

ASSOCIATION OF
SOCIETIES FOR GROWING AUSTRALIAN PLANTS INC

Wildlife and Native Plants
Study Group Newsletter



SPRING/SUMMER 2005

ISSUE 51

ISSN: 1038 7897

Dear Members,

Another edition is upon us yet again. Spring is really happening here in the mallee, and I hope it'll be a great year for wildflowers. Already we have the Early Nancys (*Wurmbea dioca*) and the little yellow star flowers (*Hypoxis*) dotting the ground. Some of the early species of wattles have started to flower, filling the air with their heavy blossom scents as have the cassias, confirming that spring is really here. The Lomandra irongrasses have also been spectacular. The Chestnut-crowned babblers and the white-browed babblers are busy with their nest and the wrens are getting into their blue breeding plumage. The farmer's friends the straw-necked ibis has flocked to the area as well, so spring is definitely upon us.

Thanks to all who have sent items for the newsletter. This makes the newsletter very interesting reading on a wealth of topics and situations across Australia. It's great to hear from all corners of Australia.

So often, we hear of the negative actions of governments on our environment. Believe it or not, there are a few good news stories as well. Why not check some of them out. Here in SA, our State Government purchased at auction for \$2.6 million (May 2004) a sheep station, Bimbowrie Station, located in the state's north eastern ranges, some 30kms. north of Olary towards the southern edge of the Strezlecki Desert. The property of 73,000 ha. is a former pastoral lease held in the one family since the 1900s. The station will become the first reserve in the Olary

Ranges, and one of the core protected areas of the Government's Nature Links strategy, and part of the successful Operation Bounceback ecological restoration program. Bimbowrie is dominated by sweeping plains, punctuated by red granite hills covered with mulga, occasional small gorges and rocky creeks lined with redgums and mallee box. Most significantly Bimbowrie has a range of land systems, vegetation communities and species not previously well represented in the state's reserve system, and that have been identified as threatened in the north east of SA. The property supports a colony of yellow-footed rock wallabies and is home for a range of nationally declared threatened flora, such as *Acacia carnei* or purple wood wattle. (info. sourced from DEH. Environmental Highlights: 13 stories of 2004.)

Also Coongie Lakes National Park was proclaimed in June. It protects Cooper Creek, one of Australia's last wild rivers, and is home to at least 330 species of native plants, 183 types of native birds, and 40 species of reptiles and frogs.

IN THIS EDITION

- The Changing Peninsula by Wayne Long
- Well Filled Crate Ponds by Leigh Murray
- Hello Possums! by Chris Jones
- Our Responsibility to injured animals by Robin Storr, DEH
- Media articles, book reviews, and much more....

September is Biodiversity Month September 7 - National Threatened Species Day
September 11 - inaugural National Bilby Day

ASGAP WILDLIFE & NATIVE PLANTS STUDY GROUP

THE CHANGING PENINSULA

By Wayne Long

Throughout Australia coastal properties are in strong demand. Whether it be for the great water views or the "sea change" lifestyle, this demand is ever increasing. The Bellarine Peninsula (south of Melbourne) is no exception and in fact has been described as one of the most rapidly growing areas in Australia over the past 18 months. The once sleepy Christmas holiday destination villages are now bustling with life year round. The rolling hills are now much sought after by developers keen to cash in on the recent property market explosion. Infrastructure sometimes struggles to keep up. "Locals" are often disheartened and outraged as to what is happening to their little piece of paradise.

Portarlinton is a small township of about 2500 people, on the Peninsula. It is one of only several truly north facing coastal townships in Australia. The views across Port Phillip and Corio Bays are spectacular. The beaches and old world charm of the town are a true drawcard to visitors. I grew up as a kid in Portarlinton in the '50s and '60s and after many years away, returned some two and a half years ago. Out of what I saw as a need and a service, I established a retail nursery in town. The nursery has been very well received, as generally townfolk had to travel many kilometres for their garden requirements. Many new homes (and gardens) have been established. Many older-style, once "holiday shacks" have been renovated. A new kind of awareness and pride is being undertaken in local gardens.

The Bellarine Peninsula has a great diversity in both flora and birdlife. With the recent drought having devastating effects in many areas; the Peninsula has generally "done quite well." No water restrictions mean that gardens, parks etc. can be tended to quite sensibly. Water has been ever present in surrounding dams, lakes and watercourses. Birdlife on the Peninsula has flourished and indeed, I feel, has increased substantially. Birds, that over the years have been visitors to the area from, say, north of the Divide have now made a permanent home here. This is because there is a more sustainable water and food source and a good and reliable shelter source. There has

been an effort to maintain wildlife, roadside and railway verges. Revegetation has been quite good (but I suppose could always be better). The establishment of offshore abalone and mussel farms have substantially increased the numbers and varieties of shore birds. There has been a gradual increase in awareness within the local community on various environment issues, especially those aligned with rapid growth and expansion.

It is on a number of these issues that I would like to see my role as a nurseryman (and for that matter, the role of all nurserymen) not to be just another retailer or not to just sell for profit, but to offer advice on such things as:-

- Indigenous/native planting alternatives
- Wildlife attractant/friendly plants
- Be wary not to over plant on poor and deficient soil types
- Coastal, salinity, or erosion plantings
- The grouping of plants relative to water requirements, fertilizer needs etc. whether it be in a domestic garden or a whole street situation
- Being honest about suggesting the right plant for the right spot whether I stock it in the nursery or not.

I believe that people are now genuinely wanting to be educated about their gardens and what goes in them. Some of the lifestyle programs on TV have also assisted this education process. Nursery customers should keep this momentum going and continue to ask questions about their garden requisites, plant purchases or landscaping desires.

I detail as follows a few observations made on the Peninsula in the last 18 months:-

- A large increase in insect population
- An increase in weeds which may be as a result of being brought into the area by the increased bird population
- An increase in raptors (especially black shouldered kites, nankeen kestrels, brown falcons, swamp harriers and peregrine falcons)
- The presence of the endangered Orange-bellied Parrot has been, to say the least- steady. And it is hoped that with its food sources now

ASGAP WILDLIFE & NATIVE PLANTS STUDY GROUP

flourishing an increase in numbers may be expected in the future

- A reported increase in frog populations (including the uncommon growling grass frog)
- A decrease in algal blooms
- A slight increase in erosion on the northern coastline of the Peninsula, maybe due to the increased shipping traffic entering and departing Geelong port.

