

# The Waggle

MONSTER - Winter Edition 2023

Newsletter of the Gold Coast Regional Beekeepers

Furthering knowledge in Beekeeping by assisted learning and practical experience



What Type of Bee am I?

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## Gold Coast Regional Beekeepers

The Gold Coast Regional Beekeepers (GCRB) meets on the **third Saturday** of every month, at the Veterans Support Group Men's Shed, 18 Leagues Club Drive, Nerang. Meetings start at **8:30 am**.

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### Presidents Report

Hello everyone. There have been some wonderful and exciting things happening at the Club over the last few months. Since the last Waggle we have increased our member numbers by 20, we are now sitting at 110 members. I encourage you all to do your part, get bees (they are immensely fascinating insects), get a hive identification number – if you don't already have both. Remember if you provide Drew with your HIN you will get a free sugar shake kit.

We have held very profitable stalls at Bunning Nerang – not just monetary but taking a plethora of information to (mostly) children and their families through our volunteers talking to passers by and, of course, our new display hive. Children love to try to find the queen and watch her walk around to find new cells to lay her eggs. We have also been approached by a few child care centres to present the life of the bee to these young minds. This will be happening in the next week, so I will update in the next Waggle.

World Bee Day was very busy with 4 events happening (effectively) simultaneously – Club day with a honey rob, Bunnings stall and display, ABC live talk, followed by a stall and family fun day at the Madocke Beer Brewery. Many volunteers were called upon that day (unfortunately I was unable to help out due to another death in our family which took us on another life journey – moving to Stanthorpe) and they all made the day a wonderful experience for members and our growing interested public.

I find while I attend market stalls, selling our honey, that more and more people are realising the importance of bees in our own survival. I often get asked about the varroa incursion and

how this will affect the bee population, long term, and they often comment that "if bees become extinct, then we will too?". The result of the varroa incursion is now 12 months down the track and it is still yet to be seen what the final result will be, but the National effort to eradicate this mite is promising, saddening but promising. Let's do our bit by regularly checking our hives and reporting the results (especially negative results) to Form ABC. Remember you can still get your free sugar shake kit from Drew by contacting him (by phone or when you are next at the Club) with your HIN.

Fiona and I will be attending the QBA 119<sup>th</sup> Annual Conference in Toowoomba during the month of June – so watch this space for the report on that. I'm sure the two perspectives will be interesting to compare – Fiona – wealth of knowledge and experience, compared to me – novice but with my eyes wide open to absorb as much information as I possibly can. Plus it will be a well earned break for hubby and me to get away for the weekend after all our tragedy.

Well, see you next time. If you are ever in Stanthorpe, please let me know and drop in for a "grandma" slice and a cuppa.

Michelle Dart

The Bees Knees

Motto: "go hard or go home"

## **New Members**

Since the last edition of the Waggle, we have had the following people join our family of Beeks.

Danielle Vernon, Holly McGregor, Matthew Wilkie, Muhiba Farkas, Vicki Ann Price.

We now have a total of 110 members.

Please make all new members welcome at club meetings.

## **Club Biosecurity**

### **What you can bring to meetings and What you can't**

As the current COVID pandemic started to impact on our lives, the Club also realised that the biosecurity risks to the Club's hives also need addressing. After much discussion way back in 2020 the following biosecurity rules were implemented to keep both beekeepers and bees safe:

**Veils/Bee suits** - While the club does have a number of veils available for members and guests it was decided that personal veils or bee suits posed a low risk to activities. Members and guests can wear their own veil/bee suit while attending the Club Hives.

**Gloves** – This is a two-part issue with the bottom line being that only Club supplied gloves are to be worn. The first part is to prevent the spread of COVID. Latex inner gloves are to be worn by all members and guests who intend to put on bee-resistant outer gloves, which are the second part. The Club outer gloves are to be worn to protect both your bees and the Club bees from the transfer of pathogens between apiaries.

**Hive Tools** – Only Club hive tools are to be used within the Club apiary. This, again, is to prevent the transmission of pathogens between apiaries.

<sup>1</sup>So, the bottom line is please bring along your veil/bee suit for use at the meetings but please leave everything else at home. This way both your bees and the Club bees have one thing less to worry about.

## **Bee Books**

The following books are good for general bee information and standard (Langstroth) hives. They do also cover off on Warre hives and Top Bar hives:

- **Backyard Bees** – A guide for the beginner beekeeper by Doug Purdie (ISBN 978-1-743-36508-3)
- **The Bee book** – Beekeeping in Australia by Peter Warhurst & Roger Goebel (ISBN 978-0-734-50330-X)
- **The Bee – A natural history** by Noah Wilson-Rich (ISBN 978-1-78240-596-2).
- **Beekeeping for Dummies** by Howland Blackiston (ISBN 978-1-119-31006-8)

The following is mainly to do with Top Bar hives:

- **The Barefoot Beekeeper** by Phillip Chandler (ISBN 978-1-326-19225-9)

For Slovenian (or A-Z) hives this book is about the only one out there:

- **A-Z Beekeeping with the Slovenian Hive** by Janko Bozic (ISBN 978-1-545-50916-6)

If you are interested in Native bees then these books are very informative:

- **The Australian Native Bee Book** by Tim Heard (ISBN 978-0-646-93997-1)
- **A Guide to Native Bees of Australia** by Terry Houston (ISBN: 978-1-4863-0406-6)

Another handy book regarding the flora to be found that will support your bees is:

- **Honey Flora of Queensland** by S T Blake and C Roff (ISBN 0-7242-2371-1)

## **GCRB Member Sets a World Record!**

**Yes it is true a member of GCRB has set a world record.** Founding member Mike Hynes has set a world record for finding the queen in his hive within 10 seconds of going into the brood. Unfortunately, he didn't make it into the Guinness Book of records but he did make it into a case of Guinness! I am reliably told that it took him two days to emerge from the case of Guinness. The question is can you beat Mike's record for finding the queen?

