

January, 2019

Happy New Year! It's a quiet time of year in the beekeeping world and a perfect time to study beekeeping. We've now announced our beekeeping courses (with taster courses to be announced later). As stated in a previous edition of LBKA News, you can also contact education@lbka.org.uk if you're interested in studying for BBKA exams. It's also a perfect time to attend our Winter Lectures. We're lucky that the first will be by the excellent **Dave Goulson** on Wednesday 6th February – see page 3.

Thanks to regular contributors Richard, Howard, Mark and Eugene. In addition, we have a couple of pieces from Richard on oxalic acid sublimation on pages 11 and 12.

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A big thank you to this month's contributors: **Eugene Fahy, Richard Glassborow, Jon Harris, Geoff Hood, Martin Hudson, Howard Nichols and Mark Patterson**. Thanks as usual to **Martin Hudson** for proofreading it. Would you like to join these esteemed contributors? If so, please contact me.

Happy beekeeping.

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

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From our Chair

Richard Glassborow chair@lbka.org.uk

Happy New Year London beekeepers! May your bees live long and prosper. May all your hives over-winter successfully.

You will, I hope, be pleased to hear that planning for the LBKA year ahead is nearing completion and you should see dates and announcements of programmes starting to appear in this News Letter and on the website.

Once again the content is inevitably more of the same: we are a bee club – how different can it get? As always, the core offer and benefits to members remain our main



Winter Jasmine. Photo: Aidan Slingsby.

focus but every year we try to learn from experience and improve the offer to our members. The test of how we are doing is how LBKA members think we are doing.

That is not necessarily an easy thing to find out but, having long threatened another member survey, we are determined to start preparing another one now. Don't expect anything dropping into your inbox imminently: a good survey takes a while to compile, a while to complete and quite a while to analyse all the data let alone respond to it.

In the mean time, we have been reading the feedback some of you left in the online membership renewal page. This is a voluntary section of the renewal form so not everyone will have completed it. As a result, please be aware the sample is small, roughly 15% of current membership. Nevertheless, based on that sample, the feedback is significantly positive and constructive and the tone up beat. I am particularly pleased to see that the most recurring keywords included: friendly, welcoming, supportive, and learning/education. Several of the constructive suggestions are already on our agenda so it is good to get confirmation of the demand; some will be easier than others to incorporate but all will be considered.

As always, if you have ideas or comments to make at any time, critical or supportive, don't wait to be asked. You can contact me – chair@lbka.org.uk – or any committee member. The importance of feedback cannot be over-stressed. Other channels include the monthly meetings and the monthly pub socials (which restart after the Christmas break, on January 29th). The pub socials are, almost by definition, very informal and are proving a good opportunity to think aloud, explore half-baked ideas or exchange/share knowledge and opinions and, of course, to listen. All levels of experience are welcome – the more mixed the merrier. If you haven't joined one yet, I do recommend you try to come along.

We are also involved in other activities that at first glance may not seem to be associated with core benefits to members, what we might refer to as our outward facing activities: forage planting; school visits; public events, etc. Actually, I do think they are, or could/will be of benefit to members but indirectly in terms of environment, and public understanding and support.

These activities are not the Association's main motivation but lurking somewhere in the shadows is the awareness that not all cities (in the world) allow beekeeping and we are seeing an increase in questions about practice here. If, and I hope it never happens, there were ever a bad incident, or beekeeping just generally got out of hand and/or became a nuisance, there could be public, media and political moves against its practice in London. We are not essential in a sense, like part of the food chain. But I think we can demonstrate responsible behaviour and valuable contributions in line with



The venue for our monthly meeting – the white door on the *left*.

our charitable objects and these could argue in defence of responsible urban beekeeping.

Announcements

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

January Monthly Meeting

The next January Monthly Meeting will be on **Sunday 13th January**, at **11:00**, at the usual venue of Fairley House Junior School (220 Lambeth Rd, London, SE1 7JY). It will be on the subject of **pests**, **diseases and brood conditions**. The meeting will cover a large cross section of brood diseases and disorders which will be supplemented by slides and general information about the identification of each situation. Given the prevalence of brood disease in this last year, this is important subject matter.

February's Monthly Meeting will be on **Sunday 10th February**, and will be about European Foul Brood (EFB) and American Foul Brood (AFB). Both are notifiable (you're legally obliged to report it if you see it) brood diseases. These were both rife in London last year. Amongst those affected were LBKA apiaries and LBKA members' apiaries. Get important advice, hear from those who experienced it last year and help us do our bit to help keep it under control in future.

Monthly Tuesday Social: Natalie's pub pick

This month's Monthly Social will be on **Tuesday 29th January** from **18:30** at The Mud Lark, Montague Close, London Bridge, SE1 9DA. It's a historic pub right on the Thames and easily accessible from the City or London Bridge. Non-alcoholic drinks are of course available for anyone feeling abstemious after Christmas. And food.

LBKA's 2019 Training Dates Announced

Martin Hudson events@lbka.org.uk

Our Introductory Training course dates have been confirmed, and applications via the website are now welcomed. They will be held on the first two weekends in May and we have 30 places on each. A quarter of these places have already been snapped up, so act fast!

