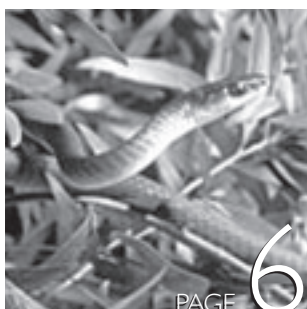
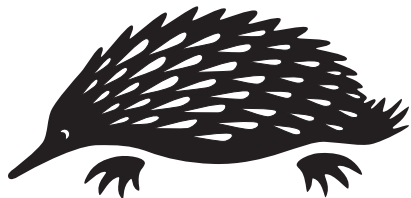


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'AUSTRALIAN WILDLIFE'

*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...

Congratulation Dr Vin Serventy on turning 90

We extend sincere congratulations to our President of Honour, Dr Vincent Serventy AM, on his 90th Birthday on 6 January 2006. Vincent has spent a lifetime promoting and working for conservation and the environment, especially wildlife preservation in all forms. He has written over 70 books and organised television programs, wildlife videos and films all promoting the conservation of our precious Australian wildlife. Highlights of Vin's conservation career include editing the Australian Walkabout magazine for over 16 years, writing major books on important conservation issues and especially his outstanding commitment to the education of young people. Generations of boys and girls have all learnt about Australian wildlife and the need to preserve the important wildlife habitat which is so vital for its very survival.

The Council of the Society honoured Vincent with a special birthday luncheon in January and more will be said at the 97th Annual Luncheon on 20 February 2006.

Launch of our Centenary Appeal

In 2009 our Society will celebrate its foundation one hundred years ago and, as part of the celebrations, arrangements are now in hand to officially launch a special Centenary Appeal to raise funds for the future work of the Society. On the recommendation of the Centenary Committee, a special fund raising appeal is being launched on **Monday 20 February 2006**. The Council has approved of the funds being raised to support the establishment of a new National Headquarters for the Society in the ECOWORLD GARDENS project at Rockdale Sydney. This new Centre will reflect the latest developments in educating people on the need for environmental sustainability, recycling, reuse and reduction of waste, as well as being a centrepiece for Wetland Environmental Education in all possible forms.

It is also proposed to name the new Environmental Education Centre in the Gardens in honour of Dr Vin Serventy AM and continue his life's work of educating and encouraging each generation of young people to understand and appreciate our precious natural environment.

Premier accepts our invitation

The Premier of New South Wales, the **Hon Morris Iemma MP**, has graciously accepted our invitation to be the Guest Speaker at the 97th Annual Luncheon of the Society to be held in the NSW Parliament House Dining Rooms on **Monday 20 February 2006**, commencing at 12 noon.

Appeal to every member

Every member is especially invited to attend and support this special 97th Annual Luncheon. I appeal to everyone to make a special effort to come along and support the Society and enjoy a great social function in a grand venue. Your attendance would be very much appreciated and you are very welcome to bring along family and friends to the Luncheon.

We all look forward to hearing from the Premier following the recent announcement of his environmental package of over \$465m to be spent on preserving and protecting the State's natural resources.



Patrick W Medway AM
NATIONAL PRESIDENT

Wildlife Preservation Society of Australia - Notice of Annual General Meeting

Notice is hereby given that the 97th Annual General Meeting of the Wildlife Preservation Society of Australia Incorporated will be held in a special room of Parliament House, Sydney on Monday 20 February 2006 commencing at 11:00am.

Business:

1. Welcome and recording of those present.
2. To receive apologies.
3. Minutes of the 96th Annual General Meeting.
4. President's and Executive Director's Report, and Treasurer's Report for 2005.
5. To receive and adopt the Balance Sheet and Income and Expenditure of the Society for the year ending 31 December 2005 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 2006.
7. To appoint an Auditor for 2006.
8. General Business as submitted by 28 January 2006.
9. Closure.

Annual Luncheon Monday 20 February 2006

The Council extends a cordial invitation to all our members to attend our Annual Luncheon in the Parliamentary Dining Rooms on Monday 20 February 2006 commencing at 12 noon. The cost of the Luncheon will be \$60 for members and \$80 for non-members, which includes one year's introductory membership.

Bookings and prepayment essential. RSVP: 9556 1537 by Wednesday 15 February 2006 or email wildlifepreservation@optusnet.com.au.

Guest Speaker: The Hon Morris IEMMA, MP.
Member of the Legislative Assembly; Member for Lakemba; Premier, Treasurer, and Minister for Citizenship



The Hon Morris Iemma, MP



Reptiles

After participating in numerous exhibitions and displays it is becoming increasingly obvious that the Australian public is fascinated by reptiles and many want to keep reptiles as pets. All native reptiles are protected and you need a licence to keep any in captivity. It is illegal to keep exotic (non-Australian) reptiles in captivity. Licences are issued by your state's National Parks and Wildlife Service.

What you need to know first

If you are thinking of keeping a reptile as a pet, you should find out what you are letting yourself in for. A book well worth reading is "Care of Australian Reptiles in Captivity" by John Weigel. This contains lots of information on housing, feeding, breeding and diseases, as well as care sheets on a whole range of species.

Long term commitment

Remember - a reptile is a long term commitment. Turtles can live for more than 30 years, pythons for more than 15 years and lizards such as blue-tongues for 20 years. Your pet may well outlive you.

Locating a reptile keeper

Once you have received your licence you can start your quest to locate a suitable animal. Reptiles cannot be removed from the wild (or even from the back garden) and can only be obtained from another keeper. If you do not know any keepers you should join one of the reptile groups to meet other people with similar interests, to find out more about keeping and to obtain your

reptile. Most groups have facilities at meetings for members to advertise animals available or wanted, and some groups also provide this information in their newsletters.

Keeping records

When you have found your animal a transfer is made from the present holder to you. You must provide to the person from whom you are obtaining the animal your licence number, name and address. That person must in return provide you with their licence number, name and address. You must record this information immediately into the record book that you will have received with your licence. Similarly, if you acquire any additional animals, lose or dispose of any, this must also be recorded in the book. The record book must be completed and returned to the Service in April of each year. You are liable to be fined if you fail to do this. Your licence is renewed every two years on 1 December and you will receive a notification from the Service inviting renewal.

Snakes

Snakes are something most people go out of their way to avoid. Snakes can be distinguished from the other members of the reptile class by the absence of external limbs, eyelids and external ears. There are seven families of snakes in Australia. Most species belong to the Elapidae family and are venomous.

A family of harmless snakes includes the pythons, with about 15 species occurring in Australia, ranging in size from half a metre long to five metres long.

Diamond python

The beautiful diamond python is confined to the east coast and adjacent ranges of New South Wales with the centre of its distribution in the Gosford district, where it is a common inhabitant. Mating usually occurs in mid-spring, resulting in the production of 15 to 40 eggs which are laid approximately two months later.

The eggs are then protected and “incubated” by the mother for another two months or so. By occasionally twitching and shivering while coiled around the eggs she is able to maintain a steady clutch temperature of approximately 29° Celsius.

The female diamond python abandons the nest site shortly before hatching commences. The emerging young are approximately 40 centimetres long and appear quite drab before they begin to adopt their beautiful markings six months to a year later.

Hatchling diamond pythons are particularly fond of small lizards which are killed by constriction before being swallowed “head first”. When big enough, the young snakes will switch to a diet of small mammals and birds.

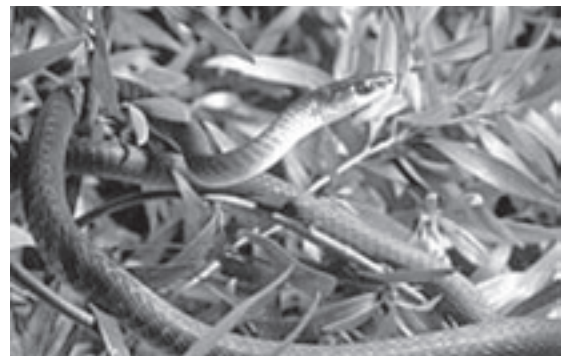


Morelia spilota spilota (diamond python)

Diamond pythons grow to a length of up to three metres and are able to kill and devour anything up to the size of a brush-tailed possum or full grown chicken. Central coast farmers recognise that diamond pythons naturally control rodent populations.

Green tree snake

The green tree snake is a common non-venomous inhabitant of northern and eastern Australia, feeding primarily upon frogs. Green tree snakes don't bother killing their prey prior to swallowing it, hence reports of freshly captured specimens of green tree snakes disgorging live frogs. When upset or attacked, snakes often void their stomach contents, presumably to allow a faster escape.



Common ('green') tree snake (dendrelaphis punctulatus)

The Eastern snake-necked turtle

This turtle lives in freshwater environments and feeds on aquatic invertebrates, tadpoles and small fishes. Most of its time is spent in the water, but it can make overland movements in search of new waterholes and nesting areas.

As its name suggests, this turtle has a long neck, which is usually about half the length of its carapace (shell). It has webbed feet used for swimming and digging. The colour of the carapace varies through shades of brown. Also known by another common name of 'stinker', this turtle can eject pungent liquid gland secretions from its 'armpits' and groin when handled or disturbed.

In summer, females dig holes in sand or in soft sediments along stream banks and lay about 10 eggs. These eggs occasionally provide a meal for water-rats and lizards. Hatchlings are eaten by fish and birds, and adults may be killed by cars while moving overland.



Eastern snake-necked turtle (Chelodina longicollis)

The terms turtle and tortoise are often used interchangeably and can cause some confusion. In the past, all freshwater turtles were called tortoises and marine turtles were called turtles. The more recent convention has been to restrict the term 'tortoise' to the purely land-dwelling species. As such, Australia has no tortoises.

The Eastern snake-necked turtle is distributed throughout Queensland, New South Wales, Victoria and south-eastern South Australia. Its habitat is freshwater and wetlands.

Crocodiles

With snapping jaws and prehistoric looks, crocodiles are one of Australia's most feared animals. Australia is home to two types of crocodile: the freshwater crocodile (*Crocodylus johnstoni*), and the estuarine (saltwater) crocodile (*Crocodylus porosus*). Both live in northern Australia, mainly across the top of Queensland, Northern Territory and Western Australia.

Both types are important to conserve, because Australia is the only country inhabited by the freshwater crocodile, and the estuarine crocodile is a threatened species. In fact, Australia is one of the very few places in the world where estuarine crocodiles have a chance to survive.

