS, 1981
Proposed extension of National Botanic Gardens: Environmental Impact Statement (Draft plus Suppl). DCT, 1980/81
Waters of the Canberra Region. NCDC MPI Tech Paper 30, 1981
National Parks of NSW. Graham Groves, Golden Press/Gregory's
The conflict between underground coal mining and natural lands in the Sydney Basin. J. Angel & R. Hayes, AER, 1980
Cold climate geomorphology in Snowy Mountains of NSW.
10th Conf of Inst of Aust Geophysics, 1972
Estuarine management. Hutchings & Wilkinson. WRF Tech Paper, 1980
World Law and the Last Wilderness. K.D. Suter, FOE, Sydney

We exchange newsletters with several kindred societies, including the Australian Conservation Foundation, NPA of NSW (NPA Journal), NPA of Queensland, Victorian NPA (Parkwatch), the Environment Council of Northern Territory, Nature Conservation Council of South Australia, Tasmanian Wilderness Society, W.A. National Parks and Reserves Association, the Canberra Bushwalking Club (IT), Goulburn Field Naturalist Society, South Coast Conservation Society (Smoke Signal), Illawarra Natural History Society, NSW National Parks and Wildlife Service (Parks and Wildlife).

We receive also ACF's Habitat, CASEREC's Bogong, CSIRO's ECOS, and AMIC's Mining Review.

MEMBERSHIP

During 1980/81, 24 ordinary members, 13 families and 2 students joined the Association, and approximately the same number did not renew their subscriptions. Total membership figures, in categories, at 30.6.81, were:

Ordinary Members	116
Family Members	119
Student Members	5
Honorary Life Members	2
Corporate Members	2
Total adult members	350

GENERAL MEETINGS

Our regular monthly meetings provided a venue for the guest speakers to present a range of conservation topics. These meetings attracted disappointingly small audiences on a number of occasions and we would like to see more members attending. Not only can the speakers provide new knowledge on many subjects, but the opportunity is provided for frank and stimulating discussion of the topics with an acknowledged expert in his or her specialised area. The Committee would like members to put forward ideas for monthly meetings, on either speakers or topics which they feel may be of general interest. A list of the speakers and their topics is given in Appendix B.

CO-OPERATION WITH KINDRED SOCIETIES

NPA is affiliated with the following societies:

Australian National Parks Council
Australian Conservation Foundation
Canberra and South-East Region Environment Centre (CASEREC)
Conservation Council of South-East Region and Canberra

A.C.T. Council of Cultural Societies (Griffin Centre)
 NSW Federation of Bushwalking Clubs
 Kosciusko Huts Association
 Native Forests Action Council
 Tasmanian Wilderness Society

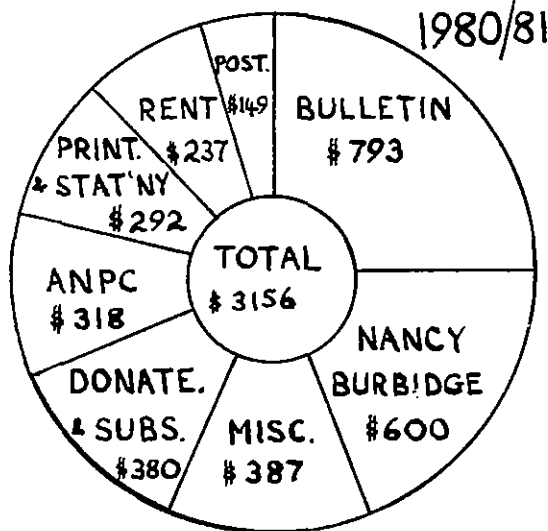
NPA acted as hosts to the 1980 Annual Conference of the Australian National Parks Council, at which Robert Story, NPA's Councillor, was elected President for a second term, and Darryl Hawke elected Secretary.

Contributions were made to the -

National Parks and Wildlife Foundation's	
OPERATION NOAH	\$100
ACF's Rescue the Rainforests appeal	\$50

FINANCE

MAJOR EXPENDITURES



The year to 30 June 1981 ended with a small deficit of \$209, with Income of \$2947 and Expenditure of \$3156. Last year it was reported that a subscription increase would probably be necessary from July 1981. However, in view of the small deficit and liquid net assets of \$3706 it is felt that no increase is needed before July 1982.

