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Wildlife

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

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Notice of Annual General Meeting

The bilby

Tour to Sawpit Creek

The common wombat and sarcoptic mange

Cover photo: Greater Bilby [int] (*Macrotis lagotis sagitta*). Once widespread across most of the mainland, the Bilby is now confined to the deserts of central Australia.
Photo supplied by Alice Springs Desert Park

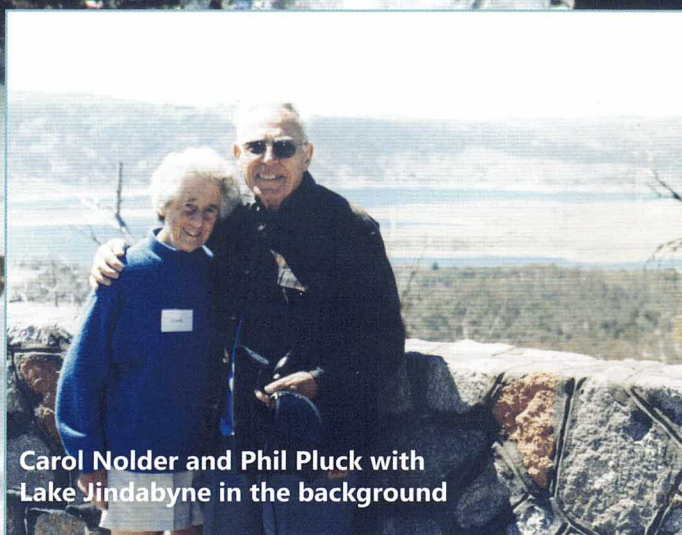
Snowy Mountains - Sawpit Creek Wildlife Tour

Well known for being home to Australia's best snow sports, it is outside this peak season the mountains shake off the snow to expose their real beauty. Spectacular peaks, clear mountain streams and the clean, crisp high country air provide a brilliant backdrop for our Wildlife Tour. In the warmer months, when fields of wildflowers bloom, you can become snap-happy in the high plains or enjoy the impressive scenery on a bushwalk along the rooftop of Australia. The Snowies offer an abundance of natural and cultural attractions and activities.

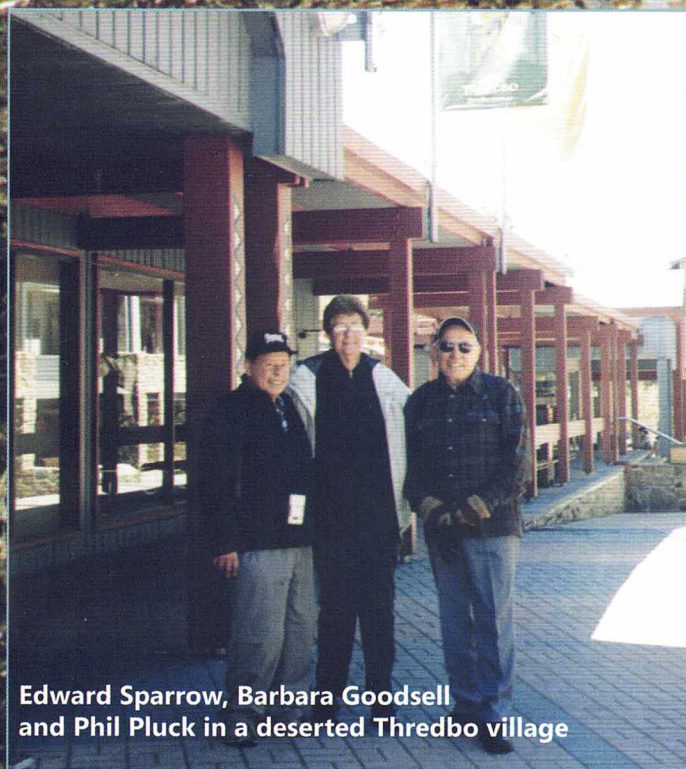
Our Society's tour to Sawpit Creek took place in October 2006. Sawpit Creek is halfway between Perisher Valley and Jindabyne - 15km each way. On the doorstep of Australia's magnificent alpine wilderness Kosciuszko Mountain Retreat was the ideal base for our Wildlife Tour.



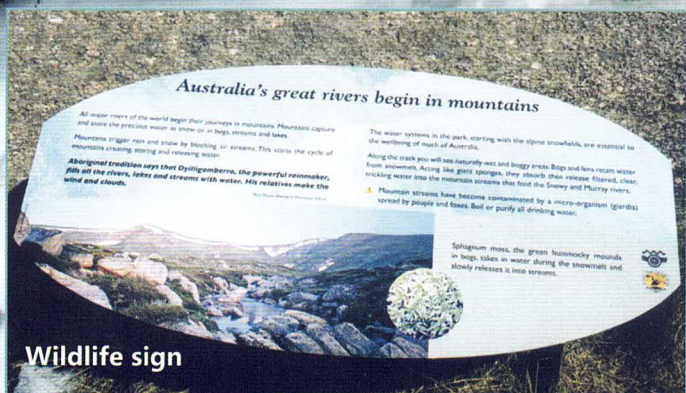
Edward Sparrow



Carol Nolder and Phil Pluck with Lake Jindabyne in the background

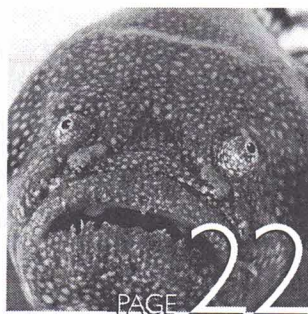


Edward Sparrow, Barbara Goodsell and Phil Pluck in a deserted Thredbo village

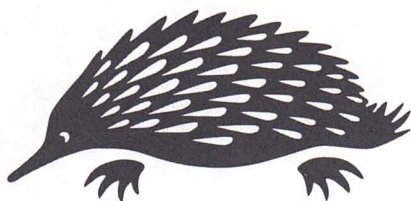


Wildlife sign

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'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 a
knowledge which could be valuable for conservation.

Such Regional Councillors would be sent the minutes of
our Council meetings so they would know more about
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.

*All articles are written by
Suzanne Medway unless stated otherwise.*

From the President's Desk...

Winding up for 2006

As we wind up our preservation activities for 2006 after another busy and rewarding year for the work of the Society, I am looking forward with confidence to the new and exciting program in 2007 which will lead eventually to our Centenary celebrations in 2009. The various committees have been working hard to come up with new ideas to assist in our national program of wildlife preservation and habitat protection.

98th AGM and Luncheon

We are planning to hold our 98th Annual General Meeting and Annual Luncheon on Monday 19 March 2006 in the NSW Parliamentary Dining rooms in Macquarie Street, Sydney. Our special guest speaker is the Hon Bob Debus MP, NSW Minister for the Environment and we are looking forward with pleasure to his address.

Please reserve the date in your diary, as the day is nothing without your attendance and support for this special occasion.

Bushfires across Australia

We have all been very concerned about the horrific bushfires in Victoria and Tasmania over the past few months. The death and destruction of native wildlife is something we all dread.

We are partnering with Wildlife Victoria in their efforts to save and rehabilitate as many animals as possible after these terrible fires. This voluntary organisation is working across Victoria as a wildlife rescue group to collect and provide veterinary help to both small and large animals. You will have seen many tragic photos of koalas and other native animals burnt or singed by the wildfires.

We have made a donation to support this rescue and recovery work throughout Victoria. Anyone who would like to add to this donation is asked to contact our office for further details.

Wildlife conferences

It has been my pleasure to attend a number of wildlife conferences throughout the year to represent the Society and to speak and present on the work of the Society to a wider range of audiences across Australia. We have been fortunate that many new members have joined as a result of our attendance at these wildlife conferences. It is

also very pleasing to see some of our members presenting their research at these conferences. I find this aspect very rewarding and encouraging for the future of the Society.

Protecting the bilby

Following an offer by a publishing company to assist with royalties being donated towards the protection and preservation of the bilby, the Society has offered to assist the Central Land Council out of Alice Springs with funding to protect the bilby in its native habitat in the Tamini Desert. See our special section in this magazine and on our website for full details and please assist where you can with this special appeal to save the bilby in its natural habitat.

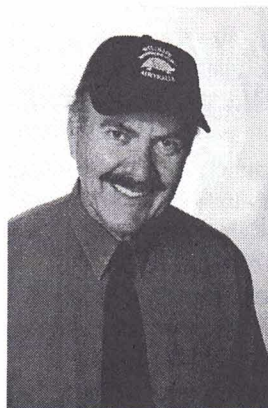
Congratulations Vin

We extend our sincere congratulations to our President of Honour on his birthday in January 2007 and wish him well for the coming year.

He continues to actively support the work of the Society and often writes letters on conservation issues to our members of parliament.

A very happy and peaceful New Year

May I wish all our members and their families a very happy and peaceful New Year and invite you all to become actively involved in our important conservation work to save and protect our precious native wildlife in all its forms across Australia.



Patrick W Medway AM
NATIONAL PRESIDENT

Wildlife Preservation Society of Australia - Notice of Annual General Meeting

Notice is hereby given that the 98th Annual General Meeting of the Wildlife Preservation Society of Australia Incorporated will be held in a special room of Parliament House, Sydney on Monday 19 March 2007 commencing at 11:00am.

Business:

1. Welcome and recording of those present.
2. To receive apologies.
3. Minutes of the 97th Annual General Meeting.
4. President's and Executive Director's Report, and Treasurer's Report for 2006.
5. To receive and adopt the Balance Sheet and Income and Expenditure of the Society for the year ending 31 December 2006 in accordance with our Constitution.
6. To elect and confirm
 - A) The Officers of the Society: President/Chairman, Two Vice Presidents, Honorary Treasurer, Honorary Secretary (Executive Director) and;
 - B) 10 Councillors of the Society for the next twelve months in accordance with the Constitution. Nominations must be received by 28 January 2007.
7. To appoint an Auditor for 2007.
8. General Business as submitted by 28 January 2007.
9. Closure.

Annual Luncheon Monday 19 March 2007

The Council extends a cordial invitation to all our members to attend our Annual Luncheon in the Parliamentary Dining Rooms on Monday 19 March 2007 commencing at 12 noon. The cost of the Luncheon will be \$65 for members and \$85 for non-members, which includes one year's introductory membership.

Bookings and prepayment essential. RSVP: 9556 1537 by Wednesday 12 March 2007 or email wildlifepreservation@optusnet.com.au.

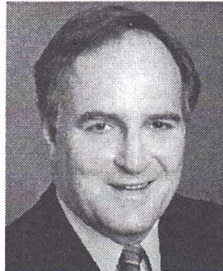
Guest Speaker

The NSW Minister for the Environment, The Hon (Bob) Robert John DEBUS, MP, has kindly accepted our invitation to be the Guest Speaker at our 98th Annual Luncheon.

Bob Debus is the longest serving Environment Minister in the history of NSW Parliament, having been appointed to the position in early 1999.

The Minister does not propose to stand for re-election at the 2007 State Elections and this will be the last chance that our members will have to formally thank him for his support of our Society over the past years.

Please book early.




The bilby

What is a bilby?

A bilby is a shy, nocturnal marsupial, unique to Australia. It has a grey and white silky coat, long, sensitive ears and a pink pointed nose. It has thick claws and strong forelimbs that enable it to dig rapidly in the desert soil. It is about the size of a cat, with the male growing up to half a metre in length from tip to tail, and weighing around one to two and a half kilos. It has an unusual black or dark grey tail with a pure white brush at the tip, which it holds in the air behind itself when it walks or runs about. These delightful little creatures normally live for about ten years.

What are the ancient, traditional Aboriginal regional names for the bilby?

MANKARR (Manjilijarra – Western Australia)
WARLPAJIRRI (Warlpiri – Northern Territory)
NINU (Pitjantjatjarra – South Australia)
AHURT (Arrernte – Northern Territory)
DOL-GOITCH or DAL-GYTE (also had widespread use)



What is the modern scientific name of the bilby?

