


# THE BUZZ



The official newsletter of the Gold Coast Amateur Beekeepers Society Inc. Est. 1979  
 Website: [gcabs.net.au](http://gcabs.net.au)  [Gold Coast Amateur Beekeeping Society](https://www.facebook.com/GoldCoastAmateurBeekeepingSociety)



Sometimes we need a  
 helping hand

GCABS' Members, we  
 support each other.

Photo by Bec Pohlner,  
 Pres. Bundaberg Beekeepers Assoc.

## DATE SAVERS

*COVID regulations have eased, but our planned events may still need to change if restrictions are reinstated. If so, you will be notified via our Facebook pages & email.*

- **Sun 21st Feb. 2021 10am – noon: Members' Meeting.** Location: Home of GCABS Life Member Alan Betts, 183 Tomewin Mountain Rd, Currumbin. Activity: Rebecca Laws, DPI Officer will give a hands on Pest & Disease Talk & Demonstration. There will also be **LUCKY DOOR PRIZES**. Bring chair, cool drink. **Bring \$15 if you would like to purchase a sugar shaker kit that will be demonstrated on the day.** You MUST register to attend via this link: <https://www.eventbrite.com.au/e/gcabs-general-meeting-tickets-133213754927>
- **Sun 21st March 2021 10am – noon: Members' Meeting.** Location: Gold Coast Regional Botanic Gardens, 230 Ashmore Road, Benowa. Host: Friends of the Gold Coast Regional Botanic Gardens. Activity: Guided Flora Walk - Identifying native pollen and nectar flora sources. Wear comfy walking shoes & sun hat. You MUST register to attend via this link: <https://www.eventbrite.com.au/e/gcabs-member-meeting-tickets-139163165775>
- **Sun 18th April 2021 10am – noon: Members' Meeting.** Save the date. Details soon.

## From GCABS President



*A warm welcome to all new members and salutations to our existing club members. It was truly wonderful to see so many smiling faces at the recent Members' Meeting, 17th January 2021 at the Nerang Country Paradise Parklands and what an amazing meeting to start 2021 with too. The Honey Extraction Demonstration was jam packed with helpful tips and tricks and I'd like to say a Big Thank you to all the GCABS members who assisted to showcase a variety of techniques.*

*Every geographical location comes with trials & tribulations and John Vallance, GCABS Biosecurity Officer, highlighted the fact that as beekeepers in the Gold Coast & Northern NSW Regions, we don't have the luxury of complacency regarding Small Hive Beetle Management as the Sweet Siren Melody of glorious honey beckons to all Small Hive Beetle from kilometres away.*

*I look forward to seeing everyone at the February General Meeting, which promises to be another valuable educational experience, as Rebecca Laws from Biosecurity QLD will be joining us, to explore & investigate the essentials to a Healthy Hive.*

Ross Krumbholz



***A hearty welcome to our newbee members who joined GCABS in December and early January:***

*Fevzo B, Evette H, Juta L, Wendy R, David R, Paul R, Ali S, Shane S.*

## January 2021 Wrap

### Ms GCABS' Photo Raffle Result

Thanks to all the members who submitted a photo of the queen of their hive/s. (Mostafa even submitted a photo of his lovely wife, Jill) The names went into the draw and David C. was the lucky winner. See next page for our **FEBRUARY/MARCH RAFFLE**.

### January Meeting Review

*Thanks to Peter Quirk*

The first monthly meeting of 2021 at Nerang Country Paradise Gardens was well attended by 100 members. This is an excellent turnout considering we are all still required to comply with COVID restrictions.

Matters of interest include a short discussion conducted by the Clubs Biosecurity Officer, John Vallance, on managing small hive beetles which are very prevalent in our current hot, wet and humid conditions. This was followed by an extensive and detailed practical demonstration of various methods of harvesting/extracting honey from top bar, flowhive, and Langstroth hives. Demonstrations included a honey press and decapping tools ranging from the basic comb, trowel, knives, electric knives, steam knives, manual extractor through to equipment (I think) aimed at the more serious/higher volume beekeeper. And of course the array of sieves, buckets, containers etc.

