

February, 2021

Winter is still very much with us and we have three more Winter Lectures in the pipeline (p2) and another external speaker - Bob Smith from Medway Beekeepers – for this month's Monthly Meeting. Check the announcements for some other great talks organised by other associations. We are also hunting for a Social Media guru (p2) and have relaunched our Pollinator Fund (p3) where we fund good forage-create projects. And there's more! Richard and Simon summarise the most important points from the NBU's (SE Region) Annual Report (p7) combined with some our our own research. Vlad reflects on his winter losses (p9). Mark write about the "buzz" he's creating in the City of London. In addition, we have regular contributions from Richard (p1), Howard (p6) and Mark (p12).

As ever we're looking for more contributions from more members. Do email me if you can contribute anything including articles, photos and recipes.

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A big thank you to this month's contributors: Richard Glassborow, Geoff Hood, Martin Hudson, Eugene McConville, Howard Nichols, Mark Patterson and Simon Saville. Would you like to join these esteemed contributors? If so, do contact me.

Happy beekeeping.

Aidan Slingsby, Editor, services@lbka.org.uk

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From our Chair

Richard Glassborow chair@lbka.org.uk

"The beast from the east" is back but at least this time it has had the courtesy to come at a more seasonally appropriate time: February is a genuine winter month and often our coldest month of the year. We know honey bees can deal with cold such as the snap we are having at the moment and they have almost certainly experienced far worse during the 35 million years or so since they first evolved. Even so, it is hard not to experience some anxiety on behalf of our bees. But, as with so much beekeeping, the harsh reality is anticipation and prevention are so much better than emergency measures. That, after all, is what honey is all about – a winter survival strategy, implemented the previous summer.

There are of course other things that can and do go wrong that no amount of food and a warm, dry home



Getting stuck in: a honey bee collecting pollen from a camelia flower at Kew Gardens a couple of weeks ago. Photo/caption: Eugene McConville.

can prevent. Sadly, this is the time of year when we find out a colony has not survived: we call it winter loss but were the signs there at the end of the summer could we but read them? Personally, I am a big believer that big colonies survive everything better than small – except varroa where the reverse is often true!

No one likes to lose colonies. It's not something you get used to - in fact I would argue we shouldn't get used to it. It should be there as a real and constant threat to remind us that we have a duty of care over our managed animals.

But we all do lose colonies from time to time. If you have three or four colonies and you lose one or two it is inconvenient but you can replenish from your own stock. If you have one or two colonies and you lose one or two you will almost certainly have to wait to replace and it can get expensive. This year there may be an additional challenge in the form of a ban on the importation of packets of honey bees and this may cause a shortage of nucs. Personally, I am not in favour of importing plants and animals: that's how pests and pathogens get about the planet at speeds too great for natural checks and balances to keep up with them.

I think as an Association we could do much more about rearing our own London bees. I am not necessarily banging the drum for London mongrels again, as I am wont to do I admit, but I think there is an argument in favour of rearing your own stock for reasons other than cost and security of supply: continuity leads surprisingly quickly to local adaptation and that can feed back advantages which could improve survival.

I am not advocating big bee breeding farms in our beecrowded city but if we don't approve of importing bees shouldn't we at least investigate what we can do to increase supply from our own stock?

Stay well.

Announcements

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

February's online Monthly Meeting and Pub Social

This month's Monthly Meeting will be on **Sunday 14th February** at 11:00 (after all, St Valentine is famously the patron saint of beekeepers). We are fortunate to have **Bob Smith** talking to us. His topic is "**Beyond the Basics**" which should be of interest to everyone. Bob is a highly respected beekeeper from **Medway beekeepers** in Kent. He is also one of the few people to hold the N.B.D. qualification and was a Regional Bee Inspector for several years. In 2020 he wrote a series of articles for BBKA News so many of you probably know of him. Some of you will also know him personally as, for several years, he assessed our members for the BBKA Basic assessment at Howard's apiary in south London and at the LBKA apiary at Eden. This will not be at the usual Zoom link; we will circulate by email.

The **Pub Social** will be on **Tuesday 23rd February** from 18:30 (Zoom link in the Members' Area and in your email).

March's Monthly Meeting will be in Sunday 14th March about the "first colony inspection of the year" (yes, it's coming to that time of year already!). We will be **specially-recording a first-inspection** to show at this meeting. We will give details of the conditions, equipment and procedure which you should consider when making your first inspection following the bees' winter dormancy.

BBKA Bee Basic

If you're a beekeeper and haven't yet done the BBKA Bee Basic certification, please consider doing it. We will help you prepare for it. See Howard's piece on page 7 of last month's newsletter which also outlines other aspects of LBKA's education programme.

Winter Lecture Schedule

We are spoiling you, with an unprecedented number of Winter Lectures this year. Thanks to David Hankins for organising and chairing them. We currently have 3 more winter lectures scheduled, joining detail will be emailed to members a few days in advance of each lecture.

