LAND FOR WILDLIFE
South East Queensland

Newsletter of the Land for Wildlife Program South East Queensland

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An old cow bell hanging on the verandah has provided an unexpected roosting site for a group of Eastern Long-eared Bats (shown top left). The owners have installed other bat nesting boxes (shown left) to encourage more micro-bats and help control insects around the house.

Bats welcome in the belfry

We had been puzzled for sometime about the occasional sound of the cow bell on our front veranda giving a couple of tinkles late at night, until a quick look one day gave the answer – four Eastern Long-eared Bats (*Nyctophilus bifax*) were using the bell as a roost.

They've been happily using the bell on and off for several years now – usually only for a few days at a time, and sometimes just for a few hours during the night. We've always known we'd had microbats around – mainly by sensing one whooshing past in pursuit of insects when we've been out on the verandah at night, so it was a great pleasure to find these little mammals happily roosting in the bell.

We've now put up a couple of nesting boxes to provide some alternative nesting sites, and hope to see an increase in these natural mossie deterrents living around our house!

Adrian and Cathie Mortimer
Land for Wildlife members
Upper Brookfield, Brisbane

CONTENTS

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editorial

Tim Flannery was a worthy drawcard at another successful Sunshine Coast Council Conservation Forum on election day in early September. Over 500 people attended this event, the majority being Land for Wildlife members.

Professor Flannery's positivity was contagious. He focussed on current activities, locally and globally, that are steering us (Earth and humanity) towards a future that we know must arrive. A low carbon future. An ecologically abundant future. He didn't dwell on the losses or the sceptics, but kept his gaze firmly on what we are all doing here and now to meet these challenging times. He stated that evolution is an achievement of cooperation, not competition, and the Earth is currently carrying out an interesting experiment. We are clearly changing the planet, but through cooperation, we will come into balance with what he called "our enduring wealth" – the creeks, catchments and ecosystems.

It would seem that even after his recent employment re-shuffle, Tim (if I may refer to him on a first name basis) remains positive and firm in his resolve. To follow in his footsteps, and focus on a future we want, there are many ways to do this and I hope that this newsletter you are reading is one of them. This edition profiles three different Land for Wildlife landholders, The Procivs at Mt Mellum, David Madden at Ormeau and the Reads at Brookfield. All self-motivated and working independently to improve the health of their properties by increasing native biodiversity, and then sharing their stories with others. At the same time, they are also fostering their own well-being.

These are comparatively small, local stories that we have influence over and can share with others. Tim Flannery shared much broader stories such as the leadership being shown by China and the USA in renewable energies and that one of the oldest known living things in Australia is a Huon Pine tree in Tasmania that is estimated to be 10,000 years old. It is good to remember that there are positive conservation stories everywhere and I think it serves us well to get on board with them and to share them with others.

I hope you enjoy reading this edition and thank you to everyone who contributed stories and optimism. I welcome any stories from your Land for Wildlife property that you would like to share. Happy reading.

Deborah Metters
Land for Wildlife
Regional Coordinator
SEQ Catchments

Landholder Registrations, Land for Wildlife SEQ - 1/9/2013			
Registered Properties	Working Towards Registration	Total Area Retained	Total Area under Restoration
3020	743	54,854 ha	4,777 ha

Forward all Letters to the Editor, Fauna Vignettes and My Little Corner contributions to:

The Editor
Land for Wildlife Newsletter
SEQ Catchments
PO Box 13204
George Street QLD 4003
07 3211 4404
dmetters@seqcatchments.com.au

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SEQ Catchments
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Land for Wildlife Extension Officers South East Queensland

Brisbane City Council
All enquiries, 3403 8888
Peter Hayes
Cody Hochen
Tony Mlynarik
Catherine Madden
Scott Sumner
Fflur Collier

Gold Coast City Council
Darryl Larsen, 5582 8896
Lexie Webster, 5582 8344
Todd Burrows, 5582 9128

Ipswich City Council
Stephani Grove, 3810 7173

Lockyer Valley Regional Council
Kaori van Baalen, 5462 0376

Logan City Council
Lyndall Rosevear, 3412 4860
Nicole Walters, 3412 4859
Rachel Booth, 3412 5321
Rebecca Condon, 3412 4979

Moreton Bay Regional Council
Danielle Crawford, 5433 2240
Bree Wilson, 5433 2034

Redland City Council
Maree Manby, 3820 1106

Scenic Rim Regional Council
Keith McCosh, 5540 5436

Somerset Region
Trevor Page, 5424 4000

Sunshine Coast Council
Alan Wynn, 5439 6477
Dave Burrows, 5485 0229
Marc Russell, 5475 7345
Nick Clancy, 5439 6433
Stephanie Reif, 5475 7395

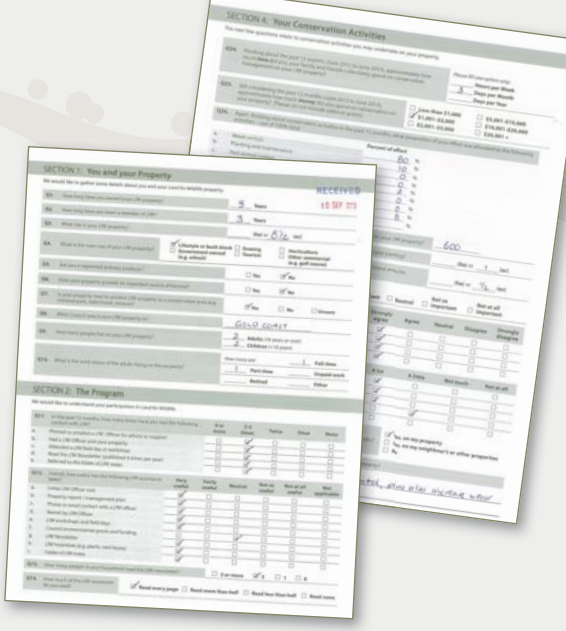
Toowoomba Regional Council
All enquiries, 4688 6611

Burnett Mary Region

Gympie, Fraser Coast, North & South Burnett, Bundaberg and Baffle Creek Regions

For all regions contact the Burnett Mary Regional Group, 4181 2999

membership survey



Preliminary Results

Our recent survey was a huge success with 1,151 surveys received. This is 30% of the entire Land for Wildlife membership across SEQ (3,738 properties). Thank you to everyone who took the time to have your say.

We are still working on the interpretation and analysis of the complex survey answers with the final report due for release in early November. Therefore, the January 2014 newsletter will present more in depth findings, but here are some preliminary results.

82% of surveys were completed online via the SurveyMonkey website. This the first time that we have trialled our regional survey online, so we were pleased with the high uptake rate.

Land for Wildlife (LfW) members have, on average, owned their property for 16 years, and have been a member of the program for 7 years.

Most LfW properties are described as a lifestyle or bush block (88% of members) with most LfW properties being 4-8 hectares in size.

LfW members make good use of LfW resources particularly this newsletter and LfW Notes. Nearly a half (49%) of all members had attended a LfW field day or workshop.

