Chair's Chatter

By lo Gore

Hello everyone. I hope you are all keeping well. As another beekeeping season draws to a close it is a good time to look back over the last few months to think about what has gone well, and will be incorporated into next year's plan, and of course, what hasn't gone quite so well and is best consigned to dim and distant memory! As in previous years, I am already reflecting on some of the time-management challenges that beekeeping throws up, especially trying to balance it with a full-time job. It is easy to beat yourself up for not being able to go into the hive for some specific manipulation on the right day because you ended up working late or the weather wasn't ideal. But I urge you to be kind to yourself, and accept that whilst you may not do everything exactly by the book, all the time you are enjoying the act of beekeeping, and of course not unnecessarily harming the bees, then it is worth the effort for the sense of well-being it can give you.

As always, it has been really nice to meet/catch up with a number of you at the monthly Bee Banter sessions. Unfortunately I had to miss the most recent event, but all the others I have attended have been good fun, with lots of interesting conversations going something that may be applicable to on. No matter what your level of experience there always seems to be something new to learn from the practical experiences of others. There is something comforting about knowing you are not the only one facing many of the challenges of beekeeping, and if you can do that over a glass of wine, even better!



Jo Gore

I also dialled in to the talk last week by Andy Pedley that Helen Searle and Rob organised for us. As well as being an experienced beekeeper, Andy was also an environmental health officer during his working life and was able to mix the two together for a very interesting and informative evening. He focused on some of the hygiene and legislative requirements for honey extraction, jarring, labelling and selling, which is really important to understand. He also covered the regulations for selling bulk honey wholesale rather than retail, which is many of us given the season we have had!

On that note, it is our AGM in November, so hopefully you have a spare jar from your bumper harvest that you can enter into the Honey Show. We also have the candlemaking workshop coming up run by Helen Hadley and Helen Searle, so

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please do make sure you enter your candles in the show too! As usual at the AGM you will get the opportunity to vote in next year's committee. I have been asked a few times this year what the association does for our more experienced members - if you want to influence things like that, or have ideas for improving, please do volunteer for one of the positions on the committee. There is a bit of a misconception that once elected, each member stands for 3 years - the reality is that there is a maximum term of 3 years for some

roles, but every position is up for grabs every year! It would be great to get some volunteers on the committee, and new members are always welcome, so if you fancy getting involved, please drop our secretary Lorraine Patel or myself a

Finally, our events team are working on a program of talks over the winter, and we are opening these

up to members of the other Sussex divisions, and equally gaining access to talks they are organising. Hopefully this will make for our busiest events program yet, so keep an eye out on the emails Peter Halford sends round, and the Events Calendar on the website. Because of the sharing arrangement, it is important to register for these events some of you there. 🥦 if you are interested, otherwise you

won't be sent the link. Talha is also in the process of organising the Christmas Meal, so please don't forget to sign up.

That's enough from me. If you are entering the National Honey Show, then Good Luck! Equally, Good Luck with all your entries at our own show. I look forward to catching up with

Book review

By Paul Lindström

Communication Between Honeybees: More than Just a Dance



in the Dark. By Jürgen Tautz, Aug 2022. The publisher is Springer, there are12 chapters in all across 165 pages, and the book is richly illustrated. It's available in hard back, paper back and digital editions at about £23. The book is translated from German by David C. Sandeman.

I first came across the name Jürgen Tautz when reading the books by Éric Tourneret and Ingo Arndt, both of them amazing photographers and cooperating with professor Tautz on the text for their lovely photo books.

According to the press information "Tautz is a bee expert, sociobiologist, animal behaviourist and Emeritus Professor at the Biozentrum, University of Würzburg. He is also the Chair of the Bee Research Würzburg e.V. and the Head of the interdisciplinary project Honey Bee Online Studies (HOBOS) and the follow-up project we4bee. His writing and popular lectures have twice been honoured by the European Molecular Biology Organization (EMBO) who named him among the best scientists in Europe in communicating science to the public. He is passionate about popularising science and making it accessible to all."

I must admit that when I started reading the book I thought to myself "is there really much more to write about the waggle dance - don't we know quite well how bees communicate?". But I was soon drawn into the book's topic, and

realized that, (not for the first time), there is still so much more to learn about these fascinating creatures, the honeybees.

Professor Tautz goes through much of the previous research on how honeybees communicate, going back in time all the way to Aristotle, whom in his book Historia Animalum (The History of Animals) describes what later was called the waggle dance. This was written almost 400 years BC!

