ISSN 2200 - 5243

Drop in for a cuppa, a chat & FREE INTERNET

may 2019

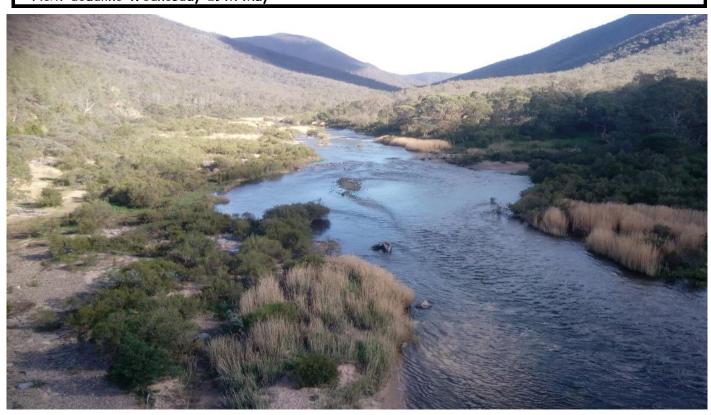
Tubbut Neighbourhood House

e-mail: tubbutnh@iinet.net.au Phone: 02 64580295

Open Wednesday, Thursday and Friday

http://www.tubbutnh.com Like us on Facebook

Next deadline Wednesday 29th May



Cover Photo by Nathan Phillips

	\sim 1			•	,	~• •		7	
2 (โล	S	C1	ı1	1	$\boldsymbol{\rho}$	d	S

3 Tubbut Neighbourhood House

4 What's on

5 For your information

6 Delegate Pony Club

7 Farmers and Growers

8-10 News from the Departments

11 Deer management

12-13 Guardian Donkey's

14-15 Mount Deddick Silver Lead Field

16-22 Living with European Wasps

23-24 How the Climate is Changing our Trees

25 Recipe

26 Calendar

CLASSIFIEDS

Orbost Solar and Electrical

Happy to come to our area and comes highly recommended by the Tubbut Neighbourhood House

Call Ben on 0434038395



Wanted

Old crockery of any colour except white, can have patterns, can be broken.

Please contact Sue Collins 64580287 or the NH, or leave at the Bonang Hall.

Concrete Pavers needed

Please contact the Neighbourhood house if you have concrete pavers for sale

Septic getting full?

Robert Hampshire will pump out your loo. Septic tanks, porta-loos— no problems Truck has capacity to handle 2 tanks/trip Phone: 0417423983

Please keep your old glass bottles for Robert too as he is a passionate collector.

Wanted

Nathan Phillips is looking for outdoor paint to paint his chook shed, if anyone has any they wish to part with please let us know at the Neighbourhood House

Want to Buy

Has anyone got ferrets they are selling? Please contact the TNH

For Hire

The Tubbut Neighbourhood House has the following for Hire:

Trailer—\$5.00 per day
Wood Splitter—\$10.00 per day
You can also borrow many of our books & gadgets:

Laminator, recording VHS to DVD player, Laptop, tablet, digital photo scanner, convert photos, slides or negatives to digital, record records to USB

Bobcat contractor for hire

Slashing, clearing, small earthworks, levelling, preparation for sheds, carports, water tanks and paving and clean ups
Ring Steve 0407190258 or email ste-

phenscroope@bigpond.com

Bates' Fencing & Machine Hire

-Large 90hp Compact Track Loader.

Tracks ensure minimal ground disturbance.

- 900 mm Trencher ideal for pipe / cable laying
- 6 ft slasher for paddock, scrub & advanced regrowth clearing with tree pusher, ideal for fence line maintenance.
- 1600mm Road Broom / sweeper
- 300mm post hole auger
- Bucket, dozer blade, pallet & hay forks
- Fan assisted sprayer for difficult terrain
- Experienced operator
- Fully insured & GST registered
- Experienced in Rural fence design & construction

Call Mark on 02 64580225



Available for cleaning (only) Contact Natasha 64588162 or 0408477774

The Tubbut Tattler is produced by the Coordinators of the Tubbut Neighbourhood House which is funded by the Victorian Government. Material herein is the responsibility of the authors and does not represent the views of the DVICG or Tubbut Neighbourhood House unless stated. We welcome material from, and of interest to, people in the border areas of East Gippsland and NSW.

Tattler Contributions: We welcome your articles, news, reports on local groups, photos from local events, milestones, interesting stories, poems, biographies, births, deaths, historical items, and more. We also welcome any letters to the editors.

Tubbut Neighbourhood House

Neighbourhood House Week

This year for Neighbourhood House Week we will be celebrating our great little house with a community lunch and also a craft activity, we have also decided as it is in May that we will incorporate **Australia's Biggest Morning Tea**, we are asking for everyone to bring their favourite cake or slice to share.

Please save the date 16th May at 10am and come along and celebrate with us.





Acknowledgements

Bogong Moth and Deddick Silver Mine articles in the last Tattler were contributed by Deb Foskey

What's On



National Volunteer Week - Making a world of Difference

EAST GIPPSLAND VOLUNTEERING EXPO

Join us to celebrate National Volunteer Week, meet local organisations, and find out more about volunteering in East Gippsland.

24TH MAY, 10AM-12PM THE HUB - 27 DALMAHOY STREET, BAIRNSDALE.

Coffee Cart and Sausage sizzle on site!

Want to share and build your skills, contribute to your community, all whil having a great time? Volunteering may be for you, come see for yourself! visit www.qippslandvolunteering.com.ou today!











Corrective Services NSW Museum

The Corrective Services NSW Museum situated in Cooma is a must see attraction. The museum showcases the History of NSW Corrections since 1788. It contains information, displays and artefacts from convict days to the present. This is a living Museum where serving offenders contribute to the daily operation and maintenance of the facility. The Corrective Services NSW Museum is located at Cooma in the Monaro region of New South Wales. Adjacent to it stands Cooma Correctional Centre and other historic buildings.

Minimum security inmates are the tour guides. There is wheelchair access to and throughout the museum.

1 Vagg Street, Cooma NSW <u>Museum</u> <u>Website</u>

Become your own Lego master

For immediate release — April 30, 2019

Are you the next Lego Master?

East Gippsland Shire Council's libraries may just be helping nurture the next Lego enthusiasts and the afterschool program across the region is sure to gain even more momentum following the launch of the familyfriendly reality television program with a focus on the Danish bricks – Lego Masters – this week.

Senior Library Programs Officer Jane Wembridge said Lego Club is growing in demand and popularity with children of all ages enjoying freestyle creativity and themed construction.

"Lego Club runs at Bairnsdale Library (8 May and 12 June at 4pm), and at Council's Customer Service Centres in Lakes Entrance (every Wednesday at 3.40pm), Omeo (1 May and 5 June at 3.30pm), Orbost (every Monday at 3.30pm) and Paynesville (every Wednesday at 3.40pm).

"All our little Lego masters have a great time at the sessions and with the new television program giving more life to the building bricks, I encourage parents to book their children in for sessions to avoid disappointment."

