Wellington Beekeepers Association
Support and encouragment of beekeeping and beekeepers
October 2024 Newsletter

Next meeting | Wednesday 1 October 2024
Where | Johnsonville Community Centre
Editor| Jane Harding janeh@xtra.co.nz

Beginners session 6.45pm. Equipment for Beekeeping, Getting a "nuc"

Main Meeting: 7.30pm

Gadgets and Gizmos competition.

Presentation from Phil Lester and Joana Merk

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From the President

October, and spring has sprung to coin a well used phrase It seems to me that flowers and trees are flowering earlier and more profusely than usual. The Karo trees in Papakowhai have been covered in flowers – that was probably where my bees were going when they bypassed my plum tree. However, I am pleased to report that my hand pollination has been somewhat successful and I have at least 10 plums, hopefully the spring storms don't destroy them. I noticed when walking around the Aotea Lagoon that the cabbage trees are nearly flowering which seems ridiculously early to me.

Maybe it's going to be a bumper honey crop this year. I'm still standing by getting ready to split my hive. I've been through it twice and still can't find the queen so I think I will have to opt for Plan B or C which are probably put a queen excluder in the middle and check after a few days to narrow down her location or just split the hive in two making sure there are new eggs in both sections. I suspect if the queen is in the box I leave behind they will still swarm if that is their inclination…

I decided I needed some more frames and foundation but I couldn't find the phone number for Porirua Hive World so I dredged my memory and thought that Mrs Hive World was Jill. I then did a search of my messages and came up with a message from Jill saying I could pick up Apivar from their letter box. I decided that must be the correct number and sent off a quick text requesting some frames and foundation. I got a message back saying she would have to check with Jim. I briefly thought that name didn't sound right but was flat out at work so ignored that. After no reply for a day or so I followed up with "any luck?" and immediately got a phone call back and a message "sorry we have no wax or ¾ frames" Cheers Jim. This seemed unlikely from Hive World so it finally began to dawn on me I had been texting the wrong person and a check with John Burnet confirmed this. My apologies to Jim H. and Jill D – Jim did say at first he thought it was

a scam and then realised I was just confused. I can confirm Rod and Jill Williams of Hive World Porirua are still in business from their home and have been very helpful once I finally got myself sorted.

I'm looking forward to seeing everyone on Wednesday as things heat up for us beekeepers

Janine

Bee in Karo blossom - Janine Davie

Gadgets and Gizmos Competition

Reminder that this month's meeting will be a demonstration meeting of sorts, we'd like you to bring along anything you've made or modified that's useful around the hives or in your beekeeping life. The rules for the competition are fairly relaxed, the gadget or idea needs to be something you've invented, or repurposed, and the winner gets the **Beach Memorial Trophy (Innovation competition)** award for the year. So come along with your favourite gadget and show us how it makes your life easier….

Foraging Bee - Janine Davie

What's Happening Sciencewise?

Fast Learning Bees have bigger brains – Phil Lester

This contribution is copied from a post by Jarren Kay at https://journals.biologists.com/jeb/article/227/17/jeb249359/361862 on an interesting, recent publication on honey bee brain size, decision making, and energy expenditure.

Some people make quick, seemingly impulsive decisions, while others take their time, meticulously researching all possible choices. Neither approach is wrong, as both have their uses in the right setting. However, fast decision-makers are often more inaccurate than those who take their time. Making a decision is also expensive, as the nervous system requires a lot of energy to function.

Is the fast or slower strategy more energy-consuming? To find out, Catherine Tait, Adam Chicco, and Dhruba Naug of Colorado State University, USA, measured how much energy the brains of honeybees (Apis mellifera) consumed while they were making decisions.

First, Tait and Naug needed to train the bees. To do this, the researchers gave the bees a sugar-water reward if they extended their mouthparts when a particular scent was wafted over them, but gave them saltwater instead if they were presented with a different aroma. The bees who learned that the first scent meant a sugary treat the quickest were considered fast learners.

But faster learning comes at a cost. An hour later, when the scientists switched which scent gave a reward, the fast learners took longer to grasp

that the reward-giving smell had changed. But could it be that fast learners simply have bigger brains?