But the scientist that is most frequently quoted in Tautz' book is Karl von Frisch, who received the Nobel prize in 1973 for his studies of the waggle dance. Von Frisch shared the prize with Nikolaas Tinbergen and Konrad Lorenz. The prize was awarded them for "their discoveries concerning the organization and elicitation of individual and social behavior patterns in animals."

Von Frisch described the waggle dance already in 1927 in his book Aus dem Leben der Bienen (English title The Dancing Bees), but this was disputed by other scientists and greeted with skepticism at the time.

Tautz describes the research by von Frisch and others, but early on points out that there seems to be a gap in the research between what goes on in the hive and what happens at the food source, which Tautz calls the goal. He calls this the "blind spot", and explains that most of the research on the waggle dance show that the dance is not accurate enough, and doesn't contain enough information for a bee who looks at the dancer to know exactly where the food source is. Tautz thinks that there must be three phases in the process of finding the source indicated by the dancing bee. The first phase is the Send phase, where

the dance information inspires a bee to fly out of the hive. The second phase is the Search phase, when this bee goes to the area indicated by the dancing bee, and searches for more clues to where the actual food source is. The third phase is the Attract phase, where signals at or close to the source lead the bees to the final goal. While the first and the last phase are pretty well researched, Tautz encourage fellow bee researchers to find out more about what actually happens in the second phase. But this is the most difficult phase to conduct research on, since it takes place between the hive and the food source.

Tautz describes the time when there were two camps of research teams arguing about what was most important, the waggle dance or the scent signals at the food source. The scientist Adrian Wenner especially expressed doubts that the waggle dance was particularly important, and argued that the scent signals at the source were much more significant. There was a time when followers of von Frisch and Wenner argued about who was right and who was wrong, which was silly because they were both right in many ways. It wasn't a question of either or, instead both inputs are important for the bees - the information in the waggle dance and the scent signals at the goal.

The waggle dance isn't particularly precise. The information in it can be compared to what can be contained by three bits of data. The waggle dance only gives a sector of about 45° and a rough estimate of the distance. Later in the book Tautz compares this to how scout bees communicates the exact location of a new nest site for a swarm. The

waggle dance is basically the same as waggle dances". But later in that when describing a food source, but there is much more interaction going on in order to lead the whole swarm to the new site. Tautz believes that communicate the location of the new site is also used in tandem with the waggle dance, and/or to complements it, when describing a good source of food. He repeatedly urges fellow bee scientists to research this more in the future.

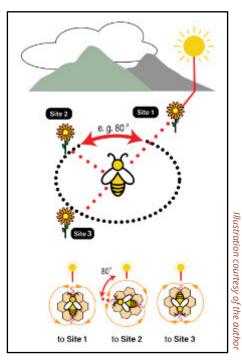
waggle dances". But later in that paragraph he writes "Fifty or more scouts recruited to this site now dance exclusively for it on the sward cluster surface". This is an import clarification, because as for exame Tom Seeley has found, this is not done by all the scout bees, but of by a fairly large portion of the 200-300 scout bees that are invoord making process as a quorum. We many of the scout bees find a

I really enjoyed reading this book, and thanks to the many references to research over time on the topic, including research done by for example Thomas Seeley, it deepened and broadened my understanding of how bees communicates with each other.

I'm not a scientist so can't comment on the validity of Tautz conclusions, but they seem well founded on careful investigation on previous research, including his own. There was however one paragraph that wasn't entirely clear to me. On page 125 where Tautz describes how the scout bees decides on a new site he writes that "in a voting process between the scouts . . . only the best finally remains and is promoted in all

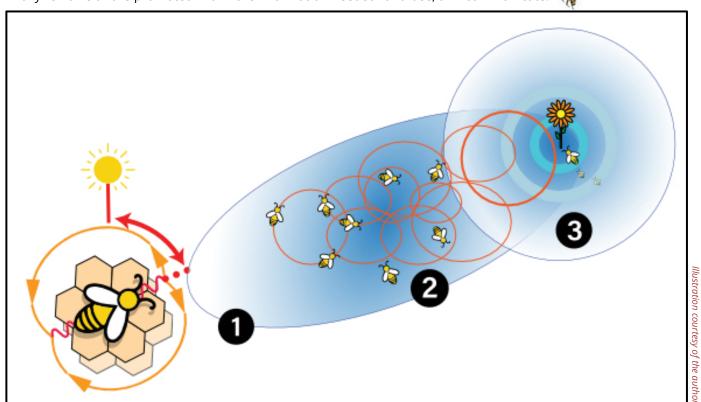
paragraph he writes "Fifty or more scouts recruited to this site now dance exclusively for it on the swarm cluster surface". This is an important clarification, because as for example Tom Seeley has found, this is not done by all the scout bees, but only by a fairly large portion of the 200-300 scout bees that are involved. Tom Seeley describes this decision making process as a quorum. When many of the scout bees find a particular nest site suitable, the dancing suddenly stops, and the swarm leave soon after to that site. Tom Seeley has even noticed a special behaviour amongst other scout bees if a single bee insists on promoting her favoured site. They may then "buzz" her, sort of headbutt her, to make her shut up and accept the decision already made.

