# Brighton & Lewes Beekeepers



## A DIVISION OF THE SUSSEX BEEKEEPERS' ASSOCIATION

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### **EDITORIAL**

# **Beset by pests**

This month was, for me, dominated by the BBKA-organised Asian Hornet Conference. It took place in early March, long before we'd start thinking about watching for them, but not before we should start thinking about and planning for them.

Essentially, it brought everyone—about 700 attendees—up to speed on the latest developments in research into how to counter this non-native pest, how it behaves and how widespread it now is on the mainland. You'll find a <u>full report</u> on the conference on p5.

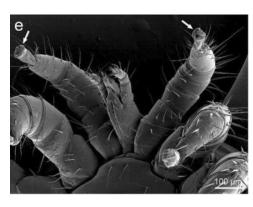
The other highlight—or should that be low-light—of the month was the death of one of my three colonies. As a relatively new beekeeper with just five years experience, I learnt something, albeit at the expense of the lives of thousands of bees, which won't be much consolation to them.

I was monitoring fondant levels, feeling fairly confident that they wouldn't starve this winter despite the unseasonal warmth. Two hives were taking it down but the other wasn't taking much. I attributed this to the fact that I took no honey from that colony last year so they were fairly well provisioned and didn't need it. Wrong: after the second visit without any sign of either bees through the

transparent quilt or the fondant being touched, I opened up on a mild day in early March. All the bees were dead, carpeted on the floor.

After some <u>online discussions</u> and my <u>posting photos on the beekeeping forum</u>, the diagnosis was they had been overwhelmed by varroa (close-up below), despite my deploying MAQS strips in early August and OA sublimation in December.

I believe my basic mistake was forgetting to close the floor when vaping. As a result, too much vapour escaped rather than coating the inside of the hive, so the dosage was insufficient and the varroa multiplied. Lesson learnt.



Varroa mouthparts. Image: Dr. Samuel Ramsey

### **NEWSLETTER** APRIL 2021

### **EVENTS**

- Out-apiary meetings are go! Hove & Piddinghoe to host first 2021 meetings
- BBKA & BIBBA events
- See back page for details

### **NEXT MONTH**

- Spring hints and tips
- Your contributions
- Apiary reports
- Committee news
- Asian Hornet update
- News updates
- · From around the web

### **CAN YOU CONTRIBUTE?**

Do you have interesting photos or video links you'd like to share? Or an insight from your beekeeping that would could enhance the hobby for others? Do you have skills that could be useful to other members? Anything else you'd like to see in this newsletter? Ideas and contributions welcome: all contact details are on the back page.

### **ONLINE**

brightonlewesbeekeepers.co.uk



QR link to our website

# **April**

### The first inspection

At last, the first full inspection of the year. You may have been lucky enough to have been able to inspect your bees in late March, but don't forget the rule of thumb about opening the hive: it should be warm enough to go out in shirt sleeves. So, usually you'd wait until the daytime air temperature is about 15°C with a light wind and of course, not raining.

During the early part of the year, it's not an issue about what time you do the inspection but later on in the year it's best to inspect around midday when most of the adult bees are out foraging.

I know, you the experienced beekeeper, have done this all before but it's worth thinking about before you get elbow-deep in your hive: you need a plan. Just take a few moments to



Sting-proof bee suit—the Sentinel II

think about why you are doing this and what you might need.

### **Personal equipment**

**Bee suit/jacket:** do you know how to put it on, so it is bee-proof? Check the seals around the sleeves and legs/bottom of jacket. Check the zip closers on the veil.

Gloves: it is better to use disposable gloves, either latex, or my choice, long cuffed nitrile but you can use ordinary washing up gloves which you can rinse in a washing soda solution between inspections. The long sleeved 'hazmat' gloves are too thick for delicate manipulations and the leather type could be vector for disease as they are seldom cleaned regularly.

**Boots:** either Wellingtons or Rigger type are OK, as you can tuck your suit legs or trousers into them. Bees tend not to crawl down, so always tuck loose ends into the top of the boots or into the top of gloves.

**Smoker:** any type is OK. Warning, do not try to light it with your veil on, at best you could melt the veil, at worst; if it catches alight you will be in all sorts of trouble. Make sure you know how to light the smoker and are able to keep it alight. Don't use matches unless you're a Boy Scout. I use a plumber's blowtorch, but others have been known to use crème brûlée torches. For a new beekeeper, it's probably best just to use old egg boxes or shredded cardboard from your favourite delivery company, but as you progress there are other solutions to smoker fuel. My preference is chipped wood from any tree surgeon; dried, it burns for ages.

**Hive tool:** there are many and various but start with the standard 'J' type and chisel, they will do almost everything you want.

### **Hive equipment**

Keep to hand a selection of hive parts as you may want to replace damaged items as you find them. If nothing else, make a note of the bits that need changing. I usually take this opportunity to replace the floor, boxes, crown board and roof as the accumulation of propolis and wax over



J hive tool

the winter will make any later inspection harder.

### Why inspect?

The queen: you want to find the queen. I know this is difficult for new beekeepers, but it is a skill you need to learn and learn fast. If you're lucky, she has a big spot of colour on the back of her thorax. However, the old queen may have been superseded in the late autumn and have no marking; so, what do you do?

Scan each side of frame as it's removed; start on the edges and then zigzag across the face of the comb. The queen is bigger by at least half than any other bee in the hive at this time of year, she has a longer abdomen and has brown legs. If you fail to see her, don't despair, it will come with time. Your second option to knowing if the queen is present is to see if there is brood in all stages; eggs, larvae, and sealed cells. If these are all present, then she's in there somewhere. Note; if you see multiple eggs in one cell then this is a sign that there may be a laying worker present in the hive and no queen.

