

BEELINES

NEWSLETTER OF THE BEEKEEPERS CLUB INC

JULY 2019



To the human eye, this sunflower is all-yellow but bees see it differently.

Upcoming Events (see [website](#) for full details and registration)

Club Monthly Meeting

18th July 2019, 7:00 PM

NewHope,
3 Springfield Rd,
Blackburn North VIC 3130

(Cnr of Middleborough & Springfield Rd, enter from Springfield Rd)

Adrian Dyer

RMIT senior research Fellow

How bees use their colour and pattern vision to find flowers in complex environments

Adrian Dyer is a visual ecologist (and beekeeper) researching how bees use their colour and pattern vision to find flowers in complex environments. His research centres on the honeybee and the Australian native sugarbag bee (*T carbonaria*), and in collaboration with partners in Europe he researchers bumblebees. Seminal work published in journals like *Nature* show how flowers evolve specific features to best attract pollinators, and how this can be affected by region and climate. Adrian is a Humboldt Fellow in Germany, and has also been awarded a La Trobe Fellowship and an

Australian Research Council QEII Fellowship. Currently he is a RMIT senior research Fellow, as well as holding adjunct positions at Monash University and Melbourne University.

Frame Making Workshops

Saturday 13th July 2019, 1-4 PM
Club room, St Johns, 1 Burgundy St, Heidelberg.

Due to popular demand, as second workshop is being run on:

Saturday 20th July 2019, 1-4 PM
Club room, St Johns, 1 Burgundy St, Heidelberg.

Introduction to Beekeeping Course Sep 2019

Day 1, 14th September 2019
NewHope Community Centre

Day 2, 21st September, club apiary

This course has now been booked out but people interested in doing the course should add themselves to the waiting list. We are hoping there will be enough interest to put another course on in October.

President's Report

Mat Lumalasi

It has been very pleasing to see and report that membership renewals have been coming in very quickly this year with over 60% of the renewals in before the due date, allowing us to forecast membership numbers and help with future 2019-2020 budgeting for the future committee. We like to think of this as an indicator that people are pleased with the direction and services of the club as a whole.

The current committee has been very focused on listening to members in order to understand what you actually want from your club and, as the club grows, we can see how best to give back to the members.

Some ideas being considered at the moment are a field trip/lunch with a flora tour, trivia night and dinner. We are also interested in feedback about running a coffee club, where members meet once a fortnight/month, during the day for a chat and coffee. We are open to suggestion about location and also have the clubroom at the Heidelberg Apiary available.

Please let Helmut know if you would like to join him for coffee sometime soon.

With the implementation of the new digital library lending system, we are now confident that our assets automatically managed. This allows us to now shift focus on expanding our library. Nicole has been assigned with the task of purchasing new books on a monthly basis.

If there are recommendations you'd like to see made available, please let us know and we can see that it makes its way to Nicole's list.

During the June meeting Q&A session, the topic of thermal imaging cameras was discussed and we are happy to announce that the club has purchased a high-end model for member use. We are expecting to have this available as soon as next meeting in July. Borrowing the camera will likely require a credit card bond to cover damage, etc.

A.G.M. Thursday 15th August.

In the past we have seen lower than usual attendance for the AGM meeting. This isn't surprising as we understand that the reason you are members is to learn about bees, not politics but the AGM is important. We hope to keep things as short and painless as possible. Follow the AGM we will be looking at bee-keeping inventions. If you have designed or have something interesting which makes any aspect of your beekeeping easier, let us know and bring it along to show your fellow members.

Bee Vision

<https://whyfiles.org/2012/bee-vision/index.html>



Left: yellow flower; Center: same flower with yellow bullseye on white; Right: same flower with dark bullseye on cream.

Photo Klauss Schmitt, Weinheim, Germany

To the human eye, *Bidens ferulifolia* — a species in the sunflower family — has all-yellow petals (left). Bees see the same flower differently: with a bullseye, guiding them to land close to the nectar, held on the nectaries at the center. Humans can distinguish more colors than bees, but bees have a broader range of color vision that extends into the ultraviolet (UV) part of the light spectrum.