This book will most likely cause some controversy amongst bee scientists, and it's too early to regard Professor Tautz findings as facts. It will be interesting to see if his theory of a three phase process of communication will replace the dominant view at the moment that the waggle dance alone provides all the information needed for a bee, a



The classic interpretation of the waggle dance. A "follower" or "recruit" watching the dance gets all information needed from the dance to find the goal – a good food source.

"follower" (or "recruit"), to find a good food source. If it does, it certainly will be a big step forward in our understanding of how bees communicate.



The 3 phase communication model Jürgen Tautz suggests. The waggle dance (phase 1 – "Send") only gives a direction and a vague distance to the goal. Phase 2 is the "Search" phase, where a "follower" (or "recruit") searches for more clues to where the food source is. Phase 3 "Attraction" is when the recruits sense the scent from the flowers or the scent released from the dancer, and so find the food source.

Perspective of a 2nd year beekeeper

By Paul Long

Your second year as a beekeeper will be an experience unlike any other. Fundamentally this is the year that you sink or swim - because all the decisions are suddenly very real and you are the one making them. The first thing you will realise is how much more equipment you need and straight away, not tomorrow.

My hives were relocated at the start of the year - my initial mistake being a garden that was too small and some overly friendly and large colonies in my first year. You'll be told early on that bees need plenty of stores to get through the winter. But how much is plenty? And how much is too much? And what is the weather doing when you really don't want to open the lid and chill the colony to see what's going on?

I decided to give mine "plenty". A gallon and a half of 2 to 1 into each hive seemed like a good idea – right to the point that the hives needed moving. They were big colonies last year, so both were on a brood and a half. Did I mention a lack of equipment? Hive straps are wonderful things, especially the ratchet ones - you can strap a hive properly and move it safely with two people. Or in my case, 2 people a wheelbarrow and comments on their weight, on account of them being so heavy, because someone loaded them up with syrup.

January was fresh, but not especially cold. February likewise, but with quite a lot of rain too. March, yes, we all remember March this year. Way too warm, for way too long. And that's where the problems

Hands up if you think a sustained warm period won't start the colony getting active? Yes, that's my hand up. Doesn't matter whether it's a month early or not. Doesn't matter that everything says you shouldn't really be lifting the lid until April. The bees know it's warm and they do what they do best, they try to expand.

My second mistake – not checking them when it was warm enough in March, but with a caveat. I do work full time and with short days and miserable weekends, there never seemed to be the perfect moment to look. April came and so did swarming. In my case both my hives within about a week of each other. Ever been in the middle of a swarm? It's very loud and very dark as thousands of bees leave you looking like a total fool.

At this point, swarm prevention wasn't going to happen. But the next stage was the vain hope that I could raise a queen from an emergency cell – or in my case, in both hives.

I had been diligently knocking down swarm cells right to the point they swarmed - or so I thought. Precisely on the bell, I got a phone call from my friendly farmer. He saw a swarm hanging off a hive stand on it's side acting as a barrier to keep people away. I managed to get there in 30 minutes – by chance I was actually heading home. A quick bang on the frame and 80% of them fell into my poly nuc. I put the lid on, used a frame of foundation as a ramp and watched as they all marched in the door. At 7pm I went back, shut the door and moved them for a few days, but also mist them



A swarm successfully captured. Notice how nicely the bees march in to the hive - as long as the queen is there.



Paul Long with a 12x14 brood frame.

to a stand away from the existing two hives, then opened it.

This left me with two queenless hives and no way of requeening them - because I had diligently knocked down the attempted queen cells – except the cast swarm I collected. Not so diligent was I?

At this point, Malcolm was wonderful. He let me borrow two of his Apidea mating nucs, along with a mugfull of bees and two queen cells for each.

You have to keep them in the dark with water, so they can digest the fondant inside. I don't think my wife was very happy with them being in the garage. Perhaps they were commenting on her choices from the freezer when she was in there - I don't know.

The next part was moving the mating nucs to the hives. You introduce them using a sheet of newspaper - with some slits in it - a super to put over the nuc and then put the crown board and lid on. The idea being that with a bit of time they will get used to a newly hatched and virgin queen. She should then go out on a mating flight and in three weeks turn into a mated and laying queen.

