

The Auricle

Moray Beekeepers Association Newsletter

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DELNASHAUGH DELIGHT AND HEATHER HONEY TOO!



Andrew Tassell (kneeling with his back to camera) gives some tips on 'Preparing and Moving Hives to the Heather'. You can see the heather moor in the background.

Approximately 20 MBA members enjoyed an excellent meal at the Delnashaugh Hotel in August and then made the short trip to the heather stance at Doug & Lynn McLeish's delightful mountainside garden at Ballindalloch. It was a warm day and the bees were working well with plenty of heather pollen (grey/creamy coloured) going into the hives.

After a short talk by MBA Chairman, Andrew Tassell on 'Preparing and Moving Hives to the Heather', the hives were opened and it was pleasing to see supers filling up with honey.

The afternoon was rounded off with tea, cakes and a good 'natter'!

Many thanks to Doug and Lynn for their generous hospitality!

HONEY EXTRACTION DEMONSTRATION

Our next meeting is on **Sunday 30th September, 2.30 pm start, at Birnie apiary** (in the portacabin) when Tony Harris will be giving a talk and demonstration on 'Extracting Honey'.

The talk will be followed by a raffle and refreshments.

There will also be an opportunity to find out more about the 'Bee Aware in Moray' project and to volunteer to help out with some of the exciting initiatives planned for 2013.

Full details of all Monthly Meetings, Open Apiary Sessions and Courses are at

www.moraybeekeepers.co.uk

PREPARING BEES FOR THE WINTER

by Tony Harris

The best conditions for a colony going into winter is to have a young queen and plenty of bees, sufficient stores to last until the spring flowers arrive, disease free bees and protection from pests and predators. The bees should be in a sound, waterproof hive so that they are dry, preferably on stands with good air circulation around them, situated in a dry, warm, unexposed apiary.

A **YOUNG QUEEN** is likely to continue laying later in the season which means more bees that don't have to live as long under winter conditions and it is the bees emerging from August onwards that will resume foraging and house bees duties in the spring. You should assess your colonies to see if they are strong enough to get through the winter and if not, for example there are only 3 frames of brood or bees, consider uniting with another colony.



uniting with newspaper

Unite using the newspaper method. Remove one of the queens first and then at dusk, dismantle one hive, place a sheet of newspaper over the brood box and place the queenless colony on top. You may want to make a few small holes in the newspaper with your hive tool. The bees will chew through the paper and as they are doing so, the colony odours will combine, resulting in a peaceful uniting process. Late August and into September, after the main flow has stopped is also a safe time of the year to re-queen those colonies where the queen is old or of undesirable qualities, e.g. bad tempered.

SUFFICIENT STORES. Towards the end of August and into September, after any honey harvest has been removed is the time to feed your bees for the winter, and you should aim to complete it as quickly as possible. I did hear one MBA member say that they leave the syrup on the hives until November but that can be a big mistake and can cause problems for the bees later in the winter. Honey or sugar syrup that has not had the moisture content reduced to an acceptable level for the bees is likely to ferment and this can lead to digestive problems for the bees and dysentery. This will be evidenced by brown streaks of bee excrement on the combs and around the hive entrance and it can lead to the demise of a colony.

So, get the bees fed as quickly as possible, before the cold nights draw in, and you can do this by using a rapid,

Miller or Ashworth feeder. It is very important to pour a small amount of syrup down the feed-hole in the crown board so that the bees know it is there, as sugar syrup has no smell that the bees can recognise.



Miller feeder

How much syrup do we have to feed?

Well, this will be different for each colony so first of all open up each hive and assess its stores by eye and then decide. If you bear in mind that 1 B.S. brood frame, full on both sides, has about 5lb of honey, and that Ted Hooper recommends 40-45lb of stores, you should be able to work out how much syrup is needed. And if you are still not sure you can do what I do - feed syrup until they stop taking it down as long as it is finished by mid September. It is best to feed the bees in the evening, so that darkness will help quell the excitement, feed all your colonies at the same time, and don't spill any in the apiary as this will help to reduce robbing. We feed our bees only white granulated sugar, either from cane or beet sources, i.e. refined sucrose. Brown or unrefined sugar should not be used! For winter feeding it should be a thick syrup. i.e. 2lb of sugar to 1 pint of water.

