THE IPSWICH & EAST SUFFOLK BEEKEEPERS' ASSOCIATION

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Newsletter for August-December 2017

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Opinions expressed in this Newsletter are not necessarily either those of the Editor nor of the Association.

The colour for this year's queens is yellow.

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Really, no beekeeping in future Suffolk Shows?

It is generally agreed that the beekeepers' participation in the 2017 Suffolk Show was, despite fewer members of the Great British Public coming to our tent, a great success. This was due to the hard work and inspiration of Sue Horrex and her team.

Sue has now resigned as Chair of the SBKA's Show sub-committee so we need a new leader. **Could this be you**? There are many who would be very happy to help and support you. Planning for the 2018 Show needs to begin shortly. If we can't get a team together, there can be no show. If you think it might possibly be you, please get in touch with our County Secretary, Helen Davies secretary@suffolkbeekeepers.co.uk.

The Suffolk Show

This year's show was blessed with hot sunny weather and we had almost 11,000 visitors over the two days. The bee tent had a number of attractions – a couple of observation hives; candle rolling; honey tasting and sales; a microscopy stand; interactive area, and pride of place in the middle, the Honey Show.

The Honey Show went very well despite the moments of panic wondering if there were going to be sufficient entries – 87% of entries were past the closing date! [Is this partly due to it being early in the year & and entrants not sure if they will have honey to show? (sub) Ed]. The numbers of entrants and entries were up slightly compared to 2016, so the regular reminders seem to have had an effect, this is despite the Goslings retiring from competition.

Honey tasting was new for this year (thanks to Sue Horrex for the idea) and worked very well and increased honey sales! The observation hives were very popular, in fact we could easily have had a third hive. Candle rolling was a blast (from an enthusiastic helper). Veils off to all the helpers who turned up in bee suits for the days despite the hot weather! In fact heartfelt thanks to the army of volunteers (about 80 of them) manning the various stalls and activities.

Several comments were made that the tent looked better this year than last (thanks go to Sue Horrex for the design layout & the new staging covers).

Across in the wilderness (??) area were four hives where volunteers explained to the visitors what was going in and around the hives.

Suffolk Show Stars. Our special thanks to those who 'went the extra mile' behind the scenes. They were: Jessica Grant, Linda Wood, Paul White, Charlie Simms, Greg Woodhead and Heather Carter.

A collection of photographs of the Bee tent from Sam can be seen at: http://s1146.photobucket.com/user/samuel_williams8/story

Various contributors

Apiary Safari

A swarm of nearly 40 Suffolk beekeepers and two Bee Inspectors converged on Kirton on 8th July for the annual Apiary Safari. A few converged on the wrong venue due to a postcode

slip-up - sorry folks! IESBKA President David Adams and Chairman Jeremy Quinlan welcomed the group while we topped up our stores with tea and home-made cakes provided by the catering team (thank you Heather & Mike Carter and Marian Stephens).

We then headed for a local apiary, where Keith Morgan (Regional Bee Inspector) and David Burns (our new Seasonal Bee Inspector) explained the principles of pest & disease inspection and talked us through the practical details as they opened several hives. Then we headed back to Kirton for our lunch break and a demonstration of the Arnia hive monitoring system that David Adams has installed on his hives. This gives online information of each hive's temperature, weight and noise levels - we could see the weight increase during each day as the foragers bring in nectar, followed by fanning activity and a slight drop in weight as the house bees concentrate the honey overnight. The technology is a glimpse of the future and a big leap from traditional beekeeping.

After lunch the swarm split into three casts and headed off to see other local apiaries in a range of locations from back gardens to a lavender field. This gave ample opportunities to see other beekeepers' colonies, swap ideas and get hands-on experience.

Altogether the safari was declared a great success. Our thanks go to inspectors Keith and David for giving up their day off (and Keith for bringing his delicious home-grown cherries), to David Adams and the Felixstowe Beekeeping team for organising the event, and to all the visitors who had a very enjoyable day. Oh, and did I mention the cake?

Chris Stephens

Wherstead Teaching Apiary

Is now in its final stages of preparation. The hut is up & ready and there are four pairs of hives in place - two Commercials, two 14x12, two brood-and-a-half, and 2 WBCs (out of the picture).

Harvest Supper: Thursday 12th October

Mains - a choice of:
Casserole of boned pheasant with apples, cream & brandy, or
Slow cooked brisket with carrot, celery & herbs, or
Vegetable tagine with roasted halloumi (Wikipedia says: Halloumi is a Cypriot semi hard, un-ripened brined cheese made from a mixture of goat's and sheep's milk, and sometimes also ..)

