



# The **Apiarist**

... High Weald Beekeepers' Newsletter

## Chairman's Chatter

2020 is certainly turning out to be a year of surprises. Who'd have thought when toasting in the New Year on December 31st 2019 / 1st January 2020 that half way through the year we'd be in the midst of a life-changing global pandemic?

I hope you are all faring well in the circumstances. My wife and I both had COVID-19 early on according to medical opinion, but otherwise the whole shut down business has not really impacted us too badly at all... I'm very much aware how very fortunate we are.

At a much more prosaic level, even the bees have thrown me a few surprises too this year ... when do they ever not?

I do things slightly differently to the accepted norm in that I do not remove all the honey at the end of the summer and then feed them sugar, but rather leave them all the supers with at least the requisite 20 kilogrammes or more of their own stores (whenever possible) to get them through the winter. This generally means that in addition to frames of stores in the brood box, at least one full super. Therefore, I must also remove the Queen excluder before the winter so that the cluster can move up into the supers to access the honey. I then have to get into the hives fairly earlyish in the season to replace the Queen excluder before her ladyship starts laying in

the supers. (Some folks are moving away from using Queen excluders altogether (e.g. Helen Hadley) and I may well try this next year). This year I put the QEs back in on March 24th; quickly hefted the supers to make sure they had plenty of stores but didn't go through the brood boxes as it was a bit chilly, popped the Queen excluders in and thought no more about it ... well one wouldn't ... would one? On 8th April when I opened them again on a warm day for a full inspection, to my horror, my HH5 colony was full of dead bees across 3 frames of brood with the classic bottom in the air sign of isolation starvation.

Centimetres above their heads was a full super but that Queen excluder was obviously just sufficient to inhibit them moving up and, needless to say the brood box had had hardly any stores and they were at the other end of the box. It wasn't even a particularly cold spring ... beware the Ides of March!

Our President, Peter Leswell, a very experienced beekeeper who along with Keith taught me on the course I did many years ago, tells me he has seen the situation where the cluster will not even cross the brood box from the warm side that gets the sun to get to the stores on the cold side.

Then, another surprise. At the end of May during an emergency

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### FORTHCOMING EVENTS

All events are still cancelled until further notice.

For Full calendar & details see <https://hwbka.org.uk/event/>

**The Apiarist** is a quarterly newsletter produced for members of the High Weald Beekeepers' Association.

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*Dead bees with the classic bottom in the air sign of isolation starvation – despite a full super centimeters above them.*

...continued from page 1

inspection I saw something I'd never seen before, a sealed Queen cell in the middle of a super frame with a viable grub inside but no other eggs or brood in any of the supers (the small white marks in the photo the eagle eyed might see, are reflections from the honey ... honest). It's quite common to find small play/practice Queen cells in supers but this... ? ... and how did it get there?

The prologue to this story is that I'd made a classic Pagden artificial swarm on this colony a few days previously; gave the supers to this colony with the 1 Queen cell (in the brood box! I thought) and fed the old Queen colony in the new hive on the old site etc. as per usual, and then this one went and threw out a caste! So, I decided I needed to get back in to see how many other Queen cells I might have missed when I thought I'd only left one. I also wanted to pinch one of their supers to satisfy a honey customer ... and then I found the

Queen cell I'd missed and knew why they sent out a caste! Mystery ... sort of solved!

So, what to do in future? Am I going to go through every super frame also, checking for Queen cells just on the remote chance I'll find this again? ... I'm probably not sufficiently conscientious!

On other matters your committee continues to function during lockdown by email etc. and we've even had an on-line committee meeting via the miracle of ZOOM. We also had a BeeBanter via ZOOM too, but it must be said the ambience was not quite as enjoyable as the Rose and Crown.

Last but not least, we finally now have bees up at our new apiary site at Horsted Green Park. Thank you Steve (Davies) for all your hard work preparing the site!

See subsequent article by Paul Lindström for further information.

Peter Coxon



*A lone queen cell on a Super – how did that happen?*

## Book and article review

By Paul Lindström

[Honigbienen – geheimnisvolle Waldbewohner](#) by Ingo Arndt (in English "Honeybees – Mysterious Forest Dwellers".



How I came to be aware of this book was when I happened to see an article in the National Geographic Magazine, and was completely astounded by the images taken by the nature photographer Ingo Arndt.

Because of copyright rules I can't reproduce any of the photos here, but follow this link to the [March issue of National Geographic Magazine](#), and you'll see what I mean.

Among the amazing photos are several taken when a Hornet enters the hive and the bees attack. They tackle it and then pile onto it to prevent escape. Then they work their flight muscles to generate enough heat to kill the Hornet. I've read about bees being able to do this, but not seen it in pictures. What a drama!

I then learned that Ingo Arndt has recently (early 2020) published a book together with Jürgen Tautz, a bee expert and scientist. The book is called "Honigbienen – geheimnisvolle Waldbewohner" in German, but it will be published eventually in English, probably under the name "Honey Bees: Mysterious Forest Dwellers". My German is too rusty to be trusted to read German, but I will be on the look-out for the English version. Meanwhile, if you are fluent in German, that book is available now.

BTW – Jürgen Tautz has also cooperated with another amazing bee photographer, Eric Tournet. You will find that book (English title "Honey From the Earth: Beekeeping and Honey Hunting on Six Continents") among my favourite books in the article on page 9.



# Loving Bees in the time of Corona

By Sandy Infield

***HWBKA couldn't run the Beginner's Course in the normal way this year because of the Covid-19 lockdown, but some of the planned participants decided to go ahead with beekeeping anyhow with support from HWBKA through a WhatsApp group. We have asked some of the students to write about their experiences as a beekeeper. First out is Sandy Infield. Then you'll hear from Mark Ballet and Richard Stewart later on in the magazine.***

"Please wash your hands and then go to Malcolm, he will fit you for a bee suit" a phrase so novel it made us giggle. It was my very first session on the High Weald Beekeeping course on the 14th of March. We were shown different hives, how to put a frame together and a wonderful video about bees. The atmosphere was fun, the senior beekeepers were kind, very informed and helpful, I was hooked. I went straight home and ordered two 12/14 National beehives.

Bam, the following week the lock down happened, the course was cancelled but anyone who had bees or had already ordered them was offered a mentor. I'd ordered my hives; I was super keen, I asked for a mentor!

Not a lot happened for a few weeks, my flat pack hives arrived but I was too scared to open them, it all seemed very complicated and I had heaps to do making a veggie patch. Luckily Steve our carpenter friend turned up. He had no work because of the lock down and could help me put the hives together. Thank goodness he did, some of the walls were so warped that he had to make little grooves in one side and clamp them with glue until they were straight.

After a day of the two of us shouting across the regulation two meter gap between us we managed to build the



*Sandy Infield, new HWBKA member and new beekeeper*

hives. I was so proud I posted a picture onto the HWBKA WhatsApp group.

Literally an hour after my post I had a call from Malcolm the course leader, "did I want bees, now!" It felt like my first day at primary school when the teacher asked me my name, total terror but a strange sense of a new beginning, "yes, I would love bees".


I had to call Rob and go collect the Nuc box at 7am in two days time. I had hives but no stands, wasn't sure where to put them and what other equipment I would need. Luckily we had a lot of old timber that we had picked up from freecycle and Mark my husband created a pretty convincing stand looking up how to do it on his phone. Rob kindly said that I was to bring any questions when I came to pick up the bees, he could also lend me equipment so I was not to worry, I did not sleep a wink that night!

With six frames of responsibility strapped into the back of the car, I drove home like a new mum from a maternity ward at ten miles an hour wincing at every pot hole. I carefully placed the Nuc box on the new stand and opened the door, I had bees!

The weather was sunny but chilly, so Malcolm and the WhatsApp group all agreed that I should not transfer the bees until it became warmer. It was a bit of a relief because I had a moment to practice with the smoker and put on my new bee suit.

When the sun came out, it was the right time to hive my new bees. I had read and reread two books on bees, and had decided to have the frames 'the warm way round' but when I opened the Nuc box the frames were the cold way around and for a moment I didn't have a clue what to do. I knew that I was to keep the frames in order but which one should go at the front?

Malcolm and Rob had been on WhatsApp giving me hints and reassurance. One of the things Malcolm said was, "if all else fails go with your instinct" so I just did. I hope I did it right but I had to stay calm.

That was nearly four days ago now, my bees are flying in and out, some have huge yellow blobs of pollen on their legs. I think everything must be OK for now at least. I guess to call what I feel 'love' would be a bit extreme but something about these tiny creatures has me captivated. I think that I am committed to a long term relationship beyond the time of Corona! 



*Sandy in brand new bee suit starting to know her new bees.*

# Should we import bees to the UK?

By Paul Lindström

*This question came up after our Training and Education Manager Malcolm Wilkie realized that several of the new beekeepers had ordered bees from what might be abroad. So we decided to find out what the BBKA stance is on this, and what scientific reasons there might be for or against importing bees from abroad.*

It was easy to find out what BBKA's official position in the matter is, since it's posted on their web site. "The British Beekeepers Association discourage the importation of queen bees and colonies from outside the UK" ([the BBKA web site June 4](#)). This is also the position HWBKA take on the issue.

But what is the scientific evidence supporting this stance, and should we even suggest a ban on bee import? We have researched what the experts say on the matter.

## Professor David Evans, virologist

One person who has written a lot on the topic is Professor David Evans. He works at the University of St. Andrews, at the Biomedical Sciences Research Complex (BSRC). But he is also a keen beekeeper and editor and web manager of the site *The Apiarist* ([www.theapiarist.org](http://www.theapiarist.org)) – yes, same name as of our magazine, but no other connection. We got permission to use several of the articles from Evans' web site, and what follows is an extract from four articles David Evans suggested for us on this theme. I will mention the original name of the article if you want to read it in full. Either search the site using that name, or click on the link for the article.

The first article on this topic is "[Supply and demand](#)", published in 2014. David Evans starts with a quite clear and strong statement:

"I believe that the importation of bees is detrimental to the quality of beekeeping in the UK. I think the beekeeping associations – national and local – should do more to discourage imports, that they should strongly encourage rearing local bees, and that they should have more emphasis on promoting the practical skills necessary for sustainable beekeeping in the UK."