Full financial details for 1980/81 are contained in a separate financial statement. The pie diagram shows a simplified presentation of major expenditure items for the year.

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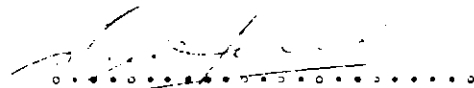
All the foregoing facts and statistics show that the Association has had its usual busy year. Conscious of NPA's aims and objectives we have tried to continue the battle to preserve our natural heritage.

Apart from all the regular activities, as mentioned briefly earlier in this report, the Committee has involved itself in a number of conservation issues, both local and Australia-wide. A few topics warrant expansion. The struggle to save the Franklin and Gordon Rivers is something which deserves the active support of all members: only by continuing to press the need for preservation will this magnificent natural area be saved from destruction. We should be concerned at the continuing practice of the clear-felling of native forests and their substitution with pines for softwood production. Native forests are significant flora and fauna habitats and have immense potential for recreation as well as for timber production.

Closer to home, we believe that the natural qualities of the Black Mountain Reserve, and its focal point in the Canberra landscape, would be destroyed by an aerial gondola system and we registered our opposition when responding to the Environmental Impact Statement. We were very disappointed that even a draft management plan for the Gudgenby Nature Reserve was not published, but as mentioned above we did make submissions on the draft Plans for Kosciusko National Park and Morton National Park. In preparing our responses we have been conscious that park management inevitably involves compromises between conservation and provision of public facilities and have tried to offer rational and informed comment while keeping in mind our aim of conserving Australia's natural areas.

Finally, I should like to thank all members who served on the Committee, on sub-committees or in other ways throughout the year. I want to mention particularly those members who helped the Committee to prepare specific submissions: our special thanks to George Chippendale, Babette Scougall, Les Pyke, Bruce Ashley, Denise Robin and Robert Story. I also want to thank Bernice Anderson for handling the book sales which have been beneficial to the Association as well as to individual members, Cynthia Hook and her helpers for preparing the suppers (and washing up) at General Meetings, and Robert Story for representing the Association on the Australian National Parks Council.

With this kind of co-operation, I think the Association can look forward to another successful year in 1981-82.



PRESIDENT

OUTINGS 1980-81Leaders

July	Mt. Fairy Caves Tidbinbilla Peak Ettrema Gorge - Pack Walk Mt. Lowden Forest Park Blue Gum Creek	Nicholas Blandford Reg Alder Harriet Michell Cla Allen Hela Lindemann
August	Orroral Valley/Cotter Gap Mt. Stromlo Billy Billy Rocks Deua River - Pack Walk Tidbinbilla to Murray's Corner Old Fitz's Hill road Araluen - Camp Honeysuckle Creek	Bernice Anderson Cla Allen Neville Esau Robert Story Hela Lindemann Cla Allen Ian Currie Frank Clements
September	Lake Burley Griffin - Cycle ride Capital Hill Hidden Valley - Pack Walk Orroral River	John Webster Cla Allen Fiona Brand Neville Esau
October	Black Mountain - Nature Walk Grassy Creek - Pack Walk Bogong Creek	George Chippendale Neville Esau Ian Currie
November	Pierce's Creek Micalong Creek - Camp Orroral Valley Mt. Kelly area - Pack Walk Blue Range arboreta - President's Nature Walk Barbecue	Bernice Anderson Frank Clements Neville Esau Les Pyke John Banks and Ken Eldridge
December	Ginini-Gingera Christmas Party - Yarralumla Nursery Ginninderra Falls	Hela Lindemann Picnic Grounds Nicholas Blandford
January	The Pilot - Pack Walk Thredbo Diggings - Camp	Fiona Brand Ian Currie
February	Kambah Pool Smoker's Flat Gungarton & Brassy Mts - Pack Walk Point Hut Crossing Tidbinbilla - spotlighting walk Yankee Hat Micalong Creek - Pack Walk	Frank Clements Les Pyke Neville Esau Cla Allen John Webster Beverley Hammond Fiona Brand
March	Queanbeyan River Westbourne Woods Admiration Point Old Fitz's Hill Ettrema - Pack Walk Kiama - Camp Hospital Hill Honeysuckle Creek	Nicholas Blandford John Banks Babette Scougall Cla Allen Harriet Michell Ian Currie Frank Clements John Webster

