Montgomeryshire BeeKeepers Association

The BeeHolder

Summer 2018

Britain's largest bee

The Violet Carpenter bee

(not to be confused with the violent carpenter bee,
a much angrier insect which likes to drive nails into people)
(see article on page 9)

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We welcome as new members ...

Our list of new members is not included in this “anonimised” version of BeeHolder.

Editorial

That's a pretty impressive bee on the front cover this issue (bless you). If you manage to spot one of those, do try and get a photo.

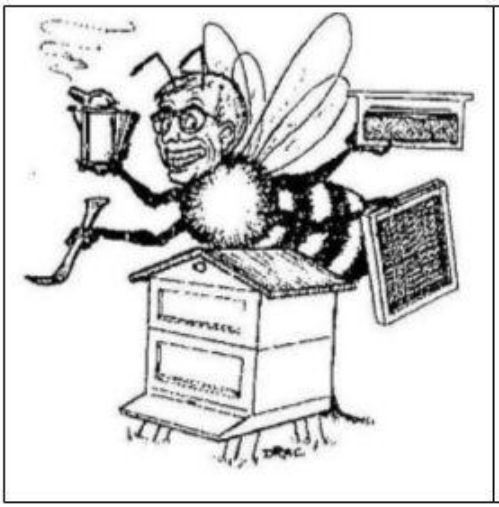
Coming soon now is the Royal Welsh, featuring MBKA doing the heavy lifting on the WBKA bee section. If you're going to the show, don't forget to stop by and say hello.

Hopefully the new web site will be there soon. It is basically in shape, but needs updating to the latest version of Drupal to power it and bring out the goodness.

Also in this issue is a triple helping of basic bee assessment information. Following the success of the “class of 2018”, hopefully another group will attempt this useful qualification as the first step towards Master Bee Keeper.

Finally, and as usual, anyone out there with a contribution for BeeHolder – or even just ideas for articles – do get in touch.

Chris



There was a young bee from Torquay,
Who flew out of the hive for a pee,
Just for a lark,
She stayed out after dark,
And the guard bees demanded a fee.

Forthcoming Events

MBKA are having a stall at the shows marked with an asterisk (*), so if you are free why not volunteer to help? Contact Anne Wren (see page 19) if interested.

Hopefully there will be two Open Hives events over the summer, one towards the end of July (Roger Stone and Bill Gough, XXXXXXXX) and a second in August (Sian Jones and Keith Rimmer, XXXXXX). Keep an eye on email or the website for updates (or get in touch with a committee member if you are interested, but can only be contacted by phone).

Apiary training sessions are weather dependant and so dates aren't given here – basically they are one a month and targeted to avoid weekends where other MBKA things are occurring. Again, email/website/phone.

23rd - 26th July - Royal Welsh Show

As mentioned elsewhere, MBKA are helping host the WBKA bee section so do call in if you are going to the Welsh. This is the big show with animals, sideshows, stalls, food, drink and so on. And if this weather keeps up, no need for a tractor to tow the cars out afterwards.

Royal Welsh Showground, Builth Wells

10th - 11th August - Shrewsbury Flower Show

This year's flower show will have the usual bee related classes, so a great opportunity to see what other folk are doing with their bee products. It is a big event and well worth having a look if you are interested in flowers, bees, days out or all three. Note that they may still be looking for volunteers to help with set up and take down, and also for stewarding.

Quarry Park, Shrewsbury

18th August - Montgomery Show *

Montgomery Carnival starts from the show ground at 12 noon, followed by the show intself from 1 till 5pm. MBKA will be there stimulating public interest in bees.

Show Ground, Montgomery

25th August - Berriew Show *

This is the August Bank holiday Saturday, and the 70th anniversary of Berriew Show. It is an agricultural, horticultural and craft show. Our stall last year was a great success, so lets hope for a repeat.

Upper Rectory Field, Berriew

1st and 2nd September - Newtown Food Festival *

Newtown Food Festival seems to be gathering momentum year on year and is becoming a really worthwhile visit. MBKA are making a second appearance, so do come and support!

Back Lane Car Park, SY18 2NZ

Berriew show (left) and Bishops Castle (right) last year

22nd September - Michaelmas Fair in Bishops Castle *

The theme of the Bishops Castle Michaelmas Fair is “people having a good day out” which, in my opinion, is a pretty good place to start. I went last year, and it delivered in spades. Also last year there were two “bee parades”, one during the day and one by torch light. MBKA stand.