Among many, many other species there are good populations of the following birds:-

- Yellow-tailed Black Cockatoos
- Crimson Rosellas
- Eastern Rosellas
- Eastern Spinebills
- Buffed Rumped Thornbills
- Spiny-cheeked Honeyeaters
- Red-rumped Parrots
- New Holland Honeyeaters
- Gold Finches
- Pied Oyster-catchers
- Purple Swamphens
- Caspian terns
- Grey Butcherbirds
- Swift parrots
- Superb fairy Wrens
- Red-browed Finches

Some areas of interest for prospective visitors to 'The Peninsula' might include:-

- Swan Island (accessed from the town of Queenscliff)
- Point Richards Flora and fauna Reserve, Portarlington
- Edwards Point Nature Reserve at St.Leonards
- Salt Lagoon at Indented Heads
- Grasstree Nature Reserve at Ocean Grove
- Lake Connewarre near Barwon Heads township
- Lake Lorne at Drysdale

Even as I now write this article I do feel a certain guilt- in me selling plants to new home owners- am I indirectly contributing to the urban sprawl?

ED.NOTE Thanks Wayne for your article which raises many questions, and gives us

lots of observations of the habitat of 'The Bellarine Peninsula'.

I don't think you could be guilty of urban sprawl, or progress, or in making a living as a nurseryman. However, we in the industry, do have a responsibility to the environment and to our clients. We need to be able to provide the right information and advice, give direction and encouragement to people of all ages to participate in the magic of growing - whether it be a seedling from seed, or in establishing a garden.

Many gardeners only want exotics or hybrids, others are already converted to Australian flora. A good nursery will supply all three. There is room for a bit of everything (even though I believe there are many Australian flora species that warrant further promotion). And providing we take care of those exotics to make sure they do not become garden escapes, or that later the cuttings aren't dumped in our nature reserves. Our focus should be about responsible gardening - nurturing a plant in the best conditions for its optimal growth.

We all have an obligation to ensure that our efforts do not create further problems such as weed infestation, soil erosion, increased acidity or salinity. And we need to encourage a broad responsibility for the environment and in caring for it. Only then can we truly appreciate Nature, the environment and the habitat and the interactions of living things in that natural world.

Education is an ongoing tool for industry and the home gardener. Community co-operation, communication, conservation and revegetation efforts, can only enhance that knowledge and responsibility towards caring for the environment.

If we all, were to begin, to try to understand and have an awareness of our own little patch, and make observations on its interactions between plants and wildlife - it would highlight and allow us to appreciate our nation's unique Australian flora and fauna, as you yourself have described.



MEDIA ARTICLES

BUSH WILDLIFE International Stamps

Australia Post has released an array of stamps featuring our Australian flora and fauna over the past few months. The stamps "bring to life the beauty of these unique Australians in their natural habitat- the Australian bush."

The Superb Lyrebird (*Menura novaehollandiae*) with their beautiful silvery tails, display dances and their ability to imitate the sounds of other birds, babies crying, chainsaws felling trees and even barking dogs, is the first of a definitive issue of four international stamps. Lyrebirds inhabit dense rainforests and wet sclerophyll forests from the Dandenong Ranges in Victoria to Brisbane.

The Laughing kookaburra (*Dacelo novaeguineae*) found in the eucalypt forests and woodlands throughout most of eastern Australia, surviving on a diet of small reptiles and fish, is the second in the series.

The koala (*Phascolarctos cinereus*) one of Australia's main herbivorous marsupials (and tourist icon) is now common in only a small part of its previous range throughout the eucalypt forests of Australia. These slow-moving, nocturnal animals have a specialised gum-leaf diet eating leaves of only about a dozen species of eucalypt, and sleeping openly in tree forks for 20 hours a day. The koala is the third stamp featured.

The red kangaroo (*Macropus rufus*) inhabits open country, grasslands and plains throughout the mainland, avoiding mountainous and heavily timbered areas. Recognised internationally by its powerful, graceful and beautifully coloured male, the 'old man' or 'boomer', and his harem or family group. prefer to feed at night and to rest during the day. They can be dangerous, and aggressive if cornered. It is the fourth stamp in the series. A set of cards is also available.

(Ack. Australia Post, Stamp Bulletin June-Aug. 2005)

AUSTRALIAN TREES in Stamps

Also issued recently and coinciding with the 22nd International Union of Forest Research Organisations World Congress (8-13 August in Brisbane) are a set of stamps and cards featuring Australian trees. The stamps include:

The snow gum (*Eucalyptus pauciflora*) found in a range of diverse areas include the highest and coldest parts of southern Australia, the Snowy Mountains, the tablelands of southern NSW through Victoria to Tasmania. The snow gum is valued commercially for its range of bark colours, for windbreaks, shade, fence posts, fuel, honey and for medicinal purposes.

The Wollemi Pine (*Wollemia nobilis*) one of the world's oldest and rarest tree species, which once dominated the forests of the southern hemisphere for over 100 million years.

The boab (*Adansonia gregorii*) indigenous to inland Australia and found commonly in the Kimberley region of northern Western Australia is recognised for its bottle or barrel shape which can grow to 15- 20 metres in circumference. Boab nuts have been used in carving by Aboriginal Australians as decorative ornaments, while the tree's traditional use is for food, medicine, water supply, fibre, glue and shelter.

The karri (*Eucalyptus diversicolor*) found in the south west of Western Australia in towering forests where it grows up to 80 metres tall provides one of the most important timbers commercially. Hard, tough and durable it is used extensively for shipbuilding, flooring and telegraph poles.

The Moreton Bay Fig (*Ficus macrophylla*), a magnificent tree that grows to 30 metres, is found in the rainforests of coastal NSW and Qld. Cultivated extensively for parks and gardens, they are valued for their beauty and shade and above ground root buttresses.

Well-Filled Crate Ponds by Leigh Murray

Our crate ponds are top of the pops with birds. They drink, dive and splash with gusto, especially in summer. Kangaroos and wallabies love them too, drinking deeply. These ponds (based on recycling crates) aren't big – 50-60 litres and about 550 mm long by 400 mm wide. Yet on one very hot summer day, I happened to come across one of the funniest wildlife sights I've ever seen: an echidna in a crate pond. The *small* pond was almost filled by the *large* echidna, which was submerged except for its nose and front feet draped across the edge. The echidna looked contented, lying there in the water, paddling gently with its back feet. What a sight. The event was over too quickly for me to get a photo of that well-filled pond, more's the pity, but I had a great chortle!

