



The London Beekeepers' Association

LBKA News

April, 2016

There are a few (temporary) absences this month, but Richard, Howard and Mark give their regular contributions. There's also news about our EGM on Wednesday 27th April where we'll have a chance to discuss the future of the association and what we would like to do with our new charity status. Also, this month, Natalie recounts last month's meeting (p4), Francis from LASI tells us about their new hygienic queens (p10) and how to get them, Jon lets us into the secret of his swarm control through pre-emptive splits (p9) and Geoff explains oxalic sublimation (p12). And Emily is spring cleaning.

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A big thank you to all this month's contributors: **Hasan Al Toufailia, Natalie Cotton, Richard Glassborow, Jon Harris, Elliot Hodges, Geoff Hood, Martin Hudson, Howard Nichols, Mark Patterson, Mar Peláez-Muñoz, Francis Ratnieks, Emily Scott.**

We're always looking for new and interesting contributions – please contact me.

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From our Chair

Richard Glassborow
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For some time I have been considering using this column to write about "mentoring" when two things happened to make me think now is the time. The first was an article on Mentoring in the April edition of BeeCraft, by Jenny Shaw, training officer of the Anglesey Beekeepers' Association – I recommend it; the second was a contact from Gareth Morgan and Paul Wood of the Wimbledon Beekeepers' Association who are thinking of starting a mentoring scheme and wanted to compare notes.

Tristram Sutton, our own mentoring officer, and I went to meet Gareth and Paul at Morden Hall where WBKA have their meeting room and training apiary. It quickly became apparent that WBKA do, in effect, already practice mentoring but are thinking of making it a more formal and structured offer than at present.

Both these inputs have provided us with plenty of



Bee collecting willow pollen. Photo: Mark Patterson.



Two Chairs in an apiary – Richard Glassborow and Gareth Morgan, Chair of WBKA.

food for thought and made us begin to widen our own thinking on the purpose and practice of a BKA mentoring schemes. First to consider is, who is it for? LBKA mentoring is currently limited to those attending our training course. In other words, “complete beginners”.

In practice, and probably crucially, I think all or most mentees remain in touch with their mentors when they first get their own bees. In fact this is probably the time when someone to call is most needed. I am sure we can all remember that anxious moment when we first stood alone in front of thousands of bees doing something we didn't understand and realising it was our responsibility but we didn't know how to do what we didn't know! We will call this stage “the new beekeeper”. Mentoring is still appreciated but different to that needed by the complete beginner.

And as we progress from new beekeeper to intermediate and ultimately expert (well some do) so the process of asking a friend evolves from a formal mentoring relationship to networking. We go on asking for help even if we disguise it as asking for a second opinion.

Secondly, the other side of providing formal mentoring for those at the early stages of this spectrum is the “mentor” – who is it by? Finding enough mentors is what all BKAs struggle with. But I fully agree with the recognition by Anglesey BKA, whilst you need expertise and experience in the system, not every mentor has to be at the top of the tree of knowledge. The pyramid analogy holds good. To mentor beginners and new beekeepers you only need enough knowledge and experience to be competent, have the right personal qualities, a willingness to help those starting out and access to more experience and knowledge. There are many more beekeepers in that category than there are at the top of the tree.

But I can still remember when I was approached by an LBKA committee member to see if I would become a mentor – I thought they were pulling my leg (I think I was in my second year of beekeeping!). But I am very glad I was persuaded, I have learned far more and far more quickly because I was mentoring than I suspect I



The venue for March's monthly meeting – the white door on the left.

would have had I not agreed to it. Why? Because I had to and because I was supported by someone much more experienced and knowledgeable – in fact by several people: and they all knew I had an excuse for asking dumb questions. I also genuinely appreciate the many nice people I have met through mentoring.

The LBKA has always maintained that learning about beekeeping is too limited if it only takes place sitting in a chair listening to someone talk and show a few slides. As with many things, but especially with honeybees, the gap between theory and practice can only be bridged by hands-on experience.

We are mindful that London does not necessarily need armies of new beekeepers every year (at least not until we get acres of new and better forage) so our training course places will remain limited. But London and bees would benefit from us who already keep bees becoming better beekeepers. So we need to raise our game on spreading knowledge and experience. That means demand side and supply side.

So the committee would welcome interest from members who think they would like help at any level and from those who think they might be up for benefitting from giving help at any level. There will be no commitment. We are just exploring. Please contact me at chair@lbka.org.uk or Tristram at mentoring@lbka.org.uk.

Announcements

This is our official place for announcements. If you only read one section of the newsletter, it should be this one!

Next Monthly Meeting

This month's newsletter was a bit too late to press to talk about this month's microscopy meeting – Natalie has kindly offered to write it up for next month.

The next monthly meeting will be on **Sunday 8th May**

at **Fairley House Junior School**, 220 Lambeth Rd (SE1 7JY) at **11:00-13:00** on the subject of **Queen rearing for the small scale beekeeper**. We were not able to find a venue to our planned Bee Health day, so **have changed the original plan**.

Howard will run through details of the intermediate to advanced topic of Queen rearing for the small scale beekeeper, and other related topics. Followed by the usual hot drinks, cake and chat. Meetings are for members only, but you're welcome to come as a guest to find out more about our association.

Extraordinary General Meeting

We will hold an **Extraordinary General Meeting** on **Wednesday April 27th, between 6.30pm and 9pm** at **Roots and Shoots**, Walnut Tree Walk, London, SE11 6DN.

Further to the vote at the AGM in November 2015, (that LBKA apply to become a charity), and to the successful outcome of that application as reported in the March newsletter, the committee will now seek approval from members:

1. Of the LBKA Charitable Incorporated Organisation, (CIO), Constitution;
2. For the transfer of the assets of LBKA to the LBKA CIO;
3. For the winding up of LBKA at the end of the current financial year.

This will also provide an opportunity for suggestions and debate about the future direction of LBKA within its Objects as a CIO.

Refreshments will be available on the evening, and we hope to finish with informal discussions over a glass of wine or similar.

Please put the date in your diary and join us for discussions that will be important for you as a current and future member of the London Beekeepers Association. A full agenda and associated papers will be sent to you this week.

Our waiting list for bees

We still do not have a swarm apiary (we're still looking, if you have any ideas), so have nowhere to turn sometimes quite unruly swarms into nice 5-frame nucs like Paul did for us last year and Karin the year before.

For this reason, we plan to pass the swarms we collect them straight to members who want them.

There are **risks** to accepting swarms in this way. In most cases, we do not know where they are from and don't know how healthy they are or their temperament. If you'd like to more know about the potential risks, please ask!



"The Hive" at Kew.

If you're happy with these risks and would like to be on our list to receive a swarm, please email services@lbka.org.uk. The list – in the order in which they are added – is available at http://lbka.org.uk/swarm_list.html/. We will ask swarm collectors to pass swarms directly to you. Make sure you are ready to receive your swarm as you may well get the call out of the blue!

Apiary site available

A neighbourhood garden in Clapham (SW9) is offering an apiary site in their allotment area. It has space for two or three hives. If you're interested in this opportunity, please contact services@lbka.org.uk. You'll need to be a confident beekeeper with a few years experience, ideally with the BBKA Basic qualification. We can also help you risk-assess the site if you like.

