The London Beekeepers' Association
LBKA News

February, 2016

This month, Geoff gives us a fascinating look at the little-known Hedgecoe Hive (p11), Mark writes up last month's talk on beekeeping in ancient Egypt (p15), Ted gives us his thoughts on biosecurity (p10), Sue tells us more about her Flow Hive and hive monitoring plans (p10) and Emily reports on LASI's research on oxalic acid showing that vapourisation is more effective than trickle and tells us what's in flower (p18). We also have a fair few announcements of upcoming events this month. Howard tells us why our programme of monthly meetings is as it is (p9) and Richard gives us his thinking on forage and politics (p1). Thanks also to Howard and Mark for their respective regular updates on what to do in the apiary (p6) and what's flowering now (p7) and Anya for writing up last month's meeting (p5).

A big thank you to all this month's contributors: **Richard Glassborow, Geoff Hood, Martin Hudson, Anya Ignatieva, Sue Lee, Howard Nichols, Ted Parkes, Mark Patterson and Emily Scott**. We're always looking for new and interesting contributions – please contact me.

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From our Chair

Richard Glassborow
chair@lbka.org.uk

2016 is election year in London and, whilst the committee do not see the LBKA becoming a lobbying organisation we do think this is an opportune moment to brief mayoral and assembly candidates on urban beekeeping, especially with respect to the urban environment.

Everyone loves bees and everyone wants to help them, so politicians want to be seen to be doing something to help them too. In the past, some help has, at best, not been helpful, at worst has had unintended consequences. In election year, politicians may be listening but they like simple stories to win hearts and minds. Unfortunately, reality is rarely so simple but we think we should try to contribute the evidence we have so

Snow drops. Photo: Mark Patterson.

far about London honeybees to try and focus efforts to improve things, not only for honeybees but for other pollinators, and indeed for all life in London, including ourselves.

There is currently much confusion over "bee decline", much of it arising from indiscriminate use of the terms, "pollinators", "bees" and "honeybees". Some "bees" are in decline, particularly solitary bees. There is no evidence that honeybees are in decline in the UK, especially in London where it seems the number of registered colonies has tripled in recent years to something like five thousand today. We think there are considerably more unregistered colonies but, by definition, it is difficult to know exactly. Whilst urban beekeeping is hardly an essential part of mainstream food production honeybees are a closely monitored semi-wild animal and, as such, can offer a window onto the health of our environment. One thing is for certain: honeybees and flowers go together.

Much is made of the fact that London has large areas of open space, including an estimated 3.8 million gardens. But what our beekeeping window tells us is that by no means all of if it is rich in forage (and bio-diversity) and it is not evenly distributed. The LBKA is currently trying to combine data on colony distribution and density from BeeBase and forage from GiGL (Greenspace Information in Greater London). Early indications are that in some areas colony density is very high (by any standards) and does not necessarily coincide with areas rich in forage. Many beekeepers will already suspect this from their honey harvest yields. Honey bees can of course fly halfway across London if they have to, but it is not difficult to see that better evidence would help us focus efforts on forage improvement where it is most needed.

And there is another side to this kind of evidence based planning. Honeybees may not be in decline in London. . . yet; but they soon could be because GiGL tells us that we are losing quality open space at the rate of an area equivalent to Hyde Park every year. Building development, loss of front gardens to off-street car parking, fashions in garden design and horticulture (non bee-friendly plants and flowers), loss of big trees like Lime and Horse chestnut, all these factors contribute to serious habitat loss for honeybees and other pollinators.

There is tremendous will to help bees – public, corporate, political and local authority. It is not difficult and need not be expensive but it needs to have an appropriate strategy and co-ordinated, joined-up thinking and action. We think there is a role here for the Greater London Assembly. A better environment for bees is better for all of us.

Announcements

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

Next Monthly Meeting

Our next meeting will be on **Sunday** (14th February) at **11:00** at **Fairley House Junior School (220 Lambeth Rd, SE1 7JY**, on the subject of **preparation for beekeeping year, early spring management and shook swarms**. There'll also be the opportunity to discuss other topics, followed by the usual tea/coffee and chat.

March's monthly meeting on **13th March** will be our annual **swarm management meeting** – an important topic for London beekeepers.

Howard lists and explains our upcoming monthly meeting on page 9 and you can find these dates on our website.

Winter lecture: Norman Carreck from the International Bee Research Association

Our Winter Lecture will be on **2nd March** at **19:00 for 1930** at **Roots and Shoots** (Walnut Tree Walk, Kennington, SE11 6DN). Norman Carreck will talk to us about the research undertaken by the International Bee Research Association (IBRA), particularly the COLOSS project looking at winter mortality among bees across Europe. Tea/coffee and biscuits will be provided. Free to LBKA members and £2 for non-members.

Thorne at four beekeeping events

Thorne have sent details of beekeeping events they'll be at this year. They'll have a stall and you'll also be able to pick up orders from there. The events are: **Bee Tradex** (5th March; Stoneleigh Park, Warwickshire, CV8 2LG; http://www.beetradex.

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

co.uk/), the **Ulster BKA Spring Convention** (2nd April; 11th-12th March. Greenmount College, Co. Antrim; http://www.ubka.org/conference/), the **Welsh BKA Spring Convention** (2nd April; Royal Welsh Showground, Builth Wells; http://www.wbka.com/news-events/convention-2016/ and the **BBKA Spring Convention** (8th-9th April; Harper Adams College, Shropshire; http://www.bbka.org.uk/news_and_events/spring_convention.php).

Swarm list

BBKA are updating their swarm lists for the year. Would you like to go on the swarm list? If you're an LBKA member, up for collecting swarms, and are happy to go onto a public list and receive calls from people reporting swarm, please contact Emma on admin@lbka.org.uk. Please also talk to us if you're not sure and would like more details.

Opted-in members in our members' area can register an interest in accompanying swarm collectors. We'd be grateful for swarm collectors to oblige... but recognise that it is not always convenient.

'The Hive' at Kew

Kew Gardens have got in touch to tell us about **The Hive**, their "immersive, multi-sensory experience inspired by UK ground-breaking scientific research into the health of bees" that "showcase[s] British creativity, innovation and leadership in overcoming global challenges". It is an aluminium installation that will draw visitors into the space via a wildflower meadow, as though they are worker bees returning to the hive.

They want to use The Hive as a platform for outreach on pollination and conservation and are looking help from us during weekly Sunday events.

More details are at: http://www.wolfgangbuttress.com/.

Bee Improvement For All

Epping Forest Beekeepers have invited our members to attend a **Bee Improvement For All** one-day event on **13th March** at 09:30-16:30 at **Copped Hall, Epping, CM16 5HS** .