The Apideas are a very neat and simple system, but they do have some drawbacks. Being small, they are sensitive to extremes in temperature and weather. They also need plenty of drones around for the queens to mate happily. Finally, once she's been out on the town with the boys, she needs a sense of direction to get herself home.

Despite everything going well up to the point they both emerged as virgin queens, I didn't end up with a mated queen in either hive unfortunately.

I did get a mated queen from my cast swarm though. She has gone on to be very productive. She is on a brood and a half, like her mother. I have now had 16 kg of honey from her this year, with at least the same still on there to come yet.

My two now terminally queenless hives had a problem. I was out of alternatives. It was too early to use eggs from my cast as she wasn't laying yet. In the end I used Google and found a supplier of good quality queens. Albeit it a fairly steep price of £50 each. I managed to introduce both to their hives successfully. Currently I have had enough honey from both of them to pay for



Up to seven supers where stacked on top of the brood box.

themselves three times over. They have both been on double brood, the bigger colony has been on seven supers up until this weekend, when I removed one to extract. They are also still drawing comb at a rate of a super a week – and half filling it with nectar

too. Both queens have very big colonies.

So, the second year will be an experience like no other. When you buy a new hive, brood box and supers - a small piece of advice, I am now working on the basis of four to five supers per full sized hive. I ran out of equipment twice and had to buy more at short notice and full price - plan ahead. If you are going to buy any poly nucs, look at their add-ons. I currently have two nucs - BOTH have an extra six frame brood extension; both have a queen excluder and a six frame super on too – because I just don't have enough full sized hives to put them into yet. And if you have a nuc in the early part of the year, adding a brood extension gives you 12 frames for them to fill - while still being in a poly nuc. I am convinced my cast swarm did better because of an extension than a full sized hive. When I did transfer them, they got an excluder and a super straight away.

Finally, remember the people around you on your course. You will all be in the same boat and lack experience and knowledge. Ask each other and learn from your and their mistakes.

Reflections on this season

By Paul Lindström, editor

I hope you have had a good season with your bees. The HWBKA Beginner's Course for new beekeepers again had good numbers and the lessons I took part in were well attended.

In many ways this season has been very similar to the previous one, the year of 2021's, but for some reason the bees in most cases have managed to collect much more nectar this year than last year. As far as I can tell from various reports from fellow beekeepers many of you have had two-three harvests, and as a result unusually lots of honey. I for one am baffled. Last year I perhaps got 15 jars of honey - this year around 150! I've heard different explanations for why this is, but can't say I fully understand why there was so much more nectar around this year. I guess we can discuss this at some of the Bee

Banters. But it could as well be that it will stay as one more mystery surrounding the magic of being a beekeeper (you will never fully understand what the bees are doing or how they are doing it).

We were five beekeepers from the HWBKA who had signed up for the BBKA Basic Assessment, an exam which focuses on the practical "handson" part of beekeeping. We were lo Fuller, Phil Edwards, Sandy Infield, Steve Davies and myself. We all passed. I would like to thank our Honorary Secretary Lorraine Patel who inspired me to sign up for this, and it was a very pleasant experience I must say. The examiner from BBKA Mike Cullen was very friendly and calm, and he said he was allowed to suggest possible improvements on how to handle the bees. He showed me a new way to use the hive tool to

separate the frames that I hadn't seen or thought of before, and all of his comments and suggestions made complete sense. I'm now inspired to have a go at the other modules in the series of BBKA exams.

Our apiaries are going strong, 12 colonies at Horsted Green Park, managed by Peter Coxon, and nine colonies at the "Slab Castle" apiary, managed by Keith Obbard and Steve Davies. As you probably know we had a scare at the Slab Castle apiary early in the season when EFB (European Foul Brood) was detected, and the apiary had to be quarantined. But thanks to good management the bees eventually recovered. We have had good crops from both apiaries – a nice income for the association. But more on this at the upcoming AGM on 27 November. And don't forget to sign up for the HWBKA Christmas Dinner! 🧖

My first honey harvest

By Holly Caetano Alves de Castro

"You wont get any honey in your first year". Literally everyone told me this when I started beekeeping this year. I quickly made sure to make this a central part of my bee conversations with friends and family to set expectations to not expect any in their Christmas 'Holly's Hampers'. Of course as we all know that's not quite how the year has turned out. I took huge pleasure in my first ever honey harvest, happily spending the day preparing (1.5hrs), extracting (3hrs) and then cleaning everything afterwards (780hrs).

