

# The Auricle

Moray Beekeepers Association Newsletter  
Hot off the 'press'

Issue No: 2/11

SCOTTISH CHARITY NUMBER SCO42185

May 2011

**YOU CAN SPONSOR THIS NEWSLETTER FOR JUST £10 – IT HELPS COVER THE COSTS!**

## FIRST INSPECTIONS AT BIRNIE APIARY



A fine sunny day in Moray saw approximately 30 members in attendance at Birnie Training Apiary for the first inspections of the season and there was mixed fortunes inside the hives. Despite the warm spring, the prolonged cold spell early in the winter had taken its toll and of the 4 hives remaining, one of them had died out, one was very strong, one very weak and the remaining colony was somewhere in between. Tom Balch and Stephen Palmer opened up the hives, the floors were changed and queens found and marked. The afternoon was finished off as usual with a fine tea and a natter. Thank you to everyone who helped to make the afternoon a success!

Queens are usually marked early in the season when the colony is small and easy to handle the main reason being the obvious one – to make it easier to find her. This is important because practically all methods of swarm control require the beekeeper to find the queen and a well marked queen makes the task so much easier. Also if a colony becomes bad tempered and the queen has to be changed it can be done quickly and efficiently if she is marked.



### INTERNATIONALLY AGREED COLOUR CODE FOR QUEEN MARKING

COLOUR	LAST DIGIT OF YEAR
White	1 or 6
Yellow	2 or 7
Red	3 or 8
Green	4 or 9
Blue	5 or 0

When found, use a 'press-on' type queen cage to mark and clip her if you wish. When marking, ensure that you allow the paint to reach the hard surface of the queen's thorax. If you only paint the thorax hairs, the paint will very soon wear off. Once marked, ease the pressure of the cage on the queen and keep her in the cage until the paint has dried and you have all but finished the inspection. You can then release her onto a frame of brood as this is where the bees would expect to find her.

Beekeepers clip the queens' wings as an aid in swarm control as it allows more time between inspections (see page 2). Again, use the press-on queen cage to restrict her movement and clip about a quarter of one pair of wings.

**OUR NEXT MEETING IS ON SUNDAY 15TH MAY AT ALASDAIR JOYCE'S APIARY, DALLAS DHU, 2.30 PM  
START WHEN WEATHER PERMITTING WE WILL BE INSPECTING HIS HIVES.**

Full details of all Monthly Meetings, Open Apiary Sessions and Courses are at  
[www.moraybeekeepers.co.uk](http://www.moraybeekeepers.co.uk)

# THE SWARMING SEASON IS UPON US!

Swarming is the honeybees' natural process of ensuring the survival of the species but there are certain factors that bring the swarming process on quicker than normal and if you have an understanding of this you can stay one step ahead of your bees. The main reason a colony swarms is due to a reduction in the amount of 'queen substance' (Q.S.) being passed around the hive. This can be due to an aging queen who will be producing less Q.S. or