

Autumn 1996



AUSTRALIAN WILDLIFE

Journal of the Wildlife Preservation Society of Australia Inc. (Founded 1909)

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Towra Point Nature Reserve, an area under an Agreement of the RAMSAR CONVENTION is being eroded away and the feeding beaches and roosting habitat of our protected migratory waders are being slowly lost by Government inaction.



'AUSTRALIAN WILDLIFE'

*is the official journal of the
Wildlife Preservation Society of Australia
Inc.*

Founded in 1909, the Society is dedicated
to the conservation of our unique
Australian wildlife in all its forms.

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REGIONAL COUNCILLORS

We would like to hear from our country members,
anywhere in Australia who would like to become regional
councillors.

The value to us is we would have a more intimate
relationship with women and men who have local
knowledge which could be valuable for conservation.

Such Regional Councillors would be sent the minutes of
our Council meetings so they would know more of what
we are doing. They could also submit motions for
consideration and so play a part in Society decisions. By
being listed in our newsletter State members could contact
them in emergencies.

This will be a new departure for the Society but your
Council thinks it could help knit our members more
closely and make our conservation voice more effective.

*If you would like to become
a Councillor please write to our
National Office above.*

READ ABOUT it...

**“Towra Point
Nature Reserve”**

**The Wildlife
Art Exhibition
“a great success”**

**“World
Environment
Day”**

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**“The First
Australians”**

**“World's Rarest
Reptile”**

**“Domestic Cat
Control”**

**“Death on the
Roads”**

From the Presidents Desk...

Our tentative plans for this year are as follows: Since the International RAMSAR Convention is being held in Brisbane in March we are concentrating on saving wetlands around Australia.

Creery Wetlands

Good news from Western Australia as it appears this important region has been saved from development. Our next task will be to conserve the Beliar Wetlands near Perth which had been promised as a Regional Park by the previous government but little has taken place since the Liberals won power.

Lake Eyre

We had an article published in the Advertiser suggesting this State Icon should be considered as a Regional Park including other important wetlands feeding into the lake's drainage system. This is part of a vast central Australian wetlands including Coongie Lakes and Goyders Lagoon. Such regions are vital for the survival of our fascinating water birds including endangered species such as the Freckled Duck.

Towra Point Nature Reserve

Accompanied by Patrick Medway and Dick Mason I went with Botany Bay Expert, Bernie Clarke, to this important region. Towra Point Nature Reserve is a key section of the bay bought by the Whitlam government in 1975 then, with much political fanfare, handed over to the State government in 1980. A condition was that the land must be reserved for nature conservation purposes.

It was then given the supreme State protection by being gazetted as a Nature Reserve in 1982. A draft Plan of Management was produced and every demand by conservationists that action should begin, only produced another report. If such government activity resulted in action, apart from gathering dust on shelves, Towra Point would be safe.

Bernie Clarke has written to RAMSAR suggesting Towra Point Nature Reserve should be removed from this international list of wetland crown jewels. This would be a drastic action and if given the opportunity at Brisbane, Patrick Medway will ask that the following steps should be implemented, otherwise Towra Point Nature Reserve should be removed at the next international get together in three years time.

Our inspection revealed a state of truly shocking neglect. Unless something is done to create new groynes, much of the sand will be washed away entirely, due, to the port activities in the north of the bay. This is the greatest long term need and the funding should come from the Sydney Port Authority and the Federal Government, first for an in depth study, then immediate action. That should see us into the second term of office of both governments.

Immediately there should be built an Environment Interpretation and Research Centre near the land entrance with board walks through the mangroves, leading to good viewing spots, complete with bird hides. An observation tower should also be built.

Fencing of the nature reserve to prevent any illegal trespass by horse riders and other intruders, including dogs is essential.

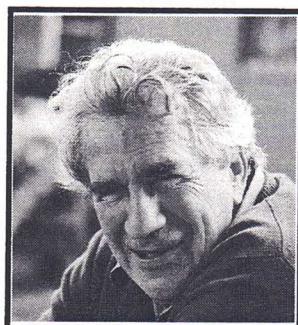
A 'fence' of marine buoys to warn all marine intruders on boats and jet skis who damage the wildlife values. Some boat owners even bring dogs to roam ashore on the beaches.

Steps to protect the freshwater lagoons in the mangroves. Steady removal of all exotic weeds which are now widespread and over 2 meters high.

The Maritime Service Board and the NSW National Parks and Wildlife Service to patrol the Nature Reserve and fine all offenders. This should provide a sizable income, at least for the first few months, until the environmental vandals learn their lesson.

Rockdale Wetlands

This may, one day, become a headquarters for the Society but will be described in more detail in subsequent issues.



VINCENT SERVENTY AM
President

TOWRA POINT NATURE RESERVE

Australia is losing one of its treasures!

The treasure is Towra Point Nature Reserve (TPNR), that special southeast corner of Australia's historic Botany Bay – rich in rainforest, mangroves, saltmarshes and seagrasses. Incredibly this primordial remnant survives within the Sydney area. It is New South Wales' first wetland of international importance.

Towra is a low-lying promontory only 6 metres above high water level at its highest point and is surrounded by mangroves and saltmarsh. It is situated 15 kilometres from Sydney's G.P.O. It occupies an area of 660 hectares and is on the United Nations World Heritage list.

Kurnell Peninsula

Towra's projecting foot joins the Kurnell Peninsula, forming the southern and eastern boundaries of Botany Bay. The sandstone headland adjacent to Captain Cook's landing place at Kurnell was originally an island. At about the time when sea levels were stabilising, between 9,000 B.P. to 6,000 B.P. a tombola formed connecting Kurnell Island to Cronulla mainland.

Two ancient river systems, Cooks and Georges River which flowed into the sea beneath the present sandunes near Wanda, became blocked with accumulating sand as the sea level rose. This gradual silting-up forced the Cooks-Georges River System to take an easier route to the sea via La Perouse rather than continue to maintain an opening in an ever-growing sand barrier near Wanda. This channel is now 90 metres below sea level giving the total thickness of 130 metres of unconsolidated sediment from the top of the dunes (ALBANI 1978).

Eventually the Kurnell-Cronulla baymouth closed and the Kurnell and Towra Peninsulas were born and Botany Bay took its present shape.

Towra Point is the last example of a complete estuarine wetland in the Sydney region. It is the remnant of a large complex of fresh and saltwater marshes and swamps lost to shifting sands of the Kurnell dunes caused by forest logging.

Early Logging

Kurnell Peninsula was first logged by the original landowner James Connell in 1835. By 1868 the forests of blackbutt and ironbark were cut down for houses and bridge construction and the remaining vegetation was cleared for grazing. This caused the sand dunes to move at a rate of approximately 9 metres per year between 1885 & 1913, as records show, and by 1923 sand was spilling into Quibray Bay.

Towra Point's mud flats first came under notice as an industry base after an attempt by pioneer Thomas Holt (who eventually owned the Kurnell Peninsula and Towra) to cultivate oysters on the seabed of Gwawley Bay (now Sylvania Waters) failed in 1870.

Early Oyster Farming

Pioneer oyster farmers Smith, White and Selmon experimented successfully around 1870 with rectangular slabs of sandstone placing them in rows in the intertidal mud flats in Quibray Bay, Woolooware Bay and Towra Point. By 1920 there were 450,000 stone slabs distributed



Severe erosion is destroying ancient Banksia trees

around Towra. The Georges River-Botany Bay oyster industry was born.

Botany Bay has been in conflict with urban development ever since the first manufacturing industry, a clothing mill, was established on its shores in 1815. Tanneries, wool scourers, brickworks, soap works, sewage farm, paper mills, glue works, bone dust manufacturers, oil refineries, power station, large ships and planes, all competed for space.

During the ensuing 175 years many of the bay's significant ecological characteristics have been altered, its waters and foreshores alienated and three quarters of its wetlands filled in.

Early Airstrip Proposal

Towra's wetlands managed to survive because they are located in a secluded part of the bay. Not that Towra hasn't come under notice. In 1966 the Federal Government, looking to expand Kingsford Smith Airport (K.S.A.), decided on Towra Point for an airstrip. The writer formed a resident action committee to organise public protest meetings. The campaign lasted eighteen months, before the Government finally decided against Towra.

Five years later Towra came under notice again. Headlines in the SHIRE PICTORIAL of 18 April 1973, announced "Towra Point Is No1 On Airport List". Mr Sneddon, leader of the Federal Opposition at the time, said "Towra Point is one of the inconsiderate ill-conceived proposals and actions Labor has taken since winning office".

Port Botany and K.S.A. have remained a simmering political and public debate for more than 20 years. No industry has had a greater impact on the equilibrium, marine resource and public amenity of Botany Bay than the construction of these two giant developments.

Dredging

Dredging the bay's seabed to facilitate the servicing of large ships and runway extensions has completely changed the bottom topography, resulting in a new distribution of wave energy throughout the bay with consequent regression of beach fronts.

'The configuration dredging at the entrance to Botany Bay has been designed to redirect wave energy away from the entrance to Port Botany.



Seagrass beds are being eroded away and destroyed.

As a result of the configuration dredging, gross changes in wave conditions have occurred at a number of locations, waves have had a dominant effect on beach conditions'.

'Seagrass beds off Towra Point are susceptible to wave attack with areas being denuded during severe wave conditions or by erosion and accretion. The areas denuded of seagrass off Towra Point have increased significantly in recent years. This appears to be a function of both erosion of the seagrasses and covering of the seagrasses by sand.' (S.P.C.C., Wave Action in Botany Bay B.B.S. 16).

Migratory Wading Birds

Wading birds referred to in the Towra area are associated with water, their preferred feeding habitat being intertidal beach zone, sandspits, tidal mudflats and saltmarsh. They are active, small or medium sized birds. The smallest is the Red-necked Stint, 14cm long, a summer visitor from north-eastern Siberia and north-western Alaska. The largest is the Eastern Curlew, its length including bill is 61cm; it is a regular spring and summer migrant from north-eastern Siberia.