As a complete novice I am of course on the HWBKA bee school course being instructed by the wonderful and talented Malcolm Wilkie. In early August we had arrived at the penultimate course in the series, ready to learn how to reap the rewards; how to extract my very own liquid gold. At the beginning of the day a particular highlight that must be mentioned was my first encounter with Helen Hadley who upon arriving quickly scolded Malcolm for not having cleaned his honey trays properly and then promptly sent him out to think about his life choices while rectifying the situation.

Any time beekeepers come together with equipment from different apiaries there is a risk of cross contamination of diseases. Having had to deal with EFB in the past Helen is quite rightly diligent with her and anyone else's equipment. To minimise the risk on the day the only honey extracted was Dominic's, our host, and the association's however these were still kept separate with equipment being cleaned between.



Malcolm thinking about his life choices.

As always we start the session gathering around Malcom for a lively brief, drilling home the most important points in advance and i must say with talk of boozy honey, dismembered bee legs and heads, exploding honey jars and the potential for a kitchen full of 60,000 bees I'm not entirely sure whether I was excited or slightly terrified.

Here is what I learnt.

Preparation is everything

The night before extraction move the crown board below the supers and add porter bee escapes so that overnight the supers will empty out of bees. When you go to collect the supers there will still no doubt be a number of bees in there that don't want to leave. You can buy products that smell of almond extract which apparently bees don't like, that you spray onto a piece of kitchen roll and put in the supers. The cheaper option is to brush them off with grass or a bee brush, if they are really determined to hang around. I did learn a trick from Peter Coxon over at the Horsted Green Park apiary which is to prop the super against the hive at or bread knife certainly does the job a 45 degree angle and then blow them off with a leaf blower - a surprisingly effective approach and seems to upset the bees less than the brush!

In the excitement of honey day finally arriving it can be tempting to rush off to your hives to get those loaded supers but before you do make sure you are fully prepped first. When choosing a space for extraction it's really helpful to have a sink and running water for constant hand washing and the space does need to be sealed - make sure the windows and doors are closed (to avoid the 60,000 bees in the kitchen scenario). I read about a lady who took off her supers and carefully put them in the kitchen to be extracted later. She went off shopping for the day and came home to find the supers still there but completely empty as she had accidentally left the window open and the bees had been busy reclaiming their honey! You have been warned.

Next cover every surface you can, old sheets, cardboard whatever you have as it will make the clean up process so much easier. Honey is sticky and while delicious it is rather annoying to clean up, wax is another story. On the course and then at my own home we went with somewhat of a conveyor belt system, super stacked ready to extract, a nice long table covered with cardboard for uncapping then the extractor with buckets at the ready and finally an empty super ready for storing the empty frames to return to the hives.

Extraction is fun but honey is sticky!

While uncapping make sure the supers are on a tray of some kind as honey will ooze from all over the place and create quite the mess. I purchased a large square plastic tray for the garden off Amazon for about £10 which did the trick perfectly.

There are plenty of options on how to uncap, using an uncapping fork seems to do the least amount of damage to the comb and allows for a bit more finesse, an uncapping knife and is super fast but you do lose a lot more of the wax from the frames so the bees will have more work to repair. There are also rollers that seem to pierce the cappings although I did not try these.

With uncapped honey you'll need to test for moisture levels using a refractometer, 18% is the magic number you're looking for, above that and you're likely to end up with alcoholic honey although if that is where you end up it's just a great excuse to make honey marmalade! At 18% you'll find that jarred up honey will last indefinitely. Capped honey shouldn't need testing as the bees only cap it over when at 18% or below.

For the extraction itself I rented the 4-frame tangential extractor from the association which was perfect for my two supers although if you have a lot more to extract you might like to go for a larger extractor - a radial might be more appropriate so you don't have to turn the frames around each



The extraction room at Dominic Charles's farmhouse.

time, if you want to go full fancypants get yourself a motorised to save on the hand cranking. If hand cranking, start slow and gentle, if you are too aggressive too early the force will blow out your frames and you won't be able to reuse them. After a gentle spin (on both sides if using tangential) then you can increase the pace to extract the honey. If you find that your spinning seems to be slowing or you can feel pressure it's probably because you



Essential tools – uncapping knife and fork.

have too much honey in the bottom of the drum and you're trying to spin through it....time to drain!

Draining the honey really should go through a double sieve, if you rent from the association they have them with the extractor, otherwise you could you cheesecloth. If you're planning on entering your honey into the national honey show or any other competitions it's probably worth using cheesecloth as it will strain it to beautiful clarity.