Although these animals are important to conserve, they can pose a serious threat to people. Freshwater crocodiles pose less danger, but estuarine crocodiles are very dangerous animals

Freshwater crocodiles

Freshwater crocodiles are grey or olive-brown with ragged dark mottling. A freshwater crocodile can be distinguished from an estuarine by its narrow snout, needle-like teeth and row of four large scales on the neck immediately behind its head. A male freshwater crocodile rarely grows larger than 2.5m in length, while the female is usually less than 2m.



Unlike their larger relatives, freshwater crocodiles (Crocodylus johnstoni), also known as Johnstone crocodiles, are not usually dangerous to people. They are very common in the Kimberley

Estuarine crocodiles are grey, olive-brown or almost black, with ragged dark mottling. Unlike the freshwater crocodile, the estuarine crocodile has a broad snout, thick teeth and no row of large scales on its neck. An adult male can reach 7m in length, although most are less than 5m. Females are usually less than 4m.

Habitat

Freshwater crocodiles make their home in inland freshwater rivers, billabongs and swamps of northern Australia. These crocodiles move into new areas during the wet season (November-April). As the floodwaters recede, the crocodiles return to their usual habitats. In Queensland, they are found mainly in rivers of Cape York Peninsula and the Gulf of Carpentaria.

Estuarine crocodiles are found throughout south-east Asia - from India all the way south to Australia.



Although it lives mainly in the tidal reaches of rivers, the estuarine crocodile is also common in freshwater lagoons and swamps and beaches. This crocodile can even be seen in inland waterways hundreds of kilometres from the sea and on Great Barrier Reef islands.

Diet

Crocodiles are top of the food chain in wetland environments, preying on many different animals. Freshwater crocodiles are active during the day, but forage mostly at night. They eat small things like insects, fish, frogs, lizards, turtles, bats and birds. Mainly nocturnal, young estuarine crocodiles munch on fish, frogs, prawns, crabs and insects. Larger crocodiles eat larger prey such as pigs, wallabies and even other crocodiles.

To capture prey, both types of crocodile wait in ambush at the water's edge and then lunge or snap sideways at animals which come to feed or drink. Another method is dragging prey underwater, and then twisting it in a 'death-roll' until it dies or disintegrates.

Reproduction

Freshwater crocodiles nest in August and September during the dry season. About 12 eggs are laid in simple holes dug in sand or soil near the water's edge. Incubation takes 65–90 days, so the young usually hatch before the first floods of the wet season.

When about 12 years old, a female estuarine crocodile will make a nest, a large mound of soil and vegetation, on the banks of a watercourse or freshwater swamp. She will then lay about 50 eggs and guard the nest during incubation, which takes about 90 days. Sex of the offspring is determined by incubation temperature: low and high temperatures produce females and temperatures of 31–33°C produce males. When the young estuarine crocodile hatches from its egg, it squeaks to attract the mother. The female protects the estuarine crocodile hatchlings for four to five weeks. Distressed hatchlings squawk loudly to attract the mother's attention. The mother comes immediately to defend her offspring from predators.

Seeing crocodiles in the wild is difficult - they are very wary and may stay underwater when people are around. Crocodiles spend much of their day basking in the sun, sheltering among plants or in mud. Slide marks along river banks and beaches are a good indicator they may be close.

Threats to survival

Less than one percent of the eggs laid by an estuarine crocodile reach adulthood. Floods destroy many crocodile nests. Pigs and goannas often take eggs. Young crocodiles are eaten by other animals, even other crocodiles!

Public antagonism towards crocodiles is also a threat to their survival. Unless the community values crocodiles and their habitats, it will be difficult to promote their long-term conservation.

Protection

While crocodiles are killed in other countries for their skins, Australia's two species of crocodiles are protected. In Queensland, interfering with crocodiles or their eggs and possessing or taking parts of crocodiles are illegal without a licence from the Queensland Parks and Wildlife Service. The Service has been conducting research on the biology of freshwater and estuarine crocodiles for many years. Through research, it hopes to:

- assess crocodile numbers and locations
- determine their ecological role in water ecosystems
- understand their reproductive biology and population traits
- encourage conservation and management of healthy wild populations, while keeping the risk to people as low as possible.

Keeping the balance between protecting crocodiles and protecting people from crocodiles is a challenge for the Environmental Protection Agency. The Agency is concerned about crocodiles being in places where people live. Potentially dangerous crocodiles are often captured and relocated away from people or made available to commercial crocodile farms and zoos.

The future

Crocodiles are one of few remaining links to our prehistoric past. As predator and prey, crocodiles play an important role in keeping our wetlands healthy.

In conservation terms, freshwater crocodiles are found only in Australia. Estuarine crocodiles are seriously threatened elsewhere, throughout their range. Through conservation efforts we can secure their future in the wild.

How can you help?

Follow these simple guidelines to help protect crocodiles:

- Never interfere with crocodiles or their eggs
- Report any incidents of crocodile killing or poaching to the nearest Queensland Parks and Wildlife Service office
- Be 'crocodile smart'. Stay away from crocodiles in the wild and report any crocodiles in populated areas.

Living safely with crocodiles

Unprovoked attacks by a freshwater crocodile have never been reported. But don't be fooled, these are wild animals and may inflict a nasty bite if provoked.

Estuarine crocodiles, on the other hand, are very dangerous. Be very careful throughout central and north Queensland at rivers, swamps, billabongs and when swimming in the sea. They are large, efficient predators which can kill or seriously injure people. Their bite can easily crush the bones of a pig or buffalo.

Follow these guidelines:

- Don't disturb crocodile nests as nesting crocodiles may be aggressive
- Travel quietly in a stable boat when crocodile spotting. Never approach the crocodile too closely, and keep your hands and legs inside the boat
- Never provoke crocodiles, even small ones
- Do not encourage wild crocodiles by feeding them. This is illegal and dangerous!
- Camp at least 50m from the water's edge and never prepare food or clean fish at the water's edge
- Stand back when fishing. Don't stand on overhanging logs
- Never swim in crocodile territory.

Australian saltwater crocodile

The saltwater crocodile is the largest living crocodilian species, and in fact the world's largest living reptile in terms of mass. Adult males can reach sizes of up to six or seven metres (20 to 23 feet), the largest confirmed individual being 20.7 feet (6.3m). There is always a lot of interest over the largest ever recorded "saltie". In general, males over five metres (17 feet) in length are extremely rare. Females are smaller, the normal maximum adult size being 2.5m to 3m (8 to 10 feet) being the normal maximum adult size. Maximum weight varies, but has been known to exceed 1,000 kg in 18 to 19 foot adults. Five metre adults are closer to 400 to 500 kg.

Saltwater crocodiles are a large-headed species with a heavy set of jaws. A pair of ridges run from the eye orbits along the centre of the snout, becoming more distinct with age. Juveniles are

normally pale tan in colour with black stripes and spots on the body and tail. The juvenile colouration persists for several years, growing progressively paler and less colourful with more indistinct bands which never completely disappear, although are rarely visible in adults except in clear water. Mature adults are generally dark, with lighter tan or grey areas. The belly is creamy yellow to white in colour, except the tail which tends to be greyer on the underside nearer the tip. Dark bands and stripes are present on the lower flanks, but do not extend onto the belly region.

The saltwater crocodile has a total of 64 to 68 teeth.

Habitat

As its name implies, this species has a high tolerance for salinity, being found in brackish water around coastal areas and in rivers. However, it is also present in freshwater rivers, billabongs and swamps. Movement between different habitats occurs between the dry and wet season, and as a result of social status - juveniles are raised in freshwater areas, but eventually sub-adult crocodiles are usually forced out of these areas (used for breeding by dominant, territorial adults), into more marginal and saline areas. Subordinate animals unable to establish a territory in a tidal river system are either killed or forced out into the sea where they move around the coast in search of another river system.



Australian saltwater crocodile (Crocodylus porosus)

Diet

Saltwater crocodiles take a wide variety of prey, although juveniles are restricted to smaller items such as insects, amphibians, crustaceans, small reptiles and fish. The larger the animal grows, the greater the variety of items that it includes in the diet, although items include crustaceans (eg mud crabs) and vertebrates (eg turtles, goannas, snakes, shore and wading birds). Large adults occasionally take much larger prey include buffalo and domestic livestock, wild boar, monkeys etc.



Breeding

Breeding territories are established in freshwater areas. Females reach sexual maturity at lengths of 2.2 to 2.5m (10 to 12 years old). Males mature later (3.2m, at around 16 years old). 40 to 60 eggs are usually laid (can range from 25 to 90) in mound nests made from plant matter and mud. These are constructed between the months of November and March during the wet season - this serves to raise the eggs above the ground to help prevent losses due to flooding. Many nests are still flooded every year, however, killing all the unhatched embryos. Alternately, if the nest is in danger of getting too dry, the female has apparently been observed to splash water onto it from a purpose-dug, adjacent pool. Although the female stays near the nest, some eggs do fall foul of predators (eg monitor lizards and feral wild pigs) and human egg collectors. Juveniles hatch after around 90 days, although this varies with nest temperature. The female digs the neonates out of the nest when they start their characteristic chirping sounds, assisting them to the water by carrying them in her mouth. Much research has been carried out into Temperature-dependant Sex Determination in this species, which is of value for captive breeding programs to ensure the correct sex ratio, or to produce faster growing males for farming purposes. The highest percentage of males are produced around 31.6°C, with more females a few degrees above and below this. It is estimated that less than one percent of hatchlings will survive to reach maturity, given predation (eg turtles, goannas) and social pressures (territorial males will kill and eat juveniles - they are one of the main limiting factors in population growth along with competition).

Conservation

Many species of crocodiles are falsely viewed as man-eaters, but fear of this species is not unfounded, with a number of people injured or killed each year, although in most cases these tragedies can be avoided with increased awareness. However, loss of life has led to a degree of antipathy towards the species, making conservation measures more difficult to implement.

Given its relatively wide distribution, control of trade can be very difficult. The commercial value of the hide is very high (the most valuable of any crocodile species). Unregulated hunting mainly between 1945 and 1970 caused a dramatic decline throughout the range of the species. This has been controlled, but threats from habitat destruction still exist. Protection is often ineffective and, while illegal trade is relatively insignificant now for this species, killing due to fear is becoming an increasing problem.

Australia has been the centre for most of the extensive research carried out on this species, and several model breeding and conservation programs exist. It is estimated that there are at least 100,000 to 150,000 crocodiles in the northern three states of Australia (Western Australia, Queensland and Northern Territory where the largest population base exists), so the problem has now shifted to one of persuading landowners and public alike of the value of the species which is otherwise only seen as destructive.