The image on the right was shot in UV, and simulated "bee vision" in the center picture with a filter that mimics the UV, blue and green light that bees see. It's not only color that attracts bees — shimmery petals do, too. Bees can discern color from iridescence, and associate shiny petals with sugar. Our eyes can't see the iridescence because it's often in the UV end of the spectrum, which is beyond our vision.

Want to see more about the hidden world of UV and fluorescence photography, and the necessary special lenses, filters and lighting? Check out Klauss Schmitt's blog: [Photography of the Invisible World](https://photographyoftheinvisibleworld.com/).

Bus Stop Green Roof



In the Dutch city of Utrecht 316 bus stops now have a green roof. They contribute to the city's biodiversity, supporting insects like honey bees and bumblebees.



The green roofs help capture fine dust, storage of rainwater, and provide cooling in the summer time.

The roofs mainly have sedum plants. They are maintained by municipal workers who drive around in electric vehicles. The bus stops are equipped with LED lights and a bamboo bench.

<https://www.facebook.com/watch/?v=684711065323981>

Welcome Club Newbees

We extend a warm welcome to the following members who have recently joined the club:

Ben Moore	Blackburn
Phil Owens	Doncaster
Charlie Nancarrow	Pascoe Vale South
Eva Vorng	Wheeler's Hill
Emily Gray	Ferntree Gully
Michele Mazza	
Brendan Mulholland	Templestowe

In the Hive

Mat Lumalasi

Days are slowly getting longer, blooms of yellow wattle are seen in the streets, there are complaints about a lack of snow on the mountains and bees are flying. This all start to indicate good things for us beekeepers.

Spring is coming. Are you ready? How are your bees? Are they busy? Do they still have stores?

If we continue to see these mild days, it is very possible to open your hive for a quick peek on one of the $>15^{\circ}\text{C}$ days with **no** wind. Not encouraged, but do-able.

With the wattle producing pollen, we are expecting queens to be laying already and starting to build up the colonies. Being a mild winter, we could expect a big swarm season and fingers crossed, a bumper honey flow.

Flora, July 2019

As well as the Cootamundra wattles, just this week we have seen cherry blossoms starting to burst buds.

Whilst trying to identify two eucalypts that we have seen flowering at the moment, I came across a nice resource website:

<https://www.anbg.gov.au/cpbr/cd-keys/euclid3/euclidsample/html/learn.htm>

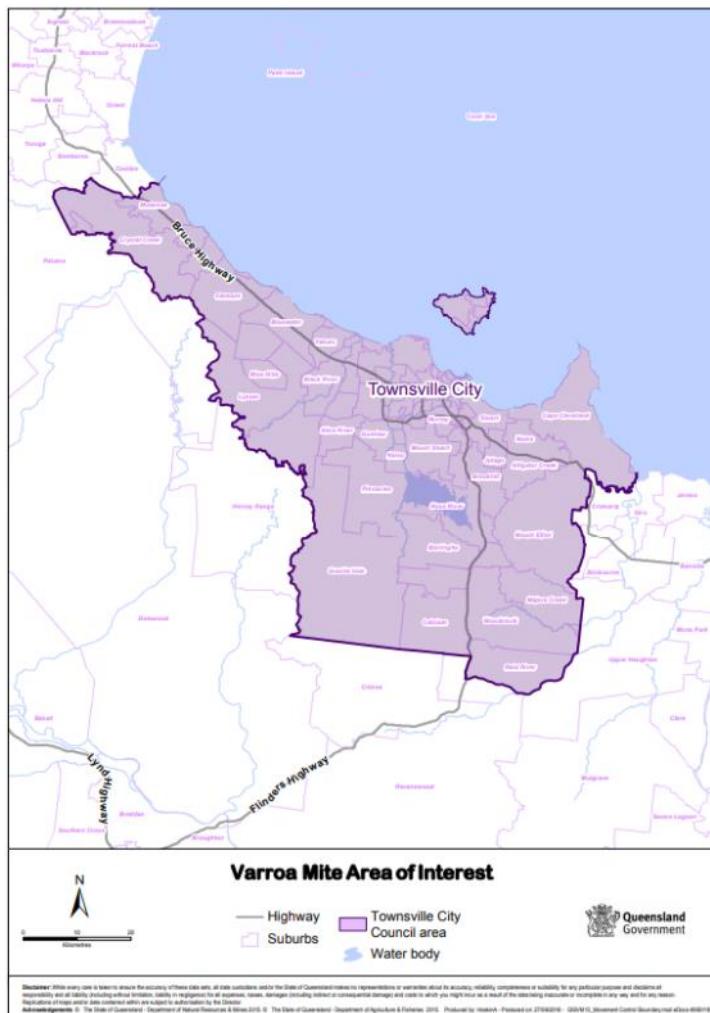
We are still trying to identify these eucalypts; we think one is the Yellow Gum.