We are delighted to see that LfW members (92%) are either very satisfied (62%) or satisfied (30%) with the program.

Environmental and health benefits were the strongest motivations for participation in LfW activities.

15% of LfW members have a Voluntary Conservation Agreement (VCA), covenant or Nature Refuge agreement on their property. There is strong interest in learning more about these options with 56% of members indicating that they would like to receive more information on this topic.

38% of members have received a grant to assist with conservation works (62% haven't).

LfW members spend, on average, about one day a week on conservation management with weed control being the primary conservation activity.

Thanks again to those who participated in the survey. These results will help guide Councils and SEQ Catchments deliver a program that supports LfW members in their conservation activities while recognising that our health and well-being is directly connected to the health of the ecosystems on our properties and beyond.

Prizes Announced

Congratulations to the following Land for Wildlife members who won prizes as a result of completing the survey.

Two night getaway for two to Lyola Pavilions was won by Andrew Easton from Upper Tenthill, Lockyer.

iPad with 16GB, WiFi and iPad smart cover was won by Linda and Peter Scharf from Witta, Sunshine Coast.

Two vouchers for dinner or lunch at Oceanview Estate Winery and Restaurant were won by Lloyd Reeve-Johnson from Anstead and Graham Joshua from Beenleigh.

Two vouchers for lunch at IndigiScape Tea Garden Cafe were won by Samantha Duggan from Reesville and Kalindi Purtle from Nerang.

15 copies of *The Field Guide to the Birds of Australia* (9th edition) by Pizzey and Knight (2012) were won by: K Reid, Mudgeeraba; P Lamb, Conondale; W Pailthorpe, Nerang; I Blakley, Cooroy; H Dolden, Sheldon; S Dalton, Currumbin; P & K Sparshott, Ravensbourne; B Marshall, Currumbin; A Hayward, Moggill; W Partridge, Capalaba; L Elias, Sheldon; E Friedrich Geyer; M Shevill, Rochedale; K Saxby, Tinbeerwah and M Schumacher, Burpengary.

A copy of *Wild Guide to Moreton Bay and Adjacent Coasts* by the Queensland Museum was won by C Brammer, Coochiemudlo Island.

A copy of *Australian Stingless Bees: A Guide to Sugarbag Keeping* by John Klumpp was won by L Daffin, Conondale.

Thank you to our generous sponsors HarperCollins Publishers, Oceanview Estate Winery, Lyola Pavilions and Redlands IndigiScapes Centre.

Prizes were drawn by random selection on 22 August 2013 and all winners have been notified by post.

Peter Scharf (right) gratefully receives his new iPad from Land for Wildlife Officer, Nick Clancy (left).

Peter and Linda own a Land for Wildlife property at Witta and have been working closely with their neighbours to restore rainforest and encourage wildlife. They remove weeds in stages to ensure that they don't displace wildlife. Linda has a keen interest in birds and has observed many species utilising the clumping bamboo, which they will eventually remove when other habitat is available. We hope you enjoy your new iPad.

The immature Dollarbird (left) is quite different in appearance to the adult Dollarbird (right). Photos courtesy of Tom Oliver.

fauna profile

Dazzling Dollarbirds

The warm weather is back, and with it again comes the familiar harsh cackling "kak-kak-kak" call of the Dollarbird as these aerial acrobats again return to Australia to breed. The Dollarbird belongs to the Roller family and is the only representative of this group to reach Australia. The name Roller comes from the spectacular rolling courtship flights that the birds perform. These courtship flights usually occur late in the afternoon and are a pleasure to witness as the birds zip around the sky.

Their scientific name, *Eurystomus orientalis*, gives a hint as to their feeding method and also the widespread distribution of this species over a large area of Asia. The birds that have arrived in Australia have overwintered in New Guinea and adjacent islands, but they also range as far as China. Whilst in Australia, they can be found over the Kimberley, the Top End and down through the central half of Queensland and New South Wales to Victoria.

Dollarbirds are named after the distinctive pale blue circles that are present under their wings towards the wingtip. These American 'silver dollars' appear to flash as the birds wheel about in the sky chasing their favourite food.

Dollarbirds feed almost exclusively on insects which they generally catch on the wing. This is where their Greek derived genus name *Eurystomus* ('Eury' for wide, 'stomus', for mouth) comes in handy, as they snatch insects out of the air. They prefer large prey such as cicadas, grasshoppers, beetles and moths. To hunt these insects, the Dollarbird loves to perch on exposed spots such as the top of bare branches, wires, telegraph poles, or tree stumps. From here they carry out spectacular aerial forays as they dive, twist and turn to take their prey on the wing. Caught insects are normally brought back to the perch where hard inedible parts like wings and wing covers are beaten off before the remains are consumed. Even in the hottest part of the day, when most other birds have taken shelter from the sun, Dollarbirds will often remain on their favourite exposed perch from where they make the occasional flight to catch insects. Although they prefer to hunt on the wing, Dollarbirds will also take insects on the ground.

During breeding, pairs of Dollarbirds are often seen carrying out their characteristic rolling courtship flights which are accompanied by their unmistakable cackling calls. Like so many other Australian birds and animals, Dollarbirds require tree hollows to provide nesting sites. They therefore prefer woodland habitat with associated old trees for feeding and breeding. They are, however, also known to use nest boxes.

A nesting site that will sometimes be used for several years in a row will be aggressively guarded by a breeding pair who will see off other birds. Up to five white eggs are laid in the chosen unlined tree hollow and these are incubated by both adults. After an incubation period of between 17 to 20 days, the young hatch, after which both parents are kept busy feeding the growing brood. Fledging occurs about a month after hatching, but the young Dollarbirds continue to be dependent on their parents for several weeks after this.

Dollarbirds are named after the distinctive American 'silver dollars' under their wings...

From around March through to April the Dollarbirds again begin their migration north, as they leave Australia to return to their wintering grounds in New Guinea. They are a colourful, entertaining and regular reminder that the natural world does not recognise boundaries and that we are all connected through our actions.

As part of Brisbane City Council's environmental monitoring program, regular bird surveys designed to capture long term data on bird numbers and species are undertaken on Land for Wildlife properties. Property owners are able to assist in these surveys, which act as a source of inspiration, education and enjoyment. Dollarbirds are a regular, albeit seasonal, feature of this important ongoing program.

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Article by Tony Mlynarik
Land for Wildlife Officer
Brisbane City Council

fauna profile

Tailed Emperors

Like many, I cannot help but see weeds as ugly, taking up valuable bushland resources, but sometimes these weeds can be useful for some of our beautiful native creatures.

We recently saw these attractive Tailed Emperor butterflies (*Polyura sempronius*) sucking up the foamy juices from the stem of a shrub near Kholo Creek, and we were surprised to find the shrub was the weed Easter Cassia (*Senna pendula* var. *glabrata*).

This butterfly belongs to the Nymphalidae Family and lives in mainly tropical areas from northern and eastern Australia, south to Adelaide. The adults feed not on flowers, but on fermenting plant juices which ooze from wounds on trees or from fermenting fruit.

