



## Householder's Options to Protect the Environment Inc.

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## HOPE Enews Bulletin 2016 #02 --- 19 February 2016

The following items have been gathered from various e-newsletters received by HOPE in recent times; and/or prepared specifically by HOPE members and supporters. If you have any news to contribute, please forward to [office@hopeaustralia.org.au](mailto:office@hopeaustralia.org.au).

Deadline for articles is 15<sup>th</sup> day of the month. If you would like to discuss news items displayed or have letters for the editor please contact the office or <[newsletter editor - hotlink](#)>

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### Editorial

*Massive Meteor to collide with earth in 2890!*

*However that is a long way off. But if you read through this month's newsletter you will discover great ways to help the planet today.*

*There are 10 ways to "**Help nature adapt to climate change**".*

*You can learn how to build a frog pond and Nature habitat that will invite wildlife into your garden. Learn how to create a happy and healthy workplace by making a few simple, ecologically-friendly changes to the way your business runs.*

*If you would like to learn how to reduce the amount of chemicals in your home, then keep reading to the last page for some great chemical alternatives.*

*Mark your calendar now for the upcoming Ipswich Plant Expo and don't forget to buy your lucky raffle tickets to be in the draw to win some fabulous prizes.*

Jingyi Sun, Newsletter Editor, [fivedragons@ymail.com](mailto:fivedragons@ymail.com)

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### Calendar of Events

Search the [national environmental events calendar](#) and/or [national community calendar](#) for any events that might interest you.

#### MARCH

- 1 [Business Clean Up Day](#)
- 3 [World Wildlife Day](#)
- 4 [Schools Clean Up Day](#)
- 6 [Clean Up Australia Day](#)
- 6-12 [National Ground Water Awareness Week](#)
- 17 [National Close the Gap Day](#)
- dd [Farewell Shorebirds](#) - tbc
- 19 [Earth Hour](#)
- 21 [International Day of Forests](#)
- 21 [Harmony Day](#)
- 22 [World Water Day](#)
- 23 [World Meteorological Day](#)

#### APRIL

- 16-24 [Australian Heritage Week](#)
  - 18 [World Heritage Day](#)
  - 22 [International Mother Earth Day](#)
  - 22 [Earth Day](#)
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## Office News Report --- February 2016

Good evening folks,

The management committee and admin support staff have continued to show strong commitment and effort to progressing our schedule of activity.

Condamine Alliance (CA) have approved our 2<sup>nd</sup> Landcare Project which involves 2 community information workshops and 'registration and assessment' of properties to strengthen/develop habitat for wildlife. CA has also expressed support for our 3<sup>rd</sup> Landcare Project to foster youth engagement in caring for the land (more on this project later).

Preparations for our participation at the [2016 Ipswich Plant Expo, 12-13 March 2016](#) are progressing well with a full complement of volunteers available to staff the 2 day event, a large quantity and variety of literature assembled to give away to visitors, and 4 demonstration activities on offer to show how easy it is to compost, manage a worm farm, do some container gardening and taking care of chooks. HOPE major fund-raising multi-draw raffle for the year will be run in conjunction with the Plant Expo. We have over \$2,000 worth of goods to be won. Please take note of our Raffle item further down the page.

### News from HOPE's quarterly Ordinary Meeting held on 13 February 2016

Our funding application to Qld's Gambling Community Benefit Fund (GCBF) was unsuccessful, so we're decided to purchase 2 news gazebos straight away for use at the Ipswich Plant Expo and to submit a fresh application for the required new and replacement computers, office furniture and equipment. Also, as the results of our funding application to the federal 2015 Volunteer Grants program won't be available until May, we're decided to go ahead and purchase 10 volunteer polo shirts for use at the Ipswich Plant Expo.

### HOPE's remaining 2016 quarterly Ordinary Meetings for the year are:

Saturday, 11 June 2016	Ordinary Meeting
Saturday, 10 September 2016	Ordinary Meeting
Saturday, 12 Nov 2016	AGM, followed by 1 <sup>st</sup> Ordinary Meeting for new year

Regards,

Frank Ondrus, President – HOPE Inc., ph 07 4639 2135, [office@hopeaustralia.org.au](mailto:office@hopeaustralia.org.au)

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### HOPE 2016 Fund-Raising Raffle

HOPE invites members and friends to support our major fund-raising activity for the year – a **multi-draw raffle** being held in conjunction with the 2016 Ipswich Plant Expo being held on 12-13 March at the Bundamba Turf Club, Ipswich. Funds raised will go towards defraying some of our annual operating expenses (of approx. \$25,000).