Spinebills do repeated hit/run attacks on these ponds. They use a nearby branch as a base for quick plunge baths, zipping back and forth from branch to pond, pausing occasionally for a preen. Groups of Crimson Rosellas jostle each other to get their turn at the water. They too like to plunge, so much so that they will even get right down into a bucket containing a couple of litres of water. Choughs line up shoulder to shoulder on the pond rim (just as they do along branches), and have a companionable sip and splash. I've seen more than eight on the rim at once; it was a tight squash.

One of the things that seems to be crucial in making these ponds so popular is the placement of the pond close to low branches. Overhanging branches seem to be best. (As far as the echidna was concerned, this wasn't an issue; the pond it chose was out in the open.) Eucalypts and acacias drop a lot of leaves but the ponds under them are especially popular even though the leaves sometimes turn the water a dark brown. This discolouration seems not to worry the wildlife (or the resident fish, tadpoles and insects) at all.

The rims of our crate ponds are usually at least a few inches above ground level. I've done this simply to make it easier to set up the ponds on our rocky sloping ground (holes are hard to dig). Having raised rims provides, as a bonus, a safety factor against overflowing in heavy rain, in that any water pouring down the slope will pass by the raised rim.

After checking with the Frog and Tadpole Study Group website, our ponds were stocked with White Cloud Mountain Minnows to control mosquitoes. Following my mention of them in Alphabet Soup, Mark Abell of the Australian & New Guinea Fishes Association

emailed:

"The White-Cloud Mountain Minnow (/Tanichthys albonubes/) is a native fish of China, it is a small peaceful fish and was previously recommended for frog ponds as it tended to leave the tadpoles alone, plus at the time the initial recommendations were made, no feral populations were known. Unfortunately these fish should no longer be used in ponds. A number of feral breeding populations have recently been found in the Sydney region. Some of these populations are likely to be the result of pond escapes - a large enough downpour (rare though they are in recent times) can cause ponds to overflow & some of the fish in them to be washed into the nearest creek. More suitable fish for ponds are the smaller local area native fish (note: Gambusia is not a native fish). These fish may be a little more aggressive towards tadpoles, but a well planted pond will ensure a good tadpole survival rate."

In a later email, he said: *"Probably for most ponds Mountain Clouds are perfectly safe - one of the sites where they have become feral (Green Point Creek - Pearl Beach) has houses with yards that back onto the creek & I suspect that a good downpour plus a high tide would produce some localised flooding that will assist a small fish in escaping. The first feral population was only confirmed late last year, so the issue is not widely known, & I'm using the opportunity to try to get the information out to a wider audience. At some stage I will be assisting Fisheries in producing some sort of information poster / kit about suitable native pond fish. In regard to fish - the safest option is to catch some small ones from the catchment where you are. NSW fisheries allows the use of either bait traps (cat food, or bread with vegemite can be used to bait the trap), or dip nets (also some shade cloth between a couple of broom handles can do.) The best fish types for frog ponds tend to not grow too large - probably no more than 5cm, and they should have a small mouth (fish tend to eat anything that can fit in their mouth - & there are some native fish with a rather large mouth ("mouth almighty" was not called that for no good reason))."*

They were long and informative emails, weren't they? The nub of this is that where there is no possible link to waterways under any conditions, as in our case, it is safe to have these minnows in crate ponds. But it would be much better if I could catch some suitable native fish to replace the minnows, perhaps using one of the methods Mark described.



Last autumn, which was unusually hot, a couple of our crate ponds in Queanbeyan overheated. Neither was deeply dug into the ground, so their sides were exposed to sunlight. In cooler autumns, this hadn't mattered. But with low, hot sun, they cooked. I had to build up branches and leaf litter around the sunny sides to shelter them, and replace the water; only a few fish survived.

One other problem I've had is that after a few years, sludge had built up in the bottom of the ponds. I've found that it's fairly easy to scoop it out, but as an interim measure, I put a hose into the bottom of the ponds to stir up the sludge and release some of the gases. Fish and tadpoles seemed livelier after I did this.

Talking of tadpoles, breeding and/or outspoken interest in these ponds has been shown by a variety of frogs. These include Eastern Froglets (which seem to prefer the shallower versions of our ponds – even a cat-litter tray!), two grass frogs (one has a basso call, the other a tock) and Peron's Tree Frogs. We've also had a lone Whistling Tree Frog at Tuross which must have mistaken a crate pond amidst a rain-sodden mass of shrubs for the lakeside where these frogs usually hang out (they have a wonderful call, all night). I feed the fish weekly or more often with flakes and floating fish food. The tadpoles eat these too, and also lettuce (boiled then frozen) and an occasional (up to weekly) dab of Vegemite.

The most effective oxygenator for these pump-free ponds has proved to be *Vallisneria spiralis* (Ribbon Grass), although it seems to die down a bit at times (I'm not sure why, possibly the cold). *Ceratophyllum demersum* Foxtail and *Potamogeton* species (Pondweeds) do quite well for us, and are good oxygenators. We've tried several *Myriophyllum* species (Parrots Feather), and they all grow too fast for our ponds; some species are quite a nuisance. I think the birds may prefer bathing in water clear of *Azolla filiculoides* (a small floating fern) so I've been scooping it out of some of our ponds – although it makes such a handy sun-shade in hot areas that I tend to leave it alone there. Nardoo *Marsilea* species has not proved partial to cold winters, tending to almost die out in Queanbeyan, but it's doing well in a crate pond in the warmer coastal climate of Tuross Head.

I've not yet done much planting around our crate ponds, apart from a few *Themeda triandra*. Plants I intend to try include *Baloskion tetraphyllum* and *Carex appressa* Tall Sedge, both of which are growing OK for us elsewhere. Long term, these and similar plants should be



good additions, improving the environment for such creatures as frogs and butterflies. But I doubt echidnas would like them, so I'll leave the area around the Echidna Pond bare.

BIRD ID FOR BEGINNERS

Babblers

I have to write about Babblers this issue because they have both been tapping on my window and begging for a gig. There are only two species of Babblers you are likely to see in



SA. The **White-browed Babbler** is by far the most common, and obvious. It lives in noisy, gregarious families that seem to play follow-the-leader when foraging for food on the ground or in low shrubs. It inhabits open forest, dry woodlands and mallee. It is a dull, dark-brown bird with white underneath. Its most obvious characteristic is its prominent white eyebrow.



