The London Beekeepers' Association
LBKA News

March, 2015

Welcome to March's newsletter! As well as the regular features by Cerys on the previous monthly meeting, by Howard on what to do in the apiary, Mark on what's flowering... Vesko is continuing his month-by-month beekeeping in Bulgaria series, there's more from Facebook, Simon makes a welcome reappearance with his musings on what the hive can teach us, members who attended LBKA's microscopy course have written up what they did and Emily's been thinking about the implications of tapping honey from the hive.

Thanks to all this month's contributors: **Jonathan Dale**, **Richard Glassborow**, **Cerys Harrow**, **Oli Laurelle**, **Howard Nichols**, **Mark Patterson**, **Emily Scott**, **Vesko Starchikov**, **Paul Vagg** and **Simon Wilks**.

We're always looking for new and interesting contributions. Please contact me if you'd like to discuss writing an article.

Aidan Slingsby
Editor
services@lbka.org.uk

From our Chair

As we are now confirming bookings for this year's LBKA Introductory Courses in April and May, I would like to take this opportunity of welcoming those who have signed up and thereby become new members of our association. Welcome to beekeeping and welcome to the LBKA. While on the subject of the courses, we are always looking for presenters and helpers. There is plenty of support from old hands and it is a surprisingly good way to improve your own beekeeping knowledge and skills. So please do get in touch, even if only to find out more. Emily Abbott is the committee member recruiting and organising volunteers (events@lbka.org.uk) but you could speak to any committee member, we would love to hear from you. The dates are, April 25-26th and May 9-10th. You would not have to be there both or indeed all of any of the days.

While the bees have remained quiet through the winter some of our members have been keeping interest alive by joining us for two very interesting and informative winter lectures (photography and bee research), a microscopy course and of course the monthly meetings. Please do get in touch with the committee if you have any feedback on any of these to offer or suggestions to make for further programs of lectures and topics for monthly meetings. The committee is always looking for ideas and trying to improve the association offer to members.

Our next monthly meeting, this Sunday 8th March will be a practical microscopy session to look for nosema in your colonies. We realise it is a bit early in the year

See http://lbka.org.uk/newsletters.html for past newsletters.

to be suspecting all may not be well but we did have some very positive feedback when we ran this session last year. So here it is again. Please bring a sample of your bees (about 30), frozen overnight as it is not really practical to deal with live bees in the short time we have available. There is always the paradox that we don't want to find any nosema but on the other hand that's what we are looking for so we sort of do want to see what it looks like. Please check the website for details of the meeting.

We would like to hear from any members who still have last season honey to sell. We may have an opportunity to mount a promotion at the UK headquarters of a major European bank in London. You would need to be available to help set up and sell you honey and your labelling would have to be compliant. Dates have not yet been suggested but please get in touch with me on chair@lbka.org.uk if you are interested and have honey to sell.

As one of the annual administrative chores we have been carrying out an inventory on LBKA equipment. Thanks to Paul Vagg, our resources officer, we now have a central storage point for most of our equipment and this will make keeping track of it much easier than it has sometimes proved to be. In the past equipment has been spread far and wide as so many people have been helping using it and looking after it on our behalf. So this seems a good time to ask all our members if they still have any items belonging to LBKA, we now have a home for it. Just to be clear, no questions will be asked, we will just be happy to gather it all together. Please look in your sheds!

And, while on the subject of equipment, looking ahead, we know that our extractors have seen better days. An extractor is on our list of items to replace but it would be helpful to hear from members what kind is preferred: small and easy to transport (but slow if you have a lot of frames to extract) or a larger one that will take 9-12 frames at a time (but will be heavier and bigger to transport). Please get in touch with Paul Vagg on resources@lbka.org.uk.

Finally, let me wish you all good luck for the new season. By the time of the next news latter things should be really busy. I hope your bees will be part of the action.

Announcements

March's Monthly Meeting: Microscopy for Nosema and Acarine testing

At March's monthly we'll get out the microscopes and look for signs of Nosema in your bees. This will be on **8th March** at **11:00** at **Fairley House Junior School** (SE1 7JY). You provide your bees, we provide microscopes and will take you through the procedure. Although this is primarily intended for intermediary level beekeepers with bees it is by no means exclusive. All are welcome, with or without bees. New or experienced there is always something to learn.

It makes most sense to test bees you have concerns about. At this time of year it may be a little early to tell, but failure to build up the colony, or worse, dwindling, may be caused by nosema for instance. Any signs of spotting on the landing board of hive, though not directly attributable to nosema may be an indicator. The following link is worth consulting: https://secure.fera.defra.gov.uk/beebase/index.cfm?pageid=191

Collecting your bees: as with all things beekeeping there is more than one way to go about this but you may find the following notes helpful.

You need a sample of adult bees, preferably about 30. The weather may influence your choice of method, e.g. if it's cold wet and windy bees may not be flying and you will not want to hang about either.

- From the entrance: with restricted entrance block in place, use a clear polythene bag for emerging bees to fly into. A more sophisticated version uses a trap made from a large plastic bottle with the neck cut off and inverted like a funnel into the main body. Again clear is helpful because you can see what's happening.
- From the crown board: hold a box, bag or jar over one of the openings. Bees should emerge from the hive and climb UP into the container.
- From an open hive: Either scrape up one side of a frame full of bees with an open box (e.g. large matchbox) or give the frame a light shake over something like an inverted roof. The more mature bees will fall off more readily than the house bees. Collect in box, bag, jar etc.

Please do not bring live bees to the meeting! To kill your sample – (yes I know it goes against the grain - but 'tis for the greater good etc.) – place in deepfreeze overnight. For nosema this can be done a few days in advance.

If you bring your sample in a round honey/jam jar we have a secondary use for that on the day.

If you want to bring samples from more than one colony - don't forget to label which is which!

We look forward to seeing you on the 8th.

LBKA planting event

Mark Patterson
forage@lbka.org.uk

We will be planting at the **Community Garden in Clapham** on **Sunday 15th March, 12:00-16:00**. The

community garden hosts one of LBKA's teaching apiaries and the committee have saw fit that our third forage planting event should focus on the Eden garden.

We are grateful to both **Nandos** and **Neil's Yard Remedies** for substantial donations of money and staff time to fund purchase of the plants and to help plant them. The event will be followed by hot food and beer provided by Nandos. We are anticipating between 25-30 volunteers from Nandos many of whom will have little to no experience of gardening. We would welcome any LBKA members with some gardening experience to help out on the day. Activities will include removing an area of turf and enriching the soil to create a new summer bee boarder, emptying compost bins and spreading compost, pruning of shrubs and trees as well as planting new shrubs and herbaceous flowers. We have £2000 worth of plants on order and this we hope will make a substantial difference to our bees at Eden. Please email me at forage@lbka.org.uk if you would like to volunteer for this event.

Later in the year we are hoping to hold an event for LBKA members at our new Apiary at Mudchute farm in the Docklands. This will be a project to create a native wild flower meadow adjacent to our new apiary.

Any forage-planting suggestions?

Do you have any suggestions for areas that you'll like to see improved with pollinator-friendly plants? This could be a local park or green space or housing estate land. If you have any suggestions please send them to forage@lbka.org.uk along with any contact details you may have for the land owner.

Honey sales opportunity at BNP Paribas

BNP Paribas bank have just been in touch to see if any of our members wish to sell honey to their staff at their London office, or simply to help out. We had this set up for December but that didn't work out in the end. Let's hope it does this time! Please contact Richard at chair@lbka.org.uk.

Mentoring

Are you interested in helping new beekeepers master the art of beekeeping? Our mentoring programme needs good and enthusiastic beekeepers to help give beginners the confidence and experience to keep bees themselves. The idea of "mentoring" may daunting, especially for those those have only kept bees a few years. However, a few years experience is all the experience to need to become and mentor and we will support you. Our menteering find it a hugely rewarding experience. Please consider it and contact Tristram on mentoring@lbka.org.uk for more information.

Want to help at the Edible Garden Show?

Selling unpackaged honey to a London restaurant

Is anyone interested in selling unpackaged honey to a London restaurant? They will take as much as we can give them. To find out more please email Barbara on barbaratager@gmail.com.