Book in for the free sessions by calling Bairnsdale Library 5152 4225 or in person at the library or customer service centre. Children under six must be accompanied by an adult.

Lego promotes fine motor skills, encourages team work, creativity, problem solving and improves selfesteem.

Ms Wembridge said the library also accepts donations of old or new Lego for the after-school Lego Club.

"We have a growing collection of Lego pieces. It may not be the 2.5 million pieces like on *Lego Masters*, but there's enough to ensure plenty of creativity," Ms Wembridge said.

"All Lego donations are gratefully accepted, and who knows, by donating no-longer-used Lego you may be helping the next Lego master on their way!"

To make a Lego donation, simply drop it into the library or a customer service centre.

Media Enquiries: Jennifer Bartlett - (03) 5179 5139 or Communications Team 5153 9500

Get Knotted

The Neighbourhood House will be running a Macrame workshop on May 30th at Tubbut.

Come and join us to make a key ring, plant hanger or wall hanging or whatever takes your fancy.

10:00am start bring your lunch and \$5.00 towards materials.



For Your Information

ATTENTION ALL MEMBERS OF BONANG RFB

THE 2019 GM OF THE BONANG RFB AGENDA

7:30 pm Tuesday 4 June

GM Business

Previous minutes
Matters arising
Presentation of financial position
Election of office bearers
General business

One Place One Plan-Bonang Road

Strategic Plan, Errinundra to Snowy, roads working group. Although the EG Shire has not produced the plan for our community yet (lots of work for them), the working group believes that, due to the current state of our roads and the amount of traffic on them, we need to get active pronto. Our plan is to produce a simple survey form which will come out in the next tattler. We will also distribute forms to local businesses, etc. This survey can then be used to back our demands for action on our roads. Please do respond, as the more we get, the more power to the community for some action.

Cheers,

Bob McIlroy.

Convenor.

The **Library Bus** is now stopping at Bonang from the 2.30 to 3.00 pm on library days. Next day is the 16th of May and fortnightly after.

Delegate Pony Club

Well Delegate Pony Club riders were busy on Sunday 7th April.

They had 4 riders head off to Dalgety to Snowy River Pony Clubs Gymkhana representing Delegate. All riders represent and ride so well.

Anna Cameron came away with Age Champion for her age led group. Aspen Cameron came home with Aged Champion in the 7 & under 9's.

Lydia Jamieson was Aged Champion and Gabby Kidd Reserved Age Champion representing the 9 & Under 11's and on top of all that Lydia took home 3rd place and Gabby took home 4th place in the E grade jumping for the day.

All the riders had a fun and competitive day. Well done to the riders.









Delegate Pony Club home grounds the monthly rally proceeded as usual, with a roll up of 7 riders. In the morning riders warmed up with flatwork and troop drill, in preparation for the upcoming Anzac day march. In the second session riders worked on their jumping and maintaining a consistent rhythm throughout a line of jumps.

During lunch members had a discussion about what suitable living conditions for a pony. They then finished the day by working through a couple of mounted games which included the sock race and the rope race.

The weekend before Lydia represented Delegate Pony Club at the Michelago Sporting Spectacular. Lydia participated in 17 events against some tough competition with children from many pony clubs including Yass, Sutton, Murrumbateman, Cooma, Cobargo, Oberon and Wamboin. Lydia successfully placed in all 17 sporting events taking out 10 first places, 6 second places and 1 third place. She also had the opportunity to participate in the flag spectacular as her flag race time was in the top 20 for the day. Lydia won the 10 Year Age Champion for the weekend and was presented with a new rug for AJ for their efforts.

Next rally day is the 5th May, 930am gear check with a 10am start. Please check our FB page for any changes.







Farmers and Growers

Rates remain on farming agenda

Article from Bairnsdale Advertiser

In February, a \$300 jump in rates from the previous year had Goon Nure/Bengworden farmer, Robert Hoffman, wincing.

To add insult to injury, they'll increase yet again if the East Gippsland Shire Council's recently released draft budget for 2019/2020 goes ahead.

Council last week announced it may revisit its draft budget prior to public submissions formally closing on Friday, May 10.

Fourth-generation on the same property, Mr Hoffman and his wife, Kaye, run cattle and sheep on 400 acres.

Their last rates bill was \$5315. The Hoffmans estimate their income is down 40 per cent due to dry seasons and the consequent de-stocking and feeding. "The general consensus is the recovery time will be three years," Mr Hoffman said.

"On a good year, rates-to-income works out at about five per cent. On a crook year it's more like eight or nine per cent. Everything's a tax, it's just given a different name. "In the past decade land prices have doubled but the income out of them hasn't," he said. "We have to make cutbacks. Surely the shire can cutback on non-core functions and concentrate on the basics?" Page 34 of that draft budget shows a 1.99 per cent increase in the rate in the dollar charged for farm properties' capital improved value (4.1.1(b)), which then equates to an increase of 12.09 per cent on farm rates overall – or \$547,000 (4.1.1(c)).

The draft budget forecasts an operating surplus of \$13.868 million after raising rates and charges of \$58.629 million and capital revenue of \$9.234 million. Excluding non-recurring capital funding, an adjusted underlying operating surplus of \$3.909 million is forecast for 2019-20.

The Hoffmans also manage a property for local land and business owner, John Dahlsen. In March, Mr Dahlsen tried to garner support to establish a local 'drought-hub' where farmers could gather for information, and in April released a paper on rate reform and the farmer, as well as a case study on East Gippsland Shire Council. "The rate increases are an absolute debacle," Mr Dahlsen said. "How can they treat farmers like this? Farmers simply can't afford it. "Council is capable of waiving that – why don't they?

"A couple of big properties have increased in value, which trickles through. "It shows total insensitivity." Mr Dahlsen believes the Labor government should be congratulated for capping rate increases at 2.5 per cent – known as the Fair Go Rates cap – at a time when "rates were

rising at double the rate of inflation, wages and prices" and is calling for an independent review. It now makes sense to have an independent enquiry to review the equitable basis of the rating system – but that will take some time," Mr Dahlsen said. "In the interim farmers are sinking. As an interim measure there should be no increase in farmers rates, they should be cut by 50 per cent pending the outcome of the enquiry so farmers can survive."

Mr Dahlsen said only one councillor of nine, Cr John White, voted against the rate rise. "Cr White should be commended for his courage and sensitivity to support the farmers." "Council encourages the community to have a say on the draft Revised Council Plan and draft Budget. The documents, and information on how to make a submission, are available from council's engagement portal, Customer Service Centres and Outreach Centres.

Written submissions are invited until noon, Friday, May 10, and June 4, 1.30pm has been designated to hear submissions. People need to note they want to speak to their submission. Council will consider adopting the documents, with or without amendment, at its ordinary council meeting on Tuesday, June 25, at 1pm

There is a petition circulating to present to the council in regards to the proposed rates increase.

The petitions are located at The General Store, Delegate Café, Landmark and the Neighbourhood House.

