

# BEELINES

NEWSLETTER OF THE BEEKEEPERS CLUB INC

DECEMBER 2018



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

### Pizza on the Lawn - Festive December Meeting

20th December 2018, 7:00 PM

**St John's Anglican Church,  
1 Burgundy St, Heidelberg**

In keeping with tradition, we are delighted to be hosting our December Meeting with the Garden Group @ St John's.

Set amongst the beautiful trees & lawn behind the Church, there will be games & fun to have for all.

The Happy Camper Pizza Truck will be in at-



tendance making up delicious handmade wood fired pizza's onsite. There will also be Lebanese delights from Melbourne's original A1 Bakery, and of course sweets included!

This is Picnic style theme, BYO picnic rug & drinks (Soft drink will be provided).

Price: \$10 members, partners and guests. Register on the website.

### Beginners Course

9th Feb 2019 9:30 AM

St John's Anglican Church,  
1 Burgundy St, Heidelberg

14 registered; 11 places left.

## Swarm Data Collection

After peaking in October at 29 for the month, the number of swarms reported on our web site tapered off in November to 9 and none have been reported in the first two weeks of December.

The trend has now turned to nest removal with quite a few reports of colonies setting up residence in double brick walls.

## Honey Bee Health Survey 2018



**A reminder to please take the time to complete the Honey Bee Health Survey 2018.**

A short survey has been developed to find out how healthy Australian honey bees are, and what pests and diseases might be causing problems for beekeepers.

The results from the survey will be used to decide what help beekeepers might need to keep their honey bees healthy. It will also provide statistics for use by the industry.

The Australian Honey Bee Industry Council, Plant Health Australia, and AgriFutures Australia, encourage all Australian beekeepers to take part in this survey, which will only take 10-12 minutes to complete.

The survey can be found at:  
[bit.ly/BeeHealthSurvey](http://bit.ly/BeeHealthSurvey)

**Survey closes 31 December 2018.**

## Club Facebook Presence

Don't forget that The Beekeepers Club now has a Facebook page. Search for The Beekeepers Club Inc or @thebeekeepersclubinc. Please "Like & Follow" us.



## Extractor Hire

A reminder that the club has 2 extractors, electric uncapping knife and filter basket available to members.

There is no charge for a maximum hire of 2 days. A deposit of \$75.00 is fully refundable on a clean, timely return.

Late returns will be charged \$5.00 per day thereafter.

To hire, please contact:  
mat@rooftophoney.com.au or phone  
0414 406 136.

## Welcome Club Newbees

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

Deane Anderson	East Oakleigh
Paul Bailey	Eltham
Neil Campbell	Croydon
Rhonda Fry	Montmorency
Tim Fry	Watsonia
Monica Ganlath	Greensborough
Ken Harper	Ivanhoe
Morag Milne	Ringwood North
Alicia Polakiewicz	Eltham
Kirsten Roach	Blackburn South
Andrew & Rosemary Sankey	Blackburn
David Telford	Ashburton
Marian & Mark Whitby	Croydon

Please take advantage of our club resources, including meetings, library and apiary and most importantly our club members knowledge. If you have any questions about beekeeping just ask. I also recommend our forum page for Q&A's.

## Identifying your Bees

**John Treloar**

Source: <http://www.dave-cushman.net/>  
<http://drawing.org/>

### **What race of bees you keep and how pure are they?**

This is an academic question as their race doesn't really matter; it's their characteristics that are important.

The most common races of honey bees in Australia are Carniolan (*Apis mellifera carnica*), Caucasian (*Apis mellifera caucasica*) and Italian (*Apis mellifera ligustica*). However most queens are openly mated and each, on average, mates with 15 drones. This results in hybrid crosses. Only professional queen breeders can maintain pure lines using techniques such as artificial insemination.