Sustainable use programs have been implemented in the Northern Territory, and have proven to be highly successful in giving people an incentive to preserve not only the crocodiles but, more importantly, the habitat which supports them. These primarily involve collection of eggs from wild nests, with payment for the eggs being given to the landowners. The hatchlings are then sold to crocodile farms for raising and skin production. Extensive surveys are conducted with the harvesting, which has demonstrated no detectable impact of the harvesting program on population growth. A trial harvest of wild, adult crocodiles involving aboriginal communities was started in 1997 - the first time crocodiles had been legally hunted in the Northern Territory for 26 years. Some discussion of safari-style hunting is now taking place, directed by traditional Aboriginal landowners, but such programs are yet to be implemented.

Although populations are recovering in some areas, others are less positive. Habitat destruction and illegal hunting can be major problems. Feral buffalo populations have destroyed nesting habitat in the Northern Territory, although feral eradication programs have reduced this problem considerably.

The future of the species seems to be very secure at the moment, given the large population bases in Australia and Papua New Guinea. However, it is likely that the range of the species will be severely reduced through extirpation of many small populations in various countries unless management programs can be implemented, or more effective control and protection set up. The idea of sustainable use remains controversial, yet it has been clearly demonstrated to be effective in the conservation of this species. The only areas where the species is likely to disappear are those where proper management and conservation programs do not sufficiently protect the wild populations.



New South Wales Premier unveils \$426 million environment package

Our Society's National President attended the launch of the biggest environmental spending package in NSW history that was unveiled by NSW Premier Morris Iemma.

Mr Iemma announced the details of the \$426 million package to 120 of the State's leading conservationists during a speech in Sydney in late November 2005.



NSW Premier Morris Iemma and Patrick Medway

Highlights of the package include:

- A \$105 million funding program to restore the health of our inland rivers and icon wetlands. The "Riverbank" program will buy water for environmental flows and will help restore the health of our State's inland rivers and icon wetlands. The Macquarie Marshes (Central West), Gwydir Wetlands (Northern NSW), Lowbidgee Floodplains (South West NSW) and Narran Lakes (Northern NSW) are all suffering badly because of a lack of water.

- An \$80 million dollar Urban Sustainability Program to promote waste reduction; create stormwater harvesting opportunities and clean urban waterways. The funds will be provided for council-managed projects to address pressures placed on the urban landscape. The grants would aim to improve urban water quality for recreation, restore areas of urban bushland and creeks and clean up littering and illegal dumping. Councils will be especially encouraged to develop stormwater harvesting and re-use projects, like capturing rainwater for use on sporting fields and golf courses.

- \$24 million for the NSW Greenhouse Plan to reduce emissions and research the effects of climate change. The four year NSW Greenhouse Plan will continue to build on the Government's efforts

to confront global warming and climate change. The plan is highlighted by \$10 million in Climate Action grants to promote emission reduction technologies in the waste, industrial processes, transport, forestry and land use sectors.

- \$30 million for the creation of new Marine Parks at Port Stephens-Great Lakes and on the South Coast and to finalise the Cape Byron Marine Park. The Port Stephens – Great Lakes Marine Park, covering an area of some 97,000 hectares was formally created on 1 December 2005. Work will now begin on finalising a zoning plan for this marine park, which will include extensive consultation with the local community. The zoning plan is expected to be finalised by 1 July 2006. The second new marine park will be located in the southern section of the Batemans Shelf Marine Bioregion. Its exact name is yet to be decided. While precise boundaries will be finalised by early April, it will cover around 85,000 hectares from Brush Island in the north to Wallaga Lake in the south. Like each of the State's existing marine parks, access to favourite fishing spots in these new parks will be fully protected. A zoning plan for the 22,000 hectare Cape Byron Marine Park on the State's far north coast has been adopted.

- \$76 million in Environmental Trust grants for on-ground community environmental projects.

- \$18 million for strengthened enforcement against illegal dumping.

- \$13 million for the voluntary purchase of high conservation perpetual crown leases.

- Declaration of the 11,000 hectare Chaelundi Wilderness area near Dorriggo in northern NSW and the State's first ever "wild rivers".

- Another \$7.5 million will be spent on a new Climate Change Awareness Program to educate the community about the causes of climate change and how we can reduce emissions, plan for the future and adapt to inevitable change. Funding for the environment package will come largely from the new Waste and Environment Levy, formerly known as the Waste Levy. This is paid when a council, commercial or industrial organisation disposes of waste at a landfill. "There will be a modest increase in the Waste and Environment Levy, over the next five years," Mr Iemma said. By 2006, average households in Sydney, the Illawarra and the Hunter will pay less than 4 cents per week extra, which means that by 2011 these households will pay an extra \$10 per year, or less than 20 cents per week. The Government will also institute a rebate system which over the next five years will return \$80 million dollars of the Waste and Environment Levy increases to local

councils. To obtain their rebates councils will have to achieve best practice in recycling waste.

New marine parks welcomed

National Parks Association of NSW (NPA) welcomed Premier Iemma's announcement for two new marine parks in NSW and the finalisation of the long awaited Cape Byron Marine Park.

"The new **Port Stephens – Great Lakes Marine Park** will extend from Stockton Beach near Newcastle to Cape Hawke, near Forster," said Andrew Cox, Executive Officer of NPA. "It will encompass whale and dolphin hotspots, grey nurse shark key habitat sites and other important areas for conservation."

"Whilst NPA applauds the NSW Government's declaration of this park, we are mystified about the exclusion of Wallis Lake. This is the single largest area of seagrass in the state, encompassing 21% of the state total of this habitat type. Seagrass beds are important fish nursery areas and need to be protected in order to safeguard fish stocks for the future. Excluding this area from the park could jeopardise the effectiveness of this new marine park in protecting the region's biodiversity."

"NPA recognises that this marine park is an important first step in protecting this area. Real protection will come only through significant zoning of the park as fully protected marine sanctuaries. The Port Stephens – Great Lakes Marine Park needs to be complemented by marine sanctuaries at key areas on the NSW mid north coast, including around South West Rocks and Laurieton," continued Mr Cox.

"The new **Batemans Marine Park**, announced for the NSW South Coast, will stretch from the northern end of Murramarang Beach to Wallaga Lake. It will include important conservation areas including key habitat sites for the grey nurse shark at the Tollgate Islands and Montague Island."

"After the park is created, if significant areas of this park are zoned as sanctuary, it will safeguard the marine life in this region."

"NPA also welcomes the announcement of the final zoning plan for **Cape Byron Marine Park**. This park fully protects 27.5% of its waters in marine sanctuary zones. NPA commends the NSW Government for the declaration of this park but believes that larger areas of the park need to be zoned as sanctuary in order to provide adequate protection for its marine life."

"In particular, the park provides inadequate protection of the grey nurse shark at Julian Rocks,

a key habitat site for this shark. Recommendations for a 1500m sanctuary zone at this area were not fully adopted, with fishing permitted around parts of this habitat site despite this activity being a major threat to the sharks' survival."

With proper sanctuary zonings, the announcements of the new marine parks will play a valuable role in safeguarding NSW unique marine life.



Animal expo



John Clarke, Suzanne Medway, Carol Nolder, Ralph Campbell and John Robertson

The Society again mounted a major promotional display at the November 2005 Animal Expo at the Rosehill Gardens Showground at Parramatta, Sydney. Our theme this year was the desert and preservation of reptiles.

Carol Nolder, our Society's Councillor in charge of Displays and Exhibitions, designed and organised the display and invited Crocodile Encounters to feature reptiles on the stand. Mark Richmond, a Herpetologist from Varanid Research and Information Centre, brought along a 1.5 metre crocodile, a turtle, two carpet pythons and a very large diamond python to attract visitors to our Society's stand and help promote the work of the Society to preserve and protect our native wildlife in all its forms across Australia.

Mark presented a very informative and entertaining demonstration on centre stage each day.

People are fascinated by reptiles and the Animal Expo presented a wonderful opportunity to teach the general public about this important component of Australian wildlife.

The exhibition was staffed by our dedicated Society Councillors who freely gave of their time and effort to answer the many questions we get on wildlife preservation and conservation work that the Society undertakes across Australia.

During the three days of the Expo we handed out thousands of copies of our leaflets, brochures and magazines on the Society's wildlife preservation work and answered an equal number of questions.

We are very grateful to those members of the Society who helped staff the display and contributed to educating the public about our wildlife conservation work.



Call for ban on recreation duck shooting

Our Society calls for the ban of the recreational shooting of native waterbirds in Victoria.

The eight so-called game species that are allowed to be shot during the duck season are protected native waterbirds for nine months of year. The game duck are: Pacific black duck, grey teal, hardhead (white-eyed duck), Australian shellduck (mountain duck), pink-eared duck, maned duck (wood duck), blue-winged shoveler, and chestnut teal. These birds are an integral part of Australia's ecosystem. There is absolutely no scientific or environmental reason for allowing these beautiful waterbirds to be shot.

Shooters using shotguns inflict horrific injuries to these gentle and defenceless waterbirds. When a shooter fires, pellets spread and birds are often shot through the wings, eyes, feet or bodies. These include swans (which mate for life), avocets, herons and many other species including Australia's rare and threatened freckled ducks. These birds are unique to Australia. They are also at serious risk from duck shooters.

Waterbirds, when feeding, ingest spent lead shot and die from poisoning. A single lead shot ingested by waterbirds can cause chronic lead poisoning, which results in a slow, agonising death over a three-week period. Unfortunately, despite the ban on lead, waterbirds will continue to die from the accumulated lead shot for many decades to come.

Duck shooting is not a sport. It is a cowardly, violent, anti-social act. Sport is an even contest between humans, such as football, hockey, tennis, athletics, etc. Waterbirds cannot defend themselves, let alone fight back against shooters armed with powerful weapons, dogs, whistles and decoys. Our Society believes that duck shooting is a one-sided cowardly activity.



Rescuer retrieves wounded protected swan. Photo supplied by Noah Hannibal, Animal Liberation Victoria

Each year, the Victorian Labor Government services a small minority of duck shooters by declaring a duck season. The Bracks Government continues to declare a season despite the prolonged drought. Premier Steve Bracks even goes so far as to artificially fill certain wetlands to attract birds for shooters.