The **Chestnut-crowned Babbler** is similar but a slightly larger, more striking bird, also with a white eyebrow but above that a colourful chestnut crown.

The easiest difference to spot in the field is the white bars on its wing. Also travels in small family groups, foraging on the ground and in low shrubs, but is a little shyer than its cousins. They live in mallee, saltbush plains and stony ranges.

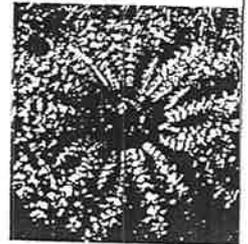
Illustrations from Field Guide to Australian Birds by Michael Morcombe. Steve Parish Publishing, 2000.

WEED OF THE MONTH

Stemless Thistle (*Onopordum acaulon*)

Characteristics:

- Autumn – winter germinating annual with strong tap root.
- Commonly found in drier areas with limestone – well suited to the Mallee.
- Seeds are readily spread by wind – these are the "Father Christmas" seeds.



Distinguishing features:

- Stemless with rosettes growing up to 80cm.
- Flowers found in the centre of the rosette.
- Leaves are long, white and downy with deep lobes that are spiny at the tip.

Bad habits:

- Small thistles that survive the summer will be quite mature and difficult to control in the following year – they will have a larger, more advanced root system even though they may appear small.
- Stock will eat young plants, especially if spray grazed early, however older plants will only be grazed when no other feed is present.

Control options:

- Prior to cropping, control with knockdown herbicides, if there's a chance some thistles have survived from the previous year, Lontrel® can be added to the knockdown herbicide application.
- Cultivation is also effective as transplants shouldn't be a problem.
- In pastures stemless thistles can be controlled with spray grazing if they are less than 4-6 leaf stage. MCPA amine at 300-500ml/ha or MCPA LVE at 150ml/ha is preferred. Stocking rates should be 5 times the normal density following a spray graze application.

Adapted from Agronomy Matters, vol 2, issue 1. Mallee Sustainable Farming Inc.

ASGAP WILDLIFE & NATIVE PLANTS STUDY GROUP

HELLO POSSUMS!

By Chris Jones

GLIDERS OF QUEENSLAND

Queensland is home to all six Australian glider species. Two (mahogany, from North Qld. and a yellow-bellied sub species in north Qld) are listed as threatened species under State and Commonwealth legislation. The others - sugar, squirrel, greater and feather-tail are also declining, particularly in the south-eastern corner of the State. Gliders remain threatened because they face a loss of habitat from human activities, such as land clearing, timber cutting, and the construction of barbed wire fences, as well as predation by feral and domestic cats, and competition for hollows. (Information from WPSQ.)

GLIDERS AND POSSUMS Part One

Did you know the name possum had its origins from Captain Cook? Cook applied the name 'Opossum' to one of the animals he saw at Cooktown in 1770, since it reminded him of the American animal of that name. The American opossum however, belongs to a completely different group of marsupials. Since then the 'O' has been dropped. Our possums (or phalangers) are tree-dwellers and have strong, curved claws and an opposable big toe for gripping the branches. The tail is either prehensile (gripping) and is used in climbing, or, in the case of the gliders, is feather-like and functions as a rudder in flight. It has been suggested that the possum acts as a control agent of mistletoe in Australia, by feeding on this parasitic plant.

Some 25 species of possums occur throughout Australia. The smallest is the Pygmy Possum of eastern Australia, that has a body no larger than a mouse and a long prehensile tail, and the Honey Possum of south-western Australia, which has an elongated snout for thrusting into blossoms and a brush-like tongue for sweeping up nectar. Queensland is home to a number of species, including the Striped possum,

which is black and white in colour, the cuscus and the strangely coloured green ringtail. It has all six glider species.



Gliding Possums

The gliders (or gliding possums) are characterised by a fur-bearing extension of the skin on the sides stretches from 'wrist' to 'ankle' and allows the possum to glide down from the top of one tree to the base of another. It is a controlled glide of some large distance. The smaller gliders are insect, nectar and blossom feeders. The Greater Glider feeds on foliage.

The Sugar Glider (*Petaurus breviceps*)

The 'sugar glider' is one of the most common and best known native animals, found in a broad north-eastern coastal band in all states and territories. These possums are very delicate looking, about 17cms.long with a slightly longer (about 20 cm.) black or white tipped tail. Sugar gliders eat a broad diet and tolerate a wide range of habitats, including rainforest, wet eucalypt forest, woodland, and even backyard gardens. They are active, fast-moving in their nocturnal hunting for insects, spiders, nectar, honeydew, manna, lerps, fungi, gum, fruit and pollen, depending on the season. They are also known to bite and scratch fiercely, particularly when defending their young, or territory. They are noisy creatures, hissing, grunting and screaming throughout the night. In comparison the young possums kept in captivity can become quite gentle and affectionate pets. They all have a fondness for sweet things and can raid bush camps for sugar, jam, honey or even golden syrup. Young Sugar Gliders are exceedingly vulnerable to predators such as owls, cats, foxes, kookaburras and goannas.

So what do sugar gliders look like? They are blue-grey in colour with a black line running from the nose over the head and down the back, yellow and black marks on the face, greyish white underparts and have a very long fluffy, bushy, white tipped tail. Their fur is soft and silky. They make nests of



ASGAP WILDLIFE & NATIVE PLANTS STUDY GROUP

leaves and twigs in tree hollows, which will often be home for two or more gliders. They live in small communities or family units made up of the young of several seasons. Breeding occurs in winter and early spring and they generally have two young in the pouch for several months, being taken on nocturnal trips by piggy back, until they become too heavy. At birth sugar gliders are less than 1 cm. long.

The Squirrel Glider (*Petaurus norfolcensis*)

The Squirrel Glider also belongs to the same family, having similar behavioural traits and food preferences, but is larger (head and body 21 cm long, and tail 27cms.long). It has pure white underparts and a longer, bushy tail. The Squirrel Glider rarely enters rainforest, and is found in eastern Australia from Northern Qld to western Victoria, where they are considered endangered. They are abundant in the coastal woodlands of south-eastern Qld. This possum has evolved from the very rare Leadbeater's Possum.

