



Troubleshooting and F.A.Q's about your Native Stingless Bees Sydney

Here are a few things you can observe, learn and a few tips I've learnt over the years about keeping both native stingless bees and honey bees that might help you, your bees, or just give some peace of mind.

1.1 Summer Heat – strange activity (or lack of)

Out of the ordinary behaviour can happen on (or just before) summer heatwaves or summer storm weather. There is an unusual amount of extra activity on the outside of the hive on the left compared with 'normal' activity in the photo below right.



Check that the entrance hole hasn't been blocked by the bees with resin. If they have blocked their entry, it is either to do with defense or weather.

If fully blocked, carefully create a little opening (using a stick or skewer) to let them breath and remind them about the outside world. If they close it back up, then they obviously want to have their door closed. Observe, keep an eye on why they are blocking their entry and if you feel you need to unblock it again in a few days, then do so.



The bees in this hive (above) are trying to cool their hive down by creating air movement by lining up and fanning their wings. Fascinating, but also a sign that the hive is heat stressed. Shade the hive, cool it down by watering the hard surfaces around it, putting up an umbrella, a wet towel over it, shifting a pot plant to shade it or putting up an awning for the summer hot weather.



These bees have created their own awning for shade and protection. This can happen in summer or winter. The reddish resin is believed to be collected from *Angophora costata* – Sydney Red Gum or *Corymbia gummifera* – Red bloodwood. As long as there are bees coming and going, then it is best to leave the curtain in place.

1.2 More Activity than usual.



In a normal hive, you should notice a steady stream of bees going in and out of your hive (this is a good sign). The photo above shows a much higher than normal activity (but any activity is generally much better than little activity/bees flying in and out). As well, you'll notice sometimes bees bring out 'garbage' balls. (see photo below).



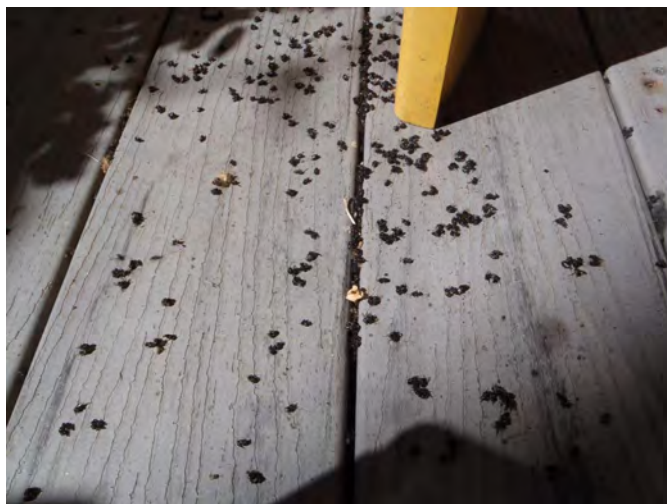
Another resin 'curtain'. This is in winter, and the bees have been putting their 'garbage balls' just out the front door as they don't want to fly when it is under 18 degrees C. If you see these balls, that is a sign that there is activity inside and baby bees being born, as the 'garbage balls' are the lining of the egg (involucrum) and the faecal matter wrapped inside. This is cleaned up and taken out of the hive once the bee hatches and is born. When the weather warms up again, the bees will take their rubbish further away from their entrance. So just leave it be and check they haven't blocked up their entrance with the pile of garbage.

1.3 Swarming – Mating Swarm



If you notice a cloud of congregating bees in the air then you've got a congregation of males (drones) that are likely on the lookout for a virgin queen. This is known as a **mating swarm**. Your hive will naturally and periodically re-queen itself if the colony decides it needs to. This is a natural occurrence (and nothing to worry about and nothing to do other than observe).

1.4 Swarming – Fighting Swarm



The other type of swarm (in the native bee world) is called a **fighting swarm**, where a colony from elsewhere is fighting with your bees.

This is when bees (from 2 different colonies) wrestle each other (see photos above of 2 bees in 'deadlock'). The stronger colony wins and will insert a queen (and hence their stronger fighting genetics) into the hive. Whilst this looks very destructive and detrimental to the colony, it almost always ends up in a stronger hive. It is unknown why these social insects fight with each other like this.

Here is more information on fighting swarms from Ann Dollin . <http://www.aussiebee.com.au/abol-013.html>

1.5 Predators in Sydney – Bembix Wasps



- Another predator I have noticed in Sydney (first in 2016, then each year after) is the presence of the **Bembix wasp**. These wasps are common in Qld.

The presence of **Bembix wasps** has become a bit of an issue in Sydney with an increase in people obtaining native bee hives. The increase of bembix wasp food (native bees) can tip the balance of the ecosystem. (I first noticed them in Sydney in 2016, and increasingly since, and now are common – as they are in Qld).