Our Society now calls for duck shooting to be banned, and we wish express our anger that the Victorian State Government still allows this brutal slaughter of waterbirds to continue, especially because of the extreme cruelty involved. The RSPCA has also called for recreational duck shooting to be abolished.

Other State Governments banned recreational duck shooting in Western Australia (1990), New South Wales (1995) and Queensland (2006). Our Society now calls for duck shooting in Victoria to be banned and ask for the introduction of nature based wetlands tourism to help regional towns in Victoria. Country towns could earn the same tourist dollars as Phillip Island with its penguins or Warrnambool with its Southern right whales.



Campaign to save the Macquarie Marshes

by Bev Smiles, Western Networker, National Parks Association of NSW

Macquarie Marshes is a vast wetland covering more than 220,000ha in north-west NSW. It is on the Macquarie River system rising above Bathurst and the Central Tablelands area. This Marsh is one of the largest semi-permanent wetlands in south-eastern Australia.

It is the largest nesting site in Australia for colonial nesting waterbirds such as egrets, ibis and herons. Macquarie Marshes has the greatest diversity of wetland bird species and the highest nest density rates in Australia.

The Marshes are home to 200 bird species including the threatened: brolga, Australasian bittern, blue-billed duck, painted snipe, magpie goose and freckled duck. Breeding sites are provided for the straw-necked ibis, glossy ibis, Australian white ibis, intermediate egret and rufous night heron.

The significance of the Macquarie Marshes is reflected by its listing by the Australian Heritage Commission on the National Heritage Register; and with the National Trust as a Landscape Conservation Area on the National Trust Register.

The Macquarie Marshes Nature Reserve, gazetted in 1900, covers 18,192ha of the Marshes and was listed as a Ramsar Wetland of International Significance in 1986. The Wilgara Wetland, located within the Marshes, is one of the five private Ramsar sites in NSW.

The Australian Government has signed migratory bird agreements with both China (CAMBA) and Japan (JAMBA) to assist in the conservation of birds, mostly waders that migrate between these countries and Australia. The Macquarie Marshes provides food and habitat for nine migratory bird species including: sandpipers, godwits and Japanese snipe and is an important wetland for the conservation of these species.



Widespread destruction of reed beds in January 2005. Supplied by NPWS



The glossy ibis colony shows the Marshes in a good time. Supplied by Macquarie Marshes Management Committee

Flows to the Marshes have been severely impacted by the construction of Burrendong Dam above Wellington in the early 1960s and the development of a major irrigation industry downstream. Over a 60 year period annual average flows to the wetlands have dropped by 200,00ML. (ML = 1 million litres = Olympic size swimming pool).


The Macquarie-Cudgegong Water Sharing Plan developed under the NSW Water Management Act 2000 has identified 160,000ML for environmental flows below Burrendong Dam. All this water is only available when there is 100% allocation to water licences in the system.

The Macquarie has only a 50% reliability of having a full allocation available. During the driest period on record from 2000 to 2005 the Marshes have been significantly impacted.

Only 20,000ha of the Marshes, including 6,000ha of the Nature Reserve, have received adequate water since 2000. Healthy condition exists in only about 600ha of total Marsh area.

No successful colonial waterbird breeding has occurred in the Marshes since 2000 and 2,000ha of river redgums are dying. There has been increased incidence of bushfires since the early 1990s.

Impacts of climate change are a major long-term threat to the survival of the Marshes. More water is the only solution to keeping this significant inland icon alive. At least another 140,000ML are needed to secure the future of the Macquarie Marshes.



An allocation of 300,000ML environmental health water in the system will guarantee more water at the right time to assist bird and native fish breeding events, and a better recovery from prolonged dry periods.

The Wildlife Preservation Society of Australia has supported the campaign calling for more water to the Macquarie Marshes and giving a generous donation towards the project.

For more information contact:

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Our Society helps Kelso High Waterwatch group recover from school fire

A group of environmentally-minded students from Kelso High School are continuing their good work, despite the loss of their equipment and their school buildings in a recent fire, thanks to the generosity of our Society.

When Kelso High School was burned to the ground in August, the school's Waterwatch Group, led by Teacher Phillip Warner, lost their chemicals, dip nets and water sampling equipment. The sampling equipment included meters for measuring the pH, temperature and oxygen content of streams. The group of around 18 students regularly monitors water quality in five streams in the Bathurst area, providing their results to the City Council for use in environmental management.

The students have also been involved in a linkage program with many of the local Primary Schools, where they have visited to teach younger pupils about Waterwatch and water conservation.

The Society learned of Kelso High Waterwatch Group's loss and has donated funds to assist in the replacement of their equipment.

Teacher Phillip Warner initially feared that the loss of the equipment would spell the end of the group's valuable work. However, thanks to Waterwatch NSW and our Society, new equipment and chemicals are being provided to the group.

Our Society is enthusiastic to support the students to continue stream monitoring, as well as a range of other activities including tree planting and attending environmental conferences.

"The fire certainly devastated everyone," Mr Warner said. "It is uplifting to know that there are people and groups who do care. Today with all the support that we have received, the future is looking good. I am now looking forward to getting back with the kids so that we can continue with our Waterwatch program."



Kelso High Waterwatch group undergoing a training session for the use of the new Waterwatch kit



Our possum family

by Deanne Walls (Rockhampton)

About five years ago we were having a BBQ with friends and late in the evening I saw something flash by – it was our first possum! It was wonderful. Everyone was delighted and I think that we were transported back to childhood. We christened this possum as Percy. He mightn't have known his name but he certainly learnt to recognise voices.

Percy stayed around for quite a few years. He was extremely quiet and would take food from our hands. I have no idea where he came from or who had previously looked after him. Prissy joined the family about three years ago. She seemed to be quite young and of course was absolutely gorgeous.

When it became obvious she was here to stay, I persuaded my elderly father to make a possum house. With the help of a neighbour, they got it up into the mango tree. Prissy took to it immediately.

We then thought it was time that we learnt something about possums and how to supplement their diets. A lot has happened since then. Prissy has had three babies and keeping up with the "P"

naming tradition we called them Prudence, Patrick and the new baby is Pamela. Like all Australians their names have been shortened to Prueie, Paddy and Pammy.

Unfortunately, about four months after being out of the pouch little Prueie did not come home one night.

Prissy has also had her share of problems; she is blind in one eye and has very limited sight in the other eye. I am guessing it is the result of a fight. To make life easier for her we have built little bridges between branches so that she can get around safely.

When Paddy was young we built another possum house (for him) and set up a second feeding station. Prissy was overjoyed, she could choose between two houses now! One with morning sun and the other with afternoon sun. Poor Paddy – he can't take a trick. His mother keeps trying to chase him away but he keeps coming back. When he started fighting his mother I contacted the Wildlife Preservation Society of Australia for advice.

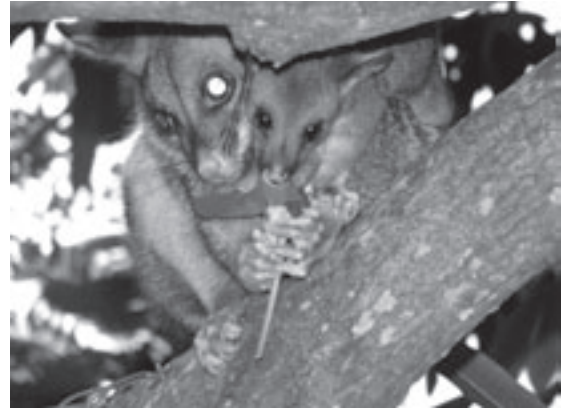
We spend hours watching and talking to them at night and during the day – Prissy is not entirely nocturnal. Perhaps that's due to her eyesight problem. At night we also protect them because the flying foxes try to take their food.

Prissy's favourite foods are: yellow or double delight roses; apple; green grapes; banana and sultana bread. Sultana bread is a real favourite of the young ones. Green grapes are off the menu at present as they are nearly \$15 a kilo.

I have to say that nature is absolutely wonderful. The possums have given us so much pleasure and they ask for so little. They bring many a smile to the face and lighten the heart.



Possum Perch eating



Priss and Patrick



What's happening to Australian marsupials?

At least 16 of Australia's 204 marsupial species or subspecies are now extinct, one is extinct in the wild and another 53 are critically endangered, or vulnerable across Australia.

The loss of ten marsupial species in Australia since 1788 represents about a quarter of the total mammal extinctions worldwide in the last 200 years.

Changing land use patterns causing loss of habitat and the introduction of exotic species like foxes, cats and rabbits are thought to be the main cause of the reduction in marsupial numbers since European settlement.

A number of marsupial species that were once distributed on the mainland are now clinging to survival on offshore islands, where there are no introduced predators such as foxes and cats.

The last known Tasmanian tiger died in captivity at Hobart Zoo on 7 September 1936. Prior to this, at least 2,268 were killed for the bounty being offered by farmers and the Tasmanian Government between 1888 and 1909.



The last Tasmanian tiger (thylacine), a female about 12 years old, which died in 1936

Thousands of common wombats were killed in the 1920s for the bounty offered by farmers. Today they are a protected species and habitat destruction and the car are now its most serious threats.

The koala's fur almost caused its downfall when millions were killed in the 1920s for the fur trade. Today, loss of habitat, introduced predators, disease and traffic threatens this protected iconic Australian species.

Nearly everyone would be able to identify exotic species such as a tiger or a meerkat, but how many people could tell you what a chuditch or a potoroo is? To help save our remaining marsupials, it is essential to raise community awareness of the existence of these animals and the threats they face.



The chuditch or Western quoll is the largest carnivorous marsupial found in Western Australia. An average adult male weighs about 1,300g and females about 900g. Both sexes have pointed faces and large rounded ears. The eyes are also large. The coat is strikingly marked, with 40-70 white spots scattered randomly over the brown fur on the head and back. The tail is shorter than the head and body length and has a brush-like appearance

Why worry about the loss of marsupial species?

Once a species becomes extinct it is lost forever. The loss of species results in the loss of biodiversity.

Biodiversity can be defined as the variety of all life forms. Biodiversity is often considered at three levels: genetic, species and ecosystem diversity. All the different plants and animals interact with each other, the earth and the atmosphere to form the web of life. The loss of species can affect other living species and can weaken the 'web of life'.

The current rates of extinctions and the loss of biodiversity are the highest this planet has experienced in 60 million years. Australia has experienced severe declines and extinctions in the past 200 years, especially in the last 50 years. The loss of biodiversity is the most serious



Thylacoleo carnifex (marsupial lion). This member of the extinct mega fauna was one of the largest marsupial carnivores that ever lived in Australia. It had giant blade-like teeth molars, large incisor teeth and long clawed thumbs

What's being done to help marsupials?