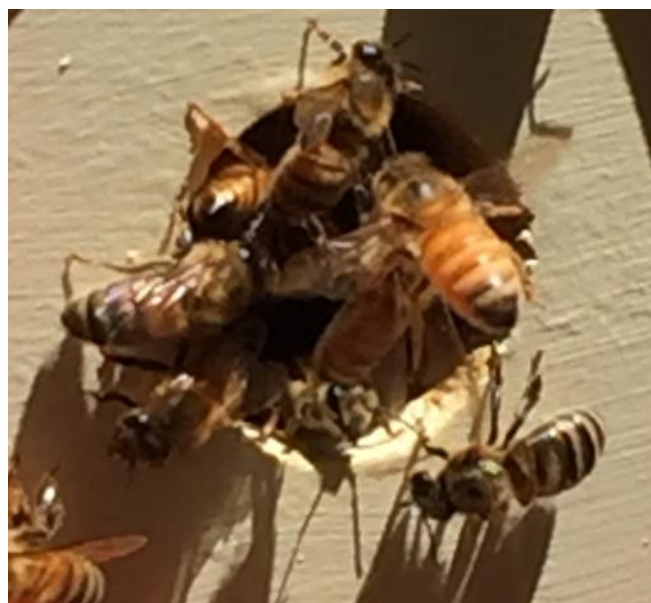


*Very black bees from a possum box removal around Port Melbourne.*

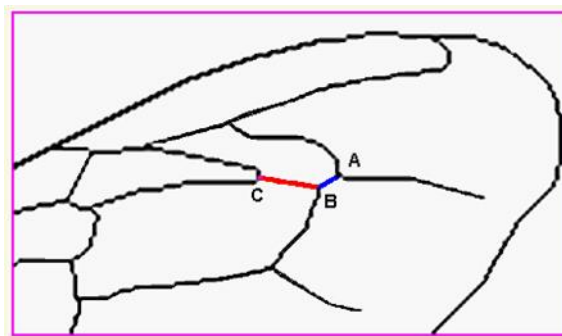
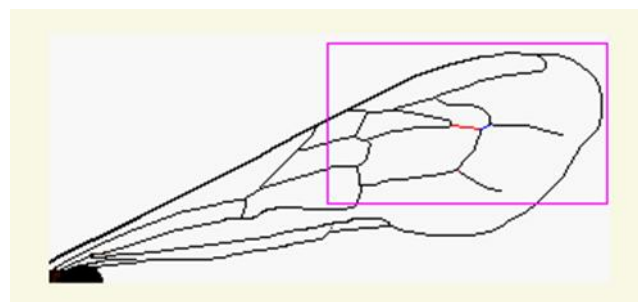
Most beekeepers would judge the race of a colony on the predominant bee colour:

<i>Italian</i>	<i>Yellowish-brown</i>
<i>Caucasian</i>	<i>Black with short grey hairs</i>
<i>Carniolan</i>	<i>Dark grey to black</i>

Morphometry is the precise study of anatomical characters by measurement and we can use these other distinctive body characteristics to help distinguish the type of bee and purity of breed.



One useful measurement is **Cubital Index**, the ratio of two particular vein segments in the forewing:



The points A, B & C are the centre of the vein junctions. The distance "BC" is divided by the distance "AB". The values for each race are in the following table:

Cubital Index (Worker):

	Minimum	Maximum	Average
Carniolan	2.4	3.0	2.7
Caucasian	1.7	2.3	2.0
Italian	2.0	2.7	2.3

I decided to test this out with two of my hives – one “Italian” and the other a darker (Carniolan?) bee. I swept up 14 dead, winter workers from the first hive entrance. Ideally a sample size of 30 live bees is required. If live bees are collected, they can be humanely killed by placing in the freezer.

A small pair of scissors, forceps and a probe or needle come in handy - wings are small and light to work with!

Dave Cushman’s website site suggested measurements could be taken projecting the wings mounted on a slide on to a wall using a 35 mm slide projector. There had to be a better way! I tried photographing the wings using my iPhone 6. It worked really well:



The images were then upload to a computer. Many graphics programs have measurement capabilities. I used a free program, GIMP 2, and zoomed in on each wing. The unit of measurement doesn’t matter as Cubital Index is a ratio of the two lengths; I used pixels.



## Results

The Cubital Index values of the 14 worker bees from my ‘Italian’ hive ranged from 1.9 (Caucasian) to 3.0 (Carniolan). Most fell in the Italian range and all values averaged 2.3, spot on for *Apis mellifera ligustica*! Eight of the bees were in the Italian range and 3 each in the Carniolan and Caucasian range.

These results confirmed my belief that the hive was predominately populated by Italian bees but contained a hybrid mix.

Hive 2 was 50% Italian, 38% Carniolan and 18% Caucasian. The average Cubital Index was 2.4. □

## Online Biosecurity Course



The online Biosecurity for Beekeepers course is well worth completing for any beekeeper. It takes about 90 minutes to complete and covers:

- checking hives for pests and diseases
- identifying exotic and established pests and diseases of honey bees
- taking action after finding a serious pest or disease in their hive
- minimising the impact of pests and diseases on their hives.

