



Next meeting | Wednesday 6 November 2024

Where | Johnsonville Community Centre

Editor | Jane Harding janeh@xtra.co.nz

Beginners session 6.45pm. Spring Buildup with Janine Davie

Main Meeting: 7.30pm

Zoe Smeele will give us an update on her research on using pathogen-specific double-strand RNA molecules to target varroa.

Pollen and Nectar Sources in the Wellington region – Jane Harding

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From the President

I hear that swarm season is well under way with at least a couple of swarms a day. This is not so good for beekeepers who are losing a significant number of bees but present a good opportunity for club members who are willing to put a bit of effort in, to get some free bees. Thanks to Jim Hepburn for managing the swarm callouts. Let's make sure that everyone gets an equal opportunity to this resource.

As expected/feared, my bees swarmed a couple of weeks ago but luckily they went to their usual location, my neighbour's feijoa tree so they were easily retrieved. I have been checking them regularly, every 7-9 days weather permitting. I've managed to go through the whole hive several times but if time is short or weather inclement, I have just lifted the top brood box and checked to see if there are any queen cells protruding below the frames. I think my problem is that I had only given the hive that swarmed two $\frac{3}{4}$ brood boxes and James W tells me they need 3 $\frac{3}{4}$ brood boxes or 2 full depth boxes. Frank says that every FD frame of capped brood issues 3000 bees within the next 8 days. He recommends adding two supers at a time and also the odd foundation frame to draw out.

I have read that bees can be committed to swarming up to 6 weeks before they actually do so and some hives will swarm 5 days after queen cells have started developing. The first hot day and they will be out of there. Don't wait to take action to prevent swarming if you see queen cells. Once they have made up their mind it is very difficult to stop them. You can either split the hive (preferably take the queen and resources to a new hive so they think they have swarmed) or take a few frames of capped brood and one of eggs to make a nuc. Once you see queen cells it is probably too late to prevent swarming by cutting them out and providing more room.



Frank gave some very useful advice in the latest SNI Newsletter, some of which I have copied here. He says the aim is to reach peak population at the time of the main honey flow, which will differ depending on your local conditions. The cabbage trees are flowering heavily near me in Papakowhai but the main honey flow will be when all the Pohutukawa trees begin flowering. The honey shop that used to be on Victoria Street advertised Pohutukawa honey as the champagne of honeys so I'm going with that but I'm looking forward to tasting some different honey flavours at an upcoming meeting.

Finally some suggestions to keep your swarm once you have retrieved it.

- Don't put them in a box which is too small (or too big)
- Don't put them in an area which is too hot, swarms often happen on a hot day and if they are left in the hot sun before they get their air conditioning going they may decide to leave
- Put a frame of open brood in the hive which will encourage bees to stay with them
- Put in a fully drawn frame if you have one, as well as some undrawn frames
- Don't feed syrup immediately, the bees will have stocked up on honey prior to swarming
- You can put the queen in a box above a queen excluder to prevent her absconding (I have heard this advice but haven't tried it personally)
- If it is not a swarm from your hives it would be a good idea to treat for varroa and quarantine from your other hives in case they have some sort of disease or infestation

Janine



Winner of the Gadgets and Gizmos competition

The winner of the Gadgets and Gizmos competition held at the October meeting was Michele van Dalen with her clever box carrier. Her rig enables two people to carry a full-depth super with ease (and not lose all the frames out of it when you do so). Anyone who knows how heavy a full-depth super full of honey is will understand what a useful tool this would be.



Michele with her box carrier



Close-up of the box carrier



What's Happening Sciencewise?

Keep a lookout for invasive mites and hornets

By Phil Lester

We beekeepers in New Zealand are extremely lucky not to have a range of invasive parasites, predators, and diseases in our hives. Absent from our hives are small hive beetles, European foulbrood, and a range of viruses, including the Israeli Acute Paralysis Virus. However, two other invaders are becoming increasingly worrying: hornets and a small mite called *Tropilaelaps*.