They have a wingspan of approximately 75 mm and are named for the pair of short, pointed tails on the rear of their hindwing. Coloured cream and black on the upper side, the underside of the wings (visible in photo) has a pattern of dark bands and spots. You'll see them from October to May. They are swift, powerful fliers, often flying high 2-5 metres in the air.

They lay single large yellow eggs on the underside of host plant leaves. The caterpillars have four recurved horns on the head, and usually have a green body with two yellow bands. Interestingly the larvae are highly territorial and build a platform of leaves and spun silk from which they feed. Larvae on nests may show aggression to each other if their nests on the same tree are too close together (as the caterpillar crawls), while they react less to larvae on nests on neighbouring trees.

Tailed Emperor larvae feed on the leaves of a wide range of plants, both native and exotic, from the Mimosaceae and Fabaceae families, including wattles (*Acacia* spp.), Golden Rain Tree (*Koelreuteria paniculata*), Poinciana (*Delonix regia*), Chinese Elm (*Celtis sinensis*) and also the colloquially named native 'bottle trees', which include the Flame Tree (*Brachychiton acerifolius*), Lacebark (*B. discolor*) and Kurrajong (*B. populneus*).

Adults feed not on flowers, but on fermenting plant juices...

Next time you set out to tackle the weeds, you might want to have a look underneath the leaves to see what eggs or nests are hiding there as leaving some of the weeds for a short while longer may produce some pretty critters. Including butterfly food plant species in your revegetation to replace weeds is also a great way to bring these beauties to your bushland.

For more information on our fascinating and fluttering friends, I recommend *The Butterflies of Australia* by Albert Orr and Roger Kitching. It is a comprehensive, easy to read, and exquisitely illustrated guide to the biology, ecology, evolution and conservation of the 400 or so native butterflies.

Most adult butterflies prefer to take nectar from flowers, but not the Tailed Emperor, which prefers to feed on fermenting fruit and plant exudates, such as this foamy juice from the weed, Easter Cassia. Photo by Sheena Gillman.

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Queensland Museum (2007) *Wildlife of Greater Brisbane*. A Queensland Museum Wild Guide.

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Article by Fflur Collier
Land for Wildlife Officer
Brisbane City Council

weed profile

Wild Tobacco - Friend or Foe?

Wild Tobacco has been deliberately left in this once bare, heavily grazed paddock, which Paul and Melissa are regenerating back to rainforest. Wild Tobacco plays an important role in providing shade, deterring wallabies from eating planted trees and bringing back native plants.

On moving to the Sunshine Coast Hinterland in late 2007, we were advised to concentrate on eradicating the (non-declared in Queensland) weed, Wild Tobacco (*Solanum mauritianum*), which grew sporadically through the degraded pastures covering two-thirds of our steep 25 acre property. Once the previous owner's cattle were removed, we started whittling away the extensive elephant grass and *Setaria* spp. re-growth, but also invested considerable time and energy (and cash) in attacking the Wild Tobacco. However, accumulating experience with this fascinating plant has radically changed our approach, so now we treat it as a useful ally in our overall revegetation strategy.

Originating from South America (northern Argentina, Uruguay and southern Brazil), *Solanum mauritianum* was probably spread along Portuguese trade routes in the early 16th century and became widely established throughout many tropical and subtropical countries and even New Zealand. In eastern Australia, it occurs mainly in forest clearings and degraded pastures of high rainfall areas. While having many common names, here it is usually called Wild Tobacco or Tobacco Bush, most likely because of the pungent odour of its leaves and fruit. However, it should not be confused with real tobacco, the herbaceous *Nicotiana tabacum*, also in the family of nightshades, Solanaceae.

Wild Tobacco is a spindly, semi-succulent, spreading tree that can grow to 5 metres high in the open (10 m in a forest) and survive to 30 years, although we find on our property, most survive naturally only 2-3 years. They have large, grey-green, felty leaves and can flower at any time, although peak flowering occurs from late spring to mid-summer.

The pale mauve, yellow-centred flowers are followed by spherical green fruits (as many as 30-40 in tightly packed bunches) that ripen to yellow or brown, up to 15 mm in diameter. The seeds resemble those of tomatoes, and the fruits are regularly eaten by a wide range of birds, including doves and pigeons, currawongs, Pale-headed Rosellas and, possibly, Pheasant Coucals. Possums eat the leaves, stems and fruits apparently with impunity, and we have seen flying foxes eating the berries. In South Africa, the berries also provide winter food for some fruit flies, and we suspect this happens here as well.

We are not aware of anyone ever having used *Solanum mauritianum* leaves as tobacco, but all its components, including leaves, flowers and fruit, are said to be toxic to humans. However, we could not find convincing evidence in the literature, and suspect that a large dose of green berries would be required to produce clinical effects in adults; human fatality has been ascribed to consumption of fruits in South Africa.

Certainly, exposure to the leaves, sap and berries can cause acute dermatitis, both through direct irritation and possibly allergy, and the wood dust might cause respiratory problems. In domestic animals, reports of poisoning are rare and poorly defined, even though Wild Tobacco is abundant throughout eastern Australia. Susceptibility varies as goats eat it with

A wide range of fruit-eating birds eat Wild Tobacco fruit, including Brown Cuckoo-doves, Pale-headed Rosellas, King Parrots, Regent and Satin Bowerbirds, Silvereyes (shown above) and Pied Currawongs. Photo by Deborah Metters.

impunity, while sheep, cattle, pigs and horses might suffer diarrhoea, weight loss, neurological problems and heart failure.

The major toxins of Solanaceae are glycoalkaloids of the solanine group; the chief one in *Solanum mauritianum* is solasodine, which is used industrially as a precursor of synthetic steroidal compounds, including sex hormones.

Given its profuse seed production, with effective dispersal by vectors such as birds and bats, Wild Tobacco spreads widely and rapidly, and then grows fast as well, attaining maturity within 2 years. Being flexible enough to tolerate strong winds, it makes a good edge plant. However, control is not difficult: its branches are easy to break off, young trees can be readily cut down with a cane knife or loppers, and all stages rapidly succumb to conventional glyphosate treatment. Larger specimens can be cut down with an axe, or killed by ring-barking, and disintegrate in the soil fairly rapidly. On slippery, steep slopes, established specimens provide a workplace safety service, offering solid anchor points and hand-grips for our revegetation work.

Once satisfied that Wild Tobacco could be controlled easily, we started intentionally spreading seeds over newly cleared paddocks, using it as a pioneer plant. Its leaves can produce sufficient shade to suppress some other weed re-growth, although to us that is not their major benefit. Underneath stands of Wild Tobacco trees in which large numbers of birds roost or feed, it is common to find natural regeneration of native species.

While a limited study from New Zealand indicates that Wild Tobacco can be allelopathic, i.e. its leaf leachates suppress seed germination in some species, we're not sure this is a problem here. When the tobacco leaves fall, or we decide to cut them down, the leaves and branches break down fast, especially during wet seasons, adding a blanket of soft mulch which helps suppress further weed growth. What's more, we suspect that their odour is repulsive to wallabies, and so might help protect regenerating native seedlings in the immediate vicinity; although, as the Solanum leaves and cuttings dry out, they rapidly lose their odour, and so also their repellent effect.