**Disease:** the new beekeeper is not expected to be able to identify all of the diseases that affect bees, but they should know how to spot that something is not right. Healthy larvae should be pearly white, shiny and have



An unmarked queen



Healthy brood

clear segmentation, laying in the bottom of the cell in a tight 'C' shape. Sealed worker cells should be biscuit coloured (because the wax seal has been mixed with pollen to make it air permeable) and should have no noticeable holes in them. Any capped drone cells present, will look similar but will be domed due to the egg being laid in a worker cell and not a specific drone cell. If the brood pattern is any different, or there is a strange smell coming off of the combe; sometimes likened to the smell of Copydex glue, then seek help from your mentor or the bee inspector quickly—see back page for contact details.

**Space:** I mentioned this last month, but it's still important to ensure that there is enough space for the queen to lay and, with the early flowering trees and flowers in bloom, the workers need to be able to store this nectar without taking up the space the queen needs.

When the colony has expanded so that it covers both sides of about 6-8 frames, put a super on. If this is filled with new foundation it may be better to leave the queen excluder out until they have started to draw out the comb.

Stores: the colony needs to be able to support itself during this period and will need to have about 3-4kg of stores. A full brood frame will contain about 2-2.5kg so you will have to estimate the amount of stores distributed through the hive. Hopefully, with a good tide and a following wind the weather will stay good, and by the end of the month there should be enough forage to see them start laying down honey for the first harvest in late June.

### Opening the hive

All the literature suggests that you puff a little smoke (they're not Beagles) at the entrance and wait for a minute or so before lifting the lid of the hive. The rationale is that the bees think the hive is in danger from a forest fire and, in preparation for evacuation, they load up on honey which makes them less annoyed. Sometimes it works, sometimes it doesn't.

The next technique the new beekeeper must learn is how to open the hive and remove frames in a quick,



Smoking calms the bees—sometimes.

efficient manner but without any sudden movements or cracking of stuck components. Here's how.

Lift the lid off the hive and place it upside down on the ground or a spare stand (it saves you bending). Gently insert the chisel end of your hive tool at a shallow angle into the joint between the crown board and the top of the brood box. Work your tool all the way around the joint until the crown board comes off.

Check the underside of the board to make sure the queen is not sitting on it. Lay the crown board on the roof so the corners are opposite to those of the roof.

At this point you may want to give another little puff of smoke into the hive. Working from one end/side of the brood box, gently prise the first frame/dummy board away from its neighbour.

When both sides have been freed, keeping your hive tool in your hand, lift the frame/dummy board vertically out of the brood box using the lugs on each end of the frame.

Check to see if the queen is on it. If not, place it on the ground in front of the hive or in a frame holder. Do the same with the next frame but after inspecting it place it in the gap left by the first frame/dummy board. Repeat all the way through the hive, maintaining the gap as you go.

Once you have inspected every frame and noted the condition of the brood and stores level (and found the queen), slide the frames back into their original position. This can be done all together, in groups or one at a time but the fewer movements the better, as you are less likely to damage the bees, especially the queen. Replace the first frame/dummy board and rebuild the hive.

### Finishing up

There's just one last job to do: make a note of what you have seen. If you have a memory like a sieve, like me, you'll have forgotten what you did or saw by the next inspection. You can devise your own record card or there are plenty available on the web.

Actually, I lied, there're just one or two more. To avoid attracting rats and mice and reducing the chances of spreading disease, you now need to clean up the apiary, collecting debris removed from the hive by disposing of it in the bin or burning it.

Clean any components you replaced; don't leave them to later as later never comes, and you end up with a pile as big as your house by the end of the year. Clean your hive tool and gloves in a solution of washing soda. Wash your bee suit.

And so the season begins.

Next time: queen cells and swarm prevention.

### **Another Veiled Beekeeper**



A spring inspection



Norman Dickinson Chairman

### **Words from the Chair**

Some good news for our members, especially those new to beekeeping. Following our committee meeting on 15 March, we have tentatively allocated dates mid-April and beginning of May for meetings at our Hove and Piddinghoe apiaries. We are planning to hold dual meetings across both sites specifically for new beekeepers. They are very much dependent on any Covid restrictions that may be in place.

Following these initial meetings, we intend opening up future meetings to all members and may continue to run separate meetings across two sites on any one day. More information will be made available via emails from me and the B&L Facebook page, so if you have not yet registered for the site please do so now. Currently about 48% of B&L members have registered.

The Sussex Beekeepers Association (SBKA) held its AGM over Zoom on Friday 5 March 2021 at 19.30. It was very successful, considering that this was the first SBKA AGM to be held online.

The minutes of the AGM held on 7th March 2020 were agreed and signed off, as were the accounts for 2020. With there being no additional candidates for the positions of Chair, Hon. General Secretary, Hon. Treasurer and Accounts Examiner all incumbents were duly elected for a further year. Jean Piper, Chair of the Eastbourne Division has agreed to be the Minutes Secretary, taking some of the load off Liz Twyford.

Each of the Divisional Secretaries then gave a report on the previous year's activities. The date and venue for next year's AGM is to be confirmed. With no National Honey Show in 2020 there were no cups to be awarded.

Please stay safe and well and please do please keep checking that your bees have sufficient stores to see them through the remaining winter months as I have received emails from several members who have lost hives over the winter and have asked to be put onto the swarm list.