Editor's Note: The Queen was standing on her back legs waving "Here I am"

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<sup>1</sup> Australia has over 1,600 different species of bees and only eleven of these different types of bees are stingless bees.

## Beekeeping Training and Resources Hub

Our beekeeping training and resources hub continues to grow. With links to more than 500 online beekeeping training and information resources, it is the first place to look for instructions on specific topics about beekeeping. You can check out the Hub at this link:

[Training & Resources Hub](#)

We have replaced the introduction to Beekeeping page with a new page to the Hub called **Beginner Beekeeping**. Here is the list of the 33 online resources on this page so well worth a look.

Title of Resource	Source
<b>Australian Beekeeping Guide</b>	AgriFutures
<b>Australian Honey Bee Industry Biosecurity Code of Practice</b>	AHBI
<b>Biosecurity Manual for Beekeepers</b>	PHA
<b>BOLT Training - Biosecurity for Beekeepers</b>	BeeAware
<b>Varroa Mite Online Training Course</b>	TOCAL College
Guidelines for Beekeeping in Queensland	DAF Qld
Guidelines for Keeping Bees on the Gold Coast	GCCC
Beekeeping in Queensland	Qld Govt
Locating Your Hive	GCRB
Introduction to Beekeeping	GCRB
Introduction to Beekeeping	GCRB
BB 1 The difference Between a Flow Hive and Langstroth hive	Flow
BB 2 Situating Your Hive	Flow
BB 3 Setting Up Your Brood Box Frames	Flow
BB 4 Installing a Package 1	Flow
BB 5 Installing a Package 2	Flow
BB 6 Installing a Package 3	Flow
BB 7 Catching a Swarm	Flow
BB 8 Installing a Nuc in Your Hive	Flow
BB 9 Honey Flow and Seasons	Flow
BB 10 Brood Inspection	Flow
Basic Beekeeping Skill Set	Aust Gov
Bearding - What Does it Mean	Flow
Bee Glossary	AB Guild
Beekeeping Glossary of Terms	Ecrotek
Beginner Beekeepers Q & A with Cedar	Flow
Components and Parts of a Beehive	Ecrotek
Essential Beekeeping Equipment	Ecrotek
Frame Options for Your Brood Box	Flow
Getting Started on Bees	Valley Bees

Title of Resource	Source
How to Conduct Brood Inspections	Flow
How to Light a Bee Smoker	Ecrotek
How to Transfer a Nuc of Bees to a Bee Hive	Ecrotek
Keeping Bees in Queensland - Guidelines	Bus D Qld
Lighting Your Smoker Q&A. Q&A starts after 9 minutes	Flow
New to Beekeeping? What you Need to know about Biosecurity	Nat Bee Bio Pro
Swarm Prevention and Control - A Step by Step Beginner's Guide	Illawarra BC
Ten Common Mistakes New Beekeepers Make	Flow
The Honey Bee Colony	Valley Bees
What to Expect in a Nuc	AB Guild
What Type of Brood Frame	Flow
Working the Hive Powerpoint	GCRB
Working the Hive pdf	GCRB

We have also added a new page to the Resources Hub under the Bee Pests and Diseases page, which is called **Bee Pests and Diseases**. This page lists 11 excellent resources which describe multiple Bee Pests and Diseases.

**Small Hive Beetle Study** - submitted by Drew Maywald

Member Martin Carroll and I have significantly reduced the incidence of SHB in our hives with minimal cost and no chemicals added to our hives. For example, during the whole month of February I counted a total of 6 SHBs (live and dead) in both my hives in the month of February 2023, and it has now been a month since I saw any SHB in either of my hives. To determine if what Martin and I are doing works or not, the GCRB Management Committee has decided to invite members to participate in a non-rigorous 12 month study of SHB in their hives. If you would like to read more about what is proposed and register your interest to be involved in the study please click on this link: [SHB Study Information](#). The study will require you to do little more than your regular hive inspections and report on the number of SHBs in your hive(s), whether it be monthly or fortnightly. You can register to be part of the study at this link:

[SHB Study Registration Form](#).

If what is proposed in the study works, which we will know well into the study, then beekeepers are going to be able to save a lot of money and time in combating Small Hive Beetle. But of course we will never ever know unless you give it a go!

## **Small Hive Beetle Trap** - submitted by Drew Maywald

Do you want to catch Small Hive Beetle before they get into your hive? Try this simple method:

At your local hardware store buy a reusable fly trap like that illustrated below.

Alternatively, you can use a plastic 1 or 2 litre bottle with a few 3 - 4 mm holes drilled into the top of it, so that bees cannot get in.

Remove the lid from your container and add:

2 Tablespoons of Honey

1 Tablespoon of Sugar

1 Teaspoon of yeast (you can buy instant dried yeast from your supermarket)

1 Cup of Water

Mix all the ingredients together well. Replace the lid and hang the trap from a tree within 10 metres of your hives.

Check the trap regularly and when you think the contents are no longer attracting insects, clean it out and start again.



## **Responsible Hive Location Recommendations and Management** - submitted by Drew Maywald

I frequently get phone calls from members of the public and officers of the Gold Coast City Council about the location of beehives in urban areas, particularly when the hives are causing a nuisance to neighbours. To assist urban beekeepers I have prepared the following guidelines to minimise any issues caused by their bees, and to also ensure that they comply with Government and Council regulations.

