The Buzz

NEWSLETTER OF THE HUNTINGDONSHIRE BEEKEEPERS ASSOCIATION

JULY 2026

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HBKA SUMMER BBQ

OUR POPULAR ANNUAL ASSOCIATION BBQ WILL TAKE PLACE AT PAUL AND STUARTS SMALLHOLDING ON SATURDAY 11TH JULY FROM 12 NOON ONWARDS (AIMING TO EAT AROUND 1PM). MEMBERS AND THEIR FAMILIES ARE INVITED TO ATTEND.

MAKE YOUR WAY TO BIRCHTREE HOUSE, JONES DROVE, COCK BANK, WHITTLESEY, PETERBOROUGH PE7 2HW - SHOWN ON THE MAP TO THE RIGHT.

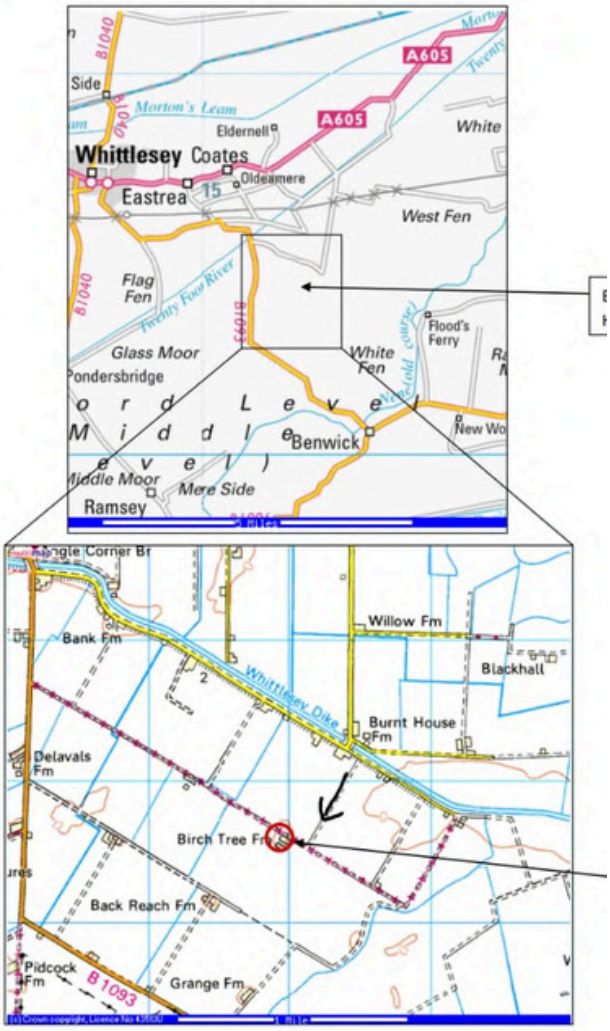
THE TICKETS ARE £9.00 FOR ADULTS AND £4.50 FOR CHILDREN TO COVER ALL THAT YOU CAN EAT AND DRINK!

THERE IS NO NEED TO PAY IN ADVANCE WE WILL COLLECT THE MONEY ON THE DAY.

PLEASE INDICATE IF YOU WILL BE COMING SO WE CAN CATER FOR NUMBERS. JUST PING HELEN AT CHAIR[AT]HUNTSBKA.ORG.UK

LOOKING FORWARD TO SEEING YOU ALL THERE - A GREAT OPPORTUNITY TO TALK BEES AND SAMPLE THE AMAZING SPREAD (THE DESSERTS ARE ALWAYS SPECTACULAR).

Birchtree House, 80 Jones Drove, Whittlesey,
PETERBOROUGH PE7 2HW Tel: 01733 840725 Mobile: 07855 555973



A MESSAGE FROM OUR CHAIR - HELEN SWAIN

Its been a challenging few weeks for both beekeepers and our bees. The recent hot weather makes inspections very difficult and the bees have to work hard to keep the hive cool. If you have ever wondered how they do it then all is explained in this month's newsletter.

Our Annual HBKA BBQ is on Saturday 11th July. This is a popular event with members, a chance to catch up with friends, meet new faces and share beekeeping stories and delicious food. The BBQ goes ahead whatever the weather so I really hope you are able to come along. We especially encourage new members as its a great opportunity to meet experienced beekeepers who are happy to share their knowledge.

Helen

Illustration from Beekeepers' Circular
Cambridgeshire & Isle of ELY BKA and Huntingdon BKA
Third Quarter 1969

The Song of the Hive

In the first of a series of articles we look at how beekeeping may evolve in the future with the advent of artifical intelligence and advanced analytical techniques. Here we examine how artificial intelligence and bioacoustics are giving beekeepers a powerful new tool to listen in on the secret life of their colonies

Photo:Książek et al.

Step inside an apiary on a warm summer afternoon and you will hear it immediately: a deep, steady hum rising from the boxes around you. To most visitors, that sound is simply the backdrop of beekeeping. To a growing band of scientists and technology developers, it is something far more remarkable — a living language, rich with meaning, broadcast around the clock by tens of thousands of insects acting as one.

New research emerging from institutions including the Academy of Apitherapy is revealing that the acoustic world of the beehive carries a continuous stream of information about colony health, queen status, temperature regulation, and the threat of swarming. And crucially, artificial intelligence is now sophisticated enough to decode it in real time — giving beekeepers the potential to detect problems before they become crises.

"The hum of a beehive is not just background noise. It is a true melody of health."

Listening to the Colony

Every bee colony generates what researchers describe as a unique acoustic signature. This soundscape is in constant flux, shaped by the presence or absence of the queen, the internal temperature of the hive, levels of hunger, the health of the brood, and the proximity of external threats. Bees are, in the words of researchers, "masters of vibrational communication," using specific frequencies to coordinate the activities of what functions as a single, massive superorganism.