(Paid) beekeeper wanted

The Roof Gardens (Kensington) are looking for an experienced beekeeper to look after their hives and help the staff there get trained up. This paid work would involve weekly inspections. If you'd like to know more, please contact services@lbka.org.uk.

Kew looking for a Volunteer Garden Ambassador

"This exciting project will create a team of Garden Ambassador volunteers to raise awareness of Kew's role as a global resource for plant and fungal knowledge. The volunteers will tell the story of Kew's science, horticulture and heritage in engaging and memorable ways. Volunteers will be trained in a suite of engagement tools and techniques, to deliver an enhanced, consistent and potentially award winning experience for our visitors."

Overall purpose of the role:

- To help interpret The Hive, an award winning installation arriving at Kew this summer. The Hive is an immersive, multi-sensory experience inspired by ground-breaking UK scientific research into the health of bees. It was designed by Wolfgang Buttress and created by BDP, Simmonds Studio and Stage One. This 17 metre high aluminium structure will draw visitors into the space via a wildflower meadow, as though they were worker bees returning to the hive. The wildflower meadow will serve to build understanding and appreciation of these habitats and their significance for insect pollinators.
- React to visitor needs, acting as way finders and Garden Ambassadors within Kew Gardens.
- To communicate Kew's mission and values to visitors of all ages.

For more information about this role, please contact Julia Shelley (020 8332 3824) or Amanda Le Poer Trench (020 8332 5581).

Old announcements from March

Check previous newsletters at <http://lbka.org.uk/newsletters.html> or contact services@lbka.org.uk for more details.

Be a mentor: We're looking for mentors. Find out more from Tristram at mentoring@lbka.org.uk.

Apiaries on offer: The London Fire Brigade are offering Wennington (RM13 9EE), Hornchurch (RM11 1SH), Woodford (IG8 0BS), Park Royal (NW10 7NU), Chiswick (W4 4JY), Biggin Hill (TN16 3UB) and Addington (CR0 0QA) as potential beekeeping sites; contact services@lbka.org.uk for more details.

New swarm apiary: Can you help LBKA find a new swarm apiary? services@lbka.org.uk.

Political contacts: Do you have any useful political contacts that we might be able to talk to about pollinator issues? If so, please talk to Richard on chair@lbka.org.uk.

£2500 donation: Neil's Yard Remedies have donated a further £2500 to LBKA through their "Bee Lovely Campaign" which we will use for our forage creation programme that Mark is running.

LASI Workshops: The Laboratory of Apiculture & Social Insects (LASI) is running a series of workshops this summer of interest to beekeepers. See <http://www.sussex.ac.uk/lasi/newsandevents/events> for more details.

Members' area: Logon to the "members-only" section of the website at http://lbka.org.uk/members_area.html to check your details, read minutes and peruse opted-in members (if you are also opted-in).

Old announcements from February

'The Hive' at Kew is an aluminium installation that will draw visitors into the space via a wildflower meadow, as though they are worker bees returning to the hive; <http://www.wolfgangbuttress.com/>.

BBWear: have a 20% discount for members on clothing and a 50% discount on some of their gloves. To take advantage of this, ask Aidan (services@lbka.org.uk) to confirm with them that you're a member and then order by phone. The discount is only available for phone orders.

Honey wanted Member Joe Fox is looking for honey to buy for use in a restaurant. Contact him on joe@petershamnurseries.com.

Do you have any announcements?

If you've any announcements for the next issue of LBKA News, please send them to Aidan at services@lbka.org.uk.

March's monthly meeting: Swarm control, time to 'think bee'

What happened at last month's meeting.

Natalie Cotton
LBKA member

March's monthly meeting was dedicated to swarm control. Richard was keen to stress the responsibility of urban beeks in preventing swarming, and provided an accessible guide to spotting the signs of swarming, how and why it happens, and how to prevent it – with the caveat that if your bees are determined to go, you might not be able to stop them!

Swarming is bees' natural way of increasing the number of colonies. When the bees decide to split the colony, it's the old queen who vacates the hive (after she's been put on a diet by her workers to get her flight ready). Half of the workers, gorged on half of the stores, go with her. In preparation for swarming, the hive will have hatched virgin queens, and one of these will mate and take over the hive. As there's likely to be more than one virgin queen, several 'cast swarms' might follow the primary – further depleting the colony and further distressing neighbours.

Richard explained that swarming can be triggered through lack of space. A strong and healthy queen needs room to lay 2,000 eggs a day, and the colony needs space for the resulting bees and its stores. In a crowded colony, the pheromone released by the queen might not be spread effectively through the colony, triggering a swarm. Colonies with old queens or that have experienced stress are also likely to swarm.

Be prepared

Making sure that your colonies have plenty of room and plenty to do are the simplest methods of swarm prevention. Richard reminded us we should be inspecting weekly as we head into May, and to add supers and undrawn frames to strong colonies – having tasks to do can distract a colony considering swarming. As well as reiterating that we need to know what to do if we spot the peanut shaped queen cells, Richard said he clipped his queens, meaning if a colony did swarm it was unlikely to go far and was easier to collect. He pointed members to the recent BBKA articles on the subject.

Spotting the signs

Richard encouraged us all to “think bee” when spotting the signs of swarming! If space is limited and bees are filling the box and spilling from the entrance, if stores are plentiful, and if drones are about, those thoughts are likely to turn to splitting the colony. In preparation, the queen is likely to reduce her egg laying, and of course you should be on the look out for the peanut shaped queen cells (often preceded by the smaller cups). Bees will craftily try and hide them on the underside of frames, so thorough inspections are crucial throughout May and June.

If you do find a queen cell with an egg or grub in it, do the maths on the brood cycle – and Richard cautioned us that it can be just five days from sealing a cell to absconding, so never think “I’ll leave it until tomorrow” to do an artificial swarm, particularly if the weather is good. By now we should all have additional equipment ready in case we see swarm signs too, as it’s unlikely we’d have time to order new.

The artificial swarm: the rule of three

The final swarm control technique, and the last resort if you spot sealed queen cells, is to artificially create a swarm – resettling half the colony in a new home and causing the bees to act as if a swarm has taken place.

Richard told us to think of the colony as three parts: the queen, the flying bees, and the brood. An artificial swarm separates one of these parts from the other two (only one LBKA member has ever been known to separate the flying bees from the queen and the brood!).

The technique Richard described, and also covered in detail in a FERA leaflet, is separating the flying bees and queen from the brood.

The technique requires an extra brood box rather than a nuc, and the space to house it within your apiary. Remove the existing brood box at least four metres away from its existing site, and place a new brood box in the old site. Fill that box with frames, of predrawn comb if you have it. Also transfer a single frame of open brood (ideally without any varroa harbouring closed brood) in to the new box. You will need to transfer the queen to the new box, and some of the nurse bees. The flying bees will return to the new box – voila, the queen and flying bees in one box, brood in the other!

Eagle eyed readers will have spotted there’s one frame of open brood in the new box – this frame serves as a varroa trap, as the mites scuttle in to the brood. Remove it once it’s capped as an effective form of varroa management.

Richard explained that opinions vary as to how many sealed queen cells to leave in the old box. Some beekeepers leave one; others two, as a back up in case of a defect. Either way, if there is a serious issue, the bees will create an emergency queen cell providing there are larvae present. Check the new colony’s food levels, and consider feeding them a sugar solution to stimulate growth.