The population of waders at Towra includes resident and migratory species. Nearly all are seasonal visitors. Most migrate from their northern hemisphere breeding grounds (Arctic Circle, Alaska, Asia and Siberia. One species, the Double-Banded Dotterel, breeds in New Zealand. Japanese Snipe are known to fly direct from Japan without a stopover.

Most waders have long slender bills – straight, turned up or downcurved – used to probe deep into the habitat of crustacea and invertebrates, their principal food. Some waders, e.g. Turnstones, use their bill to turn over shells, stones and seaweed in search of food. They are equipped with semi-webbed feet with long toes adapted for walking on soft feeding habitats and have long legs for their body size.

Australia's wetlands are the southern destination for 1.5 million shorebirds from Northern Asia. These itinerant birds fly up to 16,000 kilometres by the time they reach their destination. Before leaving their sub-Arctic tundras they feed day and night, increasing their body weight by about 30 per cent. They fly up to 110 kilometres an hour, some arriving in 10 to 12 days and up to 6 weeks for others, before arriving exhausted at their southern destination, but they soon rehabilitate as they rediscover

their southern feeding grounds.

Thirty-one species of migratory wading birds have been recorded roosting or feeding around Towra (John Waugh, N.S.W. Field Ornithologists Club). Published in Club journals are sightings of 183 species of native birds.

Treaty Signed

On 6 February 1974 the Foreign Minister of Japan, Mr Masayo, and the Australian Charge d'Affairs in Tokyo, Mr D. Horne, signed on behalf of their respective Governments a Bi-lateral Treaty on Migratory Birds. The treaty was welcomed by Australia's Minister for the Environment & Conservation, Dr Moss Cass as "a major step forward in international co-operation for the protection of wildlife".

Numerous letters over several years to Federal Government Ministers by the writer on the importance of Towra as a habitat for water birds and other features prompted a meeting with Dr Moss Cass and other Federal Parliamentarians in May 1974 to discuss the Government's intention of buying Towra to establish it as a national park.

Commonwealth Buys Towra Point

At a cost of over 3 million dollars the Commonwealth of Australia became the registered owner of 270 hectares of land owned by Towra Point Development. The transfer was lodged on 20 June 1975 and was registered on 15 November 1977. Prior to the registration of the transfer of the land, the State Government took out an injunction challenging in the High Court the right of the Commonwealth to acquire land at Towra Point. The issue remained unresolved until March 1982 when the land was transferred to the State Government as part of the Commonwealth/State Land Exchange Agreement. It was gazetted Towra Point Nature Reserve on 6 August 1982. After acquisition of additional land the Nature Reserve comprises an area of 281.7 hectares. Negotiations have taken place for additional areas to be added in the near future.

Nature Reserve

It is the first nature reserve to be established by the Federal Government in any State. Towra Peninsula wetlands now covers an area of 430 hectares of which 111 hectares remain in private ownership.

The Nature Reserve is made up of many component ecosystems including Saltmarsh, Mangrove Stands, Tea Tree, Sheoak Swamps, Fresh Swamps, Saline Lagoons and Reed Swamps. It is a habitat of extreme diversity and high biological value.

Permit Required

Before arriving at the Towra Point Nature Reserve (T.P.N.R.) visitors are obliged to obtain permission from the National Parks & Wildlife Service (N.P.&W.S.) at Kurnell and from Mr T.E. Breen who owns the property adjacent to Captain Cook Drive and the wetlands beyond.

A narrow elevated 1 kilometre-long road extends from Breen's property and bisects Towra's largest wetlands. The wetlands are tidally flushed twice daily. The road now owned by N.P. & W.S. was built by the Defence Department during World War 2 for the erection of a radar beacon to be operated by Department of Civil Aviation. The tower has since been removed.

After leaving the elevated roadway, visitors to T.P.N.R. have to walk through 800 metres of saltmarsh which at times can be inundated with either seawater or fresh depending on tide height and flooding from heavy rain. Water height rarely exceeds half a metre. Of the 12 species of saltmarsh flora to be observed, Glasswort (*Salicornia quinqueflora*) is the most abundant species.

The initial plant community encountered after leaving the saltmarsh is a Swamp Oak forest, with stands of tall *Casuarina glauca* being the most widely scattered plant community in T.P.N.R. Beyond the 'Sheoaks' is a Bangalay forest which takes its name from the common name for *Eucalyptus botryoides*, Bangalay trees are found unevenly distributed throughout the Reserve.

Littoral Rainforest Areas

The first of 5 pockets of littoral rainforest can be seen adjacent to the Bangalay forest. It contains several large Lilly Pilli (*Acmena smithii*) trees. A variety of birds including Rainbow lorikeet, Crimson rosella and Eastern rosella can be seen feeding on the purple berries during spring. The Lilly Pilli is a large spreading tree to 15 metres high.

The first of six permanent freshwater ponds in the Nature Reserve is to be found near the Lilly Pilli trees. Known as Weedy Pond it is completely covered by exotic Lantana (*Lantana camara*). It is doubtful whether any of the freshwater plant species have survived.

The forest close to the shoreline consists mainly of Teatree (*laptospermum laevigatum*) and Banksia integrifolia. Many exotic plant species are found in the dune forests (Dune Sclerophyl Forest) with Lantana rampant. The exotic Bitou bush (*Chrysanthemoides moniliferum*) also appears to be gaining a hold.

Excluding beach and mudflat areas the total area covered by plant communities on Towra Point is 492 hectares (Fox 1972). Over 200 species may be found in the land-based native plant community.

Fresh Water Wetlands

Freshwater wetlands cover only 2% of the Nature Reserve, however they add greatly to the habitat diversity. The most important pond is Mirrormere, about 100 square metres and about 0.5 metre deep on average. It greatly increases in volume and height during heavy rain periods. Around Mirrormere is a dense stand of Paperbark (*melaleuca ericifolia*). A stand of Sheoaks borders either end of the pond.

The largest pond, Towra Lagoon, contained freshwater until May 1974 when heavy waves overtopped the beach. This was caused when a combination of heavy ocean surges met with floodwaters from Georges River (dredging in Botany Bay has increased the wave height).

Beach Erosion

The beach has been in regression since the May '74 storm and has receded approximately 30 metres. Towra Lagoon has been brackish ever since.

Ramsar Agreement

A great variety of birds have been observed either feeding on insects or drinking and bathing in the freshwater wetlands. Many are ecologically dependant. Towra Point

habitat is one of only 3 sites in N.S.W. accorded special protection under the Convention On Wetlands Of International Importance (Especially As Waterfowl Habitat), which is commonly referred to as the Ramsar Agreement.

Mangroves

There are 400 hectares of mangroves around Towra. This is the largest mass stand in the Sydney region. It comprises the two species found south of Taree with Grey Mangrove (*Avicennia marina*) dominant. The other species RiverMangrove (*Aegiceras corniculatum*), is a dwarf form seldom reaching 2.5 metres in height, and is found in the low salinity areas.

Mangroves play an important role in the feed chain for estuarine animals. Dead loaves, bark and fruit that falls from the mangroves are colonised by microscopic fungi and bacteria after soluble nutrients are leached out. The resulting decomposed material (detritua) is eaten by small animals such as prawns, crabs and invertebrates. These are then in turn eaten by water birds.

One square kilometre of mangroves contributes about 600 tonnes of leaf litter each year to the detrital food chain. The mangrove forest floor also supports large numbers of animals (called benthic fauna): for example a survey at Towra Point showed that a square metre of sediment can contain up to 100 animals of 35 species. The most common are crabs and molluscs.

Mangrove stands could be classed as the Twilight Zone - the upper limit for crabs and other marine animals, the lower limit for lizards and snakes.

The only study on insects, spiders, reptiles and amphibians on Towra is by the Australian Littoral Society. In 1977 it recorded 163 species of insects and 37 species of spiders, considered to be an underestimate of the actual diversity. The Society also recorded eight species of reptiles and four species of amphibians. It had little doubt that with a more detailed study this list would increase. The list included the Eastern Longnecked Tortoise which is intolerant of saline conditions and apparently is endemic to the freshwater Mirrormere Pond. Eight reptile species were identified by the Society including 3 snake species namely the Red Bellied Black, Marsh and Small Eyed Snake.



Towra Lagoon, used by Captain James Cook in 1770 for freshwater is now saline through breaches of the shoreline.

To be continued in the next edition.

WILDLIFE ART EXHIBITION

A Great Success

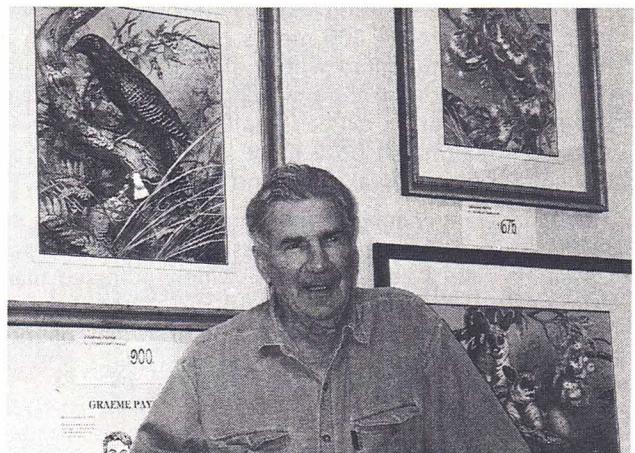
Our first wildlife Art Exhibition staged in association with Prouds Art Gallery, Sydney was judged to be an outstanding success by all those who attended the official opening on the last Thursday in February 1996.

Our President, Vincent Serventy, who is celebrating '50 years in Conservation' this year entertained the large crowd of art and wildlife lovers with interesting stories of his long involvement with art in all its forms. Vin talked about his experiences with the Australian aboriginal art in northern Australia, his own walkabout with artist John Olsen and other friends in the Kimberley Region in 1984 and the many publications and magazine articles he has written, all which involved a 'sense of art and wildlife'. He congratulated Cherry Jeanes, the Director of Prouds Art Gallery for the wonderful assistance that Prouds has given to the Society and we hope that we will be able to hold another exhibition next year.