Hilary Osman Secretary

### Your Committee at work

Well we are moving on, working towards helping our new beekeepers find mentors, and arranging for them to come to outapiary meetings first.

With social distancing in mind, we'll be limiting the numbers but aiming to deliver great tutorials on how to inspect a hive, located at two of our apiaries simultaneously so we can offer a place to as many people as possible. If you'd like a place, please book it with Graham Bubloz (contact details on <a href="mailto:back">back</a> page). Bring your own clean suit, gloves and boots. Fingers crossed that this goes ahead.

Plan is later in June to involve the remaining members, to meet up, chat and share tea and cake. Yes, cake!

You will now have received your questionnaire. Please fill it in. The more who return it, the more the committee can aim to fulfil requests or ideas. And remember all who return it by 11 April will be entered into a draw to receive a Payne's voucher.

### Mentors needed

A bit of a moan now. Last month I asked if anyone had a honey recipe to share, or to offer to be a mentor. I have heard nothing

from anyone. Are you reading the newsletter? Can you give something back to the division? Come on give us a hand. Please. We give our time for free, we advise, we collect swarms, we raise money, we bulk buy to find deals for you, etc etc.

End of moan.

And so to the Bee Disease Day. You may remember that we had arranged this for last year but of course had to postpone. We have now heard from the Bee Inspectors and we are aiming for a date at the end of spring next year. Hopefully to be held at Ringmer Village Hall (see pic below); it's fairly local to all, with plenty of free parking.

Weather—please hurry and warm up.





Manek Dubash Asian Hornet Team Co-ordinator

# Asian hornet conference report

We learnt a lot at the BBKA's second Asian hornet conference, held on Saturday 5 March 2021. Bit of a wall of text, please forgive me!

Conference speakers focused on the latest research into *Vespa velutina*, its behaviour, its physiognomy and measures being taken and planned to counter the invasive pest.

While the UK has yet to suffer the level of invasion that France has experienced, it is probably only a matter of time before sufficient queens are transported, unwittingly, across the Channel in sufficient numbers to make *V. velutina* unstoppable. The reason, said many, why the UK has yet to find itself inundated is that traffic across the Channel has been low during the pandemic —obviously—with caravans and motorhomes being particular favourites for queens to hibernate in, and on which to build unobtrusive primary nests.

### The European experience

In France, Portugal and northern Spain, where the insect is widespread, measures being taken are working, but speakers suggested that containment rather than eradication is now the only practical goal.

Andrew Durham shared the results of his researches in France. He said that geography and climate are the major influences on *V. velutina*'s location. They are found largely in urban areas, although the greater concentration of people in such areas tends to skew the findings, and this means that they are often found near rivers. They prefer warmer climes, although many nests have been founded in northern France. However, cooler weather tends to make their numbers yo-yo from year to year.

Dr Sandra Rojas-Nossa, of the University of Vigo in Spain, said that containment works and flattens the growth curve of the insect's numbers. She painted a vivid picture of what happens in climates favourable to the spread of *V. velutina*, such as Galicia: the hornet starts predation in January, and brings sustained pressure to honey bee colonies that induces hive paralysis. This means the bees cannot forage, so they are trapped inside and starve.

She said losses of colonies amounted to 30 percent, and meant a lot more work for beekeepers. She added that the insect's impact is widespread, on fauna, pollinators, agriculture, apiculture, health and public spending. And its effect on the taxpayer is costly too.

As for counter-measures, traps were not particularly effective, Dr. Rojas-Nossa reported, with just one percent of the catch being *V. velutina*. She did however report success with a harp-like device, consisting of a series of vertically arranged strings mounted in front of the hive which electrocute hawking hornets, thus enabling foragers to go to work.

### **Technology counter-measures**

From the University of Exeter's Dr. Peter Kennedy, we heard that technology in the form of smaller, lighter tags and batteries is helping with the detection of Asian hornet nests. The hornet is opportunistic, he said, but honey bees are easy prey—easily detected and caught—and so consist of up to 30 percent of its diet. Dr. Kennedy's two-pronged research, part-funded by the BBKA, involves measuring the threat of *V. velutina* on managed and wild pollinators, and on an EU Interreg project on the conservation of Atlantic Area pollination services. He continues work on analysing the insect's habitats and behaviour.

Dr. Eric Darrouzet—whose <u>YouTube videos</u> are well worth watching—is researching the insect's communications, and on biological counter-measures. He said his work at the Institut de Recherche sur la Biologie de l'Insecte includes work on a chemical filter in traps using cuticular hydrocarbons, a communication pheromone, so the smell of a hornet will make nonhornets want to escape. He is also studying baits in traps using alarm and sex pheromones. He said the results of an early test to protect a honey bee colony using a repulsive compound were 'very interesting'.

### The NBU at work

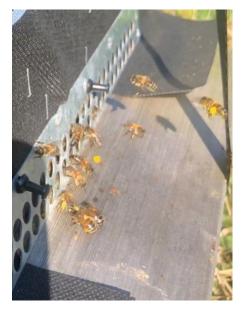
We heard from the National Bee Unit (NBU), a department of DEFRA. The NBU's Nigel Semmence said that the NBU has almost completed a new track and trace app. He reiterated that nests should not be approached, and that the NBU is the place to go for information about the insect. You can find the official contingency plans here.

What's clear is that eradication of the insect in France or Spain may never be possible, but that research has led to some success in containing its numbers, with further research underway. This is, one hopes, work that the UK can take advantage of once *V. velutina* arrives here.



# From our apiaries: Barcombe, Grassroots, Hove & Piddinghoe

### **Barcombe**



Barcombe bees bringing back dinner in the form of pollen

As you might expect, there is not much to report from the apiary as yet this season.