For beekeepers without the space for a second brood box, other options using nucs are of course available – whatever your situation, be prepared and inspect regularly.

April in the Apiary

Where we should be with our colonies at this time of year.

Howard Nichols
education@lbka.org.uk

It is in April that colony populations substantially increase and drones will start to appear later in the month. There should normally be sufficient available forage for the bees to be self-sufficient if the weather holds good but the beekeeper must keep an eye on stores. The most important job for the beekeeper this April, given the weather, is to ensure that the colony is not starving. If it is still too cold for a proper inspection, and if in doubt, then feed.

Other action to be taken this month

Mouseguards Remove mouseguards and replace with a clean, sterilised entrance block.

Mark the queen If the queen is unmarked then this is an ideal time to find and mark her. The colony is now going to continue to expand in numbers up until July whereupon it will start to contract. Swarm control will be considerably easier with a marked queen.

Colony build up. Is the colony continuing to build up? A significant benefit of keeping colony records is that the number of frames of brood is recorded.

Varroa mites. Check mite drop if not already done in March.

First full inspection. If not done in March then the first full inspection and spring cleaning of the hive should be carried out. The best way to spring clean is to have a spare broodbox and floor and simply transfer all frames and bees into a new brood box then place this on the new floor. The old box and floor can then be taken away for cleaning. From then on regular inspections should be made.

Inspection checklist

When inspecting a colony, 5 questions should be asked and actions taken if appropriate.

Is the queen present and laying? You do not need to find the queen. If there are eggs and these are only 1 egg per cell, or newly hatched larvae, then this is evidence that she was in the hive and laying 3 or 4 days ago.

Has the colony enough room? This is a 2-part question, being enough room for the queen to continue to lay eggs and enough room for the colony to store nectar. If not then provide room by adding a super.

Are there any queen cells? Queen cups are to be expected and should normally be ignored unless containing an egg or larva. Queen cells require swarm control action by the beekeeper. If the bees have sufficient space then swarm control should not normally be an issue until late April or early May. If there is insufficient space in the hive, leading to congestion and inhibition of the circulation of queen substance, then swarming can be an April problem. Therefore, ensure that the colony has sufficient space. Add a super if necessary.

Are there signs of disease? This is a comprehensive question but the strategy is best approached by being familiar with healthy brood. Anything that does not fit this description is, *prima facie*, suspicious. Healthy unsealed brood is pearly white in colour, evenly laid, segmented and lies in a 'C' shape in the cell. Healthy sealed brood is light brown in colour, evenly laid and with slightly raised dome cappings.

Are there enough stores until the next inspection?

The equivalent of 2 full National brood frames is regarded as more than sufficient at this time of year, even if there is a serious and prolonged downward turn in the weather. Nectar does not usually rise in the UK until the temperature reaches 18°C. So, beware of low stores.

My first inspection

On a personal note, I made my first colony inspections of the season on Good Friday when it was unusually warm. I also received my first sting of the season which was caused through my handling not being gentle enough and having a small split in my latex glove. I set up the colony records and made the first entries of the season. I will undertake the spring cleaning work at the next inspection.

Spring is now just underway and the beekeeping season is with us for the next 6 months. I hope everyone enjoys themselves during the period. It can be challenging at times but extremely rewarding. Please do come along to our monthly meetings to share your experiences and get help or suggestions with any of your queries. Happy Beekeeping for 2016!

Focus on Forage

Mark's regular update on what is in flower that bees like.

As we enter April many of our true heralds of spring have begun to flower. Among them the pretty pink **Cuckoo Flower** *Cardamine pratensis*. This dainty little pink flower is a true sign that spring 'proper' has arrived. It's an important nectar plant for many pollinators and the main food plant for the larva of the **Orange Tip**



Apple blossom



Cherry blossom

Butterfly – a species sadly in decline. This past week the cemetery near my house has become carpeted in these lovely flowers.

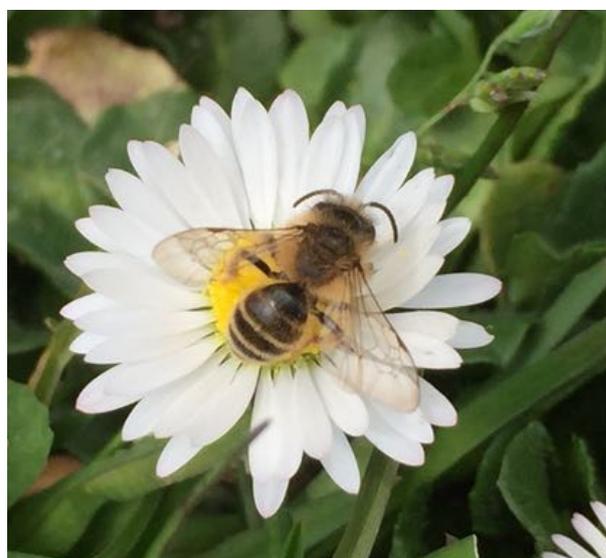
Deadnettle, Dandelions, Coltsfoot, Primulas, Wood Anemones, Green Alkanet, Comfrey and Lungwort are now in full bloom and putting on spectacular shows of spring colour. The Comfrey and Lungwort in particular are popular with the Hairy Footed Flower Bee. Another flower on which I've noticed lots of small solitary bees at the moment is **Lesser Celandine**. This plant is unusual in the buttercup family (Ranunculaceae) as it is one of the few buttercups that is attractive to bees. Most other Ranunculus have nectar which contains the toxin protoanemonin which bees cannot digest and can lead to poisoning. Lesser Celandine however is popular with many of our early solitary bees and occasionally Honey bees. This past few weeks I have seen many of the Micro Andrena solitary bees feeding on the golden yellow flowers carpeting the cemetery and church yards of east London.

Also coming into bloom in many parts of the city are **Bluebells**. The first blooms appeared over a month ago but it is now in April that they are coming out en-mass and putting on brilliant displays of heavenly blue. Bluebells may be visited by Honey bees and can produce a honey crop but they are also popular with some of the longer tongued solitary bees. Most Bluebells in London will be the invasive Spanish Bluebell but a few locations still hold stands of the native species.

Other important sources of forage this month are the **willows**. The catkins of willow bear copious amounts of sulphur yellow pollen. If your honey bees are returning to the hive dusted in yellow they will most likely have



Sycamore blooms



Daisy

been visiting willow. It's not just honey bees that visit willow. Many bumble bees and Andrena bees will also collect willow pollen and seem to time their emergence with Willow catkins. Unlike the earlier flowering catkins of **Alder** and **Hazel**, willow will also produce nectar. Other trees coming into bloom right now include **Field Maple, Sycamore, Poplar** and **Ash**. Normally in Early April we could expect to see **Cherry Laurel** blooming in abundance but across much of the city this ever-green shrub has almost finished flowering – before the female solitary bees have emerged. Many of the small solitary Andrena bees rely on this shrub for pollen and nectar.

As we progress through April we should expect to see the first **Horse Chestnut** blossom. The leaves of the Horse Chestnut outside Bow Road Station broke from their sticky buds during the final week of March and I shall be watching for the first flowers within the next 2-3 weeks. Chestnut produces very distinctive dark brick



Dandelion

A male *Andrena* bee visits lesser celandine

Bluebells

red pollen which honey bees will collect with enthusiasm. Chestnuts are one of the best examples of how plants communicate with their pollinators; the individual blooms of the flower stalk change colour as they are fertilised to inform the bees that they need not bother to visit that particular bloom. Other trees coming into bloom will include **Cherry, Plum** and **Apple**. **Hawthorn** appears well advanced this year and may begin to flower in mid to late April.