Accompanied by
Braised red cabbage, roast butternut squash & boulangère potatoes

Pud
Apple pie & crème frâiche

Selection of home-made breads + tea/coffee/infusion

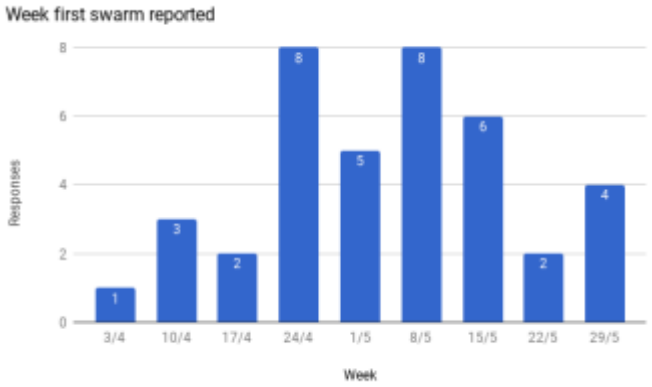
£15 Playford village hall IP6 9DU at 7:15 for 7:45; closing time for reservations is midnight Thu 5 Oct; please book on-line and make a separate bank payment (or send our Treasurer a cheque).
Bring your own drinks and glasses.

Change of meeting day

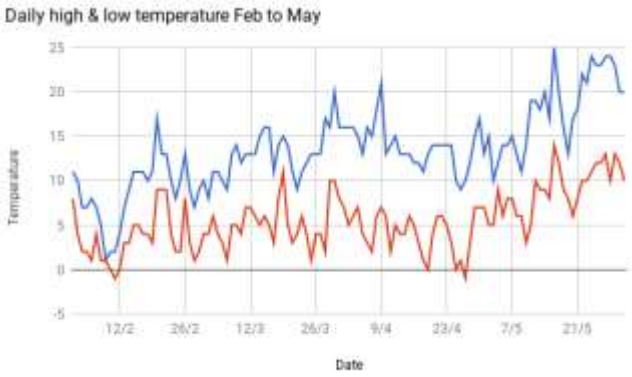
From 1st December, our monthly 'close season' meetings in the Kesgrave Scout Hall will be on the **first Wednesday of the month** (no longer on the 3rd). This should make them easier to remember.

Swarm Survey

Thanks for all the survey responses. We had over 40 in total covering the vast majority of the 'IP' postcode area, and a few in Colchester too. The general consensus was that swarming started earlier than last year (over 60% said so), but there was no overall consensus on whether there were more swarms or not than last year. The first reported swarms for the region were in the week 3-10th April and swarms were at their peak between 24th April and 21st May. See the graphic below for details.

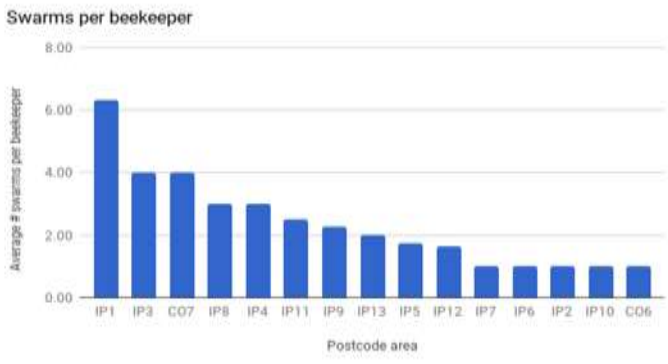


Trying to understand why the swarming started when it did it is useful to look at the outside temperature highs and lows from February through to May



There is a distinct rise in temperature mid February where the daytime high was above 10˚c for a good week, and the night-time low was about 9˚c for a few days. One might suspect that this unseasonally high temperature may have prompted more eggs to be laid, and six weeks later (when the bees would be ready to fly) we see swarming!

In total, the respondents collected over a hundred swarms, and the demographic was interesting. IP1 is the place to be if you want the best chance of catching swarms….



Barry Crabtree

Bee Crimes

A message came through:
'I have committed crimes against beekeeping this afternoon and feel the need to confess. Please forgive me'.

For context this was trying to do a Bailey comb change to convert between hive types. It went on:
'… found the queen, caught her in my new one handed queen catching gizmo and marked her. Then I couldn't get the longer commercial super frame into the national brood box so chopped of 4 inches with a pair of loppers! Bees went ballistic. Then popped the queen on that frame and trapped her down below with a QX. I think I might have damaged her in the process.'

Another beekeeper wrote:
It was all a part of a training session several years ago – but I still remember it with some shame. I thought it would be a good idea to demonstrate a 'shook swarm'. I had done two before, albeit under the supervision of that knowledgeable and experienced bee inspector, Fred Willis. It was a strong colony but the combs were poor and dark. A new box of frames of foundation was prepared. It was early April and there was a fair breeze blowing. I did not, as I ought, first cage the queen and put her in a place of safety, but moved the old box to one side, put the new one on a new floor in its place, removed 5 or 6 of the new frames, and proceeded to shake all the bees into the new box. We were all quickly covered in bees and it was obvious all was not going well. Anyway the remainder of the frames were shaken, the remainder of the new frames replaced, and the hive closed. We retreated from the scene of the crime, brushed off the many bees and resolved to be a lot more careful in future. The colony lost its queen and took several weeks to recover!