From originally regarding Wild Tobacco as a nasty weed, we have converted to viewing it as the ultimate pioneer species, its major shortcoming being that it isn't a native. Compared to other exotic weeds, it is rather benign, not unattractive, easily controlled and much appreciated by quite a few of our native birds and mammals, who then thank us by spreading good trees. And, wherever a young canopy of native rainforest is forming, the Wild Tobacco can be removed without too much effort.

The distinctive flowers and fruits of Wild Tobacco. Photos by Paul Prociv.

Article by Paul and Melissa Prociv Land for Wildlife members Mount Mellum, Sunshine Coast

book review

Australia's Poisonous Plants, Fungi and Cyanobacteria:

A Guide to Species of Medicinal and Veterinary Importance

The author, Dr Ross McKenzie, is a retired veterinary pathologist and toxicologist with the Queensland Government, and this book reflects his life-long passion for poisonous plants and poisoning diagnostics.

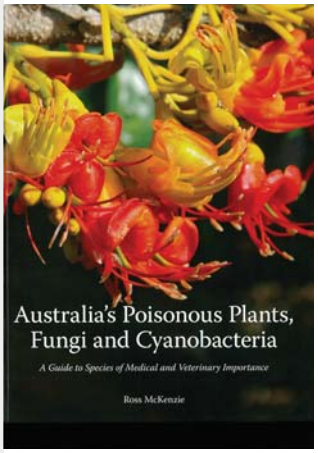
Native plants, weeds, garden ornamentals, fungi, ferns, blue-green algae and grasses are all covered in this book. About 600 pages are detailed, illustrated profiles of at least 500 species with a further 200 pages allocated to lists of all poisonous plants, fungi algae and cyanobacteria in Australia that were known to the author at the time of publication.

Each profiled species details the toxic parts of the plant, known toxins, toxic doses, historical accounts of animal or human poisoning, clinical signs for poisoning in animals and humans, and recommended management or therapy should poisoning occur.

The surprising profiles for me were onions and garlic, which are poisonous to dogs, cats and cattle; avocados that are poisonous to pet birds, horses and dogs; macadamia nuts that are toxic to dogs; and the weedy ornamental garden plant, Duranta ('Sheena's Gold'), which has caused fatal poisoning in dogs, cats and a human after eating the fruits.

The author states up front that he hopes this book will empower people to prevent and manage plant poisonings.

This hefty hardcover book is a worthwhile purchase for those who have a keen interest in Australian flora, toxicology or veterinary care.



CSIRO Publishing, 2012. Hardback, 976 pages. ISBN: 9780643092679 Price: $195 Available from CSIRO Publishing and other book retailers.

Review by Deborah Metters

Lantana in flower

Lantana stacks on a Land for Wildlife property. These piles of lantana provide perching sites for small birds looking for insects. Pioneer species such as Bleeding Heart (*Homalanthus nutans*) often come up on the edges of lantana stacks. When undertaking follow-up maintenance, the owners throw weeds onto these lantana stacks to make sure that the roots of the weeds air dry and die. Photo by Ed Surman.

weed control

Onward with your Weed Odyssey:

A strategic approach to weed control on your property

The Oxford dictionary defines an odyssey as "a long and eventful or adventurous journey or experience". While some may argue that controlling weeds may not be the most exciting odyssey they can think of, it certainly is a long-term journey for most people in Land for Wildlife. The journey is discovering the best methods that work for you, your property and the environment.

Most Land for Wildlife landowners want to have healthy bushland as this will provide habitat for wildlife. Healthy bushland will also recover from disturbances such as bushfires and storms thereby resisting weed invasion better than areas that are degraded. This concept is known as 'ecosystem resilience'. The healthier an ecosystem, the better it will withstand additional stresses and the more resilient it will be.

Unfortunately due to past land practices, Land for Wildlife properties have varying states of bushland ranging from a cleared paddock to dense weeds, to mostly natives with some weeds, to quite good condition with few weeds present. Generally an ecosystem dominated by weeds, while still providing habitat, is usually only simple habitat, whereas an ecosystem with few weeds and a diversity of native species provides a complex habitat suitable for a greater range of species.

Protect the best areas first

When it comes to weed control it makes sense to protect bushland areas in the best condition first. There is no point allowing weeds to overrun the best part of your bushland while you are controlling weeds in highly disturbed areas. In healthy bushland, weeds generally come back slower as there are fewer weed seeds in the soil seed bank, the canopy is more intact and usually the soil profile has had little disturbance. This means you will get the best results for your work and will speed up your weed control if you work in the best areas first.

Prioritise weeds based on their threat

The second tip is to manage weeds based on their level of threat to the environment. You don't need to panic about all the weeds you have on your property! On the Sunshine Coast we prioritise weeds based on their ability to change ecosystems or their threat to a vulnerable species. For example, Cat's Claw Creeper and Madeira Vine are high priority weeds as they can smother and kill native trees resulting in a highly simplified and 'unhealthy' ecosystem. Dutchman's Pipe is another priority weed because it kills the larvae of the threatened Richmond Birdwing butterfly.

Other weeds rank lower and often depend on the situation, their location and extent. For example, a newly detected weed at the top of a catchment may be a high priority to prevent it from spreading downstream with floods.

This is a simplistic description of a complex problem as most properties will have multiple weeds and multiple threats to think about (eg. erosion, landslip etc.) which may complicate the prioritisation process. Do the best you can, and if in doubt, ask for help.

Weeds as habitat

In areas with little native vegetation, weeds often perform important roles in providing habitat for wildlife. Many native animals use weeds for their food, as well as shelter and breeding sites. Stands of weeds can also form corridors between isolated bushland assisting small mammals and birds to move in the landscape. There are areas throughout South East Queensland where significant stands of Camphor Laurel are the only type of vegetation present. Removing these weeds all at once would be too disruptive to wildlife. Similarly with lantana removal if you remove all the lantana in one go, the insects, small birds, reptiles and mammals that rely on lantana for cover and food would be displaced, forcing them to move to other areas at best.

Using weeds to our advantage

This is the part of the odyssey where we get smart and use beneficial aspects of weeds to our advantage. One way of doing this is by using natural successional processes to bring back bushland. Weeds may dominate an area but often there is a lot of regeneration of native species underneath the weeds. Slowly removing weeds and encouraging successional processes to bring back natives is cheaper and easier than revegetating a bare paddock.

Similarly, if weeds are protecting an area from landslip, or a creekline from erosion, leaving the roots in place serves a valuable role. Or if the site allows, it may be best to plant in adjacent areas first, let these plants establish and then control the weeds. In revegetation areas,

On this Land for Wildlife property, the owners started revegetating the creekline over ten years ago, fencing stock out of waterways and protecting the creekbanks from erosion. After the creekbanks were revegetated and the maintenance levels were manageable, the owners have been controlling lantana in stages along the steep hills.