As in past years, the course will be held at St Paul's Church Hall (Rectory Grove, Clapham, SW4 0DX) close to LBKA's training apiary in Eden Community Garden, and will run from 9.30 am until 4.30 pm on each of the two days. Weather permitting, the course will include visits to two local apiaries (bee suits provided), and will provide an introductory grounding into the wonderful world of bees and beekeeping, covering: the origin and evolution of the honeybee, the colony (a super-organism), bees, plants and forage, hive parts and assembly, swarming, diseases, essential equipment, the beekeepers' year, mentoring, and getting started.

The course fee includes a beekeeping book recommended by LBKA, a year's membership of the Association, and a season of mentoring at an experienced beekeeper's hives. Every attempt is made to match trainees with a mentor in their geographical area, but some travel will be necessary.

If you are new to beekeeping, and wish to explore further the highs and lows of beekeeping, sign up as soon as possible at http://www.lbka.org.uk/courses.html, because it is a very popular course, and places sell out quickly.

And for those more experienced, the course does not run itself! Apart from those presenting these subjects, the hall needs to be set up at the start of the weekend and tidied away at the end. There is registration, providing refreshments and answering trainees' questions in the breaks between sessions. You don't need experience, but simply be willing to promote the Association and your hobby to those keen to learn. It's great fun. So if you would like to help run these courses in any capacity, make a note of these dates in your diary, and contact Martin as soon as possible on events@lbka.or.uk, and I will give you a 'slot' (or two!).

Can you help on our new course for school teachers?

Martin Hudson events@lbka.org.uk

We are expecting to run a third training course on 6th and 7th April, also at St Paul's Church Hall, specifically for teachers who wish to keep bees on school premises. Details of this course are still being finalised, but helpers will also be needed for that weekend. Again, contact Martin at events@lbka.or.uk if you can help on that weekend. Thanks in advance.

Winter Lectures

After a winter devoid of Winter Lectures, we are busy organising some.

Winter Lecture: Dave Goulson: Saving our Wild Bees: 6th February

We're delighted to announce that Dave Goulson – founder of the Bumblebee Conservation Trust and Professor of Biology at the University of Sussex – will give one of our Winter Lectures entitled "Saving our Wild Bees". This will be on Wednesday 6th February at Roots and Shoots (Walnut Tree Walk, Kennington, SE11 6DN). You'll need to get a (free) ticket in advance to attend. Note that tickets are limited and as such, only available to LBKA members at this stage. We'll open up to others in a couple of weeks time.

Members only for now, so **book early** as we will may open it up to the wider public in a couple of weeks time.

Winter Lecture: Dorothea Grosse-Kreul: Bee venom immunology: TBA

Dorothea Grosse-Kreul is a Senior Specialist Nurse for Clinical Immunology & Allergy at King's College Hospital NHS Foundation Trust. For over 20 years, she has specialised in treating allergies from pollen to wasp and bee venom. In her clinics she treats many members of the public – including LBKA members! – who have developed an allergic response to bee venom. In this winter lecture she will explain what causes allergies to bee venom and what is involved in their treatment.

We have not confirmed the date of this lecture yet – please look out for a follow-up email on this soon.

Sustainable Queen Rearing

The Bee Improvement and Bee Breeders Association (BIBBA) are running a series of Queen Rearing courses, to help beekeepers reduce their reliance on imported queens. This will reduce the chances of spreading disease and may result in local bees that are adapted better to local conditions. Howard will be attending the one in Kent on 3rd February.

Also note that LBKA's May Monthly Meeting will be on Queen Rearing, with Geoff Hood being one of the speakers.



From the BeeCraft Facebook page.

Want to sell cut comb in Brixton?

Jon Harris knows a shop owner in Brixton looking for cut comb to buy. If anyone has any for sale, contact services@lbka.org.uk.

Commendation for our bee leaflets

Our leaflets are popular and it was nice to see BeeCraft called them a "good initiative" and the resulting positive comments on social media including one from Matt Smith: "Nice to see a beekeeping related publication include 'other' bee species, native solitary bees (and others) get a pretty good mention here, with even a nod to BWARS at the end. Nice". Download our leaflets for free at http://www.lbka.org.uk/leaflets.html, which were written by Mark Patterson.

We are glad that others appreciate our focus on other pollinators as well as honey bees.

Old announcements from December

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

Martin Hudson: We welcomed Martin Hudson onto the committee, who'll be overseeing LBKA's external events and recruiting volunteers to help run them. You can contact Martin on events@lbka.org.uk.

LBKA's education offerings: Those who registered for our microscopy course, the Module 3 learning group and the 2019 Basic Assessment should have received emails acknowledging their interest. If not, please email Howard on education@lbka,org.uk.

Old announcements from November

New Committee: there is a new committee.

Membership renewals: If you haven't renewed, please do so with your personalised renewal link. If you don't have your renewal link, please ask services@lbka.org.uk to resend it.

Thanks for your support this year and we hope that you wish to continue being a member of our association.

Register your hives: Please update your records by 31st December to help the National Bee Unit get a sense of the health of the UK's honey bees.

Old announcements from October

Foul Brood: A very bad year for foul brood in London. See September's newsletter for important information and tips.

LBKA courses and tuition: Howard provided details of (a) a microscopy course for members to learn about the pollen grain structure and anatomy of the honey bee; (b) instruction sessions for those looking to do the BBKA Basic Assessment; and (c) instruction sessions for those looking to do BBKA Module 3 in March 2019. See September's newsletter and email education@lbka. org.uk for more information.