Lift your hive and get to know its weight when stores are plentiful so that you can take action if you feel it weighing a lot less during winter. If it does, DON'T feed with more syrup! Instead, place a block of candy or bakers fondant (available in supermarkets) over the feed-hole or on the top bars directly over the cluster of bees with an eke to house it. To prevent isolation starvation, when the bees starve even with plenty of stores in the hive, you can quickly look in the hive every 3 weeks and move the fondant so it remains over the cluster.

DISEASE FREE AND PROTECTED FROM PESTS AND PREDATORS

Varroa is endemic in Moray and you will not get away with ignoring it. Various techniques have been described in past Auricles to combat varroa during the season and it is also advisable to treat the bees for varroa once the honey harvest has been removed. **There are various treatments available but you are strongly advised not to use Apistan anymore as there are pyrethroid resistant mites in Moray which means the Apistan will not be effective!** You are advised to follow up your autumn treatment with Oxalic acid, trickled or vaporised in late December.

MICE are a problem in the winter. If they get into your hive while the bees are clustering, the bees will leave them alone and they will eat and remove comb, and

can lead to the demise of a colony. So fit mouse guards over the entrance and leave in place till the spring.

Other predators include **BADGERS** and the way to keep them out of your apiary is to erect a strong wire fence, sunk at least 2 feet into the ground. **WASPS** can also be a problem as they try and get into the hive to rob the honey. An easy way to deal with this is to make a wasp trap or sink a jam jar filled with sugar syrup or runny jam into the ground - you will catch lots more wasps than it does honey bees.

SOUND WATERPROOF HIVES. Make sure your hives are waterproof and there are no holes in them. Although bees do not freeze to death due to low temperatures, they can die due to cold winds, so it is especially important to protect the hives from northerly and easterly winds - if necessary build a windbreak!

VENTILATION is a dilemma for beekeepers, because if the bees propolise any cracks to reduce draughts, what degree of ventilation should we provide in the hive over the winter? The experts can't agree but make sure you read the article on Open Mesh Floors (OMFs) on page 5. As well as using an OMF with or without floor insert you can raise the crown board by inserting a matchstick under each corner to allow CO2 to escape.

INSULATION. Many beekeepers place additional insulation under the hive roof for winter, e.g. expanded polystyrene, loft insulation roll, but others do not - again experiment and do what suits you.

SNOW can be a problem because if it settles around the hive it can give the bees a false sense of brightness that can cause them to leave the hive on a cleansing flight, and this can prove fatal at low temperatures. If snow does settle around your hive then simply place a piece of wood over the entrance so that it is kept in the dark and that should prevent the bees from flying. Leave the snow where it is!



mouse guard in position

If your bees are in more than one box and you have a queen excluder between them, please remember to **REMOVE THE QUEEN EXCLUDER**, otherwise the queen can get left in the lower box if the cluster moves above, and that will be the end of her and your bees!

And **FINALLY**, tie down the hive or place a large brick on the roof so it won't blow off. It won't be long before the first sunny day in February, when your heart will be gladdened as you see the bees bringing in the first of the season's pollen - a sure sign that the queen is present and has resumed laying.

ADVENTURES WITH A LOG HIVE

by MBA member, Paul Kieniewicz,

For the past month I've kept a colony of happy bees in a hollow log. They've built their own comb and started filling it with honey and brood. Except for an occasional peek to see what is going on I leave them alone. The log hive is a traditional beekeeping method, still practiced in Russia today.

An apiary of log hives in Cevennes, France has over a hundred hives with very healthy bees. So far it hasn't had an incidence of Varroa mite. Are those bees naturally resistant to the mite, or does the log environment have something to do with their health?

A study by Thomas D. Seeley of Cornell University suggests that many feral bee colonies adapt to Varroa and co-exist without being overcome by the mite. If so, could log hives play a role in reversing the declining bee population? I decided to try it out.