 	<b>2016 Ipswich Plant Expo <u>multi-draw</u> Raffle</b>  Tickets are now available for sale!  Approx. \$2,000 worth of prizes on offer – 10 gardening products hampers valued at \$150 each; plus books, DVDs, bird prints and a variety of vouchers.  Tickets are \$2 each; or, 3 for \$5  Please contact the office on 07 4639 2135 or by email <a href="mailto:office@hopeaustralia.org.au">office@hopeaustralia.org.au</a> to obtain your tickets.
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## Feature Articles



### **SAVINGS POOLS – another aspect of Community Exchange Systems**

*By Alison Bird, with thanks to Helen Dew and Bryan Innes from Living Economies in New Zealand.*

*Alison was one of the founding members of Far North Queensland Community Exchange (Tableland LETS) and is a keen trader in BrisLETS.*

[aliart@aliart.com.au](mailto:aliart@aliart.com.au)

A Savings Pool is a community group in which the members pool their savings and use them to provide interest-free loans for individual members' projects. Members earn no interest on their contributions to the pool but cooperation boosts the group's purchasing power, without incurring the interest costs they would otherwise pay for a loan. Repayments to the Savings Pool are by regular instalments. The keys are trust, integrity and reciprocity.

Examples of projects include paying off a hire purchase, replacing an appliance, paying off a credit card debt, seeding an educational venture, starting up a small business or paying off a mortgage. A Savings Pool loan gives the advantage of avoiding the interest charged by banks which can end up costing multiple times the original loan amount.

There is a strong social aspect to Savings Pools, as it is about community building and mutual support. When creating a Savings Pool, the group should be well balanced in terms of capacity and need. For example, to begin with there might be 10 people with no immediate need and 3 ready to take turns with their proposals. Trust is established through careful selection of pool members and maintained by effective meeting procedures based on consensus decision-making. It is often an advantage to start with a group of friends who already trust each other, then the group expands as each person invites others. The chemistry must be right, and also geography. It is possible for someone to participate in the meetings by skype, but it's better if everyone lives nearby and can meet in person.

Some groups are small, with 4 or 5 people, and others bigger, up to 30 or more. The limit is probably to do with decision-making because a larger group means it's more difficult to gather everyone together for meetings and also consensus becomes very time-consuming. Some groups allow for consensus among those present at a meeting, maybe with a stipulation that there must be a certain percentage of membership attending, say 60-90%. This makes it possible to proceed even if someone is unable to attend. Each group makes its own rules about this.

The group opens a bank account but the balance is ideally quite low because the money is usually out working. The bank should hold enough to allow a member to withdraw some of their savings if an unexpected need arises. Occasionally someone leaves the group because their circumstances change, so then their funds are withdrawn. This payment takes priority over any other request. The bank account earns some interest and currently members agree to forgo their personal share of this interest so the money can go towards development of the Savings Pool and eventually creating a web site.

Contributions are mostly by automatic payment but others are by lump sum, and different amounts are put in by members according to their means. Members may nominate a term for contributions or it can be indefinite. Some members simply love the concept and decide to contribute even without any need for a loan themselves. The pool is for all sorts of people, not just financial experts, however, someone competent is needed to do the accounting.

If an individual needs a loan, a proposal is submitted for discussion stating the purpose, how much is requested, their time frame and capacity for repayment. For example, the amount someone is currently paying for credit card debt repayments plus interest may be considered a comfortable repayment rate. Repayments are usually monthly or fortnightly by automatic direct debit. Members sign an agreement that includes the terms for repayment.

Usually security is suggested, or a guarantor can be named. A guarantor's capacity for repayment may also need to be checked. In the case of security, the applicant retains possession of the security item but agrees to hand it over if they fail to repay the loan. Actually this has never happened yet.

There has been the odd occasion where someone was struggling to repay due to changed circumstances, but the group discussed the case and allowed a break from repayments (extending the repayment term) to help the person get back on track.

Usually one proposal is considered at a time. All the information is gathered, discussed and a decision made. Sometimes a proposal is declined, for example if the terms seem unusual or the group is not comfortable with the length of time for the commitment. Some negotiation leads to revision and usually then a successful outcome.

Reciprocity is the main principle in a Savings Pool. Everyone who takes a loan agrees to pay it back in full plus reciprocity. Reciprocity is achieved when the member's contribution equals the value he or she has received from the savings pool.

For example, someone borrows \$10,000 for a project and agrees to repay it in 10 months. This requires instalments of \$2,000 per month comprising \$1,000 repayment plus \$1,000 contribution.

