

# Brighton & Lewes Beekeepers

## Newsletter



Volume 7 – July 2020

Editor: Norman Dickinson

BRIGHTON AND LEWES DIVISION OF THE SUSSEX BEEKEEPERS ASSOCIATION

[www.brightonlewesbeekeepers.co.uk](http://www.brightonlewesbeekeepers.co.uk)

### From your Editor

There is a web site called Beeconnected.org.uk. Farmers can link in to it... and should be encouraged to do so, and if you are also registered with the site also then a warning will be emailed to you, from your local farmer, pre warning that they are about to spray an insecticide/herbicide within your apiary area within the next 2 days. No-one except your local farmers can see where your colonies are, and you can choose a distance up to 5km. It will say what crop they are spraying, and if a source of pollen/nectar then you can block those bees in late the night before, just for the period of spraying. The warning to me was re wheat spraying, and 4km, so even though he was using a pesticide, I relaxed as the bees were not foraging there, but be aware that bees can still be soaked on a nearer crop, with a safer herbicide. Cold wet bees don't make it back sometimes. So chat with your local farmers. They may be

unaware of a) beeconnected.org.uk b) the proximity of your hives and they usually want to help us. Thank you Heather for reminding me of this. I did sign up to this a couple of years ago and I have received a few messages informing of spraying operations local to my apiary site, but fortunately the location does not lend itself to arable farming.

Hillary Osman has received the offer of a apiary site for B&L members. It is on a 350 acre beef and arable farm just outside Isfield. The Culpepper Nature Reserve is also local to the site. For further information, please contact Hilary on: 07713 532285 or [osmans.home@btinternet.com](mailto:osmans.home@btinternet.com)

We have also received a communication from our cousins "down under" with a link to an article called "Beekeeping in Australia: The Definitive Guide for Absolute Beginners".

For those interested here is the link: <https://>

[blog.flowersacrosssydney.com.au/beekeeping-guide-beginners/](http://blog.flowersacrosssydney.com.au/beekeeping-guide-beginners/)

The Executive Committee of the National Honey Show have been in constant communication regarding to 2020 Show scheduled to be held at Sandown Park on 22nd, 23rd and 24th October. As of now, the Show has not been cancelled and there are ongoing discussions with Sandown Park as to the likelihood that they may cancel the event. The Committee are scheduled to meet via Zoom in July following further clarifications and possible easing of restrictions by the Government. As Membership Secretary for the National Honey Show, I can advise that some membership renewals have been received but would recommend that you refer to the website at [www.honeyshow.co.uk](http://www.honeyshow.co.uk) for the latest information.

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### Forthcoming winter meetings:

- See rear panel

### In next months edition:

- Amanda Advises
- Asian Hornet Action Team
- Contributions from our members

### Asian Hornet Action Team Report by Manek Dubash

As I write this, there have been no official reports, once more, of the Asian hornet (*Vespa velutina*) on the British mainland. On Jersey, they continue to stem the tide, with the local hornet team working hard to find and dispose of nests. The team's Facebook group (if you indulge in such things) is an excellent source of information documenting their efforts.

Meanwhile, it seems our publicity campaign – press releases, posters and raising of general awareness – is having an impact.

People are calling us to find out if what they've seen (and sadly too often killed) might have been *V. velutina*. So far, it hasn't been, for which we must be grateful.

The point of course is that the publicity, which as far as the newspapers are concerned has

been variable in quality to say the least, has seeped into the public consciousness. Many people now know that if they see something unusual they should check whether it's the invading insect.

So let's keep it up: the public are our front line.

Stay safe – and I hope your honey season is proving as productive as mine this year.

# Scientists translate honeybee queen duets By Victoria Gill

**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.

*Article sent in by Tony Robinson*

## A few snippets from Gerald Legg

**Bees cause leaf damage to trigger early flowering and pollination**

Alice Klein; NewScientist 30 May 2020

Hungry bumblebees can coax plants into flowering and making pollen up to a month earlier than usual by punching holes in their leaves.

Bees normally stop hibernating in early spring to feast on the pollen of newly blooming flowers. However, they sometimes emerge too early when plants are still flowerless and devoid of pollen, which means the bees starve.