Macrotis Lagotis: The greater bilby. (Family: Peramelidae)

Where does a bilby live? What does it eat?

Once much more widespread across the Continent, the bilby now lives in a variety of habitats in arid desert regions of Western Australia, Northern Territory and Queensland, typically where spinifex and dry grasses are found. It selects grassy areas, often with sparse shrubs or low bushes, so that it can move about easily, see or sense any lurking predators, and can always have a clear run back home. It tends to lead a solitary life, digging many spiraling burrows in the ground, which can each be up to three metres long and two metres deep. On average, the bilby will dig a new burrow every couple of weeks, and over a period it will use every one of them. At night, the bilby will leave the protection of its burrow to forage for food, using its long snout to dig out bulbs, tubers, spiders, termites, witchetty grubs and fungi, and using its long tongue to lick up grass seeds that have fallen to the ground. On average, the bilby will move up to about 240 metres from the tunnel entrance of the burrow but, depending on the food supply, it will sometimes move further afield.

At what time of the year are the bilby young born?

Providing that food supply is plentiful, bilbies will breed throughout the year. About fourteen days after the start of development, the tiny babies, measuring only 11mm, will travel along the birth canal and instinctively climb up the mother's silky coat into her backward facing pouch (backward facing so that when she is digging, the pouch will not fill with soil). Like other young mammals, the baby bilby needs its mother's milk to grow, and to gain weight and strength. With marsupials, the teats are positioned inside the pouch (the bilbies have eight) and the baby will latch on to a teat, feeding as and when it requires, in a warm, totally safe environment.

While it is there a tissue forms on each side of its mouth, to help it to hang on tightly. This tissue breaks down about sixty days later, enabling the young bilby to climb in and out of the pouch until it is about eighty days old. For the next couple of weeks, the babies are left in the burrow while the mother is foraging each night for food, but she returns frequently to allow the babies to suckle from her teats. The babies will then go out foraging

at night too, sleeping in the burrow during the day and this will continue until there are new-born in her pouch. This period can vary from an average of two weeks after they are permanently out of the pouch, to many weeks later.

How many young does a female bilby have?

Generally one or two, but occasionally three babies are born at one time. Sometimes only one will survive although, rarely, all three might survive. They mature very quickly and by six months of age the young female is ready to produce a family of her own.

Why have I not seen a bilby yet?

In earlier times, bilbies were found across large areas of Australia, but numbers have declined rapidly in the last one hundred years because of competition for food with farm livestock, and feral rabbits introduced into Australia since European settlement. Other feral animals introduced into Australia, and not native to the Continent, such as feral cats and foxes, have also severely depleted bilby numbers by preying upon them for food, to the point that they have been officially classified as Endangered.

As the bilby is an Endangered Species, what is being done to help the bilbies?

In order to try and save the bilby from extinction, there have been a number of efforts to create predator-free reserves in Queensland, South Australia, Western Australia and even New South Wales, with varying degrees of success. Importantly, very interesting work is being carried out by local Aboriginal communities in the Outback, close to the areas where the bilby still exists in its traditional habitat and natural environment.

For these communities, the bilby is not only a lovely animal, but a very important part of their culture and spiritual beliefs (The Dreaming), literally going back tens of thousands of years.

Therefore, for Aboriginal Australians, who did not introduce the feral animals now threatening the bilby's survival, the loss of the bilby would be very deeply felt. Local Aboriginal communities are working alongside Land Council members and scientists to survey and monitor bilby populations, using traditional tracking skills and expert knowledge of the country. Special methods are being developed to reduce the numbers of predators preying on the bilby. These projects are

overseen by the Threatened Species Recovery Team, assisted by the Threatened Species Network, and supported by the Natural Heritage Trust, an Australian Government department. In this way, different people and organisations who share a common concern about the threat to the survival of the bilby, and other native wildlife, can all join together to work for the common good.

Where can I see a bilby?

Finding a bilby in their natural habitat is almost impossible. Desert travellers may be able to locate the burrows and diggings of these secretive animals. But you can be sure to see a bilby in many of the various wildlife sanctuaries around Australia.

One such place is the Alice Springs Desert Park where visitors can easily access the diversity of arid zone landscapes, plants and animals, with the added bonus of a managed environmental experience. The Park ensures guaranteed viewing of desert plants and animals, including the greater bilby - and many wild species are attracted to the habitats by the additional water and food resources.

For more information visit their website at www.alicespringsdesertpark.com.au



Greater bilby [nt] (Macrotis lagotis sagitta) Once widespread across most of the mainland, the bilby is now confined to the deserts of central Australia. Photo supplied by Alice Springs Desert Park

A bilby story book

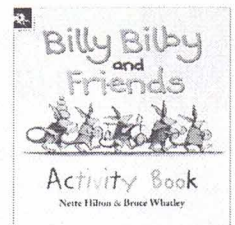
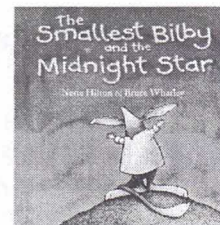
It was with the vision of being able to contribute towards the conservation and protection of native wildlife that Bilby & Friends Enterprises decided to raise public interest in the endangered bilby by producing a series of books featuring this delightful little animal.

The first book entitled "The Smallest Bilby and the Midnight Star" was an immediate sell-out, with a further reprinting occurring shortly after. Right

from the start, the Bilby & Friends team decided that part of the proceeds from the sale of these books would go directly to help conservation programs designed to increase the numbers of bilbies in the wild, which would be retained in bilbysafe areas.

"The Smallest Bilby and the Midnight Star" has been formally approved by the NSW Department of Education for inclusion in its K2 reading category list of the 2007 NSW Premier's Reading Challenge for schools and young readers. A Bilby & Friends Enterprises activity and colouring book, featuring an introduction by the Wildlife Preservation Society of Australia, will be released in March 2007 with a further picture book in the series to follow later. Both books are published by Working Title Press, distributed by Scholastic Australia and are available through all good bookshops.

The Wildlife Preservation Society of Australia has been chosen as its official 'Conservation Partner' by Bilby & Friends Enterprises, the team behind the very popular 'Billy Bilby' picture book series. The Billy Bilby team strongly supports the general wildlife conservation aims and objectives of the Wildlife Preservation Society of Australia and particularly our project of helping towards the protection of the endangered bilby. This project is being carried out under the suitably qualified guidance and expert advice of the Wildlife Preservation Society of Australia.



How is the Wildlife Preservation Society helping, and how can you help?

Members of the Wildlife Preservation Society of Australia have been working since the Society's foundation in May 1909 to preserve and protect Australia's wildlife in all its forms.

The Wildlife Preservation Society is proposing to support a community driven bilby conservation program in the Northern Territory that will focus on the establishment of wild breeding populations of bilbies. The program will be run out of Yuendumu (which is approximately 150 kilometres north-west of Alice Springs) through the traditional guardians of that country in conjunction with the Central Land Council.

A vertical, high-contrast, black and white photograph showing a close-up of a textured surface, possibly a rock face or a wall, with a prominent vertical crack or crevice running down the center. The texture is rough and uneven, with various shades of gray and black. The lighting is dramatic, highlighting the textures and the central crack.

The Hunter Region is renowned for the diversity of its landscapes and the facilities it offers for residents and visitors. The region encompasses spectacular beaches and dunes, lakes (including Australia's largest coastal saltwater lake, Lake Macquarie), mountains, valleys and forests. All are within easy reach of two of the State's major cities - Newcastle and Sydney.

As more people seek to benefit from all that the Hunter offers, the region's population and prosperity are growing, bringing pressure on land to provide housing and employment. As well as the ongoing need for an expanding economy and job growth, there is also a need to protect the environment in this beautiful part of the State.

To complement its regional strategy for development, the Government has also prepared a regional conservation plan which sets out the region's nature conservation priorities for the next twenty five years.

The new reserves

The new reserves would include:

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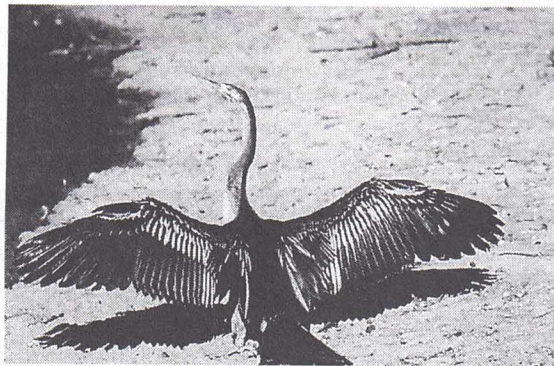
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The new reserves have been carefully designed to ensure that access to important natural resources is not impaired. Some of the reserves will be State Conservation Areas. This type of reserve has been established so that underground mining (and associated surface access and infrastructure) can take place while ensuring that conservation values are protected.

Enhanced conservation management

The new reserves will provide enhanced protection for Kooragang Island and the Northern Arm of the Hunter River, which is listed under the Ramsar international wetland protection treaty and which have internationally recognised conservation values.

The reserves will also provide important habitat protection for migrating bird species, including those listed in the China-Australia Migratory Bird Agreement (CAMBA) and the Japan-Australia Migratory Bird Agreement (JAMBA).



Darter

The reserves will offer protection to a wide range of threatened species, including the following:

- The terek sandpiper, which breeds mainly in Russia and Finland, migrates annually to mangrove swamps, tidal mudflats and the seashores of Australia, coastal Africa, India and the Malayan Peninsula. They appear in Australia between August and March or April, returning to the same place each year
- The lesser sand plover breeds in eastern Siberia, southern Mongolia, western China and the Himalayas and migrates to various parts of the southern hemisphere, including coastal areas around Australia. Changes in estuarine water quality and habitat destruction from tourism and agricultural developments are major threats

- The white-bellied sea eagle is Australia's second largest bird of prey. While not migratory, it is found along the Australian coastline as well as parts of Asia. Sea eagle pairs, which mate for life, require large areas of land and sea to survive. Adult birds will defend an area of up to three square kilometres around the nest against other adults. A further 150 square kilometres are used for hunting. Pairs nest at least two to three kilometres apart, and further where there is little food
- The Watagans Ranges to Port Stephens corridor will provide critical habitat for 27 threatened fauna species including the brush-tailed phascogale, spotted tail quoll, koala and squirrel glider, as well as a range of threatened bird, bat and frog species. Conservation of the Tomago Sandbeds will protect the most significant koala habitat in the Lower Hunter
- The black-tailed godwit, a large sandpiper, breeds in Mongolia and Siberia and visits Australia from August to March each year. Its varied diet includes insects, small crustaceans, molluscs, spiders and tadpoles, as well as seeds and berries in the northern hemisphere. In Australia the birds depend on sand spits, lagoons and mudflats as hunting grounds.



The dwarf green tree frog (Litoria fallax) is a local native species. Photo taken just north of Raymond Terrace

As well as fauna, the reserves will also protect threatened plant communities:

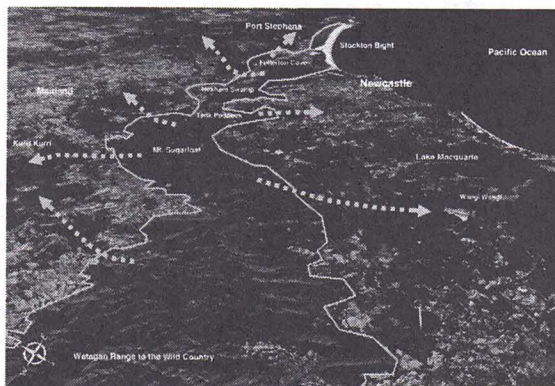
- Sclerophyll forests are typically Australian and contain plants with hard, short and often spiky leaves. Australia has more sclerophyllous plants than any other continent, largely as a result of low levels of phosphorus in the soil. Typical sclerophyllous plants include eucalypts, tea-trees, boronias, banksias, grevilleas and wattles

- Dry sclerophyll forests stand ten to thirty metres tall and have a hard-leaved understorey. They are extremely diverse, with an area of one-tenth of a hectare generally containing seventy to one hundred plant species. An area of rainforest the same size and in the same region would contain fewer than fifty species
- The Lower Hunter Spotted Gum-Ironbark Forest was once widespread in the Lower Hunter Region. Clearing, grazing, development, industrial practices, weed invasion and other disturbances have greatly modified the community with many small pockets of less than ten hectares remaining; in total an estimated ten percent of the pre-colonisation communities. Hunter Spotted Gum-Ironbark Forest is now restricted to a fragmented area approximately sixty five by thirty five kilometres, centred around Cessnock-Beresfield in the Central and Lower Hunter Valley.