After paying instalments for 10 months, the member has repaid the \$10,000 loan, and has saved another \$10,000 as reciprocity. The reciprocal savings component belongs to the member and may be withdrawn at any time after completion of the contract, or it could stay in the pool to be lent to another member. The term of the reciprocity commitment may be substantially shortened if the applicant has pre-savings in the pool.

The members of a Savings Pool agree on how to share the risk of loss in the unlikely event any occurs. In practice, participants are highly motivated to be completely confident before approving a proposal. In this situation, due diligence is an expression of caring for the community, ensuring that applicants have their feet on the ground, have explored all options for meeting their needs in the best way for their circumstance, have provided realistic security and so on. This movement is changing the culture around money as sometimes it can be quite challenging to speak openly about this subject with each other.

The New Zealand Savings Pool is based on the Swedish JAK cooperative bank. JAK started in Denmark about 45 years' ago when there were severe economic problems and farmers were under stress. It was subsequently taken up in Sweden. In 2006 New Zealanders liaised with JAK and developed the concept to create a practical and legal model for small community groups. There are about 40 Savings Pools in New Zealand and so far there are none in Australia, nor has this model been in use in any other country until recently. The first UK pool is about to start soon.

Further information about Savings Pools is presented on the Living Economies web site <http://le.org.nz/savings-pools> . For any group intending to initiate a Savings Pool, some resources and assistance with setting up and administration may be available from the Living Economies people in New Zealand. There is online accounting software, with an open source system in progress.

*If we wish to live more ecologically, it would make sense to adopt monetary systems that make it easier to do so* (Richard Douthwaite, author of *The Growth Illusion* and other books). He emphasises that a diversity of economic systems is the most sustainable way for the future.

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## How we can help nature adapt to climate change

*By Susan Lawler, Senior Lecturer, Department of Ecology, Environment and Evolution, La Trobe University*



Last October, I attended a symposium about managing biodiversity in Victoria under climate change. One of the outcomes of that conference is a new website called VicNature 2050, which provides a list of 10 things all of us can do to help nature adapt to change over the next 35 years.

Critically, most of these suggestions are about working with other people and staying positive. Caring for Victoria's natural diversity is going to be a big challenge in coming decades and everyone will have a role to play.

**But I already recycle and use my own shopping bags!**

The 10 things you can do for nature are not merely changes to your daily routine, like recycling. They are more likely to be changes to your attitude, approach and focus.

Climate change is a process that will amplify environmental problems, increase risks for native species and alter familiar ecosystems. Thinking about the future climate can be depressing and overwhelming, especially if we stay narrowly focused on what it will mean for ourselves.

I find it helpful to spare a thought for the species that live outside our windows – the millions of native plants and animals that make Victoria unique and give us a sense of place. They will not be able to retreat to air

conditioned comfort on extremely hot days. Fires and floods will not only alter their distributions, it will challenge their evolutionary trajectories.

If you want to make a difference that lasts longer than your lifetime, now is a good time to become an active nature lover. Conservation and preservation of natural habitats is no longer enough, because they are going to change. Common species will decline, rare species will become common, and many will be forced to move across the landscape to survive.

Protecting nature will be a dynamic endeavour in which we confront an increasingly complicated series of choices. We will have to learn how to support the process of adaptation rather than preserving old patterns. To do this properly we need to become flexible, collaborative and proactive.

## **VICTORIAN CLIMATE IN 2050**

Australian scientists have been at the forefront of climate research for decades. One of the leading researchers at the symposium told us that predictions have not changed markedly in 25 years, so our vision of the future is clear. This does not mean that the science is irrelevant or incomplete, so I was sorry to see the news that CSIRO will be undergoing drastic cuts in the area of climate research. But I digress.

By 2050, average temperatures will be up to 2.5 degrees warmer, with fewer frosts, more heatwaves and more fires. The hottest summers we remember now will be the new normal. We can expect more intense storms in summer and less rain in winter and spring. Sea levels will rise and coastal flooding will increase. To learn more about the future climate of your home town, use the Climate Analogue tool at [this website](#).

In the coming decades we will be living in a world that is outside of our experience. Our current understanding of best practice will no longer apply. We need transformational change, which means working in ways that are unlike anything we are currently used to.

How can we prepare for and manage such change? The ten things list was put together by ecologist [Ian Lunt](#) from presentations and discussions at the October symposium. Based on scientific evidence and input from people who have spent their careers managing nature in one way or another, the ten things are a great place to start.