New from the Departments

Innovative e-waste collection solution

For immediate release -Thursday, April 4, 2019

It's a case of innovation at its best with East Gippsland Shire Council's response to e-waste storage and collection.

A collection and storage prototype is under construction, designed by Council's waste team in response to the impending ban on e-waste being disposed of to landfill from July 1 this year.

Mayor Cr Natalie O'Connell said the prototype has been designed by the waste team aligning with the hooklift truck operations and considering customer and staff safety in the design.

"This is the first of its type and has been mentioned by state departments at many e-waste workshops conducted, and has subsequently attracted attention and interest from other councils in the recent months," Cr O'Connell said.

"The prototype is the first of its kind fabricated by the waste unit staff and constructed in East Gippsland. It includes a 30 cubic metre enclosed skip bin with entry from the two sides to suit any waste transfer station. It is designed to store up to 10 pallets/stillages providing a safe e-waste handling/disposal option.

"This prototype will be seen at our waste sites at Bruthen, Omeo, Orbost and Mallacoota leading up to July 1 when the e-waste ban starts.

"The prototype has overcome some key challenges pertaining to our shire in terms of storage, logistics (compatible with waste operations), flexibility (can be used at other waste facilities if required), cost (cheaper and sustainable option) and safety."

Council has received \$446,400 in grant funding delivered via the Victoria Government's \$15 million investment into increasing community access to best practice e-waste disposal points and improving the capacity and capability of the state's collection network to receive and managing increasing volumes of e-waste.

The funding is being delivered via Sustainability Victoria through the E-waste Infrastructure Grants Package, with the focus on funding infrastructure at primary and secondary sites identified in the Victorian E-waste Infrastructure Network Assessment Report (VEINAR). Council has two primary sites (Bairnsdale and Lakes Entrance) and four secondary sites (Orbost, Omeo, Bruthen and Mallacoota) identified within the VEINAR.

E-waste can be described as anything with a plug or battery that has reached the end of its useful life. It includes everything from old mobile phones, computers and related equipment, audio devices, refrigerators and other white goods, hair driers, televisions, heaters, and air-conditioners.

The amount of e-waste generated in Victoria is projected to increase from 109,000 tonnes in 2015 to approximately 256,000 tonnes in 2035.

Media Enquiries: Luke Robinson (03) 5153 9411 or the Communications Team (03) 5153 9500.

Bendoc Rangers were kept very busy over the Easter long weekend with lots of visitors out and about both camping and four wheel driving. It is the busiest time of the year and the good weather contributed to so many people out and about. It was concerning that rangers found a total of six unattended campfires, with the bush still very dry it amazes me that people could be so careless to leave a campfire still burning when they either pack up and leave camp or they simply just go out for an outing and make no attempt to extinguish the campfire. Several of these campfires are subject to on-going investigations with a view to imposing significant fines on the responsible person or persons.

In other news Moogji Aboriginal Corporation are once again spending several days a week in the Deddick valley monitoring and baiting pigs, it is good that after a break they are finally back undertaking some pig control works.

Gary Bellesini

Ranger Team Leader - Bendoc

New from the Departments

Fire restrictions lifted in Gippsland 1 May

The Fire Danger Period and Seasonal Prohibited Period will end at 1.00am on Wednesday 1 May in all Gippsland municipalities.

CFA's Assistant Chief Officer, Trevor Owen said: "We've had a long and exceptionally dry summer again this year and although the weather is starting to cool down a little, people still need to be extra cautious with fire."

"If you're planning a burn, no matter how small, you must first check your local council's laws about when and where you can burn off and register your burn-off on the Burn Off Notification Line on 1800 668 511, even if it's only a heap of garden rubbish."

"Any fire left unattended in windy conditions can spread into bushland, onto a neighbour's property or into other materials which could cause untold damage," Mr Owen said.

"Our firefighters in Forest Fire Management and CFA have been fighting fires for many months and are now working hard on the planned burning program to protect our communities."

"They do not want to be called out to fires that have started through irresponsible or lazy behaviour."

Always remember to:

- Check local by-laws before burning-off and never leave a burn-off unattended
- Tell your neighbours and call the Burn Off Notification Line so that brigades don't get called out unnecessarily
- Check the weather forecast before you burn off and never burn off in dry, hot, windy conditions
- Have enough water to extinguish a possible outbreak either a hose or at least 10 litres of water
- Create a three-metre clearance of all flammable material around your whole burn-off site
- Make sure there are enough people to monitor, contain and extinguish your burn safely and effectively. Ensure your burn is 100% out before you leave it.

Forest Fire Management Victoria's Assistant Chief Fire Officer for Gippsland, Beth Roberts said: "People enjoying Gippsland's National Parks and State forests should be as careful with the use of campfires over this period as they were in the Fire Danger Period – we've had too many bushfires caused by campfires this season.

"Anyone living in or travelling through Gippsland needs to keep an eye on the weather and be aware of their surroundings. We've all had a busy fire season this year and we don't want more started through irresponsible behaviour," Dr Roberts said.

Forest Fire Management Victoria consists of specialist staff drawn from the Department of Environment, Land, Water and Planning, Parks Victoria, Melbourne Water and VicForests. These staff work alongside CFA, other emergency services and communities across Victoria to protect people, property and the environment.











New from the Departments

Shire's farm rate relief advocacy continues

For immediate release — Friday, April 26, 2019

Lobbying for farm rate relief remains a priority for East Gippsland Shire Council Mayor, Cr Natalie O'Connell.

In the past week the Mayor has again pleaded the case of the region's drought-stricken farmers in meetings with the Minister for Agriculture Jaclyn Symes and the Office of Premier Daniel Andrews.

"Again, I requested a rate subsidy from the Victorian Government because our farmers need help. Council needs the Government to provide the rate assistance as providing a subsidy from within our own budget is something we cannot absorb without impacts to services, maintenance and infrastructure," Cr O'Connell said.

"For several months, the Minister for Agriculture Jaclyn Symes and I have had fortnightly contact to discuss the drought situation and potential further assistance.

"Our farmers need to know if the State is going to provide rate relief so they can plan and further prepare for this continuing drought."

Cr O'Connell said she was well aware there has been considerable public discussion since the release of Council's 2019/20 Draft Budget a fortnight ago critical that it did not propose enough support for East Gippsland farmers.

"As a result, earlier this week Councillors indicated we may revisit the Draft Budget prior to the public submissions formally closing," Cr O'Connell said.

Cr O'Connell said the proposed rise in farm rate revenue could be attributed to a combination of factors, including farm land valuations increasing.

"Land valuations are conducted annually by independent contractors working for the Valuer-General Victoria and Council has no formal means to appeal. However, our officers have certainly asked for clarification on how and why farm land valuations could increase during a prolonged drought," Cr O'Connell said.

"There are many elements that go into making up a rate valuation notice, such as land valuations, the rate on Capital Improved Value, the municipal charge and other fees and charges. However, we understand the majority of ratepayers are only interested in the bottom line – what they must pay."