Leadbeater's Possum (*Gymnobelideus leadbeateri*)

This species lives in the mountain ash forests of Victoria's central highlands. At heights of up to 100m. it hunts insects and spiders among flaking bark, lerps, honeydew from leaves or descends to feast on gum exudate. It has a head and body length of 16cms. and a grey, club-shaped tail equally as long. It has a stripe on the face. Very few specimens have ever been recorded of the Leadbeater's Possum - the first described and named was in 1867.

It's preference for the above habitat has allowed it to survive, although much of its habitat has been destroyed by bushfires. Leadbeater's possums require trees with nesting hollows (trees of about 120 years old) and a dense canopy so that it can move around rapidly between the trees, plentiful peeling bark which harbours invertebrates and supplies nesting material, and an acacia understorey to provide oozing gum. Its greatest threat currently is from tree logging,



which if this continues at the present rate will see 90% of the remaining population destroyed.

The Greater Glider is related to the ringtail possums. It varies in colour from creamy white all over to very dark brown with white underparts. It prefers a diet of gum leaves.

The Yellow-Bellied Glider (*Petaurus australis*)

This is the largest member of the family and endemic to Australia. It measures up to 80cm from nose to tail tip and weighs about 600 gms. It has large naked ears and is dark grey above and white to yellow on its belly. Its dark tail is almost twice as long as its body.

The Yellow-bellied glider lives only in the mature forests of the east coast, travelling long distances in search of insects, nectar and sap. V shaped 5cm. gashes in trees are often the signs of gliders searching for sap in these areas. They can leap up to 120m between the trees. They normally travel in pairs, and have a home range of 2-30 ha. in tropical Queensland, and up to 60ha.in Victoria.

The Mahogany Glider (*Petaurus gracilis*)

This endangered species is also endemic to Australia - found in a small coastal strip of swampy open woodland near Cardwell in north-east Queensland. It has become endangered because much of its territory has been cleared for sugar cane. Weighing only 350gms the mahogany glider has a body length of 25cm and a tail length of 35cms. It is grey to mahogany brown in colour on its back and head, with white, apricot or rich nut brown coloured belly. These gliders depend on tropical plants, eucalypts, acacias and grass trees for nectar and sap, and also eat lichen and invertebrates. Their home range is about 20ha.

Sugar Glider



ASGAP WILDLIFE & NATIVE PLANTS STUDY GROUP

The Striped Possum (*Dactylopsila trivirgata*)

The black and white striped possum of about 500gms, is found in the rainforests of north Queensland. It has a weasel like body and large head with bug-like eyes. It smells like fibreglass resin and charges around the rainforest and adjacent woodland treetops, flicking its long tail around its head. It lives on native fruits and insects which it prises from tree bark with its sharp teeth, its long tongue and skewer like fourth finger. Its favourite food is wood-boring insect larvae. It builds its nest in hollow limbs and epiphytes such as bromeliads and ferns that grow on tree branches.

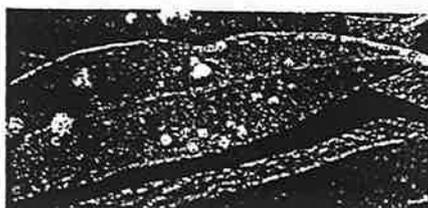
REFERENCES

Encyclopaedia of Australian Wildlife, (1997) Readers Digest.

Gilbreath, A. Creatures of the Night, (1979) David McKay.

Keast, A. (1959) Window to Bushland Educ. Press.

Morcombe, M. (1985) An Illustrated Encyclopaedia of Australian Wildlife Reed.



Lerps on red gum leaves.

Gums Under Attack –

Amelia Hurren and Ann Prescott,



A red gum suffering from a sustained lerp attack

Many local residents in the Mount Lofty Ranges are worried about native trees with browning leaves and dead limbs. Native plants looking as if they are sick and dying, commonly known as “dieback”, is happening all over the Mount Lofty Ranges. There are many possible causes, but the most common cause is a seasonal infestation by a tiny sap-sucking insect.

If you have Red Gums on your property, chances are their leaves are looking brown and blotchy. If you look closely, you may see white, waxy blobs on the leaves, maybe with a tiny insect sheltering underneath. Red Gums all over the Mount Lofty Ranges are currently under attack from these sap-sucking insects, often called lerps. Lerps are a natural part of the system and are usually kept under control by small insect-eating birds. Normally, lerp attacks are cyclical or seasonal and the trees will recover well once lerp insect numbers drop off. But occasionally they build up into such high numbers that their host trees become obviously stressed. The weakened trees then become vulnerable to attack from other insects. In the worst case scenario, if insect numbers are high for several seasons, the trees may become so weak that they cannot withstand the onslaught and they may die.

But insect attack is only one cause of dieback. There are all sorts of other reasons why trees and shrubs become sick and die, ranging from natural causes like old age and drought, through to impacts such as

compaction of the soil by stock, salinity and herbicide damage. Diseases such as root rot fungus (*Phytophthora*) also have a major role in the death of native trees and shrubs and are a serious issue. If left unchecked dieback could dramatically change how the Hills look.

MEDIA ARTICLES

A RAINFOREST IN THE CENTRE OF TOWN

(From *Australian Landcare* June 2005.)

A nine hectare remnant of the magnificent rainforest that once adorned the floodplains of the NSW North Coast can again be seen in all its glory- in the centre of the town of Wingham, 15 kms. from Taree reports journalist Paul Lewer.

John and Stephanie Stockard and a band of community volunteers undertook restoration and weed control in Wingham Brush . The area was choked by a canopy of cat's claw creeper and madeira vines - exotic imports from South America, which had spread from dumped garden clippings to infest the whole area.

John states that female grey-headed flying foxes use Wingham Brush as their nursery. In addition there are brush turkeys, 100 species of other birds, rare skinks, diamond pythons, tree snakes, three kinds of possum and insectivorous bats. "We have really created a haven for a threatened ecological community; all these species thrived on the North Coast before the wholesale land clearing with the arrival of the white man."

'Wingham has a population of about 5000 and is one of the best preserved coastal towns in NSW. The town was built at what was then the last place on the Manning River that could be reached by commercial shipping.' The survival of the Brush came about by accident. The land was originally set aside for wharf development for the river traffic, however the river silted up and became less navigable, and the Brush just languished on.

Saving the area and restoring it has become an educational tool, especially as both Wingham Brush Primary and High Schools adjoin the reserve. School groups from Port Macquarie and the Hunter region use the 9 ha. outdoor classroom to study conservation and ecology.

BOOK REVIEW - Environmental Classic now in its 11th edition.