### **Hive Registration**

If you own one or more honeybee hives, you **must** register as a biosecurity entity with Biosecurity Queensland. A registrable biosecurity entity is allocated a hive identification number (HIN) and only one HIN relates to each biosecurity entity. The Act requires at least one hive out of every 50 to be marked with the registered HIN, but it is recommended that you display your HIN on every hive. You can register at this link, and it is free: [Biosecurity Registration Portal](#) Registering your hives is not necessary if you only have native bee hives.

If you live in the Gold Coast City Council area you must also be a member of a beekeeping club, like Gold Coast Regional Beekeepers. This is where you will learn about responsible beekeeping, and talk to mentors which will make you a proficient beekeeper and help you better manage your bees within your local urban area.

### **Extraction Tip**

If you find it difficult to remove the cappings from your frames, put them in a black tub, like the club's frame storage boxes, and put them in the sun for an hour. The wax cappings will then be much easier to remove



**Black or Clear Storage boxes?** The Answer is not as straightforward as it seems. - submitted by Windy

Which storage boxes are the best to use – black or clear? The answer is not as clear (pardon the pun) as it would seem, although from my use of both over the last three years I lean toward using the clear boxes.

Why, you ask? As beekeepers we have been told to try and store frames with old wax in them in the light to prevent Wax Moth from destroying the wax. If we put frames with old wax in black storage boxes and a wax moth is also present, there is a reasonable chance the frames will be attacked. By placing the frames in a clear box we introduce light to the frames and hopefully the wax moths take the hint and leave.

Additionally, I have found by using clear storage boxes I don't get any Small Hive Beetle slime outs where-as I have had at least two slime outs in black storage boxes.

The choice is yours on whether you use black or clear storage boxes, but I will only be using the black boxes to store my fresh foundation frames.

**From the Bee Shed** – submitted by Windy

The last three months have been reasonably quiet in the Bee Shed as I have been concentrating on getting my main woodworking shed sorted out in time to start winter construction of new frames etc.

I took the divider from my number three hive to open up the super back in February and straight away the bees did not move up into the area. This is a constant problem I have found with Slovenian hives. (Un)luckily the queen in my number five hive managed to get up into the super (again) and was laying beautiful brood which I moved into the super of number three and the girls started moving in.

The last three months has seen me extract around 140kg from my five operating hives, so the girls have been doing quite well. I do not expect the next three months to be as productive as we head into winter so hopefully, I will get the chance to make lots of sawdust for the Spring season.

I am still planning to hold an 'open day' for those interested in what Slovenian hives are and how they are worked. This will most likely be a Saturday in July and will let everyone know the date through the Club Secretary's emails. I am happy to host up to ten people and it will be on a first in best dressed basis.









Happy beekeeping

Windy

## **Managing Beehives in Suburban Areas** - submitted by Drew Maywald

One of the primary limitations to keeping bees is the real or perceived interaction between the bees and people who live in or use the surrounding area. Talk to your neighbours before placing hives in your backyard and let your neighbours know you will be keeping bees. Explain to your neighbours how you plan to manage your hives to avoid your bees becoming a nuisance.

Beehives must be set up and managed so they do not interfere with the community. This includes:

-  Setting up hives in a quiet part of the property, away from neighbouring properties, roads, footpaths and parks.
-  Having no more than two hives on a 750 square metre block. If you live on a block much smaller than 750 square metres it is doubtful that you will be able to meet other requirements for keeping bees.
-  you live on a large block or acreage place your hives as far away from your neighbours house as possible.
-  Ensuring a beehive is not located within a radius of 10 metres of:
  - a residence on an adjoining premises.
  - a place used for the manufacture, preparation or storage of food intended for human consumption.
-  Facing hive entrances across your property.
-  Using barriers to shield adjoining properties from bees coming and going.
-  Managing bee colonies to prevent or minimise swarming.
-  Ensuring each beehive is adequately identified.

## **Location of Hives in a Backyard** - Submitted by Drew Maywald

Bees require a dry, sunny position, preferably with a north-east aspect. Windy locations are not suitable for maintaining temperature and humidity in the hive.

Consider flight paths and place hives away from human traffic areas like footpaths, back doors and vegetable gardens. It may be necessary to build a screen on top of a fence to encourage bees to fly above head height.

The hive entrance should not face an exterior light as this will attract bees if kept on overnight.

**Use a Smoker to Assist with Handling Bees:** Smoke can be used to subdue bees, but check fire regulations before using a smoker in residential areas. Noisy machines such as whipper snippers and mowers can upset bees and make them aggressive. It is a good idea to smoke the entrance to the hive before using these devices, or if you know that your neighbour plans to use them.

**Provide Barriers:** Place hive entrances so bees fly across your property rather than directly into a neighbouring property. If this is not possible, provide a barrier to encourage the bees to fly up and over so that they don't bother neighbours. Barriers can be hedges or shrubs, or shade cloth fixed to a trellis.

Bees are attracted to lights, particularly fluorescent types. Use physical barriers between hive entrances and lights on neighbouring properties.

**Provide your Bees with Water:** Bees use water to air-condition the hive. The hive is kept at a constant temperature and humidity to ensure that the brood nest does not suffer stress. On a hot day in the middle of summer a hive may collect half a litre of water or more to maintain their internal temperature. Bees will often fly to the nearest source of water. In urban situations, bees tend to favour swimming pools and other local sources of water.

It is important to arrange a water source in your own yard close to the hives and keep this replenished. Provide landing sites for the bees in the water to prevent drowning. This can be done by using rocks or sand protruding from the water surface.