To study these sounds scientifically, researchers deploy ultra-sensitive microphones placed strategically inside hives. The first technical challenge is separating genuine bee signals from the considerable environmental noise generated by wind, rain, and passing vehicles. The solution lies in band-pass filters — algorithms or electronic components that allow only a defined frequency range to pass through, cutting out everything else.

Bee communication, it turns out, is concentrated in a surprisingly narrow band: roughly 100 Hz to 600 Hz. Within this range, the colony's hum can be rendered clean and clear, ready for analysis.

Reading the Frequencies: What the Hive Is Saying

The real breakthrough comes in interpreting what those filtered sounds actually mean. Scientists and observant beekeepers working in parallel have begun to map specific acoustic signatures to specific colony states, creating what might be described as the hive's own "medical bulletin board."

Loss of the Queen: The Wailing Hive

Perhaps the most dramatic and clearly identifiable signal is the response to losing a queen. When a colony is suddenly orphaned, the calm background hum transforms rapidly — within a matter of hours — into what researchers describe as a collective, sharp, and prolonged lament: the "wailing" of the bees.

Acoustically, the signature is unmistakable. The intensity (volume) of the hive spikes sharply and then fades in a ragged, irregular pattern, while dominant frequencies shoot upward toward the 500 Hz range. For beekeepers, this signal — if it can be detected automatically — offers the possibility of identifying a queenless hive within hours rather than days.

Swarming Fever: The Piping Queens

In the days leading up to a swarm, overcrowding causes a measurable increase in the background intensity of the hive. But the most distinctive pre-swarm signal is extraordinary: the "queen piping," a series of sharp, intermittent sounds resembling "toot-toot" notes emitted by young queens as they prepare to emerge from their cells. Workers respond to these calls with deep, sustained vibrations of their own.

Researchers note that this acoustic exchange amounts to a negotiation among potential queens — and its detection could give beekeepers several days of advance warning before a swarm departs. In practical terms, that is the difference between losing half your colony and having time to perform a split or add a super.

Thermal Control: Fans in the Heat

In summer, colonies regulate internal temperature by deploying large numbers of workers to fan their wings furiously at the hive entrance. This produces

Photo: Alan McCormick

a distinctive dull, rhythmic sound, quite different from the colony's resting hum. Detecting this signal consistently can help beekeepers assess whether a hive has adequate ventilation and whether additional measures — such as shading or moving the hive — might reduce heat stress on the colony.

Where Artificial Intelligence Changes Everything

What makes this research newly significant is the arrival of machine learning systems capable of being trained to recognise and classify these acoustic signatures automatically, continuously, and without requiring any physical inspection of the hive.

Early commercial systems — now in prototype or limited release in several European countries — combine a small in-hive microphone unit with a wireless transmitter and cloud-based AI analysis software. The beekeeper receives alerts on a smartphone when the system detects a pattern associated with queenlessness, pre-swarm conditions, or abnormal stress. Some systems also integrate weight sensors and temperature monitors, building a composite picture of colony health.

The technology draws on datasets of thousands of hours of hive recordings, labelled by expert beekeepers and researchers to train neural networks to distinguish between healthy and abnormal acoustic states.

"Queen piping could give beekeepers several days of advance warning before a swarm departs."

Photo: Beekeepers

The Academy of Apitherapy has been among the institutions at the forefront of compiling and sharing these datasets, recognising that the reliability of any AI system depends entirely on the quality and breadth of its training data.

Practical Implications for Beekeepers

The implications for working beekeepers are significant, and not only for large-scale commercial operations. Remote or hard-to-access hives — those kept on rooftop apiaries, on farms some distance from the keeper's home, or across multiple sites — stand to benefit most immediately. The ability to receive an alert rather than undertaking a precautionary inspection journey represents a genuine change in how beekeeping might be managed.

There are, however, important caveats. Researchers are careful to note that acoustic monitoring is a supplementary tool, not a replacement for regular hands-on inspection. The full picture of colony health — laying patterns, disease indicators, stores levels — still requires the experienced eye of the beekeeper working through the frames. What acoustic AI offers is an earlier warning system: a prompt to look, rather than a diagnosis in itself.

Practical Tips: Making the Most of Acoustic Monitoring

•Familiarise yourself with your colony's normal sound. Before fitting any monitoring device, simply listen to your hives regularly at different times ofday. A healthy, settled colony has a consistent, even hum. Deviations become easier to spot once you have a baseline.

•Note the frequency range. Bee acoustic communication concentrates between 100 Hz and 600 Hz. Free smartphone apps with audio spectrum displays (such as Spectroid) can let you visualise your hive's sound in real time — a useful, low-cost introduction to the principle.

•Learn the queen piping call. Recordings of queen piping are available through several beekeeping organisations and online. Training your ear to recognise the "toot-toot" pattern is a valuable skill regardless of whether you use any electronic monitoring.

•Consider monitoring during high-risk periods. Pre-swarm and queenlessness events cluster in late spring and early summer. If resources are limited, this is the period when acoustic monitoring — even manual listening — delivers the greatest return.

•Evaluate commercial systems carefully. Acoustic monitoring products vary considerably in microphone quality, AI training data quality, and the reliability of their alert systems. Look for products that have been independently evaluated or are backed by published research.

Keep inspection records alongside acoustic data. If you do adopt electronic monitoring, correlate its alerts with what you find on inspection. Over time, this builds a dataset personal to your apiary and your colonies — and helps you calibrate how much weight to give any individual alert.

The Road Ahead

Researchers in the field are candid that acoustic monitoring is still maturing. The challenge of accounting for the enormous natural variation between colonies — in genetics, environment, forage, and management history — means that no single AI system yet achieves the reliability that would make it genuinely diagnostic. The goal, for now, is a trustworthy early-warning function.

Longer term, the prospect is more ambitious. As datasets grow and machine learning models improve, the hope is that acoustic signatures may eventually provide reliable early indicators of disease — Varroa infestation, European foulbrood, and other conditions that currently require visual inspection or laboratory testing to confirm. Several research groups are actively pursuing this line of investigation.