- Wednesday 3 March: 18:30: "Reading the Colony", by Clare Densley & Martin Hahn of Buck-fast Abbey;
- **Thursday 18 March, 18:30**: "The politics of pollination: how society has responded to the pollination crisis" by Prof. Jeff Ollerton.
- Wednesday 21 April, 6:30pm: "The future of pollinator conservation in the UK: opportunities and challenges" by Prof. Jeff Ollerton

Prof. Jeff Ollerton is an ecological scientist and author and has already given a winter lecture to us. You can find then on our website, avialable to members' only.

Are you "good" with social media?

If you are good at communicating with social media, then you could help LBKA!

LBKA has a presence on all the main social media channels - Facebook, Twitter, Instagram - but we aren't currently using these channels as effectively as we could. We are looking for a Social Media Officer to take the lead in how these channels are used. Ideally, we would co-opt you onto the committee so that you're up-todate with the latest discussions on key topics of interest.

Our social media channels already have an impressive reach, but we aren't using them very proactively to manage our communications. This is a good opportunity to help develop a profile of a local charity and its charitable objectives.

- Twitter: https://twitter.com/LondonBeeKeeper @LondonBeeKeeper
 "Serving bee keepers & conservation enthusiasts in London"
 7,000+ followers
 5,000+ tweets since 2012
- Instagram: https://www.instagram.com/ londonbeekeepersassociation/ Recently set up; little activity so far
- Facebook: https://www.facebook.com/groups/ 2512721609/ (open site)

"Welcome to the open group London Beekeepers Association page. This page is not an official LBKA page but is managed by LBKA members as a means of public engagement, sharing of information and for discussion about beekeeping in London."

Public group, 2,800+ members

These channels have excellent potential to help us get our messages to key audiences, especially to nonmembers who have an interest in bees and beekeeping. Along with our excellent website, they are the public face of the Association – who we are, what we do, and what we stand for.

Please get in touch with Simon if you have an interest in getting involved: development@lbka.org.uk and 07572 612722.

LBKA Pollinator Fund

LBKA is now inviting members to apply for grants from the LBKA Pollinator Fund. This fund aims to support small community groups to improve their local environment for the benefit of bees and other pollinators.

From this fund, LBKA will offer grants of up to $\pounds 1,000$ to improve small areas. Grants can be offered for small stand-alone projects, or as match funding or seed funding towards larger projects. In the latter case the larger projects must aim to benefit pollinators.

Project proposals which promote the conservation of wild bees and other pollinators through provision of improved forage and of breeding habitats will be of particular interest to LBKA. For wild bees, breeding habitat provision can include the creation of nesting mounds for ground nesting bees, and bee hotels containing nesting tubes to provide homes for leafcutter and mason bees. For the benefit of other pollinators, projects could include the creation of loggeries for decaying timber nesting species, hoverfly lagoons as breeding habitat for other specific pollinators, and the planting of larval food plants for butterflies and moths. Projects that include the planting of early and late season forage for honey bees will be assumed to benefit other pollinators too.

Priority will be given to publicly accessible spaces. If your space is on a housing estate, allotment or other site with restricted public access, you might consider how receipt of a grant could enable you to increase public access to the site in future. For example, if it doesn't do so already, your site could hold open days or take part in London Open Garden events, giving the public the chance to visit the project and admire your work. If your site is within the grounds of a school, the educational benefits of your project will be weighted highly when your application is evaluated.

LBKA sees greater public access to improved pollinator habitats as an opportunity for public education and information-sharing. The installation of interpretation boards explaining the project and its aims, or providing more general information about London's pollinators, would be seen as a significant public benefit of any project.

For comprehensive guidance on the application process, and an application form, please contact treasurer@lbka. org.uk.

BBKA Spring Convention on 16-18 April

Put this date in your diaries. The BBKA Spring Convention will be entirely online and will offer a mix of practical and scientific lectures and presentations, on the topics most requested, directed at a range of beekeeping experience, presented by the very best of speakers.

The electronic Convention programme will be available on the BBKA website from early March, with full details of speakers and their talks. Entry to the Virtual Tradeshow (aka "The Marketplace") will be free and this will be everyone's opportunity to browse the latest beekeeping kit from multiple suppliers, all under one 'virtual' roof and to take advantage of special Convention offers.

Science of Pollination talks

The Central Association of Bee-Keepers is running a couple of talks by young researchers, originally intended for the 2020 National Honey Show, which you can register for here. They say:

Ayla Paul, University of Reading, will talk about state-of-the-art analyses used to authenticate and trace the geographic origin of UK honeys. Hamish Symington (Dept. of Plant Sciences, University of Cambridge) will speak about the science of pollination - how it works, why plants need it and how research at Cambridge will help breed crops that are



more efficient at being pollinated and more rewarding for the insects that visit them.

Planting for Pollinators Talk

Cambridgeshire Beekeepers' Association are organising a talk by Sarah Holdsworth on "Planting for Pollinators" on 17th February. More information and tickets are available from their EventBrite page.