We are very grateful to artists, Josephine-Ann Smith, Graeme Payne, Jenny Ephraim and Jim Tyrie for their wonderful contribution to the evening. Their artistic work with wildlife in its many forms was truly outstanding and colourful with many of Australia's icons prominently on display.

We were very grateful for the wonderful support from our members who came along to enjoy a drink, good company and a fine appreciation of the colourful world of wildlife art.

The Wildlife Art Exhibition will remain open until 26 March, 1996 and everyone is invited to visit the Gallery and hopefully purchase a painting for their home. The Society is fortunate in being offered a commission on each painting sold during the Exhibition.



Vincent Serventy officially opening the new Wildlife Art Exhibition at Prouds Art Gallery in the city.



Members of the executive with Vincent Serventy gathering for a drink at the Art Exhibition.



Vincent presenting an autographed book to the Gallery Director, Cherry Jeanes after the official launch.



Vincent Serventy with Patrick Medway, Chen Huai-zhi, consul (cultural) for the Republic of China and Sgt Geoffrey Little.

WORLD ENVIRONMENT DAY

by *Vincent Serventy*

The choice of mid-summer for this date was due to the egotism which divides the earth into North and South, with the South as poor relations. From the sophisticated rich north would come ideas to trickle 'downwards' into the 'impoverished' south.

Yet how did the first day develop?

We can claim priority. By a stroke of good fortune the Western Australian Education Department had not only given me the task of developing the Elementary Science Curriculum but also put me in charge of an advisory service to train teachers on how to handle this new scheme more effectively.

All around the world various 'Days' were celebrated. Arbor Day was the first in the United States while in Australia we had Bird Day in 1911 and Wattle Day in 1913.

As the West Australian 'supremo' I found that some of these days had fallen into disuse. Also it was a time of ferment in environmental concern with our state in the forefront of most other places in the world.

I wrote a letter to my Director on 10 August 1964. '...It occurred to me that possibly we should broaden the whole day into Conservation Day. Since conservation is one of the aims of the Elementary Science Curriculum...we would then be justified in asking every teacher, that on Conservation Day this aim should be stressed...By holding the Conservation Day in the springtime...the benefit of the time of the year putting



Lake Pedder was flooded due to State government lack of conservation interest. Recent studies have shown the wave formations on the beach are still undamaged. Should the lake be drained it could be restored with its old beauty and scientific interest.

both gardens and bush at their best all allowing for good weather for outdoor celebrations...if successful it could lead to other States following suit and possibly the idea spreading from Australia until it becomes an International Day...'

Prophetic words

In 1970 the day blossomed into a magnificent reality in the United States. With an American flair for words it was called Earth Day and some years later we followed suit. All chose springtime for this new bonding with nature.

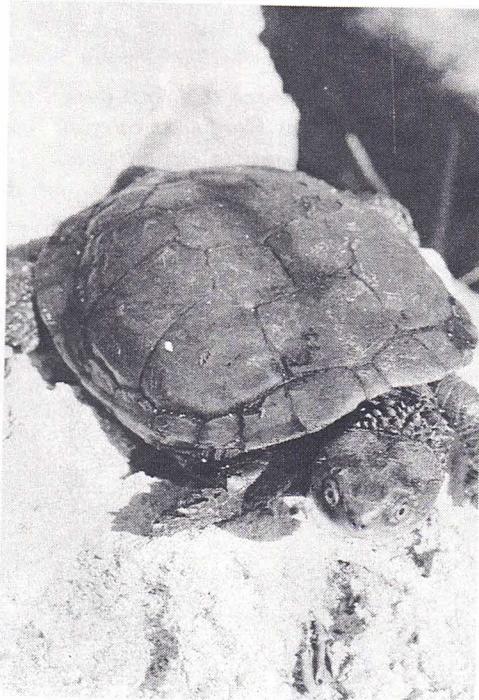
The famous anthropologist Margaret Mead wrote of this first Earth Day on March 20, 1970 'Earth Day is the first holy day which transcends all national borders...spans mountains and oceans and time belts yet brings people all over the world into one resonating accord...the selection of the vernal equinox makes planetary observance of a shared event possible.

Politicians move when they can sense votes to be won.

In June 1972, 113 nations met in Stockholm and this was a landmark in official environmental concern. Realising that celebrations were important, they used their public servant stolidity to change the name to 'World Environment Day'.

Forgetting the importance of a spring or autumn date, suited to every place in the world, they chose June 5, glorious midsummer in the north, sad midwinter in the south.

Perhaps in time the powers will come to realise that a new Earth Day can become a shared event of doing, as well as talking, celebrated in the open air.



The world's rarest reptile. This southwestern short-necked tortoise has been saved by a mixture of scientists, government help, funds from the general public and work by the World Wildlife Fund

AN IDEA WHOSE TIME HAS COME

by *Vincent Serventy*

When I first became involved in the organised conservation movement some fifty years ago I thought that to have five per cent of Australia conserved in national parks or similar reserves would be a worthy ideal.

The Australian Bureau of Statistics reported we had attained that goal by 1992, however long before then I had moved to a need for ten per cent of both land and sea to be protected by secure reserves. It was a new departure, as in my book on conservation *A Continent in Danger* published in 1965, I did not mention the need for marine parks. I was well aware of the dangers to marine life, but thought of the Great Barrier Reef and the coral islands of the Western Australian coast as being safe enough.

In the 1960s conservationists thought of forestry areas as de facto national parks as at that time clearfelling was only an idea in the minds of economists - single-tree culling was the rule. The rest of the forest was left to be a haven of wildlife, bushwalkers and naturalists.

In 1965 I moved from Perth to Sydney and became aware of dangers to Australian wildlife I had only glimpsed in the west, where we had a more forward-looking conservation movement. I then advanced the dream to ten per cent of Australian diversity to be protected in secure national parks and nature reserves.

Last year leading conservation groups were asking for fifteen per cent to be conserved.

Demands for such reserves must soon come to an end. People cannot live by parks alone. At a conference in the late 1960s I gave a paper on the need for Regional Parks, a new kind of reserve where people live and work.

The Director of the NSW National Park and Wildlife Service was in the audience and took me aside to urge a stay of interest. He was working hard to get that original five per cent and had an interested Minister so I remained silent for some years.

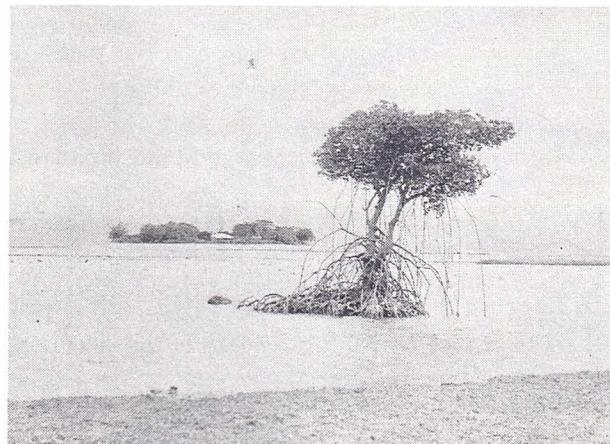
The time has now come to realise that need. We have made a welcome start. The Great Barrier Reef Marine Park is the world's largest Regional Park. South Australia has a Regional Park Act. Western Australia is speaking of a large wetland Regional Park on Perth's doorstep, or it was, until the environmental Goths won government.

South Australian and New South Wales conservationists are now speaking of the need to save Coopers Creek and the other rivers of our interior from degradation. That desert icon, Lake Eyre, has been set as a new World Heritage goal.

Developers, those corporations whose bellies are never full, in Judith Wright's telling phrase, are claiming we share their greed, as conservationists always expand their goals once each new demand has been met. The proposed desert reserve is one-sixth of the Australian mainland!



A regional park in the Lakes District in northern England. This circle of stones has religious significance.



Low Isles. This was the first detailed study on the Great Barrier Reef carried out by a British scientific expedition.



Thursday Islander using a throwing net to catch small fish at the island.

The Regional Park concept can meet all the demands of reasonable folk, isolating only the most greedy of the two groups. Although not often realised, listing on the National Estate does not mean an automatic claim the region should be a 'national park' or similar reserve. Its forgotten aim is only that it should be a protected area.

What is the key to a Regional Park? Basically it is a protected area, delivering a 'conservation umbrella' over a region which most agree is among our most valuable of resources. As with Sharks Bay World heritage area, and the Great Barrier Reef, all the present activities continue. Fishing, farming, mining, human settlements and ownership of land, indeed all the many facets where human occupation has made an interesting and attractive landscape, are unchanged.

Will it work? It has in Europe for more than a hundred years. The incorrectly named 'national parks' of England are famous. The regional parks of the Lakes District and Snowdonia include farms, mines and cities. They also include great walking country, grouse moors, heather-covered hills and other fragments of English natural beauty. The Regional Parks of Europe are even larger and just as diverse. Thirty-five countries, not all in Europe, now have Regional Parks. There is no change in terms of freehold title to land but any radical changes in use must be approved by the park management. Houses and other buildings must be built or restored in sympathy with the present environment. The garish advertising signs and tall ego monuments that disfigure so many of the world's cities are not allowed in Regional Parks.

Thirty years ago the American author, Louis Bromfield, wrote of his dream of a land '...where instead of a wasted and ruined countryside, crossed by polluted streams, devoid of wildlife and beauty, it is possible to make of the whole nation a vast and natural park...' In the midst of this people live and work.

His dream is a large one. I will be content with a Regional Park in central Australia to include Lake Eyre, others in the Derwent Valley in Tasmania, in the Hawkesbury region in New South Wales, the Mornington Peninsula in Victoria and the coastal strip from Cape Leeuwin to Cape Naturalist in Western Australia. For others, you can fill in your own favourite landscapes.