Fortunately, bumblebees have a trick up their sleeves. Consuelo De Moraes at ETH Zurich in Switzerland and her colleagues discovered that worker bumblebees can make plants flower earlier than normal by using their mouthparts to pierce small holes in leaves.

In a series of laboratory and outdoor experiments, the researchers found that buff-tailed bumblebees (*Bombus terrestris*) were more likely to pierce holes in the leaves of tomato plants and black mustard plants when deprived of food. The leaf damage caused the tomato plants to flower 30 days earlier than usual and the black mustard plants 16 days earlier.

I is still a mystery how the leaf damage

promotes early blooming. Previous studies have found that plants sometimes speed up their flowering in response to stressors like intense light and drought. When the researchers punched holes in the plant leaves themselves, this didn't induce early flowering. This suggests that bees may provide additional cues that encourage it, like injecting chemicals from their saliva into the leaves when they pierce them.

"Climate change is making spring conditions less predictable, which could disrupt the timing of the relationship between bees and flowers," says Mark Mescher, also at ETH Zurich. Manipulating flowering times may help bumblebees adapt to climate change, he says.

Manek Dubash sent a link relating to whether good quantity not quality of food may be major determinant of whether a larva becomes a queen.

Gerald has kindly translated it into a form that most will understand. The full paper can be found at: <https://royalsocietypublishing.org/doi/10.1098/rspb.2020.0614>

**Diet quantity influences caste determination in honeybees (*Apis mellifera*)**

Garett P. Slater, George D. Yocum and Julia H. Bowsher

In the many species that care for their young, including honeybees, providing the right food greatly affects how the young develop. In honeybees it can determine whether a female becomes a sterile worker or sexual mature queen. It has been generally thought that the quality of the diet of larvae controls if they develop into a worker or queen but no single substance in the diet seems to be responsible for the outcome. The quantity of food fed may be more important in caste development. Larvae were reared and fed different dietary compositions. When the adults emerged their degree of queenliness was measured based on analyses of various characters. Those fed as much as they could eat developed into queens indistinguishable from commercially reared ones. Also, their queenliness was independent of the proportion of protein and carbohydrate in the diet. A large diet given in the final larval stage was capable of inducing queen traits. This is contrary to the received wisdom that queen determination occurs in the third larval stage. So it is the quantity of food fed that may regulate difference between queen and worker development.

## Amanda advises...

How different this year is to this time last year when I had been suffering with rainy weather, poor queen mating, slow nectar flow or the bees not wanting to go out to collect it. This year, touch wood, is going to be one I will remember for a while with a smile, and that includes being at home more to look after them. I was taking to a beekeeper in Cambridge yesterday (22<sup>nd</sup> June) and he was having a June Gap, his bees eating all their stores, with Blackberries just starting, we must be a clear two weeks ahead of them, and I did not notice a Gap this summer, so we must count ourselves lucky.

I have never run out of supers before and am mending old ones I have been using as ekes, and still making frames and foundation. My colonies got their swarming over in April and are well behaved and busy now. I have suffered from Chronic Bee Paralysis virus in 4 colonies in May/June, but they have all got over it and the numbers seem only moderately reduced, the queens are laying like mad and might yet bring in some honey. As for several others, they have never been so tall and I need steps to reach them and one has filled 8 boxes with brood and honey - but unfortunately not quite capped yet so I cannot take them off, but I don't see how I will be able to lift another box off if I put any more boxes on. One colony on 8 commercial supers, in most respects is all I wish from a colony; healthy, vigorous, productive, BUT it has a temper, and as I was struggling with a nearly full super from the top it slipped as I was putting it down (must weigh nearly 30lbs) and it came down with a bit of a bang, they were furious and I got a good stinging. I only had T-shirt and shorts underneath my suit and I am afraid I threw them back together again and ran and will leave them alone for a couple of weeks. The queen is clipped and I hope they will be more interested in gathering honey than swarming. They had an artificial swarm in the spring; the new queen failed so I merged them back with the old queen. I can hardly believe they were just a small caste with a virgin I collected from Burgess Hill last year! My hope is they will supersede her and the new one will become better tempered as my other colonies are. I have been putting my new supers on the top as I cannot face lifting all the others again.

