The newsletter of the Torbay branch of the Devon Beekeepers' Association

BUZZ

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~ SUMMER 2020 EDITION ~

EDITOR'S WELCOME

Well, it has been quite a year so far! Who would have thought when we were seeing in 2020 on New Year's Eve 2019 that we would have had the year that we have lived so far. Starting the year off with the devastating Australian wildfires, followed shortly by the world-wide Corona virus pandemic that has changed all of our lives in some way or another. And the world keeps turning, and the bees keep doing their thing.

Speaking of bees, they seem to be having an amazing year so far this year! With the wonderful spring weather we had this year, along with the lowered pollution levels (see article below), it has been a fantastic year so far for honey. James and I took a bumper spring crop form our own bees, as well as extracting a great spring crop form the Cockington hives. This seems to be continuing as the bees are again filling up the supers again with luscious nectar. I didn't really notice a 'June gap' at all this year (and neither did the bees!), and have noticed the brambles this year flowering in abundance.

Lastly, I must apologise for the lack of a spring edition of Buzz. Work took over for me when we went into lockdown (as did the bees) and unfortunately I didn't have time to compile Buzz.

CHAIRMAN'S CHAT

July 2020

Hello, Torbay Beekeepers,

What a different world we find ourselves in from the last time I wrote to you! Fortunately, nothing has changed for our bees and they have been working their socks off in the recent spate of beautiful weather. DEFRA gave Beekeepers permission to tend their bees in out apiaries, so we have been allowed to venture forth in these lockdown times. At the Branch apiary at Cockington, where we started the season with fifteen colonies, we allocated five colonies each to be tended by James Schindler Ord, Gerry Stuart and me. We all attend on different days so no problem with social distancing. The bees are doing very well and of my five I have done three artificial swarms. We have taken off just over 140 lbs of honey, extracted it and taken the buckets of honey to Mike Ticehurst to either store or put in jars for sale. For once, this is a virus that does not affect the bees. Perhaps it is fitting that we should take the hit for a change and then we might have more empathy with them and their struggles against Varroa and deformed wing virus.

Our new apiary at Occombe is ready for use by our beginner Beekeepers. Thanks especially go to Alan Barrett, Russell Beach, John Dawe, Mike Ticehurst, Stan Stanislaus, Duncan Busby and Alan's friend Peter who have all worked hard in preparing the site, building hive stands and erecting the new shed. The first of our beginners hives is already installed with a further three Beekeepers moving in this week. It has been a long time in the planning and realisation and we must heartily thank David Robinson of Sutton's Seeds and National Bee Supplies for organising the allocation of the land and its preparation for our use.

Alan Barratt is still working hard behind the scenes ordering all the things we Beekeepers need to look after our bees. If you need any basic equipment - frames, foundation, supers, honey buckets - don't hesitate to give him a call to see if he has what you require in stock. At the end of the summer, when you take your honey off, if you are a beginner Beekeeper with just one or two hives you may well not have an extractor for extracting the honey. The club has an extractor to lend out to members, but you need to put your name on the list. Please speak to Alan and he will let you know availability. Alan will also soon be ordering Ambrosia for winter feeding. Please let him know your requirements so he can include your request in his order. His phone number is 01803 555818.

The Devon Beekeepers Virtual Show has been a great success. Thank you to all of you who entered. We are just awaiting the judging and the results will be posted in the next issue of the Devon Beekeeping magazine and simultaneously on the Devon Beekeepers website. If you wish to see the entries, they are all on the DB website if you go to Virtual Honey Show, click on the Class number and all the entries will come up. Thank you, Mike Ticehurst, for all your hard work in bringing these to us.

Although 'lockdown' is now easing it seems it will be a while before groups of people from different households will be allowed to meet. It is unlikely that we will have any meetings at the Cockington Apiary for the rest of this year, although I am sure the bees will appreciate the lack of regular intrusion.