Probably the most concerning hornet is the yellow-legged hornet (*Vespa velutina*). It is native to Southeast Asia and was first seen in France, likely having arrived in boxes of pottery from China. Single queens hiding in pottery or furniture can start a new population. The yellow-legged hornet has since been spreading throughout Europe, the UK, and more recently, into the United States (Hoebeke et al., 2024).

These hornets can be extremely damaging to bees due to their 'hawking' behaviour, where they capture bees returning to hives. It is listed as one of the worst invasive species in Europe.



Yellow-legged Hornet (*Vespa velutina*)

The yellow-legged hornet. Image from the Georgia Department of Agriculture at

<https://survey123.arcgis.com/share/7b8255c0dbbd41daadd269d0ae2eb36a>



There are two known species of *Tropilaelaps* that affect bees. Their original hosts were Asian giant honey bees. It is known that they have been spreading in China, South Korea, and more recently, into Uzbekistan. However, they have now established populations in Europe. I expect that over the next 10 years, they will spread further.

High losses of honey bee colonies were observed in 2021 in the Krasnodar region of Western Russia (Brandorf et al., 2024). The effects on the bees are substantial. Monitoring results from 2022 to 2023 showed that 53% of colonies died, while the rest were weakened to only three or four frames covered with bees. The mites feed on bee brood and spread viruses.



A *Tropilaelaps* mite on bee brood (left) compared with two *Varroa* mites (right) (from <https://beeaware.org.au/archive-pest/tropilaelaps-2/#ad-image-0>)



A varroa mite compared to a *Tropilaelaps* mite (from <https://www.nationalbeeunit.com/diseases-and-pests/exotic-pests/tropilaelaps>). The website <https://beeaware.org.au/archive-pest/tropilaelaps-2/#ad-image-0> will help you identify these mites and provides more information.

Both the mite and hornet are predicted to survive in our climate and thrive in New Zealand. Of the two, I'm probably kept awake more by the hornet than the mite. It would probably be easier for the hornet to be shipped here than the mite. But please be on the lookout for both when checking your hives. Preventing them from arriving is the best form of control, but early detection would help with eradication if they do.

Reference

- Brandorf, A., Ivoilova, M. M., Yañez, O., Neumann, P., & Soroker, V. (2024). First report of established mite populations, *Tropilaelaps mercedesae*, in Europe. *Journal of Apicultural Research*, 1-3. <https://doi.org/10.1080/00218839.2024.2343976>
- Hoebeke, E. R., Bartlett, L. J., Evans, M., Freeman, B. E., & Wares, J. P. (2024). First records of *Vespa velutina* (Lepeletier) (color form *nigrithorax*) (Hymenoptera: Vespidae) in North America, an invasive pest of domesticated honeybees. *Proceedings of the Entomological Society of Washington*, 126(2), 193-205. <https://doi.org/10.4289/0013-8797.126.2.193>



Drone Brood Request

Zoe Smeele, who will be presenting on Wednesday, has a further request for her ongoing research. Zoe will be conducting experiments on some new treatments for reducing Deformed Wing Virus in Drones, so she needs frames of drone brood, preferably parasitised with varroa mites for her experiments. See below for more information:

**Do you have drone brood?
Want to contribute to science?**

In Phil Lester's lab we are running experiments to test a novel treatment for reducing Deformed wing virus levels in drones.

What we need
Frame of capped drone brood:

- At least 30% drone brood coverage
- Any stage pupae but older / close to emerging is best
- Hive has high mite levels (>10 mites/ 300 bees) and/or bees showing signs of DWV (not essential)

When
Nov. 7th - Nov. 30th
and
Jan 6th - Jan 31st

What we will do
Collect the frame from your hive and conduct a sugar shake to determine mite levels and sample varroa mites.

Call or text Zoe 0274365170



Pollen and Nectar Sources in the Wellington Region

Jane Harding (your newsletter editor) will be giving a short talk on pollen and nectar sources in the Wellington region. Here's a list of common plants found around Wellington that are good to look out for/plant in your garden/leave flowering in your garden for the bees...