The whole presentation was very informative with a lot of handy tips and a credit to the organisers.



Many thanks to the presenters on the day: John Vallance, Ross Krumbholz, Ian Dunham, Colin Allen, Rachael and Vern Kubinski, Kim De Mezieres and Sarah Wilson. Apologies if I have missed anyone!



## GCABS' February/March Raffle

The GCABS February/March raffle is themed "*DECORATIVE HIVES*". To enter, simply share a photo of your painted hive/s on the GCABS Members' facebook page or email the photo to the Buzz Editor GCABS at [editor@beekeepers.asn.au](mailto:editor@beekeepers.asn.au) (Feel free to submit photos of more than one hive but only one raffle entry per member) **ENTER NOW!** Entries close on Wednesday 31st March.

V's Bees Beekeeping Supplies are also running a raffle in February to celebrate their 2nd birthday. See their advert on page 9 for details of how to enter. **HAPPY BIRTHDAY V'S BEES.**

## February Honey Flora - S.E. Queensland

*Submitted by Jim O'Reagan*

Blackbutt. Blue Heliotrope. Broad-leaved Banksia. Broad-leaved Ironbark. Brown Bloodwood. Brown Box. Coolibah. Grasstree. Grey Mangrove. Gum-topped Box. Hickory Wattle. Mallee box. Mexican Poppy. Moreton-bay Ash. Paper-barked Tea-tree. Pink Bloodwood. Red Stringybark. Silver-leaved Ironbark. Small fruited Grey Gum. White Stringybark.



Moreton Bay Ash flower & trunk

## Beware...Small Hive Beetle Slime Outs

During this wet humid summer, small hive beetle (SHB) have been breeding prolifically in most of our hives. A number of GCABS' members have experienced the horror of losing a hive or two to SHB slime out. As GCABS' Biosecurity Officer reminded attendees of the January meeting, be extra vigilant in protecting your hives. Maintain strong populations & use effective controls.

The following is a reprint (edited) by GCABS' member Paul Fullwood of Greenwood Farm.

### **Small Hive Beetle** *Aethina tumida* (SHB)

We have all grown to dislike these little sub-Saharan invaders. In SEQ we provide them an ideal environment with moderate to high temperatures and moderate to high humidity for a large portion of the calendar. With the capacity to lay thousands of eggs a day, they can quickly overcome a hive if not managed.

The bees themselves are your best line of defence. Strong colonies can still be invaded by SHB, however a healthy, populous colony maintains three lines of defence:

- First line of defence: guard bees at the hive entrance
- Second line of defence: host workers patrolling the nest and guarding combs
- Third line of defence: removal of eggs and larvae by host workers

**Beware opening your hives too frequently:** When we open the lid and start manipulating frames, the SHB are freed from their bee captors, who have spent time diligently corralling & guarding them. This sudden freedom of movement can excite the SHB to quickly lay. In effect, our disturbance of the hive's equilibrium can bring on a mass-laying opportunity by these patient jailbirds.

Another of the SHB behaviours is that they "drop" when threatened. This has led to a proliferation of trapping devices whereby the beetles are captured in a device when they drop. The downside is that these devices require regular maintenance, cleaning and replenishment if filled with oil or diatomaceous earth. As well, these devices are frequently propolised by the bees.

Many beekeepers will be keen to split hives as populations are at peak numbers. Consider that a colony stressed with the removal of 10,000-15,000 bees, in a humid climate, with lots of empty frames is the perfect home for these opportunistic invaders. Assess the controls which work best for you and implement your SHB management plan pronto.

### **Controls**

**Inside the hive** – well constructed hives (no gaps in joins), trapping devices (between frames, on the sides or on the bottom board), screened bottom board, ventilated lids, bait strips, a strong population of adult bees, a large quantity of bees in general, hive volume correct for number of bees, entrance reducers and of course humans.