Scientists all over Australia are researching our threatened marsupials and are developing ways to help save them.

Recovery Teams are being formed. These people prepare Recovery Plans that outline the causes of a species decline and what needs to be done to prevent that species from becoming extinct. These plans are being implemented for some species.

Feral animal control is carried out in many areas.

Captive breeding for release is being implemented for some species.

Some areas are being fenced. Feral animals are being eradicated from these areas and native species are being reintroduced.

What can we do to help marsupials?

- Practice responsible pet ownership.
- Cats and dogs do not belong in the bush. To prevent unwanted pets being released into the wild, sterilize your cat and dog.
- Put a bell on your cat's collar, this may alert potential prey to the cat's presence.



- Keep your cat in at night, as this is when they are most active and potentially destructive.
- Become Pro-active. Encourage your local council to protect remnant vegetation in your local area.
- Drive carefully at night. Many nocturnal animals are killed by cars while foraging near roads and tracks or crossing roads.
- Take your rubbish home. Small marsupials can get caught in plastic 'six-pack' holders and can be injured or killed. They may eat bubble gum, used band-aids and pieces of aluminum foil. Native animals need to find food from natural sources.
- Get involved. If you find an injured native mammal, wrap it in a jumper, towel or blanket and place it in a cardboard box or something similar. The animal will probably be in shock and will need to be kept somewhere that is dark and quiet. Take it to the nearest vet, Wildlife Department or wildlife carer as soon as possible. Be careful when approaching or handling injured animals.
- If you find a dead native animal that is uncommon, place it in a plastic bag and take it to your nearest Wildlife Department as soon as possible. Put it in a freezer if you cannot get there straight away.
- If you encounter a rare mammal, record the date, location and time and let your local Wildlife Department know.
- Volunteer your services to your local Wildlife Department or Wildlife Carer.
- Join a community group in on-ground recovery actions, such as native re-vegetation to provide habitat for native animals.
- Control feral pests on your property.
- Protect a remnant area of native bush on your property.
- Take care not to start bushfires.
- Take care not to trample on habitat.
- Take care not to spread the dieback disease when travelling through bushland areas.
- Do not remove dead trees or logs from the bush for firewood. Dead trees and logs provide important habitat for many marsupial species.

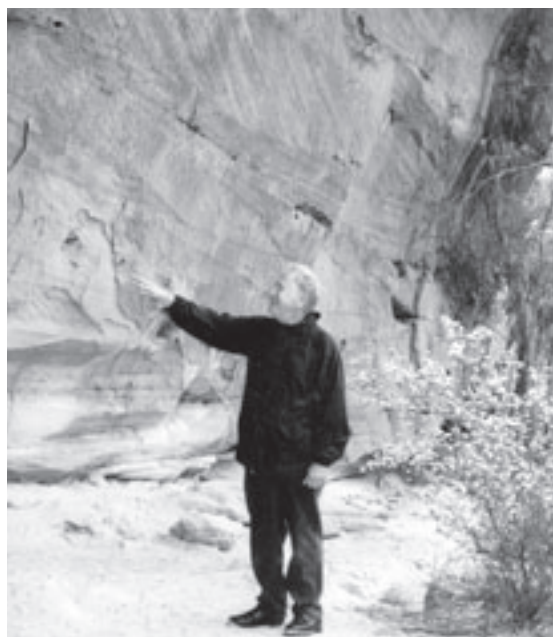


Wildlife tour to the Warrumbungles

by Carol Nolder

In October our Society organised a wildlife tour to the Warrumbungles. The Warrumbungles is a large, rugged area of bush located near the town of Coonabarabran in North Western NSW. Five million years ago it was a huge shield volcano, and in the intervening period much of the bulk of the volcano has been eroded away. This has left a large number of impressive features, including four spectacular spires (Beloungery Spire, Crater Bluff, The Needle and Tonduron), a massive dyke (the Breadknife, Butterknife and Fishknife), one of the largest cliffs in the state (Bluff Mountain) and countless other domes, cliffs and bluffs.

Our group departed Central Railway Station in Sydney at 7.10am via the XPT to Wellington to join a hired bus driven by our tour guide, Mike Augee. Some members opted to drive to Wellington in their own car.



Mike Augee our tour leader

There is nothing like a problem or two to get individuals talking and forming them into a chatty, cohesive group! It started with the ejection of vandals on the XPT, causing a delay, followed by the unavailability of Margaret Fryer's prepaid return ticket, which was promised for collection at Wellington, but on arrival nothing was known about it, causing a return to the station after lunch. The local members were the last to arrive at the 'Lion at Waterloo', which raised a smile, and yet another when Mike inexplicably took a wrong turning on the way to Coonabarabran, something he thought he would never live down!

The Warrumbungles Mountain Motel proved to be a delightful place set in extensive grounds, and nicely furnished units with full catering facilities for a family in each one.

After a wash and brush up, we went into Coonabarabran for a shared Chinese 'Banquet' with a wonderful selection of flavours and textures, always a good topic to start a conversation, and returned to the Motel tired but happy.

Waking to a clear, frosty morning, we explored the attractive grounds, scrunching through the frozen grass. A family of ducklings was noted on the tumbling Castlereagh River bordering the edge of the property, swallows skimmed under the eaves, a dozen or so king parrots made themselves obvious, and blue fairy wrens darted around the shrubs, although the roos soon disappeared when they spied the visitors. Dick Mason noted over 30 species of birds before breakfast and pointed out the many native orchids in bloom under the trees. The grinning faces of the yellow donkey orchids (*Diurus aurea*), masses of the little greenhoods (*Pterostylis* sp) and a few colourful spider orchids were all admired.



Our happy group sets out on their walk

With Ralph Campbell driving Mike's car, and towing the picnic paraphernalia, Mike drove the coach to the Warrumbungles National Park where we were welcomed by Bill Robinson, an Elder of the Gamilaroi people, in his own language.



Carol Nolder, Bill Robinson, our guide and NPWS ranger, and Clive Williams

After telling us a little of the local history, we started a gentle uphill walk, climbing slowly for nearly two hours. Bill showed us many items of 'Bush Tucker', consisting mainly of small fruits and nuts, which made us realise just how many hours would have been spent each day by the hunter-gatherers of yore collecting enough food for them and their families. Signage on the walk was good, especially at the Tara Caves, where Bill went in and demonstrated the use of tools and utensils which had been dug out of there. Continuing upward, through the thinning trees, we marvelled at the carpets of native ground orchids, and cameras clicked in unison as we gazed in awe across to the Warrumbungles mountains. Down again, an hour later, we wandered around the excellent Visitor Centre and went on to the delegated picnic site where we had to race the pesky flies to eat our lunch before they did! In the afternoon, we wandered along the tracks hoping to see koalas, but they obviously had not read the notices saying that they were there, as we did not see one! A final short walk to the White Gum Lookout gave the last photo opportunity of the day, and in the fading light we gazed across to the spectacular view of the Mountains.



Bill Robinson showing our group the Tara Caves

That evening, we had a superb steak barbecue, everyone joining in the preparation and cooking, enjoying the food and wine, and relieved to have had the flies disappear with the daylight, leaving only a myriad of moths fluttering around the lights. No blisters so far, and laughter prevailed all round the table under the trees!

The next day, Sunday, the party split, with the keen walkers setting off to do a 14.1 km circuit walk from Pincham car park. A party of five set out on the Grand High Tops walking track which gave us magnificent views of Beloungery Spire, the Breadknife formation and Lugh's Wall, Crater Bluff, Bluff Mountain with its vertical face and Mount Exmouth.



The Breadknife from Wilson's Rest

The track to the Breadknife has now had steeper sections paved with brick pavers, boardwalks and staircases have been installed, making walking somewhat easier and reducing the problem of erosion. We sat down to our sandwich lunch at Lugh's Throne, admiring the 360 degree panorama and noting how green the recent rains had made the countryside. The return track of the circuit is a lot rougher than the outward track, showing much evidence of erosion and wear, but the views of the other side of the Breadknife formation, and of Bluff Mountain, made it well worth the effort. It was fascinating to come upon a big buck grey kangaroo grazing at Ogma Saddle, he looked about two metres tall and while we were quiet, just continued grazing. We came across more kangaroos as we followed West Spirey Creek, while plenty of birdlife was in evidence, with Dick noting the presence of a turquoise parrot and a red-rumped parrot. Overcast skies made walking easier, but meant that photography was not as brilliant as desired.

Meanwhile, the rest of the group had explored Coonabarabran, first to the excellent Visitor Centre where the Australian Museum had staged a most unusual mega fauna display featuring the diprotodon, the size of the fossilised bones almost beyond belief.

We then wandered around enjoying the Heritage Market, buying some fruit, a few plants and homemade cakes, and admiring the beautiful craft items on view. After a light lunch at the Woop Woop Cafe, where I had the most superb spinach quiche I have ever tasted, we went on to a couple of wineries and enjoyed chatting to the owners while watching the local birdlife. (Dick Mason listed over 50 species during our time in the area.) We returned to the motel and met up with our walkers, comparing notes as we enjoyed another barbecue, marinated chicken this time, plenty of salad and a variety of red and white wines. Party pieces were said, or sung, causing a lot of laughs and a great time was had by all!




Christine Robinson is comparing the size of the extant wombat with the extinct giant wombat

Monday brought steady rain, nearly 20 roos grazed undisturbed in the Motel grounds and there was not a sign of the king-parrots. We spent a couple of hours at Siding Springs Observatory, admiring the many displays and learning about the formation and history of our Universe. We went on to the 'Crystal Kingdom' which is home to one of the world's most unique collections of minerals and fossils, all from the local area, and contains some of the world's rarest and most colourful zeolite crystals. We learnt that the Coonabarabran area was home to two volcanoes, both extinct for thirteen million years.

Luckily for us, the rain eased off and allowed us to enjoy another of Mike and Christine's picnic lunches before Christine led us on a bush walk in an area amassed with colour - *Boronia*, *Daviesia*, *Styphelia*, *Dianella*, *Prostanthera*, *Dampiera*, *Eremophila* etc, were there in profusion, with the deep yellow spikes of acacia species giving a backdrop of contrasting colours.