Another good resource from the Royal Botanical Gardens is VicFlora, a free-access, online compilation. This now has a Multi-access key to the Eucalypts of Victoria:

<https://vicflora.rbg.vic.gov.au/static/keys/eucalypts>

Varroa mites detected again at Townsville Port

Varroa mites have been detected on an [Asian honey bee](#) nest that was recently found and destroyed at the Port of Townsville.



The nest was located on 16 May 2019 as a result of bee lining activities where foraging bees are tracked. Combs and bees collected from the nest were sent to the Brisbane Biosecurity Science Laboratory where suspect varroa mites were formally identified. CSIRO's laboratory in Canberra has confirmed the species as *Varroa jacobsoni*.

A national eradication program has been in place since the detection of varroa mite on Asian honey bees at the Port of Townsville in June 2016. No Asian honey bees associated with the 2016 detection have been found since November 2016.

Genetic testing of bee material from the May 2019 detection at the Port indicates this is a new incident, with these Asian honey bees likely to have arrived recently from Papua New Guinea (PNG) or the Solomon Islands.

The Asian honey bee is approximately 10mm long with yellow and black stripes on the abdomen. Heightened surveillance continues around Townsville Port and within a 15-kilometre radius.

Port and transport workers are encouraged to be on the look-out and report suspect bees that may have come in on cargo via the *See. Secure. Report* hotline on 1800 798 636.

The general public can report Asian honey bee detections to the national Exotic Plant Pest Hotline on 1800 084 881.

Townsville bee keepers are asked to be especially vigilant in reporting any suspect Asian honey bee sightings and/or varroa mite detections.

Information about bee biosecurity and photos that will help identify varroa mite are available on the [BeeAware website](#) or the [Queensland Department of Agriculture and Fisheries website](#).

BeeAware Newsletter, July 2019.

As Simon Mildren mentioned at the June club meeting, beekeepers should be becoming familiar with varroa mites (their life cycle and treatment) now as it is only a matter of time before this pest becomes established here.

The following guide was produced for New Zealand Beekeepers in 2001, soon after the arrival of varroa in April 2000: <http://rotatingtechnology.co.uk/BeeginnersFAQ/Problems/control-of-varroa-guide.pdf>

There are also good resources in the club library.



Adult female varroa mite. Two varroa mites on a bee.



Varroa on drone prepupae.

Bee pollination a race between native and European honey bees while researchers watch on

By Michael Cavanagh, ABC NSW Country Hour



European honey bees squeeze their head into blueberries for pollen, a stingless native bee fits its entire body into the flower. (Supplied: Jeremy Jones)

Which bee is the best pollinator — native or European? It is a question researchers are keen to answer.

With the use of stopwatches, individually-coloured beehives and the most important factor of all — time — they are hoping to learn more.

Researchers from the University of New England (UNE) are working alongside row after row of blueberry bushes at a major plantation on the NSW mid north coast in their search for better data.

The answer is in the detail

"You can stand there and watch and think that one is more abundant than the other," UNE's Romina Rader said.