Yet another writes:
Had a hive that needed feeding in the winter and I was in a bit of a rush. It only takes a minute to put on some candy doesn't it? Popped off the lid of the hive & the cover over the hole in the crown board ready with my candy. Bees poured out. No worries. It's cold & they'll go back in a minute. Just leave them to calm down. I did. They didn't. I had to leave, so gently put the block of candy over the bees giving them the hint to go back down. Lowered it down and closed up. A month later took the largely unused block of candy off to find at least 100 bees glued to its underside. Oh, the shame.

If you have your own 'bee crime' that you wish to confess to (anonymously of course), mail it to barry.crabtree@gmail.com

New Members

We welcome our new members: Michael Ball, Tom Childs, Marcia Hullis, Philip Norman-Butler, Isabella Olink, Keira Patterson, Lucy Phillips, Joshua Prentice, Carol Ramsden, Graham Ramsden, Jed Smith, Mollie Smith and Nick Tipping.

Free sugar!

We were recently approached by the Stowmarket branch of Bidvest Logistics, a distributor of groceries and other goods to catering and retail businesses. They have kindly offered to provide us with any sugar that can't be retailed due to split / damaged packaging at no cost and to deliver it to us. So far we have received about 50kg of loose sugar – if anyone would like sugar for winter feeding, please contact the Association Secretary, Richard Allen.

500 stings and counting

It started in March 2015 with two hives and a lot of free time. It seemed a good idea to build up to a 'good' number of colonies and maybe sell some honey. No idea what 'good' is, but in less than 18 months it's now almost 30 hives. Let this be a warning to you. I now know a lot more about beekeeping than I ever did, and also know that I don't know much about it either.

I'd been pestering my two hives for a couple of years before then. I met Barrie Powell who's been mentoring me (I have his number on quickdial) & we talked about having microphones to monitor the hives. Something he's been doing for a long while. I installed a microphone in the centre of the brood nest connected to a computer & started monitoring. All good until the bees decided to fill it up with propolis. Next step, try a camera at the entrance to a hive to count the bees coming in & out. It worked well, but that's another story. Anyway, onwards & upwards.

They tell you that you'll get a few stings early on then you'll be immune to it. Don't believe a word of it. It still hurts like being stabbed with a red-hot needle and I still swell up various amounts. My ankle can be quite impressive after half a dozen stings. Anyway it has to be an occupational hazard. If you've got one hive & get stung say once in every 5 five inspections, then with 30 hives you're going to get stung 6 times every time you go through them all. Basic maths. Don't like it.

Swarms. The root of my downfall. I caught 12 swarms this year (6 were my own, but more of that later), and 5 last year. I can't resist them. They are generally straightforward to collect. Don't forget to take a queen excluder includer. Pop them straight in a hive – I now carry a spare in the boot of my 'beemobile' – leave them until the evening for the scouts to return and take them home. Job done. It's wonderful to see them expand over the summer. A couple that I collected before mid May have even produced a crop of honey. Can't complain about that!

I've become a professional plate spinner. It's ok catching swarms but you need a hive to put them in. When you collect 12 then you need 12 hives. Not just brood box but a floor, roof, crown board, and super. Not forgetting frames and foundation to kit it all out. Have you seen the price of frames & foundation!!!! I felt a bit smug coming out of Beetradex with 50 brood frames, 50 super frames and accompanying foundation. That will do me. Not. I've only needed another 200 or so…. Anyway. Back to plate spinning. To keep the costs down-ish I've been making my own hives. The bench circular saw has been a godsend. Together with Barrie Powell's National Hive design I can now make brood boxes & supers almost blindfolded. Give me a long length of 4" by 2" and I'm as happy as Larry.

Spinning those plates. If it's sunny & warm I'm inspecting hives. If not I'm making hives. Or making labels. Or extracting honey. Or making lip balm. Or driving to new spots. Or breeding queens.

I planned to have a go at queen breeding last year but thanks to a hive I was going to use swarming, it never happened. This year was the year:

Take 1: Put the queen in the cupkit. Nothing.

Take 2: Take some eggs Barrie prepared earlier. Tiny cells get built due to some classic incompetence on my part. The 3 day old eggs need introducing to a queenless colony. My method of getting a queenless colony (found it on the internet) was to shake a bunch of bees into a nuc. Leave them enclosed for a couple of hours, then introduce the eggs. So far so good, except for the 'enclosed' bit. The mesh keeping them in dropped out so I lost a good fraction of the bees. Hence tiny queen cells that don't mature.

Take 3: introduce queen into cupkit. Come to take her out and she's gone! Should have plugged the hole at the back. Oh well.