Beekeepers with fewer than 50 hives will need to pay \$20 to complete it.

Click [here](#) to go to the login page.

## External SHB Trap



External attractant trap  
for small hive beetle

by DM Leeson, R A Hayes, BA Amos, SJ Rice,  
D K Baker, K McGeehan  
February 2018



Research by AgriFutures Australia has developed a simple method for trapping small hive beetles before they enter hives. The report can be found on [www.agrifutures.com.au](http://www.agrifutures.com.au)

Any fly/European wasp trap, such as the EnviroSafe trap shown above, can be used.

The attractant is a fermenting mixture similar to those you may have seen for European wasps or small hive beetle:

250 ml water	1 tbsp honey
2 tbsp sugar	1 tsp yeast

The trap is hung at least 1 m off the ground in the shade, 20-80 m from hives. Insects can be strained out every 1-2 weeks to prevent odour developing. Don't let it dry out.

I came across the trap on YouTube early in the season and gave it a go. Success was limited, but that was probably due to fewer SHB in our drier climate compared to ideal humid conditions in Queensland.

## In the Hive

**John Treloar**

Cloudy, wet weather in November slowed hive progress down for many beekeepers. Melbourne received a welcome 100 mm of rainfall in November but was still about 150 mm below average for the year. Hive weights did pick up in early December but results may vary around the suburbs.

Summer solstice, the longest day of the year, is December 21st with Melbourne's day length nearly 15 hours before they steadily shorten again. Plenty of time for bees to forage!

Silky oaks (*Grevillea robusta*), a good source of both pollen and nectar, have had a good year. I've also notice *Corymbia's* flowering around the suburbs.

## Flow Hive

A common issue faced by beekeepers with new Flow hives is to get the bees to start using the super. The hive must be strong with the brood box full of bees before they will start waxing up the Flow frames. Do *not* put the queen excluder on until the bees have waxed up the frames and started using them. Only then put the excluder on, ensuring the queen is below it!



## Scientists create edible honey bee vaccine to protect them from deadly diseases

*Madeline Farber, Fox News*

The first-ever vaccine for insects now exists, thanks to scientists at the University of Helsinki in Finland hoping to save one of the most crucial pollinators in the world: the honey bee.

The vaccine, which is edible, "protects bees from diseases while protecting global food production," the university said in a news release. The goal, researchers said, is to protect the bees against American foulbrood, "a bacterial disease caused by the spore-forming *Paenibacillus larvae* ssp. *Larvae*."

The disease is the "most widespread and destructive of the bee brood diseases," the university added.

Bloomberg reported the disease can kill "entire colonies" while its "spores can remain viable for more than 50 years."

To distribute the vaccine, scientists place a sugar patty in the hive, which the queen then eats over the course of about a week. Once ingested, the pathogens in the patty are then passed into the queen's eggs, "where they work as inducers for future immune responses," the university explained in the statement.

The vaccine — which is not yet sold commercially, according to Bloomberg — is also significant because it was once not thought possible to develop a vaccine for insects, as these creatures' immune systems do not contain antibodies.

"Now we've discovered the mechanism to show that you can actually vaccinate them. You can transfer a signal from one generation to another," Daliel Freitak, a University of Helsinki scientist who worked to create the vaccine, said in a statement.

Honey bees are important to the U.S. crop

production, contributing an estimated \$20 billion to its value, according to the American Beekeeping Foundation. The species pollinate a variety of crops, including apples, melons, blueberries and cherries — the latter two are "90 percent dependent on honey bee pollination," according to the foundation.

"One crop, almonds, depends entirely on the honey bee for pollination at bloom time," the American Beekeeping Foundation added.

The honey bee population in North America has been affected by Colony Collapse Disorder (CCD) disease, mites and possibly the use of neonicotinoid pesticides, according to the Harvard University Library.

On average, beekeepers in the U.S. lost an estimated 40 percent of their managed honey bee colonies from April 2017 to April 2018, according to Bee Informed, a nationwide collaboration of research efforts to better understand the decline of honeybees.

"We need to help honey bees, absolutely. Even improving their life a little would have a big effect on the global scale. Of course, the honeybees have many other problems as well: pesticides, habitat loss and so on, but diseases come hand in hand with these life-quality problems," Freitak said.

"If we can help honey bees to be healthier and if we can save even a small part of the bee population with this invention, I think we have done our good deed and saved the world a little bit," Freitak added.



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