Their description is:

Do you want to grow plants that are perfect for pollinators? Your garden can be a haven for wildlife as well as providing the ideal home for bees, butterflies and all pollinators, which are so important to us because they pollinate crops, help plants grow and are themselves a food source for birds and mammals. The flowers you choose to plant are vital in encouraging all wildlife into your garden. With a little thought and planning, you can provide much pollen and nectar for pollinators throughout the year.

Sarah will not only explain the various plant kingdom categories and which categories are well suited to providing pollen and nectar but also offer some tips for choosing the right plants and therefore creating the best of habitats which will see your garden buzzing with wildlife. She will also explain bees' foraging preferences, with particular reference to honey bees because they are not plant species specific foragers, as well as the relationship between the depths of flowers and the lengths of bee tongues.

Contribute to the Newsletter

You'll see a few gaps in our regular contributions. If you can help with any of these (not necessarily every month) please drop me line. We'd welcome contributions from more members and would love it if you could propose a new regular feature. We usually end up with 300 or so members and the newsletters are available to all on our website. Do email me if you can contribute anything including articles, photos and recipes.

We're looking for members to summarise the issues discussed in a digestible way. Please contact services@lbka.org.uk if you may be able to help in some months.

Old announcements from January

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

"Bee Banter" WhatsApp group: The join link is in the Members' Area and in your welcome email and you can turn off notifications, if the traffic becomes too much for you.

Old announcements from

December

New committee. Our new committee is the same as last year, but Annie McGeoch replaces Natalie as Secretary **and** Martin as Events Coordinator. A big welcome to Annie and thanks to Natalie and Martin for the work they did whilst on the committee.

AGM. Our AGM was on 11th November. The previous AGM minutes, Annual Statement of Accounts, and the Trustees' Annual Report were presented and accepted by the meeting. A new committee was confirmed with all posts being unopposed. Finally, we presented the draft "LBKA Position on Sustainable Beekeeping in London" document that was previously circulated to members. The meeting formally expressed support for the draft document and instructed the Trustees to finalise the paper and disseminate it to all BKAs and any other interested bodies in Greater London.

Do you have any announcements?

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

February's Committee meeting

Here, we keep you up to date with what the committee discuss at our monthly committee meetings (and what keeps us awake at night). Let us know if you can help or have any suggestions that might help.

Aidan Slingsby services@lbka.org.uk

Some highlights:

Kensington and Chelsea: The Royal Borough of Kensington and Chelsea asked if we could partner with them to provide talks & events, help their education programme and improve the area for pollinators. The



Geoff's hives in the snow.

committee agreed to this proposal and would like to try to share material with other boroughs. They run Holland Park where we have one of our apiairies and we may be able to have our meetings there in future, once we go back to meeting face-to-face.

School Food Matters: LBKA is still providing talks to school children for the School Food Matters programme. Richard is providing most of them, but we are trying to get more people involved and plan to advertise this (contact us if you're interested).

EFB: The committee approved Richard's proposal to talk to the National Bee Unit about the unprecedented levels of EFB last year and what suitable responses could be. LBKA plans to encourage members to learn more about it, do full brood-inspections, and to help each other inspect their colonies. Sessions on taking good photographs of brood to share with others might help.

Social media: We need help from someone who knows about social media. We have a good reputation and should be more effective at getting our message out through these platforms. We will advertise to members for a Social Media Officer position to join the committee and help build our profile.

Winter Lectures. We have more Winter Lectures in the pipeline (thanks to David) and may start advertising to some neighbouring associations.



EFB. Look for distorted larvae that are often discoloured and have lost their segmentation.

Last month's Monthly Meeting: European Foul Brood

What happened at our meeting last month. This meeting was recorded.

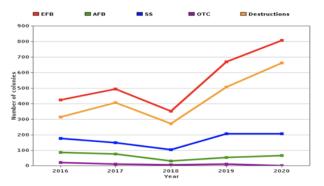
Aidan Slingsby services@lbka.org.uk

Howard gave a comprehensive account of EFB and its rise in recent years. It has been given a number of Latin names since its discovery in 1908 by G.F. White – Bacillus Y, Bacillus pluton, Streptococcus pluton, Melissococcus pluton – before the current name of Melissococcus plutonius. Melissococcus plutonius a non-spore-forming bacterium that multiplies in the gut starving the larvae, usually before before the cell is sealed.

EFB is very infectious and advice on dealing with it has changed over time. From 1942, owners were expected to destroy the colony. By 1952, standstill orders were introduced. From 1957, the disease became the responsibility of MAAF (now APHA) and owners were expected to treat or destroy the colony. From 1982, MAAF (now APHA) were required to supervise the owner treating or destroying the colony and this has persisted.