One of the larger gardens where I keep my Honey Bees includes a 34 tree fruit orchard. So far the **Nectarines, Peaches** and **Mirabel DeNancy Plum** are the only trees to have flowered. The **Pears** should begin to bloom shortly followed by the **Apples, Victoria Plum** and **Greengage**. Worryingly the half dozen **Crab Apples** planted around the edge of the garden to cross pollinate our cultivated apples have already bloomed which begs the question what will our apples pollinate with this year? The varieties planted were supposed to flower in unison providing cross pollination and better fruit set with the heritage apple varieties which unlike many, modern cultivars do not self-pollinate.

On the outer edges of the city **Oil Seed Rape** will be starting to come into bloom and will flower well into mid-May. Beekeepers either love it or hate it for it can produce an abundance of honey but the grainy

texture and trend to crystallise rock hard in the comb are drawbacks. Our member Geoffrey Hood produced a lot of Rape honey in 2015 and when I find time I intend to use it as seed honey to try to make creamed honey. If I'm successful you can expect a write up about that.

Jobs to do in the garden

From now on weeding will by necessity become a regular chore in the garden. For the past 3 weeks I have been meticulously pulling out the seedlings of **Germander Speedwell**. The first shoots of **Bindweed** and **Common Cleavers** which every year threaten to take over my garden. Keeping them in check requires constant attention. Like many weeding is a garden chore I like the least. If only it could all be about planting flowers.

Prune back damaged branches on shrubs and fruit trees. Storm Katie has battered quite a few trees on my allotment which will now need pruning. Remove dead or damaged tissues cutting to the branch bark ridge.

Plant out summer flowering bulbs once threat of frost has gone.

Sow your LBKA seed packets – now is the best time. If you want a supply, speak to me at a Sunday meeting or email me forage@lbka.org.uk. They are £2 each.

Splitting Colonies for Swarm Pre-emption

Jon tells us about his swarm pre-emption methods.

Jon Harris
LBKA member

"How do I stop my bees swarming?" I hear you ask. Well, every year I 'split' mine to avoid swarming and I have only been caught out on one occasion in the last ten years, so it's well worth a try if you are prone to a swarm or two!

Below I have listed two ways of splitting colonies, one for when there are no queen cells and one for those times you look in and there are queen cells and they are ready to go (we have all been there!)

I always plan to split mine before they produce any Queen cells so there is no fear of them catching me out, but you can split once there are queen cells.

It is really easy to do and a 90% success rate in bee-keeping is a great result! I have undertaken this every year for the last 10 years and have only been caught out once!

The only additional equipment you will need above and beyond all your normal inspection equipment is a nuc box (if you are desperate you can use a full hive, however the best option is a nuc, as it is small and portable) and the frames made up to fill the nuc.

Splitting should only take place once there are drone bees around, as we need them to fertilise the new queen!

If there are no queen cells

- Build the splitting in to your normal weekly inspection.
- Locate the queen in the hive and move her to the nuc box on the frame she is on. Ensure the frame she is on has some stores and pollen on it.
- Use one of the frames from the nuc in the main hive to replace the one you have taken, put the frame on the edge of the brood box and move all other frames together to maintain the central 'cluster'.
- Locate a frame in the original hive that has eggs that are less than 3 days old (upright) and mark it and put it back in the hive.
- Shake at least 3 or 4 frames of bees in to the nuc, a lot will return to the hive as they are flying bees, but you need at least 2 or 3 of the frames to be covered in the nuc to make it viable and also create an impact in the original hive. Do not shake the

marked frame with the eggs, as this may damage the eggs.

- Make sure you have the correct number of frames in the nuc and now put it together and move it to one side.
- The hive will know that the queen has gone and in most cases the noise they make will be different and they do tend to be a bit more aggressive.
- Put the hive back together and leave for week.
- Move the nuc to a new location a few metres away from the hive.
- Feed the nuc with syrup and feed feed feed !
- Seven days later, go back in to the hive and go through each frame, they will have produced multiple emergency queen cells.
- Remove and depose all but 2 or 3 of the queen cells, mark the frame with the queen cells on it, as this makes it easier to keep an eye on. Make sure you pick the biggest and healthiest looking cells as close together as you can.
- Now close up the hive and leave for 2 weeks, by which time the queen should have hatched, take a little look and see if a queen cell has hatched, I tend not to destroy the remainder, just in case the first does not work out, she will ensure they are dealt with!
- There is a small risk at this point that they will swarm, but this has only happened once for me in ten years.
- Now leave for a week and then start to check for eggs, this will indicate she is fertilised and in place, it may take her up to 2 weeks to start laying.
- You can now raise the nuc as a new colony or take the queen out and re combine the bees with the old colony.

If there are queen cells.

- Locate all the queen cells in the hive, look on every frame and locate all cells!
- Pick the best 2 or 3 that are big and healthy and close together, cut all others out and destroy, ensure you mark this frame so you can spot it easily.
- Locate the queen and move her on a frame to the new hive, ensure there are no queen cells on the frame she is on!
- Shake 3 or 4 frames of bees into the nuc, but not from the frame with the queen cells on.
- Feed the nuc as above and move to a new location
- Close up the hive and leave for 4-7 days.
- Go back to the hive and ensure they have not made any more queen cells. If they have, cut these out and destroy them. This is why you mark the frame with the original ones on and don't destroy them by mistake.
- Leave them for 2 weeks and then go in and try and spot her and look for eggs.
- You can re combine the bees from the nuc if there are eggs or raise it as a new colony.

If it goes wrong and you have no Queen in the hive

If there is no sign of the queen in the hive, or the queen cells do not hatch, you have 2 options.

- Cut out the dead queen cells and re queen with a new queen, you could use the old queen from the nuc or a new one.
- Place a frame of eggs from the nuc in to the hive once you have cut out all the dead queen cells and the bees will raise a new queen.

The last option has a greater impact on the hive as it will be another 3/4 weeks until they have new bees, so I would try and go for the first option of getting a laying queen in to the hive as soon as possible.

If you have any questions or concerns, I am happy to answer them on the LBKA Facebook page or message me on Facebook.

LASI Queen Bees: Hygienic Queens Available from Spring 2016

LASI tell us about their new hygienic queens. They also have workshops on this subject this summer, see the events calendar on our website. More details at <http://www.lasiqueenbees.com/>.

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The Laboratory of Apiculture and Social Insects (LASI), University of Sussex, <http://www.sussex.ac.uk/lasi/>

For the past 10 years LASI has been doing research on honey bee hygienic behaviour. As part of this research we have been selecting, testing, breeding and rearing hygienic queens. Over the years we have received many enquiries from beekeepers wanting to obtain hygienic queens and from time to time we have been able to supply a few. However, from spring 2016 we hope to be able to supply larger numbers. This is because the University of Sussex is helping LASI to set up a research spin-off, LASI Queen Bees, through its Enterprise program.