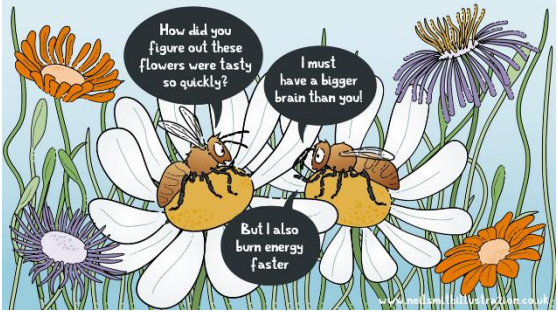
The answer isn't quite so simple. After performing the painstaking task of measuring how much each bee's brain weighed, Tait and colleagues discovered that fast learners do, in fact, have larger brains. However, the team knew from previous research that bigger brains use less energy, probably because they are less densely packed with nerves, or because the nerves don’t fire as frequently. So, do the fast-learning bees have brains that are big but not as energy-efficient?

The researchers measured the metabolic rates of the bee brains and found that larger brains burned less energy than smaller ones. So, while the big brains of fast learners are more energy efficient, these bees still seemed to use more energy overall.

While being a fast learner might seem ideal, these bees are more inaccurate and less flexible when incorporating new information into their decisions. Given these issues, and the fact that they use more energy overall, making snap decisions certainly comes with a cost.

Reference

Tait, C., Chicco, A. and Naug, D. (2024). Brain energy metabolism as an underlying basis to slow and fast cognitive phenotypes in honeybees. J. Exp. Biol. 227, jeb247835. https://doi.org/10.1242/jeb.247835



Part Time Experienced Beekeeper Position Available

Common Unity Project's Beeple Honey Collective based in Lower Hutt requires an experienced beekeeper.

- Beekeeper to maintain 35 hives located over 16 sites in particular Epuni Primary School, other Hutt Valley Schools and several private properties
- Mentoring of some prisoners participating in Rimutaka Prison's beehive project.
- Other duties include providing beekeeper education and hive-ware building workshops
- Honey to be extracted and supplied in 20 litre buckets to Common Unity plus refined raw beeswax
- Hive and work records, inventory and registration to be handled by the beekeeper
- Hours of work - 20 hours per week over summer months (Sept to Mar – 30 weeks) and 10 hours per month (Apr to Aug – 22 weeks)
  May be required to work weekends
- Salary - $30 per hour (equates to $19,500 p.a.)
- Mileage (approx. 200 km per month in summer) reimbursed by Common Unity
- Honey testing, packaging and marketing also wax products handled by Common Unity.

Further information available from the Treasurer, John Burnet (treasurer@beehive.org.nz)

Bees in Cheery Blossom - Janine Davie

Links to Rose McGruddy's research on RNAi as a Varroa control

Many of the members will remember Rose's presentations to the club on her research into the use of RNA disruptors to control varroa. Rose has

sent the following message and links to her research that you might be interested in.

"I have submitted my PhD and have published most of the chapters, including the social science chapter in which you and your club members participated in last year. The resulting publication on beekeepers' opinions on the use of RNAi to control *Varroa* has been attached to this email for you to share with your club if you wish. Alternatively, the publication can be found at https://www.mdpi.com/2075-4450/15/7/539.

I have also attached to this email my publications on *Varroa* in NZ potentially developing resistance to flumethrin (also can be found online at https://www.tandfonline.com/doi/full/10.1080/00218839.2024.2364146) and the publication on the lab trials that found the RNAi treatment tested inhibited mite reproduction (https://scijournals.onlinelibrary.wiley.com/doi/full/10.1002/ps.8193). These may also be of interest to some members.

Please pass on my thanks to your club, it was a pleasure to present to them and I could not have completed my PhD research without their help."

Thanks Rose, it was great to be involved in your research!

Colony Loss Survey 2024

Most of you will have received a reminder from Pike Stahlman-Brown to complete the annual colony loss survey. This reminder has a unique link for you to use for your survey response. The survey is open form 1 September until 30 November – don't forget!

Meetings for the rest of 2024

October – Equipment for keeping bees – new, replaced, updated.

Gadgets and Gizmos competition and a talk from Phil Lester and Joanne Merk

November – Spring Buildup and getting a Nuc, Honey tasting and pollen and nectar sources in Wellington

December – Mead competition and Christmas party

Who can I speak to?

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