The event is aimed at beekeepers of all abilities and aims to help and encourage your assessment of bees, to seek simple methods of improvement and the rearing of queens. Roger Patterson, a beekeeper of fifty years, has a reputation as an engaging speaker and will present the course which is organised by the Bee Improvement and Bee Breeders Association.

Copped Hall is a former Essex grand house on the edge of Epping Forest, partly derelict and partly restored by a Trust of local volunteers, and has grand atmospheric rooms, vaulted cellar kitchens, and a magnificent walled garden.

Simply Vegetables and Allotment & Leisure Gardener.

Tickets are £10/£5 under 16 and may be booked from secretary@eppingforestbeekeepers.co.uk.

Car parking is plentiful and free. Refreshments will be provided during the day, but please bring your own lunch.

Beekeeping clothing discounts discounts

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

We'll try to list discounts for members at http://lbka.org.uk/discounts.html. Do let us know if you can negotiate some for us!

Job advert for "Beekeeper and Facilitator"

More details can be found here: http://bit.ly/1PGVIZ1.

Would you like to advertise to gardeners?

We've been contacted by a publisher who's publishing a feature to promote beekeeping called **To Bee or Not to Bee** and are **selling advertising space in it**. It will have a BBKA editorial about planting to attract bees and pest control in an eco-friendly way and will feature in the April edition of **Simply Vegetables** (the official quarterly magazine of the National Vegetable Society; http://online.flipbuilder.com/cwao/alnr/) and the May edition of **Allotment & Leisure Gardener** (the official quarterly magazine of the National Allotment Society; http://online.flipbuilder.com/cwao/hrgk/). A combined distribution of 25,000 copies will go to individual members of both national societies.

Prices start from £80 (excluding VAT). The deadline is 26th February. If you're interested, please email sue@crestpublications.com.

"The Hive" at Kew.

Honey wanted

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

Proposed Mill Hill East extension

More of an *additum* than announcement, but you might recall that Geoff was writing about the effect of the isolation on his apiary at Mill Hill East was having on his bees and that this was probably caused by the cancelling of the Mill Hill East extension. Geoff sent in an excerpt from a 1946 tube map that shows the proposed extension from Mill Hill East, which would have had an impact on urban development in that part of North London.

Members' area on the website

A reminder about the secure "members' only" section of the website at http://lbka.org.uk/members_area.html for which all members have login accounts for. Just 'reset' your password to get access. You can check your details (and BBKA membership number), read minutes of committee meetings and a few other things.

When you joined LBKA, you had the option to opt-in to share details with other members – this is where those details are shared.

Old announcements from January

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

Proposed Mill Hill East extension.

Forage ideas? Contact Mark at forage@lbka.org.uk with your ideas on places we could do forage planting events.

Our beekeeping courses: Please help promote our four beekeeping courses, two of which are **full beekeeping** courses and two of which are **short taster courses**: http://www.lbka.org.uk/courses.html.

Old announcements from December

Your feedback: Thanks for the feedback you provided when you most recently joined. The committee are using these to help improve our offerings to members. Your feedback (to any committee member) is welcome throughout the season.

Tesco grant: We've applied for a grant of £12,000 to improve forage for bees of all kinds at Mudchute City Farm.

General Husbandry Course: See p5 of last month's newsletter for details of the Surrey Beekeeping Association's General Husbandry Course (**13**th **February**; **£35**; rickwoodsbka@gmail.com).

The "Worker Bee" newsletter is available at http://tinyurl.com/jb7rqsf

LBKA membership ended last September. For help or clarification about your membership, email services@lbka.org.uk.

Old announcements from November

BBKA Basic: If you've kept bees for at least a year, we'd encourage you to do your Bee Basic exam. Howard offers coaching to prepare members to take this – email Howard on education@lbka.org.uk for more details.

Potential NW3 apiary: Nikki lives next to Hampstead Heath (NW3) and would like to offer it as a site for one of our members to keep bees. If you'd like to know more, please contact 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.

January's monthly meeting: All about wax moth

What happened at last month's meeting, which was led by Howard.

Anya Ignatieva
LBKA member

This month's meeting – attended by over 30 beekeepers, new and old – was all about the wax moth. We learnt about its life cycle, how to spot it, what it got up to and how best to control it.

There are two types of wax moths found in the UK – the greater and the lesser wax moth. The former is larger, lighter in colour and more damaging; the latter is smaller, darker and more commonly found in our hives. Moth larvae tunnel through (preferably) used comb leaving silken traces on the surface, and also may burrow into the wood of the hive. When the larva goes through metamorphosis it becomes an adult moth, focusing on mating, which involves finding a suitable honey bee colony.

In the wild, honey bees and wax moths manage to co-exist to a large extent. When using framed hives, problems occur that we need to monitor. If a colony is strong, the moths are generally deterred by bees. Weak colonies are vulnerable though, allow them to wriggle past and lay in crevices. We were shown some pretty

scary images of hives that had been taken over by moths that literally resembled ghost towns.

We were advised to watch out and treat for wax moth. When inspecting, gently tapping the top of each frame with a hive tool cause vibrations encourage larvae to pop their heads out to see what's going on. This gives the alert beekeeper time to pick them out with tweezers and give the birds a treat.

Stored frames are vulnerable over winter where there are no bees to keep them in check. Freezing the combs for at least 24 hours is advised, but not all people have access to enough freezer space. On freezing days, separating the boxes of frames and placing them on their sides on the ground will help the cold penetrate. Acetic acid and sulphur strips kill moths at all stages. The former doesn't harm the honey but it attacks metal – smearing metal queen excluders Vaseline helps. Sulphur strips are a little dearer and don't protect against future invasions, but last for years. Certan is bacterial biological control which is not toxic to humans and is effective against larvae, but unfortunately they don't kill eggs.

The meeting then wound down with a discussion on oxalic acid and the warm weather, with concerns over whether to treat while there is brood, as it is less effective when brood is present. The advice was to treat and get it done as quickly as possible. Bayvarol was also discussed. There has been high varroa resistance to it, but some members are reporting that they have found it to be very effective, though we must be careful not to overuse it.

We were all reminded to give our bees extra fondant during the winter months.

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 the bees. Although cold and rainy on the outside, and, to all appearances all appears to be very quiet, a lot is happening inside the cluster. Brood rearing is increasing and this requires use of additional stores. Furthermore, this winter has been extremely mild with the bees flying excessively. Therefore, 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 and more eggs are 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.

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% 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 at all so not to cause any disturbance.

On a warm February or early March day the bees will fly for forage. Main sources in February include snowdrops, crocus and early flowering hazel. The latter is a godsend 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 now old but 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 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 to be substantial. If kept on grass then there may well be just as many dead bees but they will appear substantially less.