Time's running out so after 3 days take the cupkit so I can use the cups for grafting. Grafting. What a palaver! Take your one day old larva that you can barely see that sticks to the grafting tool & won't come off & gets mangled in the process. It didn't go well. Surprisingly when I looked for cups to use from the cupkit some looked to have one day old larvae in them. The queen must have laid before she found the rear exit. I'm in luck. Shake another bunch of bees into a nuc. Leave them enclosed for a couple of hours & introduce the larvae. Bingo 12 queen cells on the go. They translated into 2, possibly 3 successful nucs. We'll not go into that debacle. Suffice to say you shouldn't add an already laying queen into a nuc, and you should be sure not to leave any gaps between the internal divider boards in the 3-nucs to a brood box setup.

Thank goodness for honey stalls. Certain people had been asking how this was going to pay for itself? Clearly make a little stall & put it outside the house and all will be well. I think the look I got was what you call in the trade 'withering sceptical'. Ever the optimist I pressed on. Stall built, jars of honey added. People bought some. It won't last…. It has done! The good citizens of Ipswich keep buying it. I can't put out the honey fast enough. There is a god!

I'll claim this year was a year of expansion to dodge the fact that given the number of hives I have doesn't equate to a whole lot of honey (about 3Kg per hive since you ask). Some hives produced a reasonable amount, most nothing. Given that 10 of the 13 hives that overwintered have swarmed, I think that explains it. Next spring I plan to give them a good talking to and tell them not to swarm. Their (and my) fortune depends on it!

Barry Crabtree

Queen Rearing

I, Harry, have just completed a 3 week course. Luckily we were blessed with good weather.

Jeremy described the different methods of manipulation and then took us through the practical steps needed. Artificial Queen Rearing, in simple terms, takes advantage of the bees' natural queen building impulse, i.e. swarming, supercedure, and emergency. It sounds simple but is more complicated in practical terms. In fact practice makes perfect as his success rate was higher than ours.

He taught us about the precise bee calendar needed to follow in order to make calculations about dates for breeding. The bees always have their own ideas though.

Having seen the different methods I would be tempted to go for grafting into JZBZ queen cells. I learnt a lot about bee handling with the minimal glove. Not for the faint hearted!

I would like to thank Jeremy and his wife for giving up their Sundays. I would recommend it thoroughly if you are lucky enough to have an invite.

Harry

There's another course starting 6th May 2018 & Jeremy is now accepting bookings for it.

See the excellent Prof Dave Goulson video:
ww.youtube.com/watch?v=16Y33t9VCEE

Feeding Bees for the Winter

There are three main things in the honeybee diet:

- **Pollen** is their source of protein needed to feed larvae and develop some glands in the adult. (There is little or no pollen available in the heart of winter and bees could not forage for it, if it is cold.)
- **Water** in necessary to dissolve sugar (honey) in the bodies of adult bees. Bees can use condensation in hives in the winter but also visit dirty water sources like damp seed trays, septic tank overflows, slurry pit seepage and the like ignoring the nice clean water you put out for them. My guess is the bees need mineral salts from the dirty water.
- The main food needed by adult bees is **sugars** that provides them with energy to keep warm and helps them move.
- European honey bees have evolved to store large reserves of sugar (honey) in the spring and summer to be able to use it when the weather is poor.
- Having stolen their honey in the summer we have to feed sugar to the bees so they can survive the winter. Feeding excess sugar solution in the autumn is the best way of giving them enough food to survive until the spring. Your bees will digest the sucrose in supermarket sugar, evaporate the solution and store it in the same way that they store honey.
- In the late summer/autumn if bees do not consume sugar syrup quickly, suspect that the colony might have a queen problem.

Feeding in the winter

- Bees will ignore sugar syrup when the weather is cold so you will have to use fondant or candy.
- Both are much more expensive than supermarket sugar - but cheaper than bees dead from starvation.

How I make candy

- 6lb supermarket sugar (sucrose)
- ½ pint water
- *Teaspoon of an acid like citric acid, tartaric acid or vinegar. The acid helps convert the sucrose to glucose and fructose that the bees would have to do during digestion.
- Bring to the boil and continue heating until the boiling solution reaches Softball: 114/115°C (238/240°F).
- Place pan in cold water and stir like mad as small crystals form.
- As it thickens and appears milky, pour into a suitable container like a plastic margarine container.
- When cold place directly on the top of the cluster. [PS Put insulation over the candy so the bees can warm it. *Ed*]
- It is a slow process and it is much easier to feed well in the autumn.
- If you overheat the syrup you will end up with toffee and the solution will not crystallise - experience speaks!

*Some may be concerned that the acid (there to speed up the hydrolysis of the sucrose to glucose and fructose) could harm the bees - BUT the reaction will work if you boil sucrose solution - so you could achieve the same end products by using more water and boiling for longer. With more water, the water needs to evaporate longer to get the temperature up to 114°C (238°F). This gives the sucrose longer to react and hence more time to turn to the end products. It is much easier to lower the pH.