Building the Hive

Most log hives were made of a deciduous wood such as elm or chestnut. A friend gave me an elm log, partially rotted out. A Russian website suggests a length of 120 cm and internal cavity of 40 x 40 cm with a wall thickness of 5-6 cm. Thick walls help conserve heat during the winter. You can hollow the log out using a chainsaw, but you need to replace the chain oil with rapeseed oil. That way the log doesn't get impregnated by petroleum. The log caps should also be made of thick wood. The lower lid is removable and partially fits into the log. You cover the inside surface with a cloth, so that the bees don't build their comb against it. Cut entrance slots beginning 30 cm from the lower end. Mount the log at an angle of 25 to 30 degrees in a sheltered location with the entrance slots facing south. The plywood cover is there as a sunshield and rain shield.

Introducing the Bees

It's best to catch a swarm and either dump the bees into the hive from a skep, or place a platform at the entrance slots and have them crawl in. I was given a nucleus colony with brood and honey frames by the Moray Beekeepers.

I built a small horizontal platform above the hive (see picture) and connected it with the log interior with a pipe, then



log hive awaiting the bees from the nucleus hive next to it

placed the nuc hive over the tube so that the only entrance/exit was through the log. Unfortunately even after a couple of days the bees showed no interest in their new entrance. So I shook the bees from the frames into the log and placed the hive on the platform as before, after making sure that the queen was in the log. Then I set the hive back onto the platform and waited. They buzzed about like crazy but eventually settled down. This method of moving the bees proved unfortunate in that the bees left their brood cells in the nuc unattended. Brood needs to be kept warm by bee body heat or they die. My bees didn't find their way back to the brood cells and without their body heat, the brood appear to have died.

For several days the bees hung in a large ball and showed no interest in their old cells. I held my breath. They left the hive in ones and twos, flew about and returned. I placed a nuc feeder on the horizontal platform, another container with straw and syrup inside. They didn't visit the feeders. I placed the nuc just outside the hive. That got their attention.

They began to visit it, feed off the honey they had already stored there. Each warm day I would see more of them flying between the nuc and the log. The bee ball began to look active with bees moving about it. They were building something inside, but I couldn't tell what. Also, they didn't like me looking in because they'd shoo me off if I stared at them for too long. Then I saw first a piece of the comb, and then the rest.

Maintenance

I don't intend to harvest the honey at least for a couple of years. Over the first winter I'll leave a tray with straw and syrup for food, if they need it. For Varroa monitoring, one can place a tray under the comb and examine the debris. Much of it rolls downhill to where you can access it too. The only way to treat such a log for Varroa would be with oxalic acid vapour, as there's no way to apply the treatment directly to the comb. Otherwise, no other intervention is necessary. When the bees decide to swarm, I'll let them swarm. The way it happens in nature. Hopefully I'll catch them in time and house them in a second hive.



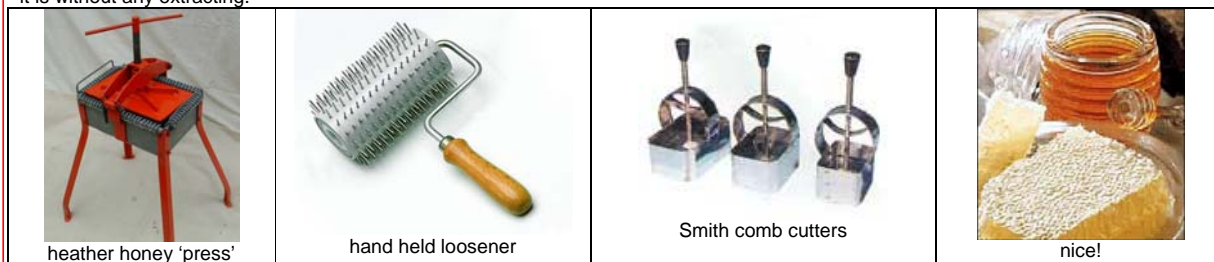
bees building wild comb in the log cavity

Harvesting the Honey

It's easy, say log-hive keepers. Once the hive fills up with comb, you open the lower hatch, reach in and break off pieces of comb, leaving enough for the bees to get through the next winter. Then you squeeze the honey out of the comb with your bare hands. Sticky work, but they say that the honey tastes better than honey from frame hives. I'll have a tasting party with my first harvest.