(From *Adelaide Hills Weekender* July 2005)

'Environmental destruction is not just a modern occurrence. Since the first people left the Afro-Asian lands and travelled down the chain of islands to Australasia, human beings have been consuming the resources they need for their future.

The Aborigines, Maoris and other Polynesian people were the world's original future eaters. They changed the flora and fauna in ways that now seem inconceivable. Europeans have made an even greater impact. Today future eating is a universal occupation.

This groundbreaking ecological history of Australasia will enrich the understanding of anyone who wonders what the future holds for humanity.

The Future Eaters is a book that looks at the environmental changes we as a people have caused and problems for future generations.

Hailed as a ground-breaking book when it was first published in 1994, The Future Eaters is now in its 11th edition, having won several awards along the way.

Author Tim Flannery holds degrees in English and Earth Sciences and a doctorate in Zoology. He has explored many remote areas of Papua New Guinea and Melanesia and is currently the director of the South Australian Museum.

The Future Eaters is published by New Holland Publishers and retails for \$35.00.'

OTHER INTERESTING TITLES

- **SEX, BOTANY & EMPIRE:**
The Story of Carl Linnaeus and Joseph Banks By Patricia Fara
- **RED SAND, GREEN HEART**
By John Read
Experiences witnessing the precarious balance of nature, climate and the outback.



Our Responsibility to Injured animals (or animals at risk)

By Robin Storr, DEH, SA

There are a number of circumstances when animals need our attention and assistance. They may be ill or injured. Perhaps you can relate to one or more of the following instances.

- Birds, snakes, lizards, kangaroos etc. hit by a car or other vehicle
- Birds hitting house windows or getting trapped or caught inside a building;
- Kangaroos, emus or other wildlife injured or caught in a fence;
- Animals wandering on busy roadways

Our response to any of these situations should be guided by some moral and legal principles. These principles should come to us in an emergency, such as common sense.

MORAL PRINCIPLES:

- Ensure your own safety first, eg. busy roads, snakes, large or powerful animals, or those with 'sharp bits' or nasty bites. Lives have been lost trying to rescue animals or violently swerving a vehicle to miss an animal on the road. Please be very careful not to put yourself (or others) at risk, think before you act.
- Relieve suffering to any injured or distressed animal, or remove or reduce immediate threats to the best of your ability.

LEGAL PRINCIPLES:

- Act according to your State's relevant legislation and Acts such as National Parks and Wildlife Act- (in SA this is the National Parks and Wildlife Act 1972) some of these laws prohibit the interference, molestation etc. of protected animals or the undertaking of an act that is likely to be detrimental to the welfare

of protected animals. Penalties for breaches of these acts apply. This does not apply if the interference is in the best interests of the animal- eg. picking a lizard up from the road and moving it.

- The relevant State legislation affecting Cruelty to Animals (in SA this is the Prevention of Cruelty to Animals Act 1985) deals with a range of means by which ill treatment can be caused including:
 - a) causing unnecessary pain including failing to provide adequate food, water, shelter or exercise)
 - b) fail to relieve pain or having injured an animal fail to alleviate pain;
 - c) kill an animal in a manner that causes unnecessary pain, or if the animal is unconscious, kills the animal by a method that does not cause death as rapid as possible
 - d) places a responsibility on the person with custody or control of an animal to take all reasonable measures to alleviate suffering (this applies equally to an animal a person owns in the normal sense- eg. a pet dog, or has in their control eg. a possum in a trap.

RESOURCES AVAILABLE:

Consider the following-

- Veterinary assistance - some vets will often not charge, or have a minimal charge for rescued animals, but it is advisable to establish the fee structure before agreeing to treatment.
- National Parks and Wildlife advice- particularly for information on native species, rescue advice, other contacts and permits that are required when a protected animal has been rescued needs to be kept for some time.
- Animal Welfare Units for advice and treatment options
- RSPCA
- Other members of the public to assist with traffic control or nearby

farmers, fishermen etc. who may have more experience with animal handling or have the equipment required

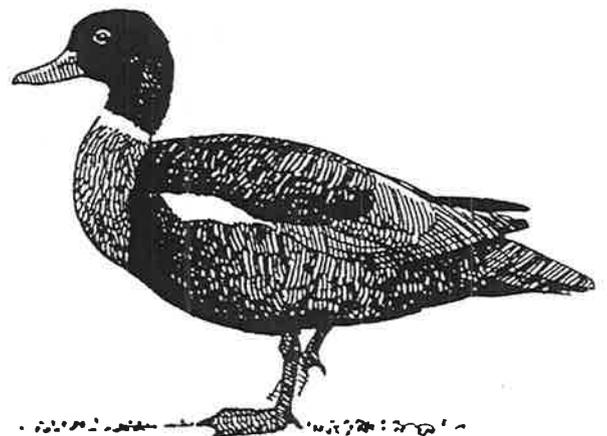
- Wildlife rescue organisations such as WIRES
- The police - in remote areas, the local police officer may be the person most likely to be able to assist.

ACTIONS TO TAKE:

What to do with injured or sick animals will vary greatly depending on the type of animal(s) involved, your own experience, capabilities and knowledge, where you are and a range of other variables.

- Consider your options and make a swift decision, particularly if the animal involved is likely to be in pain. For example a kangaroo with its leg tangled in a fence may simply be released if it appears to have been there for a short time and there is no obvious damage. Alternatively if there is a serious injury to the leg or worse and it is in a remote location it may be kindest to find someone with a firearm to humanely destroy it as soon as possible.
- Administering first aid (restricting bleeding, supporting broken limbs etc) should only be undertaken if you are confident or expert help is not available. Strapping broken wings can reduce further damage and shock dramatically.
- Rescued animals should be put in a comfortable location and handled as little as possible (although very young animals are likely to be suffering stress/shock and so after any first aid, place in a warm (21-26°), quiet and darkened location (eg. cardboard box for some mammals, birds and reptiles or cloth bag or pillow cases for young joeys and some reptiles).