He then summarises the rather long article with these bullet points:

- Thousands of queens and packages of bees are imported into the UK annually to meet the demands of; i) newly trained beekeepers; ii) beekeepers who lose stocks overwinter; or iii) beekeepers wanting to increase or improve their stocks.
- Our temperate climate provides a five month window for queen rearing. This creates a supply and demand problem, with maximum demand at a time when supply is limited. Cheap imported bees and queens act as a disincentive to rebalance this supply and demand.
- If imports were not available we would have to become better beekeepers, raising more nucs for overwintering, managing and meeting expectations for newly trained beekeepers, improving colony health and hence overwintering success and raising many more quality locally bred queens. Conversely, if the supply and quality of local bees and queens was better in the UK there would be fewer imports needed. We are in a Catch22 situation.
- Sustainable UK beekeeping (i.e. beekeeping that is no longer reliant on imports) does not mean reductions in numbers of colonies or numbers of beekeepers. Instead it requires, and would result in, an improvement in practical beekeeping skills.



*Professor David Evans is a virologist and works at the University of St. Andrews, at the the Biomedical Sciences Research Complex (BSRC). But he is also a keen beekeeper and editor and web manager of *The Apiarist* web site.*

Professor Evans then elaborates on the pros and cons with imported bees, but concludes: "Beekeeping is not difficult. It's a hugely engrossing pastime in which the best results are achieved by working with the bees, not against them or by forcing them. Quick fixes, such as importing queens early in the season, reduces the requirement for good bee husbandry and the need to be observant and gradually improve your stock. Although I think that imports should be banned to limit the chances of small hive beetle reaching the UK, I think a far greater benefit of such a ban would be the resulting improvements in the quality of UK beekeeping. These improvements are not achieved by taking more exams or qualifications. They are almost all practical skills, readily acquired by observation, good record keeping, talking with your friends and learning from more experienced beekeepers already practicing sustainable beekeeping.

I would like to see national and local associations more actively promoting the benefits of locally-raised bees. These are the organisations that should be coordinating efforts to become less reliant on imported bees, that should be teaching the practical skills necessary for sustainable beekeeping and that will eventu-

*...continues on next page*

ally also benefit from improvements in beekeeping in this country.”

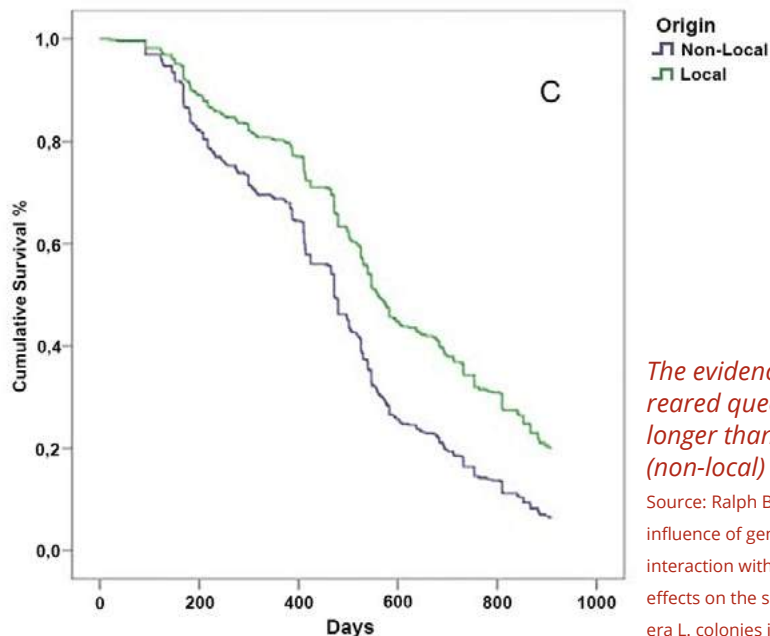
The next article David Evans pointed us to is called [“Time to ban bee imports?”](#), also published in 2014. Here he points out the risks of introducing different types of diseases and pests through imports, especially SHB (Small Hive Beetle). In 2014 there had been an outbreak of SHB in Southern Italy, which of course caused a scare in the UK, since many queens and bees were (and still are) imported from Italy. The West Sussex Beekeeper’s Association, led by Jim Norfolk, proposed a motion in November 2014 to BBKA to ban the import of bees to the UK. But even though this motion won a majority vote on the BBKA ADM (Annual Delegates Meeting) in January 2015, it was later turned down by the BBKA Executive Committee. This despite a risk assessment report from the National Bee Unit a couple of years earlier concluding “The pathway likely to present the greatest risk of introduction [of SHB] was the movement and importation of honey bees”.

The idea to introduce a ban on import initiated by the WSBKA was to avoid import of bees in the spring of 2015, while the situation of the Small Hive Beetle was still unclear, but this didn’t happen.

Professor Evans quotes “The precautionary principle” as an argument for introducing a ban on imports in such a case since it’s “a social responsibility to protect the [public or environment] from exposure to



*This little bug is not welcome to the UK – a Small Hive Beetle, about 5-6 mm in length.*



*The evidence: Locally reared queens survive longer than imported (non-local) queens.*

Source: Ralph B uchler et al “The influence of genetic origin and its interaction with environmental effects on the survival of *Apis mellifera* L. colonies in Europe”, 2013.

harm, when scientific investigation has found a plausible risk. These protections can be relaxed only if further scientific findings emerge that provide sound evidence that no harm will result”. But despite this the BBKA did not support a ban in 2015.

### Favour local bees

In a more recent article [“Strong hives = live hives”](#), published November 2019, Evans focuses more on promoting local bees than suggesting a ban on imports. He starts by defining what is meant by “local bees”, and goes on to describe in what ways they are found to be “better adapted”. The key message here is to breed and manage bees, so that you have strong colonies when Winter comes.

A sibling article, closely related to the one above, is [“Locally adapted bees”](#), also from November 2019. In this article Evans presents a range of scientific studies which supports the claim that local bees survive better. Here is one quote from one of the studies “colonies with local queens survived on average  $83 \pm 23$  days longer than those with non-local queens”.

In a follow-up email David Evans concludes the following: “23,000

queens were imported in 2019. There are only about 45,000 colonies in the UK. Sobering to think that 50% are headed by imports when there’s good scientific evidence that locally reared bees are better.”

Sobering indeed, and while there might be more than 45,000 managed colonies in the UK (Editorial note: the BBKA has 26,000 members and my guess is that each member has more than 2 colonies on average. Add to that apiaries managed by beekeepers not registered in the BBKA, and the number is most likely even higher). Anyhow – the volume of imported queens is surprisingly high. Do we really need to import so many bees? Do we need to import bees at all? While the BBKA didn’t support a ban on bee import, they at least discourage the import of bees. And with good reasons it seems.

What I like about Professor Evans is that he, as a scientist, isn’t content with opinions or guess work, but tries to find supporting evidence for certain stances. This is coupled with an obvious love of bees, and a long experience of hands-on beekeeping. I can strongly recommend his web site. You can subscribe to new articles if you want to get a notification when they are posted.



## How did you come to be a beekeeper?

*We have decided on a fixed feature in the Apiarist – an interview with members about how they got into beekeeping. We have started with people in the HWBKA committee. First out is Steve Davies, Assistant Apiary Manager.*

**Question: Why and when did you get into beekeeping?**

Answer: In 2012, my sister bought me a Sun Hive making course with the Natural Beekeepers Trust in Ashurstwood. I had a brilliant time making this beautiful hive and wanted to know more about the bees and their environment.

**Q: What type (types) of bee hive do you prefer?**

A: I use 14x12 wooden National hives (5 active colonies) and numerous poly-nucs. I have a love for wooden products and like to keep my bees close to their environment where possible.

Helping at Slab Castle has given me the opportunity to try various hives without the expense of buying them. It was noticeable that the bees in the polyhives came out sooner in the day than those in wooden hives but they also swarmed first!

I find working on the WBC much more relaxing and feels like 'gentleman beekeeping' rather than a job. Their construction has me scratching my head at times ...

Having a back problem, this hive is too low when on its own stand and I have to inspect on my knees (due deference perhaps).

I'm not a lover of brood and a half but am learning the skills required. I do appreciate the smaller brood frames!

**Q: Have you tried other types of hive design? If so, any comments on why you didn't continue with this (those)?**

A: I would have loved to use the SunHive but that was impractical (swarming encouraged). Having started my beekeeping with the Natural Beekeepers Trust, I wanted to follow their guidelines and bought

a Warré hive in 2013. I had three active hives and loved the beauty and simplicity of the design. Watching the bees through the inspection windows as they built comb was a delight. In the three years I kept these hives I never managed to get any honey, not that I was bothered as I don't really like it anyway!

I stopped using these hives for a variety of reasons; these are 'hands off' hives and no internal inspections take place. Okay when things are going well (?) but I didn't like the level of destruction caused when you have to go in. I also had a couple of queen issues and one starvation issue that I wasn't able to deal with until the last minute. In reality, I think the biggest problem was my lack of experience and understanding; for me, I don't feel this hive is really the best to learn beekeeping.

**Q: What's your best memory of bee keeping?**

A: My best memories all revolve around swarming, and the Warré hives gave me plenty. My favourite collection was on a farm where the bees had gathered on the corner of a flatbed trailer. The problem was there was a hole on the flatbed so the bees were on the top, bottom and through the framework. After various attempts, the best way to get them into the nuc was to scoop them up by the handful and put them in. The feeling of holding a solid weight of calm, warm bees vibrating contentedly is magical.

**Q: What's your worst memory/incident in beekeeping.**

A: Without a doubt, losing my first colony. This was due to queen failure and a combination of inexperience and hive type meant that I failed the



*Steve Davies with his beloved Sun Hive "now coated in cow dung and producing annual swarms in Invergorden, Scotland".*

bees this time. I have lost very few colonies but each one hurts deeply.

**Q: Any particular mentor or beekeeper expert you are especially grateful to?**

A: Throughout my beekeeping journey, I have been fortunate to have the help of Michael Myszyn. He had been keeping bees for decades and is a wealth of 'old school' knowledge and experience. I love his gentle manner with the bees and reliable guidance. After a couple of years helping me, he started beekeeping again and we now share apiaries and work together.

I also admire Peter Coxon's calm, considerate and knowledgeable approach to beekeeping.

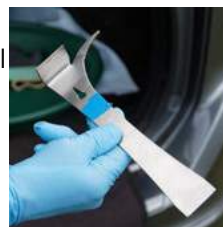
**Q: If you were to give one single piece of advice to a prospective beekeeper, what would it be?**

A: Enjoy your bees. Although requiring extensive knowledge and skills, it is supposed to be a hobby. Watch, listen and learn from the bees they give you more than just honey.