THE FIRST AUSTRALIANS

With 60,000 years of history why did the Australian Aborigines never evolve animals husbandry or agriculture.

The usual glib answer is that we have no plants or animals suitable for cultivation. First let us look at the rest of the world. Until 10,000 years ago the rest of humanity were also gatherer-hunters. I use that word rather than the common hunter-gatherers since the women provided most of the food by gathering while any meat caught by males was more a matter of a welcome bit of luck.

So it was not 60,000 but 10,000 years.

Certainly our Australian Aborigines were on the edge of discovering the secret. More than a hundred years ago explorer George Grey described seeing large areas of land which looked like a ploughed paddock just south of Geraldton in Western Australia. This soil had been cultivated with digging sticks by the women in search of native yams.

The distinguished anthropologists, Professor Ron and Doctor Catherine Berndt, described how in northern Australia they spoke to the native people who scoffed at planting yams in similar fashion to the people of the islands to the north.

'Why bother when nature provides us with so much.'

Or in other words the approximately 300,000 people of Australia, spread thinly over the continent, a nomadic group of hundreds of tribes, lived very well as gatherer-hunters.

Indeed that great explorer and navigator Captain James Cook was to write of them '...They may appear to some to be the most wretched People upon Earth; but in reality they are far more happier than we Europeans...'

Cook was commenting on Dampier's infamous description of the people of the northwest coast a hundred years before.

Anthropologist Rhys Jones wrote of how the Aborigines were on the verge of firestick farming using a native sorghum in northern Australia.

In other parts of the world the gatherer-hunters found they could increase their food supply by cultivating plants on the edges of rivers and freshwater lakes.

Together with the more abundant food came increased populations and specialised skills as well as the Four Horsemen of the Apocalypse. War caused by increasing populations obeying the Malthusian laws of fighting for survival and also that other penalty of living near water, pestilence.

As Professor Robert Desowitz wrote 'Many of our most serious and common infections are either waterborne or in some other way associated with water...'



Aboriginal man in the desert near Yuendumu in the Northern Territory.

Desowitz in his illuminating book 'New Guinea tapeworms and Jewish grandmothers' shows how many historians accounts of our past are deeply flawed because they take little or no account of the effects of disease on events of the time. They are dazzled by the stories of great men which make far more romantic reading.

To return to our Aborigines

They did change the face of Australia. Fire was a tool, used all over the world.

Indeed every early navigator used the sight of smoke as being evidence of humans. The early farmers of Europe, particularly in the Mediterranean region, cleared their forests by burning, even today the destruction of the rainforests in many of the Developing Nations is due to 'slash and burn', the time honoured method of primitive agriculture.

Aboriginal Australia like aboriginal America had very similar fire regimes, according to Stephen Pyne in his classic work 'Burning Bush', a fire history of Australia as well as a fire history of the whole earth.

So in Australia fire not only opened the country to change forests into more open woodland, it also allowed kangaroos a 'green pick' making them easier to hunt. What the later white invaders were to call 'natural' was an Aboriginal artifact, a way of life which Europeans are only painfully beginning to learn as we try to save our endangered animals by using the old ways of burning the country.

So the Aborigines were the lucky Australians. There was no population pressure to cause wars. Their time was spent in a leisurely way of life, gaining enough food for their daily needs. As few skilled individuals earned a little extra food by excelling in painting or making stone spear heads but for all there was the need to gather food.

They could see no point in working for the invaders, until a hundred years of occupation had seen the prime country taken. Starvation forced them to become labourers as well as skilled stockmen on whom outback stations depended.

The Stockman's Hall of Fame has only recently begun to honour these men as well as the women. Aboriginal and

White who were essential to the survival of these rare pioneers.

This truth was made known by Katherine Prichard in her novel 'Coonardoo' while a popular song of today 'Drover's Boy' brings the poignant message home to more of us.

Yet it was this which made so many visitors and settlers make mistakes about the first Australians. Too many Europeans mistook buildings as equalising civilisation. A

popular television programme of a few years ago on this topic ignored all oral cultures. If they did not build they did not exist.

Yet our own Aborigines had a wealth of literature which staggers modern imagination. Professor Ted Strehlow told me how a desert elder knew 500 songs which would take weeks to recite. Elders also had a religious enthusiasm which few modern Australians could equal. So the following message from the Berndt's in their classic work 'The World of the first Australians' has a message for us today... 'The wealth of Aboriginal traditional culture can contribute to the general development of what is sometimes called, vaguely, the Australian way of life. Firstly we Australians should know what we are supplanting...'

Take for example their translation of a song of the Mudbara tribe of the

Northern Territory. '...Day breaks, the first rays of the rising Sun, stretching her arms

Day breaks as the sun rises to her feet

Sun rising scattering the darkness, lighting the land...'

Or this description by Strehlow of a scene in the Simpson Desert. It tells the story of two men standing on a sandridge. For the European it would be nothing but a sea of sand. For the Aboriginal elder '...he would have caught sight of the great Amewara Tnatana totem pole brought from Port Augusta, towering against the western horizon, the flames of its plumed crest top shooting skyward at night towards the desert bright stars.'

It is stories such as those which have lifted my own understanding and appreciation of the Australian bush and the first Australians.



Rock peckings of fish in Kur-ing-gai National Park.
Such drawings were used for increase rituals to replenish food by religious means



Aboriginal orchestra at Bamyili in the Northern Territory.
Didgeridoos and clapping stick provided the music for a corroboree to show how tobacco came into the tribal life.

THE AMERICANS DO IT AGAIN

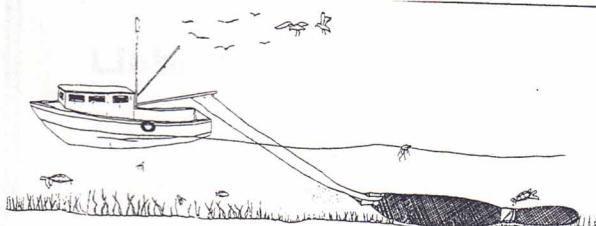
Seventy years ago the United States saved our koalas by placing a ban on imported skins. Now they are placing a ban not only on Australia but another 51 nations which do not have turtle excluders on their prawning nets.

Some years ago our Society recommended to the government that this should be done. We include a sketch to show how it works when the airbreathing reptiles go in with the crustaceans but have an escape hatch before the holding bag traps all the other animals.

The cost of the device. Sixty five dollars to four hundred dollars. A small price to pay for our wildlife safety.

Although only about a million dollars of Australian prawns are exported to the United States the over production in the rest of the world will cause dumping on other markets. With Labor's love of a freely open market for all imports this could have been disastrous for the industry. Perhaps the Coalition may show more sense.

Perhaps.



TED-equipped shrimp trawl allows turtles, fin-fish and other bycatch to safely escape.

THE WORLD'S RAREST REPTILE

This western short-necked swamp tortoise was an inhabitant of the Swan coastal plain, thriving in pools which filled in winter and dried out in summer. Clearing of the bush for farms destroyed most of these swamps. The only tortoises surviving today live in a small area near Bullsbrook, north of Perth. It is estimated that the total population is less than a hundred, making it one of the world's rarest reptiles.



DREDGING

Our Society has a clear policy. Dredging the oceans is like clearfelling the forests. The result is change to both seafloor and forest.

Recently in the news has been a cry of alarm from Botany Bay. Fisher men have found their industry being destroyed, not only by works associated with enlarging Mascot airport by dredging.

Towra Point wetlands which are proudly listed on the Australian Ramsar list are also in a degraded and disgusting state. At Brisbane all the governmental groups will have a cheerful get together and assure us that everything in the garden is lovely.

Our Society with others will try to have our voice heard, if not in the conference, then in the media.

HERE WE GO AGAIN

In those euphoric sixties Paul Ehrlich and the Club of Rome among other experts claimed that within a decade oil would run out. Time proved both to be false prophets and while once Paul could fill the Town Hall with enthusiastic supporters now he has to be satisfied with smaller meeting places.

And who now needs the Club of Rome?

Now a new report by Petroconsultants, a prestigious group which charges \$42,470 for the full report. I wonder if they have tested to see what oil is available if the price rises high enough. Two sources are oil shales and conversion of coal, of which the world has huge supplies.

No, we all know that when anything costs more the search becomes keener.

What we must do is attack car use as an evil for cities but ideal for leisure activities. Decentralisation is the key. Cities of half a million should be planned for our future, to drain populations from cities which grow like cancers. In Australia most of these will need to be along the ocean shorelines but in other countries, with not so hot climates they can spread more evenly.

Yet even in Australia we have Canberra as one example of a thriving inland city. Broken Hill and Mount Isa are smaller examples but even along the seashore there is space enough to satisfy our needs, at least for the next century.

By that time world populations will stabilise and we will work towards greater quality of life, rather than quantity of possessions.

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDING 31ST DECEMBER 1995.

Income:

Subscriptions	\$2885.00
Donations	6125.00
Interest	21,603.09
	30,613.09

Less Disbursements:

Affiliation fees	520.00
Appeals	329.00
Advertising	244.00
Bank charges	185.71
Depreciation	10.00
Donations issued	100.00
Insurance P. Risk	334.50
Meeting expenses	749.30
Newsletter	2747.43
Postage	848.64
Printing & Stationery	291.35
Office expenses	1375.00
Sundry Expenses - fees	30.00
Telephones	94.93
Travel	2.00
	7861.86
Income over expenditure:	\$22,751.23



BALANCE SHEET **FOR THE YEAR ENDING 31ST DECEMBER 1995.**

Assets:

Investments	\$340,000.00
Commonwealth Bank, Sydney	7,182.70
St. George Bank, Kogarah	23,079.48
Furniture and equipment	1537.00
Less depreciation	1513.00
	24.00
	\$370,286.18

Liabilities

Profit & Loss Appreciation a/c.	\$346,713.00
Add Surplus for 1995	22,751.23
	369,464.23
Sundry Creditors	706.95
Subscription paid in advance	115.00
	\$370,286.18

Auditor's Report:

I hereby certify that I have audited the financial records of the Wildlife Preservation Society of Australia Inc. for the year ended 31st December 1995 in accordance with Australian Auditing Standards.