The Mayor said it was also important to remember the flow-on impacts of drought to farm related businesses reliant on the agriculture sector for their turnover, and how the 'tightening of the belt' often means less activity in the commercial and retail sectors.

As part of Council's acknowledgement of the impacts of drought on many parts of the economy – including farms and businesses – a range of initiatives are in place:







Deer Management

Victoria's draft Deer Management Strategy, released late last year, lacks ambition. It will not reverse the serious impacts deer are having across Victoria, says VNPA Park Protection Campaigner Phil Ingamells.

Government strategies are rarely simple things; they have to answer to many authorities, and the Victorian Government's draft Deer Management Strategy is certainly no exception. It was developed by two departments, under at least two ministers, and was always going to be influenced by Victoria's powerful hunting lobby groups and their representatives in parliament. Deer impact our finest natural areas, our farms and road safety. The broad community, land managers and the police all have an interest in this strategy – and the Treasurer, of course, wants it to be cost neutral.

It's no wonder the draft failed to address its key task: reversing deer population growth. One million deer (there are six species in the state) are now occupying every terrestrial habitat, from the coastal dunes of East Gippsland to the High Plains, from the dry Mallee to Melbourne's streambanks. And with a potential population growth of 30-40 per cent each year, they are poised to invade the rest of the nation. They eat almost everything within reach, ringbark trees by antler rubbing, and silt up waterways by wallowing in wet areas.

The strategy does acknowledges that "at least 1080 species of flora and fauna would benefit from deer control efforts across the state", but almost every species of plant are browsed by deer, and the regeneration of even common species is now seriously compromised in many places. It seems recreational hunters take out around 100,000 deer annually, well below the current reproduction rate of several hundred thousand, yet the draft still relies on recreational hunters to solve the problem.

It trumpets an estimated economic benefit of recreational deer hunting in Victoria of "\$142 million per year", however it doesn't compare that to the far greater economic benefit of park tourism, currently estimated by Parks Victoria at \$2.1 billion and 20,000 jobs.

Nor does it acknowledge the economic and social costs of the expanding deer population,

- increased park and other public land management costs,
- the extensive destruction of publicly funded revegetation projects,
- water catchment impacts,
- road accidents,

including:

• the engagement of police and others in managing growing numbers of rogue hunters.

Most worryingly, the final strategy will only establish 'a process' for locating different deer management zones. There is no suggestion in the draft that the clear legal imperative to manage national and state parks for nature conservation will be observed in the setting up of that zoning system.

The strategy does encourage facilitating a deer pet food industry. But there is no serious intention to apply, or invest in the development of, new management strategies such as targeted baiting or biological controls.

Parks Victoria has been investing in a range of control programs involving accredited recreational hunters, and has also trialled professional aerial culling, but so far relatively small numbers of deer have been removed. Bizarrely, Parks Victoria still has to apply for a licence each time it plans to cull deer within its prime conservation estate.

Deer are now one of the most damaging feral animals in the state; any current legislation which gives real or apparent protection to them should be dumped.

Article courtesy of Deb Foskey

Guardian Donkeys

Guardian donkeys prove their worth warding off wild dogs

ABC Rural By Jennifer Nichols

A Queensland grazier has turned to donkeys to ward off wild dogs and says, in the past year, he has not lost a calf in any paddocks patrolled by the feisty guardian animals.

Ian Sylvester started with two donkeys and now has 17 running with 120 cattle at Cooran on the Sunshine Coast hinterland.

He splits his droughtmaster, red brangus, santa gertrudis and red brahman breeding cows into smaller mobs — each one protected by two to three donkeys.

"When I came here in 2013 we seemed to have a lot of dogs here — you couldn't go and mow the lawn without the dogs coming to have a look and see what you were doing," Mr Sylvester said. "A friend suggested they'd had success out at Muttaburra and Longreach with running donkeys, so we thought we'd try it."

The donkeys came from a property where they were run with sheep and cattle.

They are one part of a wider management plan, which includes working with Noosa Shire Council to trap and bait wild dogs.

I can't put a loss down, in the past 12 months, to a wild dog on this side of the farm," Mr Sylvester said.

"[The donkeys] travel the path with the cattle and they stick to them very quick and they're very inquisitive, so they're not backwards in going up and chasing something.

"They need a little bit of bite in them, so they go after the dogs."

Mr Sylvester was unsure whether it was the noise of the donkeys or their feistiness that frightened predators off.

"I don't bring my own working dogs into the yards, but they chase them if they're down on the flat," he said.

Mr Sylvester has lost a calf to wild dogs in a paddock across the road, where donkeys were not running with the cattle.

His lush mountainous farm borders a national park.

"Quite a few of the neighbours, from Traveston across to Kin Kin, have lost calves and even up to yearlings," he said.

He found that a ratio of several donkeys to a small herd of cattle worked best.

"They're their mates. If there are too many donkeys they seem to group up by themselves, otherwise they stick with the cattle — two or three with a mob of cattle," he said.



A Jerusalem donkey and her foal. (ABC Rural: Jennifer Nichols)

Guardian Donkeys

How widely are donkeys used?

National wild dog coordinator for the Centre for Invasive Species Solutions, Greg Mifsud, said donkeys had been recognised as a viable means of wild dog control.

"Provided there's a strong and well run management program in the vicinity we do see some people getting quite good results with them," Mr Mifsud said.

"Some people take them quite seriously, it often relates back to the size of the property, the type of management they intend on delivering, and also the extent of the wild dog problems.

"We have seen people use them really successfully in some places, but once again it also depends on how serious the owner is in terms of managing the guardian animals."

Mr Mifsud said the guardian animals had been used well at Traprock, south-west of Toowoomba, but were only as good as the amount of time and effort that was put into them.

"A lot of people tried them out around the Longreach, Winton, Barcaldine region there for a little while, but it's a bit touch and go and it depends a lot on the individual donkeys involved and how protective their instincts are," he said.

"Some are very good at protecting livestock, others prefer to hang with themselves and do their own thing."

Mr Sylvester said that donkeys cost between \$900 and \$1,000, which he said was the equivalent of one-and-a-half weaners

"If you're losing 15 to 30 per cent of your income you've got to do something," he said.

"Especially if you're losing five or six calves to dogs a year."

Mr Sylvester warned prospective donkey owners that the animals needed to be treated kindly. He shared a cautionary tale of a man who hit a donkey with a jigger — a handheld device designed to deliver an electric shock.

"The donkey put him in hospital, six months later when he went back to work and walked into the yards he said 'How are you now, donkey?' and he had to leave the yards very quickly," Mr Sylvester said.

"They are very sensitive. If you are cruel to them don't be surprised, they will get you back."