## **TEN THINGS YOU CAN DO**

### **1. Listen, engage and work with people**

People with different backgrounds and experiences will have to come together to take action. Join a local group, get active, and find common ground. Respect other people's values, especially the original Australians, and do what you can to get children outdoors to create a new generation of nature lovers.

### **2. Accept that natural areas will change**

The environments we are used to will change as new species move in to fill gaps created by once familiar species that can no longer cope. This new mix of species must be allowed to thrive because they are going to provide natural systems that are resilient to the new conditions. This will be a challenge, because species that we might have considered weeds or invaders may become valuable.

### **3. Protect reserves and look after nature on private land**

National Parks, state lands and other reserves must remain undisturbed, where natural processes can create the new natural for each part of our state. But remnants and plantings on private land will be critical. Plant a native garden or create habitat on your property, choosing species that are most likely to survive. We will need long-term funding stream for such projects that is flexible and responsive to local conditions, so campaign for increased conservation spending.

### **4. Remove threats such as clearing, weeds and feral animals**

More natural areas will be needed as climate change intensifies, so it will be essential to manage threats such as clearing, pollution, development, unsustainable harvesting, weeds, grazing, feral animals and unsuitable fire regimes.

### **5. Use natural processes like fires and floods to promote diversity**

Wetlands require both floods and dry years, estuaries need tides, forests and heath-lands rely on specific fire regimes. For resilient ecosystems, we must manage natural processes so they promote natural diversity. We may have to replenish key habitat features by introducing shade, hollows, and aquatic plants.

## 6. Connect landscapes and use climate-ready plants

Landscapes that allow species to move far and move quickly will allow them to respond to change when they need to. We can plant trees to connect areas of native vegetation, or create shade along rivers and creeks. We can also build flyways and fish ladders to remove human-created barriers to dispersal. Climate-ready plants are species likely to survive in a new climate. They will also have high genetic diversity, which improves the ability of species to adapt. Creating a list of suitable plants will take time and effort.

## 7. Welcome nature into our cities

Many threatened species live in urban areas, and by supporting parks and reserves we can protect them and improve livability for people as well. Cities are often in the most productive and biologically diverse parts of Australia and as they grow they invade endangered ecosystems. Connecting with nature is good for people. Research suggests that a green view from the office window improves productivity.

## 8. Record changes in our local area

Long-term monitoring gives us information about how species are affected by climate change and what might protect them. The more we know, the more we can anticipate and respond. There are many projects where citizen scientists can assist in the collection of data critical to land managers. Make a difference by joining nature based citizen science projects for birds, koalas, fungi, or national parks.

## 9. Promote diversity in all that we do

Diverse populations are more likely to be self-sustaining. Having many different species in our oceans, paddocks and parklands makes those ecosystems more resilient. Genetic diversity is important within species, so we need to select appropriate seed stocks and promote inter-breeding when we can. Diversity in human communities is also key to ensuring that we have the range of skills and ideas needed in a changing world.

## 10. Keep positive, informed and engaged

Staying positive inspires others to help nature adapt to big changes. Not everyone has the same skills and interests, but everyone can make a difference. By doing what we can we remind ourselves that we are not helpless. By joining with others we remain part of the solution and benefit from being part of a community. My summary of the ten things has been necessarily brief. Taken together they are the beginning of a process of developing more thoughtful and complex solutions for managing nature in Victoria. If you want to know more, visit [VicNature 2050](#).

(Source from <https://theconversation.com/how-we-can-help-nature-adapt-to-climate-change-54241>)

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*HOPE request*

### **WANTED – PHOTOCOPY PAPER**

HOPE has used up its current stock of photocopy paper and we are asking our members and supporters to donate a ream or two of A4 photocopy paper. Donations of paper can be left on the table in the carport at 22 Vacy St, Toowoomba.

Alternately, cash or cheque donations can be made online at <http://www.hopeaustralia.org.au/annual-pledgedonation/> or posted to HOPE Inc., PO Box 6118 -Clifford Gardens Toowoomba QLD 4350.

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*HOPE request*

### **Positions Vacant on Media Team**

We urgently require a team of 5-6 volunteers to help with literature research and the preparation of media releases, short information articles, community service announcements and/or date claimers. So, if you have some spare time and talents to offer, please give the office a call on 07 4639 2135 or email [office@hopeaustralia.org.au](mailto:office@hopeaustralia.org.au) and register your interest in looking after one of these positions.

A fair portion of the above work would ideally be done by locals (i.e. in the Toowoomba area) because the HOPE office is in Toowoomba, Queensland. However, quite a bit of the literature review, research, publications activity can be done via email.