Examples of trapping devices: Apithor & other chemical traps, silver bullets, textured surfaces, diatomaceous earth, lime, oil.



*Photos from a GCABS members hive this season.  
The entire hive was lost.*

**Outside the hive** – lures, soil drenches, predators (chickens, worms), soil types, location of hive (shade vs sun) and again humans.

**Environmental Factors** – temperature and humidity are critical. Well ventilated hives tend to have less moisture build up, therefore reduced humidity, this prevents SHB laying. In high heat the SHB eggs desiccate. Maintaining the micro-climate in your hive will require seasonal management.

## SHB Life Cycle

By understanding their life cycle, behaviours and the environment in which SHB thrive, we have the best chance of controlling and managing our colonies.

Adults can live 1-12 months, eggs 24hrs to 3 days, feeding larvae 3-10 days. Wandering larvae can survive up to 2 months without food (and longer with), pupae 13-25 days. Adults fly in to hive around dusk. Adult SHB can live in your hive through winter but are generally non breeding during the cold months.

It is the larval stage that is most damaging to bee colonies. The faecal matter of the larvae contaminates the honey and comb with harmful yeasts and causes what we call a “slime-out” (see photos previous page). Both the smell and sight are distressing for the bees and the beekeeper. For my money, the only way to clean up is destroy the comb & frames (with fire) then sterilise the hive components. If you are lucky enough to have bees left, you may be able to house them in a collection box once the original hive is removed (*in the member example on the previous page, the bees absconded and all frames were destroyed. Two weeks prior the bees were strong and the SHB well under control. They swarmed and this left the hive weaker numbers wise and vulnerable, and the slimeout occurred very quickly*).

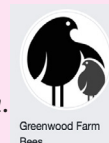
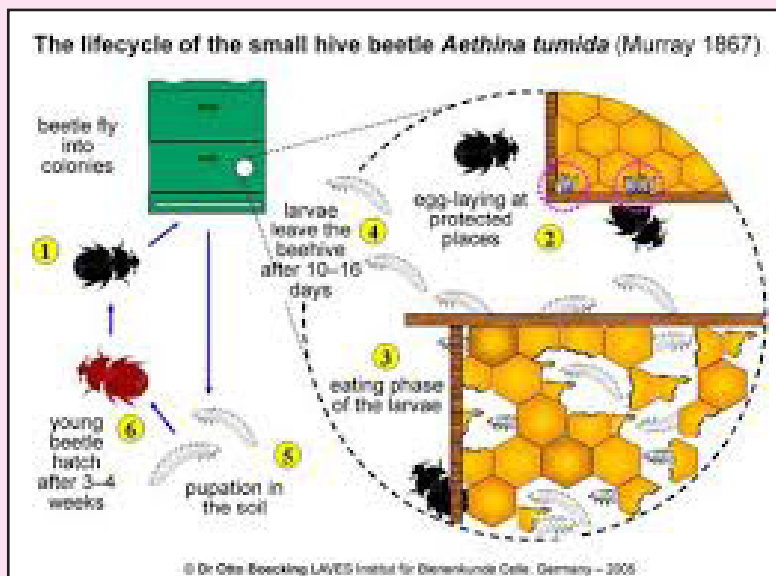
SHB have the ability to survive and reproduce on a range of food types including honey, wax, brood, pollen, dead bees, cannibalism and most distressingly nectar through trophallactic mimicry, the process whereby the SHB strokes the mandibles of the bee with its antennae to stimulate it to feed it, as it would a fellow worker bee. This allows them to co-exist with the bees for long periods of time in a hive. The jailers (adult bees) are in fact feeding the jailed (SHB).

The only stage of their life where they are not present in the hive is the pupal stage, where the wandering larvae leave the hive to burrow into warm, moist soil to pupate. This can be up to 200m from the hive. Their tortoise-like shape enables them to retract under the security of their hard shell, immune from the snipping mandibles of the worker bees. I find momentary delight when I see a worker bee chase a SHB on my inverted lid and catch it, then begin chewing its legs off. Bees 1 – SHB 0. However, its equally satisfying to simply squash them with my finger or hive tool. Beekeeper 10 – SHB 0.