At the moment it is equally uncertain what form our winter meetings will take. Initially, we will probably use Zoom to bring a speaker to our members. Zoom is an app which is free to download and easy to use. James Schindler Ord will coordinate the meeting so if you wish to attend you will email him, he will send you an invitation which contains a link to the meeting. Click on the link at the start of the meeting and you will be admitted and will join in. Not only can you listen to the speaker, you can, if you wish, speak to everyone if you have a question or something to say. More details closer to the time. Also, I think it likely that our Introduction to Beekeeping Course could well be conducted over Zoom. It depends on various factors such as the likelihood of a second wave of Covid 19 and the lifting of restrictions on people meeting in groups. There are

advantages to Zoom meetings - we don't have to leave the house on wet, dark winter nights and go out in the cold to go to a meeting. We save travel time. Possibly, we could have a dual system whereby robust, healthy people come to a socially distanced meeting and those shielding join the meeting from their homes, via Zoom. We recently had a Committee meeting via Zoom and it was very successful.

I appreciate how hard it has been for beginner Beekeepers this year trying to set up and embark on Beekeeping with very little, if any, contact with the club. If you are a new Beekeeper and need advice, don't hesitate to ask one of our more experienced Beekeepers - me included - as I am sure everyone will be pleased to advise you.

Liz

DIARY DATES

As Liz mentioned in her Chairman's Chat, we currently are not holding any meetings at the Apiary or face to face. We are planning to hold some of our winter meetings on Zoom and will send you the information nearer the time.

Question and Answer Session and Discussion

We plan to hold a Q and A session over Zoom as part of one of our winter meetings. If you have any beekeeping related questions, please could you email them directly to Liz lizwestcott@me.com

BEES THRIVING AS POLLUTION DROPS

Air pollution across the UK has dropped with less cars on the road. The environmental benefits of the coronavirus lockdown have allowed bees to thrive, according to Britain's biggest bee farm. Air pollution across the UK has

plummeted as people abandon their cars during the pandemic in favour of shopping locally and staying at home.

Beekeeper Helen McGregor, 43, believes the current situation has made people more aware of nature and brought them 'back to basics' – and it's benefitting bees. Her family have owned their business, Denrosa Apiaries, in Coupar Angus, Perth and Kinross, since the 1940s.

It is the biggest bee farm in Britain and currently has 4,000 hives, each filled with around 50,000 bees.

'Less traffic, less pollution is bound to make a difference to the environment which of course has a positive knock on effect for bees. 'Hopefully we see these changes lasting. 'I think people are more aware of what's going on around them and in the countryside just now because of lockdown.

'They are more aware of nature, maybe seeing hives when they are out and about and thinking more about the food they are eating and where it comes from.

'It's taking people back to their roots, making them look at what's necessary in life and what's not, it's back to a basic outlook on life.'

Farmers in the area depend on the bees to pollinate their crops, and Denrosa provides beehives to help with that. Helen's grandfather, Kenneth McGregor started the business in the 1940s, when he returned from the Second World War.

Kenneth died in 2016, aged 96, but passed the business on to his son Murry, 65. It now has hundreds of sites across the UK with four or five teams checking six sites a day. Keepers are hoping that the drop in pollution will result in a better than average harvest this year.

'We have hundreds of sites from down in England, all the way up to Aberdeenshire, with billions of bees,' Helen said. 'A lot of farmers are looking

for bees to help with crop pollination. We have mini hives which we use to build up bee levels and we breed our own queen bees.

'It's very early in our season to say what production is going to be like but the bees are busy bringing back nectar and pollen.' She added: 'We are at the mercy of the weather and could do with some rain as the ground is very dry.'

Source: http://tiny.cc/vv7ksz

A BEE C: SCIENTISTS TRANSLATE HONEYBEE QUEEN DUETS

Scientists using highly sensitive vibration detectors have decoded honeybee queens' "tooting and quacking" duets in the hive.

Worker bees make new queens by sealing eggs inside special cells with wax and feeding them royal jelly. The queens quack when ready to emerge - but if two are free at the same time, they will fight to the death. So when one hatches, its quacks turn to toots, telling the workers to keep the others - still quacking - captive.