Volunteers required for the BBKA Edible Garden Show stand

The BBKA will have a stand at the forthcoming **Edible Garden Show on 20-22th March at Alexandra Palace**; a 14×8 space which will feature a large WBC, video footage of bees, a garden, the art of honey extraction and the importance of pollination and candle rolling. This exhibition stand is being set up and managed by the Stoneleigh Shows Committee who have staged the BBKA's award winning stand at Gardeners World Live, Royal Show, The Edible Garden Show (when at Kenilworth) and other events over the years. Equipment and display materials are being supplied by BBKA.

BBKA are looking for help to man this event, assist them with answering the public's questions and to share enthusiasm of all things bees and beekeeping.

There is the opportunity for LBKA to have a presence here and for us to sell local honey.

They need help with:

- 2 or 3 people to help set up the stand on Thursday 19th March.
- 6 people a day (or 12 people if half-days) for the Friday, Saturday and Sunday to man the stall and help answer questions and provide information and support.
- 2 or 3 people on Sunday to help pack up

Helpers will get show passes for them and a friend. Please contact Emma at admin@lbka.org.uk if you're interested in helping.

We still have space on our one of our beginners' courses.

Potential apiaries in North London

We've been offered space for bees from a North London Allotment Association. Please contact forage@lbka.org.uk for more details.

Charlton beekeeping

One of our members has been offered a lovely site in Charlton to keep bees. However, he's reluctant to take it on alone. If anyone interested in sharing the apiary with him? If so, please email services@lbka.org.uk.

Improve Your Bees by Raising Your Own Queens – a 2 day course

The Bee Improvement and Bee Breeders' Association (BIBBA) will be running a small number of practical and theoretical queen rearing courses during 2015. These will be aimed at beekeepers who wish to improve their bees that show the characteristics of native bees, with emphasis on suitability to the environment, docility, calmness on the comb, ease of management, good use of stores, etc.

The first courses to be arranged will be held at **Glan-yr-afon, Corwen, LL21 0HA** in North Wales on 14^{th}–15^{th} April and 16^{th}–17^{th} May. The two day course including refreshments and buffet lunches is £75 for BIBBA members, £85 for non members. Numbers will be limited.

Please contact Steve Rose steve-rose@bibba.com or see http://www.bibba.com/ for more details, other dates and venues.

LBKA beginners' courses

We have beginners' weekend courses on 25^{th}–26^{th} April and 9^{th}–10^{th} May. April is booked out but we still have space on the May course. Places cost £150 which includes a season's mentoring, a book and LBKA membership. See our website for more details: http://lbka.org.uk/courses.html.

Theatre: The Honey Man

Someone contacted with details about a play about an elderly Caribbean beekeeper who is trying in vain to save his colony of bees and the unlikely friendship he forms with a dysfunctional wealthy teenager. They described it as "a highly moving exploration of Black British identity, the history of colonialism and ecological destruction".

Theatre: The Honey Man

The play is on **Wednesday 18th March at 19:30** at **Bernie Grant Arts Centre, Tottenham** and has a UK tour. See their website for more details: http://www.thehoneyman.org/ and http://www.berniegrantcentre.co.uk/index.php/what-s-on/93-the-honey-man.

Thorne at Spring shows

Thorne (Beekeeping supplier; http://www.thorne.co.uk/) contacted us to say that they will be at a number Spring shows and that pre-orders for sale items can be made on their website for collection at these events. See http://www.thorne.co.uk/www.thorne.co.uk/2015-spring-shows for more information.

Stolen colonies and hives

James Wyatt (jamesedwardwyatt@hotmail.co.uk got in touch with us asking for beekeepers to keep a lookout two stolen hives and a red generator. The hive are three jumbo boxes deep, bright blue in colour, with a large colony in each (native blacks) and were supplied by modern bee keeping of Barnstaple. The hive parts have his website http://mooonraker.com/ burned into the polystyrene.

Old announcements

Check previous newsletters or contact services@lbka.org.uk for more details.

BBKA Spring Convention: Harper Adams University, Newport, Shropshire on 17th-19th April. http://www.bbka.org.uk/news_and_events/spring_convention.php.

Bees for members: Members interested in purchasing should contact Paul on resources@lbka.org.uk or on 079 0301 8351. Nucs cost £140 (plus a £40 deposit) and you'll need an appropriate level of experience. Please also let us know if you'd like to sell bees.

Learning to collect swarms: if you're interested in learning to collect swarms, contact Emma on admin@lbka.org.uk.

Want to help with our outreach? We're looking for

members to help deliver talks, give demonstrations, give interviews and write articles to help with our outreach. We're planning to organise information sessions in this. If you're interested, please email me at services@lbka.org.uk.

Nando's Apiary. Any experienced beekeeper interested in Nando's **2nd floor roof terrace** at their UK headquarters in Putney should contact Mark on forage@lbka.org.uk.

Potential apiary at SW11. We don't know its suitability, but if you've appropriate experience and are interested in taking a look, contact services@lbka.org.uk. We can advise and help with assessing the site and doing a risk assessment if you wish.

Honey for Stepney City Farm are still looking for more London Honey to sell in their farm shop – contact services@lbka.org.uk for more information.

Help for school bee club in Barnes? Anyone interested in helping our a keen 17-year old school pupil set up a beekeeping club at his school in Barnes should email services@lbka.org.uk for more details.

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.

February's Monthly Meeting: Spring Cleaning

Cerys' regular update of what happened at last months' meeting.

Cerys Harrow
LBKA member

The sun was shining, some bees were already flying and it was time to start thinking about early spring activity in the hive. Essentially that means spring cleaning or in beehive terms, replacing dirty or damaged frames with clean fresh ones to try to reduce the incidence of disease.

There are two ways to get clean frames into the hive: the patient and gentler Bailey comb change or the quicker and slightly more brutal shook swarm method. Howard took us through the practicalities of both methods. However, get a group of beekeepers together and there is sure to be debate about which is best. The advantage of the Bailey change is that it is less disruptive to the bees and the colony does not lose all its brood. Some people feel strongly that it is a more skilled approach. On the other hand, by sacrificing the brood in a shook swarm you can also substantially reduce the varroa count. This is only recommended if the colony has come through the winter in a strong condition.

There were reminders that early spring can be a critical time for the colony. The bees start flying and using up more energy while stores can be running low. Although the first pollen sources are becoming available they won't be able to find enough food yet so it is vital to check whether they need a top up of fondant.

Discussion of these and other topics continued over tea, coffee and cake and some more Bulgarian honey sampling thanks to Vesko.

Out and About

Mark Patterson
forage@lbka.org.uk

Since Christmas I've been to visit 2 neighbouring associations to talk about gardening for bees. Later this month I shall be giving a talk to a local womens' institute group. Finally, along with Tristram, I will be visiting a primary school to explain to children where honey comes from and why we need more flowers for bees.

March in the Apiary

Howard's regular piece on what we should be doing in the apiary.

Howard Nichols
education@lbka.org.uk

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

March is a time of increasing activity within the hive but it all depends upon the weather. For the beekeeper it is also a month of increasing anticipation. Assuming the weather improves then the colony at the end of March should be substantially different from the one at the beginning. The intervening days can include warm, sunny days, which encourage plants to flower early, and bees to forage. The weather can just as easily revert back to cold. The former causes the bees

to produce more brood and the latter to retreat back to a cluster.

Stores

The main job of the beekeeper is still to keep an eye on stores. Old "winter" bees are starting to die off and new bees are being born. Food reserves are decreasing but demand for food is substantially increasing. The bees will be using energy flying on warmer days but only bringing in pollen, not nectar. They also need to keep the brood at a higher temperature (about 35°C) which also uses more energy. Stores can quickly be depleted in March and early April.

First inspection

The first warm day from the start of March is an opportunity to have a quick look inside the hive. If so, then this will constitute the first inspection of the new season. The new colony card should be made up and inspection details recorded. Minimum temperature should be 10°C for a quick look but without taking out brood frames. If there is an exceptionally warm day with the temperature 14°C or more then a detailed colony inspection may be made. Otherwise, leave this until April.

If an inspection is not possible, then observing the colony entrance will provide invaluable information. If the bees are bringing in pollen, purposefully entering and leaving (flying a beeline) then these are always good signs. If the bees are aimless, listless or without purpose on a warm day then, prima facie, all may not be well.

Monitoring varroa mites

This is a good time to monitor the mite drop. Leave the inserts in for a week and count the mite drop. If >2 mites per day then some action will be needed in Spring. If >7 mites per day then action is immediately required. The National Bee Unit (http://www.nationalbeeunit.com/) produces an excellent booklet "Managing Varroa" (http://www.nationalbeeunit.com/downloadDocument.cfm?id=16) which is available for free download. There is also comprehensive information about varroa on the NBU website, including an on line varroa count calculator.