Hygienic behaviour

Honey bees have many pests and diseases. Most beekeepers try to control diseases in their colonies, for example by treating against varroa mites. In addition, in the UK and many other countries, apiary inspection programs check hives for diseases such as American foulbrood. But it would be even better if the bees themselves took care of their own diseases. This is not as far-fetched as it may seem as honey bees do have defences against diseases.

One natural disease defence is hygienic behaviour. Hygienic worker bees uncap sealed cells containing a diseased or dead larva or pupa and remove the contents from the colony. In this way the disease is less likely to spread. Hygienic behaviour is not something that worker bees learn. It is a genetically-controlled trait. Workers either do it or not, instinctively. Although hygienic behaviour is a natural trait it is rare in unselected populations. However, it is possible to increase the levels of hygienic behaviour by breeding. That is, by rearing daughter queens from hygienic mother colonies.

One of the challenges in breeding for hygienic behaviour is determining which hives are hygienic. This can be determined by freezing patches of sealed brood using liquid nitrogen and calculating the proportion of cells cleaned out 48 hours later. Colonies that remove 95% or more freeze-killed brood are considered to be fully hygienic. It is possible to obtain colonies that are so hygienic that 100% of the dead brood are removed.

Results of LASI research on hygienic behaviour

Previous research done in the USA has shown that hygienic behaviour helps against American foulbrood, chalkbrood, and varroa, and that hygienic colonies produce as much honey. At LASI we have carried out a series of research projects on hygienic behaviour which add to this and which we are publishing as scientific papers. When we began this research we did not know what we would find out. From a purely scientific point of view, our results would have been valid if they had shown that hygienic behaviour had little value to beekeepers and colony health, or was impractical. But that is not what we have found. LASI's results show that hygienic behaviour can play an important role in improving the health of honey bee colonies and that it is practical to rear and use hygienic bees. Of most relevance to beekeepers are the results of the following 4 LASI research projects:

1. Hygienic colonies do not remove healthy brood by "mistake". This gives beekeepers confidence that hygienic behaviour is not harmful to the colony (Bigio et al. 2014a).
2. Daughter queens reared from a fully hygienic breeder queen and then allowed to open mate and lay eggs head colonies with an average level of hy-



One of LASI's new queens, marked in green.

gienic behaviour of 95.5%, in terms of freeze-killed brood removal. This shows that hygienic colonies can be produced using open-mated queens (Bigio et al. 2014b).

3. Varroa population growth within highly hygienic hives (>95% removal of freeze-killed brood) is more than 50% lower than in non-hygienic hives. In addition, the more hygienic colonies (>80% removal of freeze-killed brood) had levels of deformed wing virus that were more than 1000 times lower, on average, than non-hygienic colonies. This shows that hygienic behaviour can play an important role in controlling these two important pests and diseases (Al Toufalia *et al.* 2014).
4. Colonies showing symptoms of deformed wing virus (worker bees with shrivelled wings) had significantly higher survival over the next 15 months if they were requeened with a hygienic queen (11 of 15 colonies survived) versus a non-hygienic queen (only 2 of 15 survived) (Al Toufalia & Ratnieks, submitted). Even intermediate levels of hygienic behaviour were of value in increasing colony survival. This shows that hygienic behaviour can save the life of a colony that has workers with shrivelled wings, a symptom of DWV which is considered a harbinger of colony death.

What types of queens will LASI be selling?

LASI will be selling the following types of hygienic queens.

1. Open-mated daughters of hygienic breeder queens These will be daughters reared from hygienic breeder colonies which we have tested using the freeze-killed brood bioassay and which are highly hygienic.
2. Virgin daughters of hygienic breeder queens These are the same as 1 above, except that they will be unmated. They will be mailed to beekeepers when they are a few days old to introduce into a queenless colony, and then to mate when aged about one week. Although virgin queens are not usually sold by queen rearers, we plan to do so to increase the supply of hygienic queens. In addition, there are two potential advantages of virgins for beekeepers: 1) they are cheaper; 2) by mating with local drones the resulting workers will have a combination of local genes combined with the genes from the hygienic queen.
3. Tested open-mated daughters of hygienic breeder queens These are the same as 1 above, except that they will be set up in colonies at LASI and allowed to lay eggs so that the workers in the colony are

daughters of the hygienic queen. The colony will then be tested 3 times using the freeze-killed brood bioassay. As this requires a lot of work, the price is considerably higher. These queens can be used as breeding stock by queen rearers and beekeeping associations.

- Instrumentally-inseminated daughters of hygienic breeder queens We will not be selling inseminated queens in 2016 but plan to start selling them in 2017. They will be daughters of hygienic breeder colonies inseminated with sperm from drones from other hygienic breeder colonies. As for 3), they will be suitable to use as breeding stock.

Other traits

The main goal of our breeding and rearing program is to provide hygienic queens. But we will also be testing our breeder colonies for stinging and will not be using highly defensive breeders. In addition, we plan to supply queens that are, as much as possible, of the native black bee. This is because it should be well adapted to the British climate.

When will queens be available?

The first batch of mated queens will be available at the end of May/early June 2016, and then monthly throughout the summer. We will also have queens for sale in smaller numbers in September and October, and in late April 2017. Virgin queens will be available from mid-May to mid-August. Please see the web page for further details.

Prices

Open-mated daughters	£45 (£70 in autumn 2016 and April 2017)
Virgin daughters	£20
Tested open-mated daughters	£500

To place orders please visit the LASI Queen Bees website <http://www.lasiqueenbees.com/>

Workshops

In the summer LASI is also offering workshops on hygienic behaviour (Friday 8th and Saturday 9th of July 2016) and integrated varroa control (Friday 2nd, Saturday 3rd and Sunday 4th September 2016). All workshops will run 1330-1700. Please go to the following web pages for further details: <http://www.sussex.ac.uk/lasi/newsandevents/events/hygienicbehaviourworkshop/> and <http://www.sussex.ac.uk/lasi/newsandevents/events/ivmworkshop/>

References

- Bigio, G., Al Toufalia, H., Ratnieks, F.L.W. 2014a.** Honey bee hygienic behaviour does not incur a cost via removal of healthy brood. *Journal of Evolutionary Biology* 27: 226-230. Open access at: <http://onlinelibrary.wiley.com/doi/10.1111/jeb.12288/full>
- Bigio, G., Al Toufalia, H., Hughes, W.O.H., Ratnieks, F.L.W. 2014b.** The effect of one generation of controlled mating on the expression of hygienic behaviour in honey bees. *Journal of Apicultural Research* 53: 563-568. Open access at: <http://www.tandfonline.com/doi/abs/10.3896/IBRA.1.53.5.07>
- Al Toufalia, H.M., Amiri, E., Scandian, L., Kryger, P., Ratnieks, F.L.W. 2014.** Towards integrated control of varroa: effect of variation in hygienic behaviour among honey bee colonies on mite population increase and deformed wing virus incidence. *Journal of Apicultural Research* 53: 555-562. Open access at: <http://www.tandfonline.com/doi/abs/10.3896/IBRA.1.53.5.10>
- Al Toufalia, H.M., Ratnieks, F.L.W. submitted.** Hygienic behaviour saves honey bee colonies with deformed wing virus.

Oxalic Sublimation: panacea or problem?

Geoff gives us his view on the Varroa sublimator.