A common complaint from neighbours relates to bees in and around their swimming pool, so by providing an alternative source of water for the bees, you will reduce nuisance to neighbours. Once bees start foraging from a given area, it is impossible to stop them, apart from moving the hive out of the area. Your bees may still collect water from several locations, but at least you have taken steps to reduce the problem.

**Robbing and Working Hives:** Avoid working bees when conditions are poor (such as cool, windy or rainy weather) and there is little pollen and nectar available for foraging bees. This places the colony under stress, encourages robbing, and makes bees more aggressive. Cooperate with neighbours when you need to work the bees. Recommend that they stay inside while you work the bees or work out a mutually convenient time which won't disturb them.

**Handling Your Bees:** Bees are cold blooded and their flight and activity will increase on warm sunny days as compared to cool, overcast days.

Older field bees are the more aggressive individuals in the hive. Thus it makes sense to work your hives on a sunny day, during peak activity when the more aggressive bees are occupied away from the hive. If you handle bees on overcast or cool days you will find most of the field bees at home and the hive will be a lot more aggressive.

A complication to working bees during warm days is that other people are more likely to be outside during the time bees are most active. In warm weather people like to barbecue, garden, swim and enjoy the outdoors just when you wish to work your bee hives. Again, it is most important to consider your neighbours.

**Manage Swarms:** Swarming of bees is a natural occurrence. The old queen leaves the colony with half the workers, leaving behind a ripe queen cell to replace her, thus creating two colonies. Familiarise yourself with the stimuli that promote swarming and take measures to reduce it, particularly in spring time.

- Re-queen regularly with a reduced swarming strain
- Relieve the brood nest of full combs of honey and replace them with empty combs
- Remove a nucleus colony (called artificial swarming).

Swarming is very alarming to the general public with thousands of bees on the loose. It is one of the prime causes of complaints against bees in urban areas.

## When do I Add a Super to my Hive?

So, you have a good population of bees inside your hive. Is it time to add another box? As a general rule when 8-9 out of 10 frames, or 6-7 out of 8 frames are being used for brood and nectar storage, it's time to add another box - the honey super.

Also, if you find that when you remove the top of your hive the bees virtually bubble over the sides of the box, it is likely that it is time to add a super.

To add a super, use a clean box and lift the two combs containing honey adjacent to the hive walls of the bottom box into the centre of the super. This is done to encourage the bees to occupy the super as bees are mostly reluctant to work a super containing entirely foundation and sometimes even drawn worker combs (stickies). The gaps in the bottom box may be filled with drawn combs (stickies), or foundation if stickies are not available.

There is no fixed time as to when a super of stickies or foundation should be added to a single-box hive. However, if it is done too soon, it may cause a set-back to the expansion of the colony, because the bees will find it difficult to keep the brood area warm. The bees will also have a much greater space to patrol and this may in turn weaken the hive and make them more susceptible to pests and diseases, like Small Hive Beetle and Wax Moth.

Similarly, a delay will hold back expansion of the colony and any congestion may cause the colony to swarm. While this may be a good thing for the bees, your honey harvest may be flying off over the back fence.

Another time it may not be a good idea to add a super is when there is no nectar flow and the collection season is over, usually autumn and winter. Similarly, don't add a super during very cold spring conditions. Don't give the bees more space to keep warm, patrol and store honey if there is no nectar flow.

### **Top Tip** - submitted by Drew Maywald

If you have jars of honey that have started to crystallise, put them in a black plastic tub, like those the club uses to store stickies, and put the lid on the tub. Stand the tub in the sun for a few hours and hey presto - liquified honey.

### **Wax Moth Traps** - submitted by Martin Carroll

Member and club Web Page Guru, Martin Carroll, has shared this gem for making an easy trap to catch Wax Moth. Take an empty 2 litre plastic bottle (eg, milk bottle) and drill or cut a 25 mm hole just below the slope of the neck.

Add:

- 1 cup of water,
- 1 cup sugar,
- 1 cup vinegar and
- 1 banana peel.

Wait a few days till it starts to ferment, then tie it into a tree close to your hives.

Check the trap regularly and when you think the contents are no longer working, replace them.



**A Problem I Found With my Flow Hive.** submitted by Mark and Brenda Francis.

After going on holiday, with no previous problem over the last two years, we came home wanting to check the hive beetle trays. All were fine, not many beetles except for one tray . It was filled to the top with thousands of dead bees in the oil.

So panic! We did an immediate inspection to find out how the little buzzers got down there. After taking off the super and looking in the brood box and moving frames from side to side we couldn't find any entry point where they accessed the oil trays, So we thought we would put it back to normal and look at the tray again the next day and take it from there. the next day- shock horror. Hundreds of dead bees again!!

So we broke out our spare hive (we keep an empty spare hive so as to be able to do maintenance on our other hives) and promptly transferred the complete colony into the new one so we could examine the problem closely on my workshop bench.

What we found- Unfortunately I didn't take a photo before I did the repair. At the hive entry to the left and right there are two front blocks which the slotted beetle tray fits between. Those two front blocks had been eaten and worn away on the inside corners, creating a small enough hole each side for the bees to get down to the oil trays, they had also worn away the bottom edge of the brood box above entry, quite extensively. I then cut those two corners away and replaced them with two pieces of hardwood. (see photo below) Problem solved. This hive is cedar, I don't know if it would have happened with a pine or hardwood one, but it's worth keeping an eye on all types.



Mark's Repair of Damaged Woodwork

Editor's Note: I had a similar problem with my flow hive where the perforated tray was approximately 5mm too short. I had a large qty of bees, including the Queen, access the oil and perish.. back to the drawing board!!

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<sup>2</sup> Bees can see all colours except for red.