I did however manage to a few visits, particularly following high winds and I'm happy to report that the hives (and colonies) have all survived unscathed. I also managed to replace another one of the old rickety stands with robust blocks and posts.

I also decided to remove all the mouse guards giving the bees a clearer runway—even if I say so myself, it's looking nice and tidy up there now. [As someone who walks past the apiary and has a quick peek from time to time, I have to agree! Ed.]

I put some more pollen patties on all colonies. In fact I'm surprised at the amount of food they've got through this winter and will have to make a note to order much more next year

While I was there I stood and watched the bees flying and bringing in the pollen from surrounding forage. It's great to see all six colonies doing well and being active. I suspect and hope this time next month it will be full on inspections!

Tony Birkbeck, Apiary Manager

### **Grassroots**

This report is from a visit to the apiary in March. It consists of a top bar hive, and a stack of five supers with bees in.

The super stack was opened first. There was no way of telling how many bees were in the stack. No way of finding if the bees needed feeding or were diseased without a further quick look, there was no activity at the hive entrance.

The lid of the top super was opened, under the insulation there were some bees coming from under the crown board. Between us, Graham Bubloz and I had a very quick look through the boxes to see if there was any fondant or any empty boxes. The bees were not keen on the check, however gentle we were trying to be.

The bees came out of the box and stung my wrists. I put on my gauntlets trapping some bees underneath and used the on-site smoker but the fuel was a bit damp, so the smoke was not a steady thick stream, which would have been more helpful.

I decided that I would check all the boxes to see if there were any empty boxes or fondant or a queen excluder between the boxes and re stack. I used my hive wedge to limit the crushing of any bees as they moved around the boxes or into the air. The lid and insulation replaced, we retreated and agreed how to proceed at Grassroots.



The stack of five or six supers.



The top bar hive had died out. There were no obvious signs of disease, so the hive was closed, ready for proper clean-up later in the month.

I posted on Facebook to see if any beekeepers recognised the hive arrangement or if they had any useful advice.

Suggestions included:

- Stabilise and lower the stack
- Change to brood and supers with a queen excluder
- Leave it as a Rose system.

The bees look dark, so I would like to keep them I also think that the queen in residence, is probably marked is clipped. This was only our second visit and it was not warm enough for a full inspection.

The top bar hive also known as a natural beekeeping method, the Rose hive or One Size Box system (OSB) is another alternative to the more usual National brood box and supers generally in use in this division.

I like the challenge of using three hive types, so that they can be observed on one site and compared for swarming and honey production. Using three types of hive is unusual, but can be useful for comparison and maybe suits different folk for different reasons. This is after all a teaching apiary and we can all learn from the different hive types.

I took two days of Panadol at fourhourly intervals to reduce the swelling on my forearm and wrist where I was stung multiple times after the Panadol

(Continued on page 7)

# From our apiaries: Barcombe, Grassroots, Hove & Piddinghoe

(Continued from page 6)

treatment the swelling reduced, and the normal itchy stage did not happen.

On the next visit, I will clear the top bar hive ready for a new colony and put a varroa floor under the open mesh floor of the Rose Hive. I am looking forward to meeting members at Grassroots later in the year when Covid restrictions allow.

Jude New, Apiary Manager

### Hove

I have been reading that this is a dangerous time—and this time I am not talking about COVID-19! The days are lengthening so the queen is starting to increase the colony size to manage the coming season of flowers with pollen and nectar which will feed the larvae.

On warm days the worker bees are taking cleansing flights and scouting for water and pollen locally.

At the Hove apiary, there are two deep pots of compost near the hives to provide a handy water source for their needs. This all uses lots of energy. So the bees are starting to use energy in the form of stores or fondant at a faster rate than they have been during the darker colder weeks of winter.

If stores are not checked regularly, then this is the time that the colony could starve.

Hove Apiary was checked just after Valentine's Day. Two hives that had died out were removed. Alas, they were casualties to the weather and had become queenless.



Cleansing flights underway



Insulation kept bees warm during chilly February and March

The remaining three hives were given pollen patty in addition to their fondant to ensure that there was plenty of protein available for colony to use to increase. Note that if pollen is fed to the bees too early, they build up too quickly for the food supplies so either need increased feeding or they swarm early, so the hives will be monitored closely.

We want to expand Hove apiary by one colony and re-bee (is there such a word?) Grassroots Apiary. Small splits will be made as early as can be managed so that if the colonies are successful, they may produce some honey this season, with good weather conditions and to manage increase without swarming.

At the beginning of March two of the three colonies had grown to six seams of bees. The varroa boards we inserted in early February showed that the bees were moving out of their cluster and had started working inside the hive.

The first varroa count showed that one hive already had a mite drop of between 8-10, higher than I would like so early in the season, so it will probably be selected for a shook swarm in a few weeks' time. However, it was still too cold to open the hives for a full inspection; a prolonged check when the temperature is below 15°C could lead to the eggs and larvae chilling. This makes it harder for the house bees to raise in-hive temperatures and could jeopardise colony health early in the season.

The hives have grown quickly in two weeks since the last inspection at the beginning of March. I attribute this to the insulation under each roof and the

feeding of pollen patty since the middle of February, when they have had the opportunity to take down pollen and fondant if they want it.

There was more confirmation of the coming of spring, with voices of allotment folk on the other side of the garden fence suggesting that they also are preparing for the season ahead.