Dr Martin Bencsik, from Nottingham Trent University, who led this study, described the tooting and quacking of these "wonderful animals" as "extraordinary". "You can hear the queens responding to each other," he said. "It has been assumed that the queens were talking to other queens - possibly sizing one another up vocally to see who is strongest."

"But we now have proof for the alternative explanation." Tooting, the researchers found, is a queen moving around the colony - announcing her presence to the workers.

The quacking is from queens that are ready to come out but are still captive inside their cells. The queens are not talking to each other, explained Dr Bencsik,

"it's communication between the queen and the worker bees - an entire society of tens of thousands of bees trying to release one queen at a time."

"Quacking queens are purposefully kept captive by the worker bees - they will not release the quacking queens because they can hear the tooting."

"When the tooting stops, that means the queen would have swarmed [split the colony and set out to find a new nest] and this triggers the colony to release a new queen."

Dr Bencsik said bee society was "absolutely splendid" to observe. "All decisions are group decisions," he said. "It's the worker bees that decide if they want a new queen or not."

Pollinating insects face numerous threats, including from pesticides, habitat loss and climate change. And Dr Bencsik pointed out that beekeepers - and the hives they provide - are crucial for honeybee survival in the UK.

The researchers hope this eavesdropping exercise will help beekeepers avoid interfering with this delicate collective decision-making and to predict when their own colonies might be about to swarm.

Source: https://www.bbc.co.uk/news/science-environment-53029218 Check out this link for an excellent video showing the tooting and piping of the queens.

HONEYBEE DANCE DIALECTS

After more than 70 years, a great mystery of zoology has been solved: Honeybees actually use different dance dialects in their waggle dance.
Which dialect has developed during evolution is related to the radius of action in which they collect food around the hive.

This is reported by research teams from the Biocentre of Julius-Maximilians-Universität Würzburg (JMU) in Bavaria, Germany, and the National Centre for Biological Sciences (NCBS) in Bangalore, India, in the journal Proceedings of the Royal Society B.

That honeybees might have dance dialects was first proposed in the 1940s by Nobel laureate Karl von Frisch and his student Martin Lindauer. Later experiments, however, raised doubts about the existence of the dialects. The new results now prove that Frisch and Lindauer were right. The two pioneers of behavioural research were also right with their explanation why the dance dialects exist at all.

This is what the bees' dances are about

The dance language of the honeybees is a unique form of symbolic communication in the animal kingdom. For example, when a bee has discovered a blossoming cherry tree, it returns to the hive. There it informs the other bees with a dance about the direction in which the food source is located and how far away it is.

Part of the dance is the so-called waggle run, in which the bees energetically shake their abdomen. The direction of the waggle run on the honeycomb communicates the direction of the destination in relation to the position of the sun while the duration of the wagging indicates the distance.

"As the distance of the food source from the nest increases, the duration of the wagging increases in a linear fashion," explains JMU PhD student Patrick Kohl, first author of the publication. However, this increase is different for different bee species. This was shown in experiments carried out by the research team in southern India.

Experiments with three honeybee species in South India

There, three bee species with different radii of action were studied. The eastern honeybees (Apis cerana) fly up to about one kilometre away from the nest. The

dwarf honeybees (Apis florea) fly up to 2.5 kilometres, the giant honeybees (Apis dorsata) about three kilometres.

The opposite relationships apply for the increase in the duration of the wagging. For example, if a food source is 800 meters away, an eastern honeybee will have a much longer wagging than a dwarf honeybee, and the latter will have a longer wagging than the giant honeybee. In order to communicate an identical distance to the food, each species uses its own dance dialect.

“We also saw this when we compared our results with published data from other research groups,” says Patrick Kohl. The correlation between foraging range and dance dialect was corroborated when looking at honeybee species native to England, Botswana, and Japan.

Why did JMU researchers go to South India in the first place? “India has the advantage that three honeybee species live in the same area, so that their dance dialects can be easily compared,” said Kohl. “We also have very good contacts with researchers at NCBS, a top research address in South Asia.”