In my opinion the Income and Expenditure Account and the Balance Sheet are properly drawn up so as to give a true and correct view of the affairs of the Society.

J.G. Somerville MSA
Member Australian Society CPA's
10th February 1996

1996 NATIONAL PARKS ASSOCIATION LECTURE SERIES

All members of our Society are invited to attend

URBAN WILDLIFE

in the greater Sydney region



The 1996 Lecture Series will appeal to all those fascinated by the nature and variety of Australian fauna, and more particularly, what occurs in the Sydney region. The theme will be recognising, protecting and enhancing wildlife habitat in urban bushland. Topics will be presented by people highly regarded in their field. This is an opportunity not to be missed.

Time: 7.00pm
Place: Hallstrom Theatre,
Australian Museum
(William St entrance)
Cost: \$7; \$5 concession
\$56 series; \$40 concession

Forward cheques made payable to the Sydney Branch of the National Parks Association to PO Box A81, Sydney South 2000. Enquiries: Claire Carlton 560 4553.

Monday 11 March

Flying foxes

Nancy Pallin,
Ku-ring-gai Bat Colony Committee
Flying foxes will be presented to the Audience as a feature of the talk.

Monday 15 April

Platypus

Tom Grant, author of *Platypus*,
UNSW Press
Are there any platypus in the Sydney Region?

Monday 13 May

Birds

Alan Morris,
National Parks and Wildlife Service
Monday 17 June

Reptiles

Garry Swan, Herpetologist
Common and rare reptiles

Monday 8 July

Frogs

Ken Griffiths, Herpetologist
Where are those frogs hiding?

Monday 12 August

Mammals of the Hawkesbury

Sandstone region
Geoff Ross,
National Parks and Wildlife Service

Monday 9 September

Fresh-water fish

Tom Trinski, Australian Museum

Monday 14 October

Sydney mammals in close-up

Linda Gibson, Australian Museum

Monday 11 November

Flora and fauna

Tim Flannery, Australian Museum

EUROPE'S FORESTS

A recent Naturopa newsletter tells the sad story of their forests. 26.4% of all their trees are now damaged. This is up from 22.96% in 1993. Deciduous trees are a little better off than conifers.

The main causes are unfavourable climatic conditions, in particular drought and heat, infestation by insects and fungi, forest fires and atmospheric pollution.

New national parks

Italy now has 16 national parks covering a total area of 536,000 hectares. Five of these are new, created as part of the European Conservation Year in 1995.

An idea for us?

European Youth Parliament

150,000 pupils from nine countries came to Strasbourg for the first European Youth Parliament for the Environment on 9-10 October 1995.

Perhaps we could try for something similar inviting young folk from nearby countries. We might not get 150,000 but even a few thousand would be a start.

All we need is money. Any sponsors?

WHALE WATCHING

Jennifer Connell reported in the Sydney Morning Herald that around the world in 1994 there were 5.4 million watchers. She estimates that would be worth \$700 million on tourism.

My own guess it would be \$5.4 billion judging by the costs of watching in the countries I have visited.

A hundred years ago whales were regarded as among the ugly creatures, judging by Bernard Shaw's comments in his book "The Black Girl in Search of God".

What a turn around. Perhaps we can do the same for more important conservation projects, at present unpopular, like land degradation, pollution of the seas and a few hundred other major needs.



Humpback whale off the coast near Sharks Bay.

THE WIDE WORLD OF NATURE

by Vincent Serventy

My childhood years were spent on a lonely farm at Bickley on the edge of the Darling Scarp. The natural world around me seemed immense. We caught jilgies in the creek, ran like brumbies across hills covered with pink everlasting and listened for the call of the pallid cuckoo, a winter signal for us rather than the summer one of the English cuckoo.

The family then moved to Subiaco on the edge of the bushland of Kings Park. This park became our playground and the Swan River our swimming pool. It was all still a natural wonderland which seemed likely to last forever.

University days brought new knowledge of problems. We formed the Gould League of Birdlovers to encourage our own love and concern for birdlife. I joined the Naturalists' Club and the Wildlife Preservation Society of Australia Inc. Soon we became involved in conservation battles, first to save Kings Park from unwise development. We won that struggle, but went down to defeat when Perth's Reflection Pool disappeared under car parks and roads.

In 1962, in England, I visited Wicken Fen, a wetland saved by the English National Trust and now a magic place, the last remnant of the magnificent fens that once sheltered Hereward the Wake in his gallant fight against the Norman invaders. It reminded me of the fen of Herdsman's Lake back home. I also met Sir Peter Scott who told me of a new organisation, the World Wildlife Fund, started by a business man who felt the rich and influential should use their power to save the world's wildlife. Peter enthused me with the dream of starting an Australian section.

Back home once more I helped start the WA. Tree Society, then the WA. National Trust, encouraged the Gould League to change its aims to include the study of all wildlife, started the world's first Conservation Day which became Earth Day, and began tentative steps to form a WWF branch.

Ambition to play a larger part in nature conservation brought me to Sydney. I was soon busy making television films, writing books, editing a wildlife magazine, and taking over the presidency of the Wildlife Preservation Society of Australia, a position I still hold.

Yet the home tug remained. Dryandra forest was under threat from a bauxite mining lease. I loved Dryandra, had spent many weekends camping in this woodland, and written a book about this forest. In the fight against the miners the Opposition quoted sections from it to influence the government to change its mind.

I sent a copy to Rupert Murdoch who was the managing director of the company that held the lease. I included a message that to destroy this forest would be sacrilege. He agreed and wrote to the State government, handing back the contract on the right to mine. Dryandra is still a reserve today.



Numbat at Dryandra.
These attractive marsupials have their
stronghold at this forest reserve.

I was to return to WA. to help in the fight to save some of the jarrah forests. These were the bad old days when governments had little concern for care of the environment, and concern only for the developers.

In 1964 at a meeting at Kirribilli House I shared a breakfast talk with Malcolm Fraser. After we discussed conservation problems and his plans for Australia, I rose to go. A last thought prompted me to say 'What about the World Wildlife Fund?' He amazed and delighted me by replying. 'Yes. Isn't it time we got it started? What do you want me to do?' So I sat down again and that was how WWF Australia was born...

By this time I knew that we must make a sustainable world. My old adversaries were not evil, only ignorant. All of us, developers, farmers, timber millers, miners, city folk and fishermen, wanted a sustainable world where we could not only keep our quality of living but at times, restore some of the old beauty which we had lost.

WWF played its part. The southwest short-necked tortoise which had been rediscovered by science when a boy brought me a specimen to a Wildlife Show many years before, was saved by governments, scientists, the public and the World Wildlife Fund working as friendly associates.

Herdsman's Lake was saved from destruction, with WWF funding providing the present magnificent education centre on the site.

These are only a few of the battles we have together won in this State. There are larger, more complicated and more difficult struggles ahead. They will cost a great deal of money. Yet they are the most important battles we face. We must win, if not only Western Australia but Australia and the earth is to survive.

Will you play a part in this contest? For truly we are the trustees for the future.

IT'S TIME FOR ACTION ON DOMESTIC CAT CONTROL

by Vincent Serventy

Cats as household pets have a bad press lately. Conservationists tend to regard them as more pest than pets.

Fortunately we now know most of the facts, and also the solutions, as these have been tried and they work.

Some of the facts available by Petcare from questionnaire research and telephone interviews provided much valuable information. I do not automatically discard such material so long as the results agree with research from the opposing groups.

The feral problem has very little to do with domestic cats. Folklore claims that the feral population is gaining constant recruits from the domestic stock.

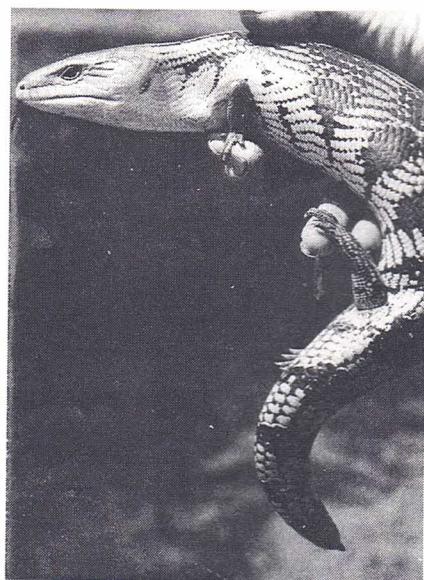
The usual plaint is that if only kindhearted people would stop discarding unwanted kittens in the bush, rather than drowning them in a bucket, the feral problem would soon go.

I have always thought that belief is nonsense. We do know that spreading domestic stock into the wild is not always easy. We do know that feral cats are a menace to our wildlife, but not the prime cause of their disappearance.

The top danger to native wildlife is the introduced European fox. Then comes dieback which threatens our plant life survival. Next comes feral cats, followed by land degradation caused by rabbits with feral goats last of all.

Other problem animals and plants are causing disaster in particular areas.

There is no question that pets are of value to the humans in terms of emotional health as well as of economic value by destroying rats and mice.



The common blue tongue lizard is a victim of cat attacks, especially when young.

There are almost one million households in Australia which keep domestic cats, about one quarter of all homes. This represents a number of voters which governments cannot ignore.

This gives an estimate of 1,397,000 animals with some homes having more than one with a few going overboard in their love of felines, so causing troubles for neighbours and local councils.

There has been a steady decline in the numbers of cat owning households in the last few years, with a ten percent drop in metropolitan centres, so possibly the conservation message is taking hold.

The petcare research group found that every year each domestic cat caught one fiftieth of a native mammal, one-fifth of a native bird, one and a third native reptiles or amphibians. On the credit side, half of all creatures caught were mice, rats and rabbits.