## Bottling Station – submitted by Windy

Who has had the bucket you are bottling from slip and finish up with honey everywhere but in the honey container? I certainly did when I first started bottling honey, but I fixed the issue by building a bottling station out of some excess plywood I had lying around.

This is still a prototype as I intend to spend the winter months refining the design. The current version is a little bit too tall, and I need to widen the slot at the bottom of the front section to better fit the digital scales. The front panel where the tap is will be made from 7mm ply as the tap doesn't quite fit the 12mm ply. You will notice from the pictures the top section is slightly offset from the base; this is due to the fact that if both sections are level the honey tends to 'loop' to the bottom section and go everywhere but into the bottle. Surprisingly the offset does not affect the position of the flow even when the top section is tipped to maximum elevation.



To elevate the top section I use a wooden wheel I cut out using a hole saw from 25mm thick timber and then flattening the bottom of the wheel to stop it from slipping. To date I have not had an issue with the wheel slipping even at max elevation. To stop the top section from tipping past 90 degrees, I have a mini wire strop between the two sections at the back.

If anyone would like to discuss this idea further, please catch up with me at the Club or email me.

## Biosecurity and Bee Pests and Diseases

At our March meeting a member asked if we could send a copy of Fiona Fernie’s bee diseases powerpoint to all members, however, Fiona is reluctant to do this as the powerpoint has been designed to use as part of a detailed talk and it cannot be used when working in your bee hives. Fiona strongly recommends that the best way for members to find out about bee pests and diseases is to download and print a copy of the book **Biosecurity for Beekeepers**.



This 64 page comprehensive Australian manual covers all the bee pests and diseases that members are likely to come across in detail, which includes descriptions of what the pest or disease is, what to look for to see if you have it in your hives, how it spreads and what beekeepers can do to prevent it from getting into their hives.

As you can see from the contents page above, the manual also includes other topics related to bee pests and diseases and how to manage them effectively. If you have no other bee books then you must print this manual off, read it and have it handy when you are doing a disease inspection of your hives. Here is a link to the Biosecurity for Beekeepers book: [Biosecurity Manual](#)

You can also download a copy from the Biosecurity page off the Resources hub. If you are unable to print a copy of Bioesecutiyy for Beekeepers, let me know and I will see if the club can purchase some copies for members. There is also a copy of the manual in the club’s library books in the Veterans Men’s Shed lunch room, but all members must have a copy of this wonderful book.

## World Bee Day - submitted by Drew Maywald

The 20th May 2023 was World Bee Day and the club celebrated in fine style with great events at the club, Bunnings Nerang and Madocke Brewery in Ashmore, as well Fiona Fernie's new calling as an ABC radio presenter. Thanks to **Arthur Sharp, Debbie Hedges, Mike Hynes, Tony Perkins, Peter Ward** and all members who helped with the hive inspections and rob at the club this morning. We took off 10 frames which will be extracted on Tuesday.



Following the rob nearly all members who were at the club dropped into Bunnings Nerang where we had a great stall with numerous enquiries and a good level of sales of club and members merchandise. Thanks to members, **Waree & Sam Branderjorn, Angela Yong, Steve Hill, Kevin Finn, Phil Baxter,** and **Debbie Hedges** for their help at the World Bee Day stall at Bunnings Nerang. Special thanks to **Phil Baxter** for setting up the display hive and bringing it to Bunnings.



Thanks to **Fiona Fernie** for representing the club during a live radio segment on ABC Gold Coast at 9:15 am this morning. I heard it went very well and she could be a regular on the ABC. Well done Fiona.



After the stall at Bunnings we moved to the Madocke Brewery in Ashmore for more World Bee Day celebrations. Thanks to **Kevin Finn, Greg Foster, Waree Branderjorn, Angela Yong, Steve Hill, Debbie Hedges** and all the other GCRB members and friends who helped with the Madocke Brewery World Bee day celebration.



I would like to finish World Bee Day by urging you to watch the video at this link: [World Bee Day 2023](#) This short video, produced by Flow, has some outstanding shots of bees which are quite beautiful.

**Top Tip** - submitted by Drew Maywald

If you want to get the honey to flow easier when you are extracting, put the frames in a black plastic tub with the lid on it and stand the tub in the sun for an hour or so. The honey literally pours out from the frames. The tubs the club uses to store stickies are ideal.

**Meeting Dates**

GCRB Meeting Dates for the next four months are:

Club Meeting Dates	Committee Meeting Dates
Saturday June 17, 2023	Wednesday June 14, 2023
Saturday July 15, 2023	Wednesday July 12, 2023
Saturday August 19, 2023	Wednesday August 9, 2023
Saturday September 16, 2023	Wednesday September 13, 2023

**Varroa Sniffer Dogs**

A little known fact about the NSW Varroa incursion, is that the Australian government stopped the queen bee sniffer dog programme 7 years ago. This programme trained dogs to sniff queen bees that could carry the varroa mite. You can read more about this item at this link: [Varroa Sniffer Dogs](#)

## **Good Brood Pattern** - submitted by Drew Maywald

Good brood pattern is something that beekeepers talk about every time they do a brood inspection. But for the beginner beekeeper this is just another of the many beekeeping terms and jargon that they need to get their head around. So let's have a look at what is a good brood pattern.

A healthy hive will consist of lots of bees, stores of honey and pollen and a queen who is doing her job well. The **brood pattern** in a beehive is the way that the various forms of bee babies are "laid-out" in the honeycomb cells. **Bee brood** refers to all stages of developing young bees, including eggs. Honey bees normally group their developing young close together. This makes it easier to feed the young and to keep the area with brood at the right temperature and humidity. Imagine trying to do that if they were scattered across all the frames with a patch here and there.