- If there are no internal injuries or related damage, supplying water is usually harmless. However appropriate food should be determined by an expert. In emergencies or where veterinary care or specialist commercial products eg. 'Wombaroo' is not available, alternative foods may be used but only where the type of animal has definitely been established. By the time the animal has been in care for 24 hours, it is essential that a proper balanced diet is available to it.
- Another difficult decision for some is how to deal with non-native animals (young blackbirds, sparrows etc.) Humane destruction may be recommended (possibly by a sharp blow to the rear of the head or cervical dislocation), however where this cannot be done with confidence find someone that can do it. If you feel strongly about this and wish to keep an introduced animal in most cases involving birds you are permitted to do so (however check with your State legislation). Rabbits and foxes however are pests.
- Sometimes doing nothing is the right decision. For example young magpies or seals are often left in the open by their parents, whilst food is being gathered or the young one is still learning to fend for itself. Sub-adults of many species are still fed by their parents even if not in their company at all times. Removal of such animals ensures that they will never have a normal life and will probably not survive in the wild. In these situations, doing nothing is the best alternative.



Australian Shelduck

MEDIA ARTICLES

THE LIVING MURRAY SERIES:

Race to save the river redgums

From The Adelaide Advertiser 17/5/05

The taps have been turned on at the Chowilla floodplain to save thousands of dying redgums. About 3.6 gigalitres of River Murray water has been pumped into the bone-dry creeks and basins on the 20,000 hectare floodplain on the northern banks of the river near NSW.

Thousands of redgums that scientists feared could not be saved have responded positively to their first decent drink in more than 10 years. The water to save trees on the Chowilla floodplain-recognised as one of six Significant Ecological Assets along the River Murray and a Wetland of National Importance under the Ramsar Convention- has been made available through SA water allocations and water from the NSW Murray Wetland Working Group.

RIVER RED GUMS- AN ICON OF THE MURRAY

- ⊕ River red gums have dominated the River Murray landscape for generations.
- ⊕ They are a good indicator of health of a floodplain on the River Murray
- ⊕ They can grow to be well over 100 years old and are a source of habitat for many threatened species.
- ⊕ River redgums need to be flooded at least once every three years to remain healthy.
- ⊕ 90% of the river redgums surveyed at watering sites at Chowilla were stressed or dead.
- ⊕ Watering trials at Chowilla began early last year.

GOULDIAN FINCHES FACE EXTINCTION

(from Australian Geographic members newsletter July-Sept. 2005)

Researchers and volunteers across WA, NT and QLD are fighting to save all

remaining populations of the Gouldian finch. Once distributed right across Australia's north, the species has been disappearing in an east-west pattern. One of the most easterly remaining populations is in Limmen national park, near the Qld-NT border. It appears that the species has suffered significant losses as a result of large dry-season fires.

BIRDS ARE DISAPPEARING FROM CANBERRA'S PARKS

(from The Canberra Times, 3/6/05)

Some of Canberra's most common birds, including willy wagtails and eastern rosellas, are disappearing from reserves and parks, according to a 10 year survey by the Canberra Ornithologists Group. The survey covered 135 sites in Canberra's urban woodlands, and revealed declines for rare and previously common species. It is unknown what the specific reason for this is, however the decline in the woodland habitat must rank highly. Other factors could be that numbers are cyclical, related to drought and bushfire, or just a downward trend. Volunteers conducted seasonal bird counts in woodland remnants throughout Canberra including Mulligan's Flat, Gorooyaroo, Hall, Gold Creek, Majura Range, Red Hill, Campbell Park, the Naas River Valley and Tharwa.

Over 10 years, magpies, wood ducks, crimson rosellas, weebills and silver-eyes remained steady. But the survey recorded surprising declines for eastern rosellas, willy wagtails, noisy friarbirds and superb fairy wrens. Two feral species- Indian mynahs and starlings were also declining as well as threatened birds, such as the hooded robin and brown treecreeper.

Although the ACT Government had protected a number of woodlands as reserves, there were concerns that these areas could be too small, or too degraded to be effective wildlife habitat. More understorey needed to be planted



MEDIA ARTICLES

ANIMAL PROJECT AXED

(From The Advertiser 25/5/05)

A highly successful, award winning and innovative conservation project for threatened species was axed recently by the CSIRO Sustainable Ecosystems division. An angry debate had erupted with leading scientists claiming CSIRO was abandoning its responsibilities to national wildlife research.

The project, the Herisson Prong Project- led by CSIRO scientist Dr Jeff Short, was in a remote mining settlement on Western Australia's Shark Bay Peninsula. It was supported by residents of Useless Loop and the Shark Bay Salt Joint Venture to establish and maintain a predator-free, safe reserve for some of Australia's rarest and most endangered mammals.

The project was involved with relic populations of small mammals on offshore islands in Shark Bay. It involved six species - the western barred bandicoot, burrowing bettong, banded hare-wallaby, rufous hare wallaby, greater stick-nest rat and the Shark bay mouse. These remnant populations are among 30 species of native mammals that have become extinct on the Australian mainland since European settlement.

The research undertaken has shown that foxes had an immediate and dramatic impact, on defenceless small mammals, especially the curious bettong. It was also evidenced that foxes and feral cats decimated populations of bettongs, rats and bandicoots, acting as 'surplus killers' killing one animal, leaving the carcass and rushing on to kill another, which left a trail of carnage. This was easy to see along the highway where a number of uneaten bettong carcasses dotted along the roadside.

The project had won the nation's top environmental honour- a gold Banksia Award for outstanding contribution to protecting and enhancing the environment. The judges in their award

citation said they had "been stunned by the commitment, passion and success" of the project's participants.

The project's CSIRO participants had been informed by management that they were "surplus to requirements" and their project would be shut down. The CSIRO executive had indicated that the division's research priorities are changing to reflect a broader approach to environmental issues. The Federal Environment Minister Ian Campbell had refused to comment.

Professor Mike Calver from Murdoch University's School of Biological Sciences, describes Short's research at Herisson Prong as "a real breakthrough" and having "immense national and international importance", as a pioneering study on the impact of fox and feral cat predation.

Australian National University ecologist Professor David Lindenmayer has described the closure of the project as "a national tragedy" for wildlife research - "world-class landscape science" and could not understand the Government's action in the matter.

COMMERCIAL USE OF WILDLIFE

(From The Facilitator, (NLP) May 2005)

Indigenous people and organisations are actively working in the Top End of the Northern Territory to develop small scale sustainable enterprises based on wild plants and animals.

An example of success in developing such an enterprise is evident in the work of the Murwangi Aboriginal Corporation, in partnership with Croc Farms NT. Crocodile eggs are harvested sustainably by indigenous people, then incubated and later processed by Croc Farms NT. The enterprise is providing work for people of this remote region, income for the community and access to training in many aspects of the crocodile business.

Traditional owners also dig cycads and collect Lotus as another venture.