The beekeeper is the main EFB spreading agent, through actions such as moving combs and bees between colonies, inadvertently using contaminated equipment, buying infected bees or through seasonal colony relocation. However, bees also spread it when robbing other colonies, 'drifting' between colonies or through swarming.

EFB mainly affects unsealed brood. The larvae will be distorted, losing its nice 'c' shape, segmentation and



EFB cases in the UK have risen in recent years (red line), most of which have been destroyed (orange line). Source: APHA.

bright white colour. Bees are pretty good at removing infected brood, so it may only exist in a few cells. If there are scales in the cells, these will occur anywhere in the cell and will be rubbery and easily removed. It will not 'rope' when drawing out a matchstick. It can be diagnosed at the National Bee Unit in York, but nowadays, lateral flow device test kits are easy to get and we would recommended that you have a few for the season. Howard recommends always having two in your bag.

It is 'notifiable' (you must report it) under the Bee Diseases and Pests Control (England) Order 2006 and the Bee Inspector will advise on what action should be taken, be it shook swarm, antibiotic treatment or colony destruction. If the colony needs to be destroyed, this will need to be done under the supervision of the bee inspector. The bees are killed with petrol, the combs and frames are burnt in a pit that needs to be dug, and the hives and equipment need to be scorched. Where it is not possible to burn the combs, they will need to be sealed and taken off-site which will be expensive.

EFB cases in the Greater London (and UK as a whole), rose to 97 cases in 2020 from half that number in 2019 (47) and quarter that number in 2018 (29). EFB can remain in apiaries for quite a few years.

We thank Howard for his informative and sobering presentation.

February in the Apiary

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

Howard Nichols education@lbka.org.uk

February is a time of increasing activity for bees. Al-

though cold, bleak and rainy on the outside, and, to all appearances, it appears to be very quiet on the inside, a lot is happening inside the cluster. The main job of the beekeeper is to keep an eye on stores. Bee colonies are more likely to die out in early spring due to starvation, not due to the cold.

The queen will now be laying at an increasing rate. The empty cells inside the cluster will have been prepared by the workers and eggs are now being laid. The temperature of a broodless cluster is maintained at 20° C but a cluster with brood requires a 35° C temperature. This also consumes more stores and it is this time of year that stores start to be depleted at a faster rate. Bees have been more active than usual this winter which will have further depleted stores.

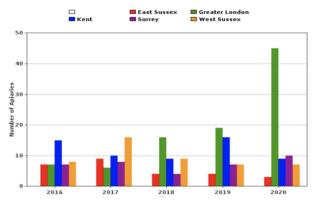
If feeding is necessary then fondant is probably still the best bet. If, on a warm day, the bees are flying and emergency stores are required then feeding liquid stores is a possibility. Bees carry and metabolise nectar at 50% W/V concentration. 1kg of sugar dissolved in 1 litre of water will give this concentration and so involve the bees in the minimum amount of work. If stores are not required then it is better not to feed so not to cause any disturbance.

On a warm February or March day the bees will fly for forage. Pollen sources in February include snowdrops, crocus and early flowering hazel. The latter is very useful when it flowers as it provides an abundance of pollen. If your bees have been foraging hazel, then they will be coming back to the hive drenched in surplus bright yellow pollen. All these sources provide pollen only, not nectar.

Late February and early March is a challenging time for bees. The winter bees are old but now need to work at an increasing rate to feed larvae and young bees. Many of these older bees will be dying off and a disproportionate number will die in the hive. It is not unusual to find a large quantity of dead bees in front of the hive or behind the mouseguard. Just lift the mouseguard and brush out. This should not normally be a cause for concern and does not mean that the colony is dying out. If you keep your hive on a concrete or stone floor then the quantity of dead bees may appear quite alarming. If kept on grass then there may well be just as many dead bees but they will appear to be a lot less.

Other jobs to do

- Assemble frames and other spare equipment to ensure you have sufficient for the season. I find it a pleasure to be able to take and use a piece of equipment as it is needed but a chore to have to make it up first in an emergency.
- Do not forget the LBKA monthly meeting. This month (14th February) we are fortunate to have Bob Smith NDB from Medway Beekeepers talking to us.



The number of apiaries in London with at least one hive infected with EFB has risen steadily over the past years, a trend not seen in the rest of the south east. Source: National Bee Unit.

National Bee Unit Annual Report 2020 (SE Region)

Towards the end of January, we shared the National Bee Unit Annual Report 2020 (SE Region) with members. Here, Simon and Richard summarise of some of the more important contents from the full 9-page report.

Simon Saville and Richard Glassborow development@lbka.org.uk & chair@lbka.org.uk

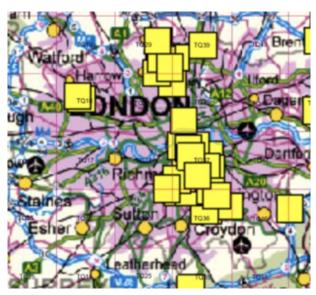
EFB and AFB

The prevalence of foulbrood in London is something we should all be worrying about.