John Everett, Master Beekeeper

A buzz in the churchyard!

You may have recently noticed some new residents in St Mary's churchyard, Woodbridge, opposite the north porch entrance – they are Mining Bees.

Black and yellow flying insects digging into the ground, also referred to as Digger Bees, are solitary bees which nest in burrows in the ground. Unlike many social wasps and bees controlled by a queen they don't form long-lived colonies, nor do they live inside one well-defended nest. Instead, each female mining bee digs an individual burrow to rear her own young. The sandy embanked section of the churchyard, warmed by the morning sun, is perfect for them.

Stuart Roberts, a tourist who just happened to be visiting the church, has been studying wild bees for 30 years and is former chair of BWARS (Bees, Wasps and Ants Recording Society). He informed us that this particular type of Mining Bee is the Ivy Bee (*Colletes hederae*), a species that arrived in this country as recently as 2001, when it is believed to have dispersed from Northern France as part of a natural range extension. The original colonisation sites were in Dorset, Devon, Isle of Wight, Hastings and Folkestone, from where it has spread rapidly inland. Apparently, it was first recorded in this part of the world only a couple of years ago, and Stuart has now added our bees to the records.

The bee times its annual emergence to coincide with the flowering period of ivy, upon which it depends for pollen. The bees become active in early September and remain so until mid-November. Ivy Bees are not aggressive: the males have no sting at all, and the females, which do possess a sting rating 1.0 on the Schmidt Sting Pain Index (Honey Bee 2.0, Wasp 3.0), will only wield it when their lives are under direct and immediate threat. The bees are entirely solitary, and there is no co-operation between neighbouring females – all dwellers in a bee city!

Mining Bees are extremely beneficial to the garden. They pollinate many different types of plant, and their burrowing does not harm vegetation and may help to aerate the soil. *Simon Morris*

Find out more about Mining Bees on www.bwars.com

With thanks to St Mary's *Outlook* Magazine

Bee Improvement for All (BIFA) Days

There have been 40 of these very successful events in the past four winters. They are run in conjunction with local BKAs. BIFA days encourage beekeepers to raise their own queens from the best colonies in their area, rather than using imported queens. They are very popular, giving beekeepers lots of ideas on improving their bees, either on their own or in a group. The next one in our area will be on Sat 18th November hosted by Saffron Walden Div, Essex BKA. See the BIBBA website.

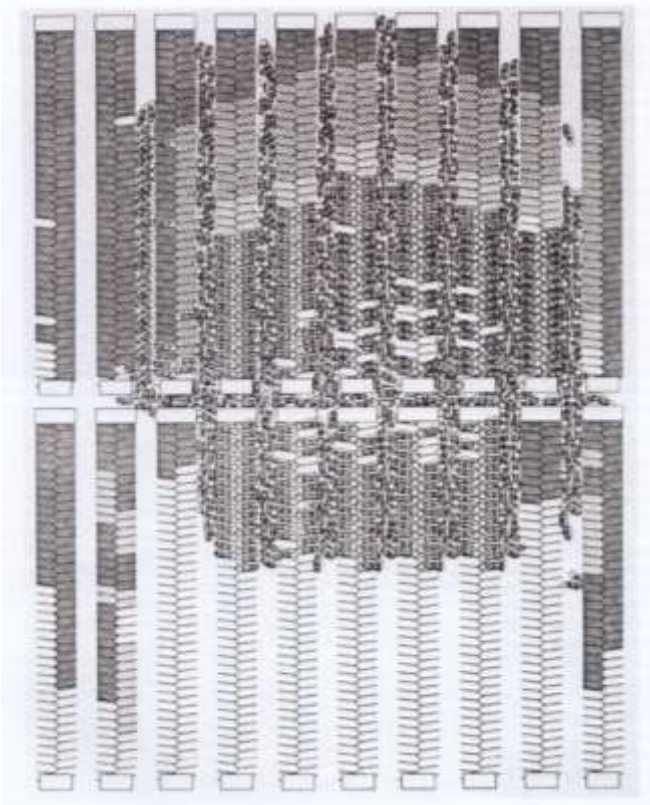
Hymenoptera wars? Ants: 1. Bees 0.

EXO ADVANTO/CATERS NEWS AGENCY

Thermoregulation - How Bees Keep Warm in Winter

This is an extract from an article in Bee World (Volume 94 Number 1 of 2017) by Keith S. Delaplane, Department of Entomology, University of Georgia - republished with his permission.