To reduce the risk of landslips, areas of lantana are sprayed along the ridges in the growing season with ridgetops revegetated and maintained for a number of years before controlling lantana in the gullies.

Sometimes lantana is removed and stacked without spraying to ensure that there is still habitat for small mammals and birds. This is good winter work when the lantana is more brittle and temperatures are cooler. Note the existing revegetation in the foreground – this area was previously lantana thickets as well. Photo by Deborah Metters.

some groundcover weeds stop erosion and shelter young plants, so rather than spraying them and killing the whole plant, occasional brush cutting keeps the soil in place. Or alternating brush cutting with spraying helps build up a mulch layer while protecting the soil.

Trees, such as Camphor Laurels, that have been poisoned and left standing provide perching areas for wildlife, which bring in native seeds from surrounding areas. They will also bring in weed seeds as well; managing weeds will always be an ongoing issue.

Sprayed lantana provides structural habitat for small birds and other animals before it composts. Some landowners have found making piles of lantana retains structural diversity and encourages a greater range of wildlife to use newly cleared revegetation sites. Others spread lantana out in parallel lines along the contours as an erosion control mechanism. Depending on weather conditions, if you use these techniques you will have to check the lantana piles and control any re-shooting.

Taking it one step at a time

Once you have prioritised your weeds, it's good to undertake control in stages. This can be for a number of reasons such as landslip control as discussed above. The other really important reason to undertake weed control in stages is maintaining your existing work before moving on to the next stage.

Sometimes stages are very obvious and others are not. For example a small isolated patch of Blue Morning Glory is easy to start, whereas a sea of lantana covering hills far and wide may seem impossible to stage. Other considerations such as access to the site or a water source may make stages more obvious.

Maintain and monitor

Once you've learnt your weeds and prioritised and considered the best approach, it's time for the hardest work of all – controlling them…. isn't it? Unfortunately, ongoing maintenance is the most labour intensive part of the whole process and is why we advocate staging your project.

Monitoring the area for weed regrowth is important whether you're revegetating an area or assisting the process of natural regeneration. Maintenance of weeded areas is an ongoing activity of many LFW'ers and a vital way of getting to know your property. Keeping a property journal that tracks when and what weeds you have controlled will help. Taking photos of your work before, during and after can also be incredibly rewarding to see what you have achieved. Starting a weed seeding calendar can also be helpful for prioritising follow up weed control.

Conclusion

Each Land for Wildlife property has a different suite of weeds and everyone's capacity to manage their property is different. Some landowners will work off a detailed weed management plan (see Note EW1 in your Land for Wildlife folder) whilst others will have a plan in their heads. This often depends on the size of the property and the weeds present. You may find what works for one landowner does not work for you. Getting to know your property whilst staying flexible and learning from your efforts is essential.

Everyone's weed odyssey will be a unique journey based on their property and the weeds present now and in the future. If you have any questions on approaching weed management on your property please contact your local Land for Wildlife Officer.

Top Weed Tips

1. *Work in the best areas first*
2. *Prioritise weeds*
3. *Consider the wildlife using weeds*
4. *Use weeds to your advantage*
5. *Stage your weed control*
6. *Keep track of your activities*
7. *Control weeds prior to them setting seed*
8. *Celebrate your achievements*

Article by Stephanie Reif
Land for Wildlife Officer
Sunshine Coast Council

Thanks to the rest of the Sunshine Coast Council Conservation Partnerships Team (Alan Wynn, Nick Clancy, Ed Surman and Marc Russell) who provided comments on this article.

property profile

Strategic Approach to Weed Control:

An example of managing Camphor Laurels and Cat's Claw Creeper near Kenilworth

Don and Mary Law on their stunning 100 hectare property where they integrate both beef production and conservation. This photo overlooks where they have removed Cat's Claw Creeper from Oakey Creek before it enters the Mary River. Kenilworth Bluff is in the background. Jack the kelpie and Hector the English bull mastiff accompany them.

Don and Mary Ann Law own a 100 hectare property near Kenilworth on the Sunshine Coast. The property is a beef and citrus property, transitioning to beef. The property's northern boundary follows Oakey Creek for 1.8 km. The vegetation along Oakey Creek forms a riparian corridor helping to link Mapleton National Park to the Mary River. Along the creek is a mixture of riparian rainforest as well as numerous large Camphor Laurels, in some areas forming up to half the canopy.

Initially Don and Mary Ann knew they wanted to remove the Camphor Laurels and encourage native plants. They wanted to improve the water quality along Oakey Creek and provide a corridor for wildlife. However closer inspection of the creek showed that Cat's Claw Creeper was spreading from west of the property and was in the canopy in isolated pockets. Knowing that cat's claw can pull down mature rainforest trees through its sheer weight, priorities changed to focusing on cat's claw first.

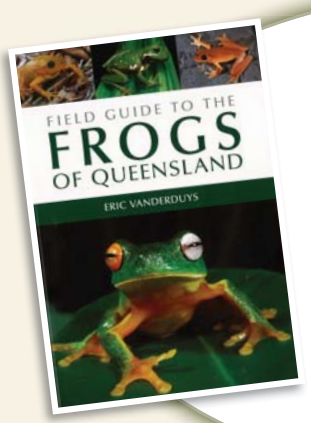
Thinking about the principles outlined in the article on pages 8-9, the property now has two priorities. Firstly, controlling Cat's Claw Creeper before it spreads further, and secondly removing Camphor Laurels in stages.

Follow up weed control, encouraging natural regeneration and some revegetation (if needed) will be undertaken after controlling Camphor Laurels. This approach should be the quickest way to build the resilience of the bushland on their property. By removing the Cat's Claw Creeper first they have targeted the worst weed on their property. Removing the Camphor Laurels in stages, rather than all at once, will decrease the potential impact on wildlife and the potential for erosion along the creek.

Follow up includes monitoring for any regrowth of cat's claw and keeping an eye on the rate of natural regeneration versus weed growth where Camphor Laurels have been frilled (injecting herbicide into the tree either through large drill holes or incisions made with a hand axe or chisel) and left standing. When Don and Mary feel comfortable that they can manage the existing maintenance on the initial stages they will move onto another stage of controlling more Camphor Laurels, whilst continuing to keep an eye out for cat's claw.

The 'claws' of Cat's Claw Creeper (far left).
Cat's Claw Creeper in flower (left).
The distinctive bark of Camphor Laurel (above).

fauna & flora vignettes



FREE BOOKS

SEQ Catchments is giving away free copies of *Field Guide to the Frogs of Queensland* (released November 2012) RRP $45 to selected Land for Wildlife members who contribute published articles in 2013. Limit of three free books per newsletter edition. Please send your article and/or photographs to the Editor (details pg. 2)

Wasps parasitising wasps

Here is a photo of a wasp nest that has appeared under the highest gable of our house. I have not seen one like it before. Can you identify it please?