Finally, a mention of woodpeckers. January and February are the months when colonies are most at risk of

Cherry laurel.

damage by the green woodpecker. This is when the ground becomes very hard and woodpeckers cannot dig for insects. They may turn their attention to a beehive. The ground has been very soft throughout January other than for a brief 2 or 3 day cold snap. If February turns cold then this becomes a potential pest. The green woodpecker lives up to 15 years and so if it finds a way to peck into your hive then you have a potential problem for a long time to come!

Other jobs to do

Read. Carry on reading the beekeeping books.

Plan. Formulate an outline plan for the forthcoming season. Have a strategy to develop or improve a particular beekeeping skill. As we have had such a mild winter then the Oxalic Acid treatment may not have been as effective as usual, due to the presence of an unusually higher level of brood in the colony in winter. My own plan for 2016 will incorporate a higher emphasis on varroa monitoring.

Equip. Assemble frames and ensure you have sufficient equipment for the season.

Meet. Do not forget the LBKA monthly meetings and the mid-week winter lecture in next month.

February's Focus on Forage

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

Mark Patterson
forage@lbka.org.uk

February is typically the coldest month of the year here in the UK. According to the Met office, 17th February is on average the coldest day of the year, So while we're all celebrating Valentine's day our wildlife are braving the harshest part of the winter. In recent years this has not been the case though as climate change is delivering us milder winters. This winter has been exceptionally mild with many late summer flowers continuing to bloom, well into winter and many spring flowers appearing 2-3 months early.

In January the Botanical Society of Great Britain and Ireland conducted their annual 'New Year's Plant Hunt' whereby volunteers go out on 3 hour long walks counting the number of flowering plants they encounter in bloom. In a typical year around 30-40 species can be expected to flower in January but in recent years 350-400 species have been counted. Between 1st and 4th January 2016 a whopping 612 species were recorded in bloom blowing all previous records out of the water. A detailed account of the survey and my own contribution can be found in my blog entry: http://bit.ly/1W8nG0r.

Three quarters of plants recorded in the first week of January were late season hangers-on which had survived the extremely mild autumn and winter into January. With the widespread hard frosts in late January many of these have now finally gone over, though in the southern parts of the UK some still cling on. The effects of a mild winter on these species is unclear, will they resume normal flower timings this season or will a lack of dormancy disrupt their annual growing cycle?

Plants emerging very early as a result of the mild conditions will undoubtedly have their typical growing cycle disrupted. Many early emerging plants spend much of the year as a dormant bulb or tuber – a source of stored energy and if they emerge and spend all their energy at the wrong time they can fail to reproduce as their blooms and foliage risk being damaged by late frosts. This can have a knock-on effect on our pollinators. Many of our early emerging pollinators rely heavily on a small selection of highly rewarding flowers for their nutrition. Early emerging bumblebee queens for example are heavily reliant on early emerging legumes and white deadnettle for pollens rich in fats and proteins which they need to rebuild their health and vitality after their long winter hibernation. Without access to high quality forage, queens may not reach breeding condition and fail to establish new colonies. Right now in my garden I am noticing Pulmonaria and Comfrey starting to bloom and I am wondering if there will be any blooms left come late March and April when the Hairy Footed Flower Bees emerge – these plants being their preferred flowers.

Scientists believe that plants are now flowering up to a week earlier each decade as a result of climate change and that some of our wild bees are beginning to emerge even earlier still leading to a mismatch of flower emergence with their pollinators.

Wild primrose.

Crocus.

Pulmonaria.

Muscari.

I am far more concerned about the knock-on effects of changes to the timings of the seasons and emergence of flowers on our 274 species of wild bee than I am our honey bees. Many wild bees have specific flower preferences, some specialise in just one or two plants. Our Honey Bees on the other hand are generalists and capable of adapting to a wide range of forage sources. Our honey bees also have stores of honey to rely on during inclement weather and tentative beekeepers to supplementary feed them as necessary, our wild pollinators on the other hand have no such luxury should they emerge from hibernation and find their food is scarce or absent. That being said I am a bit worried that my honey bees are missing out on the early pollen from the mass of crocus in the garden this year. They have flowered exceptionally early and the bees have not been flying to take advantage of the bounty on their doorstep. A change to the flowering times of plants important for the honey flow could mean beekeepers have a reduced harvest and following 2015's poor harvest this would spell trouble, particularly for the nation's bee farmers who are already struggling to recover from 2015's cool dry spring. Urban areas are likely to fair better given the wider variety of forage sources available to honey bees. This was seen in London in 2015 which maintained average honey yields whilst much of the rest of the country fared poorly. Much of London's honey crop in 2015 came from Tree of Heaven blooms rather than the typical Lime blossom, evident from honey analysis of some of our members' honey.

So what can we expect to see in bloom in February 2016?

Already in bloom in London are spring bulbs, Daffodil which mostly flowered in December and January this year but are of little consequence to honey bees are now going over, Muscari or grape hyacinth are useful to honey bees and early wild bees, snowdrop, crocus, squill and anenemones. Winter Aconite with their cheerful lemon yellow blooms have flowered very early and are already going over at a time when they should just be emerging and looking at their best. Early herbaceous plants like Primrose, Sweet Violet, Pulmonaria, Comfrey, Dandelion, Lesser Celendine, Cowslip and White Deadnettle are out in bloom in abundance. Around my garden pond Marsh Marigold are blooming many months ahead of time.

Native shrubs Blackthorn, Hawthorn (which usually blooms in May!), Hazel and Holy are blooming. Ornamental shrubs Flowering Currant, Escalonia, Cotoneaster, Ceonothus and Hebe are in bloom across much of London. These are all shrubs which should be flowering at their peak from May onwards not February. Just this morning I came across a cherry laurel hedge near my allotment that was starting to bloom – this plant typically flowers the first week of April and is popular with honey and short tongued Bumble bees and deemed as a very important nectar source for many solitary bees. If many of our spring plants flower early you may see bees visiting Cherry Laurel when it's out

of flower later in the season as this plant also produces copious amounts of nectar from extra floral nectaries at the base of its leaves. Looking forward into March we could expect to see lot of Cherry and Laurels flowering a month early alongside Apple and Pear trees. Let's hope we don't get any late frosts which will kill off the blooms denying our bees nutritious pollen and nectar and ourselves a good fruit crop come late summer.

This year's LBKA Monthly Meetings

Monthly meeting topics for 2016.

Howard Nichols
education@lbka.org.uk

In response to members' feedback when renewing their annual subscriptions the Committee has reconsidered and finalised the monthly meeting topics for 2016, These were put onto the website early January. Firstly, a sincere thank you to all members who contributed by giving feedback. Without this we would not be in a position to try to accommodate people's wishes and aspirations.