LBKA Bee Banter: Join this WhatsApp group for general bee chat for LBKA members. Join from the membership area of the LBKA website or email us so that we add you.

Trees for Cities: Help lead bee-themed ecology workshops for schools or community groups, either on a voluntary or paid basis. Contact Jess Massucco, Community, Education and Volunteer Manager at jess@ treesforcities.org or call 020 7820 4412.

Offer of apiary in W6: Benita Cruickshank in W6 (Hammersmith/Ravenscourt Park) has a domestic garden in which she would like to offer space for a hive. Contact forage@lbka.org.uk if interested.

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.

January'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

January's committee meeting had quite a packed agenda.

We first discussed LBKA's budget. LBKA needs some new equipment (including observation hive, props for school talks, replacement gazebo for shows, extractors, apiary equipment). LBKA also made a surplus last year. The committee agreed on the principle put forward by the treasurer for some of last year's profit to be used to increase spending on equipment that we need this year. We also approved ordering more of our leaflets (which had some recent positive comments on social media) and seeds.

Connected to this is the issue of sponsorship. Neal's Yard have sponsored some of our outreach activities, including our leaflets and the props we use in schools, amongst other things (thanks!). We are considering asking sponsors to sponsor other items, including perhaps a new gazebo and stands for our stalls.

David has starting drafting a "volunteers' policy" so that LBKA volunteers know what to expect from helping out. It is still in its initial stages.

The committee approved Martin's rejigged programme for the Introductory courses that we have just advertised, and we will be recruiting people to help deliver the material.

We then discussed issues to go with our apiaries. Our Holland Park apiary is moving from the roof to an adjacent field and we are designing the new layout. We think there is perhaps potential for doing some wildflower planting in the field in future. Also, Elliot is negotiating the terms under which LBKA will have a fifth apiary in Regents Park. Assuming negotiations go well, Elliot will manage the site and is recruiting some LBKA members as beekeepers. We intend for it to be a training apiary – like our others – but, in future, it may be possible for LBKA members to keep some bees there too.

We were happy with feedback comments that LBKA members gave us when they rejoined, but will set up a new and more exhaustive members' survey soon, to ensure that we are focussing on the things that members want us to.

The committee agreed in principle to run some more

advanced practical training this coming year. This may including queen rearing at some of our apiaries.

We are working on a new proposal to put to swarm collectors about how we can ensure that swarms are properly quarantined, given the prevalence of EFB and AFB last year. We will be collecting opinions from our swarm collectors over the next months, so we can finalise this before the swarming season starts.

Finally, Richard, Elliot and Martin will be representing LBKA at BBKA's annual delegates' meeting.

Last month's Monthly Meeting:

What happened at our meeting last month. Jon Harris ran the annual Christmas quiz this year.

Jon Harris LBKA member

The LBKA annual quiz was held on the 16th of December on a damp grey day. However we still attracted a core of (thirteen) faithful quizzers and managed 3 teams. After a hot drink and a catch up the quiz got underway. The quiz was a relaxed affair with a lot of banter and I hope, fun for all! After the winners were announced, people settled down for a chat and catch up before the before we all headed off to finish off our Christmas shopping and checking on our bees.

Here is to next year's quiz (which I have already started to compile).

(I can't remember the name of the team that won sadly!)

Questions

Here were the questions. Jon's answers are on the back page.

- 1. In which year was BBKA formed?
- 2. How many species of bee are there in the world (to the nearest thousand)?
- 3. How many species of bee are there in the UK (to the nearest ten)?
- 4. Which two continents can you not find bees?
- 5. How many times a second do a bee's wing beat?
- 6. Which country were the earliest pictures of bees found?
- 7. At which speed do bees fly?
- 8. How many smell receptors do bees have?
- 9. Which year did "Bee Movie" come out in UK?
- 10. Which year was B52 formed?
- 11. Can bees see the colour red?

- 12. Which colours are most flowers pollinated by bees?
- 13. How many bee stings can kill a human?
- 14. How many micrograms of venom are there in a bee sting?
- 15. Fear of bees is called...?
- 16. Which UK city has the bee as its mascot?
- 17. What colour is bee blood?
- 18. Is a bee heart in the thorax or abdomen?
- 19. How much honey was commercially produced in 2016?
- 20. What is the average pH value of honey?
- 21. What is the approximate number calories in 100g honey?
- 22. How much is a 420g jar of Tregothnan Manuka honey?
- 23. What does the vulture bee eat?
- 24. How old was Brother Adam when he died?
- 25. Which British actor played the main role in "The Swarm"?
- 26. Apart from tree sap, what else does the bee add to propolis?
- 27. How many times does a bee/egg/grub moult in its cell?
- 28. How many aluminium bars are there in the hive in Kew?
- 29. How many local associations are there in the UK?
- 30. How many grams of honey does a bee need to fly around the world?

January in the Apiary

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

Howard Nichols education@lbka.org.uk

January is a quiet time for beekeepers but an eye must still be kept on the apiary. Make sure that the roof has not been blown off by winds or that woodpeckers have not taken an interest in the hive. Check behind the mouseguards for dead bees and remove if necessary.

The queen should now have started to lay again, albeit in a small way. Despite the unusually warm weather some some queens have stopped laying. Others have not.

Varroa strategy

Treatment in autumn with Apiguard may not have been enough to deal with the mite. Treatment with Api Bioxal in late December or early January is the standard treatment for Varroa. It is quick to administer and is all done in less than 1 minute if bees are not flying. As always, it is essential to wear a veil when opening the colony to treat. Do not take chances.