Management of the new reserves will focus not only on protecting the natural attributes of the particular reserves but also on ensuring more effective management of pests, weeds and fire.

The Green Corridor Coalition

The Green Corridor Coalition is supported by fifty community and conservation groups, and is party non-political. The coalition has played a leading role in advocating for the "green" corridors to be protected in the National Parks Estate and for the green corridors to be central to good planning. The coalition acknowledges the generous assistance of people from all sides of politics and all walks of life in making the giant steps towards achieving this goal in the Lower Hunter.



Aerial photograph of the Lower Hunter Green Corridor and its many extending corridors

It is now universally recognised that nature corridors promote biodiversity. In the past, badly planned development created "islands" of high conservation value land but, over time, the biodiversity values within these isolated pockets were lost, so this plainly unsustainable approach failed.

Given that sustainability is at the heart of Government planning, regional corridors must be made part of its strategic conservation policy. It is now recognised that this requires protecting major corridors in the National Parks Estate because failure to do so will see these corridors continue to be subjected to future development pressures, particularly in areas of high-population growth.

Inter-urban green corridors balance and soften the impact of the built environment on the natural environment. These corridors provide clean air and water, as well as crucial habitat for wildlife, many species of which are now endangered. Green corridors also enrich the quality of life of communities so they have an important social aspect.

The State Government has recognised what the Coalition has been saying with the release of the final Lower Hunter Regional Strategy and the draft Lower Hunter Regional Conservation Plan. The Government's bill to protect the first 13,768 hectares of Government-owned land in the National Parks Estate has now passed Parliament and awaits royal assent.

A key part of the green corridors is the state significant "spine" known as the Watagans to Stockton Bight and Port Stephens Green Corridor. The corridor begins in the largest sand dune system on the eastern Australian seaboard at Stockton Bight then sweeps through the Hunter estuary wetlands and climbs up the Tank Paddock spur to Mount Sugarloaf and on to the Watagans. Its passage provides a green edge and scenic backdrop to Newcastle, Lake Macquarie, Port Stephens, Maitland and Cessnock. It is approximately fifty kilometres in length and connects to the Great Dividing Range.

The Coalition has especially highlighted the important role of the corridor's Hunter River estuary in the Lower Hunter landscape and the continuing need to protect and conserve its many natural functions, which includes its internationally recognised migratory bird habitat.

Many of the important conservation issues in this region, some remaining unsolved for decades, are finally being resolved and this gives much pleasure and satisfaction to those involved in the Coalition's

four year long campaign to protect the "green biodiversity corridor". What is also most pleasing is the corridor will be mainly surrounded by lands on which only existing uses will be permitted, in terms of urban development, so this will establish a buffer zone that will help secure the corridor's ecological, social and economic values (fishing and tourism), over the long-term.



Green and gold bell frog (Litoria aurea). This individual has more green and less gold than others of the same species

As always, with such a complex undertaking, there are still issues that remain unresolved, so the corridor is not yet complete. These issues must be resolved in favour of the environment if the Green Corridor's viability is to be assured over the long-term:

- The connection between the new Sugarloaf State Conservation Area and the Watagans National Park is through a thin State Forest Flora Reserve surrounded by State Forest logging areas – this connection needs to be of a size befitting the state significance of this corridor and protected from future logging and open-cut mining
- An important area of the Sugarloaf Range, south Mt Vincent, has not been included in the new Sugarloaf State Conservation Area, in spite of much of it falling within the "Mulbring Landscape Conservation Area" as designated by the National Trust of Australia in September 1984. Mt Vincent is also an area of special meaning and significance for the few remaining descendants of the Awabakal Tribe
- While most of the Awaba forest lands are being reserved in the new Sugarloaf State Conservation Area, the area that was the subject of the contentious open-cut coal mine proposal is not included. Purchase of the non-government owned land should proceed and then be reserved
- The government-owned ex-BHP land west of the F3 Freeway, near West Wallsend, is scheduled to be transferred to the reserve system but not that on the eastern side of the F3. All this land was given as "environmental compensation" to the people of the Lower Hunter
- The "under-negotiation" Coal & Allied land – forests in the foothills of Mount Sugarloaf, the "Tank Paddock" and the area around the Blue Gum Hills Regional Park. There are currently 2,473 hectares proposed to be reserved but further negotiations are required to protect area around the Blue Gum Hills Regional Park, especially the connection to the wetlands and the Newcastle Link Road
- The Hunter Water owned wetlands at Minmi must be protected in the reserve system. DEC is purchasing most of this land but full purchase should be made
- Most of the Hexham wetlands are proposed to be reserved but the western side has also been identified by government agencies to be purchased and protected, so this needs to occur
- The Hexham - Kooragang - Ash Island wetland complex is destined for the reserve system but only about one third on the Tomago wetlands site is now being proposed for protection. This needs to be increased
- State Environmental Planning Policy 74 which cuts through the new National Park on Kooragang Island and was put in place for a transport corridor to the old Austeel proposal at Tomago, should be repealed by the Government
- 4,570 hectares of Crown land that's owned by Hunter Water in Port Stephens is being reserved but all of Hunter Water's land should be protected
- The much-anticipated reserving of the Stockton Bight National Park has still not been announced.

If you require further information about the above issues or general information please e-mail the Green Corridor Coalition convener Brian Purdue at bnpurdue@bigpond.net.au or ourgreencorridor@planet-save.com



Tour to Sawpit Creek, Kosciuszko National Park in October 2006

by Carol Nolder

We started off our holiday by meeting up at the Canberra Tradesmen's Club at Dickson, known locally as 'The Tradies'. Here, a huge variety of choices and overly generous platefuls of food soon got everyone chatting and friends, both old and new, quickly gelled into a cohesive, friendly group. With Mike in the driving seat of the coach, and his colleague Chris driving the Ute with all our luggage, we set off for the Snowy Mountains. This proved to be a delightful drive, with ever-changing scenery, although Mike commented as we passed Lake Jindabyne that he had never seen the water level so low. After a quick stop in Jindabyne to enable us to pick up a few food items, we all arrived safely at our destination, Sawpit Creek.

The eight units which had been booked in the Kosciuszko National Park proved to be really excellent, with every facility one could wish for. Beautiful bed linen, large heaters and a caring manager, Kelly, who ensured that we had everything we could possibly need. We were excited to find that there was a large hall available for the use of all visitors, with barbecue facilities and a central circular wood burning stove. Needless to say, this is where we spent every evening, sitting round this stove, talking, singing and discussing the events of the day.

Our first stop on the following morning was to visit the Education Centre, just four hundred metres from our units. Pat Darlington welcomed us to the area and showed us round, explaining how the facilities had been vastly improved to enable schools and other groups to spend time there. Her enthusiasm and local knowledge enabled her to field the many questions that were put to her, and we thoroughly enjoyed the informative visit. Later that day, we used these facilities again when Matthew Higgins of Canberra showed us videos of echidnas, sugar gliders and local scenery in winter, which he had filmed while skiing in the area. This proved to be a real treat, with Matthew's expert knowledge, superb photography and skiing skills combining with his commentary to make an excellent presentation. Matthew came back and spent the night with us at Sawpit Creek, before joining the early risers for a crisp morning walk.

On Friday morning, we set off to visit the Fish Hatchery. After seeing a video which detailed all of the different procedures that were carried out, we toured round the systems of ponds, streams

and hatcheries, observing the brown, silver, river and salmon trout that were bred there. We learnt that it was managed by a government department solely to stock the local rivers for the enjoyment of a great many anglers and, in fact, no fish were available for sale. This was rather a disappointment for us, as we had anticipated having trout for tea! Water diverted from the river flowed through the system, providing continual fresh water for the fish, and it was then returned to the river. Children from school groups were allowed to catch some hybrid fish which could be 'caught' with a knotted line, but were only allowed to take home one each. Can you imagine the tales of 'the one that got away' from the youngsters who threw their fish back in the pond, hoping for a bigger one next time! Some of us eyed the magnificent looking fish that were six or seven years old, but were told that the peak flavour is reached after about two years and from then on the flavour deteriorates. These superb looking fish would have been quite tasteless!

On Saturday, we woke to find that there was a bitterly cold wind blowing and snow was falling. This was not the day to go to Mt Kosciuszko where a temperature was recorded of minus 23 degrees! A visit to a pumping station on the Snowy River scheme was an essential part of our tour, so we set off on an interesting drive to Guthega. Along the way, Mike told us about the echidnas he had studied in that area, and the surprising distance that they travelled, as recorded on a radio tracker. We were appalled to realise just how little water there was in the creeks and rivers, despite the fact that what little snow had fallen this year had almost melted. The signage at the Guthega pumping station was really excellent, but the engineer who showed us round the works informed us that if we did not have major rain events in the next twelve months there would be no water to pump and the station would have to be closed down. It was sad to see the surrounding mountains looking grey and covered in dead trees. Very little recovery has taken place in the three years since the overwhelming fires occurred, causing so much devastation, as so little rain has fallen since then.



Echidna

After a picnic lunch, we set off to Charlotte Pass where, as usual, the stalwarts set off at a cracking pace to view the mountains. It really was bitterly cold at this point and some of us hopped out of the coach to take some photos, but very shortly afterwards returned to our seats with great relief to get out of the biting wind. As usual, we enjoyed a barbecue supper in the visitor's hall and were intrigued to find that the brush tail possum that had invited itself in on the previous evening was there again, hoping for more scraps. Christine was his obvious favourite and he gently accepted scraps from her hand, while cameras clicked away to record our nightly visitor, just to show the folks at home!



Brush tail possum

Sunday brought the highlight of our tour, literally, as we were spending the whole day at Thredbo and Mt Kosciuszko. Knowing that we would all have different ideas as to how we would spend our time, we were each given a packed lunch. This consisted of sandwiches, crisps, fruit, biscuits, chocolate, sweets and a drink - nobody goes hungry while Christine does the catering! Although the sun was shining, it was still very cold and there was hardly anybody else about. We all braved the chilly ride in the chairlift but, arriving at the top, we rushed into the restaurant for a cappuccino before coming out to admire the fabulous scenery which surrounded us on all sides. The walkers set off immediately on the thirteen kilometre walk around the summit, while the less energetic amongst us tackled the four kilometre walk up to the crest and back. This proved to be a delightful meander across the hillocks and boardwalk, with quite large areas of residual snow slowly melting in the sunshine, causing little gurgling streams of pure sparkling water. The signage along the walk, naming the alpine flora that could be seen along the way, or

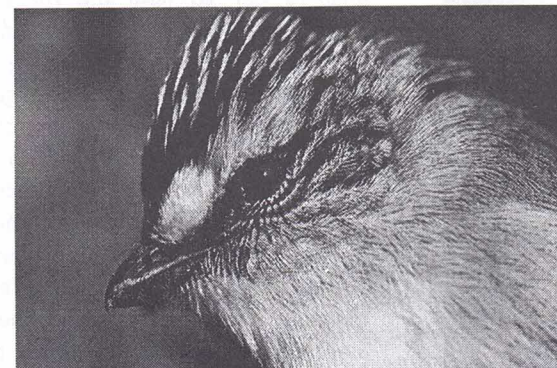
would be seen in the summer months, was most interesting and well presented. After enjoying our picnic, we returned to the village of Thredbo which had a surprising number of small shops open, although there were still very few people about. Needless to say, there were many examples of beautiful paintings, craftwork and superb items of furniture fashioned from the local timbers.