## Conclusion

Given that we all have a unique set of factors influencing our apiaries: location, shade, size, hive type, beekeeping approach, relying on a multi-faceted control, or an Integrated Pest Management (IPM) strategy for small hive beetle is recommended employing Mechanical, Biological, Chemical and Environmental controls.

Paul at Greenwood Farm Bees runs a “Bee Basics small group” workshop on 1st Saturday of every month. Enquires at <http://greenwoodfarm.com.au>



## Let's Talk NATIVE BEES with Kara & John

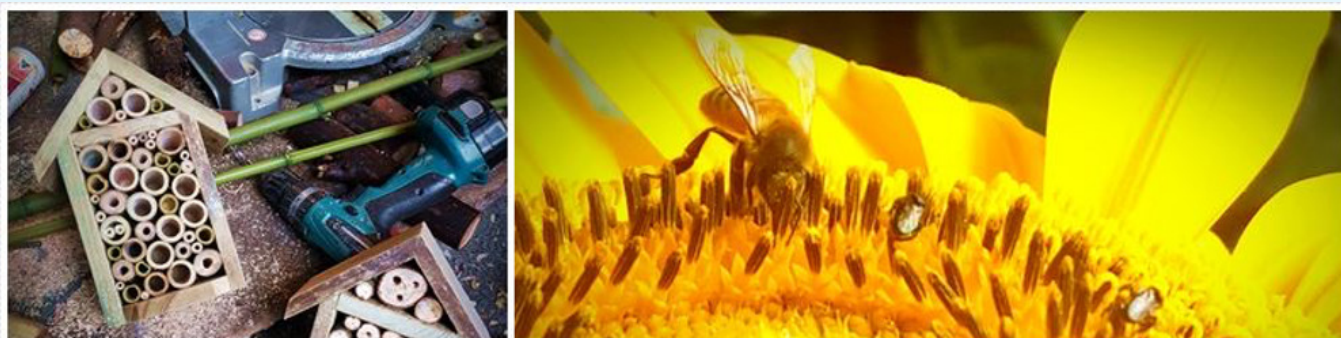
### Attracting Solitary Native Bees to your Garden

By GCABS' native bee enthusiasts, Kara & John Froggatt



To ensure that native bees and other pollinators have plenty to eat and collect, you can plant nectar-rich, non hybridised flowers and provide bee hotels as nest sites in your back yard. Land clearing and non-flowering or nectarless landscaping destroys food sources and nest sites, making life miserable for our native bees.

Good plants for attracting native bees include: *Abelia grandiflora*, *Angophora*, *Baeckea*, *Buddleja davidii*, *Callistemon*, *Eucalyptus*, *Grevillea hybrids*, *Hardenbergia violacea*, *Lavandula*, *Leptospermum*, *Melaleuca* and *Westringia*.



LEFT: Bee Hotels in the Making. RIGHT: *Apis Mellifera* and *Tetragonu* forage on the same flower without conflict.

A bee hotel made with a bunch of bamboo or a block of hardwood drilled with holes (4 to 9 mm wide and 150 mm deep) will also help provide nesting sites for your local bees and other useful insects and pollinators.

If commercial honey bees, native bees and other pollinators are foraging on the same flowers, they do not usually fight with one another. However, commercial bees usually get most of the pollen as they are much more efficient foragers than most native bees. As long as there are plenty of flowers with nectar and pollen in your garden, they will all just get on with collecting and ignore each other.