Siting your bees

Those who were on the LBKA mentoring schemes last year and have not yet acquired bees (but will do so) should prepare the hive and site. If acquiring bees by means of the purchase of a nucleus from a supplier then the order should have been placed by now. Demand often exceeds supply.

Formulate a beekeeping plan for the season

This need not be elaborate and may be such as improving swarm control, attempting a new manipulation, maximising honey production (ensuring there is the maximum number of flying bees in the colony when the honey flow starts), etc. The opportunities are endless.

Those who will not keep bees this year but want to have mentoring with a more experienced beekeeper should make suitable arrangements.

Dead bees?

On a sad note, if you find your bees are dead then it is imperative to close the entrance to prevent robbing. Make a note of what you observe then remove and destroy dead bees and frames. Sterilise the hive parts. It is important to try to find out why the bees have died. Winter and early spring colony losses seem to average 20% to 30% so you are not alone. It does not always mean it's the beekeeper's fault but it is essential to analyse and learn. Examples of reasons include, but are not limited to, the varroa mite (the number 1 offender), lack of stores, damp / inadequate hive ventilation, site situated in a frost pocket, failing queen, poorly mated queen.

Optimistic note

On a more optimistic note, the beekeeping season arrives in March. We have several eventful months ahead. I sincerely hope that all of us have a productive season and achieve whatever aims and goals we aspire to!

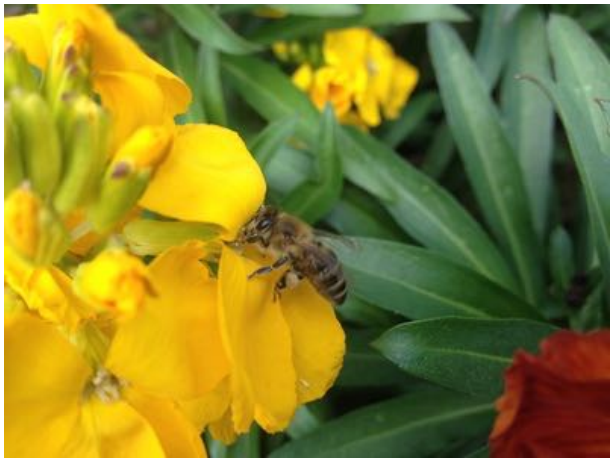
March in the Forage Patch

Mark's regular update on what's in flower that's good for bees.

Mark Patterson
forage@lbka.org.uk

It's the last weekend of February as I write this month's feature on forage. This past week the weather has been mild and most days the bees have been flying bringing back dull orange coloured pollens from the many crocuses I have planted around the apiary. Also being worked and carried back to the hive are Christmas Rose Helleborus niger whose pollens are a distinctive cream colour.

Bumble bee on Bowles mauve wallflower. Photo: Mark Patterson



Honey bee on a yellow wallflower. Photo: Mark Patterson

White dead-nettle. Photo: Mark Patterson

Snowdrops. Photo: Mark Patterson

I have many Snow drops out in my garden at the moment but the bees appear to seldom visit them and are preferring my crocus blooms, probably because they are more abundant and bear greater yields of pollen. You can distinguish Snow drop pollen at this time of year by its deep orange to apricot colour.

All of my Mahonia has now finished blooming and are already producing fat green berries which will be food for the black birds come spring, elsewhere I have seen Mahonia still bearing flowers but they will not last much longer. My Viburnum tinus is still blooming and bees are hurriedly visiting its flowers as it is one of the first nectar plants. Viburnum produces an olive green pollen. Other pollens being brought in are Hazel which is now in full flower. Pollen is produced from long male catkins with the female flowers being small insignificant red flowers further down the branches. Hazel pollen varies in colour from yellowish green to mauve.

As the weather continues to warm we should see spring flowers such as Wall flower, Primulas, Hounds Tongue, Tulip, Hyacinths, Anenemones and the lamiums or deadnettles. Lamiums in particular are an important source of spring forage particularly for queen bumble bees who need their high protein content pollen to bring them into egg laying conditions prior to establishing new colonies. Our honey bees also visit them and you can tell when they have visited them as they will return to the hive bearing bright red pollen loads. The pollen of deadnettle can be confused with chestnut but I find the pollen of deadnettle to be more intense red than that of chestnut. The time of year you see bright red

Winter aconite. Photo: Mark Patterson

Blue Pulmonaria. Photo: Mark Patterson

pollen being brought in will also be indicative of the source.

We should start to see fruit trees and hedgerow shrubs such as Black Thorn and crab apple begin to bloom, Gorse will be flowering and the first of our cherry trees come into bloom. Already in my neighbours garden there is a peach tree in bloom.

Later this month I expect to see my flowering currant come into bloom, who's flowers are popular with both my honey bees and early bumble bee. Other bees making an appearance this month will be Hairy footed flower bees, Garden Bumble bee and Tree Bumble bees. Solitary bees such as the tawny mining bee and other members of the Andrena family will also make an appearance.

Now is a good time to cut back the dead stems on herbaceous perennials allowing room for new growth to emerge and to give herbaceous plants and shrub boarders a dusting of organic plant feed to sustain their spring growth.

Now is an excellent time to put out your solitary bee boxes which will be eagerly used by female bees searching for nest sites from late March/early April onwards.

Crocus. Photo: Mark Patterson

Winter honeysuckle. Photo: Mark Patterson

Hazel is a good source of pollen. Photo: Mark Patterson

Helleborus niger (Christmas Rose)
Mahonia aquifolium (Oregon Grape)
Crocus "Giant Dutch"
Crocus flavus (Yellow Crocus)
Salex capria (Goat willow)
Salex cinerea (Grey willow)
Salex hookerianna (willow)
Lamium purpureum (Red dead-nettle)
Erysimium cheiri (Wallflower, pale yellow)
Prunus spinosa (Blackthorn)
Hyacinthoides hispanica (Spanish bluebell)
Scilla siberica (Siberian squill)
Eranthis hyemalis (Winter aconite)

Pollen colours, taken from 'A colour guide to the pollen loads of the honey bee' by William Kirk (redrawn here by Aidan Slingsby). The book is published by IBRA (ISBN 0-86098-248-3) and is available from Northern Bee Books, who give an LBKA discount.

Simon's Musings: The Lesson from the Hive

Simon's musing on bees, beekeeping and other somewhat related topics make a welcome return this month.

Simon Wilks
LBKA member

Of all the people making a living from climate change, George Monbiot is one of the better known. Like many in the fundraising sector, however, he is hired as much for his heart than his head. And so it comes as no surprise to find him writing:

> *When Thomas Hobbes claimed that in the state of nature, before authority arose to keep us in check, we were engaged in a war "of every man against every man", he could not have been more wrong. We were social creatures from the start, mammalian bees, who depended entirely on each other.*
>
> *Source: http://www.theguardian.com/commentisfree/2014/oct/14/age-of-loneliness-killing-us*

The article was about loneliness, particularly as it applied to the economically inactive, with a small nod to the soulless desolation of the office and, for that matter, the soulless desolation of self-employment. He had no particular solution, but seemed very sure that nature would provide the answers.

Sadly, bees aren't a great source of humane answers. most obviously on the pedantic grounds that most bees aren't very social at all. This might, however, be the fault of a sub-editor rather than Monbiot, a trained zoologist, so we might charitably assume he meant honey bees. Assuming he did, it's still a poor analogy. Honey bees may appear to live together in sociable, harmonious families, but appearances are very deceptive. Honey bees show little sympathy for the the sick, the elderly or the infirm, for example, and can be viciously sexist, especially in the autumn. They may give harbour what look like democratic instincts, but those instincts are often devoted to robbery and regicide which, at least in human societies, aren't often encouraged.

Despite that, many eminent people, from Aristotle onwards, have looked into beehives and claimed to find lessons for humanity. It is unclear exactly what these lessons are supposed to be, but that hasn't stopped people cherry-picking (or inventing) such ideas according to need and preference. Monarchists, naturally, focus on the queen, and see her as a ruler who, without a word, keeps the workers doing what they're told. This stretches the truth somewhat, now we see the queen as mere egg-laying machine, whose life is swiftly taken according to how she smells. Similarly, bureaucrats, from the time-and-motion men of the last century to those who now decide how long we should take to cross a road, like to consider people as identical units of production and see the hive as a model of focussed efficiency, ignoring the fact that, on average, around 80% of the workers in a hive are performing well below their full capacity. Most prominent, of course, are authors, who eagerly pounce on the beehive analogy and, with

a surprising combination of ingenuity and ignorance, squeeze it into anything from economics to mindfulness.