Dialects as evolutionary adaptations

The results also confirm what von Frisch and Lindauer had suspected about the meaning of the dance dialects. These are evolutionary adaptations to the honeybee species’ typical foraging distances. Honeybees, for example, which regularly fly long distances, cannot afford to communicate these distances in the hive with very long waggle runs: On the crowded dance floor in the hive, other bees would have difficulties following such “marathon waggings”.

Source: https://www.heritagedaily.com/2020/03/honeybee-dance-dialects/126087

HONEYBEES FACE OWN PANDEMIC

The virus responsible for chronic bee paralysis is spreading rapidly among honey bee colonies in Britain, according to a new study. Between 2007 and 2017, scientists visited 24,000 beekeepers to survey the health of commercial bee

colonies in England and Wales. In 2007, the disease was found only in Lincolnshire, a county in eastern England. Just ten years later, the virus had spread to 39 of 47 English and six of eight Welsh counties.

Though the virus was isolated among just a handful of colonies to start, it quickly made itself apparent. Researchers detailed the disease's spread in a new paper, published this week in the journal Nature Communications.

"The symptoms of the disease are quite easy to spot once you have seen them a few times," said lead study author Giles Budge, professor of environmental sciences at Newcastle University. "Symptoms of chronic bee paralysis can include shaking, black hairless bees with nibbled wings or shaking, greasy looking bees with dislocated wings. Bees can also simply shake too. Colony level symptoms include piles of dead bees right outside the front entrance."

Researchers used lab tests to confirm the presence of chronic bee paralysis virus at colonies where signs of infection were observed.

Bees infected by the virus usually die within weeks. Once infected, the disease can spread quickly among colony members. Roughly 40 percent of infected colonies are lost entirely, according to figures collected by Budge and his colleagues.

After surveying reports of the virus' spread, scientists confirmed that colonies managed by professional beekeepers, particularly those with imported queens, were more susceptible to the disease -- which were twice as quick to be infected by the virus.

"Emerging diseases are tricky to study because the number of cases start low and then can build up rapidly," Budge said. "As such, we look for clues that highlight risk, and then we can try to explain why these heightened risks occur -

- hence our observations on apiaries owned by professional beekeepers and those that contain imported queens."

A variety of management practices distinguish professional from amateur beekeeping, but scientists aren't yet sure why professionally managed bee colonies are more susceptible to the virus.

Though the disease can decimate entire colonies, the virus is distinct from the phenomenon known as colony collapse disorder, which was first reported in the United States. As well, pesticide exposure, while allowing the virus to replicate more quickly, doesn't appear to increase the risk that a colony will succumb to the virus.

Still, researchers suggest the quickly spreading virus is a significant threat to bees and other insects.

"Honeybees are susceptible to many different viruses, and when considered in isolation, I'd argue that CBPV is one of the most important," Budge said. "This disease gets added as a pressure facing honeybees, although it is also worth noting that the virus can also infect other bees and ants, and so should be seen as an insect virus rather than a honeybee virus."

So far, scientists are ready to do little more than warn beekeepers of the threat of chronic bee paralysis virus, but Budge and his colleagues hope to identify effective mitigation strategies sooner rather than later.

"We are part way through a four-year program of research, and have a lot to do before we can advise on evidence based management strategies for chronic bee paralysis," he said. "We are working closely with the Bee Farmers Association, their members, and the national Bee Unit to achieve mitigation as our end goal."

Source: http://tiny.cc/rv7ksz

BEE RELATED PHOTO'S WANTED!

I would love to adorn future issues of Buzz with your bee related photos! They can be of bees, bee equipment, yourselves in your bee suits, your apiary and hives. Anything bee related, and your own work. Please email them to me at jane@jso.me.uk

HONEY RECIPES

Lemon and Honey Cupcakes

Prep time: 40 minutes
Cooking time: 25 minutes
Serves: 4

Ingredients

150 g (6 oz) butter, softened
100 g (4 oz) caster sugar
50 g (2 oz) honey
Finely grated zest of 1 lemon
2 medium eggs, beaten
150 g (6 oz) self-raising flour
3 tbsp lemon juice

To decorate:

100 g (4 oz) butter, softened
225 g (8 oz) icing sugar
50 g (2 oz) low-fat soft cheese
1 tbsp honey
1 tsp finely grated lemon zest
Few drops of yellow food colouring
Edible sprinkles, sugar flowers and tiny sweets
Or use yellow jellybeans, chocolate drops and flaked almonds to make bees to decorate.