Mt Kosciuszko

After our evening barbecue, we set off on a torchlight search for wombats. Unfortunately we did not see any, which was particularly sad as we had seen two superb 'roadkill' specimens while driving round the area in the coach. The last part of the evening was spent reminiscing around our stove, telling some amusing stories and 'party pieces', and Ralph leading us in some singing. On Monday morning, Dick, our bird expert, was up first as usual and he pointed out some *striated pardelotes* nesting in the small hollow of an adjacent tree - this is a bird we do not see in our home areas. Shortly afterwards we all clambered on to the coach, the first stage of our journey home. As we travelled along, the talk was all about the choice of venue for next year's tour, and by the time we had reached Canberra, the unanimous decision was Kangaroo Island!

Watch this space!



Striated pardelote



Koalas on the Northern Rivers of New South Wales

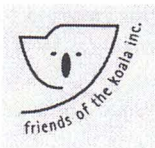
by Lorraine Vass, President, Friends of the Koala, Inc.

The Northern Rivers region of New South Wales is renowned for its rich biodiversity. Many rare and endangered flora and fauna species are found here. Wildlife abounds. The graceful, northern koala (so much prettier than its more robust southern cousin) is widely distributed, although often in low densities. Remnant populations move through a large area of urban Lismore and several of the Region's villages.

Whilst healthy koala populations are known to exist in some more remote localities disease, habitat loss and degradation, as well as motor traffic and other human-related pressures are inflicting a heavy toll on koalas in many areas. Some local populations have already disappeared.

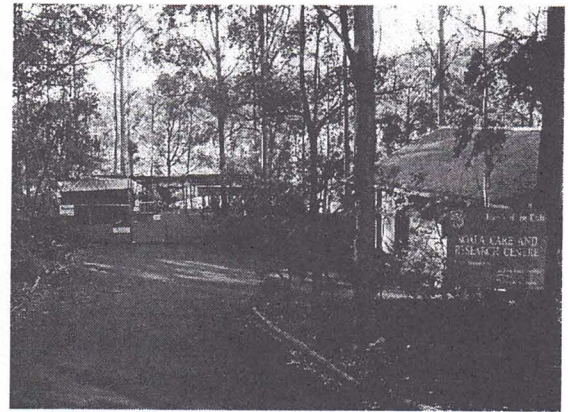
The koala is listed 'vulnerable' in Schedule 2 of the NSW Threatened Species Conservation Act 1995. Its habitat therefore is not listed as critical habitat but it is afforded some protection by State Environmental Planning Policy No 44 – Koala Habitat (SEPP 44).

Friends of the Koala Inc.



Friends of the Koala (FOK), has been licensed under the National Parks and Wildlife Act, 1974, to rescue and rehabilitate these very special animals since 1989. It is now one of the lead koala conservation groups in New South Wales. FOK's operations extend over an area of approximately 8,000 square kilometres and include the local government areas of Byron, Ballina, Lismore, Richmond Valley and parts of Kyogle and Tweed.

Trained volunteers operate a twenty four hour rescue service at the Koala Care and Research Centre, situated on the perimeter of Southern Cross University's Lismore campus. From 1 July 2005 to 30 June 2006 members attended to two hundred koalas from all over north-eastern New South Wales. At least another eighty five advice calls did not require the animal to come into care although some involved rescuers to return to the site several times to monitor the health and safety of the koala.

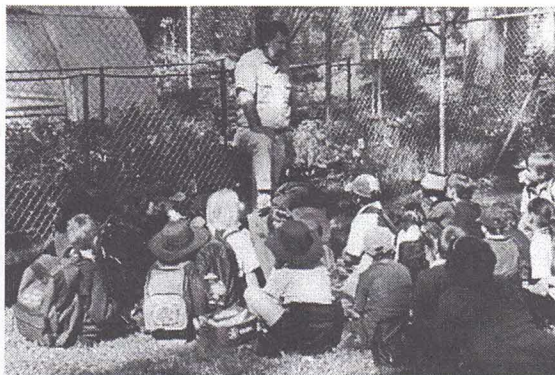


Friends of the Koala, Inc.'s Koala Care and Research Centre, Lismore Campus, Southern Cross University

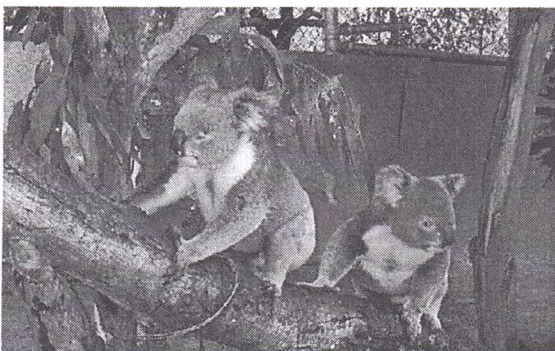
Whilst an entirely voluntary community group, FOK is able to ensure that Northern Rivers' koalas receive cutting edge treatments and rehabilitation care through its close relationship with the Australian Wildlife Hospital at Beerwah in Queensland. Operated by Australia Zoo's Wildlife Warriors Worldwide, the Hospital, its specialist wildlife veterinary team, Northern Rivers' veterinarians and FOK's trained rescuers and rehabilitators, work together to achieve the best outcome possible for every koala admission.

Koalas brought into care are rehabilitated in the group's Koala Care and Research Centre or in home care. Many koalas are found very near to death or are dead on arrival. Those that survive can take a long time to reach full recovery and release back into the wild. Appropriate medication and leaf selection (three to five different types of eucalyptus leaf species must be harvested daily for each animal) are integral to successful rehabilitation as is physiotherapy and even, in the case of orphans, socialization.

As well as its rehabilitation and release work, Friends of the Koala engages with local councils, community groups and individual landholders to protect and extend koala habitat. The group's origins were in habitat restoration. Its nursery has propagated 90,000 koala food trees from locally collected seed and distributed them for planting across the Northern Rivers. FOK applies for projects and or funding under programs such as Green Corps, Envirofund and Environmental Trust and partners or supports others in their applications, writes submissions on development applications large and small, planning instruments and participates in community consultation processes. Through representation on the Steering Committee, FOK participated in the development of a draft Comprehensive Koala Plan of Management for the south-eastern part of the Lismore local government area.



*Education is an important part of FOK's work.
Note FOK's plant nursery in background*



Young males, Paw Paw and Brendan at the Care Centre

Outlook - grim

The future of the koala on the Northern Rivers is pretty grim, particularly towards the coast which is experiencing the greatest pressure for land-use change, be it residential, agricultural, industrial or for infrastructure.

The Australian Koala Foundation, in its 2004 nomination of the koala for listing as 'vulnerable' across its natural range under the federal Environment and Biodiversity Conservation Act 1999, stated that koala populations in the NSW North Coast bioregion could reach extinction in 9.89 (worst case scenario) to 43.78 (best case scenario) years. Although some scientists believe this claim over-reaches the available evidence there is no disputing that unless there is dramatic change, the koala's days on the Northern Rivers are numbered.

Issues of concern

1. Indifference to legislative protection

FOK constantly advises state agencies (and local government) about clearance infringements, only to be 'fobbed off' with assertions of lack of resources, difficulty of prosecution, etc. On an occasion when a local council prosecuted a

land-owner for illegal removal of koala habitat trees, the fine was a paltry few hundred dollars. In the meantime unauthorised habitat clearance continues at an alarming rate.

SEPP 44 allows for local government to develop Comprehensive Koala Plans of Management for their entire or part of their jurisdictions. Such plans preclude the need for drawing up koala plans of management for individual developments. No Council on the Northern Rivers has developed such a plan. Lismore City Council spent about seven years trying to and finally consigned its Draft Plan to the rubbish bin in early 2004.

2. NSW planning reforms

FOK tenaciously participated in the public consultations undertaken by the State Government during 2005 to develop the Draft Far North Coast Regional Strategy. Perhaps naively the planning reforms that underpinned the development process were approached optimistically in the belief they would improve habitat protection.

Dismay soon set in. The group drew attention to gaps in koala mapping and provided data where possible to government officers in the belief that the Government would take the issue of missing data-sets on board. The draft Strategy which was released in early 2006 does not reflect that this has occurred.

Some of the partnering reforms to the Threatened Species Conservation Act 1995, particularly the emergence of devices such as biodiversity banking and biodiversity certification will, in FOK's view, undermine, not strengthen, threatened species legislation in New South Wales.

3. Pacific Highway upgrades

The Pacific Highway runs through some of the best koala habitat in New South Wales. Upgrading to dual carriageway standard already completed in Tweed and Byron shires, and which is currently underway across the Brunswick River, has accounted for the destruction of huge swathes of habitat. More is to come as the Roads and Traffic Authority (RTA) investigative juggernaut moves south. Its preferred route between Ballina and Woodburn will wipe out the healthiest koala population on the Lower Richmond.

The link between habitat loss, stress and some of the diseases found in koalas is well documented. Where can displaced animals go? Not only do koalas succumb to disease, they get killed during construction and post construction. Ameliorative measures like fences and underpasses may help but they do not solve the problems associated

with habitat loss and obstruction to wildlife movement.

4. Research and koala recovery

The Northern Rivers koala population is significant both nationally and within New South Wales, yet little research by way of population studies, incidence of disease, etc, has been undertaken over the past decade. Only small parts of the region's vegetation have been properly mapped.

The Department of Environment and Conservation prepared a draft Recovery Plan for the Koala [in New South Wales] for public comment in early 2003. The Plan's purpose is to establish a landscape-scale conservation framework utilising existing legislative mechanisms for koala conservation and management and to provide a framework for localised koala recovery efforts throughout the State.

At the time of writing, the Plan is still locked up with the Minister. Assurances have been given that it will be released following analysis of the NSW Wildlife Survey which was conducted in mid 2006.

For more information on koalas on the Northern Rivers and Friends of the Koala Inc., please email friends_koala@hotmail.com or ring (02) 6622 1233.



Country Energy to the rescue



Orphans, Frankie and Peter in home-care: Frankie came in with dog puncture wounds to his rump and pneumonia. Peter was found on the ground cold and by himself. He also had a bad case of pneumonia



Layla, a young female rehabilitating in one of the Care Centre's several outdoor runs



Fire advice

by Bernie Masters

Bernie Masters was, for three years, the Liberal Party spokesman for Science and the Environment in the Western Australian Parliament. By training, he is a zoologist/geologist and has worked in the mining industry at a senior level for twelve years. He is currently a private environmental and geological consultant.

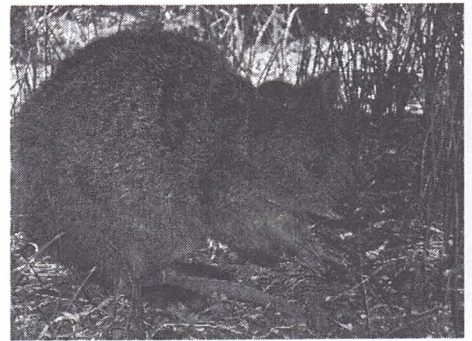
His reply to the question "what does feral fire do to native animals?" is as follows:

Although I'm a qualified zoologist, I haven't any formal experience in the use of fire as a management tool. However, the evidence from various research programs in Western Australia over many years is that, regardless of whether fires are hot or cool burning, they need to mimic the aboriginal burning techniques which have applied for 40,000 years, namely, to have lots of small burns. In other words, a mosaic of burns across the landscape will produce a variety of burn types, some hot, some cool, some fast, some slow, some large, some small, and so on.

This is important for two reasons: first, Australian plants (on which all animal life is dependent) need a variety of fire conditions to survive into the long term. A twenty five year research program by the Western Australia Department of Conservation and Land Management showed that, in our south west jarrah forests where fuel loads can reach very high and dangerous levels after ten or twelve years, the preferred burning regime was to have a fire interval of about eight years, with a spring burn to be followed eight years later by another spring burn, to be followed eight years later by an autumn burn and then to have a sixteen year no-fire interval. Overall, this amounts to three fires every forty years. Now, this is the theoretical ideal as devised by the researchers and they accept that the actual burning program must be adapted to meet local needs and conditions, so a shorter or longer interval between fires or a changed seasonality of fires from what they were recommending may be necessary or desirable near towns, around high conservation areas and so on.