There are far more dog violets showing in the garden since the last visit: apparently the leaves and flowers of are edible, there were also celandines near the hives which were an admired plant in the middle ages,



Pollen and fondant building up the colony

used to cure eye diseases, for throat cleansing, treatment of ulcers and skin eczema as well as against colic and jaundice (Mayer et al., 2003).

Primroses are showing through the grass, which are also edible, although there is research that suggests handling the plant might cause contact dermatitis in some people.

I am looking forward to the new season and meeting our new beekeepers as soon as we are able. Keep an eye out for meeting dates.

### Jude New, Apiary Manager



Early signs of spring

# **B&L** welcomes new beekeepers





Brighton & Lewes Beekeepers Division held its first virtual meeting for new beekeepers in March, hosted by Graham Bubloz and Judith New, aimed at catering for the large number of new beekeepers who have joined over the last year.

So on 16 February, I posted on our Facebook group page to gauge interest. The idea was that it would allow any of

our new beekeeper members to explain their own set up to a small panel of established beekeepers, and to seek help with locating their hives, purchase of equipment, obtaining bees and so on.

Six new members showed an interest so we scheduled a Zoom video conference call on Tuesday 23 March. Our panel consisted of Ian White, Hilary Osman and Jude New.

Unfortunately, not all new members could attend on the night so we may need to schedule another session, but for those who did make it, Jude started off the session by sharing her screen and running through a short presentation of the available types of hives and some of the essential equipment that new beekeepers need.

We wanted a casual atmosphere and I think we achieved this—with plenty of time for questions as we went along. Indeed, we asked each person to run through their own setup to give the panel an idea of their particular circumstances and experience.

I was expecting that to finish within an hour, but the questions and comments kept coming, and only after 90 minutes did we conclude the meeting.

The general feedback that I have received since was that it was certainly a worthwhile event and that each new member gained something from it.

If you missed the session, and would value attending a similar session, please contact any of the officers of the club details on <a href="back">back</a>
<a href="page">page</a>). And you'd like to join the division's Facebook Group, please follow <a href="this link">this link</a>. There's always room for more.

**Graham Bubloz** 

# Recipe: natural beeswax furniture polish

A beautifully scented and natural beeswax furniture polish suitable for most wood types. Makes up to 900g.

### **Ingredients**

150g filtered beeswax 600g olive oil

30 drops antioxidant, such as vitamin E (optional)

10 drops Essential oil, eg lavender or lemon oil (optional)

Use up to 900g olive oil to make a creamier polish. Beeswax lasts years without degrading but olive oil can go rancid. Vitamin E acts as an antioxidant and is readily available in liquid or capsule form. I store my polish in a kitchen cupboard, I make it without antioxidant with no deterioration in smell or quality for at least a year, however an antioxidant will ensure that does not happen.

### Method

1. Place both beeswax and olive oil into a double boiler or I use a Pyrex jug on a metal cookie cutter in a saucepan on the hob, positioned so the jug does not

touch the base of the pan, with water one-third of the way up the jug.

2. Heat water on medium heat until the beeswax is melted. Do not let it boil dry. Stirring will speed things but do not turn heat up too high. I stir with a wooden barbeque stick: remember that wax solidifies on metal spoons, so shine up wooden ones and flavour your food cooking. Avoid letting boiling water splash into your oils.

3. Add antioxidant and essential oil. Stir well. Pour the hot mixture into clean and dry, wide-mouthed containers. If you use polish containers (I use Thorne's) wait until it is cold and set—at least two hours. Otherwise, condensation forms and it just doesn't look so nice when opened to sample the smell of the essential oils.

### Usage, tips and tricks

To use, just scoop some polish with a duster or lint-free cloth and work it into wooden surfaces. Wipe excess polish off immediately. If you leave it for a couple of hours, it gives time for the oils to permeate the wood. Buff to a

sheen afterwards and be delighted with how gorgeous the wood looks and how sweet the room smells.

If you are making this as a gift and using glass jars, warm the jars before pouring hot oils into them. This helps keep the polish from unattractively pulling away from the glass.

### **Jude New**



Thorne's sell labels and polish tins in several different colours; they are compostable and refillable. I include the weight and my trading name. I have sold these at summer fairs and given them to friends and family, so labelling ingredients has not been an issue.

# Can you help?

B&L is here to help, but we can't do it without vou.

- 1. We need people to mentor new beekeepers.
- **2. Know-how**: If you have an expertise or tips that could benefit the rest of the membership, now's the time to come forward. Don't be shy: we can help turn your thoughts into words!

# Apiary site available

Do you need somewhere to put your hives, or will you be expanding your apiary this year? If so, you may be in luck. We have been offered a site for hives between Scaynes Hill and Chailey.

For further information, please contact B&L Secretary Hilary Osman on 07713 532285.

# Renew membership now

If you haven't yet paid your membership fees, you are overdue, and may lose BBKA insurance cover which protects you in the event of something going wrong at the apiary.

Please ensure you re-join now. Contact Membership Secretary Norman Dickinson (details on back page) for more information.

# **Equipment for sale**

Need more kit?

- 3 x WBC hives. Four years old, so plenty of life in them. Made by a local chap. Bees to be housed the warm way. £100 per hive. Includes three lifts. Brood box, two supers, mouse guard, and glass quilt.
- Four-foot top-bar hive, with hinged roof and pre-waxed frames. £100
- Ex. large bee suit, fencing-style hood. Normal retail price: £122. In very good condition, off-white colour. £60
- Small bee suit, fencing-style hood. Normal retail price: £122. In excellent condition, Olive colour. £60 For further information, please contact B&L Secretary Hilary Osman on 07713 532285.