EXTRACTING HEATHER HONEY

Heather honey is 'thixotropic' which means that it is a jelly in its natural state but when agitated it becomes liquid for a short while before returning to jelly. This means that it cannot be spun out of the comb like normal runny honey. A hand held loosener or larger looseners can be used to temporarily make the honey liquid and it can then be spun out of the frames. However, most beekeepers will use a honey press to harvest it (MBA has 2 for members to borrow) or will use thin unwired foundation to get cut comb honey that is simply cut up and sold as it is without any extracting.



About the first or second week of September is the time to bring your hives home from the heather. If there is just 1 filled super on the hive you can easily strap the hive up and bring home but any more and it may be better to remove them first unless you want a bad back. If you do remove them, remember to place 1 or 2 empty supers back on the hive to provide space for the bees during the move home. Don't forget to ensure the ventilation screen is secured on top as you don't want the colony to overheat!

If the honey is to be eaten or sold as cut comb it is a simple task to use a Smith comb cutter or a knife to cut the size required. But if you want to jar it you should use the honey press. Line the inside box of the press with fine linen cloth (available from suppliers), cut the comb from the frame and place into the box. When full, wrap the cloth around the comb, close the 'press' and then, by gradually turning the handle, pressure is exerted on the comb, forcing the honey out of the press into the honey bucket underneath.

The cloth will filter the honey and it can be bottled immediately without any form of heating which can damage it. The air bubbles do not rise to the top but stay in the honey and this gives it a very attractive look in the jar. You may be too late for this year's heather honey but why not make plans to take advantage of this premium honey which is right on your doorstep, next summer!

GUARD & ROBBER BEES

When you are feeding your bees in the autumn it is a prime time for robbing to start, so you must be on the lookout for the tell-tale signs as weaker colonies can be wiped out at this time of year.

Bees fighting outside a hive is an early sign of robbing and can be confirmed by the flight of the robber bees on approach - it is nervous and erratic and in a characteristic 'zig zag' pattern. Guard bees will recognise this flight pattern and will be on high alert!

If you watch the entrance to the hive carefully you will observe the behaviour of the guard bees. They challenge and examine all entrants for a period of about 1-3 seconds by antennal contact, the time it takes to determine a nest mate from an intruder - the nest mate will have the same colony odour, recognisable to the guards. If an intruder it is usually mauled by the guard clamping onto a leg or a wing, and curling the abdomen into a position enabling it to sting the intruder. A fight ensues, and the robber is marked with 2 heptanone from the mandibular glands. Other guard bees recognise the alarm and raise their abdomen and sting chamber, releasing a further alarm pheromone, isopentyl acetate that

smells of bananas. The robber struggles and may escape but sometimes is stung and dies. If the intruder has tried to enter the hive by accident, when challenged, it often offers food and begs its way into the hive.



guard bees evicting a robber bee

When a robbed colony succumbs and silent robbing ensues, the robbed colony continues to work normally, while at the same time robbers also enter and leave the hive. The only tell tale sign now is the flight of the bees returning directly to another hive. Also, robber bees leaving the robbed hive, laden, will have the rear legs forward as opposed to a bee leaving the hive on a forage flight, unladen, when the rear legs will be trailing askew. Eventually, the robbed colony will be devoid of stores, may abandon the nest or even die off.

When robbing starts in an apiary it is difficult to stop it so it is important for

the beekeeper to know how to prevent it and what to do if robbing has started. Robbing is more often than not brought on by the actions of the beekeeper, due to spilling sugar syrup, leaving brace comb in the apiary or leaving hives open longer than is necessary. So make sure you don't do any of these things. Also, make sure every hive or nucleus is bee proof, the only way in being via the entrance.