As an aside, these researchers also advised that some vegetation types are fire sensitive and should be burnt rarely if ever. As examples, they suggested that dense swamp vegetation within forests is the home to endangered marsupials known as quokkas and they shouldn't be burnt. If fire must be used, for example, because the vegetation is getting too dense and a fire would absolutely devastate the wetland and its animals,

then burn the swamp in two or more small parcels, so that the quokkas can remain in an unburnt area and recolonise the burnt area as it regrows.



A quokka

The second reason why mosaic burning is crucial for long-term protection of the environment is, as mentioned above, to protect our unique fauna. Many species of Australian animals and birds have very special habitat requirements. For example, the noisy scrub bird lives in long unburnt heath on the south coast of Western Australia. The food it consumes only occurs within the litter layer that has built up after many years of leaf litter accumulation, so fire needs to be excluded or kept to small areas. The red eared firetail lives in dense vegetation along creek lines in jarrah forests and, if every creek line was burnt in a single fire, no firetails would survive to recolonise the creek lines as they regrew.



Noisy scrub bird



Red eared firetail

In Western Australia's forests, the prescribed burning regime that is now in force is a compromise between the number of dollars provided by the government and the environmental needs of the areas to be burnt. Autumn fires cost more to manage because the fires are hotter and more standing trees catch alight and these must be put out by fire crews soon after the main fire has gone through. Conversely, spring fires are easier to manage because the ground is often damp and fires in the litter layer are not as hot as they would be in autumn. However, the environmental damage is more severe, in particular, on some flowering plants such as orchids and on nesting birds.

In Western Australia, where there is a couple of million or so hectares of state forest, the prescribed burning program of the Department of Conservation and Land Management aims to burn the complete forest every ten to twelve years, so between eight and ten percent of the forest is burnt in each year. This rarely occurs because of weather or other constraints, but the south west of Western Australia has not had an Ash Wednesday type of fire since the Dwellingup fires of 1961, after which the prescribed burning program came into force. Individual burns cover from 2,000 to 5,000 hectares, smaller areas being too expensive to burn (because there are more fires needed to cover the same area of forest) and larger areas seen as having too severe an impact on the environment, with recolonisation of large burnt-out areas by animals and birds from adjoining unburnt areas taking too long.

To answer the question: what is the effect of a feral fire on the native animal population? My general response is: disastrous! We call such fires uncontrolled fires or wildfires and, because of their size and intensity, they can have the following severe environmental impacts:

- if they become crown fires, burning the tops of trees, they can eliminate not just ground-dwelling fauna but also arboreal fauna, including birds
- if such fires burn under very dry conditions, they can consume all litter on the forest or woodland floor, removing valuable habitat for all sorts of creatures that will take years to return and often destroying the seed bank stored in the top of the litter layer so that seedling regeneration is greatly reduced
- the larger the wildfire, the greater the number of local populations of animals and birds that become extinct. These species will not return until populations that escaped the fire, often many kilometres away, slowly move back into the burnt-out areas, if ever

- hot fires can be so intense that much of the fallen timber on the forest floor is consumed. This removes nesting and roosting hollows for ground-dwelling fauna, as well as food for termites, fungi and a wide range of smaller creatures
- hot fires will also ignite many more standing trees that contain hollows essential for bird breeding, especially large hollows in old trees used by the larger birds such as *black cockatoos*. If a two hundred year old tree with hollows burns down, it will take two hundred years for a similar tree to regrow.



Long-billed white-tailed black cockatoo




The common wombat and sarcoptic mange

by Roz Holme of Cedar Creek Wombat Rescue

Sarcoptic mange is a nasty disease that predominantly affects the common wombat throughout its range. Sadly, the condition has also been recently found in Southern hairy-nosed wombat populations in South Australia, however there is no record of the Northern hairy-nosed wombat being affected.

Contrary to popular belief, the spread of mange is not entirely due to wombats - introduced fox and feral dogs are also hosts for mange and contribute to mange dispersal as they sometimes utilise wombat burrows for shelter.



Sarcoptic mange is caused by a mite called *Sarcoptes scabiei* which has many different subspecies that affect a number of different hosts. Although *Sarcoptes scabiei* is transferable between different hosts - including humans - it is usually host specific and therefore self limiting. The mite that affects wombats - often fatally - is called *Sarcoptes scabiei* var *wombati*.

Sarcoptic mites first mate on the skin of the wombat and the male dies not long after. The female mites then burrows under the skin of the wombat leaving a network of tunnels in the flesh where eggs are laid, the female then dies at the end of a tunnel. The mite eggs are nurtured via the wombat's blood serum and hatch into larvae three to eight days later.

Larvae then moult into nymphs - and nymphs into adults. During this cycle the mite feeds off the wombat's blood serum which is the main contributor to the debilitation of the wombat. Once the nymphs have turned into adults they make their way back to the surface of the skin - creating more tunnels - where they mate and the cycle starts again. The life cycle of the mite is approximately two to three weeks.

Sarcoptic mange is a severe disease and affects the host in several ways. The irritation caused by the mite burrowing under the skin causes the wombat to scratch incessantly which in itself causes often irreparable damage to the skin including mutilation and hair loss. From the constant scratching, skin layers are taken off and raw flesh is exposed. The blood serum seeps through the mites' tunnels to the exposed flesh creating wounds and scabs. Ulcers and deep lesions develop which then cause secondary infection and blow fly strike.

Other visible symptoms of this disease are skin thickening and crusting over the body, including the eye and ear areas causing blindness and deafness. The animal becomes too weak to search for food and malnutrition and dehydration occur. The immune system becomes depleted and the wombat looks emaciated.



A wombat with sarcoptic mange

In advanced stages sarcoptic mange also has a devastating effect on internal organs, including the heart, liver, kidneys, lungs and reproductive organs. Respiratory infections and pneumonia can deplete the wombat further.

Left without treatment, a wombat with sarcoptic mange will die and death is slow and painful.

We, at Cedar Creek Wombat Rescue, have been caring for wombats for several years and have a continual stream of mange affected wombats passing through our doors. We seem to get mainly females without joeys, as wombats in this condition don't breed. Sadly, if mange is contracted by a female with a joey she will often reject it as she can't cope with the extra burden, so we tend to keep an eye out for abandoned wombat joeys in our area.



Roz Holme - Cedar Creek Wombat Rescue. The wombat was rescued after a pair of dogs killed his mum, who was so debilitated by mange that she could not defend herself. Luckily this little wombat survived the ordeal and he was found quite well, albeit stressed and dehydrated. This little wombat will now be raised in care and one day released back into the wild

Entire colonies of the common wombat are being lost to this horrible disease; however an affected wombat can completely recover if it is treated early. You can help save these animals by reporting cases to your local wildlife organisation or to your local National Parks and Wildlife Service office. Record the time and exact location of the wombat so that it can be found easily by a ranger or wildlife carer. And remember - the quicker you act the more chance a wombat has of survival!



The Southern hairy nosed wombat

*The National Reserves System Programme,
National Heritage Trust grants*

The Southern hairy nosed wombat is the South Australian state fauna emblem. These shy and secretive creatures burrow under thick limestone shelves to keep cool during hot days and only come out in the cover of darkness unless they are stressed or starving.

The Natural History Society of South Australia has managed Moorunde Reserve in order to protect wombats with a volunteer effort since its establishment as a wildlife reserve in 1968. The original purchase was made possible by the raising of a public appeal in 1967 which enabled the Society to purchase eight square miles of Portee Station in the mallee near Blanchetown. Population research shows that from approximately one hundred and fifty animals in 1968, the reserve is now home to around four to five hundred hairy nosed wombats. However, populations of wombats are fragmented by intervening pastoral holdings making the gene pool of individual enclaves significantly at risk.



Southern hairy nosed wombat (Lasiorhinus latifrons). Southern hairy nosed wombats are similar in size to common wombats, but have softer, silkier, grey fur; longer ears and a much broader nose. Females (like all the wombat species) have a backward-facing pouch

The Natural History Society maintains this reserve, and four others like it, as a heritage for the people of South Australia. As a result of their efforts at Moorunde, the Department of Lands gave them the responsibility to maintain Lake Short, originally a water reserve on the edge of Portee Station, as another wildlife reserve. The Natural History Society now wishes to take advantage of a land offer in the mallee which is immediately

adjacent to Moorunde Wildlife Reserve. Portee Station has decided to sell off approximately half of its remaining eighty square mile property. This is an opportunity to protect a section of Portee Station which is immediately adjacent to Moorunde (approximately 12,400 acres). To establish it as a wildlife reserve adjoining Moorunde would more than double the number of wombats under reserve protection. The area released for sale includes one of the most densely packed populations of wombats in the Murray Mallee area. Bringing this all together would also improve the survival prospects of the wombat ecosystem as the edge effects would be reduced. The wombats live in this region because of the limestone shelf and therefore could not be relocated anywhere else. Therefore this area is of prime importance as habitat to the largest population of our state fauna emblem in close proximity to Adelaide.

Although the land on offer is heavily degraded sheep grazed country, The Natural History Society of South Australia has shown from past experiences with regeneration including Moorunde and Lake Short reserves that the land does recover, given time.

The Natural History Society of South Australia has observed the reestablishment of many species of plants on the reserves over time, including two species of *Pterostylis* (greenhood) orchid that was not expected to return to Moorunde after being so heavily grazed. Similarly, on neighbouring Lake Short reserve given to the Natural History Society by the Lands Department in 1992, they have nurtured the reestablishment of some two thousand swamp box and other eucalypt species since it was last flooded in 1992.

Once the sheep are fenced out the land will recover, even though other introduced feral pests may remain. Moorunde now is a beautiful mallee area with densely filled in undergrowth.

The Natural History Society of South Australia has some funds (\$200,000) and is asking the Commonwealth to top this up with a further \$287,000 in order to purchase the 12,400 acres. This is a rare opportunity to protect a large section of mallee for the preservation of wombats and other wildlife. We need to ensure that the Southern hairy nosed wombat does not go the way of its northern counterpart, which currently has the status of being the most endangered land mammal on the planet.

The National History Society of South Australia is asking if the South Australian Government can help with any of this purchase to further protect the state fauna emblem from the ravages of civilization.

The Wildlife Preservation Society of Australia has donated funds and is actively supporting the purchase of this important environmental habitat for wombats on the land adjacent to Moorunde Wildlife Reserve.

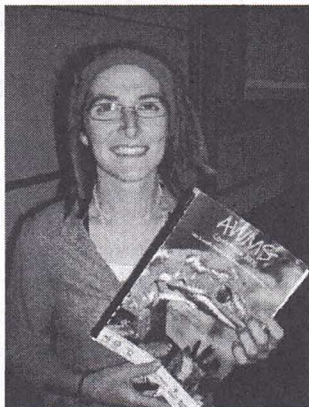


University grants winner gains further honours

Maria Cardoso is studying at the School of Biological, Earth and Environmental Science at the University of NSW, Sydney

Maria recently attended the Australasian Wildlife Management Conference in Auckland New Zealand and gave a presentation on her PhD project, which is to identify genetic effects, such as loss of genetic diversity, that may be affecting the success of current translocation programs in Western Australia (western quoll) and the Northern Territory (northern quoll); to analyse aspects of the population genetics of wild Tasmanian eastern quoll populations as background data to be used in future conservation strategies and to provide new data on the genetic structure and parentage of New South Wales spotted-tail quoll populations. Maria hopes that her study will motivate further multidisciplinary research into the integrative conservation management of endangered species.

We were delighted that Maria was presented with the Student's Award for her presentation.



The Dolphin Discovery Centre



Wildside

by Lance Ferris, Australian Seabird Rescue

2006 – The year in review

Three pelicans have chosen to re-visit our WildlifeLink centre to welcome in the New Year. Two were victims of fishing tackle injuries, while the third overcame chronic pneumonia, which nearly cost her life.