April	Naas Creek Carey's Caves, Wee Jasper Nadgee - Easter Pack Walk Wapengo - Easter Camp Sentry Box Hill	Reg Alder Jack Doyle Fiona Brand Ian Currie Neville Esau
May	Tinderry Peak Blue Range - Nature Walk Mt. Scabby - Pack Walk London Bridge Baroomba Rocks Bundanoon - Camp	Frank Clements Ed Slater John Webster Nicholas Blandford Beverley Hammond Adrienne Nicholson
June	Murrumbidgee - Camp Mt. Corang, Mt. Tarn - Pack Walk Smoker's Flat area Lake George - Nature Walk Paddy's River	John Webster Reg Alder Les Pyke Margaret Aston/Betty Campbell Allan Mortlock

APPENDIX B

GENERAL MEETINGS 1980-81

July	Dr. David Shorthouse, CCAE A new look at ecological resources of the A.C.T.
August	Annual General Meeting Slides of Lake Tarli Karng Pack Walk
September	Dr. Horwood Cossins, NPA of Queensland Queensland National Parks
October	Lin Richardson Around-Australia slide programme
November	Dr. Robert Boden, Director, National Botanic Gardens Galapagos Islands - a private visit
February	Bruce Leaver, Director, NPWS South-Eastern Region NSW Management of national parks - management plans
March	Dr. David Ride, CCAE Are we at the crossroads? A survey of Australian plants and animals
April	Stella and Bob Humphries, ANU Freshwater Biology
May	Dr. Josephine Flood, Australian Heritage Commission Aboriginal sites in the A.C.T.
June	Mark Butz, NPWS South-Eastern Region NSW Investigations of areas for new parks and reserves

AUDITORS' REPORT

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

We have examined the books and records of the National Parks Association of the A.C.T. Inc and have obtained all the explanations and information required by us. In our opinion, the accompanying financial statements are properly drawn up in accordance with the historical cost convention so as to give a true and fair view of the state of the affairs of the Association as at 30 June 1981, and the results of the Association for the year ended on that date.

Canberra
5 AUGUST 1981

Ernst & Whinney
ERNST & WHINNEY
Chartered Accountants.

TREASURER'S STATEMENT

I hereby state that to the best of my knowledge and belief the accounts of the National Parks Association of the A.C.T. Inc. give a true and fair view of the state of affairs of the Association at 30 June 1981 and the results of the Association for the year ended on that date. The rules regarding the administration of the funds have been observed in accordance with the constitution of the Association.

Canberra
5 AUGUST 1981

Lyle Clarke
Treasurer

INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED 30 JUNE 1981

	1981	1980
	\$	\$
INCOME		
Subscriptions	2,151	1,940
Interest received	348	282
Surplus on books and badges (see below)	265	-
Royalty on book sales	147	211
Nancy Burbidge Memorial	20	178
Bulletin subscriptions	16	12
Sundry income	-	14
Donations and grants	-	31
Travel refund	-	108
	<u>2,947</u>	<u>2,776</u>
LESS: EXPENDITURE		
Advertising	-	28
Bank charges	3	3
Bulletin - printing and stationery	686	341
- postage	107	101
Conference & travel	318	250
Depreciation - note 1 (c)	87	78
Donations & subscriptions	380	600
General - printing and stationery	292	282
- postage and telephone	149	126
Insurance	32	22
Legal expenses	71	-
Loss on sale of books and badges	-	38
Miscellaneous	157	7
Nancy Burbridge Memorial	600	178
Petty cash	-	20
Rentals and storage	237	223
Social	37	114
	<u>3,156</u>	<u>2,411</u>
Surplus/(deficit) for year	<u>\$ (209)</u>	<u>\$365</u>