Geoff Hood
LBKA member (London, N11)

I have used a Varroa sublimator in the last few years, having been convinced by LASI's initial findings prior to their recent publication of the full research paper, highlighted in last month's LBKA News. I like sublimation but it is not as quick as oxalic dribble and needs a lot of equipment and preparation.

However I was a bit concerned at March's LBKA meeting at Fairley House Junior school when a question was asked about LBKA buying a Varroa. My concern was not because it doesn't work, but concern for the health of LBKA members and how many people would be able to use it due to the costs involved. I felt at the time it was not my place to enter into open discussions as I use a Varroa but after further discussing on the LBKA Facebook group, I decided to write my views on the pros and cons of sublimation.

The NBU is against oxalic sublimation – not because

it is harmful to bees – but because of the likelihood of beekeepers inhaling the Oxalic Dihydrate sublimate and unlikelihood of many wearing the correct protective equipment. At the DEFRA seminar in November – for the now cancelled Bee Health Advisor project – the NBU raised whether Beekeepers using the new Api-bioxal powder would buy a EN 149 FFP2 Mask and goggles or knew the difference between a FFP2 mask and the FFP3 mask. The Varrox sublimator (£150 from Thornes) comes with a valved EN149 FFP3 mask. But such mask is for a single use of not more than three hours. The FFP2 is not recommended by H&S Executive, as it only has 20 minutes use. LASI however, having undertaken a risk assessment on the sublimate, now insist that their staff use masks with organic vapour capabilities (EN 149 A1P3), either full or half face mask with goggles.

So what does this mean? Well, anyone using the Varrox must have a buy a Disposable A1 or FFP3 valved mask (£5, £2 or £3). The disposable masks cannot be reused as the oxalic crystals can destroy the filter material, but it's best that you buy/share an Organic Vapour mask (£45) and replace the filters each year (£30).

So what else do you need in addition to the Varrox and a mask? The most important thing is the power source. That needs to be a large 45amp hour car battery (Halfords, £69; preferably a sealed calcium sealed Car Battery rather than an older lead/sulphuric acid open cell type). You also need a bucket of water to cool down the Varrox, Varriosus cloths/towels/foam strips to block up the entrance and the back of the hive to stop the vapour escaping, rubber or vinyl glove, wire wool to clean the Varrox, Api-bioxal (£10.99) and – for Thorne's floors with yellow correx varroa monitoring boards – a home-made heat shield made of plywood to stop the the correx melting.

How do you use it?

First you have to get everything to the site. This is not as easy as you think. . . carrying a heavy battery upstairs, across fields, through doors etc then back to the car when you finish. The Varrox can be used two ways, LASI's new method or the old method. The old method (if you have solid floors) places it in the entrance of the hive so the charged cup is under the frames and seals up the entrance with foam/towels with the Varrox leads sticking out. If your hive has an open floor, insert the varroa board and seal up the back. The latter (LASI's new method) is kinder to bees because it doesn't melt the wax in the frames, You then seal up the entrance then place the charged Varrox cup on the inserted varroa monitoring board so the cup in under the OMF mesh screen. You then seal up the back of the OMF with the leads of the Varrox sticking out. This is where if you have Thorne's floors with yellow correx inserts, you need the home-made plywood heat shield on the correx board to stop it from melting.

When charging the Varrox cup with 2.3g of Api-bioxal



Extra sealing needed on wooden floors.



Blocking entrances with foam.

you need your protective equipment on (I have had the fine oxalic acid crystals blown out of the cup into my face but luckily had mask and google on).The Varrox comes with measuring spoon, so measuring 2.3g is quite easy. If you have mouseguards these either need to be removed and entrance blocked or taped up to seal them Some wooded varroa boards need slightly different methods of use (see below), Once all sealed you connect the battery (sequence explained further below).

Attach the battery and heat for 3 minutes. Take off the battery and leave the hive for 10 minutes, remove the Varrox, cool it down in the bucket of water, remove the blocking towels, open up the entrance, take off your PPE and gasp for fresh air. That all takes 20 minutes, so with luck you can sublimate three hives per hour, to speed things up. Last year we used two Varrox and



Heat shield (showing burn marks from previous use).



Charged Varro cup.



Measuring out the Api-bioxal.



The mask you need to wear when using a Varro oxalic acid sublimator.

did about five hives per hour. With travel time, we did four blocks of five hives in a day, with an hour for a pub lunch. There are also minor problems using Api-bioxal instead of pure Oxalic Dihydrate, the Api-bioxal includes a silica drying agent, this burns and chars in the varroa cup, so you need wire wool to clean this off before recharging the Varro.

Are there quicker methods? Yes! In the past we made up a two litres of oxalic Acid and used a veterinary 5ml "dosing gun" (Thornes sell them, but agricultural suppliers may be cheaper). With the dosing gun method we have done 50 hives in a day including a pub lunch and finishing pint watching the sunset.



Connecting the battery.



Cooling the Varroa in water.



Varroa instered on heat shield.



Varroa sealed in using towels.

March Facebook (In)digest(ion)

A quick roundup of was happening on our open Facebook page last month.

Mar Peláez-Muñoz
LBKA member

It is interesting to check out what is going on Facebook pages of the LBKA as it is an open forum for discussion, debate, sharing information, asking for it and generally all things bees and bugs.

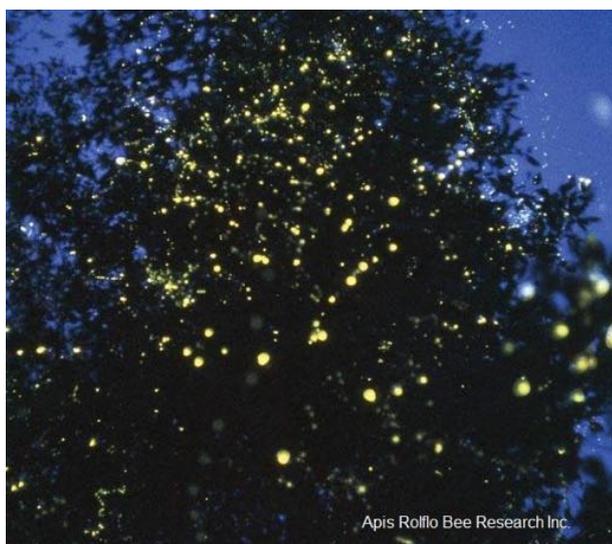
Amanda Gdula has had a small winged visitor who she could not recognise and Hannah Reeves described it as a female hairy footed flower bee. This query brought in a link by Paul O'Brien to <http://www.bwars.com/bee/apidae/melecta-albifrons>. Identifying the bee as Melecta albifrons. The Bees, Wasps & Ants Recording Society is the national society dedicated to studying and recording bees, wasps and ants in Britain and Ireland. They provide identification workshops and residential courses.

Vlatko Kostoski shared a link to Planet Sci Tech <http://www.facebook.com/planetstitech/posts/> as a basic introduction to how bees produce their honey, this page was widely shared by many as informative read. Vlatko also shared the link to many other Beekeeping groups such as the Treatment-Free

Beekeepers, The Beemasters' International Beekeeping Forum, The Beekeepers World Club, and Beekeeping Science amongst others. Other post shared by Vlatko during March include: <http://planetstitech.com/save-the-bees-colonies/>. The writing is awkward and seems to have been Google translated.