Reply from Alan Wynn, Land for Wildlife Officer, Sunshine Coast Council and Collection Manager of Entomology, Queensland Museum:

It looks like a nest of a native paper wasp, *Ropalidia romandi*. They are less active in the cooler weather but will defend the nest if it is disturbed. They are useful pest controllers in the garden, so it is good to leave them alone if they do not pose a threat. There is also a parasitoid wasp near the hive on the top right hand side (circled). It has a long ovipositor, which is used to lay eggs. This wasp is probably a species of *Stenarella*, of which there is only one species currently recorded in Australia, *Stenarella victoriae*. *Stenarella* is a genus in the Ichneumonidae family, which is a largely unworked family and there may be other unrecorded species. *Stenarella victoriae* are known to parasitise other wasp nests, but usually mud nest wasps. The Queensland Museum has no records of *Stenarella victoriae* using paper wasps (Vespidae) as a host. Whether this individual was trying to lay eggs in this paper wasp nest is unknown.

Linda Audley-Coote
Land for Wildlife member
Landsborough, Sunshine Coast

Echidnas return

We saw this juvenile crossing our paddock last week, the first time we have seen one for at least four years. There have been signs of echidna diggings since and we have been happy to have their return.

John and Rosemary Jeffreys
Land for Wildlife members
Verrierdale, Sunshine Coast

One giant cat's claw

Unfortunately, this huge cross-section of a Cat's Claw Creeper vine is not the largest specimen that bushcare workers with Noosa and Districts Landcare have come across. This one was cut down recently along the Mary River near Kenilworth and is probably about ten vines fused together to form one 'trunk'. Despite cutting the vines and applying herbicide to the cut stump, some tubers (examples are shown in the background of this photo) will almost definitely re-shoot. The control of cat's claw is a war of attrition requiring ongoing re-treatments with herbicide over several years. It is estimated that this vine is at least a decade old.

Phil Moran
Land for Wildlife member
Cooran, Sunshine Coast

flora profile

The Ormeau Bottle Tree

I have made some interesting observations over the years regarding the Brachychiton endemic to the Ormeau area, *Brachychiton* sp. Ormeau (LH Bird AQ435851). It is listed as critically endangered under the federal *Environment Protection and Biodiversity Conservation Act (1999)* and endangered under the *Queensland Nature Conservation Act (1992)*.

Fairly typical to many of the Brachychiton species, it will go through an array of morphological changes before it reaches mature foliage, which is simple; however, juvenile foliage is deeply lobed with long fingers. Flowers are greenish white and pods are brown and 30-60 mm long. Pods generally contain one to five bright yellow seeds, but I have observed up to 11. The seeds are covered in a hairy exotesta, the hairs are easily dislodged and cause some irritation.

Of the limited population of mature specimens of this species that remain, only a few bear any quantity of seed, and even then, since the beginnings of my observations about 18 years ago, I have seen two fruiting episodes! It is interesting to note that the seed viability is so close to 100% and produces no noteworthy deformities, suggesting that fertile specimens are not yet at a point of genetic limitation.

Limitations on seed production and natural recruitment in seeding events are noticeable even before ripening. It can be seen that the pods are absolutely plagued by exotic rats. There is barely a pod remains on the tree that isn't subjected to some chewing. A good proportion of what is left is attacked by a grub, which eats the seeds before moving onto the next pod.

Even after intense insect and rat attacks, 2012 was such a good year that these minor setbacks did not affect the amount of seeds that were produced. On a number of visits to the seeding trees, I had noticed that one tree in particular had been subjected to highly unethical seed collection methods and quantities. It was very disappointing. Natural limitations are often beyond human control, but regulations put in place on collection to protect already dwindling species must be upheld to allow for optimal self-recovery of these species within their environments.

After a reproductive dormancy of 12 years (prior to the recent seeding event), a huge crop of seeds was produced just before the torrential rains that south east Queensland experienced in the summer of 2013. Based on many other seed germination preferences, I considered large quantities of rain just prior to, and into seed maturity, to be favourable. On closer investigation and trials, I found this to be quite the opposite. Of the seeds that I collected and propagated through December and January 2012/2013, I found that large amounts of rain prior to germination resulted in very poor germination percentages. Even with precautionary fungicide applications to all of my seedling trays, germination was less than 10%, compared with more than 90% in the exact same conditions minus the rain. All of my trials were conducted outdoors in the full weather (in a rat proof situation).

This implies habitat and climatic limitations and intolerances for the species. A bumper year of seed production was followed by what would appear to be extremely unfavourable recruitment conditions. Records for the area indicate that 2001 (the last time the trees produced a large quantity of seeds) was a wet season also.

Interestingly, the seeding specimens all occur on Regional Ecosystem 12.3.1 (gallery rainforest on alluvial plains) classified as endangered under the *Vegetation Management Act (2009)*. It is estimated that less than 10% of this ecosystem's pre-clearing extent remains. Taking that into account for an already limited habitat area, these areas are frequently subjected to temporary inundation, thus subjecting seeds and seedlings to what has been observed to be unfavourable growing conditions. Regardless of the fact that this ecosystem is highly susceptible to weed invasion and was cleared extensively for agriculture, it would appear that the conditions of recent times have resulted in severe limitations on the species reproductive success. Areas subjected to grazing would see seedlings trampled and young plants eaten. Brachychitons are frequently eaten by cattle with the Queensland Bottle Tree (*Brachychiton rupestris*) used as fodder during droughts.

Brachychiton sp. Ormeau is a handsome, hardy tree with a limited population. Juvenile foliage is interesting and unique, and the new growth is beautiful and bright maroon-red. Flowers are not spectacular by Brachychiton standards, but are beautiful in their own right. It is a tree that can be easily propagated and is certainly worthy of cultivation. I am proudly donating my seedlings to the conservation of the species.

Article and photos by David Madden
Land for Wildlife member
Guanaba, Gold Coast

Pink juvenile leaves, mature seed pods (green and brown) and flowers of the threatened Ormeau Bottle Tree.

book reviews

The Untrained Environmentalist:

How an Australian grazier bought his barren property back to life

On the days post brings it, I lustfully pore over my *CSIRO Publications Catalogue*. On occasion, amongst the scientific wonders, there is a release of widespread appeal. *The Untrained Environmentalist* is such a book. Almost everyone I know has taken pleasure from it (or is anticipating doing so based on a friend's recommendation).

It is the 50 year story of author, John Fenton's, restoration of a barren 1,715 acre sheep station in western Victoria. He inherited it in 1956. In 2003, he passed it on to his son, as a productive and environmental award winning property.

Fenton chronicles his environmental awakening. As a young man he starts with planting trees "simply ... reacting to fact that the property looked so bare and desolate" and dreaming of creating a lake near the house to impress his new wife. Over the years, he has realised the many benefits of planting. Not just tangible benefits in healthier land and stock, but joy brought to him, his family and visitors.