TRADING ACCOUNT
FOR THE YEAR ENDED 30 JUNE 1981

Sale of books and badges	<u>1,245</u>	<u>4,038</u>
Opening stock	80	88
Add: Purchases	<u>965</u>	<u>4,068</u>
	1,045	4,156
Less: Closing stock	<u>65</u>	<u>80</u>
Cost of goods sold	<u>980</u>	<u>4,076</u>
Surplus/(loss) on sale of books and badges	<u>\$265</u>	<u>\$(38)</u>

BALANCE SHEET AS AT 30 JUNE 1981	1981 \$	1980 \$
ACCUMULATED FUNDS		
Opening balance	4,359	3,994
Add: Surplus/(Deficit) for year	<u>(209)</u>	<u>365</u>
	<u>\$4,150</u>	<u>\$4,359</u>
These funds are represented by		
CURRENT ASSETS		
Cash at bank - current account	1,356	597
- savings account	1,706	1,556
Commonwealth bonds	2,000	2,000
Stock on hand	<u>65</u>	<u>80</u>
	5,127	4,233
NON CURRENT ASSETS		
Equipment - after deducting accumulated depreciation of \$482 (1980 - \$395)	<u>230</u>	<u>318</u>
TOTAL ASSETS	5,357	4,551
LESS: LIABILITIES		
Subscriptions in advance	<u>1,207</u>	<u>192</u>
NOTES TO, AND FORMING PART OF THE ACCOUNTS FOR THE YEAR ENDED 30 JUNE 1981	<u>\$4,150</u>	<u>\$4,359</u>

Note 1: Accounting methods

- (a) The accompanying accounts have been prepared on the basis of the historical cost convention.
- (b) Non current assets have been valued at cost less accumulated depreciation.
- (c) Depreciation has, under the reducing balance method, been determined so as to allocate the costs of assets against the revenue for the period which approximates the effective working lives of those assets.
- (d) Stock on hand has been valued at the lower of cost and net realisable value.

Note 2: The association is at present facing a civil action by a third party for damages for libel in the District Court of N.S.W. at Wollongong. The plaintiff's executors are suing for damages of \$20,000 which gives rise to a contingent liability.

NATIONAL PARKS ASSOCIATION OF THE AUSTRALIAN CAPITAL TERRITORY

BULLETIN EXTRA

Some historical notes for the 21st annual general meeting

TALKING OF PEOPLE.....

The Founders

We have a copy of the notes taken at the inaugural meeting on 1 March 1960 in the Institute of Anatomy (see the Annual Reports folder) but unfortunately not a full list of those who attended. Some people well known to us are mentioned: Professor Lindsay Prior chaired the meeting, Mrs. Waight took the notes, Dr. Max Day spoke about the Australian scene from the point of view of the Australian Academy of Science. Nancy Burbidge moved, Mr. Clear seconded: "That a National Parks Association of the A.C.T. be formed", and after comments by Dr. Carrick, Alec Costin and Robert Story, Steve Wilson and Roy Tait, Ann Dalgarno, Fred Morley and Mr. Channon, the motion was carried unanimously. Others mentioned in the notes were Mrs. Temple-Watts, Mrs. Slater, Mrs. Nicholson, Messrs Jennings, Greenish, McGrath and Kennedy. We know that many present NPA members were at that meeting and regret that our records do not say who they were.

First Members

You know these people, they are fellow members; they are also shown in early records as having joined NPA in 1960: Fiona Brand, John Carnahan, Ken and Jean Crawford, Kath Gilmour, Brigit Hodgkin, Jocelyn Long (Mrs. Wilson), Phyllis Nicholson, Sybil and Robert Story, Betty Temple-Watts (now living in Queensland), Roy Tait (also now in Queensland). If we have omitted anyone we can only apologize as there are gaps in our archival material.

During their twentyone years of membership: Fiona has been Editor, Secretary, Assistant Secretary, Membership Secretary, Robert has been President, Roy Tait Treasurer and Public Officer, Jocelyn Long and Betty Temple-Watts Committee Members.