Food stores

If the colony went into the winter with 35 lbs. of stores then feeding will not be necessary, even in this exceptionally mild winter with the bees flying. If stores were light a couple of months ago then it may be an entirely different matter. We have had an exceptionally mild autumn and winter so far. If feeding is necessary then only candy or fondant should be used at this time of year. Sugar syrup should be avoided as it will excite the bees and so disturb the cluster. The bees are also unable to process syrup in winter and it is then liable to fermentation.

New equipment

Those who have purchased equipment during the winter sales can assemble frames, etc. It is surprising how quickly events can move when the bees get going in spring and ready assembled equipment keeps the beekeeper ahead of any eventuality. Some suppliers do have a post Christmas sale so it is still worth checking out the websites.

Cleaning old equipment

Best time to do this is immediately after it is taken out of use in autumn. If not done at that time then winter is preferable to cleaning in the spring immediately before re use. Attention to general cleanliness and maintenance of old equipment is part of apiary hygiene strategy. Please do check for evidence of wax moth and place frames in a cold place wherever possible.

Candles and honey recipes

For those who process beeswax then winter is the usual time of year for this activity. Honey foodstuffs can, of course, be prepared and eaten at any time of year.

LBKA events

Keep in touch with others through the monthly meetings, social evenings and winter lectures.

Education

Education and practical experience are the 2 routes through which beekeepers develop their skills. Education may arise from a variety of routes but Beecraft is a substantial resource. If you do not currently subscribe to Beecraft then January is a good month to take out an annual subscription. Those who are also registered



Helenium, the best garden plant for attracting bees



Bellflower, the sole pollen source for Bell Flower Scissor Bee and Harebell Blunthorn Bee

with the BBKA will receive the monthly BBKA News by post.

Registration with Beebase

Most of our beekeeping members are registered on Beebase. However, it is possible that a few newer members may not be. It is important that everyone is registered in case a notifiable disease or pest is found in your location. The Bee Inspectors are dependent upon them knowing the location of all hives and apiaries. Please do ensure you are registered.

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



Oregano, the best butterfly plant. The awesome beeattracting plant also supports other common and scarce species



Knapweed, one of the highest yielding nectar plants. Its cultivated cousin Montana is equally as good and has a very long flowering period lasting all spring through to autumn.

Bee friendly gardening New Year's resolutions

This month's forage blog takes a different direction. There's not much to write about in terms of seasonal forage for bees in the depths of winter when little is in flower and our bees are dormant so for a change my blog takes a look at what we can do to make our gardens better environments for bees all year round going forward into a new year.

Create Habitat for bees

Bees need places to forage and find pollen, nectar, water and propolis and this can be done by planting the right types of flowers for them and incorporating a small water feature into your garden where bees can gather water.

Another sort of habitat bees need is nesting habitat where they can raise their offspring. For Honey bees this is a hive but for other bees this can be piles of decaying logs in which they excavate a nest burrow,



Cirsium (thistles) are the highest yielding UK native nectar plants and super-important bee forage. Here one is being visited by a male longhorn beetle Retpela maculata.



Golden rod Solidago, the only plant I've ever seen Sharp Tailed Bees frequent

a patch of sandy soil or clay bank for mining bees to dig out a nest tunnel, or bundles of hollow plant stems and cardboard tubes for the likes of mason and leafcutter bees. These nesting habitats can be conveniently catered for in the form of the many pre-fabricated bee nesting boxes available from garden centres and online shops or you can make your own see my guide how to make homes for solitary bees here.

Other ideas you could try include making a nesting cylinder for ground nesting bees. You need to invest in a sheet of perforated metal sheeting which you bring together at the ends and fasten together with nuts and bolts to form a cylinder. This is then filled with sand or free draining soil to provide a medium which bees can burrow into. This design allows bees to nest in the top of the planter by burrowing downwards but they can potentially also excavate lateral burrows entering through the many perforated holes in the metal sheet. Try using soft and sharp sand, cactus compost or John Innes loam based soil with added sand. You can plant drought-tolerant flowering plants in the top too to provide cover as some bees prefer some vegetation cover near their nests whilst others prefer a more open aspect.



Holly, the Male plants are coming into flower now and will continue through spring when the separate female trees also bloom.

Lastly the final habitat that bees need is over wintering habitat. For bumble bees this is often a shallow hollow excavated in dry soil beneath tufts of grass or piles of decaying vegetation, compost heaps or hollow plant stems for solitary bees. Try not cutting back all your herbaceous perennials in autumn, so leaving some stems intact for insects to hibernate inside the hollow stems. Many solitary bees over winter in their nest chambers.

Plant useful things in your garden

My gardening mantra is either the bees can eat it or we can. If a plant can't fulfil either of these two requirements then it doesn't get a look in! Of course most of the things that we can eat are also beneficial to bees and other pollinators as the majority of vegetables do also flower and the fruits we eat need the bees to pollinate them.