We continued our walk, although the rain had begun again by then, skirting around the huge outcrop of weatherworn sandstone, which was riddled with tunnels, hollows and chimneys, providing homes to a great variety of creatures. We noticed tracks of goannas, wallabies, various



birds and the telltale dips in the sand made by ant lions, the unattractive larval form of a lacewing. This tiny creature, with a voracious appetite, burrows into the soft sand creating a little hollow and waits at the bottom with only the pincers level with the sand, waiting for any unwary ant to fall down the dip and become a victim to its strong pincers. It sucks the body fluids out, discarding the homy casing, trapping several ants each day. After about a month, it exudes a sticky substance and rolls itself into a sand ball, where it remains while metamorphosis creates the dainty lacewing.

Returning to the Motel, we drove through the town and realised that almost nothing was open on a Monday evening. However, we did find one place open, booked in for later and had an uproarious evening with everyone selecting something different, each dish was individually prepared, taking about 15 minutes a time and regardless of the menu item, everything was generously laced with carrots, even my beef stroganoff, which really tickled Mike and myself, having fits of giggles each time another dish arrived - and I don't drink! The helpings were enormous and the final dish, Mike's, did not arrive until 10.15pm. By this time he had sampled so many things that he was full to the gunnels and had to ask for a 'doggy bag' to take his meal back for breakfast!

Next morning, our last of course, we cleared our rooms, piled our luggage on to Mike's trailer and were soon heading back to Wellington. The immediate conversation centered on where we were going next year! As a final bonus for those going back on the XPT, while Mike cleaned the coach, Christine conducted the group around their Fossil Museum at the Wellington Caves Complex, showing the results of hours and hours of patient sorting and documentation that they had conducted since they had been there. Our thanks are due to them both for organising all our trips, our transport and our meals, and contributing to our enjoyment!

Spring Tour 2006

Having discussed this topic, we are giving serious consideration to a trip to Sawpit Creek from Thursday 14 to Tuesday 19 October 2006. Mike Augée has offered to lead our group again, as he knows the area well. He has spent lengthy periods of time there carrying out studies on both wombats and platypus, under the auspices of Macquarie University. We would anticipate using the rail/bus network to get to Cooma and hire a coach from there, in a similar manner to this year, but would hope that the accommodation will be cheaper after the snow season. Please note the dates now!



Wildside

by Lance Ferris, Australian Seabird Rescue

Blocked nose stops turtle

Nets, ropes, fishing line and collision with boats are generally accepted as the more serious threats to marine turtles. But in the realm of microscopic organisms lurk hundreds of bugs and bacteria, which can bring about the demise of these marine creatures. The tiniest of barnacles can deposit themselves in crevices in the skin and often attach to eyelids and nostrils. Close inspection of a sick green sea turtle, washed up at Belongil Beach, revealed two small barnacles lodged firmly in its nose. The turtle would have had no sense of smell, a likely factor contributing to its poor condition. A few minutes with a minor procedure, and the turtle was soon blowing bubbles back in the pool.



Two tiny barnacles were found growing in the nostrils of this sea turtle, which was found beach-washed at Byron Bay

Wildlife nightmare in the name of progress

There are now thousands of fishing lures on the market, in a multitude of colours and shapes. Hooks abound in a host of iridescent hues while hundreds of rolls of line, some of which are almost unbreakable, adorn the walls of the fishing shops. Braided line, sometimes called 'spiderwire' is not new, but is one of the virtually indestructible types. It is obviously becoming popular, as we are finding more and more discarded on shorelines and tangled around birds. When this line was introduced into this country, I anticipated its effects. The horrific nature of the injuries caused by this product defies imagination. Stainless steel hooks, braided line, plastic bait bags – is there any other form of wildlife destruction that we can come up with in the name of progress? I'm sure the big companies (obviously based on another planet), will think of something.

Meanwhile, back on Earth, unpaid volunteers across the country literally run from rescue to rescue, cleaning up the angler's litter on the way. Yes, most fisherfolk are responsible, caring people, but the uncaring minority is creating a wildlife nightmare. I strongly urge anglers to black-ban stainless hooks and braided line in the interests of our environment.



The braided line strangling this bird's leg was attached to a stainless hook embedded in its wing. Left unattended, this bird would not have survived

Action down South

Ballina's Australian Seabird Rescue has now established two satellite groups on the Central and South Coast of NSW. Zodiac Australia and the Tony and Lisette Lewis Foundation have generously outfitted both groups with inflatable rescue vessels. Staff from the Ballina team attended the official launch of the boats, and seized the opportunity to conduct rescue workshops and school lectures in the southern districts. Already, the new teams have rescued several injured birds from lakes and estuaries in their areas.

Maritime mayhem

Most people regard habitat loss as land or forest areas gobbled up by development. Habitats are certainly more diverse than merely land-based. Loss of riverside nesting areas to 'clinical' concrete walls is blatantly evident in areas such as the Gold Coast, but one often forgets that the water itself is vital foraging space for many species. During the rescue of a pelican at Wollongong, I couldn't help but notice the Harbour, choked with fishing and tour boats. Twenty pelicans ducked and dodged ropes, squeezing their way between the vessels in a desperate bid to grab the odd morsel of fish thrown overboard by the fishermen. As I gazed at mankind's mayhem, I wondered what Captain Cook had seen when he first sailed into these harbours and bays.



Amidst this tangle of ropes and boats, 20 pelicans make a valiant attempt to stay alive

The Aussie black swan

Swans were discovered in Australia as far back as 1636, when the Dutch sailor Antionie Caen described the species at Shark Bay in Western Australia. The must have been quite a rare sight, as the other six world's species are predominantly white. These graceful birds have very long necks, enabling them to feed on vegetation in deeper water than most ducks. Interestingly, swans have over 20 vertebrae in their necks, while the giraffe only has seven. Males are, on average, larger than females in wing and bill length, but there is a lot of overlap in measurements. In a mated pair, for instance, the male is likely to be the larger of the two, but there is no guarantee. They can cope with either salt or fresh water and are found throughout Australia, with the exception of Cape York Peninsular.

Killing with kindness

Tempting as it may be, feeding wildlife with the wrong food can be disastrous. Mouldy bread, for instance, is toxic to swans. Oats and bread can cause rickets – a crippling bone disease – in many species of birds, and scrap food items such as bacon rind and cheese can promote liver failure.



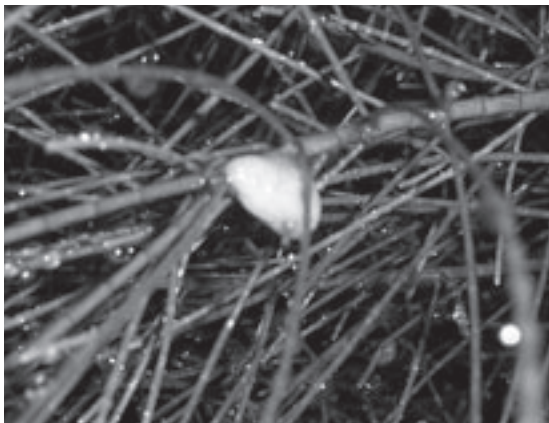
One of two resident black swans at ASR's Coastal Discovery Centre in Ballina

Where does our fishing fees go?

Occasionally I hear complaints from fishers who wonder what happens to their fishing licence fees. Amongst a host of Fisheries projects aimed at improving recreational fishing whilst protecting many diminishing species, the Fisheries section of the Department of Primary Industries is working feverishly to make life better, not only for the angler, but for fish stocks across the State. Amongst the many ventures, four fish attracting devices (FADs) will be installed off the NSW Coast this summer. Two of the devices will be deployed off Ballina and Evans Head. Results of three years of collected data, suggests that the FADs are very successful. Not only is the department directly involved in protection of the fish stocks, but they also run fishing workshops for children, including those with special needs

Jumping bugs

The spittlebug gets its name from the white, foamy 'spittle' that the nymphs produce. They can be seen on twigs and branches, hidden in their cloak of frothy bubbles. The adults have the ability to jump twice as high as a flea, however the spittlebug is six times bigger than a flea. Therefore, relative to body-size, the flea wins hands-down, with its ability to jump 100 times its height. Imagine if humans had the legs of a flea... leaping tall buildings in a single bound, would be a simple task... and the bar on the Olympic high jump would have to be set at 200 metres!



A spittlebug nymph hides in its frothy home

A handful of precious bird

Wildlife rescuers experience many memorable moments – the release of an animal back into the wild, or the saving of something special. Recently we were called to rescue a 'small bird', which was lying helpless in a Ballina yard. The tiny, colourful bird was identified as a little bittern. These birds are extremely secretive, living in marshland and dense undergrowth, surviving on

small frogs, tadpoles and insects. According to the Department of Environment and Heritage, there are only 5,000 left in Australia. They are fast approaching threatened status, due primarily to the fact that their habitat is half of what it was prior to European settlement. The little fella thrived on live fish whilst in care, and within a few days had regained its ability to fly. It is probably a timely reminder to keep an eye on your family pets. Many native species are out and about, looking for a mate, building nests or feeding young. We may not be able to do much about habitat loss, but we can certainly make the world a little safer for these fragile creatures.



With only 5,000 left in Australia, this little bittern got another chance at life

Evolution slows down

Fossils records indicate that although there was marked 'experimentation' in the early lineages of birds, it appears that evolution might be slowing down. As birds first developed, different approaches to flight mechanisms were tried until those birds present today have been finely honed. According to Dr Walter Boles of the Sydney Museum, there have been no major structural innovations since the early to mid Tertiary period (55-35 million years ago). "Extinction of some groups of birds might be more expected than structural changes" Dr Boles said. "Global warming might kill off penguins for instance, or loss of grasses may affect finches and some parrots." In brief, our present-day birds are so well-tuned and in balance with their environment, it is unlikely that any large-scale physical changes will occur, unless there are also major changes in the world around them. One can only hope that mankind's continuing impact on the planet is slow enough to allow birds to adapt to the somewhat inevitable alterations to the environment. Birds that are so specialised that they cannot adapt, just won't make it.

Cockroach cruncher

Blue-tongue lizards are not everyone's favourite reptile. Urban myths are rife about these rather docile creatures, so much so, that some householders make every attempt to discourage or dispatch them. Looking rather snake-like and moving like a sloth, it is easy to understand why they are not so popular. "They are poisonous," one resident claimed. "And every seven years, the part of the body bitten, will flare up again." Not only are they non-venomous, but these slow-moving creepy-crawlies are a real benefit in your garden and around your home. They love to eat garden pests and delight in a big feed of crunchy cockroaches.



