AUSTRALIAN Wildlife

SUMMER Vol: 1/2012
$10 (non-members)

Celebrating a new century of wildlife preservation in Australia

Journal of the Wildlife Preservation Society of Australia Limited
(Founded 1909)

Birds in flight. Photography by Trevor Anderson

Galah (*Cacatua roseicapilla*) feeding around corn silos. This iconic Australian parrot is one of my favourite subjects. Their crazy airborne behaviour sends them flocking around as if they have no idea where their going. Photographed at Kerry, Queensland

Osprey carrying sticks to the nest. I watched an osprey pair over a period of two months on the Tweed River. I will return in May 2012 to capture their nesting habits. This raptor has the ability to dive through the upper surface of the water. Photographed at Fingal Head, NSW

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Front and back cover

Cover photo by Trevor Anderson - Australian king parrot (*Alisterus scapularis*)

The king parrot with its beautiful bright red head and breast is one of the most stunning looking Australian birds. King parrots can also sometimes be known as southern king parrots or a king lory. These colourful birds inhabit mainly forested areas, but will often live close to suburban areas as a source of food. The male king parrot sports a brilliant red breast and head, black tail and dark green body. The female has a dullish green head and body with a dullish red underbelly. They are found along the coastal areas of Victoria, New South Wales and Queensland. King parrots feed on fruits, seeds or small insects. King parrots are fully protected native fauna.

WILDLIFE PRESERVATION SOCIETY AUSTRALIA

Celebrating a new century of wildlife preservation in Australia

Australian Wildlife

is the official journal of the Wildlife Preservation Society of Australia Limited.
Founded in 1909, the Society is dedicated to the conservation of our unique Australian wildlife in all its forms.

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Directors 2010

Notice to our members

The Wildlife Preservation Society of Australia Limited is managed and controlled by an elected board of ten volunteer directors. The Society is a registered company limited by guarantee with ASIC and is responsible for complying with all its regulations.

Any member who might like to consider serving as a director of the Society is invited to contact the national office for more details. The most important qualification to serving as a director is "a commitment to and love of Australian wildlife".

The Society holds regular monthly meetings on the first Wednesday of each month in Sydney.

The Editor would like to feature a member's profile in the fortnightly email newsletter and occasionally in our quarterly magazine. Members are invited to consider submitting a short article with a photograph for possible publication.

Our Mission

The Wildlife Preservation Society is an independent, voluntary, non-profit conservation organisation, formed in 1909, and is committed to the preservation of Australia's precious flora and fauna. We act as a watchdog and provide advice to government agencies and institutions regarding environmental and conservation issues concerning all aspects of wildlife preservation. Our mission is to conserve Australia's fauna and flora through education and involvement of the community. We are dedicated to the conservation of our unique Australian wildlife in all its forms through national environmental education programs, political lobbying, advocacy and hands on conservation work.

Our Society has always known that a conservation battle is never really won until the victory is enshrined in legislation. We have always tried to convince politicians of the necessity to include the preservation of Australia's precious wildlife and its vital conservation habitat in all their planning and environmental issues and discussions.

From the President's desk

Suzanne Medway - President

It is very heartening to receive feedback from members on our magazine. It is also interesting to discuss a particular article and learn of other people's interaction with wildlife.

There was great interest expressed in the article in the Spring magazine on our small birds' project. Most people mentioned that they had noticed that small birds were missing from their backyards and they seemed to be replaced by the loathed Indian myna. What was surprising was the number of people that mentioned they had brush-turkeys in their urban backyards. I remember visiting Vin Serventy in his home at Pearl Beach and he regularly had brush-turkeys residing in his garden and although Vin loved all native wildlife, he did get discouraged at the damage they did.

When an amateur wildlife photographer, Trevor Anderson, emailed me with samples of his photographs, I was fascinated to see a picture of a brush-turkey in Lamington National Park. I then decided to learn more about this unusual bird, sometimes referred to as the temperature bird. I hope you enjoy the article in this magazine and Trevor's photographs.

In September I was delighted to attend Australian Ecosystems Foundation's (AEFI) open day to mark National Threatened Species Day. AEFI won our Community Conservation Award in 2008 for their great example of a community organisation in action, providing scientific and educational input into the management of our precious wildlife. AEFI is located at Secret Creek Sanctuary near Lithgow in New South Wales. We enjoyed a BBQ lunch while being entertained by a wildlife presentation from the television show NatGeo Wild. After lunch we had the opportunity to view the captive quoll breeding program in action and learn about their new project – saving the mountain pygmy-possum.

In this issue Vice President, David Murray, writes about the International Botanical Congress in Melbourne. Patrick and I also accompanied him to Melbourne – Patrick joined David at the Congress and I spent my time catching up with members and wildlife groups. I also attended the marvellous Congress dinner and had the opportunity to meet the fascinating delegates from all around the world.

We are looking forward to our 103rd Annual General Meeting and once again will hold a luncheon after the meeting. All members are encouraged to attend the meeting and join us for what I am sure will be a delightful lunch.

The Directors very regretfully accepted Judith May's resignation from the Board at the December meeting. Judith has been a valuable addition to our team and as wildlife carer liaison has done an outstanding job keeping us in touch with individuals and groups that devote their time and resources to saving and caring for native Australian wildlife.

We now have the onerous task of replacing Judith on the Board, and ask any member that has spare time and would like to join our "happy band of brothers" to consider nominating. Our meetings are held in the Sydney CBD on the first Wednesday of each month. Under our constitution a member to be considered for election as a director has to have been a financial member for a minimum of five years.

As we begin the new year of 2012 and the 103rd year of our Society, I thought it might be appropriate to reflect on the birth of the Wild Life Preservation Society of Australia. It is always interesting to look back on where we came from and compare it to where we are headed. I hope our members enjoy the article on Page 7.

Getting to know a quoll at Secret Creek

Trevor Anderson introduced me to two resident dingoes

Suzanne Medway, President
and the Directors of the Board of the

WILDLIFE PRESERVATION SOCIETY OF AUSTRALIA LIMITED

Cordially invite you to the

ANNUAL LUNCHEON
of the Society

on Wednesday 14 March 2012
Commencing at 12 noon

in

the Adam Room
Castlereagh Inn Boutique Hotel
169 Castlereagh Street Sydney

RSVP by Friday 9 March 2012. Booking and prepayment essential

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I am pleased to accept your kind invitation to the Annual Luncheon on 14 March 2012.

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2 course alternate serves of main & dessert & coffee

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WILDLIFE PRESERVATION SOCIETY AUSTRALIA

Celebrating a new century of
wildlife preservation in Australia

ADVOCATES FOR WILD LIFE - THE SOCIETY IS BORN

''The Wild Life Preservation Society has been formed for the purpose of preserving intact the typical fauna of Australia. Many birds and animals of great scientific interest and national value are in danger of extinction, and the present generation of Australians must not incur the reproach of allowing even a single species to perish.'

Extract from a leaflet issued in 1909.

The first practical move to form the Society was made by a representative of Sweden, David Stead's friend Count Birger Mörner, a well-known naturalist and poet. At that time, he was a member of the Consulate for Sweden in Australia. He had particularly sought that Consular position so he might the more readily follow up his studies of the Australian fauna.

Following the canvassing of the idea of the new preservation body among a number of naturalists, nature lovers and some interested public figures, a preliminary discussion meeting was held at the offices of the Royal Swedish Consulate on May 11, 1909. As an outcome of this, it was decided to call a public meeting for the formation of the Society. Held in the Royal Society's Hall, 5 Elizabeth Street, Sydney, on the night of May 19, 1909, it is worthy of mention as showing initial enthusiasm, that despite the fact that the weather was extremely unfavourable, about fifty people attended. Fifty members were enrolled that evening, and within a week, this number had been raised to over one hundred. The Wild Life Preservation Society of Australia was launched, with the Honourable F.E. Winchcombe, MLC, presiding, and a committee appointed to draw up a draft constitution for submission to members.

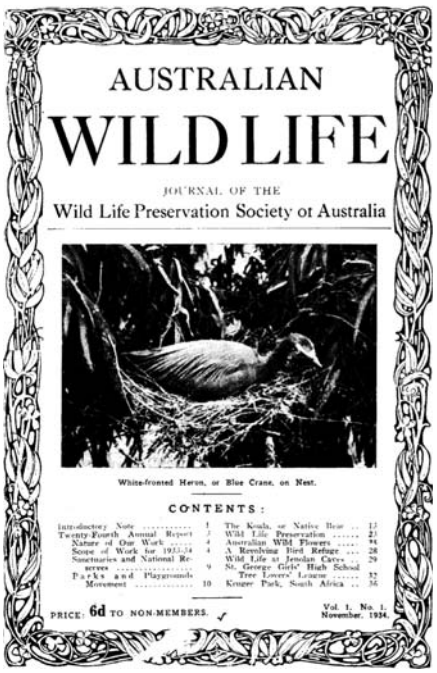
The provisional committee held two meetings, and drew up a draft constitution, which was submitted to the general body of members at a well attended meeting in the Board Room of Vickery's Chambers, 82 Pitt Street, Sydney. At this meeting the following were appointed to be the General Council of the organisation:

President:	Hon. F.E. Winchcombe, MLC.
Vice-Presidents:	H.C.L. Anderson, W.W. Froggatt, Dr George Hurst, David G. Stead.
Council:	Mrs L. Harrison, Mrs S. Kearney, Mrs Garvin, Mrs Ramsay, Miss Maclellan, Miss E. Mallarky, Dr E.A. D'Ombrain, A.G. Hamilton, J.R. Garland, J. Le Gay Brereton, Sir J.H. Carruthers, H.D. Baker, Charles Hedley, Frank Farnell, A.S. Le Souef, W.H. Clarke, C. Thackeray, H.E. Finckh, P. Gilbert, A.W. Atkinson.
Hon. Treasurer:	S. Kearney.
Hon. Secretary:	L. Hamilton.