**Q: Anything else you would like to add?**

A: How about favourite beekeeping items? My tool box generally has four hive tools, various queen catching clips/cages/tubes and marker pens, frame rest, cover cloths, drawing pins, container for wax scrapings, anti-histamine cream and a variety of bits-and-bobs.

My favourite hive tool is a claw 2-in-1. I like its small size (8") and having both standard Hive Tool and J Tool combined makes it very versatile.





*Our bees should have a lovely time at Horsted Green Park – wild flower meadows around them, as well as a selection of fruit trees.*



*We have put up a sign warning people not to go too close to the hives.*

## First colony at Horsted Green Park apiary

*By Paul Lindström*

*As you might remember HWBKA got the green light last September from the Wealden Council to set up an apiary on what used to be called the Uckfield SANGS (Suitable Alternative Natural Green Space), now called Horsted Green Park. In early June we could finally place the first hive in this new apiary.*

It's a lovely spot with wild flower meadows all around it as well as a selection of traditional rare varieties of fruit trees. It sits in the furthest NW corner of the park, and is not

supposed to be accessed by the general public – it's a locked and fenced off area.

We will place posters out to warn people there are bee colonies in the area, and place a water trough at some distance from the hives so people can see bees in action without going all the way up to the hives.

As a start we will place three hives in the apiary, and see how that goes. There is a big storage shed nearby, kindly provided by the park, where we can keep equipment. If all goes well we should be able to use this site as an educational training apiary for the association.



*Steve Davies shows what a Good Beekeeper always does – lights the smoker well before doing anything with a hive.*



*Chairman Peter Coxon (to the left), Keith Obbard, Apiary Manager centre and Steve Davies, Assistant Apiary Manager to the far right releasing the first colony at Horsted Green Park.*



*Peter Coxon in the background, and Steve Davies in the front, at a previous work session at the new apiary. As you can see the bees will have both a nice view and pleasant surroundings.*

# The Calm Before the Swarm

By Mark Ballett, new member and new beekeeper

My wife, Carol, runs [a B&B near Wadhurst](#). Last year, a guest asked why we didn't have our own honey as the bread, jam, marmalade, compotes, eggs, and much fruit and veg were home produced. So, that is why I decided to have a go at bees. Oh, we now also make our own sausages – another guest's idea. Guess which is easier?

The Beginner's Course seemed ideal, but it's cancellation, after just one session due to Covid-19, is making learning the practicalities all that more interesting with my WhatsApp mentors, mostly Malcolm, guiding me remotely. Watching Richard's and Sandy's progress with their new colonies is also very helpful. I bought my Nuc from Malcolm because he said during that first lesson that his were rather 'nice' and that seemed preferable to a swarm of cross-bred Killer Bees. I'm sensitive to good product positioning – it's my job – but even so, I was sold.

The lovely little darlings, with marked and clipped Black Beauty queening it over the others, arrived on 8th April. Really, have I only had them for a fortnight? So far, they have been calm and seem to ignore, or at least put-up with, me interfering with their world. Though, it has to be said, the first time I opened the hive on my own was a little daunting. Malcolm's other suggestion of a Sherriff suit did give me confidence; in fact, when I have it on, I feel invincible, but I'm not sure how long that will last. Incredibly, there is actually a Superhero called Bee-Man.


Before I started, I bought the BBKA Guide to Beekeeping, which I have now read twice and find very informative. To be honest, I struggle a bit with the Green Guide: not sure why. One of the things that has surprised me most is just how much is known about *Apis mellifera* and how fascinating it all is. The idea of temporal

polyethism – sorry, but I just love the words – when the task a worker bee takes on varies with age, is just brilliant. Isn't it amazing how they do that?

Reading the books and trawling the internet for other bee wisdom has been very helpful and I think it has made handling the bees easier. Although I have been overwhelmed with information, from time-to-time I have a lightbulb moment when I connect something I have read, Malcolm has said, or Richard and Sandy have done, with what I am seeing in front of me and some shallow pool of understanding begins to form.

I think that each time I open the hive – I have now done it three times! – I see more. It seems that once you have your eye in on a few components: 'stores', brood, larvae, eggs, you begin to see other things you hadn't noticed before. I also find it very handy to have a few concepts in my head like the 1:2:4 ratio I should expect for eggs, larvae and brood respectively. Smoker is great too, to calm the bees and get them out of the way, and not as hard as I first thought to light and keep going.

I have just got a Maisemore Nuc and I have a second hive on order, so that I am prepared for swarming. It seems like this is the calm before the storm, or should it be swarm? But Malcolm has clipped one of one-year-old Black Beauty's wings and maybe if I don't overfeed them with syrup and keep pace with colony growth and keep an eye out for queen cells, I might weather the swarm. If I did lose my bees, I already know I would miss them.

Oh, in case you are in any doubt, making sausages is easy compared to keeping bees. 

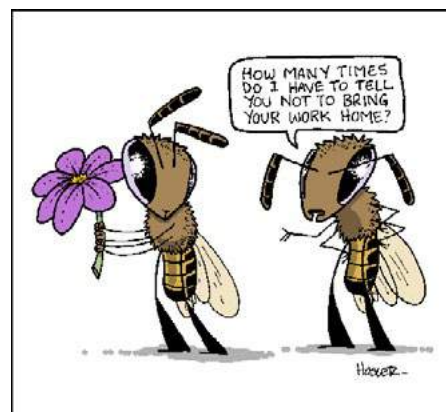



# Book review (2)

By Paul Lindström

"Clan Apis" by Jay Hosler, published 2000. I came across this graphic novel (I love cartoons, comic strips etc, whatever they are called) when I was reading the excellent book "Honeybee Democracy" by Thomas D. Seely, who quoted from it, mentioning the phrase "The Calm before the Swarm". So I got myself a copy, and enjoyed it very much.

Jay Hosler is something as rare as a scientist and university professor who doubles as a cartoonist/illustrator. He had written a series of educational "comic strips" about how a honey bee colony operates and functions, and they were eventually published in one single book. And it's really, really good. He studies other insects as well, but clearly has a soft spot for bees. He even asks his students to write some of their science papers in the form of a graphic novel. He occasionally publishes random comic strips on his Twitter page @ [Jay\\_Hosler](#). He also [blogs](#) now and then, often illustrating the blogs with a single comic strip, like this one:



Jay Hosler tries to keep his style of illustrations close to the real look of the insects, and not anthropomorphize too much. He has found a way to indicate the mood of a bee by how they position the antennae. Quite clever. 



# Favourite books

Following up on the article in the previous issue of *The Apiarist*, listing the books in the HWBKA library, we have asked the HWBKA committee members which bee-books stand out as their favourites.

**Keith Obbard:**

The little "Blackie's Easy to read, *Buzzywing*" is a perfect introduction for the totally ignorant (of any age) and only has a couple of minor errors!

"Some Important Operations in Bee Management"

by Johansson & Johansson is a classic I have referred to since 1978 when it was first published. If you understand everything in there you won't go far wrong.

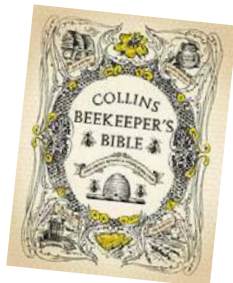


**Steve Adams, Helen Searle and Peter Coxon:**

The first is a small generalist book produced by the National Trust called "Beekeeping". Its an overall non-specialist

book, which is an easy read and should be available at all their properties. It was the first we bought and is small enough to carry around.

The second is a rather more substantial book, Collins "Beekeeper's Bible", with a broad approach, but also goes into a lot of detail. It is also the only Bible I have read from cover to cover! Easy to read and very comprehensive. Good reference book as well.



**Helen Searle's comments:** Steve that is bizarre – they are the two books I had chosen.

The National Trust one is small but

so informative and an easy read – practical and straight forward.

The "Collins Bee Bible" is an excellent all-round book. It explains how to keep bees safely but is much more than a bee keeping manual. It has an extensive section on using products from the hive. Culinary, medicinal, in cosmetics etc.

**Peter Coxon's comment:** I rate that Collins book too Steve! And Malcolm; "The Buzz about Bees" was on my list as well.

And so is "The Honey Bee Inside Out" by Celia Davis, already mentioned in the April issue of The Apiarist.



**Malcolm Wilkie:**

"Form and Function in the Honey Bee". I love this book by Leslie Goodman because the photographs taken under the microscope reveal a whole



new world of the honeybee. At a microscopic level they are an even more fascinating creature than one could have possibly believed.

The second picture is of the drone

antenna and all the sensory plate organs that enables the drone to pick up the scent of the virgin queen in order to be able to mate with her.



"The Buzz about Bees" by Jürgen Tautz. I love this book because of the most fantastic pictures. I also found it interesting that there is such a concept as

"Heater Bees". It is a lovely coffee table book.

**Paul Lindström:**

One of my first bee-books was "The complete step-by-step book of Beekeeping" by David Cramp. This is a slightly different



edition than book no 18 in the HWBKA library listed by Malcolm in the article in the previous issue of The Apiarist (April 2020). The physical format is larger (a "coffee table book" I think it's called), and it has many more photos, which I like. The content of both of the books is however pretty much the same. I like the tone and attitude of Cramp, often quite

funny in a dry sort of way.

My other favourite bee-book is another coffee-table book, the fantastic "Les routes du Miel" (English title "Honey From



the Earth: Beekeeping and Honey Hunting on Six Continents") by Eric Tournet. I have shown this book at some of our meetings, since it contains amazing photography.

# Do a Pagden split? No thanks

By Richard Stewart, new member and new beekeeper

If you had asked me six weeks ago how I felt about performing a variation of the Pagden split, I would have politely declined, explaining that my back isn't what it once was. But I've learned a lot in the last six weeks. "Learning a lot" seems to be the first hallmark of the new beekeeper.

My own personal Pagden split started with a heavy, thundering buzzing. More than a buzzing – a menacing roaring. There is a veritable Biblical cloud of bees whirling around at head-height in our garden. A swarm. So that's what One of Those looks like. Managing to look and sound both graceful yet lethal, The Swarm seethes onto a blackthorn tree in the hedge. Beekeeping as a beginner isn't supposed to be like this.