A blue-tongue lizard basks in the sun in a suburban backyard. These reptiles are excellent pest exterminators

Muttonbird mayhem

The 'muttonbird season' has arrived again. All along the coast, thousands of small grey-black shearwaters are stranding on the beaches. These birds are believed to be the weaker young birds and are despite all efforts, they are unlikely to survive. They are around the size of a seagull, with small tubed nostrils sitting atop a hooked beak. Shearwaters are one of the most prolific birds on the planet, and on the east coast there are believed to be more than 20 million pairs of adults. In fact, on a worldwide basis, there are probably more shearwaters than humans. In some countries these birds are regarded as a delicacy and can even be purchased... pickled in a tin. Any beachgoers finding these birds washed up on the beach are advised to place them on the dunes away from dogs. Some of the stronger ones revive and continue their journey.



On their annual migration to Alaska, some shearwaters (muttonbirds) just don't survive the journey

Dogs on beaches

There are beaches where dog-owners can exercise their pets. However, most require dogs to be kept on a lead. As much as I love dogs, beaches are the native habitat for seabirds. Dogs are not native to Australia. One only has to look at a beach where a dog is roaming free, to see a distinct lack of any other wildlife. If we are going to keep our planet alive, we need to share responsibly. Before I could reach a sick seabird in the surf this week, a dog rushed ahead of me and tore the bird to shreds. I can think of better ways to die.



Wildlife walkabout

*by Dr Vincent Serventy AM
President of Honour*

International

John Donne, born 1571, died 1631, a great thinker, wrote 'No man is an island, entire of itself; every man is a piece of the continent; a part of the main any man's death diminishes me because I am involved in mankind. And therefore never need to know for whom the bell tolls; it tolls for thee.'

Today we would write that as 'person' since persons writ large are nations. World environment states 'no nation is an island. Global warming, pollution and overpopulation threatens us all'.


The David Suzuki Foundation publicised the same truth in a broadsheet titled 'This we know'.

E O Wilson, a great American scientist whom many years ago I took on a fortnight's search in the Australian bush for a primitive ant; wrote in a new magazine COSMOS 'is humanity suicidal?' He still thinks that on balance we are not and can pull ourselves out of the present mess.

Our Society agrees. One important step to sanity is to take our Bill of Environmental Rights to the United Nations, the greatest hope for the world.

Particulate pollution

Our Society's motto is humans are part of nature; so we care for human health. New Scientist warned many years ago that particulate pollution from vehicle exhausts caused more deaths in Europe than from road accidents. We tried to interest the media. No success. We wrote to premiers and national leaders; polite response, no action. Ian Lowe of the Australian Conservation Foundation wrote in their newsletter of the moderate cost of particulate traps to be fitted to all vehicles. Little enough to save lives.



Here is a copy of a letter we sent to the Sydney Morning Herald after they recently published details of this danger. Our Society is proud that often we warn humans of danger; both to themselves and all of nature.

“The Editor

For many years our Society has been trying to obtain publicity in the media as well as, more importantly, warning state and national leaders of the dangers of particulate pollution from vehicle exhausts.

The New Scientist some years ago published the fact that more people in Europe die from this cause than car accidents. Now in today’s Sydney Morning Herald ‘fine particles of pollution are absorbed into the blood, affecting the way it coagulates which can cause artery blockage.’”

Translocation

Our Society knows about translocating koalas from places where they are common to places where they are scarce.

Kenya has the same problem with elephants, though they are harder to move. Poaching reduced the elephants in Kenya from 150,000 in 1965 to about 10,600 in the early 1990s. 400 will be taken to Tsavo where elephants were almost wiped out by poachers in the 1970s.

Wildlife management often means this kind of work. Sadly sometimes animals like kangaroos must be thinned because they are damaging a region.

Our new book

This should be bought by all members - the title ‘Conservation Victories and Battles Yet to Win.’

One battle is the need for a ‘Universal Declaration of Environmental Rights’, which our Society is pushing. Some years ago New Scientist, that international magazine of conservation, brought out a special supplement boldly titled “Judgement Day”. Not a religious claim, a scientific one. The time - this century. The three main reasons: global warming, pollution and overpopulation. This century is facing an environmental crisis. Our plan is for a new Bill of Environmental Rights to complement the 1948 Bill of Human Rights. Once ratified, this Bill might save the world from disaster.

What a triumph for our Society’s Centenary if we helped save the world’s environment. When our Society began back in 1909 we only wanted to save Australian wildlife. Now our dreams have grown larger.

National

Trepang. bech-de-mer or sea slug

This is Australia’s oldest export industry before the days of European settlement, continuing to the present day under strict government controls.

Our south east Asian neighbours regard it as a delicacy. Matthew Flinders recorded Macassan fleets from the Celebes visited Australian waters prior to the European discovery of Australia. The Macassans harvested trepang, or beche-de-mer, which they cured on site and sold to the Chinese, through the ancient markets of Asia, as an aphrodisiac. A well organised trade where they used local Aborigines as workers



A sea slug on the ocean floor



A sketch made by HMS Fly sixty years after Flinders report, showing Macassans curing trepang. The boiling pans are shown in the foreground. The body of the sea slug is dried and smoked ready for transport to Asia

It's not easy being green

In the Sydney Magazine was a four page article on a great conservationist, Professor Ian Lowe, the new director of the Australian Conservation Foundation. The title of the article, 'It's not easy being green' - a belief most of the media in television, radio, newsprint, books are trying to sell. Our Society was formed almost a hundred years ago to give a message of hope for the world.

With environmental problems increasing around the world here is our message of hope. First there is our latest book 'Conservation Victories with Battles Yet to Win,' it is our story of sixty years of fighting for the environment.

Today, at the last count, there are at least a million Australians, probably many more, involved in some form of conservation. Almost every State has its Conservation Council, while there are also national and international groups like ours: World Wide Fund for Nature, Greenpeace and others.

Personally I have had a wonderful life fighting for nature. I am sure that Patrick Medway, our National President, could say the same. Do not believe pessimists who are paid to sell a message of gloom.

The last section of our new book spells out our most urgent international need; a Bill of Environmental Rights for the United Nations, a first step for the world to travel forward to our motto 'live in harmony within nature'.

Camels

For many years we have warned state governments and the national government that feral camels were a disaster to our outback. Aerial shooting is the easiest method of control, though an export industry selling camel meat to other countries is also a useful way.



A dead camel shows how our farmers have been trying to control this menace

Wollemi Pine

This relic of long ago when the pine covered most of Ancient Gondwanaland has been reared from near extinction at the NSW Botanic Gardens, and launched with a special exhibition. The secret grove of jurassic Wollemi Pines that was discovered in the Blue Mountains 11 years ago was recreated with around 100 of the first cultivated trees. The exhibition culminated in the first release of a limited number of the coveted Pines at an international Sotheby's auction held on site in October 2005. The launch and auction was a great success and a fitting tribute to 11 years of research and conservation work. Thousands of Wollemi enthusiasts visited the "Wollemi Pine Wilderness Unveiled" exhibition and the auction was unprecedented with 100% of the 292 trees sold and over \$1,000,000 raised. The highlight of the auction was the \$150,000 paid for the "Sir Joseph Banks Collection", a selection of 15 trees with each tree grown from one of all the 15 original trees in the wild from which cuttings were taken. The average price for a single tree was approximately \$3,600. The sale also raised significant funds for a number of conservation organisations in Australia and internationally, in particular the \$26,000 raised for the Royal Botanic Gardens Sydney and \$14,000 for the Blue Mountains World Heritage Institute.

Editor's note: Fossil evidence of the Wollemi Pine, or at least its ancestors, goes back to the mid-Cretaceous, and possibly even the early Cretaceous period some 110 million years ago. There are also fossil records of dinosaurs in Australia at that time before they became extinct globally around 65 million years ago. The Wollemi Pine is one of the world's oldest and rarest trees. It was discovered just 11 years ago by a bushwalker in a national park only 200km from Sydney, Australia's biggest city. The Wollemi Pine is a majestic conifer with attractive, unusual dark green foliage and bubbly bark, the Wollemi Pine can grow up to 40 metres high in the wild with a trunk diameter of over one metre.



The Wollemi Pine

New South Wales

Central coast

The National Parks and Wildlife Foundation president, Peter Janssen, considers some of the state's rarest animals still live in this region. So they are offering the Golden Paw award to any primary school child who draws the best coloured picture of a threatened animal. The list includes; the eastern pygmy possum, the long nosed potoroo, and the regent honeyeater. On the central coast there is the red-crowned toadlet, dugong or the fishing bat.



Dugong mother and calf



Dead dugong on beach

Fruit bats

I know the common name is flying fox, but I prefer the more exact term - fruit bat. Forest NSW in their last magazine issue of Bush told of how volunteers all over Australia are counting the fruit bat population.

State Forests along the south coast have two colonies of fruit bats. The 2001 census counted 83,000. The recent count has the good news that a record 220,000 were recorded, the largest across the eastern seaboard of Australia.



Fruit bats have gained a reputation as a nuisance in Australia. They are noisy and sometimes smelly when they roost in urban areas. They will raid orchards and have destroyed some important trees in the Botanic Gardens in Sydney and Melbourne. But there is another side to this story. Fruit bat numbers in some areas have plummeted by 30% in the past decade. Mostly, this is due to their natural habitat - and food source - disappearing. Fruit bats eat gum blossom, which mostly grows in the tall coastal eucalypt forests of eastern Australia. This area is also in demand from humans, and vast areas of coastal forest have been cleared to make way for new urban development.

Noddy terns

These are a primitive group of terns found breeding on many island groups around Australia. Black noddies were first recorded from Lord Howe Island back in 1910, while on the other side of Australia lesser noddies were found breeding on Cervantes Island.

All these different kinds are probably the same species; finding islands to be safe places to breed, they are gradually spreading. A delight for eco-tourists



Wingspan the great magazine of Birds Australia has an article on black noddies on Lord Howe Island as well as a valuable one on bushfires and birds

Sea eagles

Our media had a story of these sea eagles being helped by wildlife helpers at Hastings Point on the north coast. To prevent their nesting on dangerous power lines they were offered a secure platform on top of the power pole



Nesting white breasted sea eagle photo by that great conservationist couple Hans and Judy Beste

Cane toads

This story applies to a number of States: Queensland where stupid farmers brought in the pest - though our Society warned against the idea, New South Wales first, then the Northern Territory and finally Western Australia.