One member asked for a session on making mead. This was dealt with by Emma Nye arranging a visit to a mead brewery rather than a theoretical session at a monthly meeting. Another member asked for a session on pollen identification through microscopes. We have been unable to accommodate this into our current programme but do expect this to feature in 2017 once we have figured out the logistics of having many members use a limited amount of microscopes and 1 projector screen.

Our 2016 programme is as follows:

- **10th January**: All about Wax moth.
- **14th February**:"Preparation for beekeeping year and early spring management, including shook swarm"
- **13th March**: "Swarm control"
- **10th April:** "Microscopy and nosema testing". This is a practical session using microscopes.
- **8th May**: Bee Health Day. This will be a full day event at Holland Park apiary at 10.00-16:00. It will include practical work on how to check colonies for both minor and major brood diseases and also statutory matters about notifiable diseases and pests.
- **12th June**: "Queen rearing for the small scale beekeeper"
- **10th July**: "Dealing with a vicious stock of bees"
- **14th August**: "All about feeding and feeders", followed by the Summer Social at Walworth Garden.
- **11th September**: "Uniting colonies for winter"
- **9th October**: "Bees on the Move" or "All about moving bees"
- **13th November**: "Oxalic Acid treatment"
- **11th December**: "Christmas quiz and social"

When arranging these topics we are governed by certain constraints. These include:

- Having a mixture of newer members and more experienced members. We have to consider the needs of the entire membership.
- Not enough time to consider the topic in depth and also have time for questions when limited to 1 hour. In response to this we have extended the more formal part of the meeting from 1 hour to 75 minutes and will increase this to 90 minutes if still insufficient time. The social element before and after the meeting will be unaffected.
- Some members are concerned that topics are repeated the same month each year.
- We are also governed and constrained by the beekeeping year cycle.

In response to the above mentioned comments by members and subject to the beekeeping year restrictions we have arranged the above schedule for 2016. An outline explanation is as follows:

1. 5 entirely new topics have been introduced, being Wax moth (January), how to deal with an aggressive stock of bees (July), feeding and feeders (August), uniting colonies for Winter (September) and bees on the move (October).
2. Queen rearing for the small scale beekeeper has been retained. This has been covered the last 2 years and members' feedback has been very positive about the topic.
3. Nosema testing has been retained. As have Spring management and swarm control. These 3 topics are regarded as having undue importance and should be covered. For example, as an urban beekeeping association it is essential that swarm control is treated as a high priority item by our members. It is also a beekeeping fact that more colonies die out in Spring than in Winter. Because of this we have retained Nosema testing and early Spring management. We will try to introduce variations and new elements to these core subjects.
4. We are also arranging a full day Bee Health event in June. It will all be hands on at an apiary, hopefully Holland Park, and will address the importance of Bee Disease recognition. This use to be a regular "flagship" event run by the Bee Inspectors. Due to Government funding restrictions the Bee Inspectors have been unable to undertake this for several years now and are unlikely to be able to do so in the near future. Therefore, we are arranging it in house.

To paraphrase a famous quotation, "you cannot please

all of the people all of the time". Something like that anyway! We have tried our best to reflect members' wishes and aspirations. We hope that each and every one of you will find several topics of interest and value. Once again, thank you to all who took the trouble to respond to the request for feedback.

Here & there

Ted continues with his monthly thoughts inspired by difference in beekeeping in this country with that of his native Canada.

Ted Parkes
LBKA member

Biosecurity has become a new buzzword in Ontario these days. Growing concerns about emerging disease along with increased global movement of livestock including bees. So you might be asking what does this have to do with beekeeping. And what exactly is biosecurity? Biosecurity can be defined as the management practices used to prevent the spread of disease. It involves many aspects of management such as disease control and prevention, nutrition, visitors to the bee yard and the bees themselves. Environmental contamination is also a concern. And I know there are guidelines and restriction on the import of bees here in the UK.

There are three elements to a biosecurity plan. The pest and disease associated with bees can be managed by minimizing exposure (bio exclusion), maintaining the ongoing health of the bees (bio management), and containing sick bees (bio containment).

- **Bio exclusion**: The risk of exposure to pest and disease by the introduction of contaminated bees, equipment. So caution should be taken with introducing used equipment, nucs, queens and captured swarms. The potential for exposure to feral bees here in London
- **Bio management**: Maintaining the health of existing bees. Strong colonies supported by an integrated pest management program is critical. Monitoring is one of the most effective tools. Regular monitoring can identify issues within the hive before they become a serious problem. Identify the level of pest or disease infestation. And confirm the efficacy of any ongoing treatment.
- **Bio containment**: Once identified as infectious, applying necessary treatment and/or isolation may be required. Removing contagious colonies (i.e. AFB) are good management practices.

When it comes to biosecurity it's the same here and there. As you plan and look towards the upcoming beekeeping season it's a good time to consider your biosecurity plan. A proper biosecurity plan can help identify the health risks to the bees. Monitoring can help with early identification of pest and diseases, allowing you to take the necessary steps to maintain the health of the bees and prepared for an outbreak if it should occur. It's necessary to revisit your plan from time to time. "Best practices" are ever changing and new pests like the small hive beetle or a new disease can occur at anytime. Treatments for controlling pest and disease also change over time and its important to stay current and adjust your plan accordingly.

Waxing scientifical

Sue (@beesupontheroof) reporting on recent bee-related science and research developments. Do contact her if you have any requests.

Sue Lee
LBKA member

Our new Flow™ Hive

So to recap, my friend Nick and I are preparing to compare a normal hive with a Flow™ Hive, after I was talked into buying one by a non-beekeeping friend before I'd even been on my weekend course. Both of them will be positioned on the roof on Charlton House in South East London. The exciting news is that the Flow Hive has arrived. Rather surprisingly there were no additional customs charges, and even though the two boxes were dispatched from two separate continents they both arrived with me within hours of each other.

A dozen of us had a lovely day assembling two standard Langstroth hives from Mann Lake with RiteCell® foundation. I bought these to give the best comparison with a plastic foundation against the plastic of the Flow™ Hive super's cells. Assembling 60 frames also gave my beloved a great excuse to buy another power tool, so I was dispatched to Screw Fix for a nail gun. Domestic harmony ensured, we had a very successful conveyor belt of making. This was followed by an evening of painting, with two coats of wood stain in teal, from the Natural and Organic Paint Co.

Our hive monitoring plans

The plans for the monitoring are moving forwards. Nick has acquired a set of scales to butcher so we can repurpose the load cells. Measuring weight long term is not like standing on them for 20 seconds in the morning. A long term load will deform the load cell over time which

Using our nice new nail gun.