Once you have drained and strained your honey into buckets or a may have leftover honey. Doing an settling tank, leave it overnight to allow any bubbles and scum to rise to the surface and then you're ready to jar up. Top Tip for first year beekeepers who have, like me, gotten a small honey crop....buy very small jars.



Sam and Tammy expertly adding frames to the extractor.

Clean up is arduous but imperative

It sounds a little melodramatic to say clean up is imperative but unless you want to be inundated with bees and wasps it really is important to clean every last bit of honey from your extraction location and be very



Honey running into the double sieve along with a poor drowned bee.

careful about storing any frames that extraction at the beginning of a hosepipe ban was not ideal for cleaning up but I managed well with a couple of buckets of warm soapy water, making sure to wipe down everything including all the cardboard so as to dissolve leftover honev.

Finally I feel anyone with more than a couple of hives deserves some kind of commendation after the year we have had. It has been I'm sure both a blessing and a curse. How wonderful to see such a successful year following such a terrible one last year and a hard winter with so many losses. However at the same time I can't quite imagine what it's been like . . . are you OK? Are you still extracting? Are you literally bathing/drowning in honey? However you have or are getting on - bravo and good luck!



Paul Lindstrom cleaning up at the end of the day with a slightly bewildered Rob Gore in the background.

A beginner's first year in beekeeping

By Tiffany Leach

My interest in bees I first started last year when my husband bought me a Flow Hive (no bees) for my birthday. But I had very little knowledge on where to begin. Due to a Covid backlog the HWBKA's Beginners course was already fully subscribed I signed up starting in 2022. But I went along to the Taster Day to so see if I could pick up some basics. It was a glorious day in Peter Coxon's apiary and was exactly what I needed. We discussed the basics of bee biology, the equipment in brief and looked through his hives. We even had the opportunity to see those experienced beekeepers collect a swarm from a Laurel bush in his apiary.

The first colony

On the 27th of May 2021 I ended up acquiring a swarm that had landed in a neighbour's orchard and was making itself unwelcome (as my husband is a farmer, neighbours are



First swarm caught.

few and far apart, this is relevant when considering the rule to move a colony less than three feet of more than three miles). I collected them and after pouring most of the bees over the frames in my new hive the rest walked up the plank and in they went.

But they never filled the hive. I don't know whether this was due in part to the poor weather that summer, the queen was definitely present and laying. I guess in hindsight I probably put on my Apiguard too late in the season which didn't help and it was a fairly wet winter with some nasty storms. But I

kept going to the hive and gently tapping to check they were still there and in response I'd get a rousing hum. On the 20th of March 2022 once spring arrived, and we'd reached a reasonable 18 degrees Celsius, and I'd built up the confidence to open the hive for inspection I found an extremely small population from which they could never recover. I'd lost my first hive; I was gutted but a lot of lessons were learned. Now I was back to having zero colonies.

Steep learning curve

When you are thinking about taking up bee keeping you are told three things all of which I can confirm to be absolutely true.

- 1. Beekeeping can be expensive. There's a lot of kit and you're not necessarily going to get that back in honey sales alone. Particularly in your first year. Due to the large nectar flow this year I think all the beginners managed to harvest at least some honey, but I'm assured that is highly unusual. This is certainly not a get rich quick scheme!
- 2. Beekeeping takes up a lot of time. Once I had my own hives, I soon discovered that time can disappear even during a 'quick' inspection and the bees do not like to be rushed!
- 3. Finally ask three beekeepers the same question and you'll get four different answers. There is a great deal to learn about bees and with knowledge you can put yourself in the frames in the nuc I'd realised that if I best position you can to be able to deal with the spectrum of problems they throw your way. But ultimately, they rarely play by the rules! The bees that is, not the beekeepers!

Equipment

I was in the fortunate position that as well as being given a Flow Hive, I inherited a lot of Langstroth hive parts, supers, brood boxes, bases, floors, frames, foundation as well as a selection of tools and even a motorised extractor! That final item has already proved invaluable!

As lucky as I was to gain all this equipment for free, that has in itself caused issues which I've had to use

my practical experience and ability to think outside of the box, to overcome.

New bees

Early in the season this year a fellow beekeeper had unfortunately developed an increasing severe reaction to bee stings and a misplaced sting to the neck had forced him into selling his bees. They needed to go quickly, and he was offering them at an extremely reasonable price. Unfortunately, he was using National hives so the frames in his hives and nucs were much smaller than my Langstroth ones so how on earth was I going to move the bees into my hive? I couldn't just transfer the frames across as they were much too narrow and would just sit on the floor of the hive plus any gaps would be filled with the ladies' own creations making inspection impossible without causing damage. I could've done a 'shook swarm' and just taken the bees. However I'd be throwing away all their stores and brood. After a few days and nights of brainstorming and with the advice from several members I came up with my plan and had persuaded Peter Halford to help

The nuc was full to bursting and it was clear that if I didn't move quickly there was a risk they'd consider swarming soon.