# The **Asian Hornet** Handbook Sarah Bunker

Topical reading for the spring

### Book of the month

Spring is upon us, as if you needed telling. And with spring comes the renewed threat from the Asian hornet. We don't think they have arrived in force yet, but it's best to be prepared.

This book, available from our library, is bursting with information, from identification to up-to-date scientific findings on Asian hornet biology, behaviour and ecology. There are also sections on the spread of these insects, how we deal with them, tracking, trapping, and other control methods.

Fascinating, readable and full of photos and illustrations, this is a book for beekeepers, naturalists and anyone interested in invasive alien species.

Contact Norman (contact details on the back page) in the first instance.

# **B&L Facebook group**

Plenty of new members once again joined the B&L Facebook Group this month, so please join us if you haven't

Over the last month, topics have included (but are not limited to):

- Zoom meeting for new beekeepers
- Ouick chat about hive insulation
- · Our new swarm co-ordinator
- Dave Cushman's website
- New out-apiary meetings
- Do bees have knees?
- Images of primroses and celandines in ultra-violet, as the bees see them
- Small hive beetle defences formed
- Neonic pesticides
- Suzie Brock's frame-cleaning

... the list is long and growing.

I don't doubt that as the beekeeping season kicks in, we'll also see a lot more posts relating to help and advice—there's usually someone there who can offer a friendly word.

So if you'd like to help and to offer advice or you need advice, join the group—and over a third of our membership have already done so please jump in!

The water's warm and the atmosphere friendly.

To join, log into Facebook and search for B&L Beekeeping Division, or follow this link. Please note that we won't be admitting anyone whose name has not first been checked against the membership list.

### New swarm co-ordinator

We're delighted to say that B&L now has a new swarm co-ordinator, just in time for spring. If you see a swarm or you will be in need of one, please contact Eric Prior (contact details on the back page).

Eric, welcome, and thank you for taking on this vital task.

### Pale wax wanted

A candle maker in Petersfield is looking to buy fresh, pale wax, and is willing to collect from either the South of England Show, or National Honey Show if Covid allows, this year [I suspect it won't. Ed].

Please contact Jude for details.

# Government reverses bee-poisoning pesticide decision



Sugar beet: the crop that needed saving as the Government aims to reduce obesity

The Government has reversed its decision on derogating the ban on the use of neonicitinoid-based pesticides, specifically thiamethoxam, as we reported last month. This follows an outcry from environmentalists and beekeepers, and threats of legal action.

Dr Doug Parr, chief scientist for Greenpeace UK, said the evidence of the risk neonicotinoids posed to pollinators was continuing to mount and that this should be the government's "last dalliance with these bee-killing chemicals".

Early in March the Government reversed its position. Environment (Defra) secretary, George Eustice, said: "The emergency authorisation required for a neonicotinoid in sugar beet is a great example of the precautionary approach in action.

"Authorisation was granted with strict conditions including only allowing application if the weather conditions over the winter led to a problem with aphids. In the event, that pest threshold was not passed so this treatment will not be used this year."

BBKA President Margaret Wilson said: "Last month I indicated that we were taking steps to prevent the use of neonicotinoids on the sugar beet crop. We pursued this with the help of two barristers and a solicitor.

"The Wildlife Trust was also involved and following a similar process, using a Pre-action Letter and a Judicial Review. I contacted them to ask if we could work together but unfortunately their policy is to work alone on legal matters, but they have shared information with us that has been very helpful.

"The derogation is only for this year but with a proviso that it could be applied again in 2022 and 2023, each being a separate action.

"Because of the frosts we have recently suffered, which reduced the aphid count, it is now low enough for the pesticide not to be used in 2021. This has just been confirmed by the Government. However, that still leaves 2022 and 2023 when the derogation might rear its ugly head again.

"John Chittenden, a solicitor at Humphries Kirk LLP and Yasin Patel, a barrister who would both be acting for us, agree that there is no need to take action for a Judicial Review this year. However, we need to ensure that we are ready and keep up the pressure throughout this year to show we are determined to prevent this pesticide use in future.

"The thought is that the seed manufacturers will develop a seed that is resistant to aphids in future years, but this is likely to be after a couple more years at least.

"The Wildlife Trust and the BBKA have agreed to share information so that we have the best chance of preventing the use of pesticides for future years. Both John and Yasin agree with this action and they will continue to support the BBKA to ensure that we can, if needed, apply for a Judicial Review.

# Researchers see inside cells for new insights into honey bee behaviour

We normally see honeycomb from above, but researchers have gained new insights by obtaining video of honey bees at work from inside the cell by looking sideways at it.

The researchers recorded truncated honeycomb cells within the brood area of their observation hives with the frames turned 90 degrees for visibility, permitting a sideways view into the cells in the middle of the colony.

They videoed the queen laying an egg, and rarely seen mouth-to-mouth feeding by nurses to larvae as well as thermoregulation within cells containing the developing brood.

The researchers said: "We are able to bring the processes of a fully functioning social insect colony into classrooms and homes, facilitating ecological awareness in modern times."

Fascinating stuff!



One of the many videos available online shows the queen bee exploring the cell with her ovipositor and laying an egg perfectly in the centre.

# Genetic research hunts for bees' origins

New research reports that it aims to uncover where specific bee subspecies—such as Apis mellifera mellifera—originate.

European bees have a wide generic diversity but the distribution of region-specific sub-species has been altered by human activities, namely the transshipping of bees across borders, said the researchers.

The researchers' concern was that the several locally adapted populations were at risk due to introgression and crossbreeding.