With many insects visiting flowers, it can be difficult to tell native bees with all their variations in size and colourings from flies and wasps. All bees have four wings and all flies have only two wings. Some flies drink nectar from flowers and may mimic the colouring of wasps. Bees, flies and wasps often sip nectar from flowers so you will find them all on your backyard blooms. However, bees feed their babies with pollen collected from flowers and wasps feed their babies on insect or spider prey. So if you see a flying insect collecting pollen from a flower, it will be a bee, not a wasp. Bees are 'vegetarian'; wasps are carnivorous. Wasps fill their nests with the bodies of caterpillars and other soft bodied insects for their babies to feast on.

## JOBS in Your Bee Yard this month

- Be vigilant with small hive beetle management. Use traps – oil, chemical, diatomaceous earth, lime, textured wipes.
- Monitor for signs of swarming as bee populations are at a peak and often have a tendency to swarm in late January & February.
- Ensure your bees have a reliable water source.
- Harvest honey frames when at least 90% capped but don't be greedy. Leave the bees plenty against future shortages
- Monitor for pests & diseases. Under biosecurity laws, you must do a full brood box inspection a minimum of twice each year, one being in Summer & keep notes.
- Watch this quick video on **Summer Beekeeping Tips**: [https://www.youtube.com/watch?v=J\\_AK-JviCO\\_Y](https://www.youtube.com/watch?v=J_AK-JviCO_Y)

## **Insect Social Behaviour is dictated by their Gut, not their Brain.**

*Based on the original by Prof. Jurgen Tautz, the ABK, March 2019.*

**Honey bee BRAINS do not exhibit any structure that can be associated with the bees' social behaviour. Rather, a valve in the bee's gut determines the forager bees' action of either self-consumption of nectar or the selfless behaviour of sharing.**

Food sharing inside a hive is “dynamic and continuous.” This constant flow of honey from bee mouth to bee mouth is one of the traits that makes tens of thousands of individuals function as one unit: The BEE super-organism.

The continuous flow of honey ensures that each member of the bee colony is supplied with energy & resources. However, involving all of the bees in a colony in the distribution of honey has one particularly perilous consequence: in times of dire need, individual bees do not survive at the expense of others. Instead, all of them starve, in a very short amount of time depending on the circumstances, which can happen in a matter of hours.

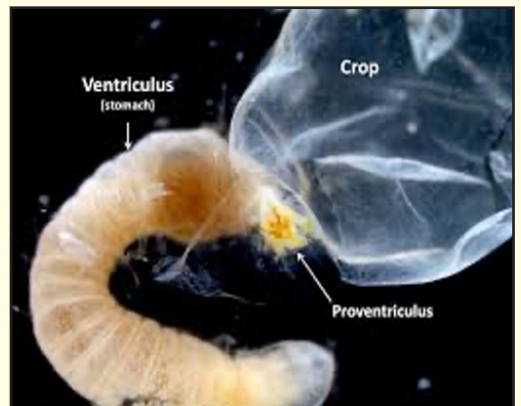
The constant flow of honey through the bees mouths is also one of the most important channels for relaying messages within the colony. The message that the queen is healthy & fertile is continually spread throughout the colony, starting with the court bees, who are in charge of keeping the queen meticulously clean & which ingest the queen mandibular pheromone when licking her body.

When a forager bee returns home with a full load of nectar, it transports that nectar in its gut: to be precise, in its honey stomach (also known as its crop), a very flexible section at the end of the oesophagus. The honey stomach can hold approx. 0.05mls of liquid, which corresponds to roughly half the body weight of a forager bee. The term ‘honey stomach’ is fitting, because enzymes are added to the nectar on its way from the mouth to the honey stomach, constituting a preliminary step in the creation of honey. The contents of the honey stomach are then regurgitated back in the beehive, passed on to the recipient bees through trophallaxis, processed into finished honey and introduced into the honey flow between all of the bees.

The posterior end of the honey stomach determines which share of the collected harvest the forager will keep for her own needs and which share she will allocate to the colony. A tiny valve, the proventriculus, opens automatically when part of the contents in the honey stomach are to pass through to the midgut for the bee's own consumption. The proventriculus is a micro-mechanical marvel. It is made up of four tiny flaps situated opposite one another in pairs, which similar to our heart valves, are able to hermetically seal the passage. When it remains sealed, the full crop of nectar will be shared.