There are 6,459 Beekeepers and 8,113 apiaries registered on Beebase in the SE Region, which covers Kent, Surrey and Sussex as well as Greater London. In 2020 there were 891 apiary visits, with 3,477 colonies inspected.

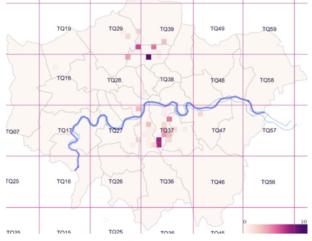
The number of colonies infected with EFB has risen steadily over the past years, from 10 in 2016 to 47 in 2019 and 97 in 2020. This trend is not seen in the rest of the south east. Some of this increase may be due to the fact that more colonies were inspected, but we should acknowledge that London has a real problem with EFB at present.

LBKA's committee believe that every beekeeper in London needs to be aware and concerned about this. Whilst individual skills and standards are important, a collective response is required. Good biosecurity practices, early disease recognition and rapid and appropriate response (notify NBU) are key. It's not something to be ashamed of unless you do nothing about it. Even the best beekeepers get EFB.



NBU EFB inspections in Greater London, 2020.

Disease notifications from LBKA members in 2020

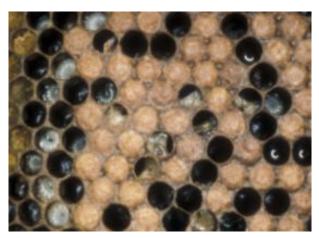


Disease notifications from NBU received from some LBKA members (notifications are for confirmed EFB/AFB cases within 3km of their apiary), aggregated to 1km².

We are trying to determine whether there is a correlation between colony density and EFB outbreaks. We suspect that there is, but the data is rather limited. That said, even the coarse resolution NBU maps above indicates 2 principal hot spots of disease that have some proximity to known hot spots of colony density. Something to think about and something to investigate.

The NBU EFB inspections maps are at very large scale and the yellow squares identifying inspections are not to scale. Even so, there appear to be 2 clear hotspots which appear to correlate to some extent with information supplied to us by our members.

The map of the 3km disease notifications received from some LBKA members is not about identifying, naming and shaming sources. It is simply a way of monitoring and understanding where these diseases are so we can improve our chances of preventing are further spread by intensifying precautions. It is especially important



Brood showing EFB, note twisted, discoloured larvae (Photo NBU).

when swarm season starts: swarms in these areas **must** be collected and they **must** be quarantined.

Guidance from the NBU is that it is important to do regular bee disease inspections of your colonies in the active season and contact your local Inspector if you have any concerns.

Solving the EFB problem in London is not something that LBKA can do alone: we have roughly 186 active beekeepers out of a total of some 1,700+ in London.

(It is worth remembering that the 79 confirmed cases of EFB in London 2020 were out of approximately 5,000 registered colonies)

Varroa

The Bee Inspectors also reported cases of colony death caused by either Chronic Bee Paralysis Virus or Parasitic Mite Syndrome (caused by Varroa).

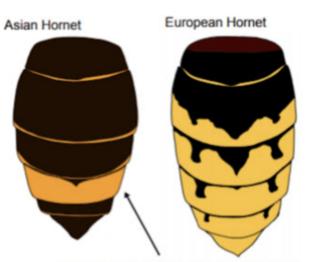
The NBU reminds us to avoid feeding honey to our bees unless it is from that colony, to avoid disease transmission. A cheap jar of supermarket honey may contain AFB spores and turn out to be an expensive feed.

We recommend that you monitor varroa levels and treat when necessary using approved varroicides (see the Veterinary Medicines Directorate website). Please follow the guidance carefully: the NBU reports significant numbers of colonies lost due to incorrect usage of these products. Remember that it is a legal requirement to keep a record for 5 years of any Veterinary Medicines that are used on your colonies.

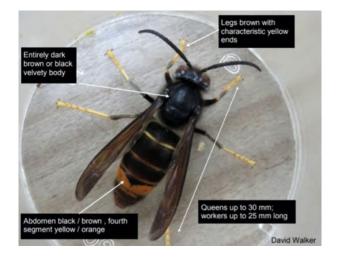
Asian Hornet

There was only one confirmed sighting of an Asian Hornet in the region last year: one nest was found and destroyed by NBU inspectors in an apple tree in Gosport, Hampshire in September. Continued vigilance is necessary, but take care with identification.

Guidance from the NBU is that, If you think you have seen an Asian Hornet or found a nest, then please re-



Asian Hornet abdomen is almost entirely dark except for 4th abdominal segment.



port this by either using the iPhone/Android app "Asian Hornet Watch", by filling out an online report form or by emailing alertnonnative@ceh.ac.uk. A photograph should be included if possible.

Imports and Exports

In 2020, a staggering 21,405 Queens were imported to the UK, 45% from Italy. LBKA generally advises members to use queens and colonies from the UK, preferably a local source.