For now, the field is best understood as a genuinely exciting frontier, one where the interests of academic bioacoustics researchers, technology developers, and working beekeepers are beginning, unusually, to align. The hive has been singing its health or distress for as long as honeybees have existed. For the first time, we are developing the tools to listen properly.

The Enemy at the Gate: Wasps and the Threat of Hive Robbing

As summer tips into autumn and natural forage begins to dwindle, beekeepers face one of the season's most persistent threats: wasp robbing. For colonies already under pressure from reduced nectar flows, a sustained wasp assault can spell disaster in a matter of days. From our Whats App groups this is one of the top problems our members face each season.

Why Wasps Rob Hives

Common wasps (Vespula vulgaris) and German wasps (Vespula germanica) are the primary culprits in the UK. By late summer, their own colonies are winding down and the queens stop laying. Worker wasps — no longer needed to feed larvae — lose their craving for protein and turn instead to sugar. Honey and bee brood make an irresistible target.

A single scout wasp that successfully enters a hive will recruit others rapidly. What begins as a trickle of intruders can escalate into hundreds of wasps mobbing an entrance, overwhelming the guard bees and plundering stores at alarming speed.

Spotting the Signs

- Beekeepers should watch for:
- Scrappy, aggressive activity at the hive entrance — wasps fighting with guards, bees wrestling on the landing board
- Dead bees and chewed wax outside the hive
- A sudden drop in colony weight (if using hive scales)
- Wasps probing the sides and roof of the hive, looking for gaps

Don't confuse a robbing frenzy with a swarm — robbing looks chaotic and aggressive; swarming is a purposeful, flowing mass of bees.

Some members are reporting that wasp activity around their hives is a concern already

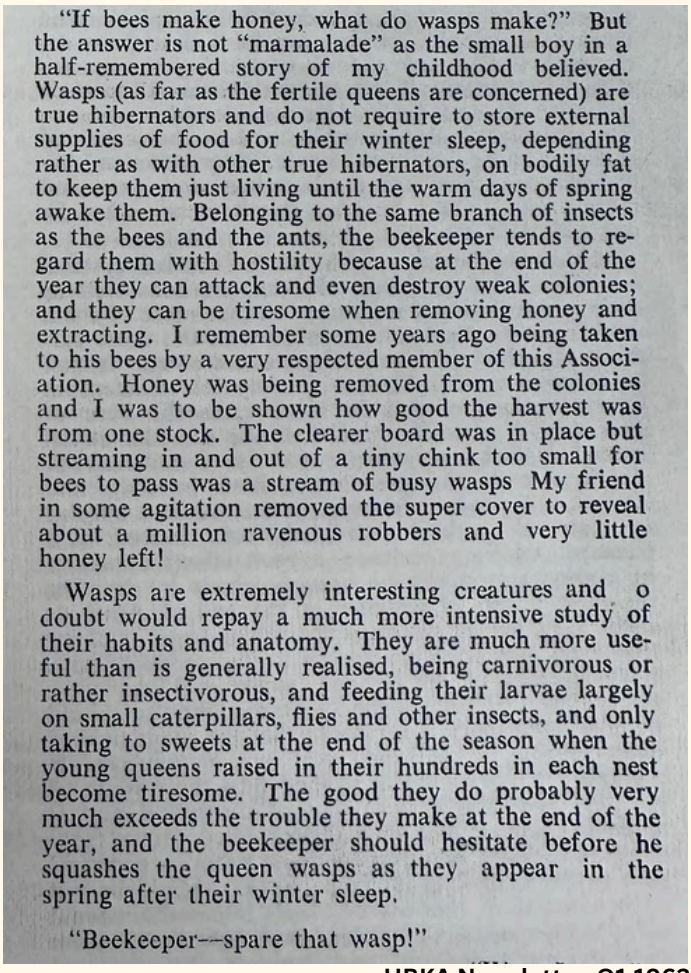
The Beekeeper's Arsenal

The good news is that simple, low-cost measures are highly effective if applied early.

- **Reduce/move the entrance.** This is the single most important step. A smaller gap is far easier for guard bees to defend. Use an entrance reducer or block the entrance down to a single bee-width (roughly 10–15mm) from late July onwards. Don't wait until you see wasps — act before the pressure starts. Members on our Whats App group have used entrance blocks to good effect, either purchasing them or making them. Other members have successfully deployed the under hive entrance and there are useful instructions for making these on You Tube.
- **Fit a wasp trap nearby.** Proprietary traps or homemade versions (a plastic bottle with a small hole, baited with a mix of jam, water and a drop of washing-up liquid) placed a few metres from the hive draw wasps away. Move them regularly — wasps are quick to learn.
- **Check for gaps**. Inspect roofs, crown boards and brood boxes for cracks or warped wood. A determined wasp will exploit any weak point.
- **Avoid spillages.** Never leave open syrup, uncapped frames or sticky equipment near hives. During robbing season, feed at dusk using rapid feeders inside the hive rather than open feeding.
- **Consider a wasp trap at the entrance**. Several commercial entrance guards are designed to let bees pass freely while trapping wasps — worth considering for weaker colonies.

FROM OUR ARCHIVES

AND OTHER MORE ANCIENT MUSINGS....



"If bees make honey, what do wasps make?" But the answer is not "marmalade" as the small boy in a half-remembered story of my childhood believed. Wasps (as far as the fertile queens are concerned) are true hibernators and do not require to store external supplies of food for their winter sleep, depending rather as with other true hibernators, on bodily fat to keep them just living until the warm days of spring awake them. Belonging to the same branch of insects as the bees and the ants, the beekeeper tends to regard them with hostility because at the end of the year they can attack and even destroy weak colonies; and they can be tiresome when removing honey and extracting. I remember some years ago being taken to his bees by a very respected member of this Association. Honey was being removed from the colonies and I was to be shown how good the harvest was from one stock. The clearer board was in place but streaming in and out of a tiny chink too small for bees to pass was a stream of busy wasps My friend in some agitation removed the super cover to reveal about a million ravenous robbers and very little honey left!