Plant the best plants for bees

Not all flowers are equally attractive or beneficial to bees and other pollinators. Attractiveness and benefit to pollinators varies a great deal with some plants being 100 times more attractive and useful than the worst. To complicate things not all plants are equally beneficial to all insects due to the shape and morphology of the blooms which may prevent all but a few dedicated visiting bees whilst others contain toxins, the effects from which only certain bee species are immune. Great examples are the foxglove Digitalis Purpurea, Comfrey Symphytum officinalis and Everlasting Pea Lathyrus latifolia which are among the top 10 UK plants for sugar content in their nectar and the amount of nectar produced per hectare (kg of sugar/ha/year). These 3 plants should be a magnet for all bees having the greatest rewarding nectars among British plants. However Fox Glove and Comfrey are plants with deep tubular flowers which prevent all but the longest tongues from accessing their nectar, meanwhile Everlasting Pea has



Solitary bee nest planters.

both a deep nectary and tightly lipped flowers which require a long tongued bee with a robust body to enter.

Bulking up your gardens by planting the most attractive and beneficial plants for a broad range of insects will provide the most benefit to pollinators, whilst adding plants which are attractive or of benefit to only a small number of species helps provide food for more fussy specialists - often the species most at risk. There are many bees which are not generalist and will only feed their offspring pollen from a small number or a single species of plant. Plant a mixture of broadly attractive and specialist plants and choose plants which will offer flowers over a long season or plan a succession of flower types throughout the season. See the tables on pages 10 and 11. There are lots more planting suggestions on my plants for pollinators pages along with download guides for plants for different types of bees. There are also lots of resources on the LBKA website.

Reduce your reliance on pesticides

Pesticides do have their place but only as a final resort once other means of defeating pests and disease have been exhausted. Try mulching with compost and recycling garden waste to feed plants rather than chemical feeds, try companion planting to ward off unwelcome pests and attract beneficial insect predators over chem-



Tim Lover awarded MBE in the Queen's New Year Honours (last year).

ical sprays. Pesticides find their way into pollen and nectar and accumulate in social bee colonies where they can exhibit a wide range of symptoms including reduced reproductive success, decreased life span of the individual insects, compromised immune response and tolerances to environmental stressors and increased mortality rates. When buying plants for your garden try and find out from the seller or the grower whether neonicotinoid pesticides have been used in the plant's production – these pesticides are harmful to bees and long lived in the plant and surrounding soil meaning they can have effects on wildlife for many years to come.

Stop being so tidy in the garden

Try not to be too much of a compulsive tidy upper in your gardens. Try leaving small hidden away messy areas where vegetation is not cut back and things are left a little wilder. This will act as a refuge for invertebrates which are less tolerant of disturbed areas.

Learn to plan ahead

If you want to provide for pollinators in summer then the time to plan your planting activity is now. Decide what space you have, plan what you intend to grow and start placing orders now so that come spring you can have plants delivered and planted that will flower come summer. Planning ahead is especially important for spring bulbs which are best planted when dormant in autumn, 5-6 months before they will come into flower.

Plant variety	Flowering period	Pollinators attracted
Helenium autumnal ^a	July to October	Honey bee, Lasioglossum bees, Hoverfly, 4 species of But- terfly
Oreganum vulgare ^b or Ore- ganum onites	June to October	Honey Bee, Lasioglossum bees, Andrena bees, Bumble- bee, Melitta bees, Hylaeus bees, Hoverfly, 9 species of Butterfly
Agastache foeniculum ^c	July to September	Honey Bee, Bumblebees, 4 species of Butterfly, Hum- mingbird Hawkmoth, Hoverfly, Flower Bees
Calamint	July to August	Honey Bee, Bumble Bee, Megachile Bees
Lavender Gross Bleu	July to September	Honey Bee, Bumblebees, Lasioglossum Bees, Butterfly
Nepeta	June to September	Honey Bee, Bumblebees, Megachile Bees, Wool Carder Bee, Flower Bees, Butterfly, Mint Moth, Osmia Bees
Echium vulgare	June to September	Honey Bee, Bumblebees, Megachile Bees, Osmia Bees, Wool Carder Bee, Flower Bees, Hoplitis adunca, Las- sioglossum, Pollen Beetles
Veronica spicata	June to September	Honey Bee, Bumblebee, Lassioglossum Bees, Hylaeus Bees, Hoverfly, Butterfly
Teucrium hiricanum	June to October	Honey Bee, Bumblebee, Flower Bees, Lassioglossum Bees, Hoverfly, Butterfly, Mint Moth, Swollen Thigh Bee- tles, Pollen Beetles, Wool Carder bees
Sedum Spectable	August to October	Honey Bee, Bumblebee, Lassioglossum Bees, Butterfly
Solidago ^d and Golden Rod	July to October	Honey Bee, Bumblebee, Xylocopa Large Carpenter Bees, Coelioxys Sharp Tailed Bees, Lassioglossum Bees, But- terfly, Beetles.
Hyssopus	June to September	Honey Bee, Bumblebee, Lassioglossum Bees
Eryngium	June to September	Honey Bee, Bumblebee, Lassioglossum Bee, Hylaeus bees, butterfly, hoverfly, pollen beetles, Solitary wasps
Echinops	June to September	Honey Bee, Bumblebee, Lassioglossum Bees, Hylaeus Bees, solitary wasps
Centaurea ^e (Napweeds and Perennial Cornflower)	May to November	Bumblebees, Lassioglossum Bees, Megachile Bees, Osmia Bees, Hoverfly, Butterfly, Pollen Beetles
Cirsium (thistles) ^f	June to September	Bumblebees, Honey Bee, Andrena Bees, Halictus Bees, Colletes Bees, Flower Bees, Long Horn Beetle, Swollen Thigh Beetle, Pollen Beetle, Butterflies, Solitary wasps

Examples of some of the best plants to attract a broad variety of pollinators. Suggestions based on several years of data collection in studies into flower attractiveness to pollinators conducted by LASI and Rosybee Plants supplemented with results from the Agriland Project along with our own observations over the years in our London Garden.