MEDIA ARTICLES

GOING WITH THE FLOW

(From Australian Landcare June 2005)

'When Peery Lake begins to dry out, nature is already preparing for the next flood. Millions of tiny invertebrates have been frantically laying eggs that will survive in the dry earth until the lake fills again.

Frogs bury themselves deep in the ground to wait out the dry, while aquatic plants turn the lakebed into a rich seed bank ready to burst into life when water comes.

Shrimps, tortoises, small marsupials and fish survive in the river's permanent waterholes, moving out into the floodplains when the water comes. Kangaroos, emus, reptiles, birds of prey and other animals are also adapted to flood events, taking advantage of the abundance of food the floods bring.

University of NSW Professor of Environmental Science, Richard Kingsford, believes there may be hundreds of thousands of animal and plant species living in the Paroo that depend on wetlands for their survival.'

WOODLAND BIRDS FREE WORKSHOP

The Rural 8/7/05

A free workshop run by the Department of Environment and Conservation (NSW) Swift Parrot Recovery Team was planned on woodland birds and their habitats in the western slopes of NSW.

'Native vegetation provides important habitat for a wide range of woodland bird species, however only small patches remain within the agricultural landscape and a lot of these are on private properties. The workshop focussed on what people could do to encourage birds such as parrots, robins, warblers and babblers onto their land- for instance protecting existing trees, shrubs and fallen timber. It also discussed the important role a wide diversity of bird species play in the health and sustainability of these properties. For example, the Swift parrot migrates north from Tasmania each year and regularly feeds in woodlands on the south west slopes of NSW during winter. By feeding on nectar and scale insects on

leaves, Swift Parrots contribute to tree health, providing pollination of flowers and reducing the number of scale insects associated with tree dieback.'

RARE BILBIES RELEASED IN RIVERLAND

(From the Border Mail (NSW) 9/7/05 p.31)

Five bilbies were released in South Australia's Riverland earlier this month 'in a bid to reintroduce the threatened species to the region. The bilbies were freed at wetlands near Kingston-on-Murray as part of the Banrock Station Threatened Species program. Bilbies once occupied 70% of the Australian continent and numbered in the millions. Today, only small populations are left and are confined to the central deserts of Australia, the Kimberleys and south-west Queensland'.

SURVEY TO PROTECT BIODIVERSITY

(From Deniliquin Pastoral Times (NSW) 8/7/05 p.3.)

'A wildlife survey is currently being undertaken in the Deniliquin area to help protect biodiversity. The project is an initiative of the Murray Land & Water Management Plans, which takes in almost one million hectares of farmland between Yarrowonga and Swan Hill, Jerilderie and Moama.

As a result of the survey's early stages there have been a number of exciting discoveries including :- the Bush stone curlew which has an eerie wailing call most commonly heard at night; the Yellow-footed antechinus a small carnivorous marsupial common in redgum areas where there are numerous large logs; and the Wood Mulch Slider, a soil-dwelling skink found in remnant vegetation on sandhills.

The project would raise awareness about biodiversity in the region and encourage landholders to undertake revegetation. The study would provide knowledge on wildlife in the area, what parts of the landscape they were found in, and what habitats were particularly important for certain groups of species.'

MEDIA ARTICLES

PALM COULD WAVE GOODBYE

(From Wildlife Australia, Winter 2005, p.7)

The endangered Darwin palm (*Ptychosperma bleeseri*) occurs in the wild in only eight monsoon rainforest patches in the Howard River and Adelaide River catchments. Those populations are threatened by a combination of bushfires and feral animals, according to Dave Liddle, research associate at Charles Darwin University's Key Centre for Tropical wildlife management.

The species, which is listed as endangered under Northern Territory legislation, has been monitored since the early 1990s,' says Dr.Liddle. 'In that time, there has been a decade of decline. The Darwin palm population has collapsed at a site on the Howard River in response to wildfire.'

Introduced buffalo, cattle and pigs have also had an impact, although there are signs of young palms surviving in some areas where feral animals had declined.

Dr. Liddle plans to continue his research and study whether changes in land use and hydrology in the catchment have already had an impact on the palm.'

(ED.NOTE. One of my relatives was responsible for the early collection of plant and animal specimens in the Northern Territory, and his collection of herbaria was destroyed during WWII activities. A number of plants however were named after him, hence 'bleeseri'. It would therefore be a shame to lose one of these endangered plants which bears his name as well)

SNOW GUM HERITAGE

(From Wildlife Australia, Winter 2005, p.6)

The evocatively-named Aranda Snow Gums, adjacent to the Aranda Bushland, have been listed on the ACT Heritage Places Register. The trees are an excellent example of the gums that once formed the fringe around the grassy plains on which Canberra was built. The tree has a distinctive creamy bark and shiny leaves with parallel veins. '

Environment Minister Jon Stanhope said "The listing of the Snow Gums on the register will help protect and preserve an example of the vegetation that was present in this region before Federation."

ICE THE STING

(From Wildlife Australia, Winter 2005, p.6)

There seem to be currently many scorpion sightings in the ACT, yet the reason is unknown.

'The ACT boasts three scorpion species: black rock, southern or wood, and little marbled scorpion. The small (25-35mm) and speckled little marbled scorpion is most commonly encountered in the house. No potentially dangerous scorpion species live in Australia but local varieties can produce a 'nasty sting' if provoked. If you are stung, wash the sting area with soapy water and apply a cold pack to ease the pain and swelling,' advises the CSIRO. 'Seek medical advice if the stung area becomes infected or if the area has not cleared up within 2-3 days.'

RETURN OF THE QUENDA

(From Wildlife Australia, Winter 2005, p.8)

Quenda are back in Nambung National park. The release of 30 quenda, also known as the southern brown bandicoot, was the third re-introduction for the Department of Conservation and Land Management which is aiming to re-establish original fauna in the national park.

In the last 12 months, the woylie and Tammar wallaby have also been reintroduced to Nambung National Park .

TREE PLANNING NEEDED

(from The Canberra Times 2.Supplemen: 15/8/05 p.5)

"A new report by British and Dutch scientists says millions of dollars are being wasted on poorly planned tree planting programs. The report says it's a myth that trees inevitably improve water flows and offset erosion. Many trees, especially fast growing plantation species like pines and eucalyptus, extract more water from the ground than other crops. In wet areas, trees may be no more beneficial than pasture. The report says it's also a myth that forests attract more clouds and rainfall."