"But if you don't measure how much pollen has been transferred by each one then you can't tell if a visit influences yields."

That measuring can be quite painstaking with students, Costa staff members and Dr Rader standing around watching the flowers waiting for a visit.

"We time the visit to see if its duration has anything to do with the efficiency of the visit,"

Dr Rader said.

"Then we take the stigma from the flower and then mount the pollen on a slide and count it."

In the case of blueberries, the flower is quite small, lending to the thought that the smaller stingless bee can work itself in further and emerge with more pollen.



The smaller stingless bee is able to get into raspberry flowers further than European Honey Bees (Supplied: Dr Romina Rader)

Results show there is little difference

However when the results were collated, there was not much difference between the stingless bee and the honey bee in the amount of pollen that had been transferred.

"The stingless bee can actually crawl in and walk around. So upon first appearance it would appear they would be more efficient," Dr Rader said.

"But the honey bee is really good because they have really hairy heads."

"They can stick their head into the flower and the pollen gets moved around when they drink the nectar."

Getting the native stingless bee comfortable to pollinate the blueberries included making sure their manufactured hives were marked in a manner not to confuse the bees.

The hives are located on poles approximately 15 metres from the end of the bushes.

They are then spaced again around 15 metres from each other, around two metres above ground, following advice from bee experts.

This is to avoid possible confrontation amongst the native bees.

"The colonies may start fighting but despite this at the beginning we noticed the colonies would still fight each other," said Costa's senior horticulturalist, Maurizio Rocchetti.

Finding their way home

"They were unable to find their way home as all the structures looked the same," Mr Rocchetti said.

"To overcome this, different coloured triangles were placed on the front of each hive just above the small opening the bees few in and out of.



The manufactured hives have different coloured shapes enabling the indigenous stingless bee to find the right hive. (BC Rural: Michael Cavanagh)

He said they introduced different colours and shaped hives so the bees could help them identify their home when they returned.

While the degree of successful pollination is being measured, if the stingless bee is as efficient as its European counterpart, it will help if the dreaded varroa mite ever takes hold.

While it has been detected in Australia, so far the parasitic pest has not been in the numbers that have wreaked havoc overseas amongst honey bees.

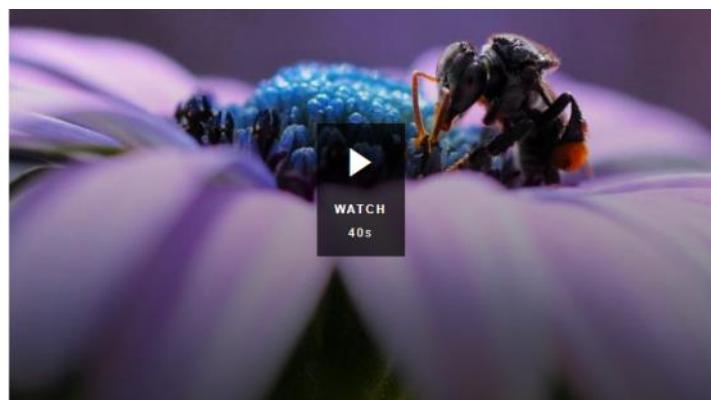
It is unlikely to jump over from the European honey bee to its indigenous cousin.

"If varroa does come into Australia it will lead to major changes in honey bee management," Dr Rader said.

"The feral honey bees would probably die out

in wild locations.

"Hives would have to be intensively managed by beekeepers to maintain pollination services. So the stingless bee would become particularly important."



Catalyst: [Researchers use ultraviolet light to track the movements of native bees](#)
(ABC News)

<https://www.abc.net.au/news/2019-01-29/researchers-use-ultraviolet-light-to-track-the/10751800>

VBCC 2019 Organisers



A big thank you has to go to the Victorian Beekeeping Clubs Conference 2019 organising committee for the many hours they put in to running a very successful event.