Wasps are extremely interesting creatures and o doubt would repay a much more intensive study of their habits and anatomy. They are much more useful than is generally realised, being carnivorous or rather insectivorous, and feeding their larvae largely on small caterpillars, flies and other insects, and only taking to sweets at the end of the season when the young queens raised in their hundreds in each nest become tiresome. The good they do probably very much exceeds the trouble they make at the end of the year, and the beekeeper should hesitate before he squashes the queen wasps as they appear in the spring after their winter sleep.

"Beekeeper—spare that wasp!"

HBKA Newsletter, Q1 1962

Protecting Weaker Colonies

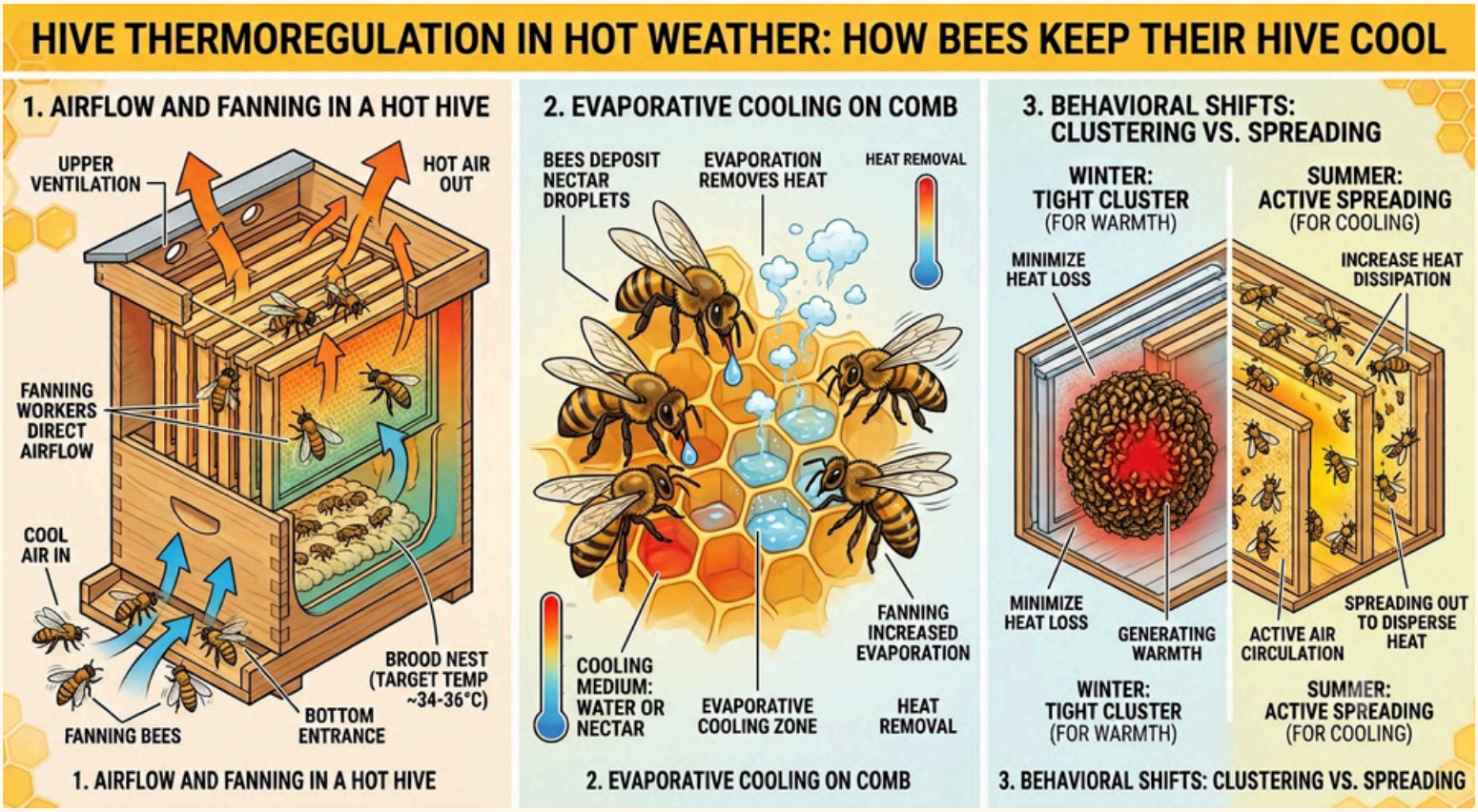
Nucleus colonies, recently-mated queens and colonies recovering from disease are most at risk — they simply lack the guard bee numbers to mount a strong defence. These should have entrances reduced to a single bee-hole from midsummer and may benefit from temporary relocation away from stronger hives if robbing pressure is high.

If a colony is being robbed and chaos has taken hold, close the entrance entirely for 24–48 hours, move the hive if possible, and only reopen once activity has calmed.

The Bottom Line

Wasp robbing is predictable, seasonal and largely preventable. Reduce entrances early, eliminate temptations, check for gaps and monitor weaker colonies closely from August through October. A little vigilance now can save a colony months of hard work.

Beating the Heat: How Bees Keep Their Hives Cool



When summer temperatures climb, most of us reach for a cold drink and the shade. Honey bees can't leave the hive behind, so instead they've evolved a remarkably sophisticated set of tools to keep their home at a stable, workable temperature — no matter what the thermometer outside is doing.