Feed your bees at dusk when flying has ceased as this will reduce any excitement and the darkness will prevent the flying bees from leaving the hive and searching for the source of food. With the brood nest getting smaller in late summer, the colony will also be shrinking in size and there will be fewer guard bees on duty so reduce the size of the entrance by inserting a 'reduced entrance block'.



a reduced entrance block

OPEN MESH FLOORS



An Open Mesh Floor (OMF) is simply a floorboard where the solid wooden section is replaced with a sheet of wire mesh, virtually leaving the bottom of the hive open to the elements. You can buy them from equipment suppliers from about £35 or you can easily make one yourself. OMF's have been around for a few years now but not everyone is agreed on whether they are beneficial particularly when it comes to over-wintering bees so let's have a look at the evidence.

Field tests carried out by beekeepers before varroa arrived in the UK in the early 1990's found that the OMF's provided better ventilation, temperature and humidity control and colonies prospered in both summer and winter when compared with colonies in hives with solid wooden floors (see Dave Cushman's website). This meant that there were no mouldy combs in winter or chalk brood in spring and because of the greater ventilation, reduced entrances could be used without the bees 'bearding' outside the hive in summer and minimising the likelihood of robbing. The increased ventilation and humidity also means there are less bees having to fan in spring so there is more foraging normality, and the bees do not embark on early brood rearing so don't suffer any significant forager bee losses at this crucial time. You should have your hives on hive stands or at least placed on wooden batons to keep them off the floor and allow wind circulation around them and this also prevents damp.



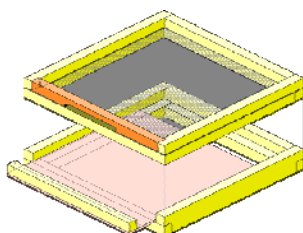
bees 'bearding' outside a hive

OMF's are an important part of an Integrated Pest Management regime in the control of varroa. Mites that drop off bees fall through the mesh and die whereas if a solid floor is in use, the mite

can hitch a ride on a passing bee back up into the brood nest. If you dust your bees with icing sugar during the active season, once or twice a month, it will cause more mites to fall off bees and thus out of the hives and every mite out of the hive is better for your bees. Combine this with regular drone brood removal and you are likely to keep varroa under control until your main autumn or winter treatment.

OMF's also come with a floor insert which can be used to monitor the natural mite drop at different times of the year but it must be emphasised that to gain the maximum benefits the insert must be left **out** for the majority of the year, including the winter!

Some beekeepers place the insert in the hive in early spring for a month or so when brood rearing starts to increase as they feel it gives the bees a hand in maintaining the temperature at 35C, but they then place a matchstick under the corners of the crown board to allow CO2 to escape from the brood chamber



you can make your own OMF

The most commonest error new or inexperienced beekeepers make is to think that their bees will get cold or even freeze to death in winter so they pack their bees in all sorts of additional insulation, reduce the entrances in an attempt to stop those nasty draughts and block off every nook and cranny in the hive. Sure, the bees will be nice and warm inside the hive, but research has shown that they need some ventilation as the winter cluster produces CO2 and this has to be allowed to 'escape'. Generally, bees do not die of cold, it is damp conditions that causes bee deaths. Beekeepers in Canada, North America and colder European countries, using OMF's, sometimes have to dig their hives out from deep snow to find all is well within the brood box.



suitable mesh

Another advantage of using OMF's is **CLEANLINESS!** Hive debris and waste pollen tend to drop through the floor making a cleaner hive and this means there is no debris and therefore no hiding place for wax moth to hide!



hive debris on a solid floor

The main disadvantage of OMF's is the obvious one – it is colder and drafter inside the hive. This leads to increased heat loss through the floor and results in a 10-15% higher food consumption by the bees compared with bees in a hive with a solid floor. But, if you have fed your bees well in the autumn and placed fondant on top of the cluster as a back up in the depths of winter, is the increased food consumption that much of a problem?