## Toowoomba Regional News

### HOPE appeals for gardening tools and equipment

An appeal for unwanted gardening tools and related equipment is being organised by Householders' Options to Protect the Environment (HOPE).

Mr Frank Ondrus, President of HOPE said "we have agreed to help a regional welfare agency collect sufficient garden and lawn-care tools and equipment for up to 10 low-cost accommodation houses which they manage."

"Common gardening tools such as spades and digging forks; and hand tools such as weeding folks would be welcome," said Mr Ondrus.

Donations of the above items can be left at 22 Vacy Street, Toowoomba; or contact the HOPE office on 4639 2135 to arrange collection from your premises.



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### Frog Ponds and Habitat Gardens

By Sean Morrow

(<http://www.seqcatchments.com.au/seq-stories/how-to-build-a-frog-pond> )

When I was eight years old I built my first frog pond at home in Sydney with my father.

Over the following years I managed to convince dad to let me put in another two ponds where we lived.

This was the beginning of my journey to create frog ponds and habitat gardens where ever I was allowed.

Fast forward 35 years, and I have set-up over 260 frog ponds throughout the east coast of Australia (mostly in NSW and QLD) for clients who enjoy bringing their gardens to life.

For the past 14 years I have been living on 6.5 acres in the Noosa Hinterland where I have already set-up 36 frog ponds with a plan to set-up another 40+.

These ponds have made a tremendous difference to the amount of animals now living on and sharing this land with us.

#### What do I need to get started?

**1.1. If you have a passion for native animals and want to give them more habitat it is important to start with one of the most important elements- WATER.**

1.2 Many of the creatures you may want to attract into the garden need water to drink, swim in or lay eggs into. Water is critical in the web of life, critical in establishing and maintaining healthy bio-diversity in the garden.

**2. Mulch is an important part of creating habitat in your garden.**

As it breaks down it feeds the soil and supports abundant macro/microbiotic life. It protects the soil from heavy rain, wind and sunlight. Decomposing mulch can also maintain a warm temperature which can favour cold blooded animals such as frogs, lizards and snakes. This is also useful for some egg layers. Rocks, logs/branches, river stones and sand/gravel can all help to create habitat and retain heat long after the sun has gone for the day.

**3. Vegetation layers are another key focus to creating greater biodiversity.**

Remember, animals live in all these vegetation layers in the garden (underground, in ground covers, grasses, shrubs, trees, palms etc.).

**4. Insects, Insects, Insects ... and spiders?**

They are an extremely important part of the food chain for many predators in the garden.

The best way to attract insects into the garden is to allow parts of the garden to be a little more wild and overgrown. Let your vegetables, herbs and/or weeds flower in the garden.

This will attract a large amount of beneficial insects.

Spiders are also a key part of the food chain and are also needed in the garden as predator and prey.

*(See also "Helping our backyard habitats" article in National News section overleaf)*

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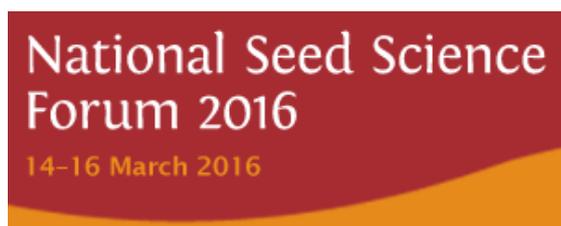
## National News



### Beyond Zero Emissions (BZE) turns 10!!

In our ten years BZE has moved the debate around 100% renewable energy and zero emissions from radical to mainstream. We have shown the technical feasibility of an electricity grid based on 100% renewable energy and that zero emissions buildings - not running on gas - are possible.

[Read more](#)



### National Seed Science Forum 15-16 March 2016

The Forum Organising Committee is delighted with the interest in the upcoming Forum. The Committee advises that there are only 20 remaining 'Full 2-day Registrations' available and only 2 remaining spots for 'One-day Registrations' for the 16 March – [please book as soon as possible to avoid disappointment!](#)

Entries to the the [World of Seeds Photography Competition](#) close in 5 weeks! Five prizes to be won. Forum participants are invited to submit up to 3 digital photographs which will be digitally displayed at the Forum and delegates will be voting for their favourite in each category: Landscapes; Microscopy; Up close and personal macro; Seeds and the environment; and Digitally manipulated/multimedia enhanced photos. There is no entry fee for this competition. [Click here for more information.](#)

### Helping our backyard habitats

Most of us take a comfortable home for granted - yet some of the really helpful creatures that share our habitat are often made to feel very uncomfortable and unwelcome through unsustainable gardening practices.