From left to right:

Maureen Koegel, Amanda Lamont, Mat Lumalasi, Vanessa Kwiatkowski, Debbie Webber

Cleaning your Smoker

John Treloar

A smoker is one of the most important pieces of beekeeping equipment but it often doesn't get much care and attention. Over time tar builds up in the lid, affecting the smoker's performance.



Tar deposit on the inside of a smoker lid impeding air flow.

Tar is very hard and almost impossible to scratch off but can be burnt off with a blow torch. If you don't have one of these, there is a simple solution:

1. If you store fuel in your smoker, empty the contents out.
2. On a suitable non-flammable piece of ground, pour about a capful of methylated spirits on the inside of the lid. Take care not to get any on the bellows or wooden parts of the smoker. Put the bottle well away.
3. Being conscious of where the breeze is blowing, light the methylated spirits. While this burns with an almost invisible blue flame, the tar will quickly catch alight and burn with an orange flame. You may also get some creosote dripping out.



4. When the tar has burnt itself out it will have become brittle and almost falls off the smoker.



While you're at it, also pay some attention to the wax and propolis that transfers from your gloves to both sides of the bellows. This can be cleaned off with your hive tool and some kitchen paper dampened with some methylated spirits to finish off.



Keeping this clean not only minimises mess but is good hygienic practice, helping to prevent the spread of disease.

The Pollinators

The Pollinators is a cinematic journey around the United States following migratory beekeepers and their truck-loads of honey bees as they pollinate the flowers that become the fruits, nuts and vegetables we all eat.

Thousands of semi-trailers crisscross the country in the dead of night delivering goods

through the darkness to stores, warehouses and factories nationwide. But some of them carry an unsuspected and highly unusual cargo. Honey bees. Tens of billions of them are transported back and forth from one end of the United States to the other in a unique annual migration that's indispensable to the feeding of America. One out of every three bites we eat, the growth of almost all our fruits, nuts and vegetables, would be impossible without pollination from bees.

Demand Film is proud to announce [The Pollinators](#) will be screening:

Wed, Aug 14, 2019 6:30PM

Cinema Nova

380 Lygon St, Carlton

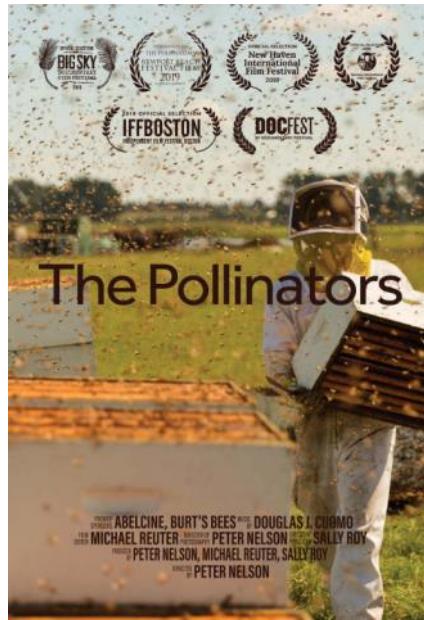
General Admission: \$22.00

Additional booking fee of \$1.95 per ticket.

Discount code: *rooftop2019*

<https://au.demand.film/the-pollinators>

[Reserve your tickets now](#)



40th Annual Beekeeping Field Day

Facilitated by Bendigo Branch V.A.A. Inc.

Sunday 13th October 2019

9.30 AM - 3.30 PM

Harcourt Leisure Centre
Bingham's Road, Harcourt



PRACTICAL OPEN HIVE DEMONSTRATIONS

(Bring your own protective equipment - or buy it here)

HOBBYIST OR BEGINNERS CORNER

MATED QUEEN BEE SALES

To avoid disappointment please order well ahead of the date. (To Order Contact Max Mauder 03 5446 7911 P.O.A.)