Pretty much all of Bishops Castle

8th November - Newtown Gardening club

Wolfgang Schaefer is the guest speaker at the Newtown Gardening club, talking about wildflower meadows. This topic complements the talk given by Clive Faulkner to MBKA earlier this year. The talk starts at 7:30 pm, and guests are welcome: only £3 per person.

Methodist Church, Back Lane, Newtown

Swarm Collection

Just a reminder of the procedure for registering to collect a swarm:

If anyone wishes to collect swarms, will they please register with me via mobile using the following format:

Area they live in (e.g. Carno)
Name (e.g. Joe Bloggs)
Distance of travel (e.g. 20 miles. Please make this realistic, a five mile radius does not work)
Usual availability (e.g. anytime/evenings from 6pm/weekends etc)

Please note that I have deleted all last year's names as I do not know their present circumstances.

If you do not have a mobile, please borrow one and register adding you have a land line contact only and include that number

Procedure:

When I am notified of a swarm, I will get what information I can. Hopefully including a photo to eradicate bumbles/wasps etc from equation.

I will not usually accept calls to anything above fifteen feet. However, if anyone is prepared to work higher, then add that to contact details.

I shall call the most convenient person to the swarm. If no answer, I will leave messages with any other people in area. The first person to answer will be given brief details, hopefully, including photos. It will then be up to them to liaise with the reporter to get full details. Please send me a quick message after the visit, (e.g. "collected", "wasps" "too high to get"). No information will be given to any other person until I have heard from first person.

I have been asked by several beginners if it would be possible to help collect a swarm with an experienced swarm collector. The only thing I can do is pass the request to the person collecting the swarm and they can contact the beginner and see if anything can be arranged.

If anyone can add improvements to the above, please contact me.

Joe Bidwell, Swarm Coordinator

Recent Events

February 21 - MBKA Annual General Meeting

The AGM proceeded smoothly with a changing of the guard as Keith Rimmer stepped down from the role of chairman to be replaced by Pete Elvis, who had been shadowing Keith for the previous several months. Following the business we were given an interesting talk by Laura Jones from the National Botanic Garden of Wales about “Investigating honey bee foraging using DNA bar-coding”. And as usual the meeting closed with the raffles being drawn, to everyone's delight.

March 21st – Wally Shaw - Varroa and deformed wing virus.

Wally and Jenny Shaw travelled from Anglesey in March to present MBKA members a talk on the latest research into Varroa and the Deformed wing virus(DWV).
As usual Wally presented a well informed talk with detailed information on the latest research and treatments which radically alters the way in which we have been managing varroa. Fascinating.

May 12th – Llanidloes Food Festival

This was the first Llanidloes food festival, and the MBKA flag was flown (literally - we had the new MBKA banner there) by Helen Woodruff with help from Adrian, Frances and Sheena. There was a lot of interest from the public in the displays and the virtual hive, plus sales of bee products went well. Look out for the brief film which is currently doing the rounds on facebook (the pictures below are stills from the film).

It was a lovely day outside which made photography next to windows even more challenging than it might otherwise have been. Ed

July 8th – Open Hives at Y Fan

A very successful “open hives” at Helen and Adrian's apiary in Y Fan near Llanidloes. Lots of fun, a sociable pool tea and beekeeping in glorious technicolour.

Oh yes, and it was very sunny as well.

Helen Woodruff

Basic Bee Assessment 1 : The Concept

Its becoming increasingly clear that a formalised training program in the Basics of beekeeping is necessary. People quite often come into beekeeping having either inherited bees, been given bees or bought bees and have little or no idea of how to manage them.

Similarly beekeeping practise has changed in recent years due to change in circumstances for bees. Disease, weather and queen loss being a few of these changes. The Basic Assessment is a way of developing the required knowledge and skills.

I encouraged new members of MBKA who had kept bees for a few years and had come to training courses with myself and Roger Stone to take the Basic Assessment, myself included. We have been meeting over the winter as a study group to tackle the syllabus. These meetings have been productive, informative and enjoyable. We have had some very interesting exchanges of beekeeping experiences and we have all gained knowledge about the basics of beekeeping, so hopefully our colonies will thrive and be calm and healthy.

Rachel Kellaway, Training Officer

Britain's largest bee

Not all non native species are a threat to the environment in which they inadvertently find themselves. The largest bee found in Britain is Xylocopa violacea, or the Violet Carpenter Bee which measures 20-22 mm in length (see this edition's front cover).

Although not officially native to Britain it has bred and over-wintered here. It is a bee of the Spring time and in Europe is seen on the wing from late January until June.