In July 1909, *The Australian Naturalist,* journal and magazine of the NSW Naturalists' Society, carried this announcement.

> Wild Life Preservation Society
> A society which should commend itself to all naturalists has been established, and promises to be highly successful. The name of this organisation is 'The Wild Life Preservation Society of Australia.' Its objects are the preservation of all forms of wildlife in Australia, by the development of public interest in its beauties, economic uses, and scientific value, by discouraging the wanton or promiscuous destruction of any form of mammal or bird, by accepting affiliation from any society or corporation in Australasia for the furtherance of the fore-going objects, and by any other means incidental or conducive to those objects.

So the Wild Life Preservation Society of Australia was established in 1909 as the first wild life conservation body in Australia. It was not the first in the world, however; that was probably the Sierra Club of the United States of America, its headquarters being in San Francisco. The Sierra Club was formed in 1892 by a group of Californians who wished to sponsor wilderness outings in the mountain regions of the Pacific coast. The naturalist John Muir was its first president (1892-1914) and very soon involved the club in political action to further nature conservation. By the late twentieth century the Sierra Club had branches in all states of the USA, and was working to educate the public on environmental issues, and lobbying local, state, and federal bodies for environmental legislation.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The first issue of *Australian Wild Life* in 1934 carried a concise and informative outline of the nature of the Society's work. Included here is an extract:

> 'Although there has been a progressive development of the work of the Society for many years past, it is true that a great deal of it is more or less of a recurrent nature. This, of course, is quite inseparable from the labours of an organisation whose sphere is to such a large extent advisory, educational and propagandist. Apart from its own initiatory work, the assistance of the Society is regularly sought by persons or by public organisations desirous of preserving particular species of our fauna or flora or who wish to have tracts of Government or private lands set aside as 'districts' or sanctuaries for the preservation of fauna and flora or because of their special scenic or scientific interest.
>
> 'As a result of the Society's labours in these directions alone, we have today in the State of New South Wales many hundreds of thousands of acres of forest and other lands which have been set aside for general conservation and public purposes. In addition, the Society has frequently cooperated with a number of organisations in similar work. One of the most gratifying things to be noted in this connection is that interest in such matters has spread very widely throughout Australia during the lifetime of the Wild Life Preservation Society, and it is perhaps not too much to claim that the Society's general educational and propaganda work has assisted to produce such a condition to no mean extent. At least, that is the view which has been expressed publicly by authorities not members of the Society.'

IBC Melbourne

David Murray, Vice-President, WPSA

Highlights from the XVIII International Botanical Congress

The International Botanical Congress (IBC) occurs every six years. The most recent event was hosted in Melbourne, and this was the first Congress to be held in Australia since 1981, when it was held in Sydney. About 2,000 delegates from all parts of the world participated. Patrick Medway, the Chief Executive Officer, and I attended on behalf of WPSA. Because of concurrent programming, it was impossible to listen to every talk. However, we attended many of the Plenary Sessions, as well as the student 'rapid' presentations (five minutes at lunchtime). We also observed both fixed posters and 'e-posters', accessible through a computer screen. This is the first conference that I have ever attended where 'e-posters' were a feature, so congratulations to the organisers for this useful innovation.

One significant strand of the information presented at this Congress supported previous scientific predictions about climate change, population growth, and food shortage. A plenary session on the first day was titled 'Food security in a world with biophysical limits'. Despite optimistic titles, the news is not good. The productivity of crop plants has in the past been increased by selective breeding, but now productivity appears to have plateaued. Existing cultivars will have to meet the challenges of extreme weather conditions, lack of fertiliser, and elevated carbon dioxide concentrations without the prospect of further genetic improvement in productivity. This restriction, coupled with diminishing areas of arable land, ensures that there will be serious food shortages by 2050.

At the close of the second day, Professor Peter Raven, head of Missouri Botanical Garden for forty years, presented his talk titled 'The world of plants'. He underlined the population problem by comparing the world's human population in 1936, the year he was born, to the present, and to the future, in 2036. Right now there

Royal Botanic Gardens, Melbourne

are three people alive for every one in 1936, and in 2036 there will be four. The pressure on resources of all kinds, and on food supplies in particular, will be immense. Clearly there is no such thing as food security.

Turning to the remainder of the scientific program, we attended an important paper on sugar cane by Richard Brackin and his colleagues. They have discovered that the sugar cane plant does not take up nitrate as its major source of nitrogen, unlike most plants. Sugar cane prefers ammonium ions instead. So in practice, nitrate from fertilisers is wasted and contributes substantially to the run-off of fertilisers that contaminates the waters adjacent to the Great Barrier Reef. This causes problems for the conservation of reef-building organisms and marine life generally. In discussion, I reminded the audience that cane growers used to grow cowpeas in summer as a green manure crop, and that cowpeas were also sown as a sacrificial crop amongst the cane plants (*The Farmers' Handbook*, 5th Edition, NSW Dept of Agriculture, 1931). The cowpea is superior to alternative legumes in productivity. It has the capacity to deliver the cane crop's nitrogen requirement gradually, and without the run-off of nitrate that results from wasteful applications of synthetic fertilisers.

The second day began with Gerard Oostermeijer, who talked about the integration of genetic and ecological data in plant conservation. He recommended mixing genotypes in recovery or replanting programs, to maximise genetic diversity and improve the chances of success. This is counter to the conventional wisdom of provenance – where you only plant seedlings from locally produced seed. Breaking this barrier provides better opportunity for selection in favour of genotypes adapted to future conditions, as they emerge. Next came Professor Przemyslaw Prusinkiewicz from the University of Calgary, Canada. He presented some beautiful models of how plant growth and development are regulated, using impressive video sequences.

The second day also featured a session titled 'The past, present and future of plant diversity'. The speakers included Peter Crane, who gave an outline of plant evolution, David

Coates, whom we have met before through his participation in the ANPC Conference of 2008 at Mulgoa (see *Australian Wildlife* 3/2008, pp 9-10), and Eimear Nic Lughadha, who posed the question: how many plant species are there at present?

Peter Crane suggested that the broad division of flowering plants called Monocotyledons (eg lilies, grasses) arose before the Dicotyledons. This is not what I expected. When I last reviewed this topic for my book *Seed Physiology*, the earliest flowering plant fossil remains from about 100 million years ago belonged to ancestral Dicotyledons, not Monocotyledons. A cotyledon is a 'seed leaf' or strictly an embryo leaf. There may be one (mono), two (di) or many. Logically I would have to propose that the ancestral condition for Angiosperms was multiple cotyledons, as in Gymnosperms (pine trees and their allies). In Queensland's Daintree rainforest we still have a flowering plant with multiple cotyledons called *Ideospermum*. This flowering plant is truly a living fossil, and neither a dicot nor a monocot. Logically it belongs to a category called 'Polycotyledons' but taxonomists will not bite the bullet and say so. Serious debate about the origin and lineages of flowering plants needs to take account of such exceptional Australian plants.

David Coates again referred to the cinnamon fungus *Phytophthora* as a major threat to forty percent of the species comprising the WA flora. Overall, WA has 140 critical populations, some comprising fewer than 100 individual plants. He put forward 'translocation' as a useful method of conserving such species. This means growing them somewhere other than where they are threatened. Of 63 translocations attempted, most have been successful (only seven percent failed). Seed banks are also important, to provide seedlings for translocation or for replanting when *Phytophthora* or other threats have been eliminated.

Eimear Nic Lughadha described the preparation of a global list of plant species. At first there appeared to be a total of more than 900,000 taxa. Of these, 300,000 were accepted, 477,000 were determined to be synonyms (ie the same as something else) and 300,000 were left unresolved. There will be gradual progress here, as the lag times between collection of specimens and formal description can be considerable. Incidentally, the Nomenclature Section of the Congress voted to approve electronic publication of descriptions of new species from 1 January 2012, and to allow English instead of the conventional Latin.