If you are considering importing bees, make sure that you know and follow the rules, now that the UK has left the EU. Details are in the NBU report).

Winter Isolation Starvation (with its beginnings in June)

Winter losses are not uncommon and happen to the best beekeepers. Vlad shows the importance of investigating and learning from these unfortunate experiences.

Vlad Zamfir LBKA member

This winter I've had 1 out of my 3 colonies die from isolation starvation and another is very small, with lots of dead bees on the floor (so not sure it will make it). The latter is a nuc and the other a full colony which dwindled in late summer. Below is an account of the history of each colony, going back to summer 2020, to understand how it got here.

The full colony had an unhappy accident caused by me in early summer, where I squished the queen with the queen excluder as I was opening the hive (I suppose she was running away from the smoke I puffed rather vigorously and uncharacteristically for me, through the entrance). I saw her moving feebly on the top bar of a frame and hoped she would somehow recover but sadly it wasn't to be. The workers then reared a new queen which started laying in July. Mid-July I started noticing some robbing behaviour but I thought they were strong enough to repel it (they were building up nicely). Then came August and the wasps. By the time I noticed what was happening the colony had dwindled fairly severely so I reduced the entrance to 2-bee-width.

The nuc was the result of a botched artificial swarm from the colony above, using only new brood (eggs & young larvae). I say botched because I gave them too little feed to cover them for the week of bad weather we had at the beginning of June 2020. As a result lots of bees had died from starvation but there were still a few left. It took several attempts to get them to rear new queens and a mated queen only appeared in September. No wasp attacks or robbing, thankfully.

I tried to build both the nuc and full colony up during autumn by feeding them syrup but they didn't want to take it and had to throw most of it away. For the full colony, I under-supered with supers containing a mix of capped honey and nectar but they didn't really want to touch this, not even moving it in the frames next to the brood. I thought of combining the two colonies but, in light of all the EFB around, I did not think it is worth it in case one of the colonies had recently gotten infected with EFB and was asymptomatic since the disease had not progressed enough at the time. Also, I



Dead bees hanging on the comb. Source: http://www. beeandbloom.com/blog/hive-autopsies-deadouts



Bees that have died from starvation. Source: http:// scientificbeekeeping.com/tag/starvation/

still hoped they would both pick up given the upcoming ivy flow.

In November I gave the nuc approx. 1kg of fondant and then, in mid-December, both colonies were treated with Apibioxal. They were both alive and the nuc had started making some headway into the fondant. The 28th of January was the first time I checked on them since then and I saw what you can see the pictures in the full colony (not mine, sadly, as I did not think of taking any).

The first picture shows how the cluster looked when I opened the hive, with the bees dead but hanging on the comb. You can even see the queen there, in the middle of the image (look for the legs, it's easier to spot that way). While this is not a picture from my colony, I had almost the exact same configuration.

The second image shows you what I found underneath the bees clinging to the comb: a bee lodged in each cell, dead after trying to find honey and failing.

For the full colony I had another problem, as I discovered when I did the autopsy: they did not remove the nectar (by eating or transforming it into honey) so it fermented. Fermenting nectar or syrup causes dysentery in bees which adds to immunological stress for the colony. I saw bee poo on combs so I am sure they consumed some of this nectar.

On the WhatsApp Bee Banter group I mentioned that my nuc died as well. However, when I opened it a week later to clean it out I discovered that the cluster which I took as dead (they were completely immobile when opened a week beforehand) was moving. So maybe they'll survive but I think there's a substantial chance they'll die. Thankfully I noticed they still have some honey left in the comb (plus the fondant which they seem to not be very eager about, understandably).

The lessons I took away from the above:

- 1. Don't smoke the entrance of a beehive so heavily without a very good reason (i.e. they are highly defensive bees)
- 2. Reduce the entrance sooner rather than later (hive)
- 3. Know when to give up on a failing colony (nuc)
- Don't give unripened nectar to a small to mediumsized colony at the end of the season as it will likely not be used for brood rearing (as I would have hoped it to be)
- Keep taking notes during inspections (without them I wouldn't have put together the chain of events/mistakes leading to this outcome)
- 6. Make sure the colony nest (i.e. brood box) has the honey stores and not the supers underneath as the bees may not move the honey and are very unlikely to move the cluster down to the honey

Creating a buzz in the City of London

Mark writes about his work pioneering habitats for wild bees on City Centre green roofs and how this has influenced the City of London's outlook on bees.

Mark Patterson forage@lbka.org.uk

For the past 3 years I've been responsible for managing one of the largest green roofs in the capital and the largest open green space in the city of London- the 11th floor rooftop at Nomura International. The roof caters for a variety of rare wildlife including Black Redstarts (one of Britain's rarest breeding birds with fewer than 70 pairs nationally) and the near threatened Green Winged Orchid (for which the roof hosts the largest population in Greater London).