Whatever their intentions, they all forget the important point that humans are, as far as we can tell, different. For us, free will is a necessary burden, and curiosity more than a means to a flowery end. We may have to work, but we do not do the same things for millions of years, like bees. Instead we invent, we challenge and we design and, as a result, see starvation, disease and predation as, at least in theory, avoidable. Bees, on the other hand, just play the odds. Perhaps I've missed the point. Humans are, after all, social creatures, and that means there are at least some parallels between us and other social creatures, such as honey bees. The trouble with that, however, is that honey bees are not just social, but eusocial. That means, among other things, they have separate castes, and most individuals have their reproductive capabilities suppressed. It is possible to imagine such a society for humans - as Huxley did in Brave New World - but science fiction and dystopian speculation are, though entertaining, written as warnings rather than recipes.

Moreover, there are more differences than similarities between honey bees and humans. We are entirely different sorts of animal. If we really wanted to know what a eusocial human society would look like, we would ignore honey bees entirely and look at a genuine 'mammalian bee', the naked mole rat.

The naked mole rat is one of only two eusocial mammals (the other is the related Damaraland mole rat), but it is truly eusocial, and there are many parallels with a honey bees. They live in colonies formed of a reproductive female, a few reproductive males and a worker caste that cares for the young, builds and maintains the communal home (a maze of tunnels underground), collects food (usually plant roots), and informs other workers of food sources. Also like honey bees, they don't seem to get cancer.

There are also many differences, apart from the naked mole rats' lack of flight and sight. The reproductive males, of which there are two or three, mate with the dominant female within their own colony, leading to very high levels of inbreeding. Colonies do not swarm, but split by closing off tunnels or by 'dispersers' (a type of worker) leaving the hive, becoming sexually mature, finding a mate and founding a new colony from scratch. Lifespans are much greater, with naked mole rats living for up to thirty years. And, instead of feeding the young with secretions from their heads, workers feed the young with faeces.

There are various theories why the two species of eusocial mole rats, which both live in southern Africa, became eusocial, but the likeliest explanation seems to be that it's an adaptation to a limited range and resources. As with bees, most types of mole rat do not live in colonies, so it's an unusual adaptation, suggesting it's a response to unavoidable evolutionary pressures.

As I see it, the model of society that honey bees, (or, for that matter, mole rats, common wasps and termites) shows us, is efficient, but not very pleasant. It's a society that, rather than adapting to the world outside, has isolated itself from most of it. It's a workhouse world, where the products of inbred extended families, or near-clones, exchange individuality and reproductive prospects, for a greater chance of species survival.

That may seem a good, altruistic, thing to do. But I fail to see what humans can learn from that. We are already a successful species, with great diversity, a range that spans the planet and an inventive adaptability that survives challenges that have rendered so many other species extinct. To some extent, we rely on sociality for the rearing, and education, of our young. But as well as relying on the communal work of every teacher, doctor, cook or priest, we also rely on solitary explorers, inventors, researchers and even poets, without whom we'd not adapt to challenges.

Honey bees are fascinating creatures, but much of our fascination is because they are different to us, living an almost incomprehensible way of life. We might fancy we can see similarities between us and them, but that is only a fancy, and we don't look for such similarities in wasps. In short, we keep bees because, over millennia, humans have found them easy to exploit; and that, sadly, is the real lesson from the hive.

See also:

Robert Pickard. Energy, Honey Bees and Humans. https://www.youtube.com/watch?v=xSRYbe60AF4&noredirect=1

Faulkes, CG, Bennett NC (2013). Plasticity and constraints on social evolution in African mole-rats: ultimate and proximate factors *Phil. Trans. R. Soc. B: 2013 368 20120347; DOI: 10.1098/rstb.2012.0347. Published 8 April 2013. http://rstb.royalsocietypublishing.org/content/368/1618/20120347*

The Bulgarian Beekeeper

Vesko continues his month-by-month series writings about his beekeeping back in his native Bulgaria.

Vesko Starchikov
LBKA member

March is the first month of spring. Warmth awakens nature. Increasing numbers of plants start flowering: hazel, hellebore, Garvanski yellow onion, squill, dogwood, elm, lung-

wort, coltsfoot, primrose, dove eyes, smelly violet, blue crocus, speedwell, coins, etc. In orchards, almond zarzalata, apricot, peach and wild plums are already blooming. In valleys alder and poplar bloom.

Condition of bee colonies

At the end of February and early March, the queen starts to lay eggs. The appearance of brood disturbs the peace in the colony. Bees begin to consume more food to increase the temperature of the nest to 34-35°C. At first the queen lays 20-30 eggs per day. On warm days, when the temperatures are about 12-15 degrees, worker bees undertake test flights and start to collect nectar and pollen.

Worker bees start to feed the queen with more royal jelly and she starts to lay up to 1,500 eggs or more for 24 hours. The pace of development of the family does not only depend on the ability of the queen to lay eggs, but the conditions of life and watching the family. Lack of sufficient food, sufficient numbers wintered bees, well built combs retain spawning and rearing more young bees.

My work in the apiary

If in February, I have not done a review of bee colonies, I have to do it in the first days of March. I do the information review on a sunny day when temperatures are around 12-15°C. By the end of the month is better to have done the main spring review. My main goal is to create the best conditions for the development of colonies in spring. In the review, I judge the general condition of the wells the

power of families, the quantity and quality of food, health. The strength of families is determined by the number of frames covered with bees. It is necessary to narrow the nest so frames are covered by bees. If there is a shortage of honey in the hive, I add combs from the warehouse, which I removed from the hives in the apiary autumn preparation for the transition to winter, from the previous year. I put the combs behind the partition board and periodically remove part of comb sealing, to the bees have access to honey. I clean the bottoms of hives and disinfect the area around them in the apiary. I clean the area around the hives and the entire apiary.

LBKA's Second Winter Lecture: Picky Pollinators

We were luckily enough to have Beth Nichols give us a talk about her PhD project from a few years ago about whether bees can learn which flowers offer the most nutritious pollen.

Aidan Slingsby
services@lbka.org.uk

Beth started out with the startling assertion that "bees really like flowers"! It's a bit of an in-joke amongst her friends and family that she and her colleagues spend their time studying different aspects of the same thing. But of course in research. . . it's all about the detail. And the detail is fascinating.

Beth's PhD project was to see whether bees can learn to associate certain characteristics of flowers with good pollen. She explained this type of association as using the Pavlov's dog example in which a dog learnt to associate a ringing bell with being given food. In her case, the flower is the ringing bell and pollen in the food. Bees do tend to prefer some flowers over others and will often visit the same type of flower within a period of time. One reason for this could be

that once they've learnt how to access the pollen and nectar, they can do it more efficiently next time (it also helps plants as it makes cross-pollination more likely). However, this is not the only reason. An association is known to exist for bees between the appearance of flowers and the quantity of nectar they can collect. Beth was interested to find out whether if the same was true for pollen. Pollen is bee's source of protein and is essential for feeding to young beed. But varies in quality and protein content. Can bee detect this (even though they don't ingest the pollen like they do with nectar)? If so, do bees select for this and can they associate particular types of flower to pollen quality?

Beth designed and carried out experiments to try and answer two questions:

- Can bees learn to associate characteristics of the flower with a pollen reward?
- Can bees learn that some flowers provide more nutritious pollen than others?

Her first experiments were really to deign, test and refine the experimental methodology. She was using bumble bees, rather than honey bees, because they are easier to study and she was doing the experiments in a controlled lab-based environment. The first experiment was to test bees' preferences for colour and whether they can learn to associate colour with a food reward. She set up coloured discs that represented flowers with no rewards. She verified bees' known preferences for green. She then tried to train them to go for blue instead by rewarding those that landed on blue with sugar solution. She found that there was a learning effect, but it wasn't very strong. More went for blue than before, but green was still more attractive.

She then did her pollen experiments. Bees were able to assess pollen and form pollen preferences. This did not seem to relate to protein content, through field studies seemed to indicate a preference for higher protein content pollens. The bees were able to distinguish between greatly varying protein contents, such as 60% vs 90% protein. Other factors may influence pollen preference that are as yet not fully understood, such as how easily pollen can be packed into pollen sacks. She also found that bees were able to associate the characteristics flowers to pollen type for consistent in pollen foraging.