So my recommendations for this month are; do have something a

reasonable height to rest your heavy supers on, or a partner to help, to avoid straining your backs. Keep up with putting supers of foundation or recently extracted back on, as I have a feeling it is going to just keep coming in. They need 3 times the space to process the nectar as will become honey. If you want foundation drawn or even frames with starter strips, I think you might manage it in the first half of July. If your colonies are not too high, you could use a brood box as a honey super and get a supply of clean comb for use next year after it is extracted. With such an early start I believe the flow will ease off in the second half of July and then I shall be shuffling full frames to the outside and uncapped ones to the middle of boxes to get them all filled and capped. Be careful to avoid anything which might trigger robbing, especially as the flow eases off; so return wet supers in the evening for example and try not to leave drips of nectar or bit of comb lying around. I take a plastic pot for fresh brace comb, which they have been building between and on top bars as they are finding space to put nectar. When this is damaged it leaks honey, which they immediately try to lick up and putting the super back on would squash them. So I scrape it off carefully, then munch it myself when I get indoors.

The weather has been so good and I am so impressed with the performance of the previous year's nucs, it might not be too late to get a last nuc or two established in the next week or so if you need more colonies. Thriving colonies can easily spare some of their abundant brood, and there are still drone about but they will decline by mid July. I am having a last fling with one, its virgin was lost on her mating flight I presume (swallows?) so put in a frame of brood yesterday from my best colony which only supersedes so is very difficult to get queens from. Fingers crossed for a couple of nice emergency cells, might be able to get a second nuc going.

I have started seeing wasps around, mainly attacking my gooseberries but they will soon find the bees and honey. Prepare your wasp traps. Protect your hive from over heating if it is hot, as suggested last month. Finally, I remove my surplus honey end of July and certainly by the first few days of August for several reasons; Ragwort flowers in August and makes unpleasant tasting lurid yellow honey, this is best left for

the bees. Any further honey they collect is for them; it saves lots of syrup feeding. Monitoring the varroa drop by putting an insert under



towards the end of July gives an indication whether you need to get on with varroa treatment. After a good season with abundant bee brood the varroa needs to be reduced before September. Actually since using oxalic acid vapourisation in October/November my mite levels seem to be so low I generally don't need to do an Apiguard in August, but it is worth checking, and the supers need to be off before treating.

Here's to a good harvest for you!