Markets

Bairnsdale Farmers Market 4th May 8:00am

Paynesville Farmers & Makers Market 25th May 8:30–1:30 (on the Esplanade)

Howitt Park Market Bairnsdale 4th Sunday of the month

Next market 26th May 8:00- 1:00

Wyndham Village Markets 4th Sunday of the month (Wyndham Hall) Next market 26th May 8:30–1:00

Merrimbula Seaside Market 3rd Sunday of the month (Ford Park) Next market 19th May 8:00 – 12:30

Eden local Produce Market 3rd Saturday of the month (Garden of Eden, Chandros Street) Next market 18th May 10:00-2:00

Pambula Market 2nd Sunday of the month (Sports Oval) Next market 12th May 8:00-1:00

Candelo Market 1st Sunday of the month (by the river) Next market 5th May 8:30 – 12:30

Following the visit, the Mount Deddick Progressive League, under the chairmanship of Melbourne stock-broker Tomas Luxton, continued to lobby government in Melbourne, while local meetings were held to consolidate mining and agricultural interests behind construction of a railway. Subsequently, a public meeting was held in Melbourne by the Progressive League in September 1898 to garner support for a deputation to the Minister for Railways,28 but despite the best efforts of the promoters, in November 1898, the government announced that it would not go ahead with a rail link using public money. 29 As an alternative it was suggested that funds available under the Mining Development Act (1896) for track cutting and road construction, together with local Shire funds, could be used to improve the existing track from Gelantipy. The Shire, however, decided fairly quickly that it would not commit funds to the project. The budget for the Mining Development Fund for 1898/99, under the category of track cutting and road construction, included minimal expenditure for Gippsland (£212), despite pleas to concentrate the funds available on access to Mount Deddick.30 Some upgrading of the original track was completed by the end of 1899.31 Despite this, access was still shown as via a 'Mining Track' by Stirling in 1899 (Figure 4).32

The failure to secure government support for the railway link saw a slowing down in activities on the field. In his follow-up report on the field published in 1899, Stirling declared:

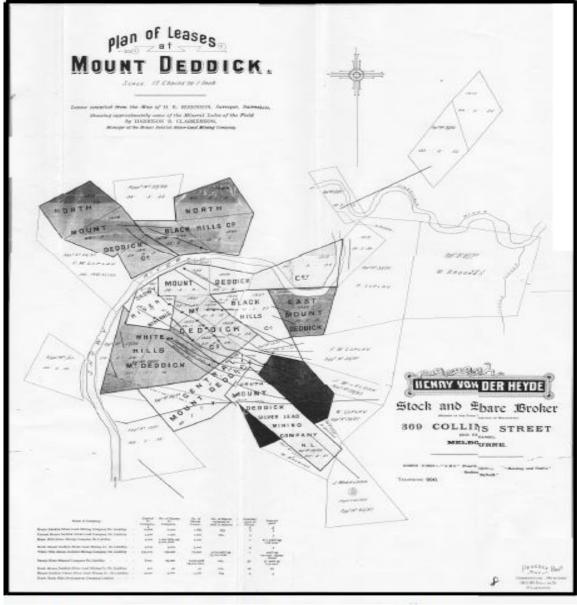
In accordance with instructions, I have made a further inspection of the Mount Deddick silver lead field, with a view to note any recent developments in the area. There is very little to add to my previous report [1898], except some important developments on the area held by the North Deddick companies, especially in relation to the "Begelhole" lode.33

At this point in its history, after expenditure of a considerable amount of money in an attempt to prove-up the various lodes by adits, shafts and surface excavations, the Mount Deddick mineral field appeared to be fast becoming a lost cause. Despite all the optimism that had been displayed and the efforts of the promoters, by the end of 1898 only about 50 men were reported to be working in the area, and the total amount of ore that had been transported out of the field as recorded by the Department of Mines was 20 tons (although total production was likely to have been greater).34 Most of the companies had become dormant, selling off plant in some instances. In the eyes of those trying to promote Mount Deddick at this time, absence of suitable access became the focus for the lack of success, despite the obvious fact that the ore bodies had by no means proved to be of real value. Activities continued at a low level throughout 1899, 1900, 1901 and 1902. The annual reports of the Department of Mines during these years do not record any activity at Mount Deddick, and no production of silver-lead ore. Sporadic reports in the local press indicate that some activity did in fact continue and that a small amount of high grade ore was shipped out.35 At the half yearly meeting of the Mount Deddick Silver Lead Co. held in March 1902, it was reported that the decision had been made to suspend activities due to the prevailing low prices for silver and lead.36 In July 1904, the Snowy River Mail carried a simple statement that 'No work has been done at Mount Deddick or Gelantipy during 1903'.37 No further reports appeared in the local press after this. In 1906, E.J. Dunn, Director of the Geological Survey, visited the field and commented on activities. In his report it is not clear whether he is referring to work that was currently going on, or was purely historical.38 In his opinion, the field still needed more work to fully explore its commercial potential, based on the premise that if the potential could be proved to exist, a

The investment perspective

From the outset of its development, the Mount Deddick mineral field displayed many of the characteristics of a field that was being promoted toward boom status. Several members of the Melbourne Stock Exchange became directly involved in the various operating companies, most notably John Gard. Promoters such as Gard were not above spruiking the virtues of the new field. In November 1896, an article in the *Snowy River Mail* described a visit to the field during September-October by Gard and a fellow director of the Mount Deddick Company, Charles Quin.39 In an extract from their report on the visit to the shareholders of the company, they offered the opinion that:

The various places opened out warrant us in confirming that they [the miners on the spot] have proved beyond doubt the existence of a great silver field, and also that the property held by your company will prove of great value. The language used in the report is in stark contrast to the more cautious view offered by Lidgey at around the same time.



Source: State Library of Victoria, Manuscripts Collection, 822.52 GBD 1898.

Figure 5: Plan of leases at Mount Deddick, circa 1898.

Apart from the direct involvement of members of the Exchange in the operating companies, other prominent members of the Exchange became involved in promotion of mining companies. Several stock broking firms participated in floats of the various companies where extravagant claims were commonly made. Vendors carried equity was a recurring issue that investors needed to grapple with. One broker, Henry Von der Heyde, produced a consolidated plan of the leases with accompanying information on the leaseholders (Figure 5), presumably as a marketing tool. In many respects, the way in which promotion of the field evolved mirrored the history of other boom fields of the time, with satellite properties being offered surrounding the original lease. This style of promotion could only occur in fields that were perceived to have significant extent. Mount Lyell had recently been a classic example of this pattern of promotion.40 The Melbourne financial press's view of developments is reflected in a series of entries in Melbourne Punch over the period concerned. Commenting on the original discovery in July 1896, Punch was enthusiastic about the prospects.41 A comment in September 1896 was equally effusive as company formation got underway. 42 By November 1897, after a year's activity, the tone had begun to change. In its edition of 18 November 1897, Punch declared:

Dealers in Mount Deddick district scrip will require to exercise great caution, and especially so in handling the "offshoots" which have been placed on the market. The reports from the district are most conflicting.

Similar sentiment is evident in a December 1897 entry;

Contrary reports continually to hand from Mount Deddick mines, Snowy River. Some experts would make you pledge the historical shirt to be in the swim, others give you a slap as if an iceberg struck you. Punch, after careful enquiry, still advises as before:

Go slowly in handling these scrip, and if a fair profit comes along, take it.