Her findings were recently published in the Journal for Experimental Biology. See the full article at http://jeb.biologists.org/content/217/15/2783.long.

LBKA Microscopy course

Howard and Richard ran a free microscopy course for LBKA members, a really interesting set of three evenings using our sparkly new microscopes! Five attendees have written up and/or provided photographs. For the squeamish amongst you, you may wish to tread carefully around weeks 2 and 3. If there's demand, we will run more courses like this in future – let us know.

Jonathan Dale, Oli Laurelle, Howard Nichols, Emily Scott, Aidan Slingsby and Paul Vagg

The course was attended by Emily Abbott, Jonathan Dale, Sally Haywill, Oli Laurelle, Aziah Lee, Emily Scott, Aidan Slingsby and Paul Vagg,

Week 1: Pollen

Emily Scott (based on her blog) and Aidan Slingsby

Last Thursday we were busy on the first evening session of a London Beekeepers Association three evening microscopy course. I can reveal that the first challenge of going on a microscopy course is learning how to say the damn word. Cue me lisping 'Mi-cross-cospy' again and again.

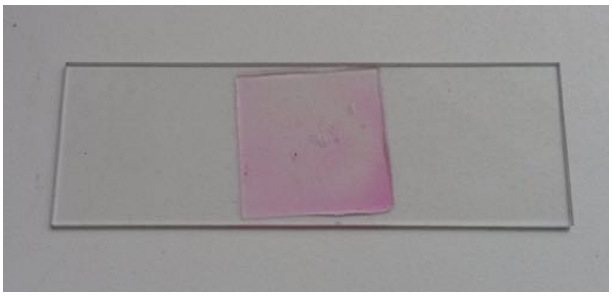
The microscopes are an expensive pieces of kit that need to be treated carefully; the ones we were using cost between £180-350. This week we were using compound microscopes for looking at things mounted on glass slide with a light source shining through them from underneath.

We began by looking at some pre-prepared slides of brassica and dandelion pollen. . . as well as of varroa mites.

We then prepared some of our own pollen slides from fresh flowers. This involved taking a glass slide, tapping or rubbing pollen grains onto it, rinsing away the oils that give the pollen its colour with isotropic alcohol, dying with fuchsia-coloured dye that helps us see these now-colourless pollen grains, mounting with glycerol jelly, placing a cover slip (an incredibly thin square of glass) on top and drying on a heated surface. We only had a few seasonal varieties of flower – crocus, mohonia and rose – but see the pollen photos on page 14 for the incredible variety of pollen.

The next stage was the most exciting – doing some Melis-

Making up pollen slides. Photo: Emily Scott.



A honey pollen slide. Photo: Aidan Slingsby.

Equipment and setup. Photo: Oli Laurelle

sopalynology (identifying pollen in honey) on our own London honeys! Tristram (who wasn't there) had some of his honey tested and various attendees had brought their own. Honey naturally has a very small proportion of pollen in, so we had to concentrate this. We did this by putting three teaspoons of honey in a jar and mixing thoroughly with water. We pipetted this into little plastic tubes and put in a centrifuge to spin the pollen grains to the bottom of the diluted honey. We pipetted out the water from the top, repeated and then *very carefully* pipetted remaining water from the top leaving a few drops of diluted honey containing most of the pollen. To the naked eye it looked grainy. We then put these few drops onto a slide and then put on a heated surface to drive away the remaining water. We then mounted the slide as before. We could then find grains, but as you can see from http://www-saps.plantsci.cam.ac.uk/pollen/index.htm and the photos on page 14 identifying them was tough! We did see lime (5 down, 3 across on page 14) – a dominant constituent of London Honey – and one of the initially pre-prepared slides we had, as well as all sorts of other things. That was nice to see!

Under the microscope, pollens reveal themselves to have a multitude of complex and wonderful shapes that often remind me of primitive sea creatures. The trained eyes of someone who has studied Forensic Palynology can identify pollens on a murder victim or suspect and link them to a particular location.

Another use for pollen identification is to check the geographical origins of a honey. All honey should have at least a few grains of pollen – a complete lack of pollen indicates that either; *(a)* the substance tested is not honey; or *(b)* it has been micro-filtered to remove all pollen and conceal its origins. A 2011 survey by Food Safety News famously found that more than three-fourths of the honey they tested from U.S. grocery stores had been ultra-filtered and technically wasn't honey. If you are a Chinese producer, concealing the origins of your honey can be a way to sneak it into the U.S. and avoid paying the correct import tariffs. Another reason to buy from local beekeepers who you trust!

Dissection implements. Photo: Oli Laurelle

Embedding dead wingless and legless bees in wax. Photo: Oli Laurelle

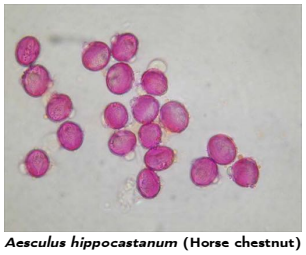
Week 2: Dissection of the Abdomen

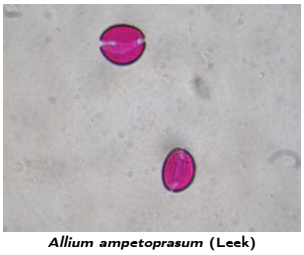
Paul Vagg

Following the excitement and enthralling content of week 1, which you will have which you will no doubt have read about already, I turned up at Walworth Garden Farm for week 2 of Microscopy full of anticipation, and I along with all those present were not to be disappointed.

We used dissection microscopes for this week and the next with the light source from the top. This didn't require making slides; rather it required embedding bees in wax.

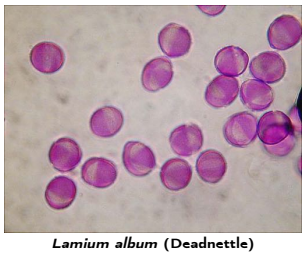
The lesson this week was down to the real nitty-gritty, setting your bees in wax in a petri dish, and dissecting the abdomen of the worker bee, examining the contents under the dissecting microscope to identify the relevant organs and making up slides to identify pollen grains extracted from honey using centrifuge. Now it's fair to say that I'm certainly not a squeamish fellow in anyway, and whilst I would never deliberately hurt a bee, if I squished a girl during a weekly inspection I'm not one of those beekeepers that


Aesculus hippocastanum (Horse chestnut)

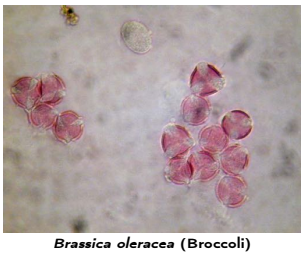

Allium ampetoprasum (Leek)

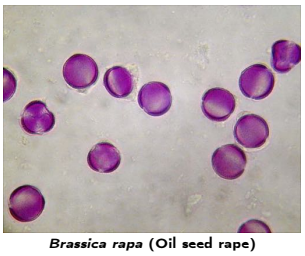

Bellis perennis (Daisy)

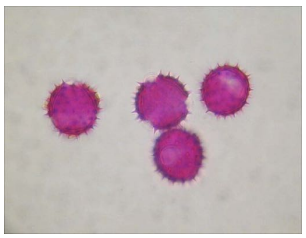

Betula pendula (Silver birch)

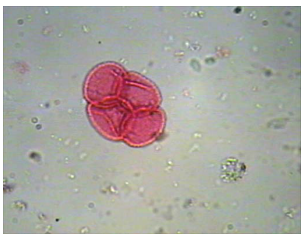

Lamium album (Deadnettle)

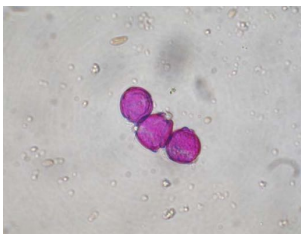

Borago officinalis (Borage)

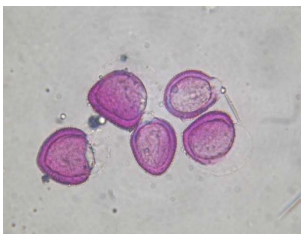

Brassica oleracea (Broccoli)

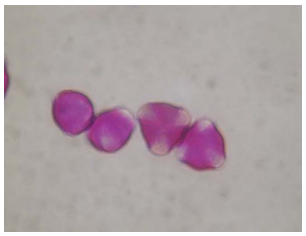

Brassica rapa (Oil seed rape)