Barberry – excellent very early source of nectar and pollen in winter and spring

Tree Lucerne – good early source of pollen and nectar, often flowering when not much else is

Ti Kouka (Cabbage Tree) produces a surplus every third year when it flowers profusely - spring

Five Finger – prolific nectar producer from July to September

Lemonwood/Tarata – excellent for nectar and pollen - spring

Rangiora – nectar and honey dew from August to October

Arum Lilly – early source of white waxy pollen from August onwards

Willow sp. – valuable source of nectar and pollen. Pussy willow are the earliest and produce more than weeping willow. Crack willow also produces good pollen and nectar (but are a pest plant).

Hawthorn – produces an abundance of blossom containing both nectar and pollen – late winter/spring

Camelia – good early source of early nectar and pollen



Koromiko – good winter source of nectar

Gorse – good source of pollen as it can flower throughout the year.

Olearia sp. (e.g *Olearia furfuracea*) Good pollen source from August to October

Hange Hange – good nectar in spring and a greenish-yellow pollen

Kotukutuku – NZ fuchsia – nectar and pollen, which is deep blue in colour

Coprosma sp. Very fine pollen that the bees will harvest when there is nothing else

Laurel – excellent source of nectar from September to November

Brassica sp. Including rape, wild radish, turnip, etc. All produce good nectar

Flax – good source of pollen

Mahoe – good source of pollen over summer from October to January

Pohutukawa – excellent nectar source, and pollen

Ground weeds such as Speedwell, Shepherds Purse, Buttercup, Trailing St Johns wort, Wood sorrel, Dandelion, Scarlet pimpernel, foxglove, clover, chickweed, oxalis, onion weed, yarrow, chicory. A lot of these plants flower all year round.

NZ Beekeepers published a small booklet in 1967 that is now sadly out of print, that gives pollen and nectar sources for all of Aotearoa New Zealand. “Nectar and Pollen Sources of New Zealand” by R.S Walsh is an interesting read if you can get your hands on a copy.



Mead Competition – Rules

December is mead judging time! Once again we will have the valuable expertise of Jacob De Ruiter, a longtime beekeeper and professional mead maker, to judge our competition.

There are 4 classes in the competition:

- Traditional dry mead
- Traditional sweet mead
- Traditional sparkling mead
- Open – Nontraditional meads using Fruit (Melomels) or Spices (Metheglins) or a combination of these.

The full rules for the competition are on the club website and can be found here: <https://wellingtonbeekeepers.rocketspark.co.nz/mead-competition-rules/>

So polish up your best bottles and bring them along in December.





Interesting Links

John Burnet has found a couple of interesting articles about bees and honey for us:

Cormack Farrell is the Head Beekeeper for the Australian Parliament in Canberra. It's a role that happened almost by accident. He was working for an engineering firm in downtown Canberra, and...

<https://www.rnz.co.nz/national/programmes/ninetoon/audio/2018961765/why-we-need-bees-in-urban-spaces>

And an interesting article from the BBC on some new tests for identifying fake or adulterated honey using the “Spatial Offset Raman Spectroscopy” which is a method more commonly used in pharmaceutical and security diagnostics. This method uses a light analysis technique that doesn't require any actual sampling of the honey (no need to open the jar!)

<https://www.bbc.com/news/articles/c17gq4n5vn0o>

December Meeting

Mead competition and Christmas party. No beginner's session

We have organised a foodtruck to provide food and there will be dessert. Come along for a social evening and hopefully we will also have a quiz!

More details to come



Who can I speak to?

President – Janine Davie president@beehive.org.nz

Treasurer – John Burnet (04) 232 7863 treasurer@beehive.org.nz

Secretary – Jane Harding 027 421 2417 secretary@beehive.org.nz

Membership - James Scott - (04) 565 0164

Web Master - Jason Bragg - (021 527 244)

Librarian - Ellen Millar - (021 709 793)

Super co-ordinator - Barbara Parkinson – (04) 2379624

Swarm WhatsApp Administrator - Jim Hepburn (021 926823)

PK Tan - 021 109 3388

Graeme Chisnall - 021-246-8662

Frank Lindsay - 0275034559

Millie Baker

Newsletter Editor - Jane Harding - 027 421 2417