AUCTION OF BEE GOODS

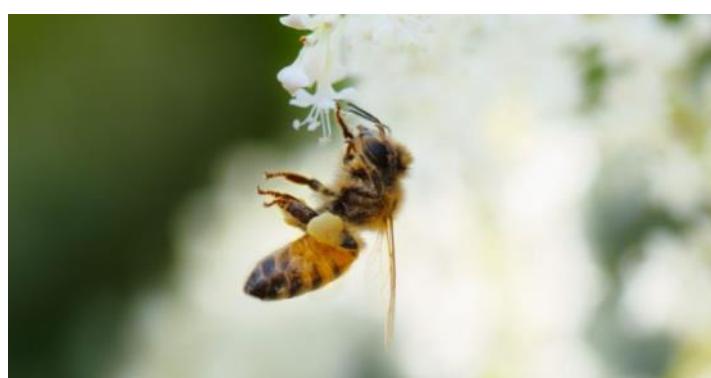
An opportunity to make some cash after cleaning out your sheds. Sales will be on a commission basis. For further information please contact Bill Shay 0419 337 276

EXTRACTING HONEY • SPECIALISED MACHINERY

REFRESHMENTS (including lunch)

ENQUIRIES: Carol 03 5446 7911

Further Program details closer to the date.



Honey Hot Toddy

There have been a number of people ask about the post conference drink. So here's the recipe to warm you up on these cold winter nights.

Ingredients

60ml (Reduce to 40ml if you prefer) American Honey (Bourbon whiskey) liqueur

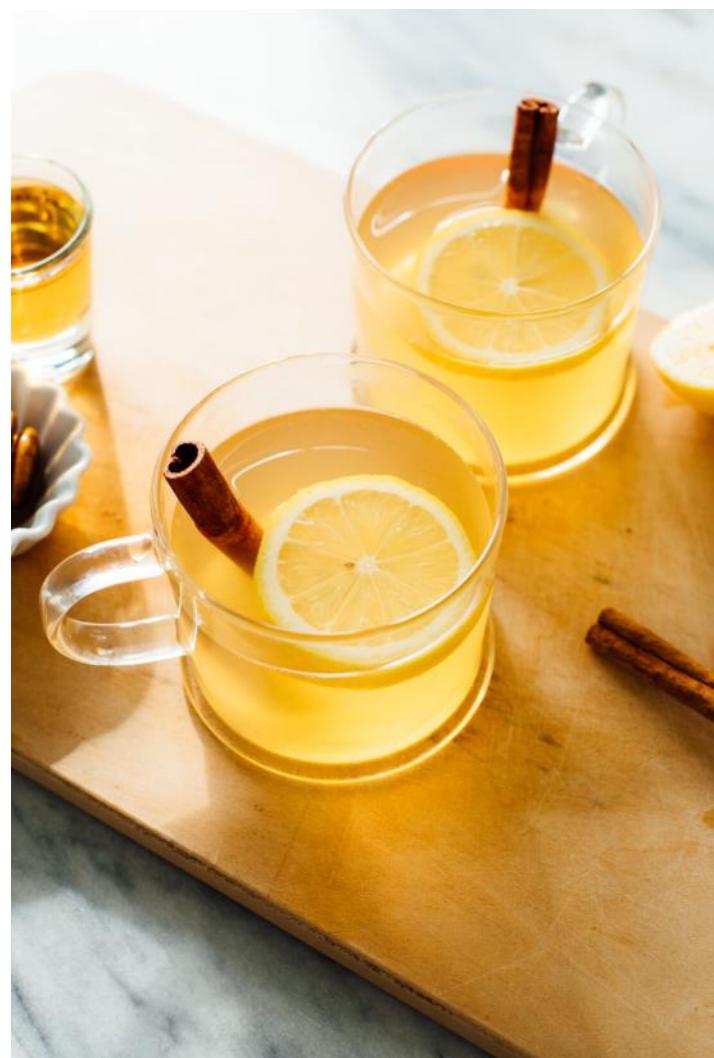
1 Lemon

1 Teaspoon Honey

Cinnamon Quill

Method

1. Measure 60ml of American Honey into a mug.
2. Squeeze in 2 large lemon wedges.
3. Add a heaped teaspoon of honey.
4. Fill the mug with approx. 100ml hot water.
5. Garnish with a slice of lemon & cinnamon quill.



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