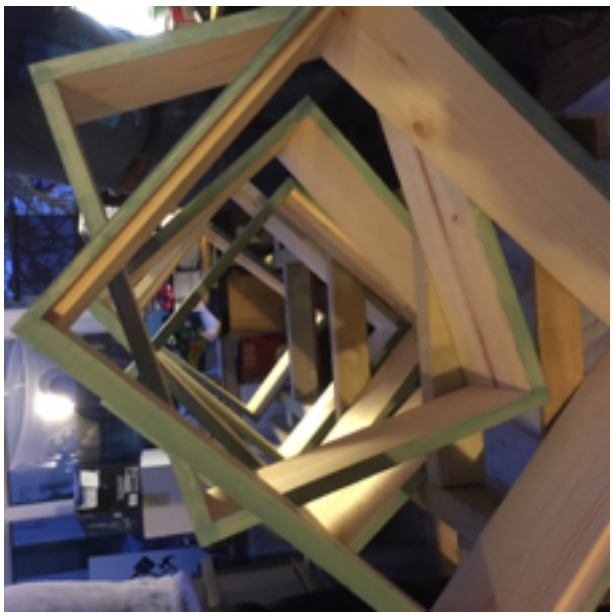
will result in "creep" so we need to look at the effect of a significant weight, (the plan is for a motorbike engine which should give us a comparable weight) and what then to see what registers later on when small changes of weight occur. He already has an electronic temperature and humidity sensor, and is taking readings with it of his cellar using an Arduino (http://www.arduino.cc) and uploading them to the internet so that we can test proof of concept, and whether they are going to work when we take them off to a spreadsheet. One of the problems we are going to have is to work out how to get sufficient power on the roof, and whether we use batteries or solar. There should be sufficient space and light for a solar cell up there. There's going to be a problem with WiFi and whether the signal reaches as far as the roof. I look forward to going up there with various devices to see what we can find in the ether.

Science News

I'll now look at some of this month's bee-related science news.

There's a new report in Science Journal this week about the implications of importing bees from around the world which is likely to come as no real surprise to most of us but the genetic evidence is mounting up.

The global trade in bees is driving a pandemic that threatens hives and wild bees, Deformed Wing Virus transmitted via varroa has been spread worldwide through imports of infected honeybees. Lead researcher Dr Lena Bayer-Wilfert of the University of Exeter said



Assembling our new hives.

European bees are at the heart of the global spread of what she calls a "double blow" for colonies.

"This is clearly linked to the human movement of honeybee colonies around the globe", she told BBC News."It shows a piece of evidence we can't argue with." Dr Bayer-Wilfert added: "We must now maintain strict limits on the movement of bees, whether they are known to carry Varroa or not." The universities of Exeter, Sheffield and Salford collaborated to track the emergence of DWV by analysing genetic samples from honeybees and varroa mites in 32 locations of 17 countries. The European honeybee has been identified as the main transmitter Researcher found that the epidemic largely spread from Europe to North America and countries such as New Zealand.

Non-national hives: Hedgecoe

In a series (I hope!) of articles about hives that are not Nationals, Geoff describes the little-known Hedgecoe.

Would anyone else like to write about another non-national hive? Please get in touch with me if you do: services@lbka.org.uk

Geoff Hood
LBKA member (London, N11)

A new Hedgecoe with little landing board at top and a funny bit of string.

The Hedgecoe Hive – an alternative or not?

Have you ever heard of the Hedgecoe Hive? Have you ever seen one? I first came across one in 2008 and wondered what it was. It looked very new and was a lot like half a Dartington long hive, but the bees were flying out of the top of the brood box not the bottom and it had those Dartington- or Omlet-style small half supers, Dartington legs, a funny little landing board and a piece of string dangling from the sloping roof.

My next encounter of the Hedgecoe hive was at the BBKA spring event at Stoneleigh, where Mr Hedgecoe demonstrated the hive at Thorne's stand with great enthusiasm. I always thought they looked top-heavy, but he said not. It was sold by EH Thorne until 2013, but now is no longer in their catalogue. Later the following year I endured a long talk about all the Hedgecoe hive's benefits to bees and beekeepers. I found that Mr Hedgecoe was the president of the BKA in Hertfordshire where I was then a member. Several beekeepers at the meeting were convinced of the hives usefulness and bought his DIY plans and embarked on building a Hedgecoe Hive.

The hives are made from marine 18mm plywood and the brood boxes are of 14×12 frame size but with top bee-space, rather than the bottom bee-space found in a BS national hive. The reasoning by Mr Hedgecoe for this was that ply was durable, did not absorb water, gave better insulation than cedar and top bee-space reduces the chance of the beekeeper crushing bees. However, I found the hives to be very heavy and would dispute it was more durable and well insulated. The use by most DIY built hives of cheaper plywood and plastic queen excluders also caused problems as the plywood delaminates and queen excluders sag into the top bee space.

The Hedgecoe hive on standard legs has the top of brood box about 6" higher than a kitchen counter top. I have no problem when I help friends with a hive that high – as I am 6ft 1" – but I saw a few shorter beekeepers struggle to get frames out the deep 14×12 frames from the brood box. Just think how high this would get with four or six supers! I discovered that the piece of string we saw in the first photo was one of two guy ropes with which you peg the hive down just like a tent to stop it blowing away. Not sure how much that would help in a gale. I also found the crown boards to be just flat sheets of 12mm plywood with thin insulation one side. This because there is no need for bee space on the board because that is on the box.

This new hive is made of waterproof and marine ply to prevent distortion with age. It consists of: - A 12" depth brood chamber with top bee space. It has a removable wipe clean floor with mesh tray. An entrance under an overhang to keep it dry and with ten 8mm holes which form a permanent 'mouse guard'. An insulated cover to keep the colony warm. Four easily removable adjustable legs with replaceable feet bolted to it. Two standard sized supers are with top bee space. Wet and Dry feeders, providing facilities for feeding liquid, fondant and medication to the bees. A simple sloping roof that directs all rain to the rear of the brood chamber, thus keeping the entrance dry. It provides storage for, the vertical queen excluder and mite count floor when not in use. The roof also has four cords attached to it which secure it to the brood chamber. A Half Brood for catching and housing swarms, or raising a nucleus.

Hedgecoe Hive	Price	Packed Wt.
	£250.00	40

An extract from the Thorne 2013 Catalogue.

Having read the DIY plans, the plans say to adjust the height so you can work comfortably. To me, that means the top of the brood being at wrist height. But most DIY builders just built the hive to the standard height. The legs have to be bolted on like a Dartington, as otherwise you would not be able to get the brood box into a car. Just think of how difficult it would be to hold an 11 frame 14×12 hive and remove the legs to transport! It is a three-person job, with two holding the hive and one to remove and put back the legs.