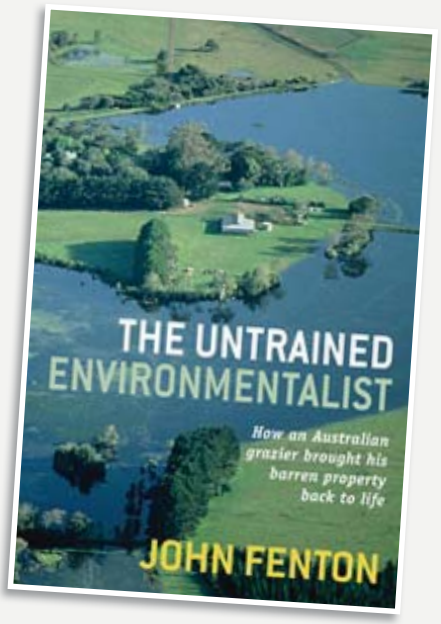
The book is also a modest history. Fenton describes traditions of the Victorian 'fading squattocracy' that he had to break to pursue his vision of farm management. He admits he nearly went broke.

Fenton's messages could be summarised:

"Do I think it would be a good idea ... if every Australian farm became as environment-friendly? Yes, I do ... but this is not to say that I would advise every Australian farmer to do what I have done. Having done it, I know ... how hard it has been – physically, financially, even emotionally."

"So what is to be done? In my view ... if Australians want to see their unique and fragile environment cared for ... the Australian Government has to pay farmers to do it... Farmers are the only people capable of doing the job, and as things stand now most farmers cannot possibly afford to do what needs to be done."

Review by Margie Young
Land for Wildlife member, Crows Nest



Published by Allen & Unwin, 2010
Paperback, colour photos, 272 pages.
ISBN: 9781742370194
Price: $35
Available from online and all good bookshops.

The Creek in Our Backyard:

A practical guide for habitat restoration

By Robert Whyte

Robert Whyte is someone who I have known for years. He loves bushcare for all the right reasons: socialising, helping the community and obviously improving the natural environment. He has been working with the local residents to unweedify and revegify the Enoggera and Fish Creeks. He uses a direct not-much-nonsense approach with his knowledge and furious speed and this definitely reflects in the book.

The Creek in Our Backyard is a guide to inspire and inform about habitat restoration. The book focuses on waterways which makes this book different from other habitat restoration books. The book is a 2nd edition meaning that it has even more natural goodness than the last.

He starts off saying the problems, such as the weeds and rubbish, and then goes on to the solutions, such as clean fresh waters and surrounding areas. He includes examples of ongoing success stories with helpful tips. There are mug shots of weeds with information and good plants to replace them.

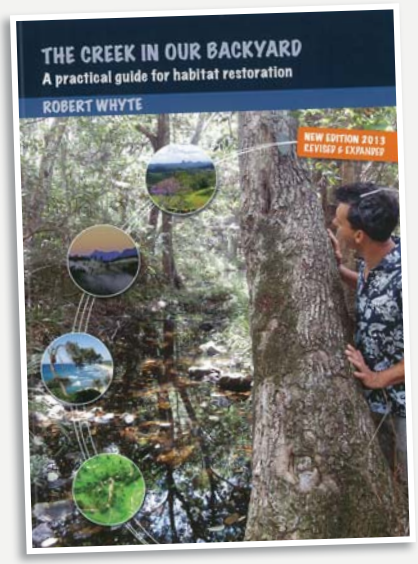
The pictures in this book are stunning. They add a real elegance whilst informing the reader of what he is going on about.

I would recommend this book to anyone, old or young, who is interested in the environment or who would like to be. I'm only twelve and even I enjoyed it.

Now I'll stick to the usual scoring system that people seem to use. I give it a 10/10. In the words of Robert Whyte, "This book is one small step along the way, I hope it inspires you".

The Creek in Our Backyard is available to download for free from the Save Our Waterways Now (SOWN) website at www.saveourwaterwaysnow.com.au. Free copies of the booklet are also available via your local Land for Wildlife Officer.

Review by Anna Harisson



Paperback, 60 pages.
ISBN: 9780646902142
Price: free
Available to download from SOWN website, or ask your local Land for Wildlife Officer for a copy.

property profile

Welcome Wildlife: Watch Out Ochna

It was mid-2009 when my wife Meg rang very excited to tell me about the three acres of bush for sale that she had just visited in Brookfield. "You will love it" she said "it is so natural with birds everywhere" and it was from that conversation that our family's next adventure began.

Our block is centred on a small rocky feeder creek (shown above) between Brisbane Forest Park and Moggill Creek. The vegetation is dominated by riparian and dry rainforest and surrounded by rolling hills covered in open eucalypt forest. Being so amazingly green, quiet and peaceful, it is hard to believe that we are only 13 km from Brisbane's city centre.

It was early on that we joined the Land for Wildlife program and proudly put our bright green sign on our letter box. At that time we decided our objective was to restore the local ecosystem to achieve a healthy, sustainable and natural environment along our waterway. By talking to our Land for Wildlife Officer, we decided that this would be achieved through control of the invasive environmental weeds, minimisation of erosion, natural revegetation and active planting to encourage biodiversity, as well as creation of habitat that encouraged wildlife. At the time I thought one year of hard work in our spare time and we would be done.

The first target was lantana, an obvious weed that we knew from elsewhere. Although I didn't realise it at the time, that was the easy weed to get rid of by pulling out when the ground was wet, with occasional help of a pinch bar for the really big roots. Within a month or so we were nearly done or so I thought. I soon learnt what the two types of privet were, and soon after Camphor Laurel. A renewed surprise how much more there was to do - so we got stuck in with even more determined vigour, killing even the biggest weed trees to create space for the extensive natural regrowth and planted tubestock, waiting for some light. For such a quiet and peaceful place, the chainsaw and drill were going regularly for a while.

The satisfaction that we achieved after a hard day's work knowing that we were so much closer to recreating a natural environment was extremely rewarding and there was never a need to go the gym.

A year or more in, I had a horrible realisation that much of the beautiful thick understorey that I had been admiring on our block was actually thousands of Ochna plants (now a swear word in our house!). Horror – please no more weeds! After a few frustrating weekends with shears and a spray bottle full of glysophate, we needed a break from revegetation for awhile.

During this time our family went on to build two frog ponds, one of which has been amazingly successful (so long as you collect and destroy the Cane Toads in the area reasonably regularly). We also built and installed sixty glider, possum and bat boxes that are in constant use by many different species. Rock-lined paths were built to minimise erosion and create access throughout the block for weeding, planting and protection of most of the bush, especially when our adventurous kids are playing 'flag tag' and similar games, or when spotlighting at night. More effective was the three metre brown snake that hung around for a week or so,

The Read family built and installed 60 nest boxes on their property with most of them being used by a variety of wildlife. Shown here (from left to right): a pair of Feathertail Gliders, a resident Australian Owlet-nightjar (photo by Ed Fraser) and a family of Squirrel Gliders.

One of the frog ponds built by the Reads has succeeding in attracting 12 species of frog.

as magnificent as it was, its large marble like black eyes helped to make us all extremely careful when walking through the bush; I don't think any of the newly planted trees got trodden on at that time!