Why Temperature Control Matters So Much

The broodnest is the heart of the colony, and it needs to stay within a tight range — around 34–35°C — for eggs, larvae and pupae to develop properly. Stray too far outside that band for too long and you risk chilled brood, deformed bees, or in extreme heat, wax combs that soften and collapse under the weight of stores and brood. Keeping the nest at the right temperature isn't a nicety for bees — it's essential colony survival.

Fanning: The Hive's Air Conditioning

The most visible cooling behaviour is fanning. Worker bees line up at the entrance and inside the hive, beating their wings to drive air currents through the colony. Some bees face inward, pulling hot air out; others face outward, pushing fresh air in. On a hot day you'll often see a "beard" of fanning bees at the entrance, wings a blur, creating a steady through-draught that carries heat and humidity away from the brood nest.

Evaporative Cooling: Water as a Coolant

Fanning alone often isn't enough on the hottest days, so bees bring in water and spread it in thin films across the comb surfaces and cell walls near the brood. As foragers and house bees fan air across this moisture, evaporation draws heat out of the hive, much like sweat cooling our skin.

This effort is genuinely hard work: water-carrying bees may make dozens of trips a day, and the whole process depends on there being enough water close by for them to collect.

Spreading Out and Clustering — In Reverse

Just as bees cluster tightly together in winter to conserve warmth, they do the opposite in summer. When it's hot, bees spread themselves out across the combs and even move out onto the hive front and beneath the floor in a "beard," reducing body-to-body contact and metabolic heat generation, and giving more surface area for air to move across.

Colony-Level Teamwork

Cooling a hive isn't the work of a few bees — it's a coordinated colony response. Foragers shift from collecting nectar to collecting water when the colony signals a need for it, receiver bees redistribute that water to where it's needed, and fanning bees adjust their numbers and position depending on where heat is building up. It's a great example of decentralised problem-solving, with thousands of individuals responding to local cues to produce a stable result for the whole colony.

Bearding is one of the most visible signs of a colony managing summer heat. On hot days, large numbers of bees move out of the hive entirely and cluster on the outside of the box — often across the front, sometimes hanging beneath the floor — forming a dense "beard" of bees. This isn't a sign of distress or an imminent swarm; it's simply the colony reducing the number of warm bodies packed inside the hive, cutting down on metabolic heat and freeing up space for better airflow around the brood nest. The bearding bees themselves stay cool and out of the way until temperatures drop in the evening, when they file back inside. For beekeepers, bearding is a useful visual cue that a colony is working hard to regulate its temperature — a good moment to check that water is close at hand, rather than a cause for concern.

What This Means for Beekeepers

Understanding how bees regulate heat naturally should guide how we help them, rather than replace what they already do well.

- Water is the priority. Since evaporative cooling depends entirely on bees having water to bring in, the single most useful thing a beekeeper can do in hot weather is ensure a reliable water source is available nearby — ideally with something for bees to land on, such as pebbles or floating cork, so they don't drown. If your apiary doesn't have a natural source close by, consider a bee-safe water station.
- Keep an eye on stores. Hot spells often coincide with nectar dearths, and colonies working hard to cool the hive are using energy too. Check that stores aren't running low, and be ready to feed if a dearth drags on.
- Site and shade matter. Where possible, hives sited with some afternoon shade, and away from radiant heat off walls or dark surfaces, have an easier time of it than those baking in full sun all day.

Ventilation should be considered carefully. Any changes to hive ventilation are best made thoughtfully and with an understanding of how they affect the bees' own airflow management, rather than as a quick fix — and it's worth remembering that anything which opens up the hive to opportunistic robbers or wasps can create a bigger problem than the heat itself.

A Colony That Looks After Itself

It's easy to forget, amid all our own interventions, that bees have been managing their thermal environment for millions of years with no help from us. Our job as beekeepers in summer is less about controlling the temperature ourselves and more about making sure the colony has what it needs — water above all — to keep doing what it already does so well.

Eastern Region Bee Forum, Newmarket 28 June 2026

Helen PIzzie, Tony Shepherd & Karen Sutherland represented the HBKA at the recent Eastern Region Bee Forum held in Newmarket.

Members from beekeeping associations across the Eastern Region gathered in Newmarket on 28 June for this year's Regional Bee Forum hosted by Jack Siberrad, the Eastern Regional Bee Inspector. The day combined an update from the Bee Inspectorate, a round-table exchange of news between associations, and a detailed session on Varroa management from Kirsty Stainton, Technical Manager at the National Bee Unit (NBU), the emerging threat of Tropilaelaps, and an update on the Yellow Legged Asian Hornet. A summary for HBKA members follows.

Bee Inspectorate Update

Jack Silberrad, opened the day with a sobering note on resourcing: the Inspectorate is facing a proposed 5% cut to headcount, which would take the national number of bee inspectors down to just 60. Despite this, the Eastern Region remains the national hotspot for European Foulbrood (EFB), and inspectors carry out 2,000–3,000 inspections a year, with roughly a quarter resulting in treatment for EFB. One of the Associations suggested a march on Whitehall in our bee suits and smokers to protest!

Cambridgeshire has seen a number of asymptomatic EFB cases (strain 39, described as low-burden), while Kent currently has the highest EFB caseload in the region. American Foulbrood (AFB) remains comparatively rare — around 1–3% of diagnoses — with only 19 confirmed national cases so far this year (12 fewer than at the same point last year).

A useful practical tip was shared on decontaminating equipment: AFB spores can survive washing soda alone, so bleach should now be added to the standard cleaning formula. The recommended mix is 4.5 litres of water, 1kg of washing soda and 150ml of Domestos bleach (4.5% strength), which remains effective for 24 hours once made up (roughly 30ml of bleach per litre). Washing soda cleanses, bleach sterilises. Bee suits can be washed normally at 40°C, but all visible residue should be removed first.

A very useful day underliining the pressure the NBU is under and how our associations have much in common at a time when the threat to beekeeping has never been greater.