For this brief overview, I have chosen four *(we have space for only one in this edition - others will appear in future issues)* emergent properties of the honey bee colony that I think are interesting, reasonably well understood and constitute the kinds of spontaneously emerging order that self-energises the project of social evolution. The research stories behind these also highlight the elegance of parsimony - a scientific bias towards explanations that require fewest assumptions and agents. We humans are by no means inclined to arrive at the simplest explanation for anything, even if we think out answer is the simplest and most direct. The human mind, always hungry to detect order and quick to see human properties like volition, intentionality and forward planning everywhere in the natural world, is slow to accept answers based on explanations as pedestrian as gravity, temperature and the random actions of individuals. Part of the scientific process is recognizing this bias and its tendency to blind us to more direct and testable explanations. Perhaps it was something like this that the twentieth century satirist H L Mencken was thinking about when he wrote, "For every complex problem, there is an answer that is clear, simple and wrong."



Temperate-evolved *Apis mellifera* workers begin assuming a clustering configuration in the centre of the nest as ambient temperatures start dropping. Individuals remain active at the core of the cluster, keeping space between themselves, whereas bees at the cluster's edge pack together tightly. Bees enter empty cells head-first, thereby maintaining the contiguous state of the cluster in spite of the interspersing combs - see diagram. The cluster tightens and expands as temperatures drop and rise.

In 1914 it was shown that the temperatures at the centre of the cluster begin increasing as ambient air temperatures begin decreasing (Phillips & Demuth, 1914). This formed the basis for an early model of honey bee winter thermoregulation - that core bees respond to decreasing ambient temperatures by shivering to actively generate heat and warm the cluster. This model assumed the existence of an information conduit through which core bees learned of ambient temperature. It also assumed an altruistic response on the part of the core bees to expend the energy needed to generate heat for the welfare of nestmates.

This model has been replaced with a more parsimonious one that takes into account nothing more than the actions of individual bees as they respond to temperature conditions in their immediate vicinity (Heinrich, 1993). In fall, as temperatures drop, bees do what any of us would do - move closer together to share body heat. Young bees cannot shiver to generate heat, and they naturally have a low cold tolerance, so these individuals move by choice towards the centre where it is warmer. Older bees, in contrast, have a higher cold tolerance and are able to shiver their flight muscles, so these individuals end up in the middle layers and outer mantle. As temperatures continue dropping, all bees - young and old - respond by clustering tighter together. The mature bees shiver to keep warm and it is their heat - not the young bees in the middle - that is responsible for warming the whole cluster. Eventually, the problem at the core is no longer excess cold but excess heat, and the young bees respond by moving away from the centre, opening channels in the process that allow the exchange of inner air that warms the mantle of bees and outer air that cools the interior bees. It is this excess heat in the middle that tricked earlier investigators into thinking that core bees were the altruistic heat-generators for the cluster.

There are two numbers that regulate much of this 35°C (95°F) and 15 °C (59°F). Young bees naturally prefer temperatures nearer 35° and move further in or out of the cluster to find it. The lower number, 15°, is the minimum temperature at which an individual bee can shiver its flight muscles and generate heat. It is possible for older, cold-tolerant bees at the surface of the cluster to fall below this threshold and enter a "cold coma". These hardy individuals can survive this state for several hours, passively relying on the shivering and contracting bees beneath them to stay above lethal hypothermia, waiting until their bodies exceed 15°C again to resume shivering. They constitute living insulation. But things take a critical turn if these individuals are subjected to sustained temperatures below -2°C (28.4°F) (Free & Spencer-Booth, 1960).

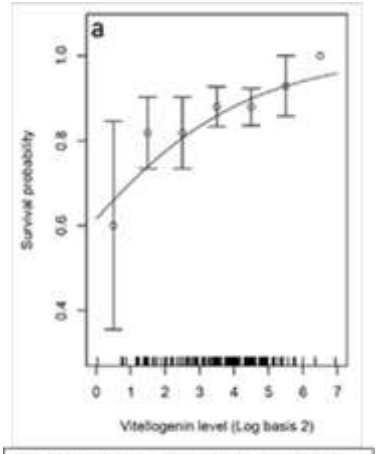
A deadly cascade of events may then ensue if that lower ambient limit is realized and if bees deeper in the cluster cannot keep the surface warm enough. Surface bees begin dying from hypothermia and dropping off the cluster, imperilling the rest of the cluster with the loss of living insulation. If this cascade persists it spells certain doom for the cluster and, sadly, this outcome seems to be the rule not the exception; on average, the majority of first year colonies in temperate regions do not survive their first year (Seeley, 1978). *They may die of cold but starvation is the problem. Ed.*

Bees over-winter better in cold storage

At the North American Beekeeping Conference & Tradeshow in January in Galveston, Texas, a talk by Brandon K. Hopkins from Walter Sheppard's lab in Washington State complemented the overwintering data. He showed that colonies kept in controlled cold-rooms over the winter had significantly more bee-occupied frames when pulled out for almond pollination. The beekeeper called them "fat bees," but only after analyzing the lipid stores could Dr. Hopkins reach the same conclusion. Larger colonies receive higher pollination fees, suggesting that winter storage of colonies may prove an effective overwinter strategy. Learn more about their work to improve colony overwintering.