The sliding entrance uncovers a series of 5 holes (like a mouse guard with a movable slide cover). If wasps or robbing bees attack then you can choose to reduce the entrance down to one or two holes BUT as this entrance is at the **top** of the brood box, the undertaker bees have great difficulty clearing dead bees from the hive. So dead bees accumulate on the floor. Because of this, the mesh varroa floor – part of the brood box – has

Half super, miller feeder and storage box.

to drop down for cleaning. In practice the varroa mesh floor drop mechanism fails after a few years and the floor slips down. The bees then use the new gap as the entrance (obviously, bees knowing best). I don't quite remember Mr Hedgecoe's reasoning why the entrance was at the top but it was something about the ease of combining a swarm with the 14×12 Hedgecoe as both entrances were close together prior to combining. This wouldn't make any difference to me – just I'd shake the swarm in. . . or let let the bee climb up a sloping board into the entrance.

I looked at the four half supers by the incinerator and was interested to find one of the half supers was quite a nice small miller feeder with American style large flat drilled floats and its partner a storage box. Was this the swarm box? I have no idea what the two white cables are in the Thorne's photo. The other half supers were standard top bee space boxes. When working these hives and Dartingtons, I have personally have found DIY half supers difficult to use. Any defect or twist in the sides makes it difficult to get a bee tight vertical fit between half supers, so wasps get in and bees get out.

It also has one nice feature – a vertical division board queen excluder. It is to change old brood comb for new foundation by isolating frames from the queen until the brood hatches. It can also be used as a queen trap for helping control varroa through integrated pest management (IPM). It also has other quirks. The insides have thin strips for the Hoffman frames to butt up

American style floats and top landing board.

Close up of mouse guard style entrance.

Flat crown board, no bee space.

Top entrance.

Half supers.

Woodpecker-proof.

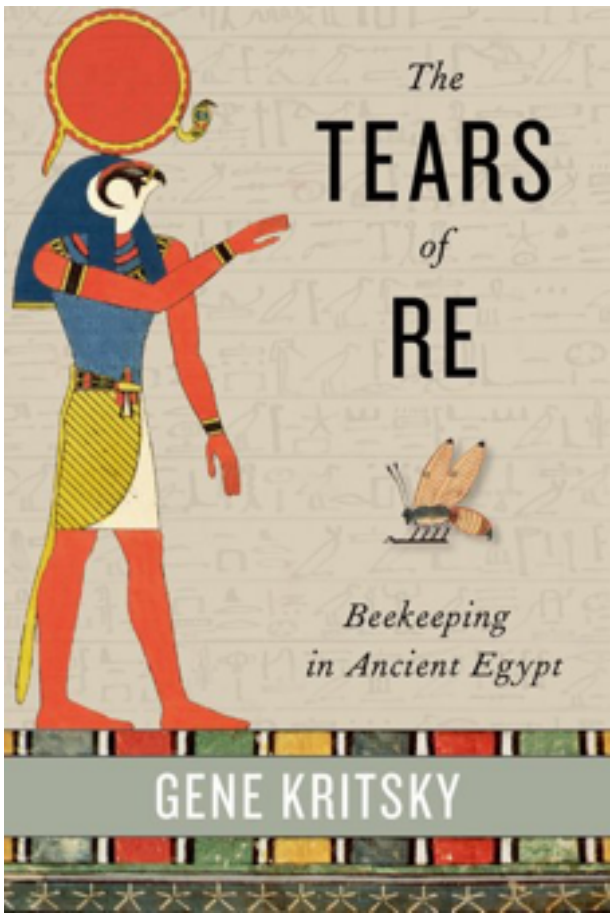
A double Hedgecoe.

to. This supposedly is to stop the Hoffmans sticking to the wall. But all it does is create double brood space in the area between the frames and the wall, leading to brace comb.

This hive is a bit over designed. A bit like a Lakeland shop. It has things in it you didn't know you needed.

So where is the Hedgecoe hive I first encountered now? It is next to an apiary incinerator awaiting its final fate. But that has given me the opportunity to take a few photographs. I thought when I started writing this article that this would be the end. But an apparently rotten Dartington unused for years was brought in to burn. . . and it turned out to be a double Hedgecoe!

The Hedgecoe Hive? I think the answer is **not**!



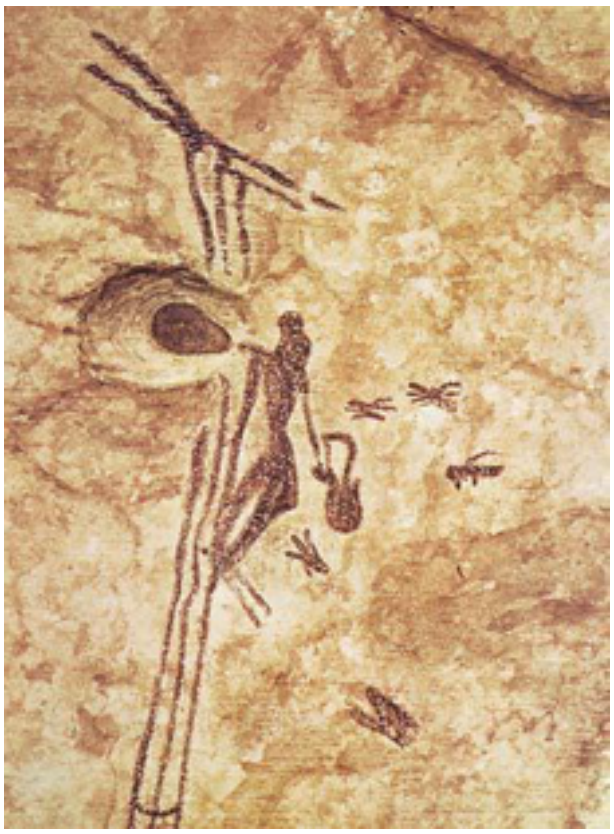
The book cover.

Tears of Re: Beekeeping in Ancient Egypt

Mark recently attended a fascinating lecture on 22nd January by the Friends of the Petrie Museum at University College London's Department of Archaeology by Professor Gene Kritsky on the subject of Beekeeping in Ancient Egypt. Gene has recently published his latest book 'Tears of Re' which references the Egyptian mythology that the tears of the sun god Ra fell to earth and transformed into Honey Bees. This was first published on Mark's blog: http://www.apicultural.co.uk/tears-of-re-beekeeping-in-ancient-egypt.

Mark Patterson
forage@lbka.org.uk

Dr. Kritsky is Professor and Chair of Biology at Mount St. Joseph University, Adjunct Curator at the Cincinnati Museum Center, and Editor-in-Chief of American Entomologist. He received his PhD in Entomology from the University of Illinois in 1977, his MS in Entomology



Mesolithic cave painting from Spain 8000-6000BC.

from the University of Illinois in 1976, and his BA in Biology from Indiana University in 1974.