This month all the rage on Beekeeping Facebook pages seems to be on queen rearing, with many articles, post, links, pictures, videos and tweets on the subject. It can only be April then!

Mike Waite, The Bee Man, is sharing the request by a commercial beekeeper in Australia to employ a Queen rearing expert to work there for 6 months. If you fancy taking a holiday from rainy old London Town this may be your chance. Contact details provided on the post.



Light-emitting honeybees foraging at night.

Corrine Edwards shared a photo and article by Apis Rolflo Bee Reseach Inc in California who claim to have discovered a new species of honeybee living in the Sequoia National Forest in CA. *Apis mellifera illuminati* is the new name given to these light emitting honeybees <http://www.facebook.com/Historical.Honeybee.Articles/posts/999806293407200>. The article is extensive and worth reading. Local rangers in a remote sequoia forest observed the bioluminescence in a population of feral honey bees. A team was formed to visit and was confirmed, the location is being kept secret for protection and the California Fish and Wildlife Commission informed. In truly American style a section of the article included "But when our breeding specialists cross these genetics with that of our domestic honeybee, and our patent lawyers secure exclusive rights to this breed of bee, it will revolutionize beekeeping, giving American beekeepers a huge competitive advantage over the foreign competition We are hoping to have Breeder Queens available for queen breeders in the USA starting April 1, 2017, to be sold under the registered name 'Illumina Queen' for \$5,000 each plus shipping...." So watch this space. Please note that this article was posted on 1st April. . . Fooled you. . .

Felicity Millward is a photographer documenting Bee-keeping in and around London, people are happy to share their experiences and be photographed with their bees. Jamie Hooper is also keen on shooting documentaries on beekeepers. Jane Shirley is making a film with the theme "reconnecting with nature" and would like to contact beekeepers who keep bees as a way to reconnect with nature.

Check out Zaffrin O'Sullivan's article on honey from Tower Hamlets Cemetery Park, Dead Good Honey: <http://thehoneyhunter.uk/2016/02/09/dead-good-honey-from-an-east-end-cemetery/>.

Mark continues with his update on the wildflower results on the LBKA planting last Autumn, photos included.



Dead Good Honey.

Zameed Mohammed from Siparia in Trinidad and Tobago shared his skills at frame-making.

Sad news about colonies in Tulse Hill not surviving reminded us that there quite a few of us out there with nucs available when the time is right.

A good documentary on the anatomy of a bee was shared. It is well created, well informed and well delivered. Thank you Mike Waite for sharing Nahel-Bee's video: <https://www.facebook.com/NahelBee/>.

Mark posted a link to a short video from ITV London News from February with the news that the 8 Royal Parks are leaving parts of the parks to create urban meadows with the idea of helping the ailing bee population and other pollinators. The video features a 7 foot bee hotel designed and built by local community groups. You can see the full video on <https://www.youtube.com/watch?v=PrDkdP6GBfM>.

Hans Ernst compelled us all to join a petition from the action group SumOfUs whose aim is to fight for people over profits. The petition text reads "Bayer, BASF and Syngenta: Drop your lawsuits against the European Commission immediately". The EC is banning pesticides that kill millions of bees around the world. Bayer and Co make neonicotinoids. The industry is lobbying and putting pressure on the EU to drop the ban, to hide reports showing the need to retrieve other pesticides. The call for action wants to out Bayer, BASF and Syngenta as damaging our fragile ecosystem and threatening pollinators who in turn help crop production.

Andrea Quigley shared a lecture given by Ann W. Harman from the US at the 2014 National Honey Show entitled "Bee like sugar too!". The National Honey Show sponsors the Garfield Weston Founda-



Queen Bee Traits Which Queen to go for?

	Aggressive-ness	Calmness on the Combs	Early Season Build Up	Late Season Foraging	Honey Collection	Propolis Collection	Tendency to swarm
Buckfast	1	10	8	9	10	5	3
Carniolan	1	10	10	7	10	3	7
Italian	2	9	8	7	10	5	3
Caucasian	2	8	6	10	10	10	4
AMM	3	8	7	9	10	7	5
Local	2	8	7	7	10	5	4

1 = Low Tendency for Trait 10 = High Tendency for Trait

tion, a family-funded trust which supports charities helping young people across the UK. You can see the full lecture on <https://www.youtube.com/watch?v=R86DOPiX-3s>.

Paul Vagg shared an infographic from the Paynes website about the traits in queens, it features Buckfast, Carniolan, Italian, Caucasian, AMM and Local bees and gave a 1-10 ratio for *aggressiveness, calmness on the comb, early season build-up, honey collection, propolis collection and tendency to swarm*.

Mario Stamatolov Hristoskovv, from Bulgaria shared a link to the website [honeypedia.info](http://honeypedia.info/invert-sugar): <http://honeypedia.info/invert-sugar> with an article explaining the ambiguity surrounding the notion of "inverted sugar". The explanation is the linkage between glucose and fructose – when it exists – is called Sucrose and when such a linkage does not exist, then it is called inverted sugar. For more details and a crash-course on sugar chemistry check their website. He also shared <http://honeypedia.info/honey-ingredients-a-comprehensive-list>.

Ribbet Malone is reaching out to the community to assist with cutting and assembling an observation hive in South London.

Charlotte White was worried about how little brood she found in her hive when she opened it and that the bees could not reach the fondant left over winter, she dealt with it by removing the extra brood box and placing the fondant just above the bees.

Neonics
THE LOW-DOWN
Andrea Quigley

Do we know how neonics affect bees & other pollinators?

- Outright kill?
- Sub lethal effects?
- In the lab or in the field?
- Impact on Honey bees?
- What about other bees & pollinators?
- & the wider environment?

If the ban continues What will farmers do?

- Use old insecticides?
- But organophosphates & carbamates are harmful
- Do pyrethroids always work?
- Food prices will rise?

Adapted from Klatt, Rundlof & Smith 2016

What are the alternatives?

- Integrated Pest Management (IPM) often uses at least one insecticide
- Organic does not mean chemical free
- Breed for insect resistance? but traditional selective breeding methods takes years & the EU resists use of GM crops

Andrea Quigley's new page.

Hellen Rogers shared an article from the website <http://www.foodnavigator-asia.com>. The article is titled Bees dumber, more forgetful after ingesting tiny doses of pesticide. The widespread use of chlorpyrifos, a highly neurotoxic organophosphate could threaten the success and survival of the honey bees, a research from Otago University in New Zealand suggests in a study published in the Journal of Chemical Ecology.

Norman Carreck from IBRA shared the news of the reprinting of a book from 1964 called "The Behaviour and Social life of Honeybees" by Ronald Ribbands. IBRA and Northern Bee Books are jointly republishing the book.

Karim Alton shared a research by Jiangxi Agricultural University in Nanchang, China where bee monitoring indicates that honey bees work harder before a rainy day!

Mark, on behalf of the LBKA committee, thanked Dr Norman Carreck for his very informative and interesting talk on 3rd March on the researched works of the IBRA. Emily Scott wrote some notes on the talk: <http://adventuresinbeeland.com/2016/03/04>. Thank you for that Emily!

Mark also advised members to attend workshops provided by the Laboratory of Apiculture and Social Insect (LASI): <http://www.sussex.ac.uk/lasi/newsandevents/events/hygienicbehaviourworkshop>.