As well as the rare birds and plants found on the roof the roof is also home to at least 18 species of wild bees



Cob boxes for hairy footed flower bees to nest in.



An establish mound created in 2019.

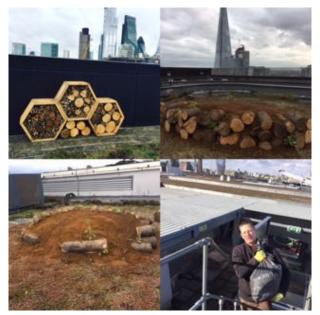
alongside 2 hives of managed honey bees which have lived on the roof since 2009.

The roof management leans heavily towards pollinators but also takes into consideration climate change adaptation and resilience. Prior to taking over management of this roof 3 years ago little or no wildlife was recorded on the roof and the value to wildlife was poorly understood.

The roof was originally planted as a sedum roof containing 5 species of hardy matt forming succulent. In the decade since its creation over 150 species of plant have spontaneously colonised the roof resulting in a mosaic of pioneering habitats. Ecological Monitoring carried out by myself over the past 3 years has produced a long list of plants and animals using the roof and demonstrated that even in the centre of the city valuable wildlife can be found.

Since taking over management of the roof I've planted over 5000 spring bulbs, over 1000 wild flower plants and installed a variety of solitary bee nesting habitats. I've also modified the cutting regime to extend the flowering season and have left refuge areas for invertebrates to overwinter.

These nesting habitats range from nest boxes containing hollow tubes and plant stems for cavity nesting bees



Bee hotels, bee nesting mound with retaining log wall and me hoisting bags of material through a roof hatch.



Newly created mound installed this winter.

to boxes filled with Cob for hairy footed flower bees to nest in and large sandy soil mounds to cater for ground nesting bees.

Retrofitting an existing roof with just 70mm of soil and Creating areas of deep soil to cater for ground nesting bees is no easy feat. I've had to haul many tonnes of material to the roof by hand up a ladder and through a roof hatch.

The first mounds were installed in October 2019 and consisted of a log retaining wall back filled with substrate to create a south east facing slope. The log wall at the rear faces north and provides lots of nooks and crannies for hibernating bumblebees and other invertebrates while the south east facing sloping side offers a warm free draining environment for ground nesting bees and solitary wasps. In 2020 these were used by Andrena mining bees, Halictus bees, Yellow Faced Bees and Lasioglossum bees. We also had Bee Wolfs using the mounds which we believe is a first for City of London.



Moving soil to create nesting mounds.



The roof in summer.

Plants introduced to the roof have been species which are broadly beneficial to bees but focussed mostly on species supporting solitary and bumblebees as we try to offset the impact of our two honey bee hives on the roof.

I've also planted species beneficial to butterflies and moths proving both flowers and larval food plants. To understand which moths might use the roof I've been conducting monthly moth trapping sessions during the summer.

I've also installed hoverfly lagoons to attract breeding hoverfly. These are small stagnant water ponds where the insects can lay their eggs.

This winter I've been installing additional mounds and nest boxes for bees but also a dozen bird boxes to encourage song birds to nest.

The City of London Corporation have been so impressed with the work delivered on this roof to promote pollinators that they have sought my guidance on steering a bees action plan for the City which will be included in their new biodiversity action plan this summer. My delivery partner and I also received a DEFRA bees needs award for our efforts and have plans to replicate our success on other similar roofs elsewhere in the city.



Spring bulbs on the roof planted for bees.



Green winged orchid. We have 5 plants on the roof which is the largest single population in the Greater London area.

Focus on Forage

Mark tells us what's in flower at this time of year. This article is reprinted from last year.

Mark Patterson forage@lbka.org.uk

There are valuable pollen sources that are making an appearance in February.

Winter Aconites (*Eranthis hyemalis*) are beginning to appear. Their bright lemon yellow flowers are attractive to bees which will collect their pollen. They are members of the Buttercup family.

In gardens **hellebores** are also flowering, offering much needed pollen. Hellebores come in a wide variety of colours. The hybrid hellebores are particularly hardy and easy to grow as are the native stinking hellebores (*Helleborus foetidus*) which can be found in gardens and in wild areas too.

Winter heliotrope (*Petasites fragrans*) is a relative of our native Butterbur but flowers much earlier. It's not



Willow

a UK native and can be quite invasive when established in the wild but is a great garden plant for bees in late winter. The flowers are shaped like a toilet brush and pink in colour.

The first **daffodils** (*Narcissus sp.*) are beginning to bloom. Despite their attractive flowers, daffodils and other narcissii are poor forage for bees. I have never seen a Honey Bee visit them and only occasionally have I seen desperate Bumblebees alight on them.

Wallflowers (*Erysimum*) are flowering now and will continue to do so right through till late spring. Bees will visit both the popular bedding type wallflowers as well as the longer-lived everlasting perennial types. Their purple and orange 'bowls' are particularly good for bees as they have a very long flowering period and will bloom almost continuously all year round.