The Committee

The roll of office bearers contains the names of many present members. Our Presidents, since 1960, have been Dr. Robert Carrick, Dr. A. J. Nicholson, Nancy Burbidgeⁿ, Robert Story*, Ian Grant, Jim Webb, Sandy Brand, Julie Henry*ⁿ, George Chippendale*, Bill Watson*,

Ian Currie**, Darryl Hawke**, John Banks**, Neville Esau**.
The Secretaries: Nancy Burbidge^ø, Fiona Brand**, Margaret Hamilton,
Marie Sexton, Isobel Dahl* (Mrs. Hamilton), Celia Westwood,
Joan Rigby, Sheila Kruse**^ø. The Treasurers: Christine Slater,
Roy Tait*, Ian Baird, John Schunke**, Norma Price*, Bruce Mitchell,
Rod Panter, Pat Michell**, Michael Hardware, Neville Esau**,
Lyle Mark**.

*These are still NPA members, and **these were on the 1980/81
Committee. ø = Life Member.

The unsung Committee Members would make a very long list.

TALKING OF THE BULLETIN.....

The face and the format of the Bulletin have changed a few times since Vol.1, No.1, was issued in April 1963. So have the Editors. These have been Jim Webb, Fiona Brand, Brian Lee, Bruce Ward, Norman Morrison, Reg Alder. A popular feature for many years was Nancy Burbidge's series of plant notes and drawings: "Eyes, or No Eyes?". These ran from 1963 to 1971 and some of the original 40 were reproduced in later issues, to be followed by a similar series contributed by Helen Hewson-Freund. We have a full set of the Bulletins for you to browse through, and a few of the monthly notes that preceded them.

.....and of other publications

In 1971 Mountains, Slopes and Plains, compiled by Nancy Burbidge for NPA, was published by the Department of the Interior. Rambles around Canberra, compiled by 16 NPA members, edited by Allan Mortlock and Gillian O'Loughlin, published by ANU Press, appeared in 1977. Some time in the '60s the Canberra Times ran a series of natural history articles by NPA members - too many authors to mention here but credit for the majority of articles must go to Dick Schodde, for the photographs to Ed Slater and Colin Totterdell, and for their organization to Robert Story.

TALKING OF EVENTS.....

A National Park for the National Capital? Well, not exactly. After the declaration of the Gudgenby Nature Reserve we had to drop our slogan from page 1 of the Bulletin but not altogether with a sense of defeat. The concept of the Gudgenby Nature Reserve is pretty close to what we were aiming for and we now look forward to the time when the Reserve is formally declared, gazetted, and competently run under a (NPA-approved) Management Plan.

Some of the early activities, since abandoned, are worth recalling.

In 1963 a poster competition for school children on the subject "Protect Native Plants, Animals and Birds", run by Fiona and Sandy Brand in Conservation Week, produced 664 entries which were displayed around Civic; book prizes were presented on TV Channel 7. In 1966-67, in Science Week, the Association awarded prizes and certificates to winners of essays on Conservation, and again in the following year we sponsored an essay competition for high school students organized by the ACT Science Teachers' Association. Pat and Brian Hammond organized sales of NPA Xmas Cards.

In 1970 another poster competition for junior school students, with winning entries displayed in the Monaro Mall, was organized by Norma Price and Fiona Brand. Margaret Aston and Merle Bailey arranged film afternoons for children in the Dickson and Hughes Libraries. Glyn Lewis and Julie Henry ran a photographic competition.

More recently, Glyn and his Display group staged photographic and poster exhibits at a number of public functions and ran their audio-visual programmes.

1966-67 saw the first of the NPA Public Lectures. Vincent Serventy, author and naturalist, was the first lecturer, followed by Ronald Strahan, Director of Taronga Zoo, Judith Wright, poet and conservationist, Milo Dunphy, A.C.F., Professor Frank Fenner, Director, John Curtin School of Medical Research, ANU, and finally in 1974 Dr. Don McMichael, Secretary, Department of Environment and Conservation.

In 1975, instead of a public lecture, we ran a weekend seminar for conservation societies in south-east New South Wales and the A.C.T.

TALKING OF NPA AND CONSERVATION.....