A good brood pattern shows a uniform egg laying pattern by the queen. Usually moving from the centre of the frame to the outward edges of the comb, with all stages of brood present. Almost all cells will have eggs, developing larva or capped brood, with an outer ring of cells filled with honey and pollen, as illustrated below.

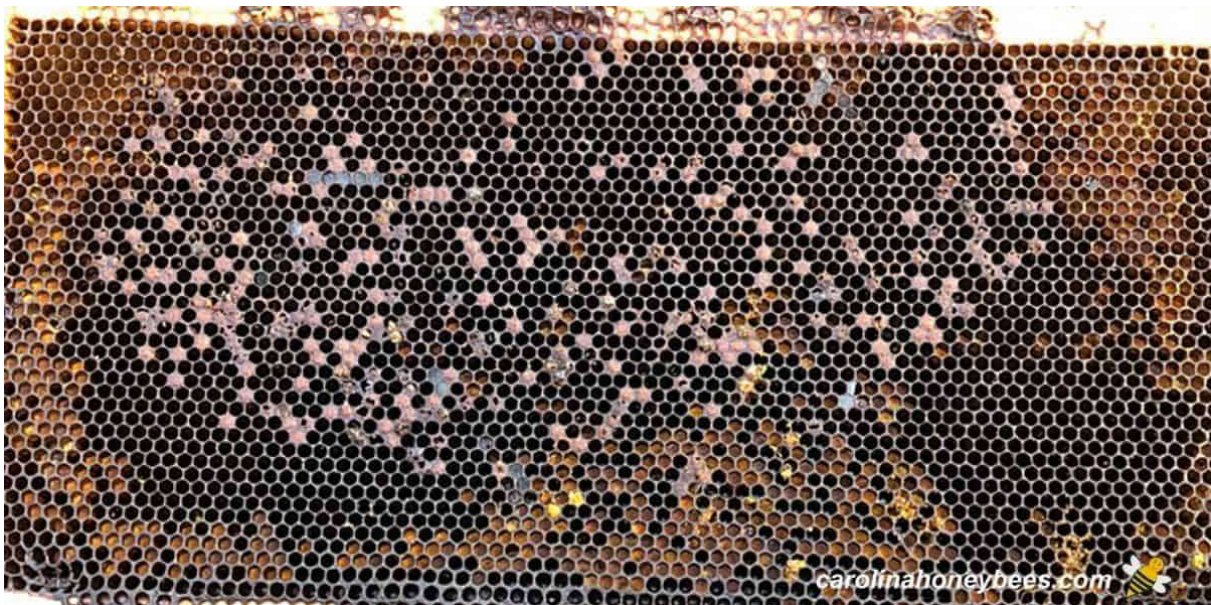


It is fine to have a few empty cells here and there. However, most cells will be occupied by young at the same stage of development, with eggs close to more eggs, larva of the same age close together, etc.

In addition to the way brood is placed, the beekeeper should watch for signs of disease. Healthy bee larvae are pearly white and capped cells should all be the same tan colour and raised above the surface of the honeycomb, as can be seen below.



Sunken cells could indicate the presence of diseases like American Foulbrood. Seeing a “shotgun” or “pepperbox” pattern is not a desirable thing in your hive. This means that you have sections of babies here and there with many empty cells in between. Instead of a uniform egg laying pattern, they are scattered, as illustrated below.



When faced with a brood pattern like that illustrated above, you will need to investigate further because it can be due to a number of factors like those listed below:

- 🐝 The amount of food coming in affects queen laying. If food resources are sparse, the colony does not want to create more mouths to feed. Egg laying is reduced or temporarily stopped during a shortage of pollen and nectar.
- 🐝 The time of year will also affect the amount of brood present. During Autumn and Winter egg laying will be reduced.

- 🐝 Disease or pest problems also affect the amount of brood in the colony.
- 🐝 And, of course you must consider the queen bee. As she ages, expect her laying rate to reduce until the colony eventually replaces her.

Do you have predominantly worker brood or lots of drone cells? Drone cells are an important part of the bee colony, and you want drones – but you do not want all the capped cells to be drones. Drone cells protrude from the comb like a bullet shape, and are usually located on the edges of the brood area, as illustrated below.



However, If you have all drone brood, laid together in a tight pattern – you may have a drone laying queen and she will need to be replaced.

As a beekeeper you have a unique opportunity to enter the world of the honey bee. You get to peek inside the innermost workings of the hive, and the majority of the time the bees will take care of themselves. However, routine hive inspections enable you to watch for problems in your brood pattern. This can make the difference between a healthy colony or a dead one.

## Bee Native Community Programme

### Background

The demand for housing on the Gold Coast just keeps growing with many new housing developments occurring all over the coast. For example, at my neighbouring suburb Worongary there is a green fields development where 10,000 homes are going to be built. While this is great for the people who are going to live there, has anyone stopped to think about the real impact this one development site is going to have on the environment? Well here are just a few issues that this one estimated 10,000,000 square metre development will have on the local environment:

- 🐝 Prior to the development rain fell on the existing trees and scrub land with very little stormwater runoff. Now there will be around 7,000,000 square metres of roads and house roofs which will runoff directly into the small creek on the southern side of the development. This is a lot of extra water to add to the GC flood plain.
- 🐝 Apart from around the creek on the southern side of the development, every tree on the site has been cleared to make way for roads and housing.
- 🐝 The mob of kangaroos that lived on the site and sheltered under the mature gum trees have gone.
- 🐝 The birds, bees and other insects that used those native trees as homes and nesting sites have gone.
- 🐝 It takes around 100 years for a native tree to get to a size where it will develop hollows where birds, insects and native bees can call home.