It burrows into plant stems and even sound wood to lay its eggs. Its predisposition for burrowing into wooden pallets might be a reason why it finds its way to this country.

courtesy of Reigate BKA and eBEES

Bee Tech

This isn't a qualification aimed somewhere between A levels and a degree, but a new feature for BeeHolder highlighting technology.

You may be aware that Friends of the Earth have undertaken a great deal of work to publicise the struggles that our bees face, and get both government and the public involved in initiatives to protect and encourage bee development.

During the last six weeks they have undertaken a count of all types of bees across the UK. The results of this will be available on their website soon, friendsoftheearth.uk/bees, which is a great source of information including videos, a bee saver kit, and gardening for bees advice.

A very useful app was provided to assist with identification of the various bee types, and this can be downloaded to your smart phone here: friendsoftheearth.uk/bee-count?clid=EAIaIQobChMIh6G5trTz2wIVZTPTCh1Fjw0HEAAYASAAEgL7avD_BwE (link available on our website).

courtesy of Reigate BKA and eBEES

Basic Bee Assessment 2 : My Experience!

Why am I putting myself through studying and taking a test in bee-keeping? I asked myself the very same question when looking at the syllabus for the BBKA Basic Assessment a few months ago!

- This is my second year as a bee-keeper and I want to start doing things correctly before getting into too many bad habits.
- I wouldn't drive a car without taking lessons and passing a test of competency, and bee-keeping is another complex skill like driving.
- I feel responsible for the wonderful creatures in my two hives and want to keep them well and happy.

The syllabus is divided into four sections: a practical assessment observing the manipulation of bees and equipment, and oral questions about natural history and bee-keeping, swarming and swarm control, and disease and pests. The test is held at the MBKA apiary in the summer and lasts for about one hour.

The class at the apiary and a couple of bees (quite dark)

At first glance, it appears that you need to know an enormous amount of information about bee-keeping but it is reassuring to find that once you start wading through the different sections, you already know quite a bit and it is a case of filling in the gaps.

The other reassuring thing about doing the assessment is the amount of support you get from our MBKA training officer, Rachel. Six of us are taking the assessment and we have met at her house regularly to go through the syllabus to make sure we know all the information required. A cosy chat by a log fire on winter evenings, with tea and cakes, is a very different classroom experience most of us have had! It's been great getting to know other bee-keepers and making new friends too.

Jill Hill

Basic Bee Assessment 3 : Round Up

And here is what three more attendees thought …

I have found the preparation for Basic Bee Assessment an enjoyable way to raise my beekeeping knowledge up a level, and hopefully to pass the assessment to come!

Many positives: Very kind of Rachel to offer her living room, which was a very comfortable venue. Very nice to get to know the group. It was quickly clear that most of my fellow students brought quite a bit of experience along so there were some fascinating discussions. Despite my relative inexperience I was made very welcome and felt happy to join in the discussions. Rachel passed on the knowledge as clear bullet points, based around the questions which can be asked in the assessment. I think this will help us to revise so should work well as an approach. Although having to take notes, on paper with a real biro was a mild shock to the system I think that it helps commit the information to memory as compared to be being spoon-fed printed notes. Adrian

Rachel very kindly opened her house up to a number of us over several weeks to work on the theory needed to prepare us for the BBA. She led the group, working through each of the syllabus points and it was a lovely way to do this. It became clear during the sessions that we all had different levels of knowledge and experiences to share so there were some interesting and enlightening exchanges. All in all a very positive experience and one I can't recommend highly enough, not least because we all had an interest in common. Met some lovely,supportive and friendly people that I hope to stay in touch with. Can't wait for the hands-on apiary sessions that will now follow! Helen

Why have I decided to take the Basic Assessment? Well, although I have been keeping bees for a while, I though it was about time to put my knowledge to the test. Rachel gave me a syllabus and suggested reading material to accompany it. For the past few weeks, I have been attending Rachel's study groups where we have been working through the theory. It has given me more confidence with the knowledge I have gained from the classes. Tea, a biscuit and 'bee talk' with the others at the end made for a really pleasant and informative evening. Thank you Rachel. Anne

What gives bees their “sweet tooth”?

Scientists have discovered bees linger on a flower, emptying it of nectar, because they have sugar-sensing taste neurons which work together to prolong the pleasure of the sweetness. Newcastle University researchers report that the bees' taste neurons found on their proboscis, fire intense signals for up to 10 seconds, much longer than the taste neurons found in other insects.

Bees visit flowers to obtain nectar, which they eat to feed their colony and to fuel their flight. Bees can taste sugars on their proboscis and when in contact with food, taste neurons on the proboscis are activated signalling the presence of food.