What followed were a few frantic WhatsApp messages (from me) and some very calm and helpful responses (from Malcolm and Rob). We decided that this was a random swarm which had nothing to do with me or my bees – but that nevertheless I should definitely try to catch it. Given that I had neither a nuc nor another hive set up, I wasn't sure what would happen in the unlikely event that I did manage to trap it. I decided I would "give it a go". This is the second hallmark of the new beekeeper.

Sadly The Swarm isn't on the 2020 HWBKA WhatsApp thread and by the time I returned, it had decided to move on to pastures new, namely, resolutely attaching itself to the front of my one and only hive. By this point I was actively considering the "ignore it and pretend it never happened" approach to beekeeping.



After a pause and a rethink, I went out to the garden armed with a cardboard box, determined to at least show The Swarm that I meant business. Sadly, again, The Swarm had other ideas. Normality had descended. There were only a couple of bemused looking remnants of The Swarm left attached to my hive, and a few irate-looking bees could be seen coming and going from the hive entrance. Secretly relieved, I turned to leave when I noticed a small cluster of bees on the ground, just outside the entrance. Never one to leave well enough alone, I poked through it with my finger, only to discover Golden Legs, my prized (and only) queen!

Mystery solved – Golden Legs had indeed swarmed, but being clipped by the expert and clearly highly prescient Malcolm, she didn't get very far. The swarming bees had given up and returned to the hive, leaving poor



The author Richard Stewart, at what looks like a perfect spot for an Apiary.

Golden Legs outside on the ground. I popped her back in the hive and thought that would be that.

Sadly, though, it seems that nothing is ever straightforward in beekeeping. I have learnt that if bees have the urge to swarm, not a lot can stop them, and certainly not the hapless admonishments of a newbie beekeeper.

Malcolm called me to run through the options. Did I have a nuc box? No. Did I have a second hive? No. Did I have any of the kit which we beginners had been told to buy not two weeks earlier to deal with exactly this situation? Sadly again, no. There was a long pause on the line, not really helped by my assuring Malcolm that I did "have a very sturdy cardboard box". It seemed that it was time to call in the cavalry, and to perform something called a variation on the Pagden split.

In the meantime, as an emergency, I was to jam up the entrance with a bit cut out of my (one and only) queen excluder, to ensure there would be no repeat performance from Golden Legs. I was also to commit the cardinal sin and separate my brood frames and intersperse them with new foundation, "to give them something to worry about".

Worry, it seemed, was not in short supply, and it was an anxious day or two later when Malcolm very kindly popped over and expertly took charge. The plan was to fool Golden Legs into thinking she had swarmed to a new hive. We would do

A promising looking queen cell.



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this by separating her from all her queen cells and most of her brood, and giving her lots of new foundation to work on. Meanwhile we would put the queen cells and her brood into a new hive, which would become a new colony (hopefully).

First, we found Golden Legs and popped her into a queen introduction cage. This looks like a long matchbox with holes in, and a gap at one end for fondant. Then gently went through the rest of my brood frames and found two "good looking" queen cells. Cleverly, Malcolm marked the frames with a drawing pin so we could see where they were.



*Old Hive with Golden Legs in introduction cage.*

Then it was a case of going through the rest of the old brood frames and destroying anything that looks like it is or might be a queen cell. Once we were happy there were no queen cells left we moved all but one frames to the new hive. We made doubly sure we reunited the brood

frames in the new brood box. This was critical because with less bees to look after them, we had to give the new colony the best chance to keep the queen cells warm and developing nicely.

We left Golden Legs in the old hive with half a frame of brood and filled the rest up with frames and new foundation. We snapped the end off the queen cage so Golden Legs' clever worker bees could eat through the fondant, releasing her back into the hive.

Finally, we popped a rapid feeder on top of the old hive, filled it with 2 gallons of sugar syrup, closed up both hives and retreated to a safe distance.

The result: an old hive with the old queen, lots of work to do, and fewer bees. A new hive with the prospect of a new queen and plenty of developing brood to hatch and become the new colony. The existing foragers will leave the new hive, returning hopefully to the old hive which they know as home.

The queen should hatch 8 days after the cell was sealed. I need to listen that evening, and for a few evenings after, for the magical sound of a new queen piping. Very exciting. I will have learned a lot, given something a go, and most of all, had fun – the third hallmark of the new beekeeper!



## RENT A HONEY EXTRACTOR FROM HWBKA



*The brand new SAF Natura radial 6-frame extractor*

The association has two extractors available for rent. One new SAF NATURA radial 6-frame extractor, and one older tangential 3/6-frame extractor.

You can rent them two days at a time. The 6-frame radial extractor cost £10 for two days (£20 deposit)

The older 3/6-frame tangential extractor cost £5 for two days (£15 deposit).

Note that the deposit will be forfeit if returned late, damaged or dirty. Severe damage/repairs will be charged at cost.

Included in the loan is a honey bucket, a sieve and an uncapping fork, if required + instructions of use.

The extractors are stored by the editor of The Apiarist Paul Lindström in Southover (outside Burwash).



*The older tangential 3/6 frame extractor*



For info, availability and booking call either 01435-88 35 65 (preferred). Or call or text mobile 07833-088 766. Or email: [the.hwbka+apiarist@gmail.com](mailto:the.hwbka+apiarist@gmail.com) • Address: The Clock Tower, Southover, Spring Lane, Burwash, TN19 7JB

## How to catch a swarm *By Paul Lindström*

Since I only had one surviving colony after the Winter I made sure to be on the HWBKA swarm list. And I was very excited when I got the message from Peter Halford early May that there was a swarm sighted in Heathfield.

Since I'm new at catching swarms (and Peter kindly has agreed to be my "Bee-Buddy") I asked if Peter could come with me and show how it's done. Which he did. And we were lucky - the swarm was tidily hanging on a branch of a bush, a perfect case for a beginner. I had brought stuff with me that I had prepared for such an occasion - a cardboard box and a discarded bed sheet. But Peter preferred to use his own stuff, a proper skep and a nuc box (but we used my bed sheet).

It was a quite small swarm, so Peter thought it was probably a caste swarm, and the queen might be a Virgin queen that was yet to go on her mating flight. Anyhow, it was swiftly shaken down into the skep, and later moved to the nuc. Peter suggested that we let them settle during the day and return later in the evening to bring the nuc home.



The advantage of the nuc was that it had a setting by the entrance which acts as a queen excluder. Once we were confident that the queen was inside the nuc (suggested by most of the bees marching into the nuc in an orderly fashion), we switched the opening to the position of a queen excluder.

Later that evening I went back to collect them, and the hum from the nuc reassured me they were all tucked in for the night. I closed the opening and tied up the sheet around the nuc box.

When back at home I decided to move the bees into my own hive already prepared for them, since I thought Peter wanted his nuc back quickly. I thought I could easily shake them into the brand new Warré hive

*Peter Halford, my "Bee Buddy", in action shaking down the swarm into a skep. Photos by Laurel Lindström*

I wanted to give them. I have made a hybrid version which use the principal design of the National Standard hive (that I like) using the dimensions suggested by Émile Warré (brood boxes and supers are the same size - slightly deeper than a National super but more narrow). I did this on my own, and without Peter by my side things of course immediately started to go wrong. The bees liked the cozy nuc, which smelled right since it had been inhabited before. The sun was now more or less down, and instead of being sensible and go to bed in their new home, the bees milled about on the nuc frames and many went back into the nuc. I tried to brush some of them onto Warré frames and then put them back into the Warré hive, with limited success.

Not knowing what else to do I left the nuc on its side, lid off, and with the old frames empty spread out around it. My hope was that the bees would decide to go inside the Warré hive when darkness fell and the night started to get chilly.

The night passed, with not that much sleep, worrying about the little swarm.

Early morning I checked the bees, and to my horror they sat clustered in the nuc, and almost none in the new hive. I brushed them into a small cardboard box, and poured them (again) into the Warré hive. I had prepared a queen excluder, taken from an Apidea, to block the entrance, but waited to place that until I saw signs that the bees were inside (assuming the queen were also there).

Later in the day most of the bees were actually in the Warré hive (the nuc and the old frames were now removed to prevent them going back in that). On Peter's recommendation I fed them a little sugar syrup that night (not in the day to prevent rob-



*Above: The bees seek out the queen and marches into the skep.*



*Left: Once in the skep they can be shaken down into the awaiting nuc.*



*The nuc has an entrance block which can be switched between being open, shut or act as a queen excluder/lock.*

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bing form the neighbouring colony). All seemed well at last.

But – the next day when checking the bees they had again left the hive, with one cluster on the outside of the hive, and another cluster on the neighbouring hive. Another round of brushing them into my small cardboard box, and pouring them back into the Warré hive. Again I fed them a little amount sugar syrup over night. But now disaster struck – there was a bad cold snap in the night, with temperatures near 0° C. So the next morning I found two clusters frozen to death, one inside the hive, and one outside. There had been too few bees in the clusters to keep warm. I guess the lesson is to always have a nuc at hand when going swarm catching, a well lived-in nuc that smells right, and to let them settle in for some weeks before moving them to the designated hive. I didn't feel like a particularly good beekeeper that morning.

## A new swarm

A week later I suddenly heard the great buzzing of a swarm. At first I thought it might be our own bees that had decided to swarm, but that was unlikely since we had been very diligent looking for queen cells, and found none in a recent inspection.

The swarm at first settled very high up in a tree behind our apiary, in a small paddock below our garage. But soon after it moved to a hazel at the entrance to the paddock. It was still quite high, but possibly reachable



*My newly built contraption – a water dispenser mounted on a long pole – worked fine to collect the swarm high up in a hazel tree.*



*A week after the failure with the first swarm we were fortunate enough to be visited by a new swarm. You can find a videoclip of this on my [YouTube page](#). Photos by Paul Lindström*

with a contraption I've prepared for this situation. It's a discarded water dispenser, with its bottom cut off and mounted on a pole. The pole was too short, but I quickly added an extension to it, so I could now reach the swarm



some 10-12 feet up in the hazel tree.

And it did the trick – I scooped up the swarm using the water dispenser, then poured it into a poly hive we've had colonies in before (I didn't want to try the Warré hive this time) and the swarm soon gathered inside the hive, indicating the queen was there. I couldn't believe our luck – we had just failed to secure the swarm we caught a week ago, and now a new swarm flies straight into our paddock.


I had reduced the volume of the hive following a tip from Steve Davies using oversized dummyboards, and only had 5 frames in the hive, some drawn. Again I only fed them over night, and waited for them to settle down. And they seemed to do that.