After measuring my frames and the cut a little off the nuc frame lugs and removed the bottom bar. I could fit them within some of my foundationless frames. Some wire around the top secured them in place and the girls did the rest!



Peter Halford helps when transferring the bees from the nuc to the Flow Hive.



The kitchen garden nuc.

13th of May I was called to collect a swarm from a kitchen garden. All seemed normal, so went ahead as before. On this occasion though the swarm had already been collected into a nuc when I arrived but again it wasn't a Langstroth and there were no frames in it.

I transferred them into a hive and other than feeding I mostly left them to it. Now I was up to two colonies.

16th May. Meanwhile the purchased National nuc 'Cut and shut hive' were merrily filling their brood box, with one frame of foundation still to be drawn out I excitedly added a super! In the brood box I could see a good mix of eggs/larvae/stores and drones, it was all going really well....

22nd of May on inspection of the 'Cut and shut' I found a couple of play cups, that's ok I thought they can play as long as they are just play cups. Meanwhile in the Kitchen Garden Swarm, despite drawn comb there were no eggs/larvae and I'd still not seen the queen.

30th of May I went back to check the 'Cut and Shut', they weren't playing anymore. They were serious, I found 12 queen cells that day. Clearly I was going to have to split the hive but I needed to buy time so removed the queen cells, and went about cleaning and erecting another hive.

On the 7th of June I split the hive, leaving two queen cells in the parent hive.

We'll call the new hive with the queen from the nuc I purchased the 'Nuc queen hive'. That hive now contained a mated and laying queen,

two frames of brood, two frames of stores and the worker bees shaken from two brood frames as they are most likely to be young nurse and cleaner bees.

Now I have three colonies – well, that escalated quickly!

Queen cells

13th of June on inspection of the 'cut and shut' parent hive I located my chosen two capped queen cells (marked with a drawing pin on the top of the frame) plus another 30 queen cells!! Which I carefully removed taking care not to disturb my capped cells. Then I left well alone so the new queen could hatch in peace.

I found a queen cell in the 'Kitchen Garden' – there must have been an issue with the queen. Perhaps they were replacing an old worn out queen. I calculated my dates and let them get on and raise a queen.

In the 'nuc queen hive' I could see the queen and there were eggs and larvae. All looked good here, phew!

26th June The 'nuc queen hive' was getting on splendidly and had nearly filled the brood box so I excitedly added a super, I stood a chance of getting some honey.

2nd of July we had the "Bee Safari". After visiting several of the beginner's homes and apiaries we ended at mine for an inspection of my hives and a BBQ. Inspection of the 'Kitchen Garden' swarm hive revealed a queen less colony. Raising of their new queen had failed and I now had a hive of drone laying workers. I had to destroy the hive. A horrible task but I was able to salvage a frame of stores. I popped it in the freezer in case another hive in the future needed a helping hand.

Now I was back down to two colonies.



Typical sign of a drone laying worker – multiple eggs in the cells.

The news wasn't any better in the parent 'cut and shut', there was no queen and the cells I'd left had been removed. Could they have swarmed? There were three new capped queen cells so decided to go back in four to five days to see if they'd hatched.

7th of July. They had still not hatched, I decided to make a back up this time. I put a frame with one QC into a nuc with a frame of stores and put it in our larder.

14th July brought another challenge. I responded to a post on the swarm group to collect a swarm in Mayfield. My first entirely solo collection of a swarm. They were on a branch at the top of a garden hedge. Having assessed the situation, made the ladder stable and suited up I held a nuc under the branch and gave the branch a thump to knock the clump of bees off and into the box. I then placed it on the floor and gave any



One more swarm to be caught.

stragglers time to climb aboard whilst the very hospitable homeowners got me a very welcome glass of wine while I waited! The number of colonies were again up to three.

15th of July suspicious that I still had no hatching in the 'Cut and Shut', I opened up a queen cell and found a black larvae. There was my answer – I had Black Queen Cell Virus. Both cells



Black Queen Cell Virus.



A new queen is introduced.

in the hive were affected as well as the back-up gueen cell in the larder. They were still queenless.

17th of July. The 'nuc queen hive' were filling the regular super very well so I also added my Flow Super, underneath the regular one.