There are however some quite simple things all homeowners can do, to provide a welcoming environment for native animals, insects and birds that share our space.

Environmental organisations such as Householders' Options to Protect the Environment (HOPE) and the **Foundation for National Parks and Wildlife** (<http://fnpw.org.au/>) are encouraging every household in 2016 to look for ways they can offer suitable accommodation for our native wildlife. Look to make this your goal for 2016!!

Things like frog ponds and nest boxes can be simple projects that can engage young family members in good environmental practices as well as providing comfortable accommodation for creatures that provide some benefits to our gardens.

Ladybirds and native birds help keep garden pests at bay; while butterflies and bees help pollination. So, keep these friendly characters on side by using only natural pesticides when absolutely necessary.

Marigold, parsley, coriander, dill, fennel, alfalfa, zucchini, melons and cucumbers are favoured attractions for ladybirds and are very useful culinary items as well.

HOPE President Frank Ondrus said these are just some of the many simple ways every householder can share their homes with friendly native wildlife.

Visit [www.fnpw.org.au/resources/habitats-for-australian-animals](http://www.fnpw.org.au/resources/habitats-for-australian-animals) for more information on creating friendly habitats for native animals.



EnviroSource – <https://www.envirosource.com.au/>

### Are you involved in environmental projects in Australia?

EnviroSource is designed to support you in delivering better environmental outcomes.

It's a great place to share ideas and to find out what's happening across Australia. There's knowledge sharing forums, articles and projects on show as well as jobs, tenders, awards, grants and even events. It's all searchable and most of it is free to access.

Be part of Australia's environmental projects community - join here as a free member!

### Tweets (optional)

- Find what you need to make a real difference. Join Australia's environmental projects community at [www.envirosource.com.au](http://www.envirosource.com.au).
- Looking for environmental jobs, awards, tenders, grants and events? Check out [www.envirosource.com.au](http://www.envirosource.com.au).
- Passionate about environmental projects in Australia? Share your knowledge and inspire better outcomes at [www.envirosource.com.au](http://www.envirosource.com.au).
- Showcase your environmental projects. Be part of Australia's environmental projects community at [www.envirosource.com.au](http://www.envirosource.com.au).
- Call for contributors: Involved in environmental projects? Share your articles at [www.envirosource.com.au](http://www.envirosource.com.au).

### Facebook and/or LinkedIn page

EnviroSource – the online community for environmental projects in Australia. There's knowledge sharing forums, articles and projects on show as well as jobs, tenders, awards, grants and even events. For regular updates, join up as a free member! [www.envirosource.com.au](http://www.envirosource.com.au)

### EnviroSource Facebook page

Over the coming months, you may also find more content for your newsletter and social pages by following our Facebook page. You'll find us at: <https://www.facebook.com/EnviroSourceAU>

### Questions?

Please get in touch!!! You can find us at [christine@envirosource.com.au](mailto:christine@envirosource.com.au) or [neil@envirosource.com.au](mailto:neil@envirosource.com.au) .

## Methods to control feral pests

From the Pest Animal Control Cooperative Research Centre - <http://www.invasiveanimals.com/>

(A follow up to Sam Horner's article "Current Status of Feral Animals in Australia". in last month's issue)



Many of the traditional methods used to remove or control these feral pests are not biotechnological methods. Such methods include fencing, trapping, poisoning and shooting.

You can investigate the practicality, effectiveness, cost and effect on other species of each of these methods at a number of websites. These feral animal websites make it clear that in the control of feral pests, animals must be treated humanely.

The RSPCA is also concerned with the humane treatment of feral animals. You can read about their policies at [www.rspca.org.au](http://www.rspca.org.au).

### Biological control

Methods of control that use other living things such as natural predators, insects, parasites, disease carrying bacteria or viruses are, by definition, biotechnology, and the method is described as 'biological control'.

## Natural predators & diseases

An introduced organism often becomes established because it has no natural predators in its new environment. To control the pest biologically, we can find a natural predator for this organism and introduce it into the environment where the animal or plant is a pest.

Ideally, using a specific predator means that we do not need to rely on chemicals such as pesticides or other methods that may harm the ecosystem. However, care is needed because introduced species are among the biggest causes of extinction of native plants and animals, and the predator can sometimes do more harm than good.

In Australia, biological control has often been used successfully, including the introduction of a beetle to control prickly pear and a weevil to control water hyacinth. But one application of this form of biological control went very wrong.

The cane toad was introduced into Queensland in 1935 to eat a pest beetle that was ruining sugar cane crops. However, the cane toad failed to control the beetle and instead thrived in the warm climate.