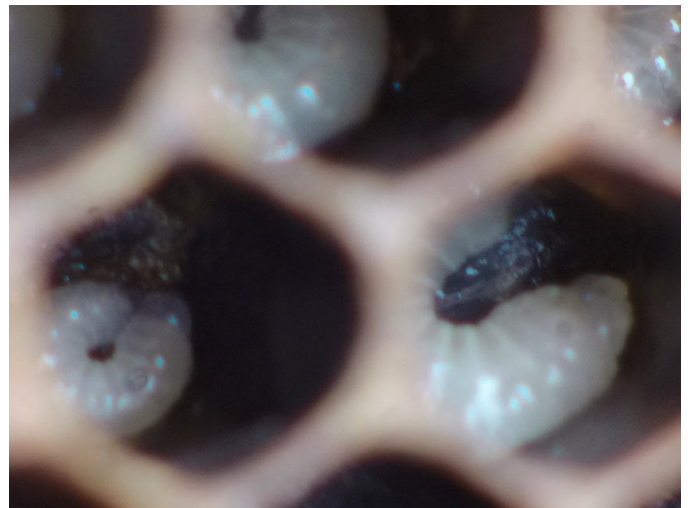
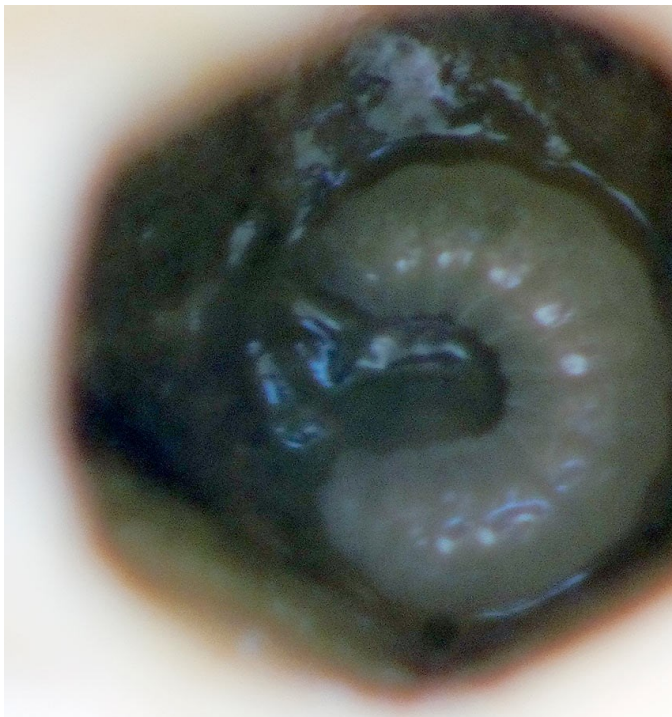
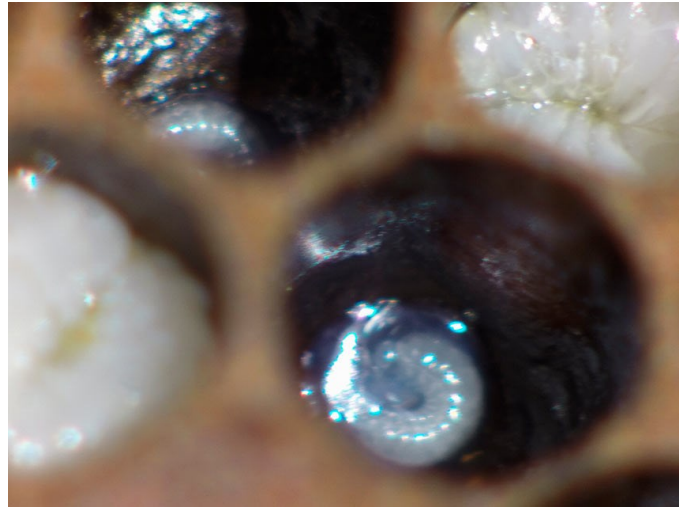
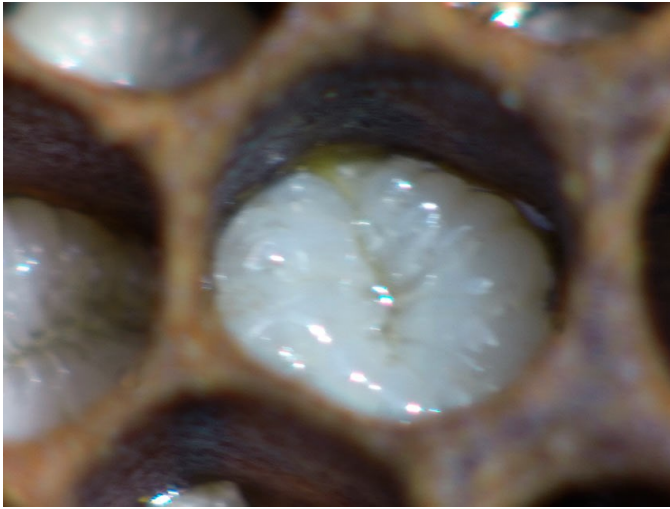


*Bees feeling hot in full sun at 10am, head down, fanning to increase ventilation, especially top left of picture; not that those will have much effect, they would be better with those just above the entrance. (don't worry, they will soon be in the shade of a tree for the rest of the day)*