- The **bembix wasp** and **syrphid fly** are attracted to the native bees, are a predator of the native bees, and can cause the collapse (death) of a hive if their population gets too big. This occurs as the bembix wasp and syrphid fly can 'hold up' the bees inside their home and prevent your bees from going out to forage for food. The bees draw on their stores, but eventually the pantry runs low and the **syrphid flies** can enter/take over as the native bee population can no longer defend (due to low bee numbers) and the hive dies (and a smelly, maggoty, slimy mess is inside the hive as the fly larvae pupate and eat all the food stores).
- The bembix wasp will hover around the front of the hive and capture bees and feed them to their larvae. Apparently, the wasp needs 30-50 bees to feed one larvae. The forager bees are therefore not then able to feed their own colony as they have been 'picked off' by the bembix wasps.
- There seems to be a certain time in summer that this is more prevalent, and it varies a little from suburb to suburb. It is worth reducing these wasp and fly numbers and one way that I have been able to do this around my hives is with a battery powered (tennis racket shaped) fly swatter/zapper to reduce the wasp numbers and give the bees a better chance. We also need to recognise there is a complex biodiverse food chain relationship and wasps do have a role in our environment too, so the odd bembix wasp is ok in my mind, but consistent or more than say 4 bembix wasps are hovering or if the native bees are just waiting at their hive entry, not able to venture out to get food, it is worth getting out the tennis racket zapper. I recommend having one at hand around the house (and remove any insecticide aerosols from your home so no sprays get airborne around your hive).
- The good news is, that if you can keep the numbers of the wasps at bay and break the breeding cycle of these predators (with the tennis racket zapper), then this will mean less activity the following year and happier, stronger, native bees.
- Keep the population bembix wasp and syrphid flies down by 'zapping' them. This is one of the few things we can actually do to help out our little native bees. Here is the link to the [electric fly swatter that I use \(Ebay Link\)](#). I recently bought some from this seller as [they are based in NSW](#). I have included a picture of it below.
- The tennis racket gets a workout indoors at my place too - on house flies and fruit flies.
- And obviously insect spray around native bee hives is a NO go. (bees are insects).



- A butterfly catcher can also work (after catching the fly/wasp, twist the butterfly catcher material to trap the fly and squish the fly with your foot on the ground). It is tricky to catch them, but very worthwhile to the health of your hive to spend the time to do so.

1.6 Predators in Sydney continued – Syrphid fly



- There is another predator to look out for (and zap) - the **syrphid fly**. This fly, that looks like a wasp can also cause major problems for a hive.
- If bembix wasps are present, the syrphid flies can use the opportunity of a weakened bee population to get its eggs inside a hive.
- **Syrphid flies** can enter/take over as the native bee population can no longer defend (due to low bee numbers) and the hive dies (and a smelly, maggoty, slimy mess is inside the hive as the fly larvae pupate and eat all the food stores).
- A syrphid fly will lay very small eggs in cracks on the outside of a hive, the larvae will then pupate and crawl inside a hive and finish off its development inside the hive and if too many of them are present, they can destroy the insides of the hive. These syrphid flies are definitely worth spending the time to destroy if you notice them near your hive. Even if you notice just one of them, it is worth zapping it (these flies tend to 'lurk').
- Obviously spraying fly spray (or any insect spray) on the flies will **not** help the native bees (as both are insects – and both will die).
- Here is a link to some more information on syrphid flies and bembix wasps. From an article of a talented colleague Megan. https://www.beesbusiness.com.au/articles/Halcroft%20et%20al_ch3%20pot%20honey.pdf see pages 35 and 36.

1.7 Heavy Rain and your Native Stingless Bees

In Sydney, we can receive extreme rain events (heavy downpours and 'east coast lows'). Generally, we are trying to keep our bees dry and of a constant and comfortable temperature year-round.

Here are few tips on things you could do to protect your hive form rain (when you know it is coming).

- Add a temporary 'raincoat' (this could be a plastic garbage bag over the whole hive (ensure the entry is kept clear so they can breathe and come and go). Just like you wouldn't wear a raincoat when it isn't raining, so too, your bees don't like to sweat under a raincoat (so remember to take it off and dry the hive out after the rain is over)
- Add an awning or an umbrella to add a bit more protection form the rain.
- Dry off the hive with a towel after the rain event.



Top left: elke Native Stingless bee hives in rain – with temporary umbrella. Top right: A summer awning over this native stingless bee hive helps in summer sun and rain protection – but is removed in winter to let more winter sun in. (photo credit: Darren)



Elke native stingless bee hive with their **temporary** Bubblewarp 'raincoat'
Plastic bag 'raincoat' for rain protection.



1.8 Other predators

Small hive beetle and **native hive beetle** can also be problematic to a weakened colony particularly when the hive has been opened up.

Ants can sometimes try and set up home in the hive or in the roof of your hive. If you notice ants going inside your hive, you could create an exclusion barrier for the ants using a ring of grease (e.g. Vaseline) to create a barrier around your hive. e.g. if the hive is on a post, then grease around the post, or if the hive is on a wall, then around the wall or brackets the hive is installed upon so the ants cant bridge across.

If you'd like me to address another burning question you have about native stingless bees, please email me.

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