NPA's attempts to save the Westborne Woods was probably our first encounter with government, Ministers and their departments, select committees. Then there was Molonglo Gorge, Gibraltar Falls, Tidbinbilla, the campaign for a national park, a parliamentary inquiry into Wildlife Conservation. The 1970's brought Environmental Impact Statements, a plethora of official inquiries, "causes" galore. We've answered a lot of calls and hope that some of the battle were won. We've involved a lot of people, but Nancy Burbidge and Julie Henry surely have been our conservation "giants".

TALKING OF WALKS.....

Destinations haven't changed much, but the Outings people now offer us more per month and have added camping trips and pack walks. Field excursions, with information sheets handed out, were more common in NPA's early days but we still go to a lot of the places we visited in the '60s.

So we'll simply close by reprinting our favourite Walks Report, written for the Bulletin by Mary Jacques (now living in England) in 1974.

KOSCIUSKO

or The Trip of Many Leaders

(with apologies to Henry Wadsworth Longfellow and those who love their Hiawatha)

Before the first day of December
Rains had filled the Nine Mile Diggings
So we went not to Kiandra
And we saw not Leader Andrew.
But resourceful Ian Currie,
To avoid our disappointment,
Took us off to camp at Sawpit
Where we lunched and pitched the wigwams.
Then Bill Watson took us over -
Him Big Chief of National Parkers -
Off we drove to Guth'ga Pondage
Where we left the cars behind us,
Gambolling gaily through the paddocks,
To the little chain and pulley -
Farm Creek's means of crossing rapids -
Back and forth we slid a-giggle,
Till the tribe had all crossed over.
Then we walked along the East bank
Till we reached the Gauging Station,
And midst laughter, Lin the swimmer,
Gave us all a great performance,
Plunged into the foaming Snowy,
Bobbed around just like a sea-lion.
Up and onward to the Ski-hut,
Where we carefully read the legend
(And proceeded to forget same).
Then the tactful Ian Currie
Took the tired ones back to Sawpit.
But the keen and tough Bill Adams
Led the others further onward,
With his chin thrust squarely forward,
Down the valley, 'cross the Snowy

Up the Tate Ridge in a straight line,
Like a Roman, never wavering.
Till the weak ones could no longer
Stay the pace and 'gan to falter.
So the gentle Harley Johnston
Took the frail ones down the West bank,
And we staggered slowly homeward,
Ever deeper in the scrubbush,
Pricked and scratched by leptospermum,
Squelching through the spongy sphagnum.
Slipping, sliding down the shale banks,
Nearly falling in the Snowy.
Till at last we spied two figures,
Bill the Chief and Bill the Roman,
Coming back to lead us homeward.
And the god of National Parkers
Got us safely back to Sawpit.
Then we feasted round the campfire,
Watched the stars and flying saucers,
Crept at last into our wigwams.
But the wind sprang up at midnight,
Nearly blew the wigwams over,
Blew all night, and in the morning
When we drove to Kosciusko,
There the wind was even stronger,
Hardly could we stand against it.
So we dropped to shelter southwards,
To the lake where eagles drink from,
Cootapatamba to the ancients
But renamed Lake May by white man.
Saw the tiny prawn-like creatures,
Proving that the mighty ocean
Once had covered all those mountains.
Saw the white ranunculaceae
With their golden eyes agleaming.
Sat and talked and laughed at lunchtime
On the clean and sun-bleached boulders.
Then once more the party split up,
Some to wander via the valley,
Some to follow mid-line contours,
Some to climb above the snow-line
Up to where the peak of Koscy,
Standing firm, defies all furies.
And the god of National Parkers
Quite lost track of who was leader,
So he gathered up the wanderers,
Steered us somehow back to Rawsons,
Whence we came home safe to Canberra,
Full of mountain air and magic,
Ready for our routine labours,
Dreaming of the next adventure.

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 kilometre (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.

All persons joining an outing of the National Parks Association of the ACT 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 ACT, 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 6 Sunday Yankee Hat: Walk
Leader: Charles Hill 958924 Ref: ACT 1:100,000
Meet: Monaro Highway-Mugga Road, 8.30 a.m. 50 kms drive. Another visit to one of the peaks overlooking the Gudgenby Valley. Rough going near the top, and a steep descent.