University of Sydney biologist Rick Shine has discovered some alarming facts about their spread. The toad prefers the warmth of bitumen roads to bushland. Radio telemetry shows they move twenty metres off the road during the day, sitting in a damp spot then at night travel up to a kilometre along the road risking a roadkill.

Toads do not like other toads, so the first to arrive at a pool of water lays its thousands of eggs so tadpoles from these first eggs will eat any laid by toads coming late on the scene. Dr Shine thinks this a major reason for their great sprint to invade new lands.



A female toad surrounded by many hatching toadlets

Australian Reptile Park

Our Council will remember our day at the Weigel's new park which is so much better than the old one at Gosford. The new Australian Reptile Park at nearby Kariang is embellished with trees, lakes and shrubs as well as great reptile and frog rooms.

We also learned over lunch how reptiles are the favoured pets of Americans, one in ten having such a pet. Also John told us the Australian bearded dragon is the favourite!



Dragon mother with clutch of eggs. I also must confess as a young man I had a shingle back lizard as a pet

Victoria

The Victorian Government has announced \$7 million in funding to help create a nature based tourism future for Victoria's Otways.

Editor' note: The Otways is a place of great beauty and inspiration. From majestic forests

and waterfalls to productive farmland and thriving country towns, the region forms a precious piece of Victoria. As part of an overall \$14 million commitment to 'A New Future for the Otways', the Victorian Government has provided \$7 million over three years to support the region in making the most of its tourism potential and in developing new job opportunities.

The tourism initiative forms part of the State Government's Forests and National Parks Policy Statement released in 2002 which aims to guide the development of the Otways region as it moves away from an economic reliance on the timber industry.

The implementation of the initiative has been guided by the Tourism Plan for Public land in the Otway Hinterland. The plan has been prepared to stimulate and coordinate the sustainable development and marketing of tourism on public land in the Otway Hinterland.

By 2008 when logging is phased out of the Otways, nineteen projects will be completed to strengthen tourism in the Otways Hinterland and to provide economic growth and jobs for local townships.



Otway Fly Tree Top Walk



The full circle

by our Antarctic correspondent Bruce Alden



Author and Adélie

The snow underfoot now was soft and slushy. No longer did your chained boot squeal on the packed rock-hard snow. It now sank in a couple of centimetres and you left a trail that in a day or two would disappear as the sun's warmth melted the top layer of snow. My face was covered with, wait for it, sunburn cream. The reflection off the snow and the intense sunlight would fry my face to a crisp without it. One day past solstice at Casey Station does not diminish the sun's burning power! We are missing a vital ingredient in the earth's atmosphere down here, ozone, to shield out the worst of the UV radiation.

Yes, it is high summer here in the Antarctic and I am taking what may be my last walk across to Shirley Island to view the newly hatched Adélie penguin, (*Pygoscelis adeliae*), chicks. Our doctor, Peter Lovell, had been across a few days before and he had said that the chicks had made their appearance about on time. The first penguins appeared about mid October, the nests were made and eggs laid about mid November and now the chicks appeared about mid December. The sea ice that has been so solid to walk across to the Island is breaking up and one more good blow might well finish it and our very pleasurable walks. When the ice goes, access will be by zodiac only.

So, with three other Met men, we made our way down the ridge to the sea ice. Huge cracks had formed where the ice joined the land, opening up quite deep crevasses. It would not be an easy job extricating oneself from these cracks, not man killers but enough to make you very wary. Before stepping onto the sea ice, out came the trusty ice axe, an indispensable friend at this time of the year, in fact all year. We probed with the axe to make sure the ice was not rotten. No one wanted to go swimming even if the temperature was above zero. Even a boot full of cold sea water is not very funny down here and it's very easy to achieve. So,

we probed with our axes and found a safe route to the Island, only about 50 metres or so, but in a short time it might as well be 50 km.

As we didn't have too much time, we stopped at the very first colony we came to. There was not much sense in travelling further up the Island as we could see all we wanted here. In contrast to the breeding season where there is noise and movement, now there was relative peace and harmony. Well, that is not quite right. Most penguins were laying down, either on eggs or chicks. When a penguin waddled up from the ice edge with a crop full of food for the hungry chicks, woe betide him if he breached the magic distance around each nesting penguin. If he got too close, he was pecked at unmercifully, but the penguins would not get up and beat each other with their flippers as they do when they don't have eggs or chicks. But, on the whole, the colonies were quiet except for the tiny chirping of the chicks. Occasionally, Mum or Dad penguin would stand up to find a more comfortable position or to feed the chick. Then we could get a quick view before the penguin sat down again and our view was obscured. The little grey bundles of down certainly do not resemble their parents, they are like little limp dolls, barely able to raise their head to feed. Most penguins hatch two eggs. Invariably, only one of these fledglings survives to maturity. One chick seems to get fatter much faster than his little brother or sister as he gets more than the lion's share of the food. The smaller one wastes away and the stronger chick survives to pass on the stronger genes. Darwin would have loved it.



Clean Adélie

On the high rocks surrounding the colonies, the skuas, (*Catharacta maccormicki*), waited for a free meal. They fly around the colonies every now and then looking for an unguarded egg or a tasty chick. The nesting penguins are ever alert for this aerial predator and the shadow or sight of the skua causes them to become agitated and move about. The price for this lack of vigilance is another penguin that will not make it to maturity, cruel, but the process of natural selection goes on.

The Adélie penguins do have a fierce predator in the water, the deadly leopard seal, (*Hydrurga leptonyx*), I only managed to photograph the one leopard and he was not in a congenial mood. These penguin destroyers are the equivalent of a great white shark and have teeth to match. On the ice, they even look reptilian with a lizard like head filled with sharp teeth. They wait off the ice edge where the penguins are coming and going and, even though a penguin is extremely fast in the water, the leopard is like a greased torpedo. Once he has the penguin in his toothy grasp, he plays a little game with it. He shakes it and tosses it around so forcefully, that the penguin is literally shaken out of his feathers, skinned alive! The seal then has a feather free meal.

Provided we moved slowly and stayed low, the penguins seemed oblivious to our presence. In fact they seemed to want to come up to us to check out what we were up to and, realising we were not a threat, they in the end ignored us. Having no predators on land except for the skuas, we were deemed to be no threat.

I was amazed to see that even at this late stage in the penguin's breeding season, the odd bit of pebble thievery was still going on. An occasional penguin would wander around to all intents minding his own business and then make a quick grab for a rock off an occupied nest. The nesting penguin usually rebuffed the intruder, being ever vigilant for thieves in the night, (hard with 24 hour daylight), but occasionally they would successfully steal a stone and hurry back to their nest to deposit their ill gotten gains. It seems some people are just never happy with what they have got and feel the need to continually renovate. A tidy nest can always be made to look just that little bit better by the addition of one small pebble. Adélie penguins do not have a conscience.

My conscience started to get me, it was time to go and do some work. So, reluctantly we made our way across the narrow bridge of ice and plodded back up the slope to the Station. A short time later we were back in the "real" world.

So, the season has come a full circle. I arrived here on Boxing Day last year. The circle of life and renewal is just about complete. The penguin chicks will grow quickly, get their adult feathers and be off. The Weddell seal pups have long since taken to the water. The still nesting snow petrels and storm petrels will soon have their chicks raised and flying. I guess it's time I was off too. Time to go home after spending so much time in a remarkable place. Antarctica touches you in many ways, you are never quite the same person you were before you came down. You have seen wonderful things and had amazing adventures. The creatures you have encountered are unspoilt, unsullied by man's pursuit of them for food and clothing. To them, you are just another creature they cannot quite understand, but there is definitely no fear in their eyes. Wouldn't it be wonderful if animals in mainland Australia viewed us in the same way.

Time to go. I want to lie on the sweet smelling grass and put my head on my old dog's chest. There is no fear in his eyes, he's already asleep.



I'm taller than you



Nesting Adélies

Book review

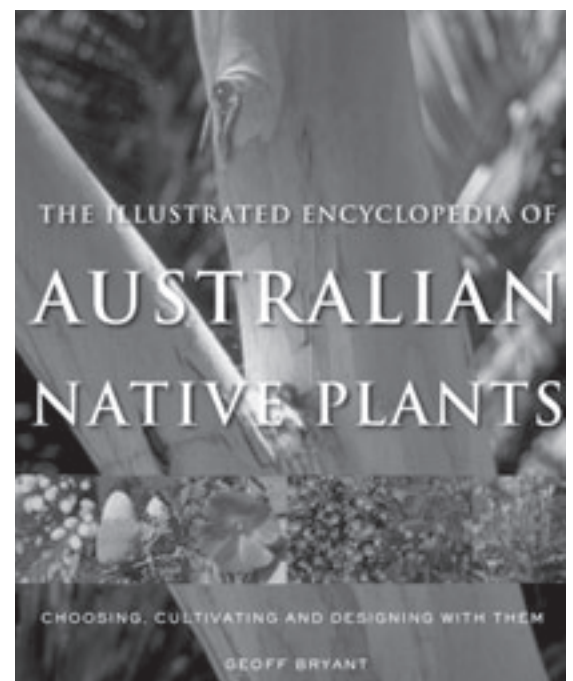
Illustrated Encyclopedia of Australian Native Plants by Geoff Bryant

This is the definitive guide to using Australian native plants in your garden and includes many new and traditional ideas for every reader or gardener alike.

The way the book is organised makes for easy reading, with each major category clearly spelled out for guidance. This book brings together more than 1,600 species, hybrids and cultivars in a highly illustrated, user-friendly volume. The section on banksias is particularly interesting and useful.

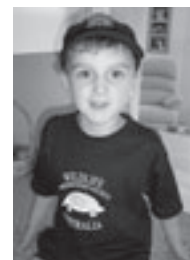
Over 600 colour photographs combine with detailed descriptions, cultivation notes and other information to make a comprehensive reference that will be welcomed by gardeners.

This is a handy guide to drought-proof your garden with user-friendly information on how to grow these beautiful plants.



W P S A M E R C H A N D I S E

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.



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(white with blue logo)



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Drink bottle bag: \$10.00
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Why not become a member of the Wildlife Preservation Society of Australia Inc?

Simply fill out this form.

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Individual: \$30 Family: \$45 Concession (pensioner/student/child): \$15

Associate (library, school, conservation groups): \$50 Corporate: \$60

(Includes GST and postage within Australia. Add \$10 for overseas postage)

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Consider - A Bequest

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 MEDWAY AM
National President