Method

1. Preheat the oven to 190° c / fan oven 170° c / Gas Mark 5. Put 12 silicone or paper cup cake cases into a bun tray.
2. Beat the butter, sugar and honey together until pale and creamy, using a wooden spoon or hand-held electric whisk. Beat in the lemon zest. Gradually add the eggs, beating well between each addition.

3. Sift in the flour and fold it in gently with a large metal spoon until combined, then stir in the lemon juice to give a soft consistency. Spoon the mixture into the cake cases.
4. Bake on the middle shelf of the oven for 20-22 minutes until risen and golden. Cool in the tin for a few minutes, then transfer the cakes to a wire rack to cool completely.
5. To make the frosting, beat the butter in a bowl until smooth and creamy. Gradually sift in the icing sugar, beating well between each addition. Beat in the low-fat soft cheese, honey, lemon zest and food colouring. Pipe or spread on top the cakes, then decorate.
6. Keep in a cool place and eat within 3 days.

Sesame & Honey Tofu with Rice Noodles

Prep time: 15 minutes
Cooking time: 30 minutes
Serves: 4

Ingredients

2 tbsp toasted sesame oil
396 g pack firm tofu, cut into sticks 1 cm x 3 cm, and patted dry
150 g dried brown rice noodles
1 tbsp tamari (gluten-free soy sauce)
2 tsp Chinese five-spice powder
1 tbsp clear honey
1 red pepper, thinly sliced
1 bunch spring onions, cut into fingers
2 heads pak choi (about 200 g/7 oz), washed and leaves separated

Method

1. Heat half the oil in a frying pan over a medium heat.
2. When hot, add the tofu and cook for 5 mins on one side. Turn, then fry for another 3 mins. Continue cooking for 10 mins more, turning regularly – make sure you scrape up any bits that are stuck. Don't worry if it falls

apart a little, these pieces become crispy. Remove to a plate and keep warm.
3. Meanwhile, cook the noodles following pack instructions. Drain and set aside.
4. Make the dressing by mixing ½ tbsp oil, tamari, five-spice and honey.
5. Heat the remaining ½ tbsp sesame oil in the frying pan and cook the pepper for 1 min, then add the onions and pak choi. Toss together for 3 mins, until just wilted.
6. Add the noodles and half the dressing and mix well.
7. Heat through and divide between 4 bowls. Top with the tofu and drizzle remaining dressing over.

Devonshire Honey Cake

Cooking time: 1 hour 30 minutes
Makes 12 Slices

Ingredients

250 g clear honey, plus about 2 tbsp extra to glaze
225 g unsalted butter
100 g dark muscovado sugar
3 large eggs, beaten
300 g self-raising flour

Method

1. Preheat the oven to fan 140 C/ conventional 160 C/gas 3.
2. Butter and line a 20 cm round loose bottomed cake tin.
3. Cut the butter into pieces and drop into a medium pan with the honey and sugar. Melt slowly over a low heat. When the mixture looks quite liquid, increase the heat under the pan and boil for about one minute. Leave to cool for 15-20 minutes, to prevent the eggs cooking when they are mixed in.
4. Beat the eggs into the melted honey mixture using a wooden spoon.
5. Sift the flour into a large bowl and pour in the egg and honey mixture, beating until you have a smooth, quite runny batter.

6. Pour the mixture into the tin and bake for 50 minutes to 1 hour until the cake is well-risen, golden brown and springs back when pressed. A skewer pushed into the centre of the cake should come out clean.
7. Turn the cake out on a wire rack. Warm 2 tbsp honey in a small pan and brush over the top of the cake to give a sticky glaze, then leave to cool.
8. Keeps for 4-5 days wrapped, in an airtight tin.