^aThe most attractive garden plant for bees in 4 years of trials By Rosybee

^bThe most attractive plant for butterflies by LASI and top 10 plants for bees by both LASI and Rosybee trials.

 $^{c}\mbox{The most attractive plant for bees in trials by LASI.}$

^dShown by Rosybee trials not to be very attractive to bees however in my own garden I have 3 varieties which attract large numbers of predominantly solitary bees, blue butterflies, solitary wasps, hoverflies and pollinating beetles. On regular visits to the prairie plantings in London's Burges Park and on my regular travels around North America I have witnessed Golden Rod visited by an extraordinary range of pollinators. Solidago is the only plant in my garden on which I have seen sharp tailed bees visit.

^eCentaurea nigra (black napweed) ranked 4th by Agriland project for abundance of nectar produced per Ha and Centaurea montana (perennial cornflower) consistently in top 20 most attractive plants by Rosybee - in addition Centaurea species have long flower season and prolonged usefulness to bees.

^fUK native Plant producing the most nectar according to Agriland Project.

Plant variety	Flowering period	Main benefitting pollinator
Everlasting Pea	May to August	Megachile Bees
Stachys	May to September	Wool carder bee (collects hairs from the plant to carder its nest) Fork tailed flower bee
Bell flowers	May to September	Chelostoma campanularum, Melitta haemorhdalis Bum- blebees, Honey Bee
Achillea (Yarrow)	May to September	Colletes davisanius wool carder bee (collects hairs from the plant to carder its nest)
Alliums	April to September	Hylaeus Bees Honey Bee, Bumble Bee
Lamium maculatum	March to November	Bumblebees and Hairy Footed Flower Bee
Pulmonaria	March to May	Hairy Footed Flower Bee
Astrantia	April to August	Hylaeus Bees
Asteraceae	April to October	Hylaeus Bees, Colletes bees, Swollen Thigh beetles
Foxglove	April to July	Garden Bumble Bee
Yellow Loosestrife	June to August	Yellow loosestrife Bee Macropis europaeus
Hawksbeard	June to September	Pantaloon bee Dasypoda hirtyipes, Red Tailed Bumble- bee, Honey Bee, Andrena bees, Osmia Bees

Some examples of plants which are beneficial to specialist species and are a good way to provide for fussy flower visitors to your garden.

Give no dig gardening a try

Spreading composts and biodegradable mulches onto your soil and allowing worms and other detritivores to take nutrients down into the soil is much more beneficial to most soils over conventional digging in. By refraining from deep digging and only adding organic material to the soil surface we replicate what occurs in nature by creating a nutrient rich, moisture retaining top layer above increasingly mineral based layers of soil. Most plants have the majority of their roots within the top 30cm of soil, even very large trees seldom have roots penetrating deeper than 2-3 feet and they are mainly for anchorage rather than water and nutritional absorption. The benefit to bees in no deep digging is that solitary species nesting in the soil don't have their burrows disturbed and plants flower better. Digging frequently disturbs the buried seed bank meaning weed species can take hold, whereas no dig gardening results in far less seed bank disturbance and therefore a reduced weed problem. In the United States it has been found that many ground nesting solitary bee populations can triple on no dig farms compared to conventionally tilled crop fields as a result of fewer nest burrows being damaged.

LBKA Apiaries

News from LBKA's apiaries.

Richard Glassborow (Acting) Apiary Officer

All LBKA bees are tucked up for the winter. Most have their own supplies but one or two are being fed fondant. Mudchute and Eden have been treated for varroa using Oxalic acid sublimation, Holland Park by trickling. I have to say, the day Vlad and I treated Mudchute was the coldest and wettest I have ever been while beekeeping. Utterly miserable for us but perfect for treating as there wasn't a bee to be seen outside the hives.

Fumigation is a very effective way of administering oxalic acid and LBKA has recently invested in some kit to treat our teaching apiaries.

I do prefer to avoid chemicals where possible and have long used shook swarm with the varroa bait-frame refinement as the foundation of my integrated pest management of varroa. This can be 98% effective but needs to happen during the spring build-up. The timing is a challenge at Eden because that apiary is used for training courses and BBKA Basic assessments during the same period- and they all require more than one full colony – bees, laying queen, brood, and stores. Successfully weaving shook swarms through that and the weather is frankly stressful so I thought I would try sublimation, which can also be 98% effective against varroa. In my opinion, an effective integrated pest management strategy against varroa needs at least one tool in the box with that kind of potency. And of course the other benefits of shook swarm is that it controls pretty much everything else and you are unlikely to need chemical treatment during the honey season. Unless you are very unlucky with the weather the bees thrive on it.

LBKA is aware there is much interest in letting honey bees develop their own defences against varroa. But as far as I know, the only evidence that comes close to credible survival involves isolation. That is just not going to happen in London. We know the density of registered colonies is high; we suspect (with some evidence) that there are significant numbers of unregistered managed colonies and there are also significant numbers of feral colonies in addition. Whatever this adds up to it is the opposite of isolation. Bluntly, if you don't manage varroa, your bees die.