Day three began with an account of some brilliant advances in microscopy and photography. We heard a lecture titled 'Live cell analysis of plant fertilization' by Professor Tetsuya Higashiyama, which was illustrated with video sequences taken through the microscope. You may recall that flowering plants have what is termed 'double fertilization' – when a pollen tube enters an ovule, two distinct sperm cells fuse respectively with an egg cell to form a new embryo, and with an endosperm pair to form a storage tissue in the seed. It is worth reflecting that fertilization was first discovered by Hofmeister in 1847. Then double fertilization was not observed until Strasburger did so in 1900. Professor Higashiyama's group has now shown that the pollen tube is guided to the opening of the ovule by a specific group of peptides released by synergid cells. Furthermore, the fusion of the two sperm cells with the egg and the endosperm initial is random, rather than in strict accordance with the sequence of the sperm cells in the pollen tube.

At times Patrick and I were struggling to find the relevance of what was presented to wildlife preservation. So we attended a session on *Acacia*. There are more than 1,000 species of *Acacia* in Australia. The front page news from this Congress was that the decision to retypify *Acacia* taken at the Vienna Congress in 2005 had been upheld. This means that the type species for *Acacia* is no longer an African species, but an Australian species. Although this reduces the number of name changes to a minimum, one wonders why any changes were necessary at all.

In the *Acacia* session, Michael McLeish described their relationships with thrips. There are four suites of thrips: gall inducing, domicile building, kleptoparasitic, and opportunistic. Martin Burd considered pollination, conducted mainly by small solitary bees and flies, beetles, wasps and honey bees. He and Martin Henery drew attention to the fact that most *Acacia* flowers are not pollinated. In one detailed record for a single plant of *Acacia dealbata*, only 588 pods were formed from 29,000 flowers. Luke Barrett discussed the nitrogen fixing capacity of rhizobia on *Acacia* roots. There are forty different strains of rhizobia that associate with the roots of *Acacia*. The growth rate of eucalypts benefits substantially from the presence of intermingled *Acacia*, especially if these are inoculated with an appropriate strain of *Rhizobium*. A topic missing from this session was an update on seed dispersal mechanisms in *Acacia*. In Australia these involve adaptations for bird dispersal, ant dispersal, or abiotic mechanisms (wind and water).

In addition to the formal proceedings, I visited the Royal Botanic Gardens, Melbourne, meeting several members of the Southern Cross Seed Savers Network, and receiving some bean seeds to bring back to NSW. I noticed some repair being undertaken for the vandalised Separation Tree, a handsome specimen of *Eucalyptus camaldulensis* (Murray River red gum) estimated to be 400 years old. This tree is so named because of the public meetings held adjacent to it in the lead-up to the separation of Victoria from NSW in 1851. To reduce their reliance on mains water, the Botanic Gardens have arranged for a diversion of storm water into their lake system. This project is called 'Working Wetlands'.

Also at the Botanic Gardens, I attended the exhibition of botanical illustration and renewed my acquaintance with two exhibitors who were former colleagues in the Botany School, University of Melbourne, 1975 to 1979 – Ian Clarke and Rod Seppelt. Ian is the co-author of *Name That Flower*, a very popular text book. Rod is a member of the Antarctic Division, and an expert on 'lower' plants – mosses and bryophytes. The exhibition was opened by Professor David Mabberley, who is about to take charge of the Royal Botanic Gardens in Sydney.

The organising committee of the IBC and the sponsors are to be congratulated on hosting an extremely enjoyable and successful conference.

A passion for birds

Trevor Andersen (Brisbane-based amateur photographer)

Birds have been a passion of mine from the early age of thirteen years old.

My fist sighting of the regent bowerbird feeding on Phoenix roebelenii seeds was a pleasant surprise while growing up in Brisbane.

Patience would have to be one of the most important factors in any form of wildlife photography. The unpredictable nature of wildlife will test the most experienced photographer to their limit. Photographing from a hide or waist-deep in water can be a laborious exercise for anyone trying to capture that special moment.

Lewin's honeyeater (*Meliphaga lewinii*) flying in under Lamington's canopy. Lewin's honeyeaters can be found throughout Lamington National park. This graceful little bird can be seen foraging around O Reilly's picnic tables on a daily basis. Photographed at Lamington National Park

Short-billed corellas or little corella.

Wedge-tailed eagle with offspring. This is the only photo I was able to capture while photographing Australia's largest raptor. I have been watching this youngster grow over the past eight weeks. Wedge-tailed eagles are shy nesting birds. My first attempt to photograph the youngster was a failure. On my approach to the nest I had noticed one adult wedge-tailed eagle soar over the tree tops and narrow in on my position. This adult landed in the tree tops above me with this loud channel bill cuckoo-like warning call. I soon realised that the welfare of the chick was more important and decided to head back down the mountain. I returned to photograph this bird from my camera hide the following day. The location of this nest is pitched up high in the Kerry Valley Range Queensland

Rainbow lorikeet (*Trichoglossus haematodus*) feeding on callistemon flowers. One of our most prolific parrots in Australia today. Flowering scothia trees (Schotia brachypetala) have been blamed for sending wild lorikeets into a stuporous state in Darwin. Recent studies carried out on the northern form (*Trichoglossus rubritorquis*) have confirmed the cause of their inebriated state. Photographed at Jimboomba, Queensland

Wompoo fruit dove (*Ptilinopus magnificus*) - one of Australia's most stunning birds in the Columbidae family. Their green iridescent flights are something you would expect to see on a parrot. This bird can be very difficult to spot in the canopy of the rainforest. Photographed at Lamington National Park

Capturing images of birds in motion evokes many more emotions than photographing them in a stationary position. Continual failure can easily wear down the most persistent photographer. Fast-flying birds make this challenge even more difficult as they fly directly into your lens.

I shoot in manual mode 100 percent of the time while tracking birds in flight. Knowing your subjects' behaviour will help you accomplish what may seem a difficult task at the time.

My first encounter with Lamington National Park in the 1990s would be one of the most memorable. King parrots, crimson rosellas and satin bowerbirds lined the trees on my walk up to O'Reilly's guesthouse. World Heritage listed Lamington National Park is one of my favourite birding destinations. The scenery in Lamington National Park is startling. Mountain creeks plummet from sheer-faced cliffs through deep, narrow valleys. Woody vines, ferns and orchids grow beneath a canopy of tall trees in the subtropical tracts. Lamington's satin bowerbirds are one of the most fascinating in the Ptilonorhynchidae family. Avenues of the satin bowerbird have the same orientation no matter where their location at Lamington. I have personally checked the orientation of at least five bowers with this same result.

I would like to thank professional photographer Michael Snedic, who has inspired me with his achievements in wildlife photography.

Regent bowerbird (*Sericulus chrysocephalus*) showing off his gaudy yellow flights. Regent bowerbirds would be of the most beautiful birds to capture in flight. Their yellow flight feathers are as impressive from the front as they are from the rear. Photographed at Lamington National Park

Eastern spinebill (*Acanthorhynchus tenuirostris*) feeding on grevillea flowers. This delightful little bird can be seen foraging around O'Reilly's gift shop. Photographed at Lamington National Park

This photograph was captured while the male duck was trying to lead his two offspring down to the dam. Day old ducklings instinctively freeze once their parents give the signal. I have located eight nesting sites within close range of my house to watch their breeding behaviour. Their mother has the ability to keep her young from jumping out of the nest cavity until she gives her final short repetitive call. Wood ducks from around the property often gather around the base of their drop zone like a welcoming committee.

The Australian wood duck (*Chenonetta jubata*) is a medium-sized 'goose-like' duck with a dark brown head and a pale grey body with two black stripes along the back. Males have the darker head and a small dark mane, with a speckled brown-grey breast and a black lower belly and undertail. The females have a paler head with two white stripes, above and below the eye, a speckled breast and flanks, with a white lower belly and undertail. In flight, the wings are pale grey above, contrasting with black wingtips, and have a noticeable white bar on the underside (the secondaries). They walk easily on land and may be seen perching on logs and in trees. They will only take to open water when disturbed. This species is also known as the maned duck or the maned goose.

Magpie geese make their annual migration along Queensland's southern coastal wetlands during November to December. This picture was taken at Carrara on the Gold Coast during their nesting period for December 2011. This male in mid flight is easily recognisable by his enlarged cranial nob.

This group of grass whistle ducks live on my lower dam in Brisbane. They are quite tame as you would never get this close to wild birds without a zoom lens. Numbers are definitely on the increase around Brisbane - large flocks have taken up residency at DreamWorld on the Gold Coast. Their delightful call can be heard as they flock during moonlit nights.

The grass whistle duck or plumed whistling duck (*Dendrocygna eytoni*) is distributed throughout northern Australia with widely scattered groups in much of New South Wales and can be found as far south as south-western Victoria. The grass whistle duck is a bird of tropical grasslands but has benefited from pastoral practices which provide dams and pasture on which to graze. Unfortunately, the grass whistle duck is available for recreational hunting in Queensland and the Northern Territory. In flight, the grass whistle duck adopts a distinctive posture with a depressed neck, trailing legs, light belly and a less obvious white rump than the water-whistle duck. It has short, rounded wings with slow wing beats. On the water or on land, the grass whistle duck is a medium-sized duck with a pale body and long, buff plumes on the flank. It has a distinctive erect posture and whistles incessantly in flight.