They stayed for two nights, and had started to draw comb, and taken all the sugar syrup I had given them (about 0,5 litres every night). But the third day from arrival they suddenly decided to swarm again, clustering on the fence behind the hive. Before I could get my bee suit on they had

*Two days later the swarm decided they didn't like it with us after all. Before I could get my bee suit on (but I managed to take this photo first) the swarm had upped and left.*

gone into the woods behind us.

I wondered how the queen could have gone through the queen excluder, but we had noticed that the bees were quite small. We assumed it was feral bees, because they were almost black, and much smaller than our own bees (a mix of Buckfast and mongrels, and unusually large). I have read that the queen is often slimmed down in preparation for swarming, and if she was quite small in the first place, having then been slimmed down even more by her well meaning daughters, she must have been able to squeeze through a standard size queen excluder (4-5 mm gaps).

Again I didn't feel like a very good beekeeper. I don't understand why they didn't stay. But at least I have learned how to catch a swarm. Now I need to learn how to keep it. 

# “I’ll eat my hat if he gets honey out of that contraption!”

– four years of beekeeping with the Flow Hive

By Edward Hutt

*The reaction of one of our Norman beekeeper friends to the Flow Hive is not unusual. Anyone who looks on beekeeper forums will see a wide range of opinions, from the evangelical to the hostile. What is it that causes such extreme reactions to this honey collection system?*

Flow Hive started with a crowdfunding campaign in February 2015. The Australian company raised over \$12 million in response to the initial target of \$70,000, breaking Indiegogo’s records for the fastest crowdfunding campaign ever. The first hives started shipping towards the end of that year but the initial marketing pitch of “honey on tap” did not go down well with experienced beekeepers who felt it encouraged people to keep bees without learning how to look after them. So when I started the Association’s beginners’ course in 2016 Flow Hives were very much in the news.

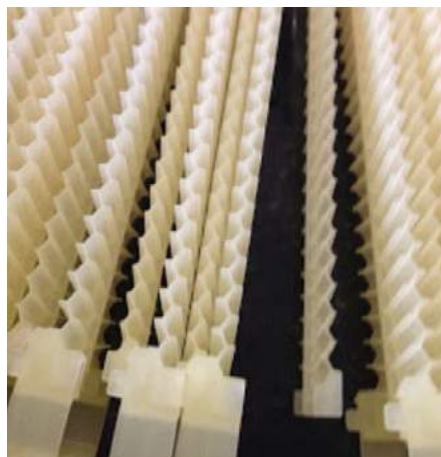
To understand the criticisms, and the benefits, of the Flow Hive it is worth explaining what it is and how it works.

## How do Flow Hives differ from conventional hives?

The main difference between a Flow Hive and conventional hives lies in the super. A single super frame is assembled from multiple plastic leaves tightly bound together by wires. A metal lever introduced into a slot at the top aligns the individual leaves of the frame into hexagonal cells arranged into two faces angled down towards a central channel. The worker bees line and extend the plastic cells with wax and, when filled and capped, the honey can be collected by changing the alignment of the leaves in the frame. This opens the cells and allows the honey to



*The author inspecting his Flow Frames.*



*Flow Frame disassembled to show interlocking plastic blades*

drain into the central channel and out through a removable tube in the back of the frame.

The Flow Frames are designed to fit Langstroth boxes. Early versions only came in the smaller size that takes eight brood / six Flow super

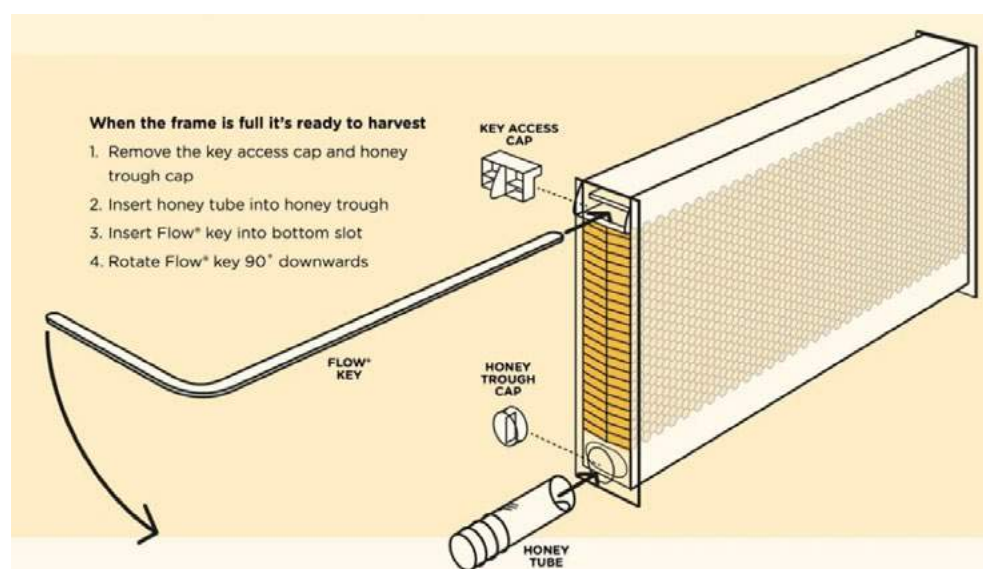
frames, although larger ten brood / seven Flow super frame versions are now being sold. Flow sells full hives, supers with frames, or sets of frames to be used with one’s own adapted super boxes.

Two years ago Flow produced their hives and frames in a UK national format, but only supers are now being advertised on their website (at a substantial discount), and the company has told me they are likely to stop future production in this format.

## Flow hives are expensive

I started with two eight-frame Langstroth hives - the only size then available – bought in May 2016. The prices are high. The standard price

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for the cheapest complete hive in araucaria (Monkey Puzzle) wood is now £587 including VAT. The most expensive is the cedar version of the ten brood / seven super frame Flow Hive 2, incorporating a hive stand, which retails at £769. The UK website currently has 20% discounts on scratched and dented stock which makes them more affordable (note that prices quoted on the website exclude VAT).

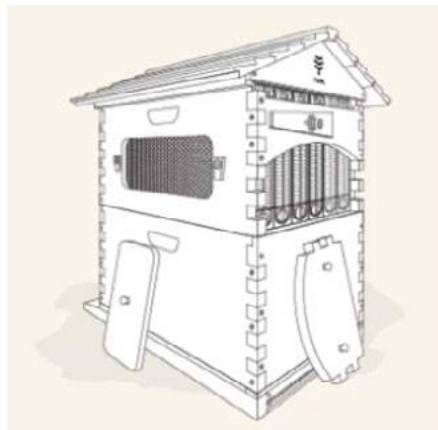
Although Flow Hives are expensive compared with conventional hives, they do allow savings in not requiring the equipment needed for processing conventional super frames – uncapping knives, trays, a spinner etc.

### Reflections on the design and manufacturing quality

I liked the pitched roof design but was disappointed with the cutting accuracy of the wooden components of the boxes, which required adjustment during assembly. I bought very early production stock and I expect that modern production is better.

The boxes are solidly assembled with screws and have stood up well to four years of use and I am pleased to have bought the lighter cedar version, as a full seven-Flow Frame super can be heavy and contain as much as 21 kg of honey.

However, I am not convinced that the smaller size which I initially purchased is suitable for the UK climate. At the end of my first beekeeping season, Malcolm Wilkie felt my two colonies needed to be amalgamated into a double brood box hive in order to survive the winter. I have continued with double brood boxes for these smaller format hives, but although it has allowed larger colonies they take longer to inspect. When I expanded my apiary the larger format was not yet available from Flow and I adapted a 10 frame Langstroth brood box to create a super housing seven Flow Frames, on top of a single 10 frame Langstroth brood box.



*The complete Flow Hive showing how the side window and back wall allow monitoring of honey production.*

The Langstroth format presents a challenge in itself. Many manufacturers make hives and their components in the UK National and other formats common in the UK, but relatively few make the Langstroth. Some of these manufacturers produce poor quality products, limiting one's options further. In addition, after an early summer of unsuccessfully chasing swarms around the Weald I had difficulties in sourcing nuclei on Langstroth frames. I would recommend to anyone starting out with a Flow Hive today to buy the larger Langstroth format hives in cedar.

### Does the system work well in practice?

Some traditionalists dislike the use of plastic comb in the Flow Hive, despite wide use of brood boxes and foundation made from plastic and other synthetic materials. I was reassured by the use of food grade plastic, although it remains to be seen how long the frames will last. So far I have seen no deterioration over four years.

One potential disadvantage of the plastic supers is that bees can be reluctant to fill them. There are various ways of dealing with this, such as rubbing beeswax over the frame surfaces or spraying them with sugar solution. In my experience, if the bees are plentiful and active enough, they will use the space.

The super has a plexiglass window in the side behind a wooden cover, as well as a removable back wall. The ends of the Flow Frames butt up against each other to form a bee-proof seal, and allow one to see when the frames are full. These sound like a good idea, but in practice they are not particularly

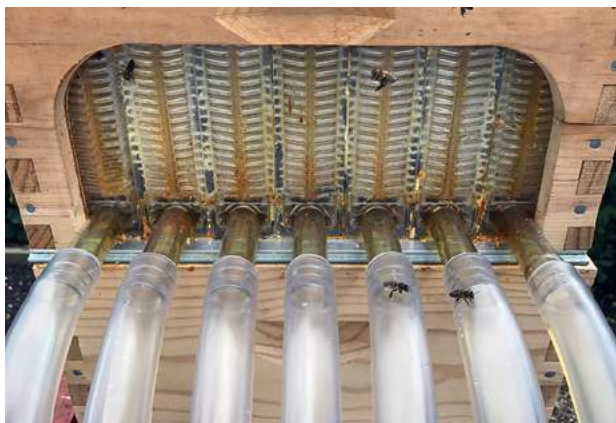
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*A close up of the side window showing completed cells and active bees, with room for more nectar deposition.*



*A removable panel reveals frames aligned to prevent bees exiting to the back, showing whether frames are completely filled.*



*Food-grade tubing connects the honey tubes to the collection bucket.*



*Plugged holes in the honey bucket lid, allowing a flexible closed collection system.*

helpful. The central frames will be filled first, so empty side frames do not mean that frames in the centre are not ready. And a lack of filled cells at the end of the frame does not mean that the frame is not ready for collection. It is not necessary to wait until all frames are full, and I believe it is better to draw honey once two to three frames are almost full, providing free space for additional nectar to be deposited. A conventional hive would allow additional supers to be added once a super is full, but while this is possible with the Flow Hive the convenience of collecting the honey means this is not necessary, and the substantial cost of the additional frames can be avoided.