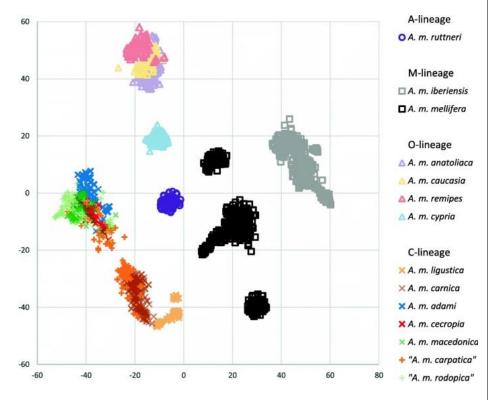
Using machine learning, their aim was to develop a diagnostic tool that will "contribute to a sustainable conservation and support breeding activities in order to preserve the genetic heritage of European honey bees."

Researchers Jamal Momeni, Melani Parejo *et al* said in their research paper that: "The conservation of this natural heritage relies on the availability of accurate tools for subspecies diagnosis. Based on pool-sequence data from 2,145 worker bees representing 22 populations sampled across Europe, we employed two highly discriminative approaches (PCA and  $F_{ST}$ ) to select the most informative SNPs for ancestry inference."

They selected about 100 bees from each region for sequencing process.

The research paper concluded that: "our model can classify bees into each of the European subspecies with high accuracy. Consequently, as the bees included in this project were collected in a vast area ranging from Russia and Armenia in the East to Portugal in the West, and from Malta in the South to Scotland in the North, we conclude that much of the natural diversity of European honey bees can still be considered extant, in spite of human interference since more than 150 years."

The researchers said many will find the tool useful, including beekeepers who want to know the sub-species of their bees, conservation managers where sub-species diagnosis is essential to monitor hybridisation, for vets to control queen trade and for bee breeders to certify the subspecies origin of their queens.



Samples of honey bees for the study were drawn from a wide range of geographical sources

# Bees have bigger brains



Focus-stacked image by Kevin Collins.

Many bees have a brain cell density greater than that of small birds, finds new research, but most ant brains contain a far lower density of neurons. The difference may be down to the insects' lifestyles: because bees fly, they may need more cells to process visual information, researchers speculated, an idea they will test in future.

Brain size is a trade-off: it can't be too big, especially if you fly, due to the weight and energy costs involved. So some animals pack their neurons into a smaller space.

Rebekah Keating Godfrey at the Uni. of Arizona and colleagues studied insect brains using a recently developed technique for counting brain cells. They removed the brains of 450 insects belonging to 32 different species.

They ground up each brain and soaked it in a solution that frees the nucleus of each cell. Then they added a dye that makes those nuclei fluoresce, allowing the number of nuclei in a small sample under an epifluorescence UV microscope to be counted, and the total number of neurons estimated.

They found that some bees, in particular, the metallic green sweat bee (genus *Augochlorella*), had very high numbers of neurons for their brain sizes: about 2m cells/mg., higher even than those in the neuron-rich cerebellums of many birds.

Compared to bees and wasps, ants had small brains and relatively few brain cells. One ant species in the study (*Novomessor cockerelli*) had just 4k cells/mg.

### **Christa Lesté-Lasserre**

**New Scientist** 

# Spring has sprung: your beekeeping season is about to begin



Figure 1: A nuc box surrounded by enthusiastic bees

If you drive down country roads at the moment you will see that the pussy willow is in flower. This is a great source of pollen for honeybees and they will collect that pollen in quantity. As a beekeeper I breathe a great sigh of relief once I see yellow pollen going into a hive in quantity.

It means that my queen has come through the winter and that the colony is expanding. March is always a tense time because winter bees that have survived for over five months are having to raise brood: it is a crossover point for the bees and is stressful for them. If temperatures are not good, or if the weather is too wet, or if the beekeeper did not feed them properly last September this can adversely affect the colony at this time of year.

The \$64 million question for each beekeeper, however, is when do I put my super onto the bees. As with everything in beekeeping it all depends. If you have your bees in an ordinary national hive then you will be adding a super sooner rather than later: they are going to need the space.

Otherwise one has to assess the size of the colony. If they are covering eight or nine frames of comb in the brood box, then it is a good idea to add a queen excluder and a super. If they need the super they will soon go upstairs into it. If you have a very small colony, though, you need to wait otherwise the bees won't expand

outwards in the brood box. The difficulty for all of us is that bees naturally want to put more brood above the brood they already have. Why is this? It is simply because the warmth and heat from the brood below will help heat the brood above and the bees instinctively know this.

The trouble is you have put a queen excluder between the brood and the super and inadvertently you may find that the bees will feel congested because they can't expand the brood upstairs. Perversely they don't always seem to expand outwards if there is space above the brood.

Come on, you all know beekeeping is never straightforward.

A beginner will just have to accept that if they have a small colony they will have to wait until that colony has become big enough before they think about honey (in other words before adding that super). It is very frustrating because all of us want a spring honey crop. However it is only once one successfully can build up a colony over winter and that you have a large foraging force that you will be able to collect a spring honey crop.

Not all my colonies collect me a spring honey crop. And certain strains of bee just do not build up quickly in the spring and are probably only going to give you a honey crop in July. Learn to work with the bees that you have.

The second \$64 million question is when can I open up the hive and examine the frames? Ideally it needs to be about 15°C, a still day and bright sunshine. I will open up a hive quickly when it is only 13°C as long as it feels warm, the hive is in the sunshine and the bees are flying strongly. Beekeepers who don't work are at an advantage because they can choose their moment.