Pink-eared duck (*Malacorhynchus membranaceus*). This droll little duck which is found only in Australia are highly specialised for filter-feeding on zooplankton. They also feed by vortexing, in which two ducks spin about a central point with the head of one opposite the tail of the other, concentrating food in a gyrating water column. Pink-eared ducks are rather awkward on land, although they perch freely on low branches. This pair were photographed at Gatton in Queensland.

Australian brush-turkey (*Alectura lathami*)

Suzanne Medway

The Australian brush-turkey is not easily confused with any other Australian bird. It is the largest of Australia's three megapodes (family *Megapodiidae*). The megapodes are a distinct family of the group of fowl-like birds (order *Galliformes*), which includes quails, turkeys, peafowl and jungle-fowl.

The Australian brush-turkey has a mainly deep blue-black body plumage, bright head colours, yellow throat wattle (pale blue in northern birds) and laterally flattened tail.

The bird's wattle (a fleshy lobe hanging down from the base of its neck) varies in colour with its age, gender and location. In the southern parts of its range, the male brush-turkey has a bright yellow wattle, while on Cape York Peninsula in far north Queensland its wattle is light blue. Females and younger birds have dull yellow wattles.

Brush-turkey chicks look much like quails, with plain rich brown feathers over their entire bodies. As they mature they lose the feathers on their heads and necks, where the bare skin turns a deep pink colour.

Where do they live?

The Australian brush-turkey's range extends along eastern Australia, from Cape York Peninsula, Queensland, south to the northern suburbs of Sydney and the Illawarra region of New South Wales.

It lives in humid forests along the eastern seaboard and inland to the wetter ranges, but can also be found in drier scrubs. In the northern part of its range, the Australian brush-turkey is most common at higher altitudes, but individuals move to the lowland areas in winter months. In the south, it is common in both mountain and lowland regions - though it is most often seen in rainforest and neighbouring eucalypt forest areas. It remains in a particular locality throughout the year, where it breeds and forages in the forest leaf litter for fruits, seeds and small animals.

This fascinating bird is abundant in favourable habitats. However, since European colonisation its numbers have declined, particularly near cities. In places where it shares its breeding and foraging grounds with humans, the survival of the species depends largely on the goodwill of householders.

Above: Australian brush-turkey (*Alectura lathami*) on the beach at Fingal Head, NSW. Australian brush-turkey numbers have dramatically increased at Fingal Head over the past 15 years. Sightings of this megapode were quite rare during the 1980s. This male is tending to his mound behind the dunes. Photographed at Fingal Head, NSW. Photo: Trevor Anderson

Brush-turkeys feed on insects, seeds and fallen fruits, which are exposed by raking the leaf litter or breaking open rotten logs with their large feet. The majority of food is obtained from the ground, with birds occasionally observed feeding on ripening fruits among tree branches.

Breeding

Using vegetation gathered from the forest floor around them, male brush-turkeys build a large and distinctive incubation mound, which can be up to four metres wide and up to two metres high. A female will then lay between 18 and 24 white eggs in the mound, with intervals of two to three days between the laying of each egg. Some males have been recorded with more than one mound, but this is not common. Eggs are laid by several females in a single mound. Before the eggs hatch, many fall prey to burrowing predators such as goannas.

As the vegetation in the mound decomposes, it gives off heat which warms the eggs. The optimum incubation temperature is between 33°C and 35°C, and the male brush-turkey maintains this temperature by removing and adding layers to the mound. Temperature regulation is the only assistance the parents provide to their offspring.

The young brush-turkeys hatch after about seven weeks, fully feathered and able to run. After hatching, the chicks burrow out of the mound, at which point they are left to fend for themselves. These hatchlings are fully feathered and are able to walk and fend for themselves immediately. Remarkably, they are able to fly just a few hours after hatching.

Brush-turkeys in the garden

The sight of their backyard being converted into an unattractive pile of decomposing compost matter is enough to infuriate any proud home owner. With their powerful legs and insatiable desire to mound and breed, the suburban backyard is no match for these industrious birds.

Brush-turkeys are generally wary of humans. However, they can become very tame around picnic grounds and homes, particularly if they are fed.

Many people consider brush-turkeys to be destructive in carefully planned gardens, since they remove vegetation, earth and mulch to create their

Australian brush-turkey pair. Photo: Darryl Jones

incubation mounds. In a few hours, the birds can strip away closely-planted natives and light, moist mulch, used frequently in landscaped gardens. Heavier ground coverings (such as river gravel) and tree guards can reduce the impact on valuable and vulnerable plants. A single male is capable of raking material into the mound from surrounding neighbours' yards when required.

Once a male brush-turkey has started to build its mound, it is extremely difficult to prevent it from continuing its efforts.

The brush-turkey is protected wildlife and attempts to harm the bird or trap it without the appropriate permit are illegal. Although often frustrating to live with at times, these birds

Australian brush-turkey chick. Photo: T. Davis

Australian brush-turkey male and mound. Photo: A. Göth

are merely taking advantage of the suitable conditions provided through a constructed garden landscape.

The brush-turkey favours moist gardens with a combination of intermittent shade, tree litter and mulch, and available food resources, which facilitates both foraging and nesting behaviour.

No single method of deterrence has proved effective in all situations, but gardeners can try spreading a heavy tarpaulin over the mound and weighing it down, to prevent the bird from working.

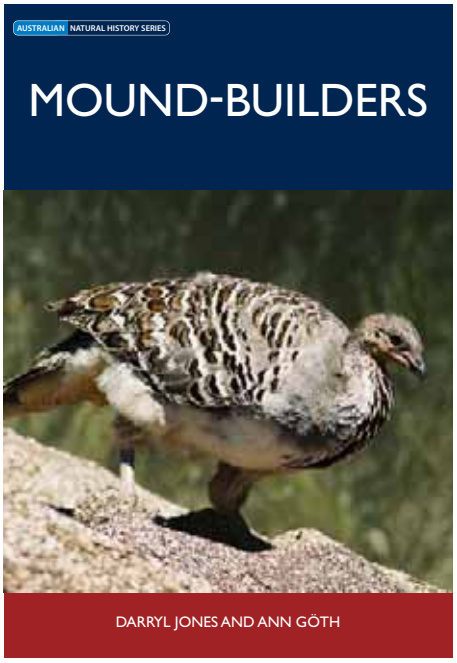
We don't recommend that you feed brush-turkeys. Any food source may encourage the bird to remain nearby. This also includes leaving food available for other native species and household pets. Keep piles of spare mulch, leaf litter and compost covered with tarpaulins.

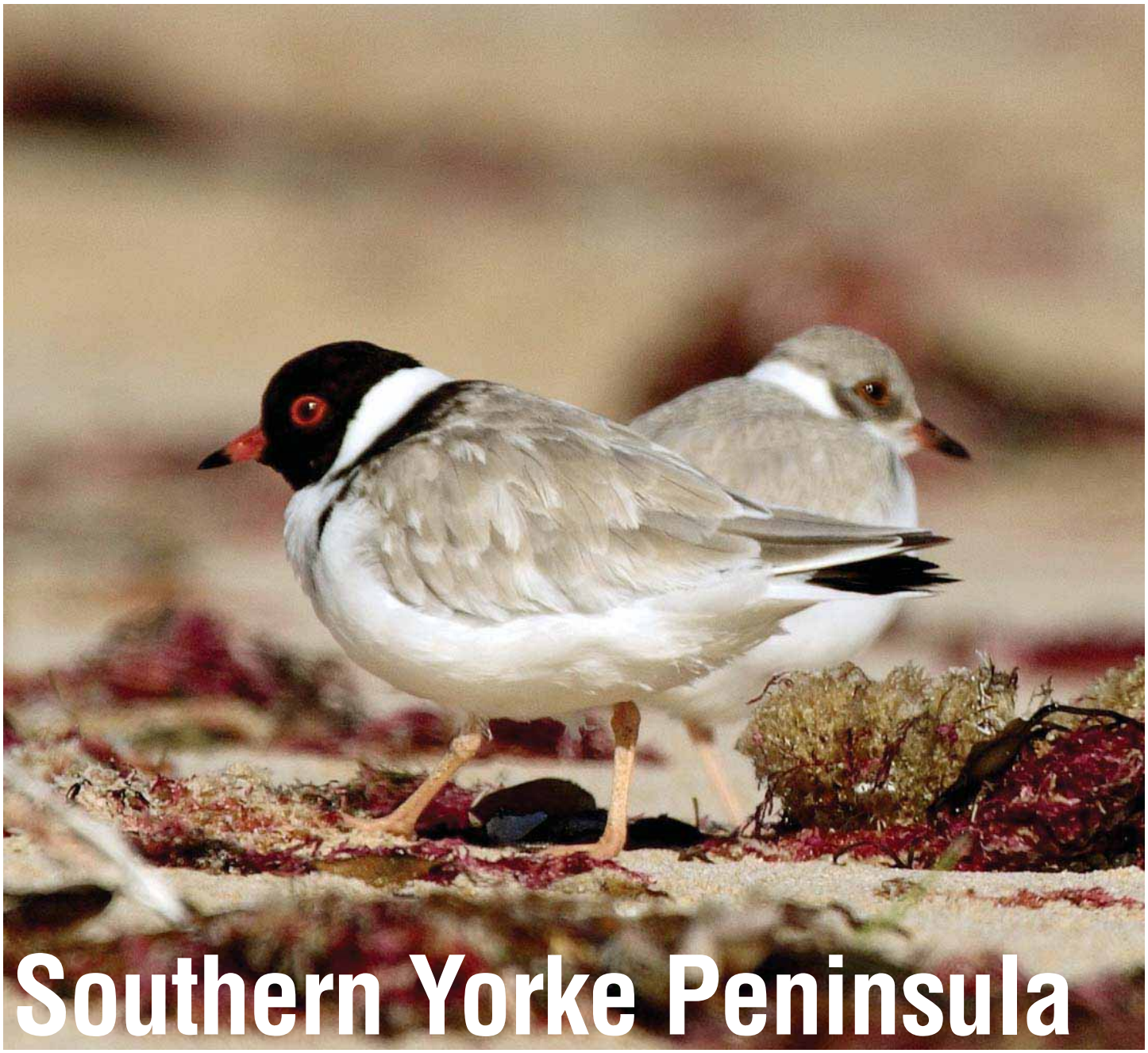
Gardeners can also try diverting the bird's attention to a less attractive or valuable area of the garden, by building a household compost mound. Ideally, this compost mound should be sited next to at least one large tree providing 80 to 95 percent shade. The brush-turkey may be attracted towards the area, and may eventually take over the compost mound as its nesting mound.