Collecting the honey is easy, but does need preparation and time. The company's videos show honey flowing out of the tube at the back of the frame into an open jar, ignored by the hive's bees. This is not my experience: as soon as the honey starts flowing, the bees start arriving. I initially tried using clingfilm to stop the bees accessing the collected honey but with limited success. I now have a closed collection system with

food grade tubing connecting the collection tubes to the honey bucket through holes drilled in the lid. Any unused holes are blocked by rubber stoppers.

A practical point for Flow Hive owners is that opening each frame completely can cause honey to spill over the central channel and leak into the hive. I open the frames in thirds, allowing sections to drain.


Crystallisation or jelly-like heather honey in the comb can make it difficult to extract from any super, and the Flow Hive is no different. However, individual Flow Frames can be extracted as soon as the honey is ripe, giving less time for the honey to crystallise. In contrast, with conventional hives, the beekeeper is tempted to wait until she has enough frames to make it worthwhile to carry out the laborious and messy spinning process and risks crystallisation.

### Flow Frame maintenance

What does one do with the Flow Frames at the end of the summer? If there is unripe honey the bees can be persuaded to empty them into the brood frames by making them believe they are robbing another hive. An empty standard super with crown boards above and below is inserted between the Queen excluder and the Flow super. The robbed out Flow super can then be removed and kept over winter, as with drawn out comb. The wax lining of the honey cells will get the bees off to a good start the following season.

It is possible to clean the Flow Frames if one wishes. I did this my first year and heated a lot of kettles to melt the wax but it was taking an age and I risked the dishwasher on a 70° C cycle. The Flow Frames came out clean and undamaged, but an additional empty cycle was needed to remove the remaining wax. While such cleaning does not sterilise the frames, the manufacturer states they can be safely irradiated if one needs to remove any trace of serious disease in the hive.

### Conclusion

If I were starting again, would I use Flow Frames? Yes, definitely. The Flow system allows one to extract honey almost in real time, capturing the differences in nectar as the summer progresses. The frames are well made, the design is a pleasing mix of the traditional and the modern, and there is now a wide range of experience in its use across all the climates of the world, with enthusiastic owners happy to share tips. I would strongly recommend this system to the Association members who are starting out. However, I am not sure that members who already have hives, own all the collection equipment and are happy with the conventional process of extracting honey, would feel able to justify the additional expense. 



*Edward's hives are in a central village location, on The Moor in Hawkhurst. In addition to a range of garden flowers, apple orchards on the village edge provide plentiful nectar.*





# DIY: Adaptable honey warming cabinet

By Steve Davies (alias The DIY Slave)

Not everyone has the space to store a full size honey warming cabinet, useful though it is. Also, it can be a bit excessive should you only need to warm up a few jars. By utilising existing equipment, this is where the warming unit comes in handy.

Inspired by Peter Coxon's unit at last year's AGM, I decided to be 'creative' and this is what I came up with.

## Equipment needed:

- 1 x old super or brood box
- 1 x old queen excluder
- 2 x heat tubes
- 1 x thermostat
- 1 x piece of 5mm plywood to match the external measurements of the box
- 1 x piece of 10mm plywood to match the external measurements of the box
- Selection of stripwood
- Selection of Celotex insulation
- 1 x roll of aluminium foil tape

## Method:

I used an old Commercial super but any box would do. With the discounted prices offered during the sales/shows, it's tempting to buy new (second quality) boxes.

- Although not strictly necessary, I first cut both the top and bottom edges removing all rebates to provide a flat surface.
- Using the box as a template, mark and cut one section of 10mm plywood to match the external dimensions. This will be the floor.
- Again, using the box as a template, mark and cut one section of Celotex to match the internal dimensions of the box.
- Glue and nail the plywood to the bottom of the box. Once the glue has dried, sand down all edges so there are no overlaps.
- Push the Celotex 'floor' into place. There is no need to glue and probably best not to as you may need to remove it at some future date.
- Cut four pieces of Celotex to match the internal sides. Cover the top edge with silver tape.
- Position the two heat tubes in place and then mark two strips where the 'feet' will be secured.
- Remove all Celotex and then carefully cut out the marked sections on the Celotex floor.



- Cut two pieces of stripwood to match the cut outs, preferably to the same depth as well.
- Return the Celotex floor into the box and put the two wooden strips in place. If a loose fit, then glue the bottom of the strips first.
- Drill two holes in one end of the box to run the electric cable through.



- Fit all Celotex side pieces in place.
- Cover all joins and the wooden strips with silver tape. This does make a difference in retaining the heat. I also taped over the top of the box covering all wood although this may not be necessary.
- Drill two holes through the Celotex in line with those previously made in the box then feed the electric cables through. I used interior hole covers to seal the gap in the Celotex and these can be bought cheaply from Screwfix.
- Fit the feet and then the heaters in place.

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- You will now need something to rest the jars etc. on and I eventually settled on an old queen excluder. Not only is this the right size, but the grill is strong enough to take the weight – I hope 😊
- The QE needs to be removable and should not be glued in place. This will allow you to clear up any spillages that may occur.
- First, line the underside of the QE with foam backed draught excluder to seal any imperfections between the QE and box.

- Connect to the thermometer and it's ready for use.



- I chose an Inkbird ITC-306T dual relay temperature controller as used for reptiles, greenhouse and incubation (£30.99 from Amazon). As a 'plug and play' unit I didn't need to worry about wiring everything together!



- This is the basic set up and can be used for keeping supers warm during the extraction process.
- If using a wooden super or brood box to warm some jars, I would recommend using more Celotex for the internal sides and roof or wrapping the complete unit with thick material to keep the heat in.

- To stop the QE moving during use, I have tried a couple of methods. Firstly, I drilled and screwed the QE and box together but this distorted the frame producing gaps along the top surface.
- Next I considered a couple of dowels just to hold the QE in place. If the dowel was too tall I felt this may prevent the QE from sitting down evenly but it remains an option.
- As the QE is slightly larger than the box, I decided to put a frame around it, in effect, a mini roof.

However, it is named 'Adaptable' for a reason and we need to go back to the workbench.

- I used Paynes polyhive supers and brood boxes for better insulation but the process will apply whatever you use. Although the internal dimensions are the same be it wood or poly, the external dimensions are different.
- Put the selected polybox onto a piece of 5mm plywood. Mark, and cut to size.
- Place the heating unit on top of the plywood and mark around the outside edges.
- Place the plywood central on top of a QE and mark the grill edges. Cut out the marked hole and you will then be left with a picture frame.
- Cut four lengths of stripwood to size, then glue and pin along the marked lines. This will keep the board in place during use.



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• Turn it over and place on top of the heating unit.



• Repeat the process with another piece of 5mm plywood to accept a Polynuc box. I used the same external dimensions as the Polyhive and the internal dimensions of a Polynuc as a template. Whereas the Polyhive is heavy enough to stay in place, the PolyNuc can be moved easily. To prevent this, frame the upper face of the hole with 10mm stripwood. The undersides of both frames are also lined with 10mm stripwood as per the photos above.

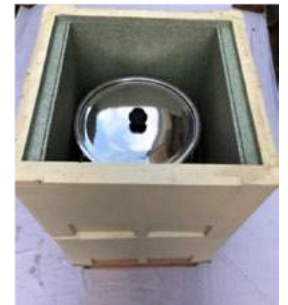


These 'frames' will give you more versatility depending on your needs:

1. One Paynes polynuc super will take 12 x 1lb. jars or 15 if the internal feeder is removed.
2. One super (wood or poly) will take 20 x 1lb. jars.
3. One 14x12 brood body will take one large honey bucket or 60 x 1lb. honey jars stacked on top of each other (see picture top right column).

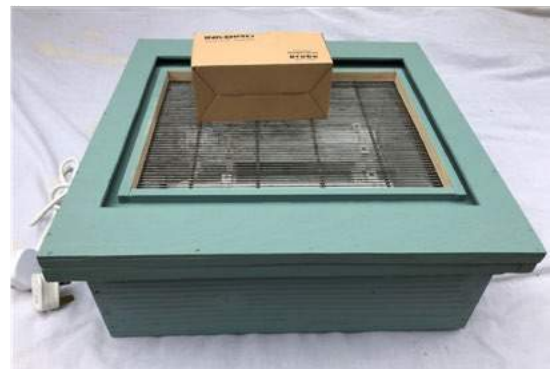



4. Two 14x12 brood bodies will take one 50kg settling tank.



Although this is designed to use your existing boxes, those using poly hives have an thermal advantage. However, all is not lost as it is worth watching out for the sales. In August 2019, I bought second quality 14x12 polyhive brood boxes for £24.50 each thereby saving £21 total. When not in use, they could be used to store spare equipment or frames.

Once you have finished warming the honey, all the boxes can be put back in your apiary and you just have to find space for the heating unit (50cm x 50cm x 30cm), how easy is that!



If you've made it this far, you must be interested! It may sound a bit of a rigmarole but take it slowly and you'll have this done in a day. Good luck :) 

### Supplies:

60w tubular heaters; £16.98 each ([Toolstation](#))

Inkbird ITC-306T Dual Relay Thermostat; £30.99 (Amazon)  
Kingspan TP10 Insulation Board – 2400x1200x25mm; £27 (Wickes)

Self Adhesive Foil Tape – 50mmx45m; £6.00 (Wickes)

Interior hole covers (5); £2.29 ([Screwfix](#))



Photo by Paul Lindström

The third story in a multipart series called “Three Bees”

## The Giant Grub

By Laurel Lindström

The light was pushing in far too brightly thought Curly, as he turned away from the morning. Gentle murmuring sounds and tiny whistling snores told him that his brothers were still asleep. As he turned to shade his large eyes from the sunrise Curly was aware of a draft coming from the other side of the comb. They had settled down some hours before near to the uncapped honey that was still curing and where nursing bees could access it easily for the brood and hopefully for Twirly, Curly and Burly. Soft summer air dawn chilled caressed Curly's back, his lazy wings slowly rising and falling. He sensed tension and focused fully on a strange activity that was beginning to build. His brothers were slowly waking up and the three of them, antennae rising started moving towards what appeared to be the cause of the commotion.