Round the Table: News from Associations

It was clear from the round-table session that most associations are grappling with similar issues — winter losses (several associations reported figures around 50%), the impact of a changeable climate, and getting members to attend training and events. A few highlights:

Suffolk Coastal BKA (125–150 members) offers free Varroa treatments to 60–70 members and runs beginner courses and apiary taster sessions.
North Herts BKA (120 members) runs a beginners' course, collects swarms, and has recently had two apiaries placed in quarantine following EFB.
Hertfordshire BKA (960 members across seven local associations) runs two shows a year and holds monthly evening meetings with speakers.
St Albans & Herts BKA (177 members) runs three training apiaries and provides local bees to newcomers.
Norfolk BKA (220 members) runs a training apiary alongside its beginners' course, five training/practical sessions, and an annual honey show.
Beds BKA (550 members) is particularly active — two training apiaries, queen rearing and nucleus production, swarm collection, a bulk-purchase scheme at its AGM, and a new website under development.
Suffolk BKA (1,000 members across six branches) had to relocate one of its apiaries after neighbour issues and now housed on an old tennis court! The association also lost two nucs to theft over winter and reported several cases of Chronic Bee Paralysis Virus (CBPV) that came and went through the season.
West Norfolk & Kings Lynn (around 300 members) runs an improvers' course for beekeepers with more than a year's experience and is about to invest in a permanent classroom.
Essex (eight associations, around 1,000 members) is focusing on health and hygiene given the occurence of EFB, and members there now visit one another's apiaries.
Cambs BKA (650 members) has identified an EFB strain (type 39) unique to Cambridgeshire; only around 300 of its 650-plus members currently keep bees.

A recurring theme was the difficulty of dealing with feral swarms carrying EFB, with several members noting a reluctance among beekeepers to collect swarms of uncertain origin.

CBPV was mentioned repeatedly as being on the increase across the region, and it was noted that it can be mistaken for Nosema.

Varroa: A Masterclass from the NBU

Kirsty Stainton gave a detailed session on Varroa biology and management. She reminded the room that mite saliva contains around 27,000 Deformed Wing Virus (DWV) particles, and that the virus replicates to very high levels in pupae. Of newly infected bees, roughly a third die as pupae, a third emerge with deformed wings and die within days, and the remaining third survive but with impaired lifespan and memory.

Mite populations can multiply 12- to 800-fold over a single season, doubling with every brood cycle through reproduction alone — and that's before accounting for robbing. One experiment showed that 35% of mites from a robbed nucleus were transferred to the robbing colony within 24 hours. Typical mite drop figures were quoted as 1.6–13.7 mites per day per colony in June/July, rising sharply to 75.6 per day in September/October (though this is also influenced by colony density).

For monitoring, the open mesh floorboard "drop" method gives useful thresholds: more than 30 mites a day means treat urgently, 10–30 means treat soon, and fewer than 10 means no treatment is currently needed. Drone brood uncapping (checking 200–300 drone pupae) is another option available from April to July while drone brood is present — a mite level above 3% (three mites per 100 pupae) indicates treatment is needed, below 1% does not. Alcohol wash (300–400 bees in 70% alcohol) and icing sugar rolls remain reliable alternatives.

Crucially, Kirsty stressed that visible mites are "the tip of the iceberg" — absence of evidence is not evidence of absence — and that monitoring is essential precisely because most of the mite population is hidden within capped brood.

“Absence of evidence is not evidence of absence“

Varroa Treatment Options

A recap of licensed treatments (all listed in the NBU manual, available on their website):

Thymol (e.g. Apiguard) – around 85% effective, usable up to 40°C, maximum twice a year.

Oxalic acid (e.g. Api-Bioxal) – 91–99% effective, but only suitable for broodless colonies, making it primarily a winter treatment.

Varromed (oxalic and formic acid combined) – can be used multiple times: 1–3 treatments in spring, 3–5 in autumn, and one in winter.

Formic acid – applied as strips over seven days; effective because, unlike other treatments, it penetrates brood cappings. However it is easy to overdose (risking adult bee losses) and evaporates unpredictably, making dosing harder to control. Only Formic Pro is licensed for use during a honey flow.

Synthetic pyrethroids (e.g. Apistan) – members were strongly advised not to use Apistan owing to widespread mite resistance. Apivar and Apitreaz currently show only selective resistance.

Keeping treatment records is a legal requirement. There was useful discussion on husbandry-based methods too: drone brood removal is around 50% effective on its own (rising to 90% during a natural brood break) and can be repeated two to three times a season using drone foundation. Queen trapping/caging (May–July, in strong colonies, for 21 days) is around 40% effective alone, rising to 90% when combined with oxalic acid treatment. Artificial and shook swarms were also discussed as tools that create a broodless window in which oxalic acid or Apiguard can be used to particularly good effect.

Asian Hornet Update

Spring trapping for Asian hornets has now been stood down, with very low detection rates (roughly one hornet found for every thousand recorded traps). While high-risk areas have been identified nationally, none currently fall within our region (with one caveat flagged on the day - ours!!). To date, 268 Asian hornet nests have been found in the UK, with the vast majority destroyed before producing drones or gynes (new queens). Interestingly, going forward the NBU will not be carrying out genetic testing on nests found. For context, Jersey — much closer to the Continental population — has around six nests per square kilometre, compared with fewer than one per square kilometre in Kent. We were shouted out for our efforts around Monks Wood! Phillip Turon from CBKA gave an update.

Tropilaelaps: The Next Threat

A significant part of the day was devoted to Tropilaelaps, described by speakers as "Varroa 2.0 at the door." This mite belongs to the Laelapidae family (which includes around 1,300 species, Varroa among them) and was first recorded in the 1960s, originally associated with rats before becoming established as a serious honey bee parasite. Because the Western honey bee has had no evolutionary time to adapt to it, Tropilaelaps is an extremely aggressive feeder, vectoring 8–10 known viruses, causing permanent deformities, and able to outcompete Varroa where both are present (though the two can also co-exist).