However one fifth of 1,397,000 deaths is still a lot of birds and enough to remove most of the smaller ground feeding creatures such as blue wrens and thornbills entirely from urban areas as many home owners can testify. The belief that putting an alarm bell on a cat to safeguard birds, did not work. Indeed the reverse seems to be true.

The other factors reported were that forty percent of cats were kept indoors at night while eighty percent did not roam during the day. Perhaps, that explains the low numbers of victims since owners who claimed their pets never roamed would report no wildlife taken.

This kind of personal reporting has some value but not as useful as actual collecting of the bodies of victims.

A much more reliable personal report came from an officer of the NSW National Parks and Wildlife Service. He kept a record of all the animals brought to the house over a seven year period. He lived at Wahroonga, a bushland suburb of Sydney.

The total is frightening, even though this was a much loved and well fed pet.

Of the sixty one animals caught, only five rats and one mouse were taken. The rest included bats, birds of many species ranging from those as large as mudlarks and red

wattlebirds, to small species such as spinebills, honeyeaters. There were many reptiles including bluetongue skinks.

This leaves eight creatures each year, a much higher than the previous ones, though only from one reporter. Yet these animals identified take no account of the smaller victims eaten on the spot and not brought home.

What is the Solution?

The Wildlife Preservation Society of Australia, our oldest conservation group having been founded back in 1909 organised a 'Seminar on Cats', calling in experts from around Australia. From this meeting the following policy was developed.

Only registered breeders should be allowed to sell cats and these to be vaccinated before sale. Ideally they should be desexed.

All cats to be registered, as is compulsory with dogs. Finally there should be a curfew from dusk to dawn, with cats in secure places. (This should also apply to dogs since they are the main killers of large animals such as koalas). There should be limits on the numbers of cats any person can keep as is done with dogs.

These regulations to apply only to urban areas, not for farmers who have special problems.

Local councils have the power to bring in such controls and an increasing number are doing so. My own Gosford City Council carried out a referendum of all ratepayers and found that an overwhelming majority did want controls on cats.

However when I asked in July of 1994 what action they intended taking, they replied they were waiting for promised State legislation. 'In summary Council's approach to cat control measures will be dictated to a high degree by the scope of legislation when enacted by the New South Wales State Parliament'.

Since then there has been a change of government but still no action.

It's time Mr Carr. Majority opinion backs such regulations so why not begin their drafting?



Red wattle bird feeding on nectar



Willy wagtail on nest

EARTH 2000

This is the title of a supplement each week for the West Australian. It has kept the same high quality for a number of years. I tried to get a Sydney paper to copy the idea but they were not interested which is a great pity. We need a mass circulation paper such as the Telegraph, or the Sydney Morning Herald in NSW to spread the word. Similarly the Age in Victoria, the Mercury in Hobart and the Examiner in Queensland could do the same.

Our members in those States might use their influence to bring about the happy result.

One recent issue had a review of an article by Christine Sharp who has written a paper titled 'Using the Forests.' She thinks that many conservation groups have been wrongheaded in the past. It is possible to both save the mature old growth forests and also keep logging.

The arguments she puts forward will not be new to Wildlife Preservation Society members. We have been saying the same kinds of things for many years.

She wants a 66 percent reduction in jarrah logging and an 80 percent cut in karri logging.

However we do not have her full paper so possibly that may spell out more than such a blunt statement.

Our Society calls for the ban on all clearfelling in all native forests. In mature age forests which are in such short supply these should be converted into national parks. The previously clearfelled native forests should revert back to the old ways of selective logging where only the trees suitable for general timber use would be felled.

Woodchipping is not an evil. It is the sensible way of using excess material which in earlier times was burned. In the case of plantations clearfelling is sensible and the trees could either be used for ordinary timber needs or for woodchips. Just as a wheat crop can be used directly for food for humans or for feeding to stock.

A drive towards agroforestry could see a huge expansion of forest products as we now have the technology to send machines into farm paddocks and harvest lines of trees planted for that purpose as commercial timber.

Where trees are planted to counter salination or erosion these should be left to carry on the task but there is no reason why forests planted as windbreaks could not be harvested on a sustainable scale. Just as those planted many years ago as school forests should not also be harvested instead of dying of old age or burned in wildfires.

The same supplement told the story of Tom and Joy Muir of Manjimup who planted trees to stop salting and erosion but hopes in time they will be able to graze feeding animals.

So it is happening as more and more farmers take the commonsense way of the future.

PEREGRINES AND PIGEONS

Bird fancier who breed and race pigeons hate birds of prey of all kinds and particularly that prince of killers, the peregrine falcon.

So the protection given to all our birds of prey irks them. Yet a little consideration would show that when hundreds of birds are let loose on homing flights the hunters would take only a few at most.

With abundant pigeons on the edges of cities a bird of prey would concentrate on fat and lazy birds, rather than sleek, keen racers.

Now there has come research on what causes the most deaths among racing pigeons. It was published in a recent edition of New Scientist.

A study found that birds were weakened by stress during transport to where the race starts and being weakened many die on the way home.

The numbers used are huge. Around twelve million birds are transported around Belgium and the Netherlands each year. Overheating in their cramped cages as well as lack of water causing dehydration is the major danger to the birds.

So if the owners could improve the transport methods fewer birds would die.

Perhaps Australian pigeon fanciers might take note of this research and if necessary, change their methods.

PARKS ARE VALUABLE

Every conservation minded person knows the value of parks; to save biodiversity which means our myriads of plants and animals; to provide greenhouse protection since it locks a great deal of carbon dioxide for all time; to provide recreation for the many.

That is enough for most of us. However for the few who measure everything in terms of money here is another shot in the conservation armoury.

A study by Dr Powell of the University of New England has shown that the Dorrigo National Park provides four million dollars each year to the local economy. Part comes from the 160,000 visitors each year while 71 jobs are also created.

Keep those figures in mind the next time a politician or local farmer claims national parks are only places to breed 'vermin.'

DEATH ON THE ROADS

by Vincent Serventy

In 1996 the world is celebrating the hundred year anniversary of the invention of the motor car. At Coventry Cathedral in England the occasion ended in chaos, first when an 1897 Daimler was driven down the aisle, elegant but suffocating with exhaust fumes, then later a modern naked Lady Godiva shouted 'The car is a killing machine. You are killing each other and you are killing the next generation.'

Like all modern day Luddites this outburst serves no lasting purpose. Banning new inventions is no solution. We must learn how to control the new and this is particularly important with the motor car and its offshoots.

While we as a Society are concerned at the human carnage, our major task is to lessen the deaths of wildlife on our roads. Overseas reports indicate a million animals are killed each day on roads in the United States. Germany reports 250,000 collisions between cars and wildlife. An Australian scientist, W Vestjens of the CSIRO, studied a 310 kilometre stretch of a country road for a period of two years. He counted 1775 dead animals. The list included 1095 birds, 485 mammals, 82 reptiles and 13 frogs. He made no count of insects because their numbers could have been astronomical in certain seasons.

Over the whole of Australia's roads this would amount to some 50,000 larger animals every year which would seem we are more caring drivers. However it is more likely we have lower numbers of wildlife than Europe and the United States.

The most recent account published in the *New Scientist* of 17 October 1992, indicated that at least ten million animals, including some endangered species, are killed each year in Spain. This study was carried out by CODA, a group of 200 environmental organisations. One comment was that though many of the animals were killed by careless drivers, some were deliberately run down.

WIRES sent me details for Australia of animals brought into their care. From 1 July to 30 June 1992 in the Sydney area, of the 7517 animals received, 480 were car victims. Other figures showed that 7.8% of all animals taken into care were car casualties.

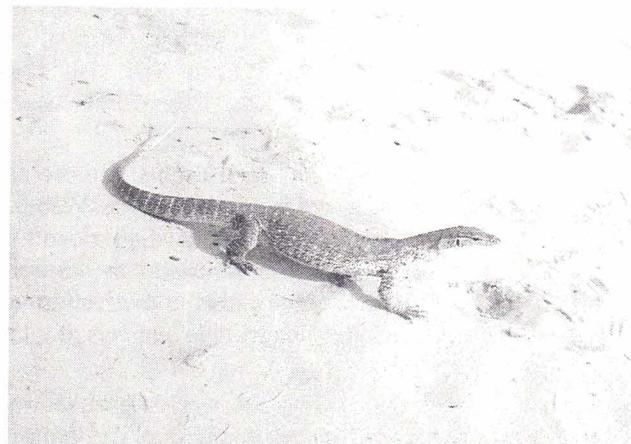
The NRMA sent me some statistics in January 1996. Claims involving animals averaged about one percent of all collisions. Their insurance pays in excess of three million dollars annually for claims involving animals, with kangaroos and wallabies being about one third of the causes of collisions. Since NRMA is a NSW company, over the whole of Australia the total costs would be higher.

There are solutions, a few expensive, most small, compared to the costs in property damage and suffering of humans and wildlife concerned.

The NRMA research indicates that most accidents take place during the hours of darkness or reduced light so the most important risk prevention is during those times.



Shingle back lizards, these skink lizards often bask on roads to warm up for feeding activity. It is then they are often killed by cars.



Ground goanna, these reptiles are scavengers which while feeding on road casualties become victims in turn.



Wombats, those close relatives of koalas are often road victims during the hours of darkness.

What are the solutions the Wildlife Preservation Society of Australia suggests?

One method is simple. All drivers are aware of 'cat's eyes' which mark out road divisions, warning curves, obstacles of all kinds. The name comes from the fact that night hunters often have a reflecting layer on the back of their eyes. So all animals are well aware of this 'eye shine'.

Instead of having only cat's eyes which reflect headlights back along the road, it is simple to have extra signs which reflect the light out at right angles to the road direction. Animals of all kinds waiting to cross will hesitate until all is dark once more, then cross in safety.