By January 6, 1898, Punch was advising that 'scrippers must be prepared to hold on for a considerable time before any return of moment can be expected from Mount Deddick'. Later in the same month the situation had deteriorated to the point where Punch reported that 'Mount Deddick scrip [was] dead in the water'.43 Reports in March 1898 describe 'scripholders' anxiously awaiting the results on ore parcels sent for testing.44 Further reports in April and May of 1898 were even more pessimistic, reflecting thegrowing realisation that lack of access was an overwhelming issue, and that 'with two or three exceptions, the district can only show at present some surface blows and a few lodes of very low grade ore'.45 By June 1898, Punch put the lid on the coffin when it claimed that 'the Mount Deddick district is in a state of quietude. ... Scippers will have either to lock up their paper for better times or part at a sacrifice'.46

The flow of events illustrated by the *Punch* articles is reflected in the Stock Exchange share trading summaries of the time. From the outset, trading in Mount Deddick shares appears to have occurred, with anecdotal evidence of shares being valued at a substantial premium over face value.⁴⁷ No evidence of official trading is, however, recorded in the stock market summaries until December 1897. The first appearance of any Mount Deddick shares was in that month, when 2,000 shares were listed at a fully paid up value of £5.⁴⁸ By February 1898, the shares were listed at £10 and in March 1898 at £8.⁴⁹ By May 1898, shares with a fully paid up face value of £3 were listed at seven shillings. After falling to a listed value of one shilling and nine-pence in August 1898, Mount Deddick shares for ever disappeared from the official listings.⁵⁰

The Deddick railway

English investment had not been a feature of Mount Deddick during the period from 1896 to 1898, but some time in 1899 an English syndicate proposed to the Victorian Cabinet that it construct a private railway from Cunningham (Lakes Entrance) to the Mount Deddick mineral field in return for a land grant along the route and rights to operate the Mount Deddick leases. The make up of the syndicate and the exact timing of their approach to government remains a mystery, but in mid 1899 the Government Geologist, James Stirling, was asked to give his opinion regarding the proposal and he reported his view in August of that year.51 Stirling felt the proposal had merit in principal, provided that the conditions required by the Railways Department with regard to the standard of construction and rates to be charged for freight were met. At this point in time approximately 2,300 acres of ground was under lease at Mount Deddick, and by Stirling's estimate an additional 2,800 acres of prospective country might be available for further exploration within the bounds of the field. In his opinion, the potential extent of the field was sufficient to warrant construction of the rail link. Stirling was not, however, in favour of the proposed route along the valley of the Snowy River, rather he strongly suggested that the route should be via Buchan, Gelantipy, Seldom Seen and the Wulgulmerang Plateau, more or less the same as the existing track of the time and the eventual alignment of the modern road (Figure 2). He felt that this route would maximise the potential to open up rich agricultural country and service other mining areas along the way.

The existence of the proposal was not made public during 1899, apparently because the plan lacked certainty.52 In late 1899, however, evidence was being taken by a government enquiry into the up-grading of the port facilities at Lakes Entrance, during which the prospects for a rail connection to Mount Deddick and the relative advantages of alternate routes came under discussion.53 Eventually, after a change of government, a public announcement was made in January 1900 that a proposal had been put to the government.54 Throughout early 1900, persons with interest in the railway being constructed anxiously awaited the results of negotiations between the representative of the

The Victorian Cabinet has approved of a proposal made some weeks ago by an English syndicate to construct a narrow gauge railway from the Lakes Entrance to the Mount Deddick mining field, East Gippsland, a distance of 94 miles. It is estimated that the line will cost £300,000, and is to be completed within two and a half years. ... The Government is to give the syndicate a strip of land two chains wide for the whole distance for the track of the railway. ... The Government is to have the option at the end of 10 years of purchasing the railway ... The syndicate is to deposit £10,000 within three months of the signing of the provisional agreement ... In consideration of building and working the railway, which will materially help to open up East Gippsland, the syndicate is to get 50 years mineral lease of 1000 acres of land at Mount Deddick, on condition that it expends £25,000 within 10 years in developing the ground, and a similar sum within the next 10 years57

Key messages

- The European wasp is an introduced species and therefore doesn't have natural predators in Australia to keep its numbers in check.
- European wasps are a pest because they are far more aggressive than native wasps.
- The best method of wasp control is to locate the nest, or nests, in the surrounding area and eradicate them using an insecticide registered for the purpose.

Other methods can be used to discourage wasps by people experiencing a wasp problem. Wasps belong to the Order Hymenoptera. They are a diverse group of insects: in Australia alone there are over 12,000 species, ranging from the tiny diapriid wasps, which are barely visible to the naked eye, to the spider wasps and cicada-killer wasps, capable of taking large prey. Most wasps have carnivorous larvae that feed on other insects and spiders. The adults provide food for them by capturing prey or by laying the egg on or near the food source, which might be an egg, larva or pupa of another insect.

The European wasp (Vespula germanica) is native to parts of Europe, Asia and North Africa. It is an introduced species and therefore does not have natural predators in Australia to keep numbers of these wasps low. In Europe, the cold winters ensure that only the Queen wasp can live, but the warmer climate of Australia means the entire nest can survive.

European wasps are a pest because they are far more aggressive than native wasps. Lack of predators and warmer weather conditions mean that the European wasp is an increasing problem in Australia. This insect likes to live around humans because of the ready supply of food and drink, particularly of the sweet varieties.

Appearance

Characteristics of the European wasp:

- Similar in size and shape to a bee
- 12mm 16mm in length (a queen is about 20mm long)
- Bright yellow body with black triangle-shaped markings
- Yellow legs
- Two long black antennae

Wings folded when at rest.

Life cycle

Each nest usually lasts one year but in warmer climates the nest may survive and expand. In Winter the males die off and the newly fertilised queen hibernates to build a new nest the following spring.

The queen lays eggs in the cells of the nest and the larva hatch from each egg in about 6-8 days. The larvae are tended to by the queen for a number of weeks.

The larva grows in a series of stages (instars). Five instars are completed before the larva encases itself in a cocoon. The total larval development time is 9-22 days, depending on the temperature and availability of food.

When fully fed, the larva spins a cocoon within its cell using silk secreted by its salivary glands. Inside the cocoon this larva/pupa develops into an adult, this takes 7-9 days. They become the first batch of workers that take over the construction of the nest and rearing of the larvae while the queen lays eggs.

In order for the colony to survive, the adult workers must perform a large number of tasks both inside and outside the nest. Workers start as nurse wasps, they then progress to collecting nesting materials and fluids and finally to foraging for solid food for the larvae; the older wasps guard the nest entrance. Worker wasps live for a number of weeks. Towards the end of the season, in Autumn, the worker wasps build larger cells in which the next generation of several hundred queens and males is reared. When fully developed, these individuals mate and fly off to start new nests. In Europe the nest then disintegrates, but in Australia's warm climate the nest can continue to grow over a number of seasons. This can result in giant and potentially dangerous nests of over 100,000 wasps.