18th of July in one last ditch attempt to save the 'cut and shut' hive I drove down to St.Leonards on one of the hottest days on UK records to collect a queen from Malcolm that had been reared in an apidea mating hive. I placed her in a queen cage into the hive.

19th of July I broke off the tab so the bees could release her.

30th of July they still hadn't released her! And the fondant trapping her in there was rock hard. Clearly, they weren't interested in accepting her and I think she knew it. She had no interest in hanging around. I opened the cage to empty her into the hive and she took the opportunity to fly away! Another queen less colony to dismantle.

In the 'nuc queen hive' we'd noticed a problem with the floor that was preventing the frames from hanging properly and as a result every time I moved a frame, I squashed a bee. Obviously, this didn't please them, and on inspections they were getting increasingly grouchy. I decided to take out part of the base so I could fix the issue and then pop it back underneath. They didn't take too kindly to me disrupting the brood box and they lost their tiny collective minds. It was a full-on assault. That resulted in me running around the front lawn shouting to my husband "they're stinging me, help!". His initially calm response was to ask me why I thought they were still following me. I stopped and thought "the pheromones!! My suit smells I need to take off my suit". As I climbed out of my suit, he did his best to gently waft them away from me, then he became the target and he set off round the garden shedding his clothes as he went! All of this being observed by a very confused friend. Thank goodness and Apiguard was put on both we don't have any neighbours close by. Bees 3 me 0. I had successfully got the problem part of the hive out though, now I just needed to fix it and put it back!

Now I was again back down to two colonies.

At least in the 'Mayfield swarm' there was better news. I located a beautiful queen, and they'd been busy, I found eggs and larvae. They had started storing pollen and nectar. It was all going swimmingly!



Can you spot the queen?

17th of August all looked well in the Mayfield swarm but getting conscious of the impending inclement weather, I gave them two frames of stores from the 'parent cut and shut' I'd dismantled and had stored in the freezer. I paused feeding in order to treat them with Apigaurd.

18th of August to my delight the 'nuc queen hive' had nearly filled the regular super, so having had the bees escapes on for a couple of days I took off the now full super for extraction. Using the motorised extractor, it took no time at all to extract 21lbs of perfect 18% water content honey from the frames. Dusk had come though so I gave them back the empty super to clean up. The flow hive would have to wait for another day.

19th of August I went back for the honey in the Flow super. Because they hadn't completely filled it there was a mixture of capped and uncapped cells I knew I wasn't going to be able to guarantee this honey would be the required 18% for storage. But it was

delightful to see 3.5 litres pouring slowly from the hive into an awaiting jar. I did have to remain on sentry duty to fend off all the wasps that had come to steal a free meal.

21st of August all supers removed remaining hives.

10th of September I have not been very good at Varroa inspections, and this is something I will improve on next year. The total Varroa drop after two Apiguard treatments in the 'Mayfield swarm' was zero! In hindsight as a recently collected swarm the chances of them having Varroa was going to be low. If I'd done some varroa counts beforehand I would have realised, they had no issues and I think I would have decided not to treat that hive and keep them organic. The treatment itself may have also affect the queens laying. The 'Nuc queen hive' had a total Varroa treatment drop of 37, still a very low number, again probably because It was a split so they hadn't had a chance to build in numbers. Always learning!

Well as I enter autumn, I have two queen right colonies that have been treated for Varroa. I'll continue to feed the 'Mayfield Swarm' as I know they don't have enough stores of their own, and if necessary, I'll feed fondant in the winter.

I'm yet to weigh the 'Nuc queen hive' and get an official weight but having lifted it I feel confident its nice and heavy and they have a good number of stores for themselves. But I'll monitor and feed if they need it.

Other than that, I guess I do what every other beekeeper will be doing and cross my fingers hoping for the best come spring!





From BBC News: "Frenzied bee ball" wins top prize in the Wildlife Photographer of the Year competition. It's a manic moment as male cactus bees envelop a single female. But who in this amorous scrum will emerge lucky and get to mate with her? This remarkable picture, captured by Karine Aigner, is the grand title winner in this year's Wildlife Photographer of the Year competition.

On one level it's quite a technical image. It required the use of a macro probe lens to get in close to the very heart of the action.

"I had to spend quite a bit of time on my belly in the dirt," Karine joked.

"It wasn't something I went looking for. I've been working on a ranch in South Texas for years, and I just happened on the location. I saw all these little 'volcanoes' in the ground - the individual burrows dug by the females to make their nests," she told BBC News.

You can read more <u>here</u> (as well as watch a video of Karine amongst the bees).

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