Such angled reflectors warning wildlife of danger, are used in many places in Europe and found to be very effective in preventing accidents with large animals such as the deer. The NRMA letter indicates these have been tried in NSW with 'positive' results though they do not appear to work with koalas, one of our vulnerable species which suffers a heavy toll from cars.

My guess is they are placed too high and perhaps we need two angled cat's eyes, one at kangaroo height, the other aimed at koala level which will also save bandicoots, wombats and all the rest of our wildlife which moves close to ground level.

Underpasses on roads have been tried but these are costly and I have not heard of their effectiveness. Warning signs on roadsides are common yet I have my doubts of how much they help. Fencing of various kinds has been tried though the 'floppy top' type is the most effective, though except in regions of high wildlife numbers, it is too costly for widespread use.

To save scavengers such as crows, eagles, goannas and other creatures, caring drivers might stop and remove animal carcasses to the roadside where such animals can feed in safety.

Food spills such as grain being taken to storage is often the cause of heavy toll on members of the parrot family. In mallee country as many as 150 rare and beautiful regent parrots have been found killed on the roadside near such spills.

Clearing roadside vegetation to give a clearer view is environmentally dangerous since such places serve as corridors so wildlife can move from one area of bushland to another. Indeed a major road can act as a barrier to all wildlife splitting big patches of bushland into smaller 'islands'. Ecologists know that the wildlife of such islands is much more vulnerable to extinction. so corridors can be wildlife lines.

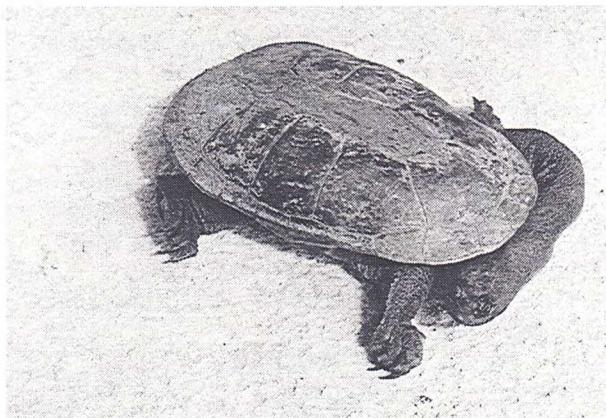
We need more research by naturalist volunteers to study road kills so with greater knowledge will come greater safety for our native animals.

Until then we can only take some comfort from the words of the late Professor Jock Marshall, a devoted worker for conservation during his life.

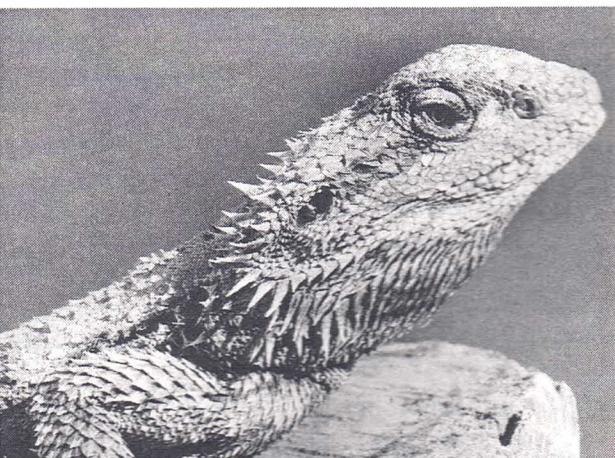
'Vin' he said. 'I like to see rare animals dead on the road. It means they aren't rare at all but more common than we thought!'



Red kangaroo at full speed, often kangaroos come to the edge of country roads to feed on the 'green pick' the fresh grass which springs up after rain, many fall victims to cars.



Long necked western swamp tortoise, around some lake edges female tortoises are killed on roads when coming out of the water to lay eggs in nests along roadsides.



Bearded dragon lizards, these are very common lizards around Lake Eyre. Here they feed on insects and spiders which occur in huge swarms when the lake is full.

SNAKE BITE

Deaths from snakebite have doubled in the last few years. Add to this injuries from funnel web and other spiders, bulldog ants and other species, bee stings, wasp stings, tick bites, Portuguese man-of-war stings, box jellyfish, blue-ringed octopus and the many other natural dangers it would seem to most people that the cost of running a venom research unit at Melbourne University is money well spent.

Not to the bureaucrats of Canberra. They can happily spend a billion or so on a new Parliament House, almost hidden underground, hundreds of thousands for a new Foreign Office block, so elaborate it has been christened The Taj Gareth Evans and all the other monuments to federal politicians who often forget they are in our capital city to serve the people, not glorify themselves and at the same time live in surroundings of lavish comfort.

There is not enough money to provide the pittance needed for the Venom Research Unit and it may close early next year because of the refusal of federal funding.

MAGPIE ATTACKS

Recently there has been the case of a woman suing the Hornsby Council for a quarter of a million because of an eye injury received from a magpie attack.

While feeling sorry for the person should the claim succeed the problem for conservationists will become multiplied. Any bushland place will become a cost to local councillors and they will be forced to turn every open area into a concrete graveyard.

The claim is there were no warning signs in the park about magpie nests in trees nearby, though this is disputed by Council. There would need to be hundreds of signs in every public place on that basis as our paragraph on snakebite indicates.

Hopefully commonsense will prevail.

WATER

Our Society has always tried to get governments to see sense about water. After all we live on the driest of inhabited continents, only Antarctica being worse off.

Now the Australian Institute of Engineers has joined us in this plea. Queensland has set up a wide ranging committee to look at the problem and ways of combating it.

The first suggestion is more use of grey water. Our Society for thirty years has tried to draw attention to this great error, using precious freshwater to carry wastes to the sea.

Also community awareness can help save water as was shown in Sydney recently. Most of us will take care if we can see the need and saving water is one of our greatest of all needs for a sustainable future.

EVEN THE MIGHTY MAY FALL

The great whales feeding on krill may suffer from marine pollution with pesticides. Krill, though small, are at the end of their food chain so store such poisons. Whales feeding on tonnes of krill every day also store the material in their blubber to be used in lean times.

When they fast for five months during breeding these reserves are used and it could then be dangerous. Since such creatures poisoned by pesticides die far out at sea we will never know until diminishing numbers tell us the sad story.

NCC SEMINAR

Vincent Serventy

When I was in the desert 40 years ago with a hunting group we dug out a nest of honeypot ants. All feasted on the fat abdomens of the ants, filled with delicious honeydew.

During our return to camp the men stopped under a mulga, sat and began to chant. When they were finished I asked the purpose of the song.

'It's the yarrumpa song to make sure there will be more ants in the years to come.'

Their Dreamtime religion demanded that nature be respected and recreated. Or in other words, sustainable.

The United Nations World Charter for Nature echoes these words: 'Nature shall be respected and its essential processes shall not be impaired'.

More recently, the World Conservation Union has urged all people to live in harmony within nature. Not with nature but within it, accepting Darwin's revelation that we are part of the natural world, not a life form above it.

The World Conservation Strategy demanded only that we use species and ecosystems wisely, sustainably.

Until 10,000 years ago the whole of nature was available to the hunter-gatherers. Humans lived in a kind of golden age. Captain James Cook wrote that the Australian Aborigines were the most fortunate of all peoples he had met.

Inevitably, with the rise of agriculture, populations grew. Malthusian territorial disputes led to war. We saw that in Australia the further north we looked, tribes battled more fiercely. In New Guinea each valley had its own group, hating all others. Australia, which never embraced agriculture when nature provided so abundantly, was not bedevilled by too many folk. Its about 300,000 people were thinly spread, and they lived in reasonable peace.

We cannot return to that golden age, even though some deep ecologists urge we should. We will never all become vegetarians though it might make us healthier. All we can demand is that in caring for our plants and animals we must show humanity; and this concern is growing stronger. Make no mistake.

This seminar is crucial. From the policy which emerges, the NSW Nature Conservation Council will decide whether to join the emotional hot heads, or become part of a reasonable, sustainable world.

A NEW WORRY

For many conservationists the term 'acid soil' is new. Yet it is a grave danger facing much of our most fertile farmland. Soil acidity is a normal activity facing all kinds of farming. Every plant to keep its internal structure in balance excretes acids. If the crop is then removed for sale or by grazing stock the soil slowly becomes more and more acid.

Fortunately this can be balanced by adding lime to the soil which neutralises the acid. That can be costly though fortunately for our future we do have huge deposits of lime in Australia, though unfortunately, often at some distance. "It was the attempt by cane farmers to get lime cheaply from the 'dead' Ellison Reef which was the first battle to save the Great Barrier Reef which we won. Scientists were able to show that no reef is dead. It is always packed with life, usually of a kind not obvious to a layman.

Estimates place 35 million hectares as being highly acidic with another 55 million slightly acidic, according to Julian Cribb, the science reporter for The Australian.

Farmers do apply lime but usually not enough because of the high costs and low incomes due to the drought.

Our soil can be a wasting asset and farmers must be assisted to prevent 'mining' our land. For in the long run without competent farmers Australia will be in a bad way.

WE ARE SLOW LEARNERS

We are slow learners but fortunately we do learn. Some time ago a news item described how a new kind of supermarket trolley had been invented in Canada and after suitable modifications for Australian conditions would be used here.

The mind boggles at why cars, computers, washing machines etc can be bought unmodified and used in our country while a simple machine like a trolley must be 'modified'. No doubt it creates work.

Now a news item revealed that after careful scientific study we can use sewage sludge to grow fruit, vegetables, cereals and meat. Of course everywhere else farmers have been using sewage direct on their land for thousands of years. One third of all the produce eaten in Paris restaurants is grown on sludge. At Werribee for more than eighty years the government has been using sludge to grow pasture.

At least NSW has caught up with the rest of Australia. In 1988-89 we were dumping all that sludge into the sea, no doubt helping to grow more fish and other marine life. Eight percent was burned. Today we are using 83 percent in agriculture with the rest ending as landfill. Soon we will be using 90 percent in agriculture.