So what does the bee's behaviour tell us about their love or not of OMF's? Well, we all know that they will seal up with propolis any opening they don't like in the hive and you will see this all the time if a piece of mesh is fixed over the feed hole in the crown board. It is quickly sealed up with propolis, isn't it?

But, interestingly enough, the bees never propolise the mesh on the OMF so it appears they are giving it their approval. Also, with solid floors, the bees will very often extend the comb from the bottom of the brood frame and attach it to the floor, but this is a rarity with OMF's, making colony inspections easier.



sugar dusting bees

So if you have not used an OMF, perhaps now is the time to try! Mouldy combs, chalk brood and wax moth problems can all be eliminated or lessened if the interior of the hive is dry and well ventilated and the easiest way to achieve this is to use an OMF!



OMF's can help prevent mouldy combs

If you do try an OMF this winter, let us know how your bees fared when you open up the hive in the spring!

REVIVE A BUMBLEBEE



After reading how to revive a bumblebee in last month's Auricle MBA members John and Dianna Baillie quickly put the advice to the test when they found an exhausted bumblebee trapped in their greenhouse.

A drop of honey was placed in front of it and as you can see in the photo the bumblebee wasted no time in feeding on it.

Dianna writes, *'The honey fairly revived her but it took a while – I had plenty of time to find and set up my camera!'*

The 'grateful' bumblebee later flew off to join her nest mates!

The Scottish Beekeepers Association celebrates its centenary in 2012.

The main celebration will take place on **15th & 16th September 2012 at the Stirling Management Centre, University of Stirling**
Delaplane, Prof Robe 'axton, Prof Keith

Accompanying the lecture are beekeeping exhibits.

NOW SOLD OUT!

demonstrations and
Booking open now.

To download a booking form, visit <http://www.scottishbeekeepers.org.uk/About/SBACentenary.aspx>

WINTER PROGRAMME 2012/13 – ALL AT ELGIN LIBRARY

Tuesday 23rd October, 7-9pm, 'Judging Honey products', Mr Les Webster
Mon 26th November, 7-9pm, several short talks of 15 minutes duration. 'The Moray Bee Improvement Group', Gerry Thompson, 'The Bee Aware in Moray Project', Tony Harris & An Oxalic Acid Trickle Demonstration, Andrew Tassell
Tuesday 29th January, 7-9pm, Annual General Meeting followed by 'Beekeeping Question Time'
Thursday 28 February, 7-9pm, 'Preparing for the New Season', Tony Harris

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ASSOCIATION HONEY EXTRACTORS



If you don't have your own honey extractor you can borrow one of the Associations. The one on the left is a heather honey press and the one on the right is a manual radial extractor for liquid honey and we have 2 of both



You can borrow them for free by contacting either

Andrew Tassell (Keith area) Tel 01466 771243

Or

Tony Harris (Fochabers area) Tel 01343 821282

SCOTTISH BEEKEEPERS ASSOCIATION (SBA)

Moray Beekeepers Association is affiliated to the SBA and you are encouraged to join. Membership of £30 a year will give you a monthly magazine, £2 million Public and Product liability insurance, a compensation scheme if you lose your bees and access to beekeepers throughout Scotland,

Contact membership convener: Mr. Phil McAnespie, 12 Monument Road, Ayr, KA7 2RL

SBA web site: www.scottishbeekeepers.org.uk

BEESUITS/GLOVES /SMOCKS

Quality bee suits and clothing from BB Wear, for MBA members who receive a 15% discount (please order via the MBA Secretary)

BB1 Full suit £84.00

www.bbwear.co.uk/

'BEE AWARE IN MORAY'

To get involved in this exciting honeybee conservation and education project, please contact Secretary, Tony Harris or any member of the Committee.

The Association website is packed with lots of useful information on beekeeping and bees and has an interesting blog that you are encouraged to contribute to. It is well worth a visit - the address is

www.moraybeekeepers.co.uk

Items for inclusion in the Newsletter to be sent to the Editor: Tony Harris, Cowiemuir, Fochabers, Moray, IV32 7PS or you can e mail: tonyharris316@btinternet.com or phone 07884 496246