The worrying thing is that there are many developments like this on the Gold Coast with new suburbs seeming to spring up from what was once bushland.

I have a reserve of around 4,000 square metres at the back of my house, and I know of at least 14 colonies of native bees that live in the mature trees and fallen logs on the site. If this was cleared those 14 colonies and the 200,000+ native bees that live there would cease to exist. That's 200,000+ native bees that would be removed from the environment and unable to pollinate the local flora and gardens around Mudgeeraba.

### Bee Native

With this continued decline in native bees the Gold Coast Regional Beekeepers (GCRB) is taking action to restore the balance by initiating a programme called **Bee Native** to be launched later this year.

Our aim is to help residents of the Gold Coast repopulate our environment with native bees. This programme has been designed to not only make members of the community aware of the plight that bees face in Australia and world wide, but also give them an opportunity to do something about it by introducing hives of native bees into schools, parks, bushland, businesses and private gardens, all over the Gold Coast.

Our not-for-profit club will breed colonies of the Australian native bee *Tetragonula carbonaria* in two tier wooden boxes, which will then be made available to the community.



Often called the 'Sugar Bag' bee because of the small bag-like structures they make in which they store their honey and pollen, *Tetragonula carbonaria* are endemic to the Gold Coast region and a 1500 km area stretching from the south coast of NSW to central Queensland. Because these native bees are so small they are wonderful pollinators as they can get deep inside flowers where honey bees are too large to go. Several native bees laden with pollen can very often be seen in each flower, and we have seen more than 20 native bees in one Sunflower. Here are links to two very short videos showing *Tetragonula carbonaria* pollinating a sunflower and dragon fruit flower [Native Bees in Sunflower](#) and [Native Bees in Dragon Fruit Flower](#)

*Tetragonula carbonaria* is only one of 12 stingless social native bee species among the 1,700 species of native bee found in Australia. Social species of native bees live in colonies consisting of a single egg-laying queen and her 10,000+ sterile daughters who function as workers. In the wild, they nest in hollows in trees, fallen trees, rock crevices and sometimes human structures as well. These bees are just one of the hundreds of other species of bees in the Gold Coast region, many of which will be common visitors to your garden.

Our native bees are important pollinators, and many of our Australian plants rely on them to do that. Not only that, pound for pound the native bees can be far better pollinators than honey bees with many species, such as the buzz pollinating carpenter bees, possessing special techniques.

The importance of bees generally is now well known but it is our native bee species that are the unsung heroes and deserve more of our attention.

### **Bee Native Hives**

The Bee Native hives consist of two tier wooden boxes (called an OATH hive) with each box measuring 280 x 200 x 90 mm high. Because these native bees do not sting they are ideal for use in schools, private gardens and the community, where they can be used to help re-establish native bees back into our environment and ecosystems.

Each year Bee Native will make a number of native bee hives complete with a queen and around 10,000 bees, available to residents, community groups, schools and businesses to foster on their own property. The Bee Native hives are very low maintenance and only require participants to keep an eye on the activity of the bees and report any concerns or problems to Bee Native.

All of our hives are made from recycling untreated timber and marine plywood, fossicked from skip bins and supporting businesses. We are also supported by the Veterans Support Group Men's Shed in Nerang, who make their equipment and personnel available to Bee Native; Stratco who have supplied us with a metal roof for 50 hives; Dulux who have donated 8 litres of paint to the project; and Bunnings Nerang who will be supplying us with a number of other items needed for each hive.

### **How Bee Native Works**

When we deliver a Bee Native hive, we will work with every participant to find the most suitable and safe location for the hive on the participant's property, taking into account things like position of the proposed site, afternoon sun, use of pesticides and access to suitable flora. We will also train every participant on how to care for their Bee Native hive and bees.

Fostering a Bee Native hive will incur a one-off donation so that we can get materials and equipment to build more Bee Native hives. Every hive distributed remains the property of the GCRB Bee Native programme.

### **Hive Splitting**

Every year we will check every Bee Native fostered hive, and if it is strong enough, we will split it to create a new Bee Native colony. This new colony will then be added to the number of Bee Native hives and made available to other members of the community who want to foster one of our hives. If appropriate and with the participant's permission, we may also choose to bud or educt another box into their Bee Native hive. Budding is connecting an empty bee box to an existing Bee Native hive using 10 mm tubing. The bees then have to travel through the empty box to get out of their hive, and over time will build a new colony in the empty box, at which time it is removed, leaving the existing hive intact. A second box is added to the split or budded hive to create a new Bee Native hive.

No hive will be split unless it is a strong healthy hive and ready to be split, as the health of the bees is our primary concern.

By splitting and budding the Bee Native hives we can significantly increase the number of native bees in the environment and local ecosystems.

### **Requirements for the Bee Native Programme**

Participants will be required to fill out a simple application form online, which will include details like name, address, address the hive will be kept at, and contact details.

The Bee Native hive is to remain on the property of the person registering for a bee hive. If they move they must contact Bee Native regarding the return of the hive to the programme, or the procedure to follow to successfully move the hive.

A condition of receiving a Bee Native hive is that Bee Native retains ownership of the hive and therefore has the right to check and split the hive on a yearly or two-yearly basis. This usually takes place between September and November, and participants will be contacted via email prior to the check and split taking place.

Participants are responsible for providing a suitably safe and stable place on which to put the hive. We will provide guidelines for that.

People not comfortable or unable to provide Bee Native volunteers with access to their property for hive maintenance, will be unable to participate in the programme. Participants will need to provide the details requested on registration about locked access and dogs on their property. This is essential to enable us to arrange a mutually convenient time to visit if locked, and for our volunteers to access safely if dogs are present on the property.