When planning a garden, householders should consider the use of rock combined with heavy planting. Species such as lomandra, dietes, bromeliad, and some low-growing grevillea varieties can be planted en-masse and provide thick ground cover. A layer of diamond-wire or chicken-wire below the surface of mulch will discourage or make it difficult for the turkey to rake the ground. We recommend the use of tree guards around small or newly-established plants for protection and heavy covering such as larger-size river gravel be incorporated around the base of trees and plants to protect from root disturbance.

If deterring the bird fails then further advice or relocation may be a last resort. Ecologically-minded turkey advice, specialist trapping requirements, and ecologically sound translocation methods are employed by licensed professionals for effective turkey relocation. Contact the nearest NPWS office for further detailed advice.

Brush-turkeys are part of Australia's natural heritage, and many householders now accept these birds as a fascinating part of their backyard environment.





Southern Yorke Peninsula

fox baiting for biodiversity

Ken Rudd, Northern and Yorke Natural Resources Management Board

SYP Fox Baiting for Biodiversity is a large scale fox baiting project being undertaken to protect endangered species on Southern Yorke Peninsula. Species include malleefowl, western whipbird, hooded plover, heath goanna, little penguins and Tammar wallaby.

The project began in February 2008 to compliment baiting being undertaken by the Department of Environment and Heritage on Innes National Park as part of the Tammar wallaby re-introduction program. We continue to work in conjunction with DENR to bait at concurrent times.

We have established 550 permanent bait stations across 35,000 hectares on Southern Yorke Peninsula over 26 rural holdings and four parks.

Baiting is carried out over two eight week baiting periods in February/March and September/October each year.

National Parks bait Innes National Park and Warrenben Conservation Park continually throughout the year, and Thidna and Davenport Conservation Parks as part of this program.

We have several remote cameras to monitor bait stations and observed that after three years of using commercially prepared 1080 fox bait; we were getting some bait shyness. In February 2011 we switched to kangaroo meat injected with 1080 and achieved a large increase in bait uptake. We will be using tuna chunks injected with 1080 for our February 2012 round of baiting.

We also use remote video cameras to monitor malleefowl nests, and observed that no foxes visited the

Above: Hooded plover

Malleefowl (*Leipoa ocellata*) on mound

monitored malleefowl nest during the incubating period.

Innes National Park has one of the few stable malleefowl populations in Australia.

Other observations are the sightings of three echidnas when they were thought to be extinct on Yorke Peninsula. There has also been a bush stone curlew sighting, which has not occurred in Innes for many years. There have also been several sightings of heath goannas which are listed as endangered in the region.

The project highlights what can be achieved over a large scale area and the importance of ongoing monitoring and evaluation and the need to modify techniques to achieve the best results.

The project was originally funded by the Northern and Yorke Natural Resources Management Board and is currently funded from the Caring for Our Country program, and has received further funding for 2012/2013.

Two malleefowl on nest

Fox taking bait

Cape York Peninsula

Suzanne Medway

Cape York Peninsula in far north Queensland is one of the largest intact and most diverse landscapes left on Earth and is sometimes described as "the wildest tropical environments left on the planet." It is a land rich in nature and culture, where Indigenous peoples' connections to their Country are active and strong. It is an extraordinary environment with seamless transitions between mangroves, tropical rainforests, savannahs, wetlands - and bountiful coasts and seas. Bounded by the Great Barrier Reef and the Wet Tropics World Heritage areas, it is half the size of Britain, and nearly as big as the entire state of Victoria.

The land north of the Jardine River, the True Cape York, is a narrow peninsula with the Coral Sea to the east the Arafura Sea and Gulf of Carpentaria to the west and the Torres Strait to the north. Only eighty miles south of Australia's nearest neighboring country Papua New Guinea the land is traditionally owned be the indigenous Australians of the area.

Cape York Peninsula is under threat by strip mining, destructive large-scale agricultural projects, inappropriate fire regimes and feral animals and weeds. As a result, the future protection and management of the region is part of an ongoing national debate.

Cape York Peninsula's river systems are some of the healthiest and most spectacular remaining on the planet.

Cape York Peninsula has been proposed for World Heritage recognition since the early 1980s, both on natural and cultural values. A World Heritage listing could cover many land tenures, including the new Aboriginal-owned and co-managed National Parks (Cape York Aboriginal Land), Aboriginal freehold, and pastoral estates, provided that there is consent from the appropriate land holders and Traditional Owners, and that property management plans, consistent with World Heritage values, are in place.

From a zoologist's point of view, Cape York Peninsula is somewhat like an island. It has animals from surrounding regions such as Arnhem Land, North East Queensland and Papua New Guinea, as well as its own endemic fauna that are found nowhere else. The peninsula is not an island of course, since it is connected to

the Australian continent; however, there are barriers to the movement of animals that are just as significant as if it was surrounded by water.

A broad, low-lying dry belt stretches across the bottom of the peninsula, through the Laura Basin and extending north towards Cape Melville and Princess Charlotte Bay. In terms of rainforest species, this effectively prevents Cape York species from spreading south into the wet tropics, while also stopping wet tropics species from moving north.

Wildlife of the Cape

It is presumed that it is this dry belt which excludes from the Peninsula many savanna and woodland animals such as koalas, bettongs and most species of kangaroos, wallabies, possums and gliders. Cape York Peninsula has no highland connections with the rest of the Great Dividing Range and this may prevent cool/temperate dependant taxa from migrating from the wet tropics or the Einsleigh Uplands bioregions

Amphibians

There has been 31 species of frogs recorded on the Peninsula, five of which are endemic and two that are found only on the Peninsula in Australia but also in Papua New Guinea. The giant white-lipped tree frog (*Litoria infrafrenata*) and the Cape Melville frog (*Litoria andiirrmalin*) are just two of the species.

White lipped green tree frog

A total of 133 reptile species (excluding sea snakes) have been found on the Cape York Peninsula, although the actual number could be higher. By far the best known is the saltwater or estuarine crocodile which has significant breeding populations throughout the region and is seen by many as the symbol of the wild, untamed wilderness.

Many of the isolated beaches on the Peninsula are also nesting beaches for several species of marine turtle. Many of

Emerald tree python

Eclectus parrot (*Eclectus roratus*) pair

Healthy savanna country typical of the Cape

these turtles and crocodiles are widely distributed across tropical Australia and extend north into South East Asia, unlike the 18 species of reptiles known to be endemic to Cape York Peninsula.

There are a further 14 species which are found in Papua New Guinea, but nowhere else in Australia outside the Peninsula.

Many of the endemic reptiles are small skink species, which, because of their small size, limited mobility and low resource requirements, were able to evolve separate species in isolation from each other in response to the incredible patchwork of habitats that occur within the region.

New species are being found all the time, including a possible new Lerista skink and dtella gecko (*Gehyrasp*) from Pajinka. A new, bright pink snake with the humorous name of Rhinoplocephalus incredibilishas been found on the beaches of Prince of Wales Island off the tip of Cape York. Of the species with extra-limital ranges outside Papua New Guinea, none are more spectacular than the emerald python (*Morelia viridis*) found only in the Iron Range/McIlwraith Range district.

Of the 133 species of reptiles listed, there are two crocodiles, six marine turtles, seven freshwater tortoises, 15 geckos, four legless lizards, five dragons, nine goannas (monitors), 39 skinks and 46 snakes (only five of which are dangerous).