Key points of concern:

- It replicates roughly three times faster than Varroa, and colonies can collapse within two to three seasons of exposure with Varroa but potentially far faster with Tropilaelaps.
- Colonies may show a period of apparent disappearance of the mite, associated with a reproductive halt around January–March, before numbers rebound very quickly — it's suspected the mite is hiding somewhere in this period, though this isn't yet confirmed.
- It is already spreading across Europe, with confirmed sightings in Turkey and Russia/Ukraine.
- Legislation alone won't keep it out — Ireland alone imports an estimated 25,000 queens a year — and it's thought the UK could see its arrival within the next ten years; it would only take a single mite to establish.
- Vets currently receive only 10 hours of compulsory training in bee health (plus an optional two-hour module), yet are able to sign off health certificates for exports.

The NBU is exploring sugar roll techniques to aid detection, and members were encouraged to keep an eye on NBU guidance as the picture develops.

Update from the HBKA Apiary

Inspections are being made very challenging with the park refurbishment work. Our nearest car park close to the apiary has closed, necessitating a trek from the top car park and a considerable diversion through the woods and across the field! In the last week or so the top car park has also been closed making the journey quite a trek from the nearest available place we can find a parking space. THe car park remains closed until 3 July 2026 so we will be delaying our next inspection until then.

This month sees a month where our bees have been busy but there is not a huge amount to report. Essentially we are keeping an eye out to make sure our brood boxes have enough rearing space for our busy new queens and that we keep up with honey production through the addition of supers. Some of our hives are on 3 supers already!

Around and About...

As the season hots up lots of hornets and wasps around. Time to brush up on our identification so we can spot natives vs nasties!

Swarm season continues with volunteers being busy. This swarm in Godmanchester picked up by Paul Travers

Busy bees by Steve Hamilton

Tim G shared a lovely shot of a trap out set up he used. There was quite a bit of discussion on our WhatsApp group on 'hard to access' swarms.

The Wider World
OF BEES

In the The Wider World of Bees, we highlight UK information, updates and research that could influence your beekeeping. Whether adjusting habitats or refining varroa treatments, these stories offer actionable insights.

How a queen is really made

For decades the story of how an ordinary larva becomes a queen bee has been simple: feed it royal jelly and nature does the rest. A study published in Nature on 3 June by a team at the University of California, Riverside, led by Boris Baer, suggests that story is only half true.

The researchers found that young worker bees, dubbed "queen cell builders," construct specially engineered wax chambers, or "queen cells," that are chemically and physically distinct from ordinary comb. These cells run warmer than the rest of the hive and are staffed by dedicated attendants, creating a bespoke micro-environment that appears essential to healthy queen development, alongside diet. Using thermal imaging, behavioural tracking and chemical analysis, the team showed that even larvae given royal jelly failed to develop properly without this specialised wax environment. The findings help explain why queens mature in around sixteen days against twenty-one for a worker, and point to new avenues for improving queen-rearing success in apiaries.

T**ropilaelaps: the mite moving west**

Concern continues to build over Tropilaelaps mercedesae, the Asian brood mite now confirmed in western Georgia and southwestern Russia, with unconfirmed reports from Ukraine and Belarus. Writing in Entomology Today in May, researchers described the situation as "history repeating itself" roughly fifty years after Varroa first swept across Europe.

A study in the Journal of Economic Entomology has now demonstrated, for the first time in western honey bees, that natural swarming can carry Tropilaelaps mites into new colonies — a dispersal route previously only suspected. Because European colonies swarm at relatively high rates, this raises the risk of rapid spread once the mite becomes established in a region.

Dutch researchers quoted in NL Times this year described the mite's arrival in the Netherlands, and by extension the wider EU, as ultimately inevitable given the volume of intra-EU queen trading. The UK's National Bee Unit continues to update its Tropilaelaps advisory leaflet and is asking beekeepers to remain vigilant, particularly with imported stock.

New tools against Varroa

Alongside conventional treatments, an RNA interference (RNAi) biopesticide called vadescana, marketed as Norroa, is emerging as a genuinely new mode of action against Varroa destructor. Rather than poisoning the mite directly, the treatment silences specific mite genes, disrupting reproduction. A review published in Frontiers in Insect Science this spring, drawing on several years of New Zealand field trials, found the treatment reduced mite reproduction with minimal impact on bees or other non-target species, though the authors caution that resistance remains a long-term risk that will need active management. Separately, a Scientific Reports study of a feral, hybrid honey bee population in Southern California found these bees consistently ran lower mite loads than commercially sourced colonies, crossing standard treatment thresholds less often — a reminder that some genetic lines cope with Varroa considerably better than others, and a continued case for selecting breeder queens on measured mite resistance rather than looks or productivity alone. So far only available in the US.

Pesticides still under the microscope

Several 2026 studies have kept pesticide exposure in the spotlight. Chinese researchers reported that certain neonicotinoids raise honey bees' body temperature and speed the movement of contaminants into the hive, worsening exposure risk. A separate study found that combined exposure to imidacloprid and flupyradifurone disrupted honey bees' flight patterns and energy metabolism. Wider surveillance work published this year, including a first EU-wide screen of pesticide residues in beehives, continues to find multiple compounds present in most samples tested, reinforcing the case for reading label guidance carefully and avoiding treatment during flowering periods wherever possible.

As ever, readers are encouraged to treat single studies as one piece of a much larger picture — but taken together, this year's research paints a field moving fast on genetics, biopesticides and monitoring, even as funding and new pest threats keep the pressure on.

RECIPE CORNER

Honey and Lime Ice-Cream

Beat the heat this month with a delicious and refreshing cool treat. Just 15 mins to prep!