During 2006, Australian Seabird Rescue teams along the coast of NSW have rescued hundreds of pelicans and seabirds, the majority of which were entangled in fishing tackle, while on the North Coast, seaturtle strandings increased with more than usual suffering from ingestion of plastic debris. However, in the Richmond River bird injuries remain at sixty percent less per head of population than in most other estuaries. The response by caring members of the public and fishers, with prompt calls for assistance, has changed this area from a disaster zone to one of the safest areas for estuarine birdlife along the State's coast.

We thank all those who 'made the call' and especially those who took the time to rescue the birds and turtles and deliver them to our WildlifeLink Centre. Without the generosity of many local businesses, groups and individuals, the sponsorship of corporate bodies, and the incredible support of the Tony and Lisette Lewis Foundation, we would not have survived the year.

A highlight of the many and varied visiting groups to our centre were the hundreds of school students from across the district. Education is indeed the way of the future.

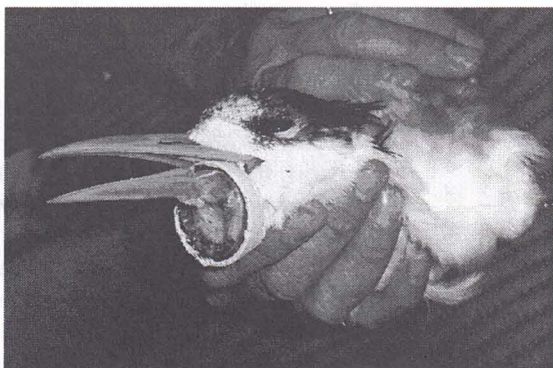
We wish everyone a happy, prosperous and safe New Year.



These three pelicans returned to our WildlifeLink centre for a visit, weeks after being released from care. From left: ?Grumpy? who suffered from chronic line entanglement of its wing, ?Noobie? who fought his way back from pneumonia, and little ?Jules? who was hooked in the shoulder

Hard plastics top the charts

While environmental organisations flog the message about reducing the number of plastic bags, we are beginning to realise that bags represent a small proportion of the real threat. On the shelves of our supermarkets and stores, most items are encased in plastic bubbles, and glass bottles are almost a thing of the past. Weight for weight, I am guessing that plastic packaging far outweighs plastic bags. So too does its threat to marine creatures. Most dead sea turtles are now showing evidence of hard pieces of plastic being the cause of death. An ASR volunteer recently rescued a crested tern, with a plastic bottle top wedged firmly on its lower beak, preventing it from eating. A very tense and lengthy operation was required to remove the lid, but all was in vain. Despite our efforts, the little bird died overnight. Sun block is certainly recommended for beach-goers, but discarding the bottle and its lid, on this occasion, signed a death warrant for one of our seabirds.



A sun block bottle cap was wedged firmly onto this crested tern's beak, preventing it from foraging for prey

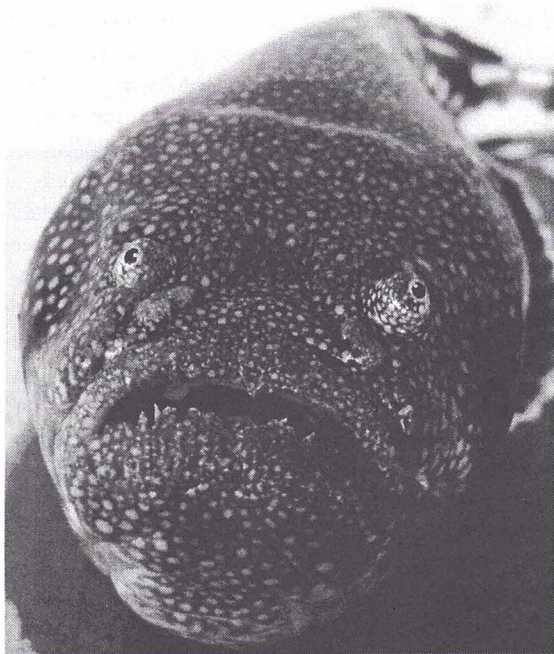
Balloons have their ups and downs

While balloons are a delight at parties, those which are filled with helium and released represent a threat to wildlife. Eventually, many of these balloons end up in our oceans. In 2001, we addressed the NSW Parliament and were successful in convincing the Government to ban the mass releases of balloons in NSW. However, Queensland is still obviously adopting the belief that they just go up and 'disperse', as was evident at the recent Indy car races on the Gold Coast. Thousands of helium balloons were sent skywards to mark the start of the event. Over the years, we have removed balloons from dead turtles, and more recently we were extremely lucky to save a huge, ocean-going seabird which had a balloon lodged in its stomach. I often wonder what action the authorities would take if I discarded 10,000

deflated balloons into the ocean at Coolangatta. A spokesperson from the old Environmental Protection Agency said that it is okay to release them into the air, but attracts a fine if they were to be dumped in the water... strange philosophy indeed. But wait... there's more. Unfortunately (as is usually the case), if no one can determine who released the balloons that are found along our coast, event organisers remain free to pollute.

Only a mother could love ?em

Even though they are fierce predators, stargazer fish have developed defences against larger attackers. They are well-camouflaged ambush predators, which usually remain buried in soft sediments. Most species have formidable shoulder spines enveloped in tissue that produce a painful toxin. In Australian waters, the common stargazer inhabits shallow bays and quiet coastal waters with sandy or broken shell bottoms. It is usually invisible even to the most experienced diver, with only the mouth and camouflaged eyes positioned at the surface. Fortunately, the venomous spines are employed for defence only when the fish is seized and pose little problem for waders who might inadvertently step on a buried fish. Because of their predatory nature, however, they are occasionally taken on hook and line and should be handled with great care.



Stargazer fish have toxic spines, which can cause considerable pain

Global warming

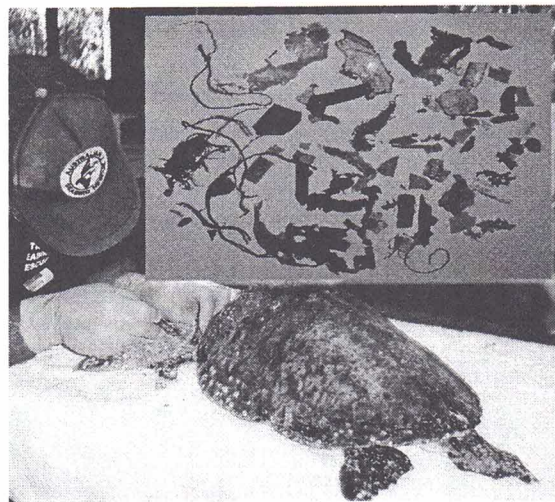
Not that many years ago, global warming was considered to be unsubstantiated hysteria. The term, 'ozone layer' was a mysterious 'thing', somehow affected by pressure-pak cans and escaping gas from defunct fridges. It has been interesting to see the acceptance of the potential threat to our planet by those who initially disputed the research. In the early 70s, in my hundreds of underwater excursions at Julian Rocks, I never encountered a single sea turtle. By stark comparison, twenty years later, forty three turtles were tagged at the rocks, with an estimated seventy to one hundred turtles residing at the site. In an effort to determine the cause of the increase, it has been mooted that global warming and higher sea temperatures may well be a significant factor in the southern movement of the species. Global warming is upon us, and like it or not, the process is now an accepted fact. There are many things we can all do to help, one of which is merely keeping your vehicle well tuned and serviced. Rough-running vehicles are renowned for excess exhaust emissions.

Education – the key

Although the relief of the terrible suffering of seabirds and marine turtles is the primary goal of Australian Seabird Rescue, in many cases, rescuing these creatures is not saving the planet. After years of rescues, we have come to realise that to improve the environment for our wildlife, spreading the word is the key to the bigger picture. Indeed, releasing many of the animals can be an exhilarating experience, but changing attitudes calls for a different approach. To just 'catch-em, patch-em and let-em go' achieves very little. If we released a thousand animals a year, and no-one knew the reason why these creatures became sick or injured, it would be a wasted exercise.

Rubbish record for ailing turtle

One of our sea turtles in intensive care has broken the record for passing rubbish. Volunteers have been in awe of the array of junk this turtle has swallowed. One would think it has been living in a town dump. To date, the turtle has miraculously produced over ninety five pieces of junk, including hard plastic, garbage bags, shopping bags, fishing line, rope, packing tape, a piece of a clothes peg, and even a chunk of plastic coated steel! Contrary to all expectations, the turtle is recovering, and is expected to be released.



Radical procedures were required to induce this sea turtle to pass these items of man-made junk (inset)

After months in care and hundreds of volunteer hours, four of our sick sea turtles were recently released. To enable members of the public to view these amazing marine reptiles, we chose to release the turtles at The Pass in Byron Bay. Over one hundred people were enthralled at the antics of the turtles as they were removed from our rescue vehicle. With the smell of the ocean in their nostrils, they flapped their flippers so vigorously that one would have thought they could fly.

It was certainly a far cry from the way the turtles appeared when they were rescued some four or five months ago. Some were so ill, that they were considered comatose, and were given only hours to live. But a dedicated team of volunteers kept up the good fight, often working into the wee hours of the morning with medical procedures.

From young children to grandmothers, all onlookers were delighted to hear each turtle's story, as it was released at sea. The day provided us with an ideal opportunity to share our experiences, and tell of the plight of sea turtles when they swallow man-made junk and plastics.



Over one hundred people witness the release of four sea turtles at The Pass in Byron Bay



WILDLIFE WALKABOUT

*by Dr Vincent Serventy AM,
President of Honour*

International

Once Australia led the world in cloud seeding, now Israel does. Once we led the world in solar energy use, now Japan does. Seven other nations, including China, are following this example according to the media. We have tried in vain to persuade our National Government to take our Bill of Environmental Rights to the United Nations. At a time when so much concern is being focused on global warming, we need governments to take a lead on environmental matters. We will keep up our efforts.

Plantations

Our Serventy Medal winners, the Fentons of Western Victoria, told us that within thirty years farmers would earn seventy percent of their income from agro-forestry. It is already moving that way in Western Australia.

Now the Food and Agriculture Organisation (FAO) is reporting the Asia Pacific region recorded the highest rate of forest plantation over the world, while a local NSW group has won the Banksia Award for research in this field. We reported many years ago the CSIRO claimed they had done all the work to demonstrate the effectiveness of this activity. Now it is up to the farmers.

Catching poachers

Poachers are a world-wide wildlife problem. It is good to know we are playing our part. A man with a batch of reptiles was caught by national park officers. His fine was \$1,500, while the animals were returned to the wild.

WWF

This international conservation group has reported that the earth's natural resources are being used twenty five percent faster than the planet can renew them. This is one of the reasons why our Society has been campaigning for years for the establishment of an Environmental Bill of Rights.

ECOS

That wonderful magazine of the CSIRO has reported that fossil giant clams from New Guinea offer a detailed record of the climate 400,000 years ago. Even more important it offers answers on how to solve the climate change problems of today.

National

John Coburn

My two good friends John and Barbara are now both dead. They lived near us at Pearl Beach, both deeply interested in nature. The art critic, Robert Hughes, said of John, who died recently, 'the essence of his vision was its sustained and dedicated search for a visual equivalent to the underlying core of nature; whatever it is that binds the earth, sun, sky, fruit, flowers and people into an immense whole.' For John it was religion, for most conservationists it was expressed by Thoreau when he wrote 'in wildness is the preservation of the world'.