Birds

Cape York Peninsula is considered a mecca for bird watchers, with 321 species recorded for the region,

The tip of Cape York Peninsula

excluding occasional vagrant species. Of this, the only two that are truly endemic are the golden-shouldered parrot and the white-streaked honeyeater. Of these, the golden-shouldered parrot is considered as threatened by habitat changes from alteration of fire regimes.

A large majority of bird species found on Cape York can also be found in Papua New Guinea, though there are 18 species whose Australian distribution is restricted to Cape York. These include the palm cockatoo, eclectus parrot, red-cheeked parrot, yellow-billed kingfisher, red-bellied pitta, green-backed honeyeater, tawny-breasted honeyeater, white-faced robin, frilled monarch, black-backed butcherbird and fawn-breasted bowerbird.

The northern rainforests of the Peninsula is also home to two species of birds of paradise from Papua New Guinea. These are the magnificent riflebird and the trumpet manucode, both of which have a singular and unmistakable call and are eagerly sought after by birdwatchers.

There is some difference between the bird fauna at Iron Range and the Lockerbie Scrub. The eclectus parrots and red-cheeked parrots are restricted to the Iron Range area, having presumably disappeared from the Lockerbie Scrub during the last Ice Age. The southern cassowary has also disappeared from the very northern forests; however, this is because of recent hunting pressure.

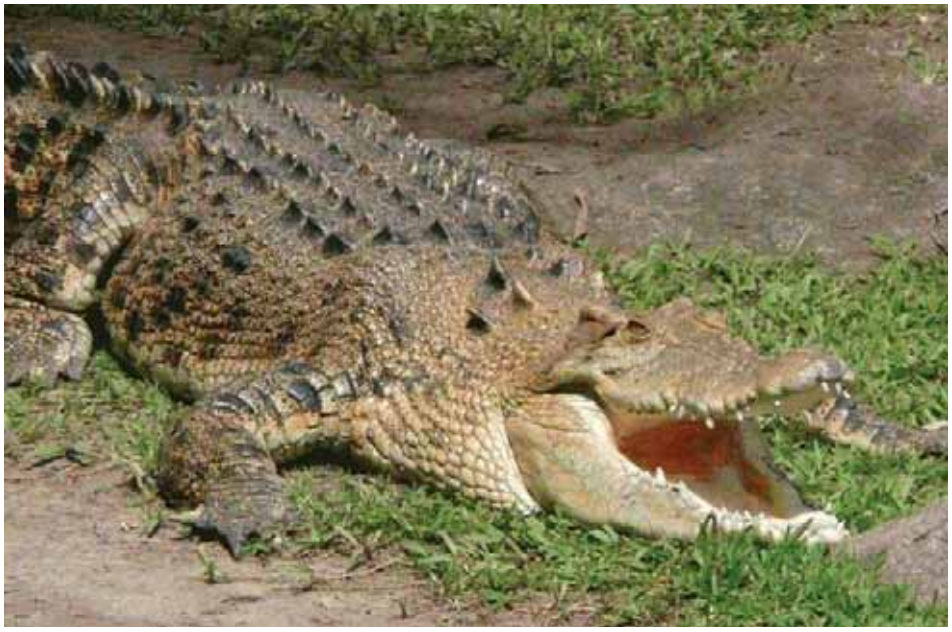
Many of the Papua New Guinea bird species which also call Cape York home are isolated from their northern populations by the Torres Strait, with 31 bird species that are isolated by the Torres Strait and 11 which make annual crossings. September is considered an interesting time for bird watching as this is often the time that these migratory birds arrive from Papua New Guinea.

Migratory species observed arriving at Pajinka at this time include Mongolian plover, oriental plover, curlew sandpiper, sharp-tailed sandpiper, grey-tailed tattler, bar-tailed godwit, pied imperial pigeon, buff-breasted paradise kingfisher and the common koel. The very elusive red-bellied pitta doesn't arrive until the wet season is in

Palm cockatoo

Sugar sugar

Golden-shouldered parrot (*Psephotus chrysopterygius*)



Estuarine crocodile

Agile wallaby

progress (December-January), whereas the metallic starling may arrive as early as July before building their enormous colonies.

Mammals

Cape York Peninsula is as interesting for the animals it doesn't have as for the animals that it does. The mammals best illustrate this, with 72 species of mammals being recorded, four of which are endemic and a further eight of which also occur in Papua New Guinea. Of the total, there are only three gliders, three possums, ten macropods (wallabies, kangaroos and pademelons), and 31 bats. Of the 12 rodents listed, the Cape York melomys and the Lakeland Downs mouse were noted as being endemic, however, the Lakeland Downs mouse has now been found at a site north of Townsville in north east Queensland.

Of the 72 mammals listed as occurring on the Peninsula, only 25 have actually been recorded on the tip of Cape York. One of these species, the northern quoll, may be presumed extinct since the 1994 arrival of the cane toad.

Iron Range has higher mammal diversity (64 species identified) than found in the Lockerbie Scrub. Notable amongst these is the grey cuscus. It is particularly interesting to note that many of the mammal species present at the tip of Cape York also occur in Papua New Guinea. These include the echidna, rufous spiny bandicoot, southern brown bandicoot, striped possum, sugar glider, spotted cuscus, agile wallaby, water rat and Cape York rat.

The role of cracking clay soils in maintaining biodiversity in South Australia's arid rangelands

Helen P Waudby, School of Natural and Built Environments, University of South Australia

In 2008, I began a PhD (under the supervision of Dr S. Topa Petit) that aimed to characterise the biodiversity (small vertebrates, invertebrates, and plants) of cracking clay ecosystems in the arid South Australian rangelands and determine how cattle grazing affected the dynamics of these systems. I also wanted to understand why cracks may be important shelters for small animals (by examining their thermoregulatory properties) and how they were used by small vertebrates such as dunnarts (*Sminthopsis* spp.) and gibber dragons (*Ctenophorus gibba*). Additionally, I aimed to understand how pastoralists (key land managers in the arid rangelands) perceived biodiversity and biodiversity management strategies. To answer my research questions, I trapped small animals at six paired sites (grazed and less-grazed pairs), radio-tracked dunnarts and gibber dragons to their shelters, inserted data loggers in cracks, monitored changes in vegetation diversity inside permanent *in-situ* plots at all of the sites, and distributed a survey to all lessees and/or lease managers in or on the edge of the stony plains region. Field research was undertaken on a cattle station (Billa Kalina), located about 180 km south-east of Coober Pedy.

After nearly 2.5 years of rain, dust storms, endless sunrises and sunsets, major field research has finished; I am currently immersed in data analyses and thesis writing (and longing for my study site). Trapping was undertaken from April 2009 to May 2011. Over 22 trapping sessions and nearly 19,000 trap nights, 10 mammal and 14 reptile species were captured. Some notable captures included nationally-threatened plains rats (*Pseudomys australis*), endemic reptiles such as gibber dragons (*Ctenophorus gibba*) and Woomera sliders (*Lerista elongata*), and species not normally caught in the stony plains, such as sandy inland mice (*Pseudomys hermannsburgensis*). Fat-tailed (*Sminthopsis crassicaudata*) and stripe-faced dunnarts (*Sminthopsis macroura*) were the most common small mammals captured until a rise in native rodents occurred in 2010 (and continued into 2011). Vertebrate biodiversity fluctuated between sites and was no doubt affected by the large rainfall events that occurred throughout the study (rain fell in almost every month).

The social survey (undertaken in collaboration with Professor Guy

Above: Large thunderstorm approaching one of the study sites

Invertebrate identification and sorting continues

Helen Waudby radio tracking a dunnart

Robinson at the Centre for Regional Engagement, University of South Australia) achieved a response rate of approximately 30 percent. Respondents demonstrated a diversity of views about biodiversity and its management in their region and felt very strongly about certain topics. An article presenting these findings is near completion. It is expected that the survey results will contribute to management agencies' understanding of key stakeholders and their opinions about land management.

Invertebrate identification and sorting is continuing. Plant specimens have been verified by staff at the Adelaide Botanic Gardens and I am in the process of analysing vegetation data. One technical article (on marking reptiles) has already been published (Waudby and Petit, 2011) and several conference and colloquium presentations given. I expect to submit my thesis in 2012.