Difference between European wasps and native wasps

There are many harmless and beneficial native wasp species which are commonly mistaken for European wasps. In particular the European wasp and the native yellow paper wasp are very similar in size.

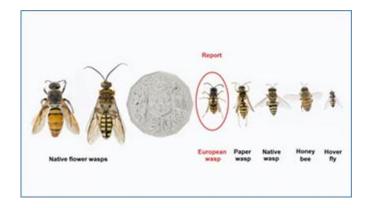
Native wasps, including paper wasps, are considered beneficial because they assist in pollination by feeding on nectar, and they control pest populations, such as caterpillars, by feeding them to their larvae. Paper wasps, however, should not be allowed to develop in or near the home because they may attack if they feel their nest is threatened.

As the picture above shows, paper wasps are longer and thinner than European wasps and they have orange-brown antennae (European wasps have all black antennae). Paper wasps back legs dangle down during flight and they are often seen hovering around bushes, over lawns and around water sources. European wasps on the other hand have legs that are held close to their bodies during flight and they fly very quickly and generally do not hover.

The great majority of Australian wasp species don't live in colonies, being solitary and nesting in the ground or in a crack or crevice, and they don't attack humans. If the nest is safely out of reach it should be left alone.

Paper wasp nests are usually above ground and are golf ball to side plate size while European wasp nests are rarely seen and can be the size of a basketball or larger.

The diagram below shows the difference between European wasp nests and paper wasp nests.





Difference between European wasps and honey bees

Honey bees are sometimes mistaken for wasps because both insects are capable of giving painful stings. While there are a number of characteristic similarities between bees and wasps (outlined in the table below) critical differences can be seen in their behaviour and where they live. European wasps are much more aggressive, they are attracted to food and drink, do not die when they sting and can sting repeatedly. Bees are attracted to the pollen on flowers and bees that aren't in farms live in trees while wasps live in round papery nests in hidden away locations Bees play an essential role in the balance of nature, especially through the pollination process. Pest control operators should refer bee complaints or enquiries to a bee keeper or the Victorian Apiarists Association, phone: (03) 9317 7142.

Similarly, bee keepers, who are not licensed to use pesticides, should refer any wasp enquiries or complaints to a licensed pest control operator in the event that they are not able to physically remove the nest.

Characteristic	Bee	Both	Wasp
Stinger	Honey bee workers: Stinger is pulled from bee's abdomen and bee dies. Other bees live to sting again.	Have backward pointed barbs on stinger to penetrate victim.	Small barbs; stinger can be removed from victim; wasp lives to sting again.
Body	Rounded body usually appears hairy.	Narrow junction between thorax and abdomen.	Usually slender and smooth.
Legs	Hairy	-	Few hairs.
Food	Feed on pollen and nectar.	_	Predators or parasites of other insects or scavengers.

How to locate the nest

European wasps make their nests from chewed wood pulp and saliva giving the nest walls a distinctive papery look. Nests constructed of mud are not European wasp nests. Nests are usually built in sheltered locations.

About 80% of European wasp nests will occur in the ground with the remainder usually found inside buildings. Nests will often resemble footballs.

In order for a wasp nest to be controlled the nest must first be located. The European wasp may forage for food up to half a kilometre away from its nest. You might need to seek the cooperation of neighbours to locate the nest.

European wasps can be tracked back to their nest by placing food (for example meat or pet food) in a visible outdoor location. Once it has located the food source, the wasp will fly virtually in a straight line back to its nest. If necessary, keep relocating the food source until you see the wasp fly into its nest.

Places you are most likely to find a wasp nest: In the ground

- Any concealed site
- Holes dug in the ground
- Around the base of trees or along hedges
- Within retaining walls
- In rockeries
- In rubbish heaps or under disused rubbish (for example: old dog houses or pieces of furniture)

In an uncovered compost heap or grass clippings.



Above ground nest, in roof, wall cavity or sheltered parts of building.



An underground nest.

Chemical treatment

The best method of wasp control is to locate the nest, or nests, in the surrounding area and eradicate them using an insecticide registered for the purpose. It is recommended that treatment of the nest occurs early in the morning or at night when wasps are less active.

When dealing with European wasps it is important to wear protective clothing and a bee veil. Be aware that a torch/ head torch without a red filter may attract wasps. You can cover a torch's light with red cellophane secured with a rubber band.

Discourage wasps

The following advice can be provided to people experiencing a wasp problem:

- Do not leave fallen fruit or food scraps lying around the yard
- Avoid leaving uneaten pet food or dog bones outside
- Make sure rubbish bins have tight fitting lids
- Keep compost covered at all times
- · Keep swimming pools covered when not in use
- Cover exposed food at picnics and barbeques
- Don't drink out of cans or bottles, use clear containers or a straw.

Symptoms of a wasp sting

Symptoms of stings will vary from person to person depending on their tolerance. The majority of people without allergies to insect stings will show only minor symptoms during and after a wasp sting.

A wasp can call other colony members using a scent chemical (pheromone) to help defend the nest from a potential threat. Unlike honeybees, which have a barbed stinger and can only sting once, European wasps can sting multiple times. The stinger contains several toxins, which may cause hypersensitive or allergic reactions in some people.

Minor Symptoms

The initial sensations of a wasp sting can include sharp pain or burning at the sting site followed by a raised welt around the perimeter. A tiny white mark may be visible in the middle of the welt where the stinger punctured the skin. Usually the pain and swelling recedes within a few hours of being stung. The sting usually causes far more discomfort than a bee sting.

Major Symptoms

Larger local reactions to wasp stings can include extreme redness and swelling that increases for one or two days after being stung and subsides on their own, over the course of a week or so. If symptoms persist, it is recommended to seek further medical advice.

A small percentage of people will experience anaphylaxis from wasp stings. For any life threatening symptoms such as anaphylactic shock immediately call emergency services on ooo.

Contact details

Pest Control Program

Phone hours are: 9 am to 12 pm, Monday to Friday. Direct all other enquiries to the pest control email address. Postal address: GPO Box 4057, Melbourne VIC 3001

o Telephone Number: Telephone: 1300 767 469 | Fax: 1300 769 274 Email- pestcontrol@dhhs.vic,gov.au

Article contributed by Russell Collins



January

increase in numbers of workers



February

 rapid increase in number of workers and larvae



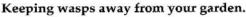
Summer

Why do wasps sting?

Wasps generally sting only to defend the nest and won't sting away from the nest, unless provoked. However, some people seem to elicit attacks from wasps without provocation.

Small wasp nests tend to be less aggressive than larger ones and the extent of the attack will depend on the extent of the disturbance to the nest.

When a nest is disturbed, wasps will fly out with a wing beat frequency that stimulates other wasps to fly out of the nest and attack. They will attack the intruder within about 7 metres of the nest, and pay special attention to moving targets. The attack may last up to 5 minutes, longer during hot weather.