Bee Native has the potential to make a real difference to our environment and introduce native bees to gardens, work areas, schools and community groups across the Gold Coast, and GCRB members and friends are invited to participate by:

- 🐝 Assisting to construct and paint the hive boxes.
- 🐝 Donating a split hive or two to the project.
- 🐝 Assisting with splitting hives when required.
- 🐝 Volunteering to foster a Bee Native hive.

Register your interest by emailing [gcrb.secretary@beekeepers.asn.au](mailto:gcrb.secretary@beekeepers.asn.au)

### **Manuka Honey and Colds and Flu** - submitted by Matthew Henderson

It's common for fresh honey to inhibit the growth of bacteria, which is a result of the activity of hydrogen peroxide formed by enzymes that bees add to nectar as they digest it and turn it into honey. Peroxide in honey tends to break down reasonably quickly, meaning that for most honey the peroxide level is highest when it is fresh, and reduces over time. What makes Manuka honey special is that it has high levels of peroxide which do not reduce over time.

The *Leptospermum* species of plants contain the chemical Dihydroxyacetone (DHA) in their nectar. The DHA in nectar collected by bees from *Leptospermum scoparium*, and other members of the *Leptospermum* species is converted into the chemical methylglyoxal (MGO). Over time the DHA level in the honey will decrease while the MGO level increases, and high concentrations of MGO only tend to occur naturally in honey made from nectar collected from *Leptospermum* species. MGO is a natural antiseptic that can help fight diseases, viruses and infections.



This is one of my bees gathering nectar from one of my Australian manuka plants. This hybrid *Leptospermum* plant is a cross between *Leptospermum polygalifolium* and *Leptospermum petersonii*. This plant has medium levels of DHA in the nectar but it is still twice that of the *Leptospermum scoparium*, the only New Zealand species of *Leptospermum*.



At an MGO rating of 300+ manuka honey becomes anti-viral and can be effective in fighting infection. Over 850 MGO, manuka honey starts to affect antibiotic resistant bacteria (superbugs) and is used on wounds and ulcers in hospitals. It has also been shown to have positive effects on stomach and digestive problems, tonsillitis, Crohn's disease, mouth and gut ulcers, and when medicines aren't working. Just one teaspoon of high strength manuka honey a day is great for your digestive system and to keep the immune system strong. The very high strength MGO manuka honeys can also be used to combat cold, flu and sore throat symptoms. Simply coat your mouth and throat with a large teaspoon of manuka honey and leave it there for a while. Do this several times a day as soon as you start to feel something is trying to take hold. Manuka honey has been proven to reduce the severity and longevity of cold and flu symptoms and its antiseptic properties will help to soothe a sore throat.

At Funny Honey in Mount Tamborine we have been making Manuka honey for some time and have Manuka honey with the highest MGO rating in the world at 2,100 +. Hospital grade manuka is anything with an MGO rating of 1,000 +. We sell our Ausmanuka honey from our Mt Tamborine shop or online at Funny Honey, simply open this link: [Funny Honey](#). We have manuka available with an MGO of 300 up to 2100+. We often get health professionals referring patients to us for the quality of our manuka.

### **Flow Hive Owners**

We have received an email from Jai Anderson from the Flow team who is planning to film flow hive owners in Queensland harvesting honey from their flow hives. If you would like to register your interest in being involved please complete the form at this link: [quick survey](#)

### **Photo Competition**

As part of our annual honey competition the club is running a photo competition. Members are now invited to submit any photos related to bees, and beekeeping, including native bees to me by email between now and the competition closing date of **October 15, 2023**. Providing the quality of the photos is suitable the best 12 photos submitted will be used to make up a GCRB 2024 Bee calendar which will be available for members to buy. For details and rules of the competition please click on this link: [GCRB Photo Competition](#)

Members will also have an opportunity to judge the best photo for a prize at the December honey competition. It's not hard to do, all you need is to have your phone handy when you do an hive inspection because you never know what you are going to see, like the photo at this link of a bee emerging from its cell when I inspected my hives on April 20: [Bee Emerging from Cell](#)

We already have several great photos that have been submitted so, get snapping and send me your photos related to bees or beekeeping along with the title of your photo and, if known, the date it was taken.

Send your photos to [gcrb.secretary@beekeepers.asn.au](mailto:gcrb.secretary@beekeepers.asn.au)

## The Bee Quiz

Test your bee knowledge. Answers in the next edition of the Waggle.

1. Bees do not pollinate which of the following foods?
  - A. Almonds
  - B. Grains
  - C. Apples
2. What is the primary cause of the decline in bee population?
  - A. Climate change
  - B. Habitat loss
  - C. Use of pesticides in agriculture
3. What percentage of main crops in the world is pollinated by bees?
  - A. Around 20 per cent
  - B. Around 45 per cent
  - C. Around 75 per cent
4. The honeybee is a part of which family?
  - A. Apidae
  - B. Andrenidae
  - C. Melitidae
5. How many eyes do bees have?
  - A. 2
  - B. 4
  - C. 5
6. Honey bees communicate with each other by which type of dance?
  - A. The squiggle dance
  - B. The waggle dance
  - C. The wiggle dance

### Editors Notes

Submissions for the Spring 2023 edition – please send to me NLT the 25th of August. Prefer you use the dhewett5865@gmail.com address. Members, we need your submissions.

We have a vacancy on the Committee. If you would like to come aboard, talk to one of the committee members.

I have added a photo of a bee on the front page. Can you identify that bee and is it a friend or foe?

Happy Beeking and bye for now!...

Don H