I am extremely grateful to the Wildlife Preservation Society of Australia for the funding they provided in two years of the project. Thank you also to the project's other sponsors: the Hermon Slade Foundation, the Nature Conservancy and the Thomas Foundation, the Holsworth Foundation, the Nature Foundation

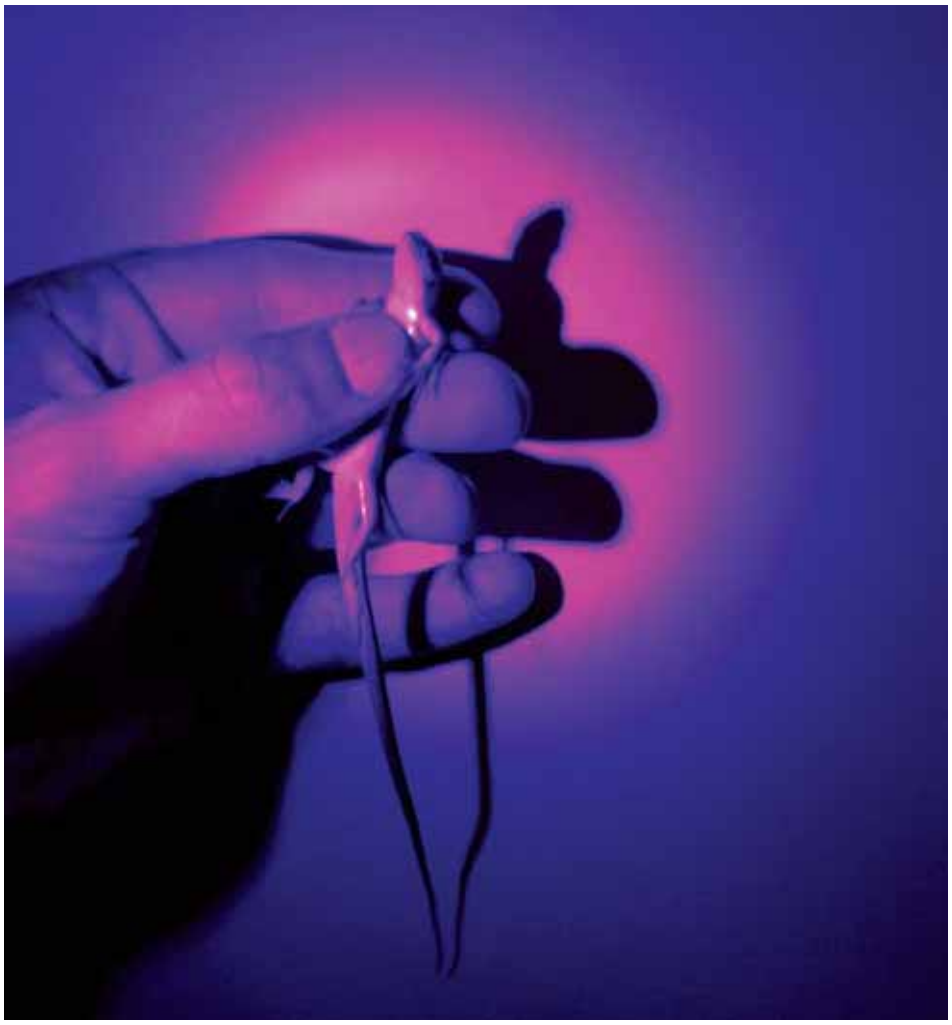
of South Australia, the Australian Federation of University Women (SA chapter), and the Royal Geographical Society. My gratitude also goes to my supervisor Dr S. Topa Petit, to Col, Jill, Laura, Anna, and Bridie Greenfield, and to all of my field volunteers, including Jane Addison, Alison "FTF" Fairlamb, Cameron Forster, Matthew Gill, Tiffany Godfrey, Katherine Hastie, Michael Heath, Kevin Lintern, Kimberley McArthur, Ashley Walker, Katelyn Ryan, Nadia Rubbo, Hannah Spronk, and Linda Rennie. The University of South Australia and the Sustainable Environments Research Group (SERG) provided a post-graduate scholarship and in-kind support.

Reference

Waudby, H. P. and Petit, S. (2011). Comments on the efficacy and use of visible implant elastomer (VIE) for marking lizards. *South Australian Naturalist* **85**, 7-13.

Editor's note:

Helen won her first University Grant in 2008, and again in 2010 for her project - The role of cracking clay soils in maintaining fauna and flora biodiversity in the rangelands. We are delighted to present Helen's final project report and wish to congratulate her on completing her PHd.



A skink marked wth Visible Implant Elastomer. Photo: H. Waudby

A plains rat (*Pseudomys australis*)

SPIDER WARS

Words and photos by John Merrick

I had been up early that morning checking on our wildlife, inspecting the pens, collecting the feed dishes left out the night before ready for washing. The time was around 8am and I sat down at the kitchen/living room table and was enjoying a cuppa with my wife who was facing the windows overlooking the garden. She looked up after seeing movement and, thinking it was a bird looking for a feed of spiders (they often do this), we chanced upon two spiders fighting outside one of our large kitchen/living room windows.

I cannot positively identify both spiders other than to say I believe the black one is the common black house spider about 15-20 mm plus across, which I called Blacky, and the other appears to be from the *Theridon* species and would be 5-8 mm across, which I called Nimble-foot and thought to be female. The reason for saying this will become clearer when viewing the last photos and, yes, there is a considerable size difference between the two.

Not really knowing how long the fight would last or just how it would end, I took off to get the camera and upon returning things had changed somewhat. The fight was now about 60 cm down from the window top, the combatants were hanging on silk threads with Nimble-foot attacking and Blacky defending her/himself. My first picture was taken at 8.09 am on 5 October 2011, the green background is the garden behind and the brownish background is the sun blinds and blind protection cover.

I have a 100 mm macro lens connected to 15 mega-pixels DSLR. These pictures are as taken, no photo shopping or retouching other than cropping to remove the large amounts of green and brown, the camera and lens was hand-held (no time and too awkward for tripods), looking up towards the ceiling, which I must admit is not the best way to try to take photos of two moving spiders fighting. In all I took some 45 photos over a two-hour period, and a couple more photos the next day.

The following photos show a brief account of how the drama unfolded. We were totally fascinated just watching this awesome event take place. Filming was not that easy as they were constantly moving either up and down or sideways with the breeze. I did however manage to get enough good photos to put together this photo shoot story.

Nimble-foot seemed to have a strong silk for its size, larger than the one left in the nest and, as I suggested, a very potent venom, shows absolutely no fear of a much larger prey when looking for lunch, size is about right, and the nest is messy. If I am right these characteristics fit one of the *Theridon* species, which is part of the Theridiidae family, and this includes the red back/black widow group of spiders.

I did find some information at: http://ednieuw.home.xs4all.nl/australian/theridiidae/Theridiidae.html

If there are any spider experts out there who may know what species Nimble-foot actually is, perhaps they could let us all know by emailing info@wpsa.org.au.

We did not see the actual start of the fight. Did Blacky stumble into Nimble-foot's web, or was it attacking looking for prey also? However it started, my wife and I were totally captivated for the entire morning by this (for us) unusual chain of events.

I have photographed many small things with the macro lens but this spider fight was the most breathtaking up to date and took place at the dining room table, no driving for hours, waiting somewhere in all kinds of weather for either something to show up or to get the light just right to take the picture.

8.09am
Nimble-foot attacked showing absolutely no fear of the much larger opponent and every time she attacked she managed to spin silk around Blacky using her spinnerets and rear legs. Then she would dance away, wait awhile and prepare for another attack

8.09am
As Nimble-foot approached Blacky she would ever so carefully reach out, tap Blacky and quickly pull back a little and gauge the reaction; if she determined all was OK she would then move in and attempt to wrap him/her up some more

8.09am
All the while though Nimble-foot was slowly but surely managing to get more silk around Blacky

8.11am
Nimble foot did not have it all her own way as Blacky managed a counter attack and actually removed part of one of her legs. This made Nimble foot retreat quickly to a safe distance and I think to weigh up her options

8.11am
Nimble foot minus part of a leg slowly and carefully came back down towards Blacky to continue the attack

8.13am
At approximately 8.13am Nimble foot had almost completely wrapped up Blacky so tightly in silk that Blacky was unable to move

9.35am
Nimble-foot now began to lift Blacky some 60 cm towards the blind cover, no mean feat as I would liken it to a human lifting a small horse vertically many metres. This took her some time to complete

9.35am
Nimble-foot lifting the now completely helpless Blacky higher into the sun blind cover area

10.11am
Nimble-foot finishing off her victim Blacky, possibly by injecting venom to liquify Blacky

11.43am
Nimble-foot checking her prize and repositioning in the web

6 October 2011 - 8.24am
Nimble-foot guarding her prize or perhaps feeding on it. We were not sure what went on overnight but Blacky has been turned around and although only about 10 cm from the mate and the nest of young spiders, we never saw the male or any of the spiderlings approach Blacky at any time

1.38pm
This I believe is Nimble-foot's mate, a somewhat smaller male left guarding the babies; this spider's nest is less than 10 cm from where Blacky is being held fast in the web and watched over by Nimble-foot

1.39pm
Blacky has simply disappeared, it seems that once he/she has satisfied the family it is simply jettisoned and the search for another victim begins

Book Review

Global Walkabout

by Vincent Serventy and Joan Webb

When two of Australia's most prominent environmentalists combine to write a book on their 'environmental encounters' across Australia and around the globe, we should sit up and listen to their message.