Off the ground there are several shrubs and small trees which are now flowering and these may offer rewards of nectar on warm days alongside the pollen they produce. These include **Mahonia** or **Oregon Grape** which grows in our towns and cities in abundance and flowers throughout the winter providing nectar and pollen for bees. In southern towns and cities **Buff Tailed bumblebees** (*Bombus terrestris*) continue to be increasingly active throughout the winter, surviving largely on this plant. Around 75% of winter flowers visited by bees are Mahonia. The variety 'winters sun' is particularly attractive. Bees taking advantage of Mahonia blooms in winter have few other insects to compete with and can fare better than some colonies active in summer.



Hellebore



Viburnum tinus

Viburnum shrubs include a number of deciduous and evergreen species which flower during the winter months. They are relatives of our native **Guelder Rose** (*Viburnum opolus*). Some of bees' most popular Virburnums include the evergreen Viburnum tinus whose sweetly scented cream blooms flower from November through to March, and Viburnum bodnaatense whose pink flowers bloom from around Christmas to March.

Several **Clematis** species are useful forage sources to bees in winter. *Clematis amandii* and *Clematis cirhossa* both have creamy white flowers and bloom in winter. Honey and winter active bumble bees will visit them for pollen.

Winter Flowering Cherry (Prunus subhirtella) flowers



Mahonia.

from late November to February producing pale pink flowers. I've very rarely seen any bees on the blooms but have often seen flies on them. In the absence of better forage like Mahonia bees will visit the flowers.

Sweet Box (*Sarcococca confusa*) is a short growing evergreen shrub which produces extremely fragrant blooms (reminiscent of hyacinths) from late winter into early spring. It's one of those plants that you almost always smell long before you see it. Winter Heather (*Heaths Erica sp.*) produce tubular blooms in shades of white to pink throughout the winter. They are coming to the end of their flowering period now but still providing forage for bees brave enough to venture out.

Winter flowering Honeysuckle flower during winter, some of which are climbers and some are shrubs. One of the best is *Lonicera fragrantissimima*.

Daphne shrubs are beginning to flower now and their intense perfume-like scent will attract bees to collect their pollen.

Hazel (*Corylus avellana*) is flowering now and the long male catkins drip with pollen. On warm days Honeybees may visit the catkins to collect pollen, though the plants are wind pollinated and do not need the bees to reproduce.

Other trees that produce catkins may start to make an appearance in February include **willows** (*Salix sp.*) and **poplars** (*Populus sp.*) though they are usually a little later flowering.



Frank's hive stands.

Members' marketplace

This section is for members offering beekeeping items or services to members or requesting items. Items could include nucs, wax and honey. Email services@lbka.org. uk to add something here.

Frank Ryan: I have Langstrough equipment for sale as I now use national hives. Brood boxes, supers and one solid floor and queen excluders. Contact Frank on 07877388933 or frankryan60@hotmail.com.

Upcoming events

Sunday 14th February: Monthly

meeting

11:00-13:00 at Not the same as usual - we will email members in advance.

Howard has organised the guest speaker Bob Smith from the Medway Beekeepers Association who will talk about beekeeping practices that are "beyond the basics" (and will include interactive polling!)

Tuesday, 23rd March: Pub Social

18:30 onwards at via Zoom (see your email for a link)

Our ONLINE pub social in the historical surroundings of your own home. Bring your own beer. Using the usual Pub Social Zoom link in the Members' Area of the website and sent to your email.

Wednesday 3rd March: Winter Lecture:

Reading the Colony

18:30 at ONLINE (members will be emailed the link beforehand)

The lecture "Reading the Colony" will be given by Clare Densley and Martin Hahn of Buckfast Abbey.

Sunday 14th March: Monthly meeting: First inspection

11:00-13:00 at Same zoom link as usual (in the Members' Area of the website and sent to your email).

What to look for in your first inspection of the year.

Thursday 18th March: Winter Lecture: The politics of pollination

18:30 at ONLINE (members will be emailed the link beforehand)

The lecture "The politics of pollination: how society has responded to the pollination crisis" will be given by Prof. Jeff Ollerton.

Committee

Please do not hesitate to get in touch with a member of the committee if you have any questions, requests, suggestions. We are:

- Chair: Richard Glassborow, chair@lbka.org.uk
- Treasurer: David Hankins, treasurer@lbka.org.uk
- Secretary/Events: Annie McGeoch, admin@lbka.org.uk
- Education: Howard Nichols education@lbka.org.uk
- Membership: Aidan Slingsby, services@lbka.org.uk
- Apiaries: Tristram Sutton, apiaries@lbka.org.uk
- Development: Simon Saville, development@lbka.org.uk
- Mentoring: Elliot Hodges, mentor@lbka.org.uk
- Resources: Will Fry, resources@lbka.org.uk

Our website is http://www.lbka.org.uk/ and the pic-tures are in the same order as the names above.