Landscape Influence on Overwintering Success

Human impacts on land, such as habitat fragmentation and degradation, strongly influence the health and viability of pollinators. In a new open access paper, Dr. Alaux and colleagues use an innovative approach to studying landscape level resources on honey bee health. They combine an analysis of the landscape with honey bee physiology, coining the term "Landscape physiology" that integrates physiological data with landscape ecology to "test 1) the connection between bee health and landscape quality, and 2) whether agri-environment schemes can provide benefits to bee health."



Survival probability was positively influenced by levels of the egg-yolk precursor vitellogenin. Reproduced from Alaux et al (2017) in Scientific Reports

Colonies were placed near lands enriched with fall-flowering pollinator crops or were not within foraging distance. They collected bees in the fall to determine their level of fat body and the egg-yolk precursor vitellogenin (vg), two characteristics that have previously been tied to winter bee physiology. The bees from colonies that survived the winter had higher levels of vg and lower levels of varroa. Forage quality did not directly influence the success of overwintering successfully, but it did significantly influence the pre-winter physiology of the bees.

Examining the physiology of these pre-winter bees in relationship to the landscape serves as a potential selection criterion for healthy bees. The authors conclude: "Applying eco-physiological approaches to honey bee and native bee conservation might be complementary to the more convention distribution-based studies." *A paper worth reading*.

Could you be a better beekeeper?

I hope that, for you and your bees, last year was a good one. As over the winter you sit by the fire, maybe re-reading this newsletter or the BBKA News, I wonder if you are thinking about your beekeeping and considering what you will do the same and what you might do differently next year. On the note of "I think I might…," maybe you are considering adding to your practical skills or knowledge. Anyway, now would be a good time to have a look at what we and the BBKA offer in the way of bee learning opportunities. Purely for your own development, the BBKA offers two options: studying for one of the written examinations ("the modules") or, for those who don't want to or really can't face the examination room, why not take one of the practical assessments such as General Husbandry?

If you fancy getting a module qualification, the closing date for the exams on 24th March is 10 Feb 2018. If you do apply, you will need a signature from a respected senior beekeeper (or similar) so allow time for the form to fly back and forward in the mail before the deadline. If you are a 'newbee', welcome, and I hope you are planning to demonstrate your growing competency by 'doing The Basic', the beekeeper's equivalent of the waggle dance. All the information you need can be found on the BBKA website.

A Foul Day in Berg Apton?

The advertisement read: "This is a unique opportunity for beekeepers interested in disease to look at both American and European Foulbroods almost one-to-one. Beekeepers will hone their skills in the visual recognition of these diseases and enhance their beekeeping knowledge. It is a valuable skill to possess . . " - especially as in south Norfolk there is a unique strain of EFB.

With Peter Sunderland taking the initiative, the National Bee Unit permitted the Microscopy Study Group to hold "live" disease combs. These were inspected at the Iceni Group's July 2017 meeting in Bergh Apton Village Hall.

The day concluded with slides made of the diseased larvae using nigrosin, a 'negative' stain (this stains the background rather than the subject) and a smear technique to obtain a really thin film. Since both disease bacteria are very small, they must be viewed at x1000 using an oil immersion lens; with light microscopy, this is almost at the limit of what it is possible to see.

Not at all 'a foul day' but an excellent foulbrood day in which its aims were certainly achieved. The Group hopes to hold another similar meeting in 2018.

Integrated Varroa Management Courses

The Laboratory of Apiculture and Social Insects, University of Sussex, offers this course on each of 14, 15 & 16 Sep from 13:00 until 17:00. http://www.sussex.ac.uk/lasi/newsandevents/events.

Tackling the Decline in Pollinating Insects:

A conference: Thursday 12th October 2017, London Event details

Oxalic acid

If you use thymol based varroacides, you almost certainly need to apply oxalic acid between Christmas & the New Year. *Api-Bioxal* is the only registered product available. As the smallest 35 g sachet is enough for 10 colonies, in the past we have as a service to members offered it as a ready mixed liquid in smaller quantities but take-up has been declining - so this year we will not be repeating the offer. The best deal I can find is Wynne Jones who offers a sachet for £10.45 including postage.

Honey, Fruit and Nut Teabread

225g Self Raising Flour
100g Butter or Margarine
5 level tbs Honey
175g Mixed Fruit
½ tsp Mixed Spice
50g Soft Brown Sugar
50g Chopped Nuts
2 Eggs

Preheat oven at 180°C, 350°F, Mark 4. Grease and line a loaf tin. Sieve flour and mixed spice together in a bowl. Rub in the butter until the mixture resembles breadcrumbs. Stir in the sugar, nuts, dried fruit, eggs and honey. Mix well. Turn the mixture into the prepared tin and bake for 1-1¼ hours. Serve sliced with butter or hard cheese.