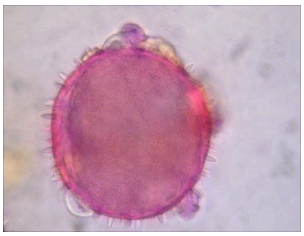

Calendula officinalis (Marigold)

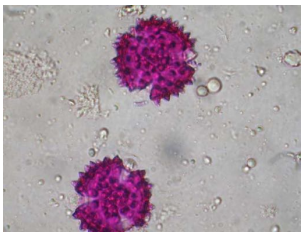

Calluna vulgaris (Heather)

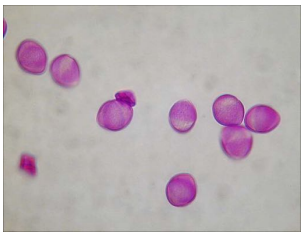

Capsicum annuum (Sweet pepper)

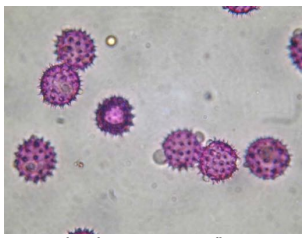

Hyacinthus orientalis (Hyacinth)


Crataegus monogyna (Hawthorn)

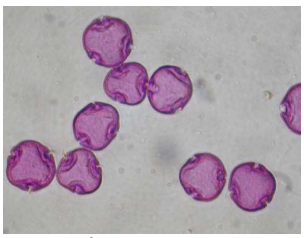

Cucubita pepo (Courgette)

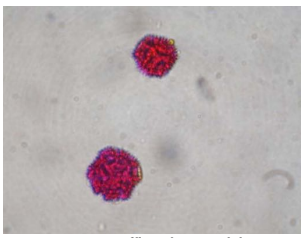

Cynara scolymus (Globe artichoke)

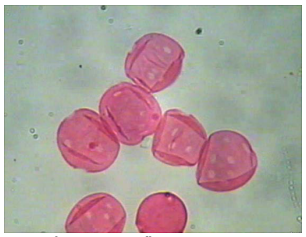

Digitalis purpurea (Foxglove)


Helianthus annuus (Sunflower)


Platanus hybrida (Plane)

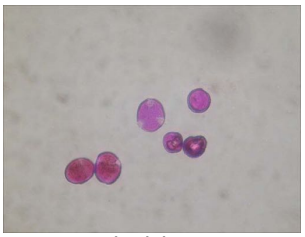

Tilia x europea (Lime)

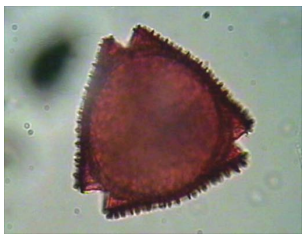

Taraxacum officinale (Dandelion)


Ribes nigrum (flowering currant)

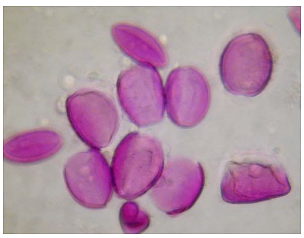

Quercus robur (English oak)

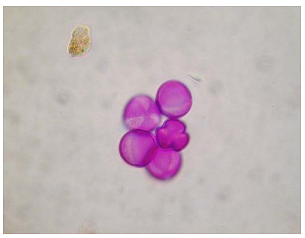

Galanthus elwesii (Snowdrop)


Hedera helix (Ivy)

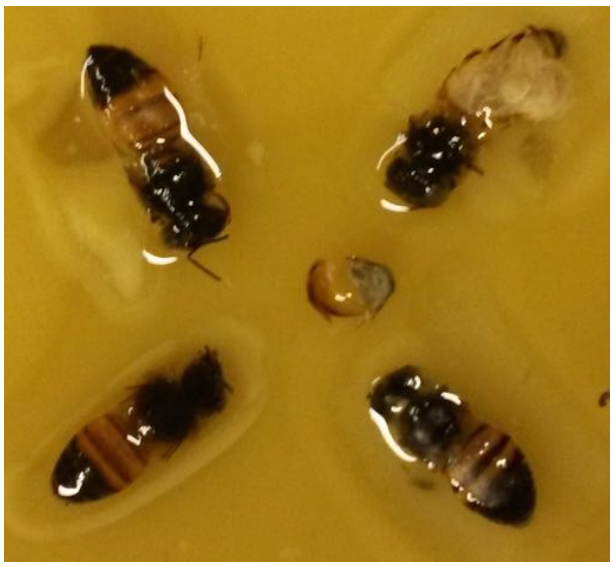

Lonicera periclymerium (Honeysuckle)


Castanea sativa (Sweet chestnut)


Narcissus (Daffodil)


Papaver fauriei (Poppy)

Pollen comes in all shapes and sizes. Pollen itself is colourless – the colours come from the various oils it contains. When preparing pollen for mounting on a slide, we wash away the oil and dye purple. These photographs are just a small selection from http://www-saps.plantsci.cam.ac.uk/pollen/index.htm. Well worth a browse.



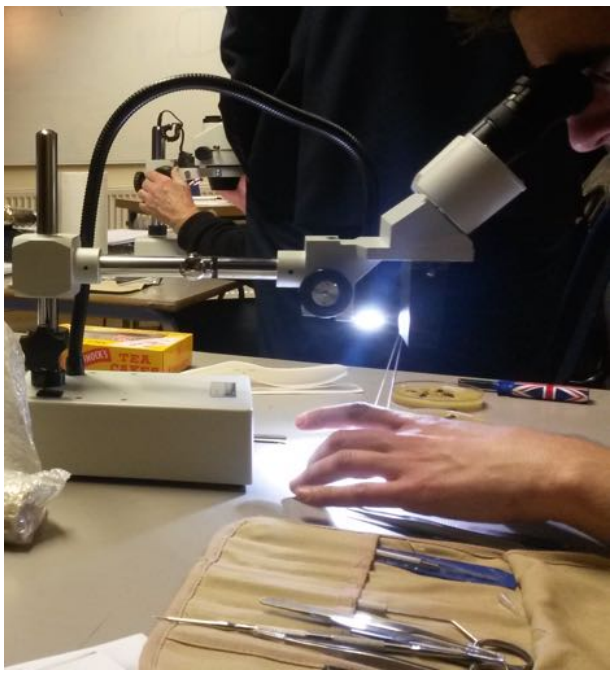
Embedded bees, one with a dissected abdomen. Photo: Aidan Slingsby

would become emotionally distraught about it. That said however I found myself feeling somewhat guilty as I sat there clipping off the poor dead bees, wings, legs and antenna in preparation for embedding in the wax.

The dissection of the abdomen was I think found by all to be a tricky procedure to perform, involving a square cut through the exoskeleton of the abdomen, and removing the flap to reveal the contents. Easier said than done! But on my fourth attempt I managed to get there and after gently prising the interior free, Hey Presto all was revealed.

Further examination under the microscope revealed and assisted in identifying the entire internal abdomen, starting at the crop, moving along to the proventriculus and ventriculus, which interestingly contained pollen in this particular sample, and down to the rectum, also revealing the malpighian tubules. When performed correctly the removing of the cut flap of exoskeleton will often come away with the heart attached again fascinating to see.

On a personal note I found the course to be interesting, well-structured and informative, and Howard and Richard deserve some well earned praise for putting in such hard work to make it happen. They'll probably kill me for saying that I think it was so enjoyed by all in attendance, that those members that didn't get the chance to attend might try to convince them to hold another, as it really was that much fun, and I would highly recommend a timely response to secure a place as spaces were limited to eight people should or if the opportunity arises.What I am able to say with absolute certainty, is that I now know that as I progress as a beekeeper and through the associated examinations accordingly, I'm already looking forward to the day I'm able to take the BBKA Microscopy module, and when sometime in the distant future that day arrives, it will be without doubt due to an interest in the subject acquired following this excellent 3 week presentation.



Hard at work. Photo: Aidan Slingsby

Week 3: Dissection of the Thorax and Head

Jonathan Dale

Our final week at hand, things were going to get fiddly as we were to tackle the thorax and head.