After a lengthy and through introduction by the chair of the friends of the museum, Dr Kritsky's lecture opened with an explanation that the Ancient Egyptians held the Honey Bee in high, almost religious regard. Honey bees were believed to rise from the Tears of the Egyptian Sun god 'Ra' or 'Re' and that upon falling from the sky and touching the earth the tears transformed into bees which provided Ra's followers with liquid gold - honey.

Evidence of honey hunting and harvesting is known from as far back as Mesolithic (8000-6000BC) with some of the best preserved examples to be found in Europe. In Spain's Cueva de la Arana rock paintings depict a woman harvesting honey from bees nesting on a cliff face. Such practices are still alive in present day Nepal where young men brave dangerous heights, wearing minimal protective clothing and using flimsy ladders and ropes winch themselves up the cliff face to collect honey comb. Only the climber's father in law and brother in law are allowed to assist - the reason being that they are the only men who could not marry his wife and benefit in his death should he fall from the cliff. In these cultures only respected men held in high regard by their community are permitted to collect honey in this fashion.

The first actual evidence of beekeeping whereby man captured or lured honey bees to nest inside artificially

Clay pipe horizontal hives are still used today in Egypt and other parts of the middle east 6000 years since they were first used.

made cavities/hives comes from Bronze age ancient Egypt during the 1st Dynasty around 3100bc.

Early evidence consisted of inscriptions describing bees and how they were kept. By the 3rd Dynasty (2650 BC), paintings and hieroglyphs depicting bees were more common and more detailed. Some of the best examples from this period can be found at the solar temple of Nuiserre which was built to pay tribute to the sun god Ra.

Ancient Egyptian beekeepers kept their bees in clay or mud pipes approximately 1.2 metres in length and a third of a metre in diameter. These were typically constructed from a bundle of thin sticks, grass and reeds held together by mud which was baked in the hot sun. Once dried and hardened the centre of the bundle would be excavated leaving behind a strong hollow artificial log. The ends of the clay logs would be sealed with a ring of timber and held in place with a mud cement. One of the ends would include a small opening for the bees to come and go.

The beekeepers would keep a great many of these horizontal hives together in a single apiary. They would be stacked together and earthed up with soil to form a large wall. When it was time to harvest the honey the keeper would simply remove the wooden ring at one end of the hive and pull out the honey comb.

When a hive became too full of bees the keepers would remove some combs and bees and transfer them to a new hive - an ancient form of artificial swarming. These ancient keepers understood their bees well and were skilled at mimicking piping queens which they could lure from the hives and then catch and transplant to new homes. Clay pots containing remnants of wax comb, bees wings and residues of honey have been discovered from the 18th Dynasty 1570-1546 BC.

Later on in the 26th Dynasty 672 BC to 525 BC we find the best examples of beekeeping in ancient Egypt in the form of elaborate Hieroglyphs which describe in detail how honey was harvested from the hives.

Modern day mud horizontal hives in use. If you look closely you can just make out the entrance the bees use. These hives are still in use today in Iran.

26th dynasty hieroglyph depicting a beekeeper with their hives of bees.

Firstly the bees were presented with vessels containing scented offerings which were gently burnt to produce an incense. This was an early form of smoking the bees and would no doubt have calmed the bees prior to opening the hives just as modern day beekeepers do.

Its not clear whether or not the ancient beekeepers understood why smoke calmed the bees or if the offering of burning incense was merely symbolic as part of their belief that bees arose from the tears of the sun god Ra. Clearly it must have calmed the bees and it would have been crucial that it did so since Egyptian beekeepers are depicted never wearing protective clothing. Some paintings and Hieroglyphs show the keeper holding what may be a cloth over their face whilst inspecting the bees but mostly they appear to have no specialist protective clothing. Perhaps they had mastered the art of breeding queens and were able to breed very docile and gentle bees which meant they didn't need cumbersome protective clothing in the hot African sun?

There was a strict hierarchy to beekeeping in ancient Egypt. Bees were nearly always kept in or near to religious temples where they were tended by temple beekeepers. These beekeepers were responsible for dividing the colonies to make up new stocks of bees, harvesting the honey and processing the combs so that they could be stored for later us.

Temple beekeepers were supervised by a chief beekeeper who would be answerable to an overseer of the bees and the temple lands. The overseer is not likely to have been a beekeeper himself but would have been familiar with the goings on of the temple beekeepers.

The overseer would have reported directly to the Pharaoh.

The Egyptians used honey and wax in a wide range of disciplines from medicinal use to the manufacturing of cosmetics, wigs and the creation of wax figurines of gods and kings. They probably used propolis for medicinal purposes too though Dr Gritsky didn't specifically mention this.

Honey was an expensive commodity and its price would have been similar to that of today monetarily wise.

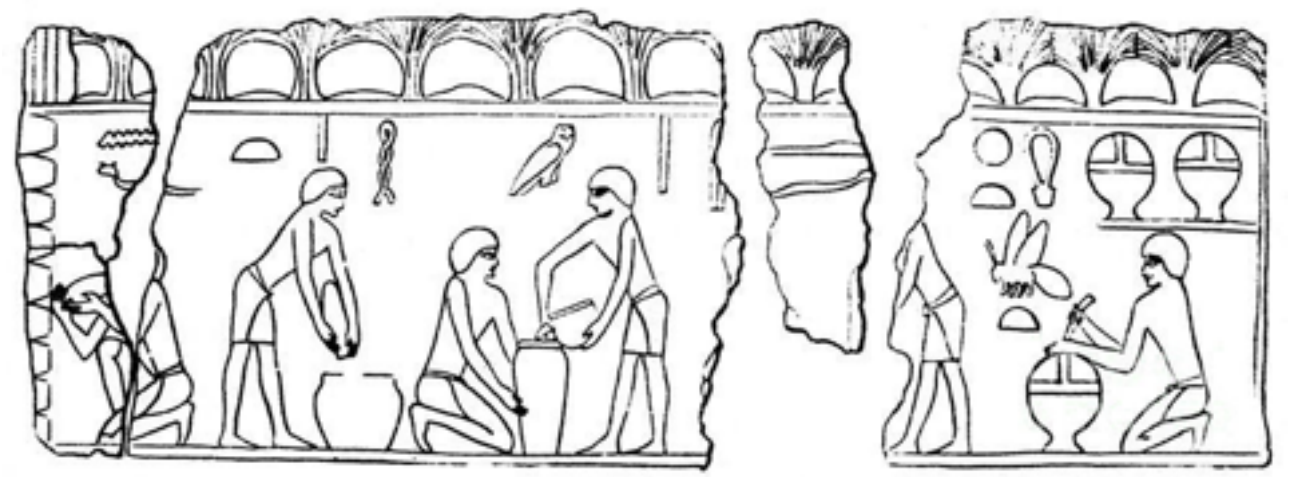
The Egyptians didn't just produce honey, they also imported honey from all over the ancient world from parts of Africa, the middle east and Europe. There was a thriving international trade in honey which is evident from inscriptions on the clay pots the honey combs were stored in and from written receipts found alongside containers of combs.