What is more, if we don't manage our own varroa, it spreads to keepers who do. That is why I think the inspection board above shows such a high knock down in December when that colony was treated with MAQS in August and shook swarmed in May. It is a strong colony and when the nectar dried up in June I think they went robbing and came back with more than honey. This is why LBKA make varroa management one of the top priorities for responsible urban beekeeping.

Next month we hope to be reporting on the relocation of the apiary in Holland Park. Though the rooftop apiary at the orangery is certainly very beautiful it has never been possible to develop its potential as a west London teaching apiary because the load restrictions of the listed building impose an impractical limit on the number of people on the roof at anyone time.

Mark Patterson and I have been negotiating with the Royal Borough of Kensington and Chelsea to relocate the apiary in a nearby, beautiful wooded former paddock. Fingers crossed.



Oxalic fumigation at Mudchute.



Typical varroa knock down after oxalic fumigation (and this colony was treated with MAQS in August!)

Product Reviews: Oxalic Acid vaporisers

Richard Glassborow chair@lbka.org.uk

If you have already read the Apiaries column you will have seen that LBKA recently invested in equipment to treat the teaching apiary colonies for varroa by sublimating oxalic acid. That column gives a little bit more about why we did this but I thought it might be helpful to share some of the choices behind the purchases. This is in no way an exhaustive product review but I hope there are some points of interest.

The first thing I should say concerns Health & Safety: Oxalic is an organic acid and when sublimated the gas is extremely hazardous to our health. (Sublimation is a change of state from solid to gas without passing through a liquid state). The bees get one dose – they survive but the varroa don't.

We on the other hand are administering many doses and protection from the crystals and the fumes is essential: gloves, eye protection, adequate breathing apparatus, and only outdoors.

For this reason, we are not hiring out this equipment.



The £115 Varrox on the left; the £35 Vapmite on the right.

But we hope in time to train all our apiary managers (who may then be persuaded to visit other members who wish to use it).

So why the product review? Sublimation takes longer than trickling oxalic solution, especially if you only have one vaporiser because you have to wait for the fumes to act and for the tool to cool down before you can move on to the next hive. If you have two tools you can be setting up the second while the first is doing its thing and cooling, then move the first to the third while the second is cooking, and so on. Thanks to Geoff Hood for that handy tip. If you only have one or two hives this would not be a cost effective advantage but the Association has 16-20 hives so speed does matter.

There are several makes on the market. We needed fast delivery so imports would be too risky. Thornes sell two brands, the Vapmite, £35, and Varrox, £115: which to buy? Remember, we want 2 so a cost difference of $\times 3$ matters. But equally the Association cannot afford to buy cheap stuff that doesn't work or doesn't last. (There are other costs: 12v leisure battery £70 ish; decent battery charger suitable for that kind of battery, £70 ish; respirator, £30 ish).

We decided to buy one of each and report back. So here is my brief report:

The process works by loading a measure of Apibioxal (Oxalic acid) into the metal heating pot at the end of the vaporiser. That is then inserted under the mesh floor – over the inspection board. (the inspection board is plastic it must be protected). When the terminals are connected to a 12 V battery the pot gets very hot and the acid sublimates. Obviously the hive must be sealed

or all the fumes escape – but this is a product review not a how-to guide.

I will say straight away, as far as I could tell (I couldn't see them working), from a sublimation point of view, both models performed as intended.

We cannot yet report on reliability over time. There are build quality differences but are they worth a price difference of three times? If you are a low user, I would say, definitely not. $\times 1$ Vapmite + time on your side does the job. If you are a mid range user you might want $\times 2$ Vapmites.. High volume users or equipment fetishists might be better with the Varrox, or as we have done, one of each until you are convinced of the verdict. In the mean time, yes the Varrox is just a little bit nicer to use. Why?

There are some clues in the picture. Look at the cables: the Varrox cable is heavier and likely to last longer. But it is also more flexible. You can sees how it is more neatly coiled on the floor. That makes it easier to work with. The Vapmite cable is stiff and a bit frustrating: impossible to pack neatly and affects the lie of the heat pot.

Look at the heat pot: The Varrox is nice and flat on the floor: the Vapmite is not. I tried to get it to lie flat but it wouldn't, largely due to the cable. I could have loosened the screws holding the pot to the arm but then next time would it be the same? Those screws by the way, catch on the underside of the hive when you are taking it out.

Look at how the cable joins the arm: the Varrox is sealed, presumably waterproof. The Vapmite is not. I used then both in the rain. Neither was a problem but I think the Vapmite could have been. I may be being unfair because I have not taken them apart so I don't really know.

The terminal clamps: both work, but again, the Varrox is a bit more reassuring.

Three times more reassuring? No.

But I know which one I prefer using. Maybe I am a bit of an equipment fetishist!

Facebook (In)digest(ion)

Some of the highlights from LBKA's public facing Facebook page.

Eugene Fahy LBKA Member

TS Eliot observed that "April is the cruellest month". Whilst it may be true that "Winter kept us warm" our Facebook page has ample evidence that this year, in London at least, it did not "cover Earth in forgetful snow". Posts from Richard Glassborow on 22 December and Kathie Binysh show bees were out and about in mid-winter, setting back plans for oxalic acid treatments.