We started in our usual way, trimming off the legs, wings and antennae of our bees, before embedding them in the molten wax. Even by week three, it still felt wrong mutilating our bees like this! We started on the thorax, cutting a panel of the bee's back to expose the powerful flight muscles below. This is packed with the white tissue of the direct and indirect muscles fibres, lined up in distinct directional blocks to assist flight. The exoskeleton of the bee is much more solid here, as it must withstand the pressure of the muscles – this makes it easier to make the incisions with the scalpel, but very hard to pull the disected panel off, as the muscle is still attached!

Moving onto the head, we started by examining it from the outside before following Richard's calm instruction to "cut the face off". Honey bees are remarkably hairy up close, and the view under a microscope is fascinating. The golf ball esque compound eyes are the dominant feature, but in between you can clearly make out three ocelli – these simple eyes are used for light detection, so are integral to bees navigation by the sun. The mandibles and proboscis is also highly complicated close up, with several distinct parts. The long and hairy glossa is dipped into the nectar, then retracted to be swallowed by the bee – this is different from butterflies and moths who actively suck the nectar from the plant.

Cutting the face off was hard work, with my bee's head moving in a disconcertingly lifelike manner when prodded with the scalpal. Unlike the solid resistance of the thorax, I found myself mashing my poor bee's face instead of neatly cutting it. It's amazing how an intrument that looks so precise to the eye can be blunt and clumsy at magnification.

Dissection of the bee's head, exposing the hypopharyngeal gland. Photo: Howard Nichols.

Legs and wing (taken down a microscope with a phone camera). Photo: Aidan Slingsby

Once I finally removed the face, a rough square from the ocelli to the mouthparts, and in between the eyes, it was difficult to make out the beaten bits below. More white! The hypopharyngeal glands were the most obvious part at the top of the head, appearing like a bundle of white balls, each one a small factory producing the brood food, before it's pumped along a pair of semi-translucent tubes before providing for the needy young.

We finished by looking at the extremities we had hacked from our bees earlier – the legs, wings and antennae. Paul caused a lot of excitement at a shiny blob coming off the side of an antennae which confounded our learned tutors. After much prodding and poking the blob was moved along the antennae and miniscule legs were spotted – an insect so small it was perched on our bee's antennae!

And with that discovery, our final session was over. Thanks to Howard and Richard's expert tutelage, we've come a long way from first focussing pollen granules under the microscopes. It's been really interesting see our bees up close and personal, inside and out, over the last three weeks! And it's been great getting to know the other guys on the team through the shared adventure (or mishaps, more commonly!).

February's Facebook (In)digest(ion)

LBKA's open Facebook page is an active community of over 1000 from around London and other parts of the UK and world. Lots of interesting material gets posted, but here's a mere glimpse of what you might have missed. . . .

Aidan Slingsby
services@lbka.org.uk

Hive Flow

OK, it's unlikely that you missed the flurry of pictures, informations, videos and (often divisive) intense debate about Hive Flow (see also Emily Scott's take on this on page 19). It is a system whereby one can extract honey by fitting taps to the hive and simpley draining the honey into a jar. In general people were impressed the idea its design but were hostile to the way it is promoted and has serious doubts about its practicality.

In terms of practicality, doubts were raised about how honey could be extracted without the bees from all around coming to back it back, how it would cope with crystallised honey and it's honey extraction an important part of the fun of beekeeping? It is also expensive kit.

The most damning criticisms were about its marketing, how it presented itself in general and how non-beekeepers have interpreting some of this, whether or not the fault of Hive Flow. Many people were uncomfortable with the idea that bees are honey-making machines whose honey can be tapped (literally) on demand. This was the impression that many non-beekeepers had to this. Many were also critical of the impression given that it's better for bees as honey can be extracted without opening the hive. As many pointed out, most times hives are opened are for non-honey-extraction duties such as swarm control and disease detection, things many beekeepers consider responsible beekeeping, especially in such a dense urban setting as London. Some were worried that one interpretation of the marketing material is that this could be an easy way to get into beekeeping by avoiding the need to interact with the bees. Of course, nothing could be further from the truth and let's hope that new beekeepers don't fall for this.

Such was the interest generated by this, there were calls to stop talking about it but the debate will probably continue.

Friends of the Earth leaflet

There was some discussion around a leaflet by Friends of the Earth (http://libcloud.s3.amazonaws.com/93/f0/f/4656/FollowTheHoneyReport.pdf) about how pesticides and bees. Angela and Mark found the emphasis on the role of pesticides and pesticide companies in the more general decline of bee populations as sensationalist and based on bad science. Mark provided details of research (http://dx.doi.org/10.3896/IBRA.1.53.5.08) that indicates that environmental dosage levels are far lower than many

Looking forward to honey on tap. . .

. . . or have you had enough of Flow Hive discussion?

of the lab-based tests. They call for Friends of the Earth to take a more scientific and research-led approach to the issue.

Limes and planes

Bill's mourning of the passing of another lime tree in London lead to an exchange about the relative merits of limes and planes. Lime nectar is an important contributor of London honey and half of London's trees are limes. Some don't like the sticky mess caused by the sap-sucking aphids. Some prefer plane trees, but Mark pointed out that plane trees support little other life, are sterile and were originally planted to help removing solid particulates from the air, something which is less important now as our air has become cleaner. Bill pointed out that plane trees do, however, look nice with the peeling bark and produce nice wood.

Lime tree in flower. Source: http://en.wikipedia.org/wiki/Tilia

London Plane. Source: http://en.wikipedia.org/wiki/Platanus

Beekeeping advice

A few new beekeepers or beekeepers who had just arrived from abroad introduced themselves. Those that wanted to start were advised to get onto a beekeeping course. Those new to UK or London beekeeping were told that there are not real legal requirements but that responsible urban beekeeping has its own challenges.

Supple asked for advice on the pros and cons of double brood. Pros included plenty of room for the bees to manage the brood area, queen rarely runs out of space and that inspections can be quick if you're brave. Cons included the hassle inspecting two boxes (with suggestion to use extra deep brood boxes instead), heavier hives, taller hives and more frames to look at. It also depends on the bees, weather and how productive the queen is.

Simon suspects nosema in his bee colony (presence of diarrhoea, a common symptom) and asked advice (as the only treatment – Fumidil B – can no longer be purchased. The advice is that one can't do much now, but when the weather get consistently above 13°C to feed them thymolised sugar syrup and do a bailey change, though if the nosema is bad, this might take a long time. Spraying them directly with thymolised syrup directly was also suggested.

From the news

Doris shared an article that reports that neonicotinoids impair bee's brains (http://phys.org/news/2015-02-neonicotinoid-insecticides-impair-bee-brains.html) and a Radio 4 Farming Today episode about its persistency in the soil (http://www.bbc.co.uk/programmes/b006qj8q. Steve pointed us to a petition (http://action.sumofus.org/a/bayer-bees-lawsuit/13/2/) against Bayer's, BASF's and Syngenta's suing of the European Commission over their moratorium on neonicotinoids. Jon shared the BBC news article about urban areas being havens for bees: http://www.bbc.co.uk/news/science-environment-31359984. Mark pointed us to about pollination of almonds in the US: http://www.scientificamerican.com/article/

Beverley's Jewellery.

migratory-beekeeping-mind-boggling-math/ and Radio 4's Farming Today with a feature on urban bees (http://www.bbc.co.uk/programmes/b051s31l).

Other odds and ends

Alan saw signs of Spring in South Devon at the end of January – the first open daffodil bud, snowdrops in abundance and a woodpecker gnawing away at a tree.

Alan also wondered if any part of London excels in honey competitions, but it seems that different parts of London produce award-winning honey.

Angela found some cheap folding lightweight nuc boxes http://www.solwaybeesupplies.co.uk/national-correx-transportation-box-786-p.asp and Andrew confirmed these are useful.

Beverley posted from photographs of her Jewellery, which generated some interest. . . particularly potential for their conversion to cuff-links.

Mark posted some photographs from a free wax workshop he ran for Westcott Park Community Garden in Ealing.

Some interesting Ukrainian hives made of reeds were posted. More details about this type of hive can be seen in this YouTube video: https://www.youtube.com/watch?v=zSFckzClhmw.

Someone posted a photo of a home-made cushion (and "disinterested cat") that racked up 19 "likes".

Mark spotted a huge hexagonal "bee pavilion" to house wild bees. Impressive, but Angela and Jon wondered whether a big bundle of bamboo sticks and some empty Fairy liquid bottles stuck together with gaffer tape would be an as effective bee home?