- Keep compost heaps and rubbish bins covered at all times.
- Remove old or damaged fruit from fruit trees, as well as fallen fruit, which are especially attractive to wasps.
- · Clean up dog bones from the yard.
- Cover or remove pet food when not being eaten by your pets.
- Don't use sprinklers or water your garden during the day.
- Cover bird baths and fish ponds with fine mesh or shadecloth to keep wasps out, or place them away from high activity areas such as paths and barbeques.
- Cover swimming pools with a plastic sheet and remove any wasps before swimming. Don't try to remove live wasps with your bare hands.
- Remove ivy from the garden, as wasps find this very attractive and frequently nest in stands of ivy.
- · Cover all windows with fly screens.
- Use a screen door or hanging plastic strips on all external doorways.



- general wasp population peaks
- male wasps produced



April

- nests begin to decline
- queen wasps produced and mating begins



мау

- some large nests survive
- most nests die off
- · queens begin to hibernate

June

queens hibernating



September

December

November

queens

October

queens waking up

queens hibernating

from hibernation and

searching for nest sites

new nests initiated by

· adult workers appear



August

queens hibernating

July

· queens hibernating





Photographs courtesy of Pat Honan & Otto Rogge. Illustrations courtesy of P. Spradbery, XCS Consulting.

How the Climate is Changing our Trees

The climate is changing, and like us, plants are having to adapt to survive. Some are coping with the increased heat and dryness by evolving to meet these new conditions, others are migrating to more suitable climates, and some are simply unable to weather the weather.

- So what does that mean for our backyards and gardens?
- And what should we be looking for at the nursery and why?

The situation

According to **Gregory Moore**, doctor of botany at the University of Melbourne, all ecosystems, including our backyards and urban forests, will be affected by climate change.

"In Australia the rises in temperature are likely to be in the order of four degrees Celsius," Moore says, "and the decreases in rainfall in places like Victoria will be in the vicinity of 10-15 per cent. "Urban forests will experience increased temperatures, changed, often lower rainfall, greater storm intensities and droughts."

40 per cent of trees lining the streets in parts of Sydney, 32 per cent in Melbourne and 85 per cent in Darwin will be vulnerable if current carbon emissions continue.

Moore highlights that while these changes will not be uniform across the country, it means that favoured environments of certain plants are becoming less hospitable.

One <u>study from 2016</u> investigated the vulnerability of the City of Melbourne's current tree stock. It found that 19 per cent of tree species planted were already vulnerable to climate change, and that as many as 35 per cent could become vulnerable by 2040 and 62 per cent by 2090.

Another 2017 study of 1.5 million trees in 29 council areas across Australia echoed this sentiment. It revealed that "nearly one in four trees in urban centres will be at high risk of dieback," reported the Sydney Morning Herald. This includes wilting, browning of leaves and dead branches as a result of climate change.

Around 40 per cent of trees lining the streets in parts of Sydney, 32 per cent in Melbourne and 85 per cent in Darwin will be vulnerable if current carbon emissions continue.

Impact on Australia's trees

"Generally trees from a wide geographic/climatic range will probably be fine," says Moore, "as there are varieties/populations within these species that will cope with climate change." These include trees from genera such as:

- *Platanus* (such as plane trees and sycamores),
- **Linden** (such as lime trees and basswoods),
- *Pittosporum* (such as lemonwood, mock orange and cheesewood),
- **Betula** (such as birch),
- *Ulmus* (such as elms)

and some **coniferous** genera.

Moore says these are well placed as urban trees because of their "environmental resilience and tolerance of a wide range of soil, rainfall and temperature conditions".

"Most should cope with the changes in temperatures and rainfall that are projected for many cities," Moore says.

Though it should be noted that this does not mean that all trees from these genera will be resilient to the impacts of climate change in all parts of Australia.

In fact, while some species of birch may continue to thrive in northern regions, they may be reaching the outer edges of their tolerance further south east.

Moore suggests that even if species' ranges are limited, "there may be the option of selecting different but closely-related species".

How the Climate is Changing our Trees

This is the case with the eucalypt.

As a genera the eucalypt is well placed to withstand the effects of climate change because of the variety of species it contains – <u>around 900</u> in total. But many of these species are facing a temperature increase of just 2 degrees would see 40 per cent of eucalypt species stranded in climate conditions they are not prepared for

Extreme heat in Tasmania saw thousands of eucalypts die out or start leaking sap from their bark in 2015, the ABC reported. A long and extremely hot spell of weather at the start of 2013 saw the sap begin "boiling out of the tree like a sore".

<u>A 2016 study</u> estimated that a temperature increase of just 2 degrees would see 40 per cent of eucalypt species stranded in climate conditions they are not prepared for. These would have to move south or risk being wiped out.

Diversity is the key here, however, and as a <u>study out of ANU</u> has found, having over 700 species in its genera means greater genetic diversity and climate adaptation potential overall.

The **stringybark** is one example of eucalypt that will likely cope well with climate change, says Moore, given its "wide distribution and adaptations to fire and other stresses".

Other adaptations that are likely to aid trees in the face of climate change include **jacarandas** saving water by dropping their leaves during dry times, and others releasing water through their leaves as an evaporative cooling system <u>akin to sweating</u> during periods of extreme heat.

Look for these qualities

When selecting a tree to plant in your area, Moore and other experts suggest looking for those with

- A large geographical range, particularly in regions similar to your
- Adaptations to deal with extreme heat or dry periods
- Preferably native



Article contributed by Deb Foskey

Recipe

Roasted Carrot Soup

This roasted carrot soup is healthy, vegan, gluten free and loaded with roasted carrots, onion, garlic, ginger and coconut milk. Easy and delicious.

Serves 4

(**Prep time** 10 minutes, **Cook Time** 40 minutes)

Ingredients

1kg carrots, washed, peeled and cut in to 2-3cm chunks

- 1 onion
- 4 cloves garlic, peeled but left whole
- 2 tblspn melted coconut oil
- 1 tspn ground ginger
- 1 1/2 cups of coconut milk
- 4 cups of veggie broth

Salt and pepper to taste

Toasted cashews, cilantro, green onion and cayenne for garnish

Instructions

- Preheat oven to 180 degrees C
- Place the carrots, onion and garlic onto prepared baking sheet/tray
- Drizzle with coconut oil and season with salt and pepper
- Toss to combine
- Roast in preheated oven for 30-50 minutes, or until the carrots are fork tender, stirring every 10 minutes
- Place roasted veggies into high powered blender with 2 cups of veggie broth
- Blend until very smooth
- Put in a saucepan
- Add 2 extra cups of veggie broth and coconut milk
- Bring to simmer, taste and re-season with salt and pepper

May 2019

Mon Tue Wed Thu Fri Sat Sun

		1	2	3	4	5
6	7	8	9 Computers with Sharon at Tubbut	10	11	12 Mothers Day
13	14	15	16 Biggest Morning Tea / Community Lunch at Tubbut	17	18	19
20	21	22	23	24	25	26
27	28	29	30 Macrame at Tubbut	31		