Publishing in Current Biology, the researchers report that the neurons that specifically respond to sugar exhibit a very intense activation, which persists up to 10 seconds. While these neurons exhibit intense activity, the bee will remain feeding at the same sugar source. Only when this activity declines, does the bee remove its proboscis to enable it to try a further feeding point.

Author Geraldine Wright, Professor of Insect Neuroethology, explains: "We demonstrate in bees that, like in humans, the first taste of something sweet such as a lollipop is incredibly intense but then becomes less interesting. This is so our sensory neurons don't get overloaded and burn out. What we've found in bees is that the initial intense sweetness of sugar can last up to 10 seconds - so they will stay on the same sugar source. This makes sense if you think a worker bee is not just collecting for its own use but is storing it for others in the hive. It also means the bee will find a flower and drink all the nectar before other bees can intervene and take it."

The team found that the bee has two taste neurons within each 'taste bud' which interact to enable this persistent, intense sugar neuron activity. Lead author, Newcastle University PhD student Ashwin Miriyala said: "Other insects have one type of taste neuron that is activated by

sugars. We have discovered however, that bees have two different types of sugar-activated neurons. The first neuron exhibits intense activity when in contact with sugar. The second neuron intermittently inhibits the activity of the first neuron for short durations of time. This inhibition allows the first neuron a sort of 'resting period', so it can recover and maintain its intense activity for longer periods of time. Our data show that the interaction between these two sugar neurons is a result of electrical connections between them. This is the first evidence for this kind of connection in any insect taste neuron."

The Newcastle University team intend to carry out further research investigating how the bee's sense of sweet taste might be interrupted by pesticides.

Reference: Burst Firing in Bee Gustatory Neurons Prevents Adaptation. Miriyala, Kessler, Rind et al. Current Biology

Lune Valley BKA via eBEES

GDPR

As a hobbyist society, we are not obliged to register with the Information Commissioner's Office, but we do have to comply with the requirements of GDPR (General Data Protection Regulation) which came into effect earlier this year. Our new membership and renewal forms will ask you to explicitly opt in to the various data sharing that we do in order to effectively run the association. If you have any questions or concerns about GDPR, please contact our Data Controller (Sian Jones, see page 19).

Honey Extractor

Just a reminder that the association has a honey extractor which is available for use by our members for the cost of £10. Contact a committee member (page 19) if interested.

Droughts bring fewer flowers for bees

Bee on a flower (it's what they do)

Bees could be at risk from climate change because more frequent droughts could cause plants to produce fewer flowers, new research shows. Droughts are expected to become more common and more intense in many parts of the world, and researchers studied the impact on flowering plants using a field experiment. They found that drought roughly halved the overall number of flowers. This means less food for bees and other pollinators, which visit flowers for the nectar and pollen that they provide. The research was carried out by the University of Exeter in collaboration with the University of Manchester and the Centre for Ecology and Hydrology.

"The plants we examined responded to drought in various ways, from producing fewer flowers to producing flowers that contained no nectar," said lead researcher Ben Phillips, of the Environment and Sustainability Institute on the University of Exeter's Penryn Campus in Cornwall. "But overall there was a very clear reduction in the number of flowers that were available - and obviously this means less food for flower-visiting insects such as bees."

Simulating drought conditions

Bees are already under pressure from a variety of threats including habitat loss, the use of particular pesticides, and the spread of diseases and alien species. "Not only are these insects vital as pollinators of crops and wild plants, but they also provide food for many birds and mammals," said joint lead researcher Dr Ros Shaw, also of the University of Exeter.

The study took place in Wiltshire on chalk grassland, which is an important habitat for UK pollinator species. The plant species studied included meadow vetchling (Lathyrus pratensis), common sainfoin (Onobrych viciifolia) and

selfheal (Prunella vulgaris).

"Previous studies of the impacts of drought on flowers and bees have looked at individual species, often in the laboratory, but we used an experiment with rain shelters to examine the effects on real communities of plant species living in chalk grassland," said Dr Ellen Fry from the University of Manchester, who set up the experiment. "The level of drought that we looked at was calculated to be a rare event, but with climate change such droughts are expected to become much more common."

The findings suggest that chalk grasslands may support lower pollinator populations in the future, but the scientists warn that the results are likely to be broadly applicable to other regions and habitats. The research was part of the Wessex Biodiversity and Ecosystem Service Sustainability project and was funded by the Natural Environment Research Council. The paper, published in the journal Global Change Biology, is entitled: "Drought reduces floral resources for pollinators."

http://dx.doi.org/10.1111/gcb.14130 Lune Valley BKA & eBEES

This seemed like a particularly appropriate article for inclusion this summer, though after the winter/spring we have had, who saw a drought coming? Ed

Christmas Crossword solution

I'm pretty sure of these, but there was no solution provided to the crossword I borrowed. Fun for kids, I think, but nevertheless a couple of head scratchers in there.