Mark also spotted an article about airport apiaries (http://www.nytimes.com/2015/02/24/science/now-cleared-for-landing-at-airports-bees.html?_r=4), an easy but slightly questionable means of airports 'improving

Outputs from Mark's wax workshop.

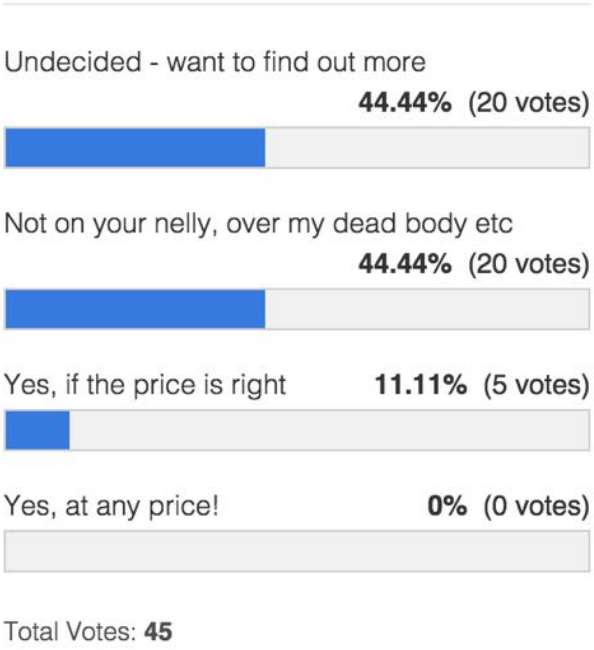
Ukrainian reed hives.

Impressive "Bee Pavilion".

Cushion with its maker and a "disinterested cat".

Swarm apparently surrounding a bird's nest.

Bee-themed knitted tea cosy.



Results of the informal poll from Emily's blog at the time of the preparation of this newsletter.

their green credentials'. The first apiary airport was Hamburg airport, but the biggest is now O'Hare airport (Chicago) with 75 hives.

Paul spotted a picture of a swarm around a bird's nests containing birds' eggs, prompting various well-known (para)phases involving the words "bees", "birds" and "eggs".

And finally. . .

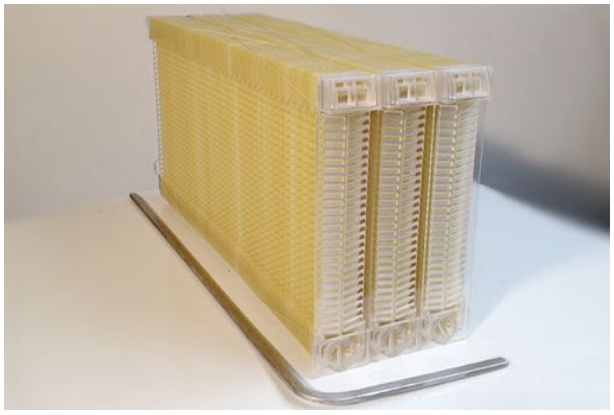
And finally. . . a bee-themed tea cosy that a friend made for me. A bit of an indulgence for me (as I've the one writing this article) – it didn't actually appear on our Facebook page, but it would have if I was more into that sort of thing.

Adventures in Beeland: Will the honey flow for you?

Emily regular guest article from her excellent blog: http://adventuresinbeeland.com/. This month, she's turned her thoughts to Flow Hive, currently proving to be a controversial topic amongst beekeepers.

Emily Scott
LBKA member

Everyone who uses the internet has probably heard about the "Flow" hive by now - http://www.honeyflow.com/. "It's



Flow Hive frames.

Literally Honey on Tap Directly From Your Beehive!". As I've never made a poll before, I thought this post would be a good chance to learn how to do one, so I've made one about the Flow Hive.

And it's launched! $300 USD for six frames fitting a Langstroth super, $350 for eight frames, $600 for a full hive: indiegogo.com/projects/flow-hive-honey-on-tap-directly-from-your-beehive.

How does it work?

See the FAQs section of the Flow website:

> *The Flow frame consists of already partly formed honeycomb cells. The bees complete the comb with their wax, fill the cells with honey and cap the cells as usual. When you turn the tool, a bit like a tap, the cells split vertically inside the comb forming channels, allowing the honey to flow down to a sealed trough at the base of the frame and out of the hive, while the bees are practically undisturbed on the comb surface.*
>
> *When the honey has finished draining, you turn the tap again in the upper slot which resets the comb into the original position and allows the bees to chew the wax capping away, and fill it with honey again.*

Source: http://www.honeyflow.com/faqs/p/22

My thoughts on it

Having read through the patent (http://patents.justia.com/patent/20140370781), I do believe it will work, at least with uncrystallised honey, but with oil seed rape or ivy honey that has set hard in the combs? We shall see. I probably won't be rushing in to buy one, but I shall be interested to see how other English beekeepers find it and then perhaps consider buying one, depending on how much they cost. Here's an email written by the famous Michael Bush about the design, he seems mostly positive about it: http://www.honeyflow.com/letters/p/24.

I don't have any objections to the product itself, but I do have some worries about the way it's being marketed. Their website says "In our area it is normal to inspect the brood nest of each hive twice a year for disease. In some areas beekeepers check more frequently." Twice a year is not enough to notice diseases and stop swarming, so this could give people the wrong impression of how much work keeping bees involves. Let's say you check in April – no sign of disease – then you check again in September – perhaps now your colony shows signs of American Foul Brood (AFB). Well, all that time your bees could have been infecting other colonies, all of which under UK law would have to be destroyed.

Honey extraction – the labour intensive way.

Not such a problem in rural areas with no other hives around, but not good practice in cities or densely populated countries such as the UK. Their patent also makes some odd claims – for instance, "traditional hives leave spaces for pests and diseases". Well, most diseases spread in the brood combs, so since it seems this product is used to replace the super combs, I don't see how it will help. Or what they have in mind by spaces causing diseases either. Perhaps more details on this will follow.

Some of the comments written on Facebook by non-beekeepers about it are a bit disturbing. Some people seem to think that easy extraction of honey will benefit the bees, e.g. "I'm sure hope this keeps the world's honey bee populating flourishing!" and "You may have singlehandedly saved the world's bee population: this invention is poised to bring beekeeping to the masses, exponentially increasing the bee population".

The problem facing most bees in the world – and there are roughly 19,300 species of them, so this device affects a teeny weeny percentage – is a lack of habitat and flowers. Being able to easily take honey from honey bees is going to do absolutely nothing to help that. Arguably, if we have too many honey bees that could actually mean the wild bees, such as bumbles and solitary bees, lose out because there aren't enough flowers to go round. Plus a high density of hives kept by people only inspecting twice a year would be a recipe to spread disease.

Anyway, that's enough of me ranting on! I'll get off my box now. What do you guys think?

Upcoming events

Monthly meeting: Microscopy for Nosema and Acarine testing

Sunday 8th March, 11:00-12:00 at Fairley House Junior School, 220 Lambeth Rd, London SE1 7JY

Hands-on session in which you'll learn identification of Nosema and Acarine in a sample of your own bees. Non-members are welcome to come and find out more about LBKA.

Sunday 15th March: LBKA planting event

12:00-16:00 at a Community Garden in Clapham

We're forage planting and are grateful for the support of Nando's and Neil's Remedies. If you'd like to come, please email Mark on forage@lbka.org.uk for more details.

Friday 20th - Sunday 22nd March: Edible Garden Show

12:00-16:00 at Alexandra Palace

A garden and outdoor living weekend event. The British Beekeeping Association will be there.

Sunday 12th April: Monthly meeting: Swarm Control

11:00-12:00 at Fairley House Junior School, 220 Lambeth Rd, London SE1 7JY

The annual session discussing the important art of swarm control, especially important in a built-up area like London. Details of the Artificial Swarm and Snelgrove Board methods will be provided and discussed. Non-members are welcome to come and find out more about LBKA.

Friday 17th - Sunday 19th April: BBKA Spring Convention

Harper Adams University, Newport, Shropshire, TF10 8NB

The British Beekeeping Association Spring Convention is probably Europe's biggest national beekeeping event. With more than 30 lectures from international and leading UK speakers and well as over 40 workshops and courses during the 3 day event, there is something for everyone, expert, improver, beginner and non-beekeeper.

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 services:** Aidan Slingsby, services@lbka.org.uk
- **Forage:** Mark Patterson, forage@lbka.org.uk
- **Resources:** Paul Vagg, resources@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/.