On our journey so far we have also joined two local catchment groups that provide great advice and access to unlimited free native tubestock plants. The first hundred plants took me hours to plant; now having planted over 3,500 plants we have gotten a lot quicker. Even our young kids got really interested in native plants (for about 3 weeks a year) when they learnt about the delights of native raspberry bushes.

The regular prize discoveries of new birds, animals or plants is a great buzz that keeps us going on our wonderful hobby - and one day when the native trees re-close the canopy, all will be back to where it is meant to be. Since 2009, we have seen 132 species of birds including Rose-crowned Fruit-dove, Grey Goshawk, resident Owlet Nightjar and breeding Painted Button-quail; 16 species of native mammals including echidna, three types of gliders, Yellow-footed Antechinus, Red-necked and Swamp Wallabies, native Water Rat and Fawn-footed Melomys; and 12 species of frog including Tusked Frog. Observing them is incredible, but even more awesome is the knowledge that we, like many others are making a sustainable difference in providing better quality habitat.

It was also fantastic to discover that our neighbours share similar loves for the area and the environment and we have had great success working together on several projects. It was amazing to learn that some of them have been passionately and successfully working on weeding and natural regeneration on their blocks for over 10 years. We have just been informed that our application to Brisbane City Council for a Community Conservation Initiative Assistance has been granted for our adjoining four properties, so watch out Ochna. We are back and you are right in the firing line!

Article by Chris Read
Uncredited photos by the Read Family
Land for Wildlife members
Brookfield, Brisbane

Letter to the Editor

Hello Asian House Geckoes, goodbye frogs

I was very interested to read the articles about geckoes in the April Land for Wildlife Newsletter and would like to share some of my experiences and fears about the introduced house gecko.

We moved to our present address in early 1983 and I was enchanted to find our newly-built house came with its own set of geckoes. I blithely believed them to be the native house gecko as I busily was becoming aware of the biodiversity present on our acreage property. However, conversations with Ric Nattrass (then NPWS ranger) soon disenchanted me as I could not deny the "chuck-chuck" sounds made by my geckoes. Over the years their number has increased as they love our high timber ceilings and exposed beams.

When we first lived here we were constantly amazed by the incredible diversity of insects that were attracted to our windows at night and also by the frogs (including graceful, red and sedge treefrogs) that feasted on them. We also had an abundance of green treefrogs. We could always count on their croaking whenever rain threatened. It is many years since I last saw the smaller treefrogs on my windows. This is the first year I have not heard the croaking of the green treefrogs and I lay the blame firmly on the introduced house gecko.

I am well aware that the decline of frogs is well documented and is attributed to a multitude of causes but there has to be another reason that the big old frogs that we knew so well from around our house have gradually disappeared. I have watched them in the last few years finding it harder and harder to get a feed as the insects they fed on were snapped up under their noses by the geckoes. Every window has its pair of geckoes that descend on any insect that alights on its surface.

We still have other frogs on our property that do not seem so attracted to the house but they seem to be the more common species such as Striped Marsh Frogs and of course the Cane Toad. But I find it worrying that I hear the "chuck-chuck" sound outside at night, even in our more bushy areas.

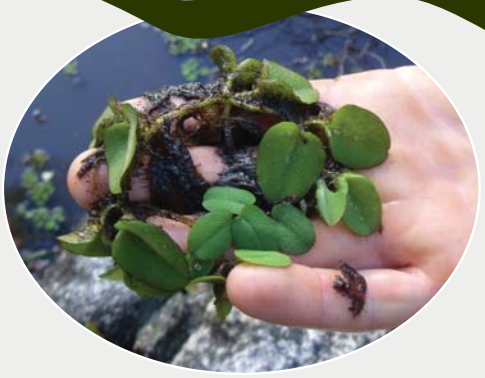
Apart from the diminution of the insect diversity on our windows I also mourn the loss of our beautiful huntsman spiders that we previously had an abundance of. They obviously have been unable to cope with the competition from the increasing numbers of geckoes.

Like the Cane Toad, it's probably too late to do anything about the introduced gecko but surely we can learn from our experiences and be more wary of any other accidental introductions. The long-term implications of something seen as relatively benign such as the Asian House Gecko could be catastrophic. Hence I find it worrying and short-sighted that the funding of biosecurity has been cut recently.

Lynn Roberts
Land for Wildlife member
Thornlands, Redland

Philosophy with Phil

Water weed worries



Above: The native aquatic plant, Azolla (*Azolla pinnata*) can densely cover a water body (left), but will die-back as shown two weeks later at the same site (centre). Azolla grows green in the shade and red in full sun (right).

Left: Salvinia - early detection and rapid response is a must to control this weed.

Is it a goodie or a baddie? Native aquatic plants such as Azolla and Duckweed, both small in size, can sometimes grow rapidly and will densely cover a water body, but will soon die-off and contract. Our larger native aquatic plants often have chewed leaves – an indication that they are being eaten by insects, and these plants too can spread when conditions are favourable, but will then contract back to a sustainable population size. It is important to assess the impact of the plant before thinking about treating it. To me, a 'real' aquatic weed is one where it upsets the balance of an ecosystem, where it becomes a bully and takes over the playground, or pond.

Aquatic weeds keep spreading until all available niches where it can grow are filled. They will often displace all other aquatic plants and can cause major declines in fish, platypus and other wildlife populations. They do this by direct competition and by blocking all sunlight. Aquatic weed infestations are also responsible for other troubles such as blocking irrigation gear, increase in mosquito breeding, water loss and even causing livestock to drown.

Salvinia (*Salvinia molesta*) is a particularly aggressive aquatic weed. It is declared as a Class 2 Pest in Queensland and is a Weed of National Significance. Salvinia is a free floating aquatic fern, introduced into Australia around the 1950s as an ornamental. Salvinia is found throughout Eastern Australia and now Kakadu. Salvinia is common around Brisbane and the Sunshine Coast. Salvinia will cover wetlands, lakes, dams and slow-flowing rivers. In optimal growing conditions it can double in area in less than five days.

Salvinia is mainly spread by humans either deliberately (for aquarium plants, quick growing mulch and frog ponds) or unintentionally (on boats, trailers and fishing gear). It can also spread during floods. Birds often get a bad rap for spreading aquatics, but in fact this rarely occurs.

As with all aquatic weeds, the best control method for Salvinia is early detection and quick action. If you find a small outbreak of an aquatic weed on your dam or creek, seek advice immediately on the best control method. If you don't know if it is native or a weed, take a photo of it and send it to your local Land for Wildlife Officer, or ask me!

Alternatively, you can go to www.weeds.org.au or search for the Australian Government Weed Identification Tool online. Both websites provide detailed information and photos of the most invasive aquatic weeds in Australia. These are the species that you want to control immediately after first detection, before they take over. You can also download the brochure on Aquatic Weeds of SEQ at http://tiny.cc/dhau3w

Phil Moran
Land for Wildlife member
Cooran, Sunshine Coast
Manager, Noosa and Districts Landcare

Phi•los•o•phy (say fuh'losuhfee) *n*. a system of principles for guidance in practical affairs. *Macquarie Dictionary.*

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