A posting in French from Isabelle Garnier, led to a brief discussion about the anger of yellow jackets ("Gilet Jaune" protestors rather than wasps) at French authorities' delay in tackling Asian Hornets. Mark Anthony Patterson (MAP) pointed out that the four year delay in acting, allowed the species to become established on the European mainland. This makes it impossible to eradicate them and difficult to contain them in areas where they are well established.

Finally, in the spirit of Janus and January, looking backwards, Jon Harris posted pictures of the 2018 LBKA quiz – the comments provide evidence, if any were needed, that beekeepers rarely agree on anything and, looking forwards, MAP shared an event for the beekeeping diary. Free tickets are available for the Bee Keeping Science Convention on Saturday 23 February at Roots and Shoots (familiar to LBKA members as the venue for our AGM).

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.

Vald Zamfir: I have an extractor for sale. It is a 4frame manual tangential, stainless steel drum, fitting up to Langstroth-sized frames (just about, if the top bars are on the inside, towards the axle). The downsides are that gears rust quite easily since they're not stainless steel and the mechanism tends to screw itself to stuck and needs to be spun the other way for a bit. The asking price is £100. Contact rifmaz@gmail.com.

Emily Abbott: I run Hive & Keeper Ltd a company that sells single apiary/harvest honeys from small scale beekeepers around the country. Jars are labelled with the honey's main flavour, the name of the beekeeper and where the apiary is. Hive & Keeper currently works with about 30 keepers and your honey would be enjoyed by people across the country. Let me know if you have honey you want to sell, but don't want to jar and sell it yourself. We buy 30lb buckets (a minimum of 3). Check out http://www.hiveandkeeper.com/ or email emily@hiveandkeeper.com.

Kyle Moreland: I am also looking to contact other beekeepers in Streatham Hill (SW2); to lend a hand with hives, swarms, etc. I am available during the day as I am retired and have a pickup truck which can be useful for moving hives. I have 2 empty hives that I am looking to fill in Spring 2019. Please contact me on kyle@marmionroad.plus.com.

Upcoming events

Sunday 13th January: Monthly Meeting: Pests, diseases and brood conditions

11:00-13:00 at Fairley House Junior School, 218 Lambeth Rd, Lambeth, London, SE1 7JY

The meeting will cover a large cross section of brood diseases and disorders which will be supplemented by slides and general information about the identification of each situation. Given the prevalence of brood disease in this last year, this will be an important meeting to attend. Followed by the usual hot drinks, cake and chat. Meetings are for members only, but you're welcome to come as a guest to find out more about our association.

Tuesday 29th January: Monthly Pub Social

from 18:30 at The Mud Lark, Montague Close, London Bridge, SE1 9DA

This month, we're in the The Mud Lark. It's a historic pub right on the Thames and easily accessible from the City or London Bridge. Non-alcoholic drinks are of course available for anyone feeling abstemious after Christmas. And food.

Sunday 10th February: Monthly Meeting: EFB and AFB

11:00-13:00 at Fairley House Junior School, 218 Lambeth Rd, Lambeth, London, SE1 7JY

The meeting will be about European Foul Brood (EFB) and American Foul Brood. Both are notifiable (you're legally obliged to report it if you see it) brood diseases. These were both rife in London last year. Amongst those affected were LBKA apiaries and LBKA members' apiaries. Get important advice, hear from those who experienced it last year and help us do our bit to help keep it under control in future. Followed by the usual hot drinks, cake and chat. Meetings are for members only, but you're welcome to come as a guest to find out more about our association.

Wednesday 6th February: Winter Lecture: Saving our Wild Bees by Dave Goulson

19:00-21:00 at Roots and Shoots, Walnut Tree Walk, Kennington, SE11 6DN.

We're delighted to announce that Dave Goulson (founder of the Bumblebee Conservation Trust and Professor of Biology at the University of Sussex) will give one of our Winter Lectures with the title "Saving our Wild Bees". He will talk about wild bees, bee and insect declines, and what we can do about them. Dave is an engaging and accessible speaker, who gives many public lectures and has authored a number of books. Tickets are free but there are limited spaces and as such, tickets are currently only open to LBKA members. We will open tickets to non-members shortly towards the end of January (or you can join). Please contact us to find out how to get your ticket if you're a member.

Quiz answers

Jon's answers to the quiz on page 5 (not that everyone agreed with them...)

- 1. 1874
- 2. 20,000
- 3. 250
- 4. Antarctica and Arctic
- 5. 230
- 6. Spain
- 7. 25km hour
- 8. 170
- 9. Dec 2007
- 10. 1976
- 11. No
- 12. Yellow, white and blue

- 13. 1000
- 14. 50
- 15. Apiphobia
- 16. Manchester
- 17. Straw/yellow
- 18. Abdomen
- 19. 18 million tons
- 20. 3.9
- 21. 304
- 22. £225
- 23. Rotting meat
- 24. 98 (99th year)
- 25. Michael Caine
- 26. Wax and saliva
- 27.6
- 28. 1700
- 29. 75
- 30. 28g

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: Natalie Cotton, admin@lbka.org.uk
- Education: Howard Nichols education@lbka.org.uk
- Membership: Aidan Slingsby, services@lbka.org.uk
- Resources: Tristram Sutton, resources@lbka.org.uk
- Development: Simon Saville, development@lbka.org.uk
 Mentoring: Elliot Hodges, mentor@lbka.org.uk
- Events: Martin Hudson, events@lbka.org.uk

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