September 13 Sunday Budawang Access: Walk
Leader: Contact Babette Scougal for details, 487008. 150 kms drive.
An exploratory walk in the Budawang area, Southern Moreton National Park.

September 19 Saturday Black Mountain: Walk
Leader: George Chippendale 812454 Ref: ACT 1:100,000
Meet: 9.30 a.m. Belconnen Way entrance to Black Mountain Reserve.
Annual outing to view the wildflowers on Black Mountain. Some new notes available from the leader at the start.

September 19-20 Saturday-Sunday Middle Creek: Pack Walk
Leader: Frank Clements 317005 Ref: ACT 1:100,000
Meet: Contact leader for details. A medium pack walk in the Middle Creek-Mt Kelly region of the southern ACT.

September 20 Sunday Pierces Creek: Walk
Leader: Betty Campbell 811771 Ref: ACT 1:100,000
Meet: 10.00 a.m. Eucumbene Drive and Cotter Road. 25kms drive. An easy walk from Pierces Creek Forestry Settlement to the Cotter Dam area.

September 27 Sunday Mt Orroral: Walk
Leader: Frances Christie 476984 Ref: ACT 1:100,000
Meet: Monaro Highway-Mugga Road, 8.30 a.m. 50kms drive. A medium walk up to Mt Orroral from the valley. Spectacular rock formations and views at the top.

October 3-5 Long Weekend Woila: Pack Walk
Leader: Garth Abercrombie 814907 Ref: ACT 1:100,000
Meet: Contact leader for details. A medium pack walk in the Woila Creek-Upper Tuross River area between Cooma and the coast. 160kms drive.

October 3-5 Long Weekend South Coast: Car Camp
Leader: Ian Currie 958112
A coastal camping trip near Moruya. Numbers will be limited. Please contact leader early if you wish to join the outing.

October 11 Sunday Rendezvous Creek: Walk
Leader: Beverley Hammond 886577 Ref: ACT 1:100,000
Meet: Mugga Road-Monaro Highway 8.30 a.m. 45kms drive. An easy walk in the Gudgenby Nature Reserve to see the rock paintings and perhaps search for other Aboriginal artefacts.

October 18 Sunday Mountain Creek area: Walk
Leader: John Perry 479529 (H) Ref: ACT 1:100,000
Meet: 9.00 a.m. Eucumbene Drive-Cotter Road. A walk off the Mountain Creek road with a geological interest. Fairly easy going.

October 25 Sunday Mt Gudgenby: Walk
Leader: Garth Abercrombie 814907 Ref: ACT 1:100,000
Meet: Gudgenby Bridge beyond Glendale 8.00 a.m. A hard day walk to the top of Mt Gudgenby. Plenty of scrub-rewarding views from the top.

October 25 Sunday Queanbeyan River: Walk
Leader: Bernice Anderson 812082 Ref: ACT 1:100,000
Meet: Canberra Railway Station 9.00 a.m. 70kms drive. A walk along the Queanbeyan River to look for some waterfalls. Access via Captains Flat. Easy-medium.

November 1 Sunday Southwells Crossing: Walk
Leader: Margaret Aston 887563 Ref: ACT 1:100,000
Meet: Eucumbene Drive-Cotter Road 1.30 p.m. An easy afternoon walk to the Molongolo River below Scrivener Dam.

November 7-8 Saturday-Sunday Sentry Box: Pack Walk
Leader: Les Pyke 812982 Ref: ACT 1:100,000
Meet: Friday night start. Phone leader for details. 70 kms drive. An exploratory pack walk around Sentry Box Hill. May be necessary to carry water for the overnight camp near the top.

November 8 Sunday Sheepstation Creek: Walk
Leader: Ian Currie 958112 Ref: ACT 1:100,000
Meet: 8.30 a.m. Junction Mugga Road and Monaro Highway. 70kms drive. An easy day walk in the upper Naas Valley. Welcome the pack walkers coming from Sentry Box.

November 15 Sunday Geology Interest Outing
Leader: Dr M. Owen 499389 (W)
Meet: 9.30 a.m. BMR carpark. An outing to visit a number of geological monument sites in the ACT, mostly within the city area.