Summary: Honey bee brains do not exhibit any structure that can be associated with the bees' social behaviour. The involuntary opening & closing of the proventriculus valve in the bee's gut determines the forager bees' action to consume nectar for herself or to selflessly share with her hivemates.

*Ref: The Australasian Beekeeper, Vol. 120 / March 2019 / No.9, pg 9*



## Update on the Varroa Jacobsoni incursion in Townsville

In May 2019, suspect varroa mite were found & destroyed in an Asian honey bee (*Apis cerana*) nest at the Port of Townsville. The mite were identified by the CSIRO as *Varroa Jacobsoni* & were believed to have recently arrived from PNG or the Solomon Islands. **Note that this is NOT Varroa Destructor that affects *Apis Mellifera*, European honey bees.**

The National Varroa Mite Eradication Program (NVMEP) based in Townsville reports no finds of *Varroa jacobsoni* or Asian bees since April 2020. Proof of freedom stage comes in a few month's time. The team in Townsville are putting in the hard yards:

- In 2020 they walked 8,920 kilometres inspecting plants for bees and putting leaflets in letter boxes. To give you some idea that would be the equivalent of going from Brisbane to Perth and back and still not covering the distance they did by about 300 kilometres.
- They had 582 reports of bee nests and swarms from the public.
- They dropped almost 67,000 pieces of information into letter boxes to raise the public awareness about Varroa and Asian bees.
- They collected just under 70,000 pellets from rainbow bee eater birds to be checked for Asian bee wings.
- They carried out 338 tests on hives in beekeepers back yards remembering there are no commercial beekeepers based in Townsville.

So, if there are no more sightings in the next couple of months, then the threat has been eliminated.

## Library Corner

- The February issue of ABK contains the following articles:
- In the Apiary – Is it Feeding Time in your Apiary?
- Carbon Footprint of the Beekeeping Industry
- Mental Health of Beekeepers
- Bee Pollen: An Overview
- Honey Bee Nutrition
- A Closer Look: Larval Pheromones
- Recent Research – Here and Overseas
  - Flight Guidance Mechanisms of Honeybee Swarms - How they get Where they are Going
  - Bee Interstate Highways for Bees

**Contact Ann Allen if you wish to borrow this or any previous copies.**



### Great beekeeping podcasts

**SHE BEEK** - podcasts for and about women in Australian beekeeping. Chats with various women involved in the honey bee industry in Australia with the aim to support and promote the female voice. Presented by GCAB's very own Dr Kathy Knox and Jo Derbyshire. Facebook: @shebeekpodcastaustralia

### Latest podcast: SUMMER 20/21- 'Australian Bees in the Burbs'

With special guest Kit "Bee Babette" Prendergast - Native bee scientist, conservation biologist and zoologist. PhD researcher (Curtin University) and Forrest Scholar. [CLICK HERE](#)

**Living Being - Bee Medicine** - a podcast about Apitherapy and its role in a new pandemic world  
<https://podcasts.apple.com/au/podcast/living-beeing/id1516468366>



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### Sugar / Alcohol Shaker Kits

These will be available for sale at the February 21st Members meeting. Price: \$15. Includes: Shaker Jar, Mesh, Solid Lid, Instructions & Icing Sugar



**V's Bee's QLD**  
**Birthday Raffle**  
**1st Feb 21 - 28th Feb 21**  
**Instore transactions of \$30 or more will receive a raffle ticket for Oz Armour Premium Stainless Steel Smoker valued at \$70**  
**Winner contacted by Phone**



[www.vsbees.com.au](http://www.vsbees.com.au)



Monday - Friday [ 8am - 5pm ]  
 Saturday [ 8.30am - 12pm ]

### Beekeeping Supplies

**Unit 3 / 90 Spencer Road**  
**Nerang**  
**Located Inside**  
**Allied Bearings & Seals**



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