## Gerald Legg idling his time away during lockdown

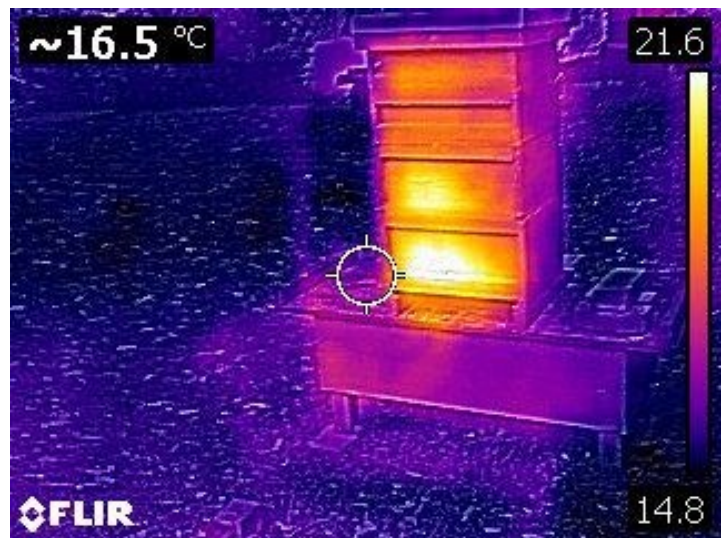
First attempt at long-range close-up photography of the bees. Working at a distance of 400 cm so not close to the subject. Using a 'Back-Bone' modified GoPro 5 fitted to an old Zuiko 80-135 macro lens. Back-Bone provide GoPro cameras with no lens but a mount to fit, through appropriate adaptors, any camera lens. This was shot at the lowest magnification. Apart from the advantage of a long working distance, the GoPro has voice command so you don't have to press any buttons and disturb the camera. Inadvertently shot at f5.6, should have been f11. Camera mounted on monopod which meant my heartbeat caused some shaking; will use a tripod next time. Most of the stills are not cropped so give an idea of the magnification.





## Photo Corner

Right: Infra red image of a hive where the cluster can clearly be seen. Thank you Tony Robinson for this.



Left: The clever camouflage Flower spider with one of Amanda's bees as prey in a white rose.

Comb found in an eke.

Even Tracey Emin could not produce something as beautiful as this. Thank you Heather for submitting this stunning photo.



## B&L Divisional Diary 2020

### Indoor meetings:

Meetings are held on the 3<sup>rd</sup> Wednesday of the month, October to March at Cliffe church hall, Lewes, unless otherwise stated. Members are invited at 7.00pm to assist with setting out chairs etc. ready for a 7.15pm start. Non-members are always welcome.

### Summer programme:

All currently cancelled until further notice.

### Dates for your diary:

~~7th March: Sussex BKA AGM, Luxford Centre.~~

~~3rd, 4th & 5th April: SBKA Spring Convention.~~

~~25th April 2020: Bee Disease Day, Ringmer.~~

~~16th May: Sussex BKA Bee Market, Heathfield.~~

~~11th, 12th & 13th June: South of England Show.~~

The above events have now been cancelled due to the Coronavirus Covid-19 pandemic.

## Officers of the Division

**President:** Amanda Millar

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"Knowlands Farm": Heather McNiven  
"Hove": Judith New

**SBKA County Representative:**  
Bob Curtis

**National Honey Show Representative:**  
Norman Dickinson

**The Brighton and Lewes Division of the SBKA cannot accept any responsibility for loss, injury or damage sustained by persons in consequence of their participation in activities arranged.**

## Contributions to your newsletter

Contributions for the newsletter, including photos can be sent, preferably by email, to the editor. Please refer to panel above for details. Please limit to a maximum of 900 words. Copy to be sent no later than the 12th of the month preceding the month of publication. Photos etc. for the website should be emailed to our Gerald Legg webmaster, see panel above.

|                         |              |                      |   |
|-------------------------|--------------|----------------------|---|
| Regional Bee Inspector: | Kay Wreford  | Mobile: 07775 119483 | email: <a href="mailto:Kay.Wreford@apha.gov.uk">Kay.Wreford@apha.gov.uk</a>           |
| Seasonal Bee Inspector: | Diane Steele | Mobile: 07775 119452 | email: <a href="mailto:diane.steele@apha.gsi.gov.uk">diane.steele@apha.gsi.gov.uk</a> |

QR Link to B&L Website



The co-operative membership  
Community Fund