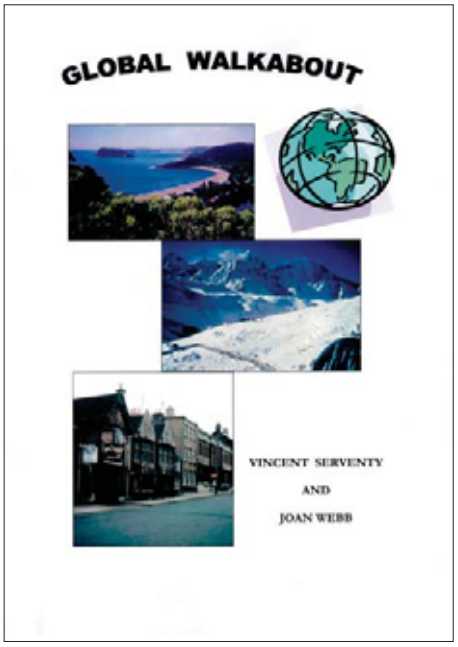
Vincent Serventy spent a lifetime writing, filming and educating the Australian public on conserving Australia's unique wildlife, and Dr Joan Webb has similarly spent a lifetime educating and helping us to better understand the important environmental issues of our time.

Tracing the early history of the environmental movement in Australia through to branching out into worldwide important conservation issues, this new publication gives us a rare insight into some of the most significant battles to save our world for future generations.

Featuring the early history of the Royal National Park, the first 'green bans', saving Lord Howe Island with references to Jim Brown and its rare wildlife, the story of the mutton-birds of Tasmania, the iconic Franklin River issues and many other conservation stories that have attracted much publicity all make for interesting reading.

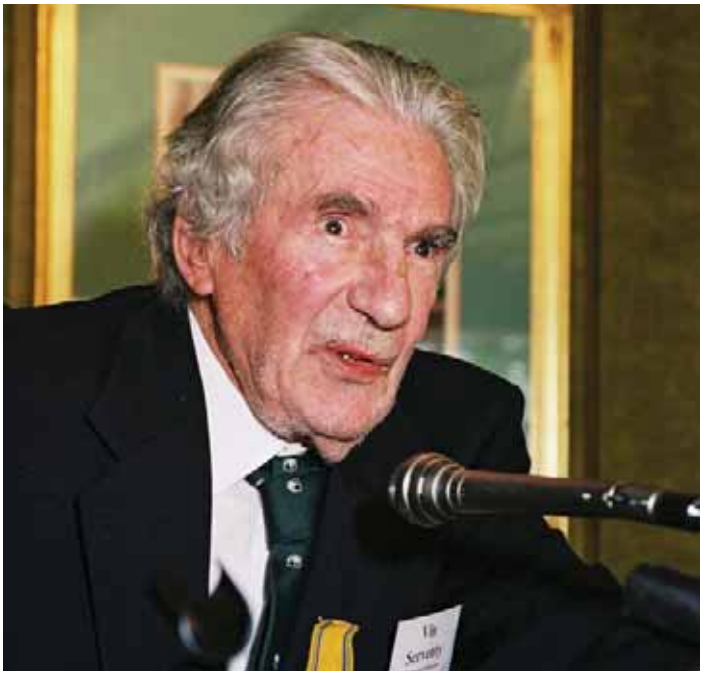
Interesting encounters with many prominent people are mentioned throughout the book. For example, did we know that Sir Stamford Raffles was a keen naturalist and helped with the important 'environmental awakening' and the concern for the Earth's ecosystems? The gigantic five-petalled rare flower was named by its discover Dr Arnold as 'Rafflesia Arnold' to honour Stamford Raffles. The Galapagos Islands are rediscovered and Charles Darwin Research Station mentioned, Rachel Carson and her book *Silent Spring* is covered along with the world's first national park - Yellowstone National Park. A visit to the United Kingdom, USA, Sweden, Nepal and Thailand all give an sight into the extent of the travels of these two noted conservationists and gives the reader an 'armchair view' of some of the unusual but very important environmental issues.

Joan concludes *Global Walkabout* with reference to Vincent's Ten Green Commandments and his dream 'of a natural world where we live in harmony within it'.



We commend the book and its exciting stories and coloured photographs to all those interested in wildlife conservation and in helping to protect our environment for future generations.

For more details on where you can purchase *Global Walkabout*, contact our national office.



Dr Vincent Serventy AM

Dr Joan Webb

Lumholtz Lodge

Sharon Williams

At least once a year for the last seven years, my husband and I have visited our favorite place on earth - **Lumholtz Lodge**, which is located on the Atherton Tablelands of Tropical North Queensland. We are wildlife photographers and have a deep love for the flora and fauna within the Australian landscape and we cannot help ourselves from returning to the uniqueness of Lumholtz Lodge as often as we can.

If you stay at Lumholtz Lodge, no other guests stay. The place is yours, along with your host Margit and an abundance of wildlife. There are idyllic walking trails on-site to **discover** and an impressive natural history library, where you can relax and learn about the species in the area, all whilst overlooking the 160 acres of private highland rainforest from your balcony.

Breakfast is a treat in itself, with tropical fruits, cheeses, freshly brewed coffee and juices to start off your day. Last time we were there for breakfast a Lumholtz's tree-kangaroo was sitting in the tree nearby watching us. His name is Geoffrey and he is one of Margit's wildlife rehabilitation successes, he comes to say hello every now and then. Definitely an **experience** to remember!

Margit is a wildlife carer who works tirelessly to rehabilitate sick, orphaned and injured native animals from the surrounding area. Even though you do not get to touch the wildlife, viewing is astounding. Species, such as the green ringtail, Herbert River ringtail, Lumholtz's tree-kangaroo, striped possum, pygmy possum, Victoria's riflebird and tooth-billed bowerbird, all call Lumholtz Lodge's rainforest home. There are over 100 mammal and bird species alone.

The private, yet central location of the lodge means that you are within easy access of other wildlife watching hotspots such as, Hasties Swamp, Crater Lake National Park, Lake Eacham, 'The Crater' at Mt. Hypipamee National Park and Bromfield Swamp, which is home to brolgas and the rare saurus crane.

We recommend a minimum three night stay at Lumholtz Lodge to completely **unwind** and truly get a taste for the property and the region.

Enjoy Bed & Breakfast or All inclusive rates.

Great **Family** packages are available and include the 'Lumholtz Lodge Children's Activity Kit' with lots of FUN and educational things to do!

Lumholtz Lodge is truly a wildlife experience like no other.

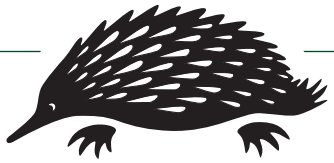
YOU COULD NOT BE ANYWHERE ELSE ON EARTH!

LUMHOLTZ LODGE
www.lumholtzlodge.com.au
07 4095 0292

Lumholtz's tree-kangaroo - He is Geoffrey, one of Margit's rehabilitation successes. He lives in her forest and comes by to say hello from time to time

Golden bowerbird is a favourite of birdwatchers and is found just minutes from Lumholtz Lodge

Membership Form



WILDLIFE PRESERVATION SOCIETY OF AUSTRALIA LIMITED

PO Box 42 Brighton Le Sands NSW 2216

Membership

Become a member of the Wildlife Preservation Society of Australia Limited
Simply fill out this form.

Name:.....

Address:.....

City/Suburb:..... Postcode: .....

Telephone:..... Fax: .....

Email: .....

Membership category (please tick)

- ☐ Individual: $50
- ☐ Family: $65
- ☐ Concession (pensioner/student/child): $45
- ☐ E-mag (emailed as PDF, no hardcopy will be sent): $25
- ☐ Associate (library, school, conservation groups): $80
- ☐ Corporate: $120
- ☐ Life: $1,000

(Includes postage within Australia. Add $40 for overseas postage)

Three year membership (please tick)

- ☐ Individual: $135
- ☐ Family: $175
- ☐ Concession (pensioner/student/child): $120
- ☐ E-mag (emailed as PDF, no hardcopy will be sent): $68
- ☐ Associate (library, school, conservation groups): $215
- ☐ Corporate: $325

(Includes postage within Australia. Add $100 for overseas postage)

Payment details (please tick)

☐ Cheque ☐ Money Order ☐ Mastercard ☐ Visa ☐ Bankcard

Card Number: |_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|

Name on Card: .....Expiry:.....

Signature:.....

Amount $.....

Donation $.....

Total $.....

Mail to the:

Wildlife Preservation Society of Australia Limited
PO Box 42, Brighton Le Sands NSW 2216.
Email: info@wpsa.org.au Website: www.wpsa.org.au

Consider - A Bequest

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

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

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

"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.

SUZANNE L. MEDWAY
President

Bowerbird memorabilia

Photography by Trevor Anderson

Regent bowerbird (*Sericulus chrysocephalus*) perched close to a satin bowerbird's parlour. Regent bowerbirds are one of the most spectacular in the Ptilonorhynchidae family. Their gaudy yellow flights can be seen darting around Lamington National Park's picnic tables throughout the summer months. This Regent bowerbird is standing in front of the satin bowerbird's bower. Satin bowerbirds will defend their bower without hesitation. Photographed at Lamington National Park

Collage of bowerbird objects. Satin bowerbirds are well known for their odd collection of blue memorabilia. My list of objects observed in the 2009-2010 period has been surprising to say the least. Their bowers would look more pleasing to the eye without this discarded rubbish around their bower. Photographed at Lamington National Park