Not only farms benefit. So do trees. Ten percent of our forests are using it. Many years ago we described how Brazil is using a forest redgum-Timor gum hybrid to produce timber faster than the best rates obtained by imported pines in plantations.

Soon all our scarce mature age forests can be preserved with all our wood and paper needs produced from such plantations.

SAVING THE MURRAY-DARLING

Our greatest river system is slowly being given a new lease of life. More than twenty years ago we described the need for care for this most valuable of our lands, producing more than ten billion dollars of farm products each year.

However the toll taken by dams and private irrigators was turning the once mighty floods into trickles. Nutrients from farming were causing algal blooms. Introduced pest fish have replaced 85 percent of our natives and many streams are paved not with gold but with goldfish.

Now this river system has one controller and this year the Commission have said enough is enough. Until further research is done a moratorium has been placed on any more irrigation water being taken. Over the last six years the take has been increased by eight percent.

Perhaps we may even give back some of the water so a few wetlands may revive.

STOP PRESS EXECUTIVE OFFICER TO ATTEND RAMSAR CONVENTION

Arrangements have been made for the Executive Officer Patrick Medway to attend the 6th Meeting of the Conferences of the Contracting Parties in Brisbane comming on 19 March 1996.

This Convention on Wetlands of International Importance especially on Waterfowl Habitat is popularly known as RAMSAR after the small resort town in Iran where the first Conference was held in 1971.

A full report on this important International Conference will appear in the next edition.



Wildlife Preservation Society Executive Officer Patrick Medway with Senator Robert Hill, Federal Minister for the Environment and Dr. Peter Bridgewater, Director of Australian Nature Conservation Agency, Canberra at the RAMSAR Convention in Brisbane, Queensland.

NUMBAT TO BANDED ANTEATER

I can remember when the official name for the numbat was the banded anteater. We played our part in assisting Ludwig Glauert's idea that we should use euphonius Aboriginal names rather than cumbersome English constructs.

Banded anteater was even used on a stamp but who remembers it now. Fortunately with about 700 Aboriginal tribes there are enough known names to choose the most euphonius.

That is why we have not protested about bilby though in Western Australia it was widely known as the dalgyte. We have protested about brushtailed bettong for the boodie since this common name in the west is not only well known but the only place where they still live.



THE FORGOTTEN OCEAN by Vincent Serventy

'...if one is to believe the hype...the Indian Ocean region - will enter the mainstream of Australian business planning and political life...' wrote Stephen Mills in the Sydney Morning Herald of 23 June. He then went on to analyse the problems explaining why this interest will fail on economic grounds. He urges that we do need a regional building process.

There will be a meeting of seven Indian Ocean governments in Mauritius in March. Perhaps it would be well to build on what was started back in 1979. Then the aim was to take action on environmental conservation in this landlocked ocean. The Seychelles government initiated the idea, but unfortunately this country in the words of Mills, is one of a number of island minnows among a few giants. Some steps were taken with the Ocean becoming a sanctuary for whales followed by a suggestion it should be a place of peace by the then Indian Prime Minister, Indira Ghandi. A budding Conservation Alliance was formed in 1980 with the Seychelles taking the lead. It lacked the financial clout as well as being racked by political troubles so little more happened. The World Wide Fund for Nature pushed the proposal along and I managed to organise a meeting with

the Indian Prime Minister to discuss the possibility of this country taking a lead. Unfortunately she was murdered the day before our meeting was to take place.

Yet in 1985 there came a First Indian Ocean Maritime Affairs Conference held in Sri Lanka.

This was a promising start with 29 nations attending, including some like the United States which had interests in the ocean.

Since then all has been silence, at least in public. This new federal interest based on defence and economics is at least a start. However a conservation conference might well get off the ground with little controversy. After all everyone agrees care of the environment 'is a good thing'. There are enough problems to be solved. Saving the dugong and marine turtles would be high on the agenda. There is the need to share peacefully the economic wealth of this ocean.

Yet without co-operation little can be done. As the then president of the Seychelles said to me 'What's the point of our nation conserving turtles which later migrate to be captured in Indonesia'.

Stephen Mills mentioned there is to be a meeting of seven Indian Ocean governments, including Australia, to be held in Mauritius during March next year.

Let us hope conservation will have a place on the agenda.

DESPISED TODAY, LOVED TOMORROW

Fashions change as we all know with clothes worn by humans. Not so well known is the fact that animals and plants admired once can be disliked later.

In earlier times forests were places of fear while deserts were lands abandoned by the gods.

Take for example this quotation from 'The black girl in search of God' written by George Bernard Shaw about a hundred years ago.

'...Besides if you really made everything you would know why you made the whale as ugly as he is...'

Today most of us love whales and their smaller relatives, the dolphins. Partly this has come about by our greater understanding of these animals, partly because of television shows like Flipper.

At the present time mature age forests are the 'flavour of the month'. Soon heathlands with their glory of flowers may be the most favoured while deserts have always had their admirers.

Perhaps members might send in their favourite ecosystems.

dear editor

16 November 1995

The Editor
Northern Herald

Dear Sir

It is to be hoped Mr Peter Hope, the Sydney Water residuals manager, reads the Herald. He is quoted as saying that 'long term data on the use of biosolids was scarce anywhere in the world.'

Yet in the same article you state 'biosolids have been applied to soils in China for 4,000 to 5,000 years...' Japan has almost as long a history of use while in Paris, one third of the vegetables are grown on sewage farms near the city. Nearer home Werribee in Victoria has been irrigating pastures for beef cattle for about eighty years.

Perhaps for Mr Hope New South Wales is the world but even here a great deal of experimentation is already in hand, even in Sydney homes where domestic waste is treated in small units with the flow used to water and fertilise the home garden.

It is good to know that at long last we are using commonsense and not pouring the future of our soils into the sea. 200,000 tonnes of biosolids each year by Sydney Water is a good start.

The media have always been in the forefront of educating the public in environmental commonsense so keep up the good work.

Yours Sincerely
Vincent Serventy
President

12 December 1995
The Editor

Dear Sir,

I find it irritating when Christo calls himself an 'environmental artist'. (Sydney Morning Herald 12 December)

True, I have known several State premiers who called themselves environmentally concerned, yet did more damage to natural bushland than any other folk.

When Christo did his first wrap of Little Bay 25 years ago I was the sole voice attacking this use of plastic as environmentally unsound. All the heathland life under the wrapping would suffer. Artistically the claim that the exercise would reveal to Australians the beauty of this headland was absurd. When the wrappings came off, there were no busloads of tourists coming to see the headland unadorned.

Years later when my wife and I were in Paris we saw the Pont Neuf bridge wrapped in a dirty yellow covering. We had always admired those bridges across the Seine and

did not need Christo to educate us.

However photographs of the wrapping taken in the golden light of a setting sun, did look splendid. Since I understand this is the major way Christo earns a living I have no objection, so long as he keeps to human made creations.

However he should never wrap natural objects whether cliffs, rivers, lakes or other landscapes since inevitably some damage will be done.

The claim that all material used is gathered once more and recycled is no defense.

When Christo last came to Sydney, Edmund Capon the director of the Art Gallery introduced me to Christo, probably hoping there would be a spirited debate. Christo hurried past, no doubt irritated by the fact that painters and decorators had already swathed the floors of the gallery in protective plastic.

I have no objection to John Kaldor advertising such material. It can be very useful in a number of ways but please urge Christo to leave natural beauty unadorned. Most of us already appreciate it.

Yours Sincerely
Vincent Serventy
President

6 November 1995
The General Manager
NRMA Insurance

Dear Sir,

As the leading organisation for road insurance the costs of cars colliding with animals on roads must be heavy judging by figures we obtained some years ago.

There is an overseas solution used in Europe for many years and in England more recently.

Despite our efforts we have been unable to have the method tested in Australia.

A joint effort by Australian insurance companies and local governments would make such a trial less costly and in the long run potentially save millions.

I include various news items as well as the advertising material from Germany and Brisbane which makes the explanation easy to understand.

We would be grateful if you could discuss this idea with your technical officers and if the trial appears worthwhile, would ensure support from the conservation movement. After all a green image is valuable to any industry.

Yours Sincerely
Vincent Serventy
President

Membership form...



WILDLIFE PRESERVATION SOCIETY OF AUSTRALIA, INC.

G.P.O. Box 3428 Sydney NSW 2001

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Why not become a **MEMBER OF THE WILDLIFE PRESERVATION SOCIETY OF AUSTRALIA, INC.**? Simply fill out this form.

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GPO BOX 3428, SYDNEY NSW 2001.

Consider - A Bequest

Another way in which you can support the work of the Wildlife Preservation Society of Australia Inc. is to remember us in your Will.

If you would like to make a bequest to the Wildlife Preservation Society of Australia Inc., add the following codicil to your Will:

I bequeath the sum of \$..... to the Wildlife Preservation Society of Australia, Inc. for its general purposes and declare that the receipt of the Treasurer for the time being of the Wildlife Preservation Society of Australia, Inc. shall be complete discharge to my Executors in respect of any sum paid to the Wildlife Preservation Society of Australia, Inc.

"The challenge to the present adult generation is to reduce the increasing pressures on the earth and its resources - and to provide youth with an education that will prepare them emotionally and intellectually for the task ahead."

VINCENT SERVENTY AM
President

WILDLIFE PRESERVATION SOCIETY OF AUSTRALIA INC.

The Society has developed a plan of action to help preserve the TOWRA POINT NATURE RESERVE on BOTANY BAY, SYDNEY. The Reserve is an important RAMSAR agreement site for migratory birds and protected by special international agreements called JAMBA and CAMBA and signed by the Australian government in 1974 as "a major step forward in international cooperation for the protection of wildlife".



*Towra Point
Nature Reserve.
Entrance gate
and side pass
used by horses to
illegally enter
the Reserve*

*Society
Councillors
examining Towra
Lagoon, where
Captain James
Cook took
freshwater in
1970 and now
saline because of
erosion of the
beach front.*