November 21-22 Saturday-Sunday Mt Franklin Lodge Weekend
Leaders: Ian Currie 958112 and Ref: Brindabella 1:100,000
Beverley Hammond 886577
Meet: Contact leaders for details. A weekend spent in the lodge with walks to Mt Aggee and possibly Ginnini Falls.

November 29 Sunday Nursery Swamp: Walk
Leader: Reg Alder 542240 Ref: ACT 1:100,000
Meet: Mugga Road-Monaro Highway 8.30 a.m. An easy-medium walk over the Nursery Swamp from Orroral Valley. 50 kms drive.

December 5-6 Saturday-Sunday Jagungal: Pack Walk
Leader: Garth Abercrombie 814907 Ref: Kosciusko 1:100,000
Meet: Contact leader for details. A long pack walk to Jagungal (the Big Bogong) via the upper reaches of the Tumut River.

December 6 Sunday Pialligo Wet Lands:
Leader: Betty Campbell 811771 Bird Watching
Meet: 4.00 p.m. Dairy Flat Bridge (south side). A bird watching Ref: ACT 1:100,000 excursion in the area just east of Lake Burley Griffin. A wide range of water birds to be seen. Bring late afternoon tea.

December 13 Sunday Orroral River: Christmas
Barbeque
Meet: 3.00 p.m. Orroral Picnic area. The annual Christmas get-together, this year at the picnic area beside the Orroral River crossing, in the Gudgenby Nature Reserve. Wine, cheese, biscuits etc. provided, may be even a Christmas cake; bring your steaks for an evening barbeque.

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: Judy Payne, 16 Alawa Street, WARAMANGA ACT 2611
88.1397(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: Sheila Kruse, 50/C Currong Flats, BRADDON ACT 2600
48.6104(H)

Committee Members: Reg Alder 54.2240; Ross Carlton 86.3892;
Denise Robin 81.4837; Charles Hill 95.8924;
Beverley Hammond 88.6577; *John Schunke 489828*

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

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54.2240(H)

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

Outings Convenor: Beverley Hammond, 21 Hyndes Cr., HOLDER ACT 2611
88.6577(H)

Correspondence to: Box 457, PO CANBERRA CITY ACT 2601

Telephone: 88.1397 (Secretary), or 48.6104 (Publicity Officer)

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: Annual Subscription - 15 month's membership benefit.

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

6	Sunday	Yankee Hat	Walk
13	Sunday	Budawangs	Walk
19-20	Sat-Sunday	Middle Creek	Pack Walk
19	Saturday	Black Mountain	Walk
20	Sunday	Pierces Creek	Walk
27	Sunday	Mt Orroral	Walk

OCTOBER

3-5	6 Hour Day	Woila	Pack Walk
3-5	6 Hour Day	South Coast	Car Camp
11	Sunday	Rendezvous Creek	Walk
18	Sunday	Mountain Creek	Walk
25	Sunday	Mt Gudgenby	Walk
25	Sunday	Queanbeyan River	Walk

NOVEMBER

1	Sunday	Southwells Crossing	Walk
7-8	Sat-Sun	Sentry Box	Pack Walk
8	Sunday	Sheepstation Creek	Walk
15	Sunday	Geology Interest	Outing
21-22	Sat-Sun	Mt Franklin	Lodge
29	Sunday	Nursery Swamp	Walk

DECEMBER

5-6	Sat-Sun	Jagungal	Pack Walk
6	Sunday	Pialligo	Bird Watching
13	Sunday	Orroral River	Christmas Barbeque

GENERAL MEETINGS

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

September: Thursday 17, 1981 - Norman Morrison, N.P.A., 'Colour in Nature'.

October: Thursday 15, 1981 - Film: 'Fraser Island - The Last Wilderness'. 45 minutes, colour. An Opus Film with assistance from the Australian Film Development Corporation. Producer: Vincent Serventy. By courtesy of Department of Home Affairs and Environment.

November: Thursday 19, 1981 - John van Pelt, a forester and lecturer in landscape design at C.C.A.E - 'National Parks and Landscape Conservation'.