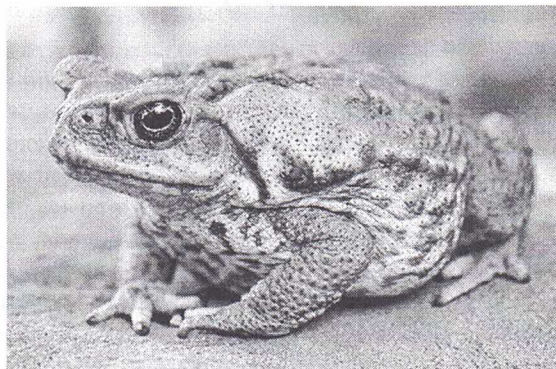
Artesian basins

Australia's Great Artesian Basin is famous as it allows farmers to survive in Central Australia. Years ago when I first came to Sydney and became the President of our Society and the poet Judith Wright was our patron, I was flown to western Queensland to lead an environmental fight to stop the building of an industrial complex on the intake beds of the artesian basin. We won that fight yet the same kind of fighting has both been won and lost all over Australia.

Wendy Free in the Sydney Morning Herald wrote, 'One of Sydney's cleanest and cheapest sources of water may be right under our feet'. Down the years all these 'treasure chests' have needed protection from uses like the battle we had just won - replenishment with storm water, protection from poisoning with industrial wastes. Surely we can persuade our National Government, together with all the States, to develop a cohesive plan for the future of our water!

Defeating the cane toad

A number of groups have shown how to destroy this feral pest. The simplest and most profitable was a sugar cane farmer who used their bodies as fertiliser. All over the world wildlife has been used for the same purpose. Also on Bonrook Station in the Northern Territory an inexpensive trap costing a hundred dollars caught 543 toads over a six week period, making inroads into the local toad population.



Cane toad

Quolls

Media reports indicate our quolls are making a comeback; after many were killed though eating poisonous cane toads. Many years ago I learned how crows had discovered the trick to avoid being killed by the toad's poison. They killed the toad with a blow of the beak to the head, then turned it on its back and ate the body, not touching the dangerous poison glands on the head. No doubt the quolls have learned a similar trick.



Northern quoll

WPSA Environment Policy

The world's most urgent needs are to counter environmental disasters such as global pollution, global warming and global over population. Our Society's Ten Green Values will counter all three. We have sent a copy of these to all political parties. The Greens agree with them, Labor will consider them if elected. The NSW Conservation Council has endorsed them. We believe they should be attractive to all parties.

Ten Green Values

1. All people have a right to an earth where they can live in good health and enjoy a fair quality of life
2. No nation has the right to change the world of nature in a way that will damage the earth's resources
3. All nations must keep the present diversity of the natural world, its plants and animals and the beauty of landscapes
4. All nations must use their resources in a sustainable way and plan for a future when present supplies of oil and coal run out
5. All nations giving aid must make sure this will increase the quality of life of those to whom the help is given
6. The resources that the world holds in common must be used for the common good
7. All nations must carry out international agreements and abide by the decisions of the World Court
8. All nations must check their own environments and warn of dangers ahead
9. All nations must develop a sustainable population policy, not expecting other nations to accept their excess, due to unwise planning
10. All nations must educate their people into a new morality that cares not only for the rights of the people but also for the rights of the environment.

Solar panels

The National Government is working with Victoria to spend \$230 million to build a huge solar farm in northern Victoria. A sensible national move would be to urge all States to encourage the same renewable energy schemes to cut our greenhouse gas emissions. New Scientist pointed out that in one hour the sun pours enough energy on the earth to satisfy all the planet's energy needs. Sadly our present solar panels can only trap seventeen percent. With luck new technologies may trap more. Once Australia led the world in this field until research funding was cut.

Victoria

Wind farms

Wind farms have been in the news lately because of supposed dangers to wildlife. I have a large file on the topic and wrote to the Minister for the Environment that research around the world showed slowly turning vanes posed little danger to birds. Now from Environment Victoria comes a detailed argument on wind farms. Victoria will produce at least ten percent of its electricity from renewable energy sources by 2016. Climate Change is the most pressing environmental issue of our time and Environment Victoria - alongside Greenpeace and the Australian Conservation Foundation - welcomed the target as a step towards cutting our addiction to greenhouse polluting and coal fired electricity. The Nature Conservation Council is pushing hard for more work on wind farms to produce sustainable energy without increasing global warming. One point among the many reasons they urge their use is that they occupy only one third of the land taken by coal fired power generation. Also they add that surveys show such farms boost tourism, the same point we made in a previous magazine.

Tree planting

A recent report that Greenfleet has planted 14,500 trees near Hamilton is welcome. Our Society was active in planting trees on National Tree Planting Day in July. This is an important activity as trees absorb carbon dioxide to counter global warming. In one year the average car produces about 4.3 tonnes of CO₂.

New South Wales

Good companies

The NRMA is a household name. In their yearly review they point out half their fleet now runs on LPG with the initiative saving them a million dollars every year in fuel costs and at the same time reducing carbon emissions. They also have been active in encouraging the production and use of biodiesel and ethanol. Our congratulations to the group to which I am sure many of our members belong.

Jack Munday Place

The union leader, educated in conservation by the battlers for Kelly's Bush, is to be honoured by having a square named after him in the Rocks; which he saved from development. Some years ago a minister told me Jack's Green Ban on the Rocks saved the Government from a financial disaster. Jack's stroke of genius was to change the old 'Black Ban' to 'Green Ban'. This led to a United States writer coming to Sydney to describe this new 'green wave' from 'down under.' He wrote a book about it making Green Bans internationally famous. A few years later Queensland unions brought in a 'Blue Ban' to save the Great Barrier Reef from oil drilling. The square is a worthy accolade for a great conservationist!

Dunnarts

The Central Coast News had a headline 'Survey uncovers a world of dunnarts.' It went on to describe how the survey found the marsupials for the first time in a reserve in a residential area. This discovery was most encouraging. Most people call dunnarts marsupial mice since they are small native pouched mammals that feed on insects and spiders. It was most encouraging.



Fat-tailed dunnart (*Sminthopsis crassicaudata*)

Western Australia

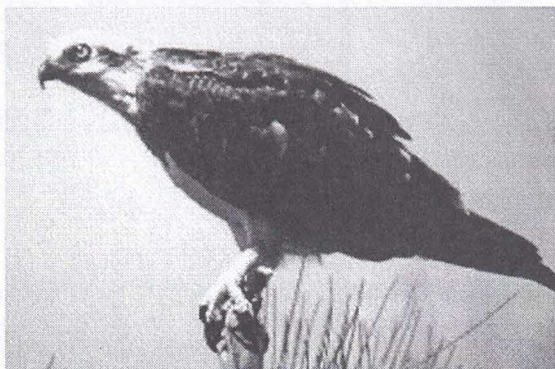
The Naturalist News was packed with interest. One section dealt with two species of birds of prey that fascinated me as a young man on the Abrolhos Islands. This is one of the world's greatest sea bird sanctuaries, safe as a quasi Regional Park, in practice being guarded by CALM.

I spent many weeks on these islands, once a whole year. Two birds fascinated me both as a naturalist and a photographer, the white-bellied sea-eagle and the osprey. In the first the female is larger than the male with the wing span as much as 2.3 metres. Their diet is mainly fish, though some have been known to eat magpie geese as well as small crocodiles. The birds live on all our coastlines.



White bellied sea eagle

The osprey has a much larger range with a wingspan of 1.75 metres. A bird can plunge on fish from a great height, often going under the water to emerge with a fish to dry out on a rock while it eats the catch. With few trees available, the birds build a large nest of sticks and any other material, reaching 150cm in height with almost the same diameter. One pair I watched for many days on the Island accepted my company once I moved into a hide built of coral slabs.

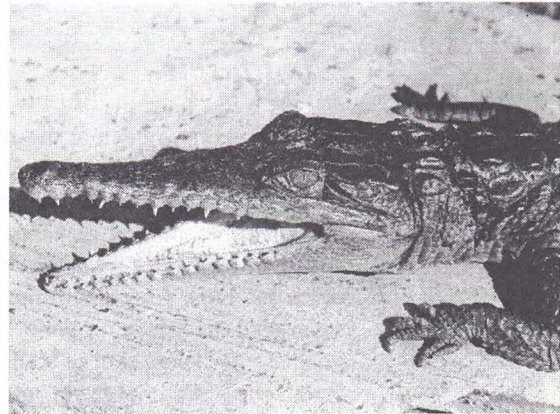


Osprey

Queensland

Crocodile study

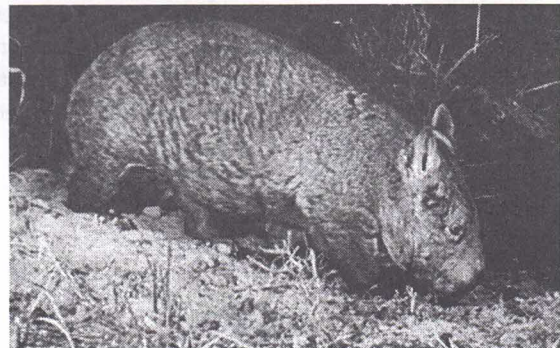
A study of the mouth of the crocodile has been conducted at The University of Queensland. Most crocodiles have twenty to forty pores on the surface of their tongues and these lead to individual salt glands which remove excess salt from the animal's system allowing it to live both in fresh and salt water. (Seabirds also have a different method to remove the salt with nasal glands. Often birds can be seen flicking their heads to rid themselves of the salt).



Freshwater crocodile

The Northern hairy nosed wombat

Considerable research has been conducted in the State to find how best to conserve this rare Queensland animal. Our Society assisted in obtaining cash from WWF to provide fencing to keep out grazing cows from the animal's threatened habitat in the Epping Forest and has also made financial contributions. Owing to the stupidity of the Premier of the time, national parks could be used for cattle grazing. Cows took the young grass essential for young wombats to survive. At last report the small population of wombats is still not secure and the species is still considered endangered.



Northern hairy nosed wombat

South Australia

The Eyre Peninsula

The Eyre Peninsula has had a number of fascinating nature items added to its natural attractions and include the following.

- An increase in the population of yellow-tailed black cockatoos
- An increase in the number of woylies brought from Dryandra in Western Australia (this is the wonderful woodland our Society saved from being mined for bauxite)
- An increase in bush stone curlews
- An increase in greater bilbies brought from Monarto Zoo to Venus Bay Conservation Park
- An increase in the endangered sandhill dunnart due to a recovery plan
- Recovery plans for various plants.



Woylie (*brush-tailed bettong*) (*Bettongia penicillata*) is one of the rat-kangaroos weighing around 1.3 kg. The name "woylie" has been adopted from the indigenous Nyoongar (south west Australia) name. It has powerfully clawed forefeet used for digging, is yellowish grey above and paler below. The tail has a distinctive black crest. This beautiful marsupial often came to my campfire to eat food scraps



Letters to the Editor

The carp-catchers

by Vlasta Berka, Auburn NSW

After reading an interesting article in the last issue of Australia Wildlife, written by Dr Serventy, a vivid image popped into my mind of the carp-catchers I have witnessed as a young child of seven years old (about 75 years ago) in my native village in the Czech Republic. (I don't know if the carp-catchers still exist. Probably not, with the modern way of acting, the carp is probably bred in fish farms).

The carp-catchers arrived with some big containers, which they stood up at the river's edge and filled them with clean water. Then, a great surprise to me, they took off their boots, rolled up their pants over their knees and bare-footed entered the icy water of winter, sometime in November.

They walked slowly along one bank of the river where the mud was thick and fished with their feet. When their toe touched a carp peacefully dreaming in the bed of mud, they bent down, picked up the carp and carried it to one of the containers. They fished only the big specimens and in no time their containers were filled with swimming fish.

When the carp-catchers left with their catch, it was the turn of the big boys of the village to try their luck and catch the fish the carp-catchers missed, so they said. They had no such luck. One of them said that he was bitten by a huge fish, which got away and another cut his foot on some sharp object.

As for me, I ran home to relate the whole episode and ask what the carp-catchers were going to do with so much fish. I was told that the carp caught was kept alive in fresh water until it lost its smell and taste of mud, then sold for Christmas.

The carp, in my native land, is the traditional menu of the Christmas Eve evening meal of the family and it still remains the best meal of the year. The only thing I never liked was the roe soup. I simply hate any fish soup. Even when traveling through France, we tried to taste the famous Marseilles bouillabaisse. After tasting it with one spoonful, I left it untouched, to the indignation of the waiter who carried it away muttering something to himself about the stupid foreigners.