They crossed cautiously to the edge of the frame, forgoing breakfast in their tense urgency, for now it was clear that something was wrong on the other side. Creeping around the edge they saw a terrible sight. A large section of brood comb had fallen away and the grubs inside were now horribly unclothed, naked along an entire side. The damage to the cells was considerable and the three bees looked in horror at the exposed, gestating grubs. Their little

bodies were white, translucent and barely formed. They had no bee-like shape other than the pale shadow outlines of legs folded and wings merely hinted, but all just white. Their eyes were formed and densely black. There was the merest hint of antennae shaping along their newly blacked heads. They were ghosts waiting to be born but now might never arrive. Worker bees worked at frenzied pace to salvage what they could from the avalanche of comb and Curly could hear the hissing fear at the implications of this terrible loss if the damaged nursery could not be saved.

How this had happened wasn't clear. It seemed that somehow a section of comb in the brood box had suffered an impact and collapsed. It was clear that the priority had to be repairing the damage. The loss of hundreds of grubs would mean that too few new bees would be born in the coming weeks. This would mean fewer resources to collect nectar, pollen and propolis, and so less to feed the colony and ensure it had sufficient numbers and nourishment to survive the coming winter.

Curly could hear the urgency buzzing across the frame as the workers struggled to repair the harm. Then he noticed that the space beside the frame with the damaged cells was larger than it was last time he and

his brothers had cruised this part of the hive. He now saw multiple wax hexagons on the wall of the colony, irregular and inconsistent and also in need of repair. Could it have been that the brood cells had been attached to this part of the wall? And if so, had they fallen under their own weight as the grubs grew from tiny little commas into curls of white and then to recognisable grubs? Did they get too heavy once they had filled their cells ready to complete their transformations into new bees ready to be born and take up their duties in the hive? All this Curly pondered as he looked at the broken wax on the hive wall.

Burly was ambling about watching his sisters work and wondering aloud if it would be ok to help himself to some honey from part of the unexpectedly uncapped honeycombs. Twirly was cowering behind his brother looking in horror at the devastation. He had barely recovered from the trauma of the Hornet attack and reminded both Curly and Burly that “my nerves are in absolute shreds, I simply cannot cope with any more terrifying moments”. “I think the terrifying moments have passed” Curly told him narrowing his antennae into what passed for a bee frown. He was inspecting the tears and fallen bits of honeycomb,

*...continues on next page*

fascinated at the translucent new life that his sisters were desperately trying to protect and salvage.

But for an unexpected moment all efforts ceased as the bees felt a strange movement on the frame they were repairing. The movement was a sort of shift away from them, an upwards pulling and then a sharp release before they found themselves rising up through the air into the harsh bright sunlight. Worker bees, nursery bees, undertaker bees, housekeeping bees, bee assassins, the three drones, hatching and vandalised cells, all of them suddenly were in the grip of a giant beast with giant eyes staring black and vacant at their frame. It breathed a horrible carbon dioxide scent and apart from the awful black eyes shone bright white in the harsh morning light. The bees swayed on the bottom edge of the frame, linked barb to barb in an anxious effort to keep their positions and to carry on working on the repairs to their vandalised brood cells.

Burly was uppermost of the three drones and took a few paces forwards to face the monster, before thinking better of it and burying himself in a cluster of worker bees who were desperately trying to block the light and keep the exposed grubs somehow safe. Twirly was nowhere to be seen having panicked immediately and set off randomly into the morning air emitting tiny squeals of terror. He could be heard for quite some time whining "my nerves, my nerves" and was by now about a quarter of a mile from the hive. He soon settled on a wavering beech leaf crying miniscule bee tears, and then crying some more because his weeping blocked his pheromone receptors so he had no chance at all of finding his way back, at least not immediately.

Curly was just as terrified of the monster, but in addition intrigued to know what it was. Did it have anything to do with the brood comb



Photo by Paul Lindström

collapse and what could turn out to be a grub massacre? The creature tall and forbidding was now puffing acrid smoke at the frame, and Curly and his companions were forced to shift away from the dirty air. The worker bees went immediately into emergency mode, moving to fill their little bellies with honey, as a preamble to general evacuation. This was the established drill in the case of fire but the urgency of their response never seemed to include any consideration of whether there was really a fire or not. Curly had observed the giant grub, for that is what he concluded the invader to be, based on his extensive and detailed evaluation of the creature's many beelike characteristics. He had already noticed that far from being a fire it was this horrible giant grub that was scaring the bees into departure mode. He decided to stand his ground but the smoke was too much for him, interfering with his breathing, blinding his eyes and, in the absence of his fellow bees, leaving him uncomfortably exposed. He moved back to the safety of the edge of the frame barely managing to hang on as the giant grub flipped over the frame with all the wickedness and malice of the evil badger,


tales of whom had been passed on bee to bee for generations eternal.

With respect to the poor exposed grubs, the frame was now in a slightly safer position because they were out of the direct light. Throughout the trauma of this bizarre framelifting business, the bees had continued working to repair their damaged brood cells, tirelessly tickling the wax back into shape and adding new wax. No one knew if the vandalised brood would be able to recover. No one would know the full implications of the harm until there were signs that the colony's population was falling and not showing fast enough signs of recovery.

Suddenly they were all flying once again through the warming morning light, the smoke swirling and pushing them all away from the edges of the frame. Curly and Burly made for the bottom away from the light and in search of breakfast before noticing that the same strange stretching and pulling movement was occurring on the adjacent frame. As they peered up at the sky they saw another frame grasped in the awful paws of the giant grub, its black eyes once again come close to the comb and its awful

*. . .continues on next page*

paws turning the frame this way and that. Again the smoke and again the eyes bearing down on the frame, almost as if it were counting. The frame was finally returned and Curly hurried across the gap to the next frame, only to see the process repeat itself. The giant grub was pulling each from the colony one by one, deliberately and consistently wrenching away the propolis the workers had carefully placed to insulate the hive and protect it from drafts. Curly concluded that this was truly an evil beast with a sick sense of humour, tricking them into thinking there was a fire and meanly breaking up their draft excluders.

Eventually after every frame had been pushed, lifted, twisted, peered at and replaced, all was steady and calm. The colony was once more wrapped in warmth and darkness and Curly could reassure Burly that it was all over and that they were safe again. The giant grub had gone, hopefully never to return, but where was Twirly they wondered. It was not until night was starting to fall that Twirly fell into the hive exhausted and desperate for food. He found his brothers napping contently on a fallen piece of disused comb. Some workers had picked up his scent and didn't understand what a young drone was doing sitting on a beech leaf. They had guided him home giving him only a few minor if baffling chastisements about not leaving the hive until he was ready. And they told him that he had a duty as a drone to on no account waste time outside the hive sitting on beech leaves. He had much more important work to do when he was ready. Twirly was still wrestling with this curious advice as he stepped his careful cautious way towards his brothers. He was still grizzling a little, and with relief accepted some food from a sympathetic nanny. He fell asleep where he lay, safe between Curly and Burly snoozing contently into the night zzzzzzzzzzzzz. 



## New Asian Hornet Action Team Coordinator

By Talha Dinc

I have recently taken over the role of Asian Hornet Action Team (AHAT) Coordinator in HWBKA.

Before going into the nitty gritty of Asian Hornets, I would like to give you a little information about myself.

Around two years ago, I went into a bookshop and bought myself a book about bees. I became fascinated by these creatures as I got more and more into the reading. Luckily, I found the HWBKA web site and its wonderful members.

Coming from Turkey as an Electrical Engineer, my background is in High Voltage Electrical Engineering Design and the majority of my life has been spent in offices, on sites in the UK and overseas. Finding bees were my saving grace from the stress of work.

The Asian Hornet was first identified in 1836 and first arrived in Europe in 2004, possibly in a cargo container arriving to France. We in the UK have had 16 sightings since 2016. While Asian honey bees have developed a defence strategy against them, our European bees have a long way to go yet, before they guard themselves from these invasive creatures.

We all need to be vigilant and able to identify this hornet, and not confuse it with other wasps and hornets. There is lots of information available, even on the HWBKA website, but as a

quick reference you can use this link "<https://www.ahat.org.uk/identification>"

If you come across this hornet, please DO NOT try to catch or kill it. Instead call my mobile number 07525-76 67 25.


If you are able to, within a safe distance, monitor it. But PLEASE PLEASE don't follow it.



Editorial notes: Talha Dinc has taken and passed the Asian Hornet exercise/exam. You can test your own knowledge [here](#).

See also the article about Asian hornets in the June issue of BBKA News page 205-207.

Just as we were to close the work on this issue we had a false report of Asian hornets in Burwash. It turned out to be a Giant woodwasp, killed unnecessary (see picture below). It's a bit ironic since the Giant woodwasp is one of the similar species shown on the NNSS information fact sheet (see last two pages) which you should NOT kill. We have put up some copies of this fact sheet in Burwash, but unfortunately the person who reported this Giant woodwasp to be an Asian hornet hadn't seen them.

Besides reporting possible sightings of Asian hornets online as mentioned by Talha, you can also email [alertnonnative@ceh.ac.uk](mailto:alertnonnative@ceh.ac.uk). Or you can use the iPhone or Android "Asian Hornet Watch" apps. 



*Giant woodwasp, NOT an Asian hornet*

# Good bye to beekeeping

By David Peacock

*Just as we were about to publish this issue of The Apiarist we got a message from David Peacock, member of HWBKA for over forty years, that he sadly has decided to give up beekeeping. This is what happened.*

Over winter I lost all my colonies – even though they had stores and fondant. In April a swarm did self-home, but by then I had decided to retire. An incident with a hive falling over didn't help (see pictures).

I will be eighty in six months time, and do have a slight heart problem. The COVID-19 situation meant a re-jig of family accommodation till this is over.

The price I got for hives and extractor was fair and bought by a fellow beekeeper who had five years experience.

I'm very sad to retire from bee-keeping, having done it since 1976. But... kept my bee-suit, smoker and



*The apiary just before David decided to give up beekeeping. He noticed one hive leaning over a bit, but thought "if the leaning tower of Piza can still stand, this hive will also stand". But...*




*"...the following morning this is what I found. The wooden stand had collapsed. Luckily robbing had not started and I was able to retrieve the situation. But two queens were lost".*

swarm-basket (that's like a magnet to swarms). You never know.



We wish David all the best in his retirement, and guess that one lesson from the pictures is: beware

of rotten hive stands, and secure tall and leaning hives rather sooner than later. Another lesson might be to give up beekeeping, as painful as such a desiscion might be, if you feel you can't manage for one reason or another, as David had to do. 