After the 2nd World War Europeans brought the modern langstroth hives to Egypt and attempted to persuade the locals to give up on their 6000 year old tried and tested methods of beekeeping. Traditional Egyptian hives produce very low yields of honey and the incentive to switch to modern box hives was the attractive prospect of greater yields and ease of manipulations.

Unlike western beekeepers the Egyptian beekeepers using modern hives do not add supers for honey storage but instead keep the colonies as single box structures. When the bees become over crowded they simple transfer some combs to a new box to multiply their numbers. Because of this the yields gained from modern hives were not as great as had been hoped when the modern hives were introduced.

Until recently there were over 1,000,000 langstroth style hives in Egypt but today there are as few as 7000 colonies living in such hives. Disease, Varroa and problems with imported queens of foreign origin have lead to a great many problems for Egyptian beekeepers and the demise of the modern style boxes.

The beekeepers of modern day Egypt are now reverting back to the horizontal clay pot hives of the ancient Egyptians which they say keep the bees more naturally



This reconstruction of 26th Dynasty hieroglyph depicts a scene involving beekeepers collecting honey from a wall of horizontal hives on the left, passing of combs to colleagues who are then placing the combs into clay vessels for storage complete with domed lids.

26th Dynasty hieroglyph depicting a bee. There are over 500 references to bees, wax and honey in ancient Egyptian writings. the writings of temples were often carved or painted by the same author as evidenced by parametric analysis of the writings.

and suffer fewer problems from foul brood and other pathogens.

Clearly the Ancient Egyptians knew and understood their bees well and were able to build not only the great Pyramids - a marvellous feat of engineering technology but they also designed the most enduring style of bee hive the world has ever seen.

Adventures in Beeland:

Two articles from Emily's excellent blog this month – http://adventuresinbeeland.com/ – one on new research about oxalic acid and the other on what's flowering now.

Emily Scott
LBKA member

New LASI oxalic acid research published

A comment by the lovely Amelia from http://afrenchgarden.wordpress.com on my last post led me to look at the University of Sussex's Laboratory of Apiculture and Social Insects (LASI) website.

I was dismayed to see a new press release, "Scientists determine how to control parasite without harming bees", which advises beekeepers not to use the trickling or spraying oxalic acid method (which is what most beekeepers I know use). Instead sublimation (also known as vaporisation) is recommended.

"Professor Francis Ratnieks, head of LASI, says that beekeepers should cease using the other two methods ("trickling" and "spraying"), in which a solution of oxalic acid is used) as they are harmful to the bees and less effective at killing Varroa."

Research accompanying the press release was due to be published today (5th January) in the Journal of Apicultural Research, but unfortunately this journal is not publicly accessible to non-subscribers. I'll try to see if I can access it through work as I would like to read the

Treating with oxalic acid. Courtesy The Food and Environment Research Agency (FERA), Crown Copyright.

Snowdrops at the apiary.

research study – it's called "Towards integrated control of varroa: comparing application methods and doses of oxalic acid on the mortality of phoretic Varroa destructor mites and their honey bee hosts" by Hasan Al Toufailia, Luciano Scandian and Francis Ratnieks.

The press release says the trickling and spraying methods "cause harm to bee colonies, resulting in reduced winter survival". I wonder why harm is caused, how great the harm is, and whether it outweighs the harm caused by not treating for varroa at all. Emma and I have never had any colony losses following oxalic acid trickling and I cannot recall other beekeepers having experienced this either, but perhaps LASI have found colonies to be weakened by it afterwards.

Hopefully Beecraft and BBKA News will mention the study in their February issues.

What's flowering now: early February

Everything is early this year: snowdrops, crocuses and blossom.

All is quiet with the bees at the moment, but before we

Crocuses at Northfields allotments.

Blossom on the trees.

It was a mild day today, so the allotment bees were out and about.

know it spring will be underway and the first swarms will be here.

Thanks to Margaret Anne Adams, who posted helpful December 2015 advice from the Regional Bee Inspectors on the BBKA Facebook page – https://www.facebook.com/download/594816023999023/INSPECTORS_%20ADVICE.docx – apparently there have been outbreaks of European Foulbrood (EFB) in the Shropshire/Welsh borders. Part of the advice given to prevent these outbreaks is to change brood combs regularly and avoid re-using combs from colonies which have died out. Now is a good time to prepare new frames ready for spring Bailey or shook-swarm comb changes.

Upcoming events

Sunday 14th February: Monthly meeting: Preparation for beekeeping year

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

This month we'll be talking about preparation for the spring beekeeping year, particularly about early spring management including shook and other related topics, followed by the usual hot drinks, cake and chat. Meetings are for members only, but if you're thinking for joining LBKA, come as guest to find out more about us.

The plots were quiet except for birds hopping over the bare earth. The main crops in view were the strange shapes of Brussels sprouts.

Wednesday 2nd March: Talk by Norman Carreck from the International Bee Research Association

19:00 for 1930 at Roots and Shoots, Walnut Tree Walk, Kennington, SE11 6DN

Norman Carreck will talk to us about the research undertaken by the International Bee Research Association (IBRA), particularly the COLOSS project looking at winter mortality among bees across Europe. Tea/coffee and biscuits will be provided. Free to LBKA members, £2 for non-members.

Sunday 13th March: Monthly meeting: Swarm management

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

As colonies gear up for the new season, we'll be trying to keep one step ahead. This month's meeting will be about swarm management, something we consider essential to get right in our urban setting. This and and other related topics will be followed by the usual hot drinks, cake and chat. Meetings are for members only, but if you're thinking for joining LBKA, come as guest to find out more about us.

Sunday 13th March: Bee Improvement For All

10:00-16:30 at Copped Hall, Epping, CM16 5HS

Organised by Epping Beekeepers, this one-day event is

aimed at beekeepers of all abilities and aims to help and encourage your assessment of bees, to seek simple methods of improvement and the rearing of queens. Roger Patterson, a beekeeper of fifty years, has a reputation as an engaging speaker and will present the course which is organised by the Bee Improvement and Bee Breeders Association. Booking is essential secretary@eppingforestbeekeepers.co.uk and the cost is £10/£5.

Committee

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

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

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