Prep and Cook Time
Prep time: 15 mins

BBC Good Food

Ingredients

- 600ml double cream
- 397g can condensed milk
- 3 tbsp honey
- 3 limes
- 2 zested, all juiced
- 60ml gin
- 150g raspberries to serve

Method

step 1
Whip the cream until it just starts to thicken, then lightly whisk in the condensed milk, honey, most of the lime zest, all the juice and the gin.

step 2
Pour into a shallow container and freeze until firm, about 3-4hrs or overnight. You won't need to stir the cream as it sets – the gin stops it from freezing solid.

step 3
Take the ice cream out of the freezer 10 mins before serving to soften slightly. Top with the remaining lime zest and the raspberries to serve. Will keep frozen for two months.

Nutritional Info (approximate per serving)

- Calories: 429 kcal
- Fat: 33.5g (saturated 20.8g)
- Carbohydrates:29.1g (sugars 28.6)
- Protein: 3.9g
- Salt: 0.1g (approx.)

Tips:
1. The gin is optional and helps prevent the ice-cream from freezing too hard. Use a little extra honey to drizzle

MONTHLY TO DO'S JULY

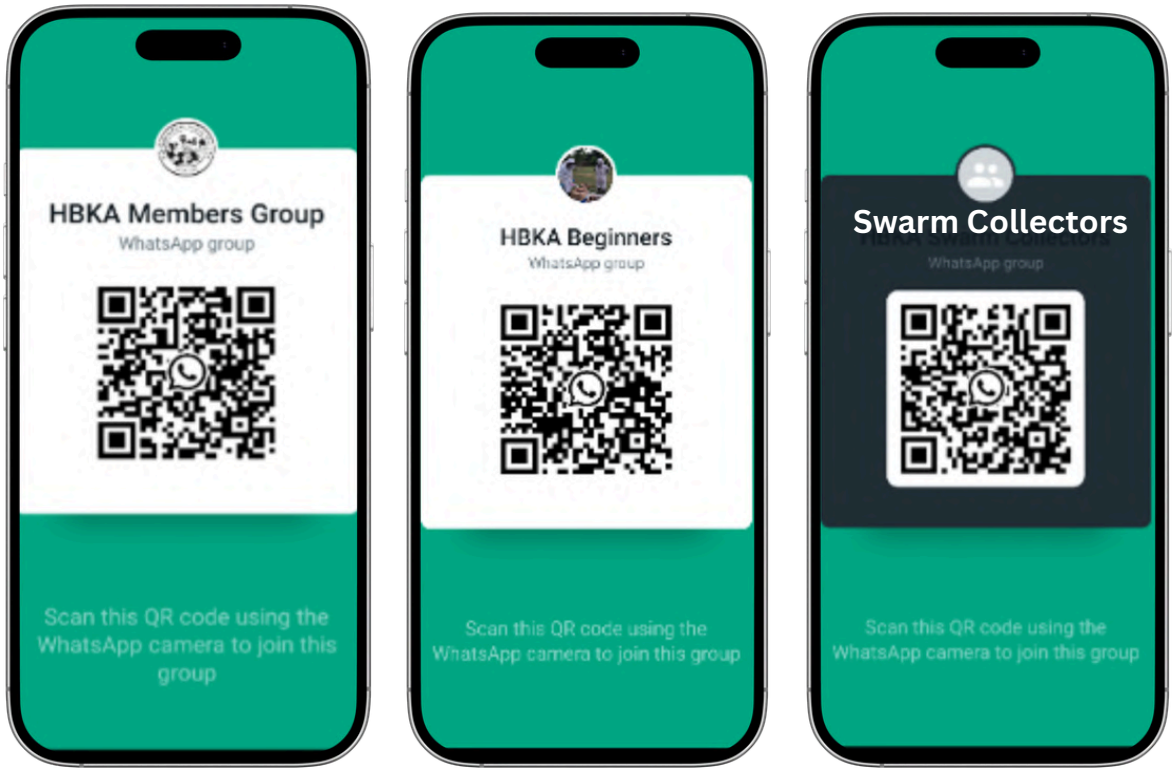
- Weekly (7-day) brood checks — swarming can still happen in July; watch for queen cells and confirm new queens are laying well
- Harvest and extract honey promptly once capped (clover/bramble/lime flow); don't let strong colonies get honey-bound
- Monitor Varroa now — drop count, alcohol wash or sugar roll (>30/day = treat urgently, 10–30 = treat soon, <10 = fine)
- Only use Formic Pro if supers are still on — other treatments must wait until supers come off
- Check for EFB and CBPV at every inspection — both are up locally this year; call the Bee Inspector if unsure
- Ensure good ventilation and a water source in hot weather
- Keep your apiary diary updated — mite counts, queen status, stores
- Start planning your autumn Varroa treatment and any uniting of weaker colonies

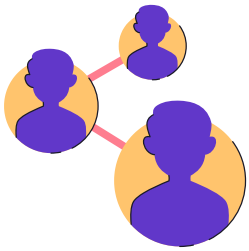
SAVE THE DATE

Date/Time	Event
11th July	**Summer BBQ**
13th -19th July	Bees' Needs Week
12th September	Bee Tea hosted by Jackie & Ian Taylor Baldwin, Ramsey
27th September	Annual HBKA Honey Show, The Raptor Centre, St Ives

Stay CONNECTED

There are numerous ways you can stay in touch with what's happening in the HBKA. We have this newsletter which we send out by email (and hope to make available digitally in the near future); we have our website where you can find a treasure trove of resources HBKA Website and we have our WhatsApp groups where you can find instant news and views from your fellow members. There are some great chats as members swap ideas and thoughts on everything from wasp control to winter storage bags! We have a general members group, one dedicated to swarms and another for our beginners. Scan the QR codes or use the links provided. Please note that your phone number will be visible to other members of the HBKA Members Group.





Do you have news, photographs or information that would be good to share with your fellow beekeepers? Share top tips, ask questions or seen something interesting in your hives? Email us at newsletter@huntsbka.org.uk