This video will give you pause:

1. A nuc box last Sunday (figure 1). Every beekeeper should overwinter a nuc of bees in a polystyrene nuc box. They will quickly expand and give you a summer honey crop. Notice the amount of pollen going in and the enthusiasm of the bees. There is evidently a queen and from the bees enthusiasm I know she is vigorous.

2. A picture of what happens if you don't get a super on early enough (figure 2). Very vigorous bees. If only I had taken a peek three weeks earlier I would have known they needed space from the number of bees above the crown board. I could have popped on a super and queen excluder without even going through the brood box! As a beginner I was always nervous about lifting the roof off. Not the case any more. I enjoy watching the bees munch my fondant and pollen patty!

# Malcolm Wilkie, courtesy of High Weald Beekeepers



Figure 2: Bees bulging into the lid

# Practical help for new beekeepers

Brighton & Lewes Beekeepers is holding two sets of out-apiary meetings for new beekeepers on **Saturday 17 April** and **Sunday 2 May**. These are aimed at helping beekeepers with the basics, such as frame inspection, use of equipment and (hopefully) finding the queen.

We will run the meetings concurrently at our Hove and Piddinghoe apiaries to make it as convenient as possible.

You must book in advance, as the meetings will be conducted in accordance with official social distancing guidelines in force at the time.

To book, please contact <u>Graham Bubloz</u> (+44 7758 866278), to find out if there are places remaining.



### Talk: The Basic Assessment exam

Wed 14 April, 19:00. Mike Cullen This talk by a Master Beekeeper is ideal for new beekeepers and those who have been keeping bees for a year or so. It should make the work needed for the Basic Assessment exam far more accessible.

Hosted by B&L, a link will be sent out 24 hours beforehand.



BIBBA conducts a rolling series of webinars—a list of which is too long to reproduce here, but it conducts at least two every week.

The events the BIBBA is hosting in April 2021 cover a wide range of topics suited to absolute beginners as well as the more experienced.

Speakers include a list of names well-known to most active beekeepers, including Sussex's own Roger Patterson.

You'll find the full event list here.



### FROM AROUND THE WEB

We research the web so you don't have to.

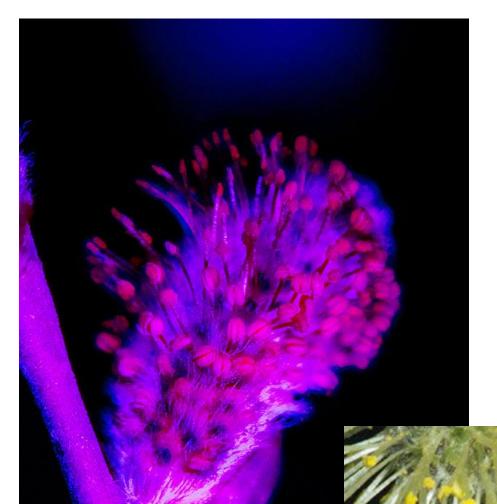


- From egg to the air: <u>a remarkable video</u> (*image above*) that in the course of a minute takes you from the moment the queen lays an egg to the point where the bee hatches out. Watch for the varroa mite!
- News: BBKA starts petition to stop importing honey bees due to the risks from of small hive beetle.
- <u>Video</u>: Review of an anti-wasp floor for Langstroth hives (Youtube)
- <u>Video</u>: French researcher Eric Darrouzet showing how the Asian hornet queen builds her primary nest (YouTube).
- Feature: (image right) how to create a garden that's perfect for pollinators (New Scientist)

- News: Edinburgh Honey Co's hives vandalised
- <u>Video</u>: How researchers are fitting bees with hi-viz vests for monitoring purposes
- <u>Feature</u>: Does local honey really work as a hay fever cure (New Scientist)
- News: Making honey without bees and milk without cows (BBC).
- News: Meet the beekeeper who scoops bees with her bare hands



# Pussy willow—as the bee sees it



**Below:** This bee was getting a bit greedy, hanging on with one tarsal claw covered in pollen and trying to pack already too-full pollen baskets. It eventually fell off and rather clumsily flew away.

**Above**: Pussy willow, *Salix caprea*, male catkins, a wonderful source of pollen for bees in the spring and now coming into its own. This is an ultra-violet view of a catkin, and UV is something the bees' see. It reflects off yellow, green-yellow and white flowers, amongst others.

Taken using a 'black' filter, UV transmission only, the camera's inbuilt flash triggering two auxiliary flashes (Olympus T32 and T24) ISO 400 f5.6; stacked image.

Words and photos by Gerald Legg

# **B&L Divisional Diary 2021**

### **Outdoor apiary meetings**

We will be conducting numbers-limited, out-apiary meetings on Saturday 17 April and Sunday 2 May.

We prioritise education for new beekeepers, so we are opening the meetings to **new beekeepers only**. You must book in advance, as the meetings will be conducted in accordance with official social distancing guidelines in force at the time.

If you want to attend, please book your slot with <u>Graham Bubloz</u> (+44 7758 866278), to find out if there are places remaining.

### **Indoor winter meetings**

None planned for the moment.

### **Contribution deadlines**

Please send all contributions for the newsletter, including photos, to the Editor (details on right). Maximum copy length: 700 words.

**NEW copy deadline**: 18th of the month preceding the month of publication. Email photos etc. for the website to Webmaster Gerald Legg (details on right).

### **National Bee Unit inspectors**

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Seasonal Bee Inspector: Diane Steele

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E: diane.steele@apha.gsi.gov.uk

### Disclaimer

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 by the Division.



The **co-operative** membership & Community Fund

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- Hove: Jude New

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