## RENT A HONEY EXTRACTOR FROM HWBKA



*The brand new SAF Natura radial 6-frame extractor*

The association has two extractors available for rent. One new SAF NATURA radial 6-frame extractor, and one older tangential 3/6-frame extractor.

You can rent them two days at a time. The 6-frame radial extractor cost £10 for two days (£20 deposit)

The older 3/6-frame tangential extractor cost £5 for two days (£15 deposit).

Note that the deposit will be forfeit if returned late, damaged or dirty. Severe damage/repairs will be charged at cost.

Included in the loan is a honey bucket, a sieve and an uncapping fork, if required + instructions of use.

The extractors are stored by the editor of The Apiarist Paul Lindström in Southover (outside Burwash).



*The older tangential 3/6 frame extractor*



For info, availability and booking call either 01435-88 35 65 (preferred). Or call or text mobile 07833-088 766. Or email: the.hwbka+apiarist@gmail.com • Address: The Clock Tower, Southover, Spring Lane, Burwash, TN19 7JB

# Asian Hornet

## Alert!

Report sightings of this species:

- with the iPhone and Android recording app: **Asian Hornet Watch**
- online at: [www.nonnativespecies.org/alerts/asianhornet](http://www.nonnativespecies.org/alerts/asianhornet)
- by email: [alrtnnonnative@ceh.ac.uk](mailto:alrtnnonnative@ceh.ac.uk)

## Species Description

**Scientific name:** *Vespa velutina*

**AKA:** Yellow-legged Hornet

**Native to:** Asia

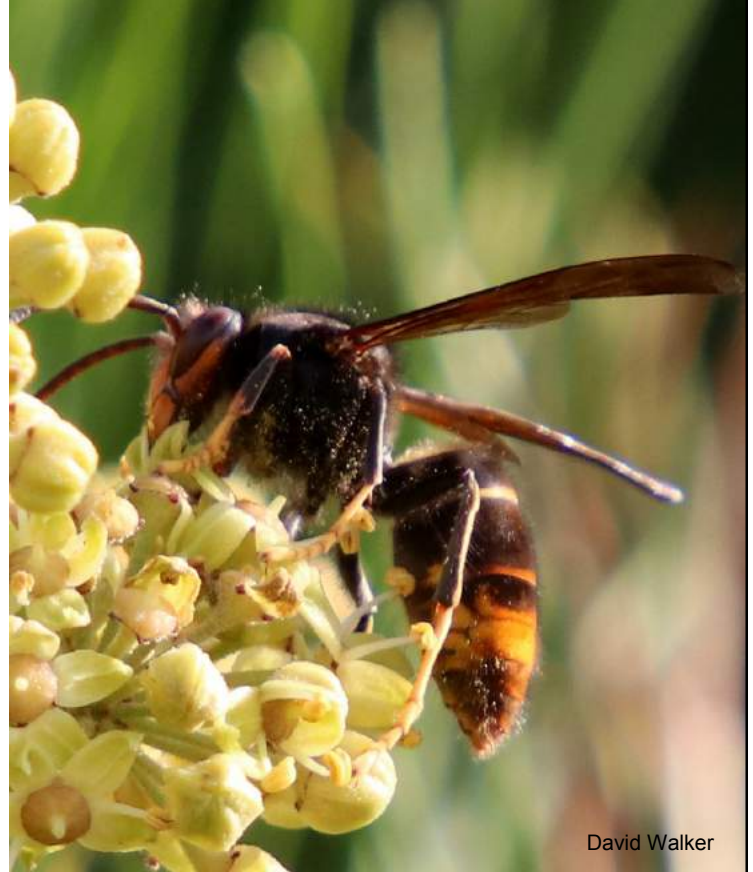
**Habitat:** Nests usually high in trees and man made structures, sometimes closer to the ground; hunts honey bees, other insects and also feeds on fruit and flowers.

Not easily confused with any other species. Dark brown or black velvety body. Characteristically dark abdomen and yellow tipped legs. Smaller than the native European Hornet.

Introduced to France in 2004 where it has spread rapidly. A number of sightings have been recorded in the UK since 2016. High possibility of introduction through, for example, soil associated with imported plants, cut flowers, fruit, garden items (furniture, plant pots), freight containers, in vehicles, or in/on untreated timber. The possibility that it could fly across the Channel has not been ruled out.

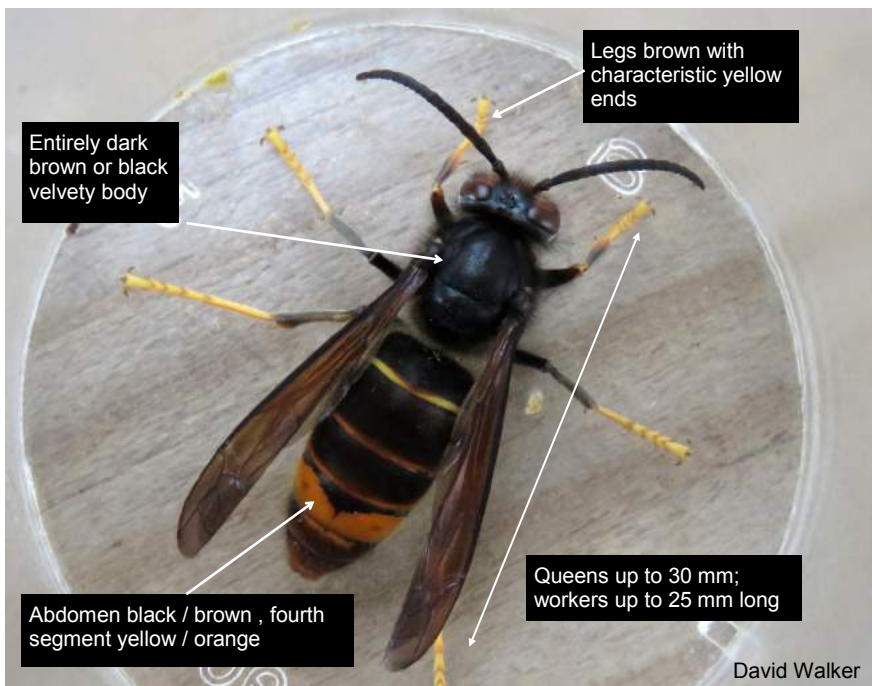
A highly aggressive predator of native insects. Poses a significant threat to honey bees and other pollinators.

**Do not disturb an active nest. Members of the public who suspect they have found an Asian Hornet should report it with a photo using the details provided in the red box at the top of this ID sheet.**



David Walker

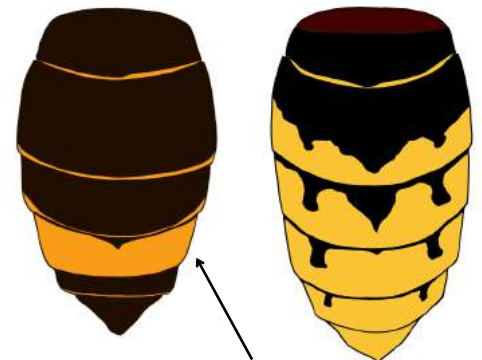
## Key ID Features



David Walker

Asian Hornet

European Hornet



Asian Hornet abdomen is almost entirely dark except for 4th abdominal segment.



J. Haxaire



### Asian hornet (*Vespa velutina*) for comparison

- Queen up to 30mm long, worker up to 25mm long
- Legs yellow at the ends
- Dark brown / black abdomen with a yellow / orange band on 4th segment
- Head dark from above, orange from front
- Dark coloured antennae
- Entirely black velvety thorax
- Never active at night

Actual size



Q. Rome

## Similar Species

### European hornet (*Vespa crabro*)

- Queen up to 35mm long, worker up to 30mm long
- Legs brown at the ends
- Yellow abdomen marked with brown on the upper part, not banded
- Head yellow from above, yellow from front
- Yellow antennae
- Thorax black with extensive brown markings
- May be active at night

Actual size



Roger Burgess

Mia Tonge, National Bee Unit

### Giant woodwasp (*Urocerus gigas*)

- Larger than Asian hornet, female up to 45mm long
- Legs yellow
- Distinctive yellow and black banded abdomen
- Long cylindrical body unlike Asian hornet which has an obvious waist
- Long yellow antennae
- Female has an obvious long sting-like appendage (ovipositor) which it uses to lay eggs in trees

Actual size

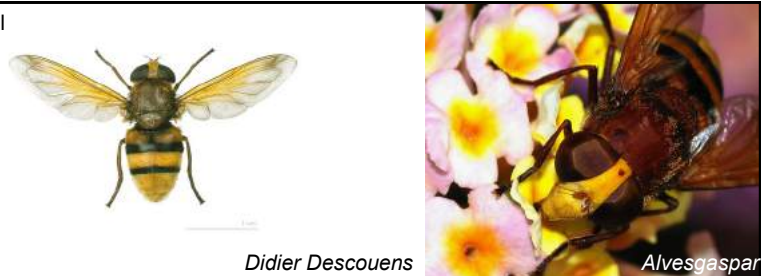


Q. Rome

### Hornet mimic hoverfly (*Volucella zonaria*)

- Abdomen has more yellow stripes than Asian hornet
- Legs darker than Asian hornets
- Only one pair of wings (hornets and wasps have two pairs)
- Large, globular eyes

Actual size



Didier Descouens

Alvesgaspar

### Median wasp (*Dolichovespula media*)

- More extensive yellow and orange colouration on abdominal segments than Asian hornet
- Yellow markings on thorax unlike Asian hornet

Actual size



Q. Rome

## Field Signs

Active April-November (peak August/September). Mated queens over winter singly or in groups, in various natural and man-made harbourages – underneath tree bark in cavities left by beetle larvae, in soil, on ceramic plant pots – potentially any small, well-insulated refuge. Makes very large nests in tall trees in urban and rural areas, but avoids pure stands of conifers. Will use man made structures (garages, sheds etc.) as nesting sites.



### For more information visit:

[www.nonnativespecies.org](http://www.nonnativespecies.org)  
[www.nationalbeeunit.com](http://www.nationalbeeunit.com)

### Report sightings of this species:

# Alert!

- with the iPhone and Android recording app: **Asian Hornet Watch**
- online at: [www.nonnativespecies.org/alerts/asianhornet](http://www.nonnativespecies.org/alerts/asianhornet)
- by email: [alertnonnative@ceh.ac.uk](mailto:alertnonnative@ceh.ac.uk)