Across: 4 drone, 5 antennae, 6 honetcomb, 9 worker, 10 pollen, 11 dancing, 12 swarm, 13 nectar

Down: 1 beeswax, 2 queen, 3 worker, 6 hive, 7 brood, 8 royal, 12 scout

Cautionary verse

Bees that can juggle with knives,
Are at risk of endangering lives,
But at least we can say,
At the end of the day,
They go on back home to their hives

The Native Black Bee

The pros and cons of keeping black bees and breeding selectively for them seems to be a recurring theme in bee keeping literature. This is an interesting slant on the subject. *Ed*


a particularly black native bee

The native British Black Bee was said to be extinct in England by about 1920 due to the ravages of the so-called Isle of Wight Disease. It was also said that only through importations from Europe could bees be kept going in England. However, writing 40 or so years later, Beowulf Cooper in his book 'The Honeybees of the British Isles' describes many types of local British bee. A second demise of the local British bee was announced following the arrival of the varroa mite (ironically through imported bees), which has been a scourge of our bees since the 1990's. We are said once more to be dependent on imports. As before, however, experience suggests the contrary. I know of beekeepers in several areas who have bees in their hives that show characteristics indicative of the native bee.

All of these bees started as hybrids of imported and local bees. However, as any gardener knows, hybrids do not breed 'true'. Some of the offspring tend in their characteristics towards one of the pure breeds, some tend to the other, while some remain mixed. Over time, the amount of mixing tends to lessen and the amount of purity tends to increase. Eventually some of the offspring have characters near to one or other of the original pure lines. All of this happens naturally and produces the near native bees described above. There are two important influences that pull in different directions in this process.

The first is the notoriously variable British weather. Continental weather, by contrast, is far more predictable. The bees that are imported into the UK often come from Southern Europe or the Balkans. These bees have little or no idea how to react to British weather. Without constant input

from beekeepers, they can struggle to survive from one year to the next. By contrast, bees with a high proportion of local blood do rather well in our changeable weather, gathering honey and pollinating plants even in poor weather, something that imported bees cannot do. They can also reproduce (swarm) and mate in weather that would inhibit imported bees. Over time, British weather thus selects in favour of British bees. For this reason, if all imports of bees were stopped, it would not be long before all our bees had a high degree of local blood in them.

The second influence lies in those who have found a lucrative market in persuading beekeepers to buy imported bees. It is true that these bees do very well in their home countries. But in the UK the weather is against them. In a season when the weather is poor, such bees need constant feeding if they are not to starve. Moreover, when these bees mate with local bees, the first or second cross is often a very poor performer and can be rather aggressive. The 'answer' that is promoted by the importers is to buy regular replacements of newly imported bees, creating a self-fulfilling and, for the importers, profitable circle.

Why should we care? The holy grail of current beekeeping is to find bees that are varroa resistant. There are now, in several areas of Southern England and parts of Wales, bees that can cope with varroa without constant beekeeper input or medication. Wherever one finds such bees, one generally finds nearby colonies of wild bees. Wild bees have never been treated by beekeepers. They have been through selection both by the weather and by the varroa mite. They have to cope or they die. Imported bees are neither weather-proof nor varroa resistant. The varroa resistance shown by wild bees is a highly valuable resource if we are to achieve more widespread varroa resistance in our kept bees. However, it is severely diluted if non-resistant imported bees are constantly placed in their vicinity.

It is often said that agriculture relies on imports to have enough bees for crop pollination. This surely is an admission of failure on the part of beekeepers. Better by far to address the cause of the problem. Importing unsuitable bees only makes things worse.

Lune Valley BKA via eBEES

New two Euro coin

Slovenia have issued a new two Euro coin to celebrate World Bee Day. Look out for these in your change if you go on holiday in Europe this summer. A rare opportunity for beekeeping numismatists to combine hobbies.

BBwear offer

BBwear still offers our members 20% off all garments in their clothing range and 50% off BB10 and BB11 Gloves and Spats. Free gloves are NOT included with the full suits when purchased with association discount.

To see the range of products, their web site is http://www.bbwear.co.uk/.

A full spectrum of bee suits is available from BBwear

The MBKA Committee

Please feel free to contact any member of the committee with any questions, or if you can volunteer time to help with any aspect of the association.

see our website
www.montybees.org.uk

Laura Jones makes a point during her talk at the AGM

www.montybees.org.uk