Andrea Passante shared a documentary called "The Monk and the Honeybee" from YouTube: <https://www.youtube.com/watch?v=V4j9tSneoL4>. This melancholic documentary is part of a series of 5 videos.

And finally, the month of March started with Noman Carreck sharing Andrea Quigley's new page.

People showing Easter delights featuring birds and eggs candles, other members have been sharing updates of their hives, some have already performed shook swarms while others are waiting a little longer. Sharing pictures of blossoms for identification is always a great way to learn. Updates on hives and what is happening give us an insight of what other members are doing. A debate started regarding the thickness of sugar given to colonies, it seems that thinner syrup is better than thicker one in Spring. There was suggestion that sugars should only be given when the temperature is over 12 degrees otherwise fondant should be used.

Joe R Allen informed members who use correx for mesh-floors in winter that you can ask in your local super-market as they usually use it for milk deliveries.



Adventures in Beeland: Spring cleaning at the apiary

Spring cleaning from Emily's excellent blog – <http://adventuresinbeeland.com/>.

Emily Scott
LBKA member

In the past few weeks Ealing beekeepers have been busy improving the association apiary and preparing the bees for spring. Tom has been running easy-going monthly volunteering sessions fuelled by plenty of tea; jobs done so far have included pruning, cleaning, removing rubbish, organising the storeroom, putting in new fencing and planting wildflowers.

Here you can see the muscles getting stuck in to turn over the soil, ready for wildflower planting.

Digging

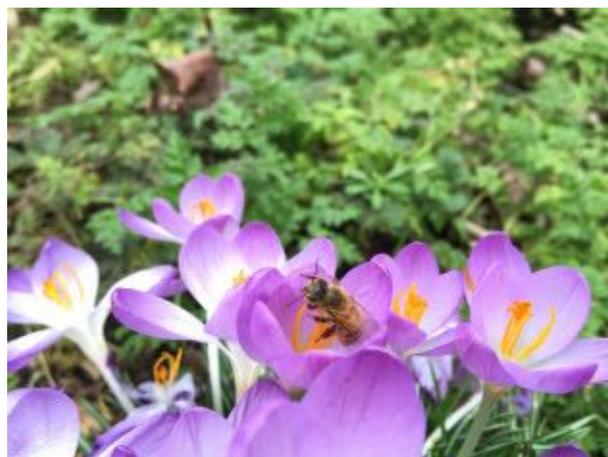
After the heavy work had been done, Elsa and I put down a mix of seeds and sawdust Tom had brought along. Then Kathy raked the top soil over to stop the seeds blowing away. Since the photo was taken Tom has put a lovely log border round the plot so that people

don't keep walking over the soil. It will be exciting when the flowers start coming up!

Raking seeds

Last weekend John Chapple and Alan Gibbs demonstrated a shook-swarm on a couple of colonies at the apiary, which a large group of beginner beekeepers came down to watch. Changing brood combs annually by doing a shook-swarm or Bailey comb exchange is a mandatory requirement for colonies kept at the association apiary. It's a spring-clean for the bees, helping to combat diseases like AFB, EFB and nosema by removing the old brood comb and giving the bees fresh foundation to build from. Doing a shook-swarm also helps with varroa control.

Jonesy's colony was small, so he shook-swarmed it into a poly nucleus hive to help the bees keep warm. You can see the nuc and new foundation frames on his right.



Honey bee on crocus.



Pat's burner



Honey bee on cherry laurel.

Jonesy shook-swarming

Once the queen and the rest of the colony have been safely transferred onto the new frames of foundation, the old brood frames and any brood can be burnt, killing off any varroa lurking in the brood in the process. Unless a nectar flow is on, colonies should always be fed with strong 2:1 sugar syrup so that they can draw out new comb. Below you can see Pat's burner consuming the old brood frames, with Tom's nice log border in the foreground.

Emma and I inspected last weekend and found that Peppermint and Melissa's colonies were weaker than usual at this time of year. They had very little brood and we weren't confident that they would cope well with a shook-swarm, so we have decided to postpone comb changing till after Easter, when we will probably use the gentler (but more time-consuming and non varroa ass-kicking) Bailey comb exchange method. For anyone interested, information on both methods is available from the National Bee Unit's Beebase fact sheets – see the ones on "Shook swarming", "Care of colonies after shook swarms" and "Replacing old brood comb?".

You may have seen Emma's post last week, "The decay of spring", where she talked about the sad loss of one of our colonies recently. Pepper's dead bees were found clinging to frames containing a small amount of very

crystallised, hard honey – when a cold snap hit us in February it seems the colony just didn't have enough energy to keep themselves warm.

In hindsight perhaps we should have given them less space overwinter – this time we left two supers of honey on, whereas usually we've left only a single brood box or brood box and one super. The larger the hive space, the more energy it takes the bees to keep warm. It also meant the cluster was further away from the soft fondant block over the crown board, which might have been easier for them to eat in cold weather than the crystallised honey. This is the first time I've lost a colony since I started beekeeping in autumn 2008. I have been very lucky not to have lost any bees before – lucky and also I've benefited from great advice given by more experienced Ealing beekeepers. It is sad but you learn from it and hopefully avoid making the same mistake next time.

To end on a cheerier note, here are some pics of local bees visiting cherry laurel and crocuses. Cherry laurel pollen is the same creamy colour as its flowers, while crocus pollen is orange.

Tomorrow I will be 38 weeks pregnant, so the baby could arrive very soon! Amazingly both my bee suits still fit:) Afterwards I plan to continue beekeeping, but

Emma has kindly said she will do most of the inspecting this year. I hope to join her for inspections once or twice a month and will continue updating this blog. It will remain a blog about beekeeping rather than babykeeping, but occasional baby pictures may be included!

Upcoming events

Wednesday, 27th April: Extraordinary General Meeting (EGM)

18:30-21:00 at Roots and Shoots, Walnut Tree Walk, Kennington, SE11 6DN.

This members only event is to discuss our imminent transformation into a charity and then an opportunity for suggestions and debate about the future direction of LBKA within its objectives as a charity. Refreshments will be available on the evening, and we hope to finish with informal discussions over a glass of wine or similar.

Sunday 8th May: Monthly meeting: Queen rearing for the small scale beekeeper

11:00-13:00 at Fairley House Junior School, 220 Lambeth Rd, London SE1 7JY

Howard will run through details of the intermediate to advanced topic of Queen rearing for the small scale beekeeper, and other related topics. Followed by the usual hot drinks, cake and chat. Meetings are for members only, but you're welcome to come as a guest to find out more about our association.



A bee resting on Elliot's hive this month. Photo: Elliot Hodges.

Committee

Please do not hesitate to get in touch with a member of the committee if you have any questions, requests, suggestions (and offers of help)! We are:

- **Chair:** Richard Glassborow, chair@lbka.org.uk
- **Treasurer:** David Hankins, treasurer@lbka.org.uk
- **Secretary:** Emma Nye, admin@lbka.org.uk
- **Education:** Howard Nichols education@lbka.org.uk
- **Membership:** Aidan Slingsby, services@lbka.org.uk
- **Forage:** Mark Patterson, forage@lbka.org.uk
- **Events:** Emily Abbott, events@lbka.org.uk
- **Mentoring:** Tristram Sutton, mentoring@lbka.org.uk

Our website is <http://www.lbka.org.uk/>.