The cane toad has now spread widely through northern Australia, devastating populations of native species and changing the ecology of areas well beyond the borders of Queensland. It has even reached Kakadu National Park – a World Heritage Area in the Northern Territory, where it has the potential to do tremendous damage.

Before any new organism can be introduced there must be extensive research carried out on its biology and its potential effects on Australian ecosystems. This may take several years. Other precautions include the strict controls that the Australian Quarantine and Inspection Service (AQIS) applies to help prevent the unauthorised introduction of new organisms into Australia. These steps are designed to avoid a repeat of the cane toad episode.

However, we cannot always predict how new species will interact in a complex and open system such as the environment.

## Fertility control

A new biological control method aims to reduce the fertility of the pests by suppressing fertilisation to produce fewer young. This is called 'immunocontraception'. The scientists developing this technology take seriously issues such as the risk of exporting an immunocontraceptive virus in live animals, and risks to non-target species both here and in other countries.

It is unlikely that biotechnology will provide a magic bullet solution for feral animal control. Usually a biotechnology solution will have to be used in combination with other control methods mentioned above.

To learn more visit: <http://archive.industry.gov.au/Biotechnologyonline.gov.au/enviro/feralpests.html>

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### Zesty Zucchini Cake

This cake is many things: zesty, zingy, zippy but most of all it uses up the zillions of zucchinis in your vegie patch at this time of year! It has a moist crumb, uses pantry-staple ingredients and is very easy to throw together at a pinch.

#### For the cake:

1 cup, packed, of coarsely grated zucchini; ½ cup olive oil; 2/3 cup caster sugar; 2 eggs; Zest of one lemon;  
1 2/3 cups self raising flour; and 1 tsp baking soda

#### For the icing:

Juice of one lemon and Icing sugar

#### Method:

Preheat oven to 180 degrees celcius. Grease a 20cm springform pan, lining the base with baking parchment. Place grated zucchini in a fine sieve over the sink and press with a kitchen implement or your fist to get as much water out as you are able.

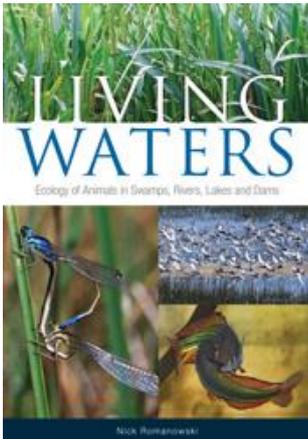
Whisk together oil, sugar and eggs until well combined and a light yellow colour. Whisk in lemon zest. Stir through zucchini. Sift in flour and baking soda and fold until just combined. Pour into prepared tin and bake for 40 minutes or until a skewer inserted into the centre comes out clean.

I love this cake iced with plain old lemon icing, for a morning or afternoon treat!

(Recipe source from PIP Magazine [www.pipmagazine.com.au](http://www.pipmagazine.com.au) )

## Resources

### Book Reviews

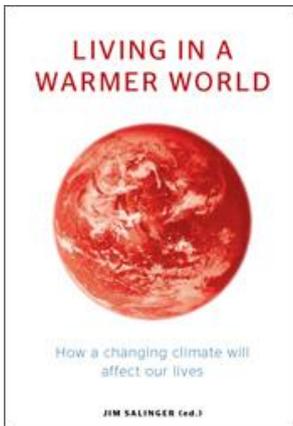


#### **Living Waters: Ecology of Animals in Swamps, Rivers, Lakes and Dams**, by Nick Romanowski

Wetlands are often seen as the ultimate symbol of beauty and tranquillity, their clear waters sheltering mysterious animals in a world where change is gentle and slow, from dragonflies skimming above their own reflections to the fishes glimpsed briefly below. Yet Australian wetlands are among the most varied and changeable habitats found anywhere, and the many creatures that live out their lives in and around water are superbly adapted to some of the most unpredictable ecosystems in the world.

This book follows the diverse common themes and patterns that link inland waters from Tasmania to the tropics. It shows how cycles of change, the ways that different wetland animals travel through and between wetlands, and the interactions of the animals themselves create an ever-changing ecological kaleidoscope. Drawing on what is known of the biology, ecology and even the genetics of many of the most abundant, widespread and successful groups of animals, the author shows similarities to wetlands in other parts of the world, as well as some of the more extreme environments and specialised animals that are unique to this continent.

Far more than a natural history, *Living Waters* explains the underlying forces that drive ecological change and movement in Australian wetlands, from the particular needs and habits of some specialised waterbirds to swarms of dragonflies and damselflies that may flourish for a few months before disappearing for years, and fishes found gasping in drying pools far from the nearest permanent water just hours after a desert deluge.