With thanks to Jackie for the recipe

Speakers at Ipswich meetings

Brigit Sawbridge is an amateur naturalist, wildlife gardener and bee enthusiast who writes, speaks and campaigns to raise awareness of the importance of our native wild bees and the reasons for their decline. She is especially interested in the roles different species play in pollinating different flowering plants. Brigit lives in North Dorset where she and her partner, Rob, are currently working closely with Shaftesbury Town Council and residents to create a truly 'Bee Friendly Town'. Their pollinator garden appeared recently on BBC2 Gardeners' World.
Blog - http://www.beestrawbridge.blogspot.co.uk

Ged Marshal started beekeeping when he was 15, spending a Summer working for a commercial (3,000 hive) operation in France. He got his first hives in the early '80s and went full time in July 1989, building up the business, focusing on bulk honey production and more recently, queen bee production. He has worked in France, Tenerife, Denmark and, to improve his beekeeping, at Buckfast Abbey with Brother Adam.

Currently the Chairman of the Bee Farmers' Association and vice-chairman of the Honey Working Party in Brussels, the group representing all European beekeepers in meetings with the EU Commission. He has also served on DEFRA's Bee Health Advisory Panel.

Beekeeping Education

12th September with Barrie Powell at Shotley Gate at 7.00 for 7.30 & continuing 2nd Tuesdays of the month. Contact: beepowell.powell@gmail.com; 07857 656382; 01473 787199

20th September with Chris & Marian Stephens at Kirton from 7.30 & continuing 3rd Wednesdays of the month. Contact: chris.stephens@btinternet.com 01394 286400.

2nd October with Jeremy Quinlan at Dallinghoo from 7.30 & continuing 1st Mondays of the month (January, 2nd Monday). We shall be studying for Module 1: Honey bee Management. Contact: JeremyQ@tiscali.co.uk; 01473 737700.

If any of these appeal, please sign up; the organisers would be grateful if that was now.

A word of appreciation

My sincere thanks go to Barry Crabtree who very kindly volunteered to help produce this newsletter. He has also written several of the articles - I have long wished for more contributors but after thirteen years hope was beginning to fade. If some more of you 'out there' would be good enough to put pen to paper and send in the odd piece, all our readers would be delighted. I look forward to seeing them - and to Barry's continuing involvement.

Calendar

Members of the six Associations which form the Suffolk Beekeepers' Association are welcome to attend any or all these meetings.
There will be other meetings but details were not available at the time we went to press.

Ipswich & ES BKA **winter** meetings are held in the Scout Hall, Kesgrave IP5 1JF from 7:30pm.

Every Sunday	Weekly apiary training sessions at 2:00 pm - up to and including 13 August. Please book on the website as it helps us to plan.	See link.
Wed 27 Sep	Ten minute Tips, Sale of Bee Equipment & General Forum.	Ipswich & ES Richard Allen Contact
Thu 12 Oct	Harvest Supper £15 at 7:15 for 7:45 Playford Village Hall IP6 9DU Book via the website or 07887 405731	Ipswich & ES Richard Allen Contact
Wed 25 Oct	Bridgit Sawbridge: *The importance of pollinator diversity*.	Ipswich & ES Richard Allen Contact
26-28 Oct	National Honey Show	Esher KT10 9AJ Contact
Wed 22 Nov	Ged Marshall: *Queen Introduction*.	Ipswich & ES Richard Allen Contact
Wed 6 Dec	Christmas Social and light-hearted Quiz	Ipswich & ES Richard Allen Contact

Have you stopped treating for Varroa?

If you have stopped (or are thinking of stopping) treating for varroa, consider a talk by Dr Dennis vanEnglesdorp at the BBKA's Spring Convention. He said: "A sick honey bee colony explodes into the landscape" and affects many other colonies. The importance of controlling varroa populations, especially in areas where there are relatively many bee colonies is therefore extremely important.

Dr vanEnglesdorp said the three key threats to honey bee health were: varroa mites and their associated viruses, pesticides in the field and poor nutrition. Of these, varroa is the biggest. His sample survey in the USA found that 56% of beekeepers had not used a varroa control product in the previous twelve months. For some hobbyists, not treating for varroa and losing, say, nine out of ten colonies doesn't matter too much. But the effect is not confined just to their own apiary.

In another study, he and his team marked bees in an apiary; yellow indicated the colony was collapsing, blue that it was healthy. The collapsing colonies duly died out but their surviving yellow marked bees were found in almost every apiary within a radius of 2 to 3 kilometres.

The implications are clear; beekeepers should treat for varroa, not just to keep their own bees heathy but for the sake of their beekeeping neighbours.

To make the point for yourself, log onto BeeBase. Clicking on "My apiaries" will tell you how many other apiaries are within 10 km. In my case there are 115.

Beekeeping Education in Suffolk

County Education Sec: Jane Corcoran: jane_corcoran@hotmail.com.
BBKA Exams Sec for Suffolk: Kevin Thorn: kevinthorn@me.com.