The carp is a beautiful fish, very much maligned, especially here in Australia. It is very similar to the river mullet of these waters. They love mud, smell and taste of mud. Before it can be consumed and please the palate taste buds of humans, it has to be



rid of the muddy taste. It is achieved by keeping the carp in clean, running water for some time, I don't know for how long. No self-respecting cook would serve a freshly caught carp for fear of being branded "mud".

What remains on my mind is the puzzle – why the carp was so easily caught by the carp-catchers. Is the carp hibernating, sleeping away the cold months of winter, in a nice bed of mud, dreaming of Spring? I don't think that anybody has solved this question up to now.

However, it might explain the population explosion of the carp in the Australian waters. Being programmed for cold waters, it is a denizen of the warm waters in Australia. Originally, it probably breeds in spring only once a year. Being displaced into warm waters, its cycle of breeding has gone haywire and it enjoys a spree of breeding all year round, it might be called "an eternal spring".

The population explosion is not unique only to the carp. We all know that in warm climes, with sufficient food, the breeding is accelerated, even with humans.

The question why the carp loves muddy waters is easily explained. It churns the water in search of tasty tid-bits hidden in the mud. It doesn't eat the native fish or chase it away, but the native fish, which does not like murky waters, moves away to cleaner pastures.

Man has a tendency to cover up his foolishness of interference with nature. He blames anything or anybody but himself.



Fire ants

Imagine an Australia where you couldn't use your own backyard, you couldn't walk outdoors in bare feet or in thongs, your pet couldn't romp in your yard and you couldn't garden. Couple this enormous loss of the Australian lifestyle with crop damage and the destruction of lizards, skinks and other fauna and the picture is very grim indeed.

This is exactly the sort of Australia we will have if the red fire ant takes hold.

The red imported fire ant, *Solenopsis invicta*, is a serious new pest that has been detected in Australia. They inflict a painful sting and, if not eradicated, will seriously affect our lifestyle. They are the greatest ecological threat to Australia since

the introduction of the rabbit and are potentially worse than the cane toad. Fire ants look very much like ordinary house or garden ants.

Fire ants are small, reddish-brown in colour on the head and body, with a darker abdomen and come in a variety of sizes within one nest, ranging from two millimetres to six millimetres.

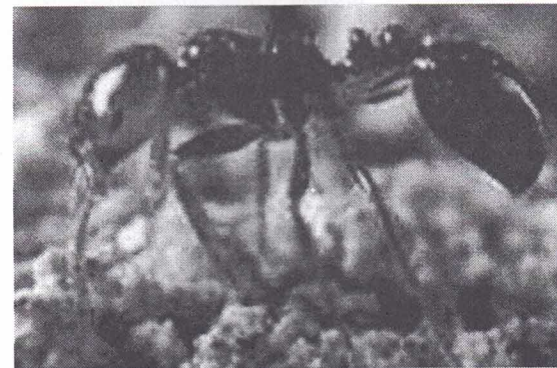
Their nests can appear as dome-shaped mounds up to forty centimetres high. Mounds will not always be evident, but are usually found in open areas such as lawns, pastures, along roadsides and unused cropland, but rarely occur in frequently cultivated areas. This species could easily be confused with the common coastal brown ant, as well as some local native ants, but can be distinguished by its aggressive behaviour.

Fire ants inflict a fiery sting, which causes a small blister or pustule to form at the site of each sting after several hours. The blisters become itchy while healing and are prone to infection if broken.

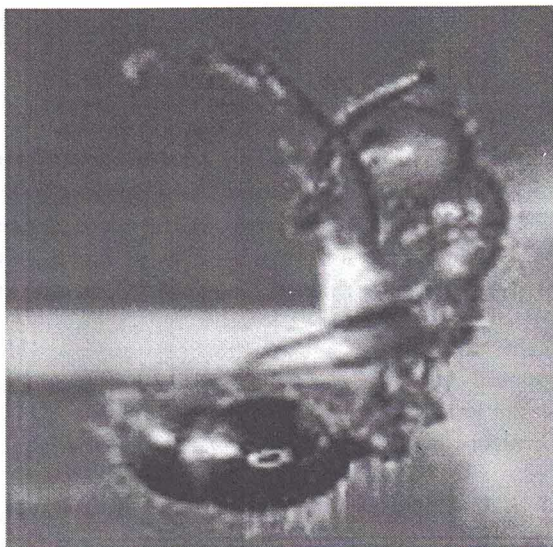
If you are stung by a fire ant apply a cold compress to relieve the swelling and pain, then gently wash the affected area with soap and water and leave the blister intact. People who are allergic to insect stings should seek medical attention immediately. On rare occasions, fire ant stings can cause severe acute allergic reaction (anaphylaxis).

Where are fire ants in Australia?

The two initial discoveries in Australia were around Wacol (near Brisbane) and at the Port of Brisbane, Fisherman Islands. The Queensland Department of Primary Industries site has current information on Queensland infestations available. It is, however, not just a Queensland problem (eg an infestation was found in a palm tree shipped to Melbourne from Wacol and another in soil in a shipping container imported into Melbourne from the USA) and only constant vigilance by all Australians everywhere will save the day.



Fire ant



Fire ant

Can they be eradicated?

There is a chance that fire ants can be eradicated from Australia before they get out of hand. A combined Federal and State eradication program is currently underway.

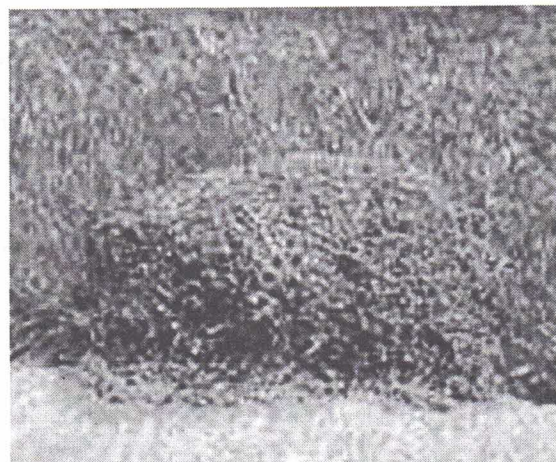
How can I help to contain the spread of fire ants in Australia?

If you are involved with the movement of any plant or soil material (including mulches and pots) inspect the items before you send or receive them (regardless of where they are from). If you suspect fire ants then report their nests immediately. Spread the word - tell people about fire ants. If we are to win the battle then every Australian should know about fire ants.

Firstly, avoid contact with the ants.

Secondly, report them to the Department of Primary Industries (DPI) in your State. Fire ants pose such a serious threat to our economy, environment and lifestyle that they have been declared a notifiable pest under the Plant Protection Act 1989. This means that landholders who think or know they have fire ants on their property are legally obliged to inform the DPI of the infestation. Withholding this information could result in the landholder being fined.

If you find any nest, DO NOT TOUCH IT. Try to identify if it is a fire ant nest, which appears as a closed, dome-shaped mound (that is, no opening) up to forty centimetres high. In contrast, many native ants build a smaller nest with one or more obvious openings. However, in some soil types, fire ants may not form obvious mounds, particularly in the early months of nest development.



Fire ant mound



Further protection for Tasmanian devils

The Tasmanian devil, under threat from the devastating Devil Facial Tumour Disease, has been listed as vulnerable under the Environment Protection and Biodiversity Conservation Act 1999.

The listing follows the Australian Government's earlier commitment of \$2 million over two years to accelerate diagnostic research into the cause of the disease and to advance field research and management actions to limit the spread of the disease.



A Tasmanian devil badly affected by Devil Facial Tumour

Most members are aware of the threat to the Tasmanian devil posed by Devil Facial Tumour Disease which has already caused a substantial decline in the species' numbers. Listing the Tasmanian devil under the EPBC Act offers the species additional protection and means that any new activity likely to have a significant impact on the species will need to be referred to the Australian Government for assessment and approval.

The work already being done to fight Devil Facial Tumour Disease is now supported by national listing. Both are important for the long-term survival of the world's largest carnivorous marsupial.

Tasmanian Devil Facial Tumour Disease was first detected in the mid-1990s and has since spread to populations throughout Tasmania – though there is no evidence of it in the far north-west and west coast populations.

To date the cancer is estimated to have resulted in the loss of between thirty and fifty percent of the wild population and, while a recent breakthrough has revealed that the cancer is spread by biting, the cause of the disease is still not known.

Knowledge of the disease is improving as a result of monitoring of the wild population and diagnostic research – both of which are vital if we are to find a cure.



Healthy Tasmanian devils



Wildlife viewers and photographers

For people interested in observing wildlife in their natural surroundings our Society believes they should follow the best possible practice to minimise their own impact. People should see themselves as part of the collective impact in the natural world.

If you are in an area where there is wildlife, we strongly urge that you follow the following broad outlines:

- Take particular care to keep pets under control at all times
- Do not feed the wildlife - it irreparably alters natural behaviour and incorrect foods adversely affect some species
- Before heading off into the bush enquire with National Parks and Wildlife staff about breeding seasons and other sensitivities
- The rarer the species, the greater the care needed. Avoid approaching rare species like the glossy black cockatoo
- Never handle wildlife like echidnas or birds, they can suffer from capture myopathy, a form of shock from which they may not recover
- You are too close to wild animals or birds, if they show any sign of behaviour change
- Avoid trampling plants and vegetation, and breaking vegetation to improve your view
- Respect trespass laws - obtain permission to enter private property
- Wildlife Watch - report any unethical or illegal behaviour by others
- Avoid the use of flash photography on nocturnal species such as penguins and wallabies
- The old adage, take only photographs and leave only footprints should be followed.

WPSA MERCHANDISE

Many of our members have expressed interest in purchasing gift merchandise for friends and family (or even themselves)! This is a great way to support WPS, so we have responded below with a mail order system. Simply send your cheque or credit card details (with expiry date) and we will post your order out to you. All prices include GST and 20% member's discount. All proceeds go towards our conservation projects.



Polo shirts: \$25.00
(navy with white logo/ white with navy logo)



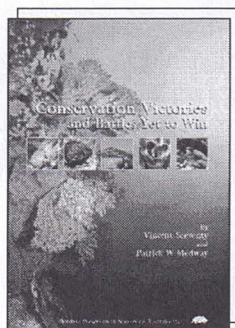
Kids T-shirts: \$10.00
(navy with white logo/ white with navy logo)



Cap: \$10.00
(navy with white logo)



Drink bottle bag: \$10.00
(navy with white logo, bottle not included)



**Conservation
Victories and Battles
Yet to Win**
By Vincent Serventy and
Patrick W. Medway
Price: \$20.00



**Conserving Australia's
Wildlife**
By Dr. Joan Webb
Price: \$15.00

Product	Quantity	Size	Cost per item	Total
Polo shirts	_____	S, M, L, XL, XXL	\$25.00	_____
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Drink bottle bag	_____	n/a	\$10.00	_____
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PO Box 42,
Brighton Le Sands NSW 2216
or for CREDIT CARD payments
by fax to: 02 9599 0000



PO Box 42 Brighton Le Sands NSW 2216

Why not become a member of the Wildlife Preservation Society of Australia Inc?
Simply fill out this form.

Email:

Individual: \$35 Family: \$45 Concession (pensioner/student/child): \$25
Associate (library, school, conservation groups): \$55 Corporate: \$65
(Includes GST and postage within Australia. Add \$10 for overseas postage)

Payment Details (please tick) ☐ Cheque ☐ Money order ☐ Mastercard ☐ Visa ☐ Bankcard

Card Number:  Amount \$ 

Name on Card: _____ Expiry: _____ Donation \$

Signature: _____ Total \$

Mail to the: **Wildlife Preservation Society of Australia Inc.,
PO Box 42, Brighton Le Sands NSW 2216.**

Another way 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.”

PATRICK W MEDWAY AM
National President



Society members on a wintry walk



Society members setting out on a walk on the Palambo Track



A well earned rest