#### **Living in a Warmer World: How a Changing Climate Will Affect Our Lives**, Edited by: Jim Salinger

Readable, relevant and fascinating, *Living in a Warmer World* examines how our changing climate will affect our everyday lives through access to food, water and even land, and how this will also impact on our health. More importantly, it looks at what science is doing to help us plan for and adapt to our future. This book looks beyond the debate over how and why, and describes what is actually happening as our world gets warmer.

Jim Salinger brings together some of the world's leading scientists to describe how a hotter planet is affecting our food supplies, fisheries and agriculture, access to fresh water and public health. From these specifics, a clearer picture emerges of how our planet is changing and how this will affect our lives.

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### Helpful Hints:

#### **GREEN OPTIONS FOR YOU & YOUR EMPLOYEES**

Start at the beginning of your working day. How do I get to work? Is there a greener option? Apart from helping the environment can you also help yourself? Healthy employees usually mean happier workers less prone to time off for illnesses caused by obesity or unhealthy eating habits and saves the company and you money.

1. **Catch a bus, walk or bike to work:** provide private changing areas/showers at your office. Make walking or biking an easier option.
2. **Offer rewards:** If employees agree to walk, bike, or take public transportation to work, offer them a small bonus for encouragement or allow late starts for time spent showering and getting ready for work.

3. **Support alternative schedules:** Allow employees to work longer hours, but fewer days, in order to let them stay at home once a week or more.
  4. **Create a carpool program:** Many employees may want to carpool, but don't know where co-workers live or simply don't have the courage to ask around. Start a program and ask them to administer it to get them connected.
  5. **Work from home:** If some or all of their work can be done at home, give your employee the option to telecommute.
  6. **Encourage efficient vehicles:** If you have company vehicles, ask consider purchasing hybrid company cars. <https://www.choice.com.au/transport/cars/eco-friendly/buying-guides/green-cars>
  7. **Videoconference:** Whenever possible, try to videoconference instead of travelling to meetings.
  8. **Offer bike parking:** Provide employees with a secure space to park their bikes in order to encourage this mode of transportation.
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## 10 Quick & Easy Chemical-free Things to Do with Plants from the Garden

1. **Infused Vinegar:** Place sprigs of your favourite fresh herb or flower into a bottle of vinegar. Leave to infuse one week before using (for culinary - such as salad dressing, cleaning, skin-care, etc,)
2. **Gourmet Oil:** Place 2 garlic cloves and few sprigs of herbs (sage, rosemary, thyme) in a bottle of olive oil. Leave to infuse or 2 weeks. Use for cooking or culinary.
3. **Rosemary Room Freshener:** Half fill a spray bottle with cider vinegar. Top up with rosemary infusion\*. Spray as required to alleviate odours.
4. **Cleansing Milk:** Place 50mls of milk and four tablespoons of herbs or flower petals of your choice (lavender, rosemary, violet, nasturtiums, chamomile - for example) in a covered saucepan. Gently warm the mixture, but do not boil. Turn off the heat. Strain and leave to cool. Apply to the skin with cotton wool (Milk is very nourishing for the skin and the flowers/herbs perfume, heal and rejuvenate). Store in fridge and use within 5-7 days.
5. **Refreshing Skin Wash:** Use a cool herbal infusion\* as a skin astringent to refresh and heal the skin after cleansing. Some suggested plants to use: LAVENDER (normal skin), ROSEMARY (oily, normal, dry skin), CHAMOMILE (sensitive - dry skin), GERANIUM (normal to dry skin).
6. **Rose Body Spray:** Place one cup of scented rose petals in a shallow pan and cover with water. Simmer very gently for 10 minutes. Strain the liquid. When cool - pour into spray bottle ready for use. Repeat the process for stronger scent.
7. **Floral Air-freshener:** A simple bunch of fragrant flowers placed in a room will naturally perfume the immediate environment as an alternative to chemical deodorisers.
8. **Mint Flea Repellent:** Place fresh mint in pet's bedding to deter fleas and deodorise.
9. **Lavender & Thyme Deodorant:** Pour into small spray bottle: 10 mls cider vinegar and 100 ml rosemary and lavender infusion\*. Use as underarm spray deodorant twice daily.
10. **Sage Mouth-wash:** Use a sage infusion\* as a refreshing mouth-wash. Sage is good for both teeth and gums.

(Source from The Self Sufficiency Shoppe – [www.theshoppe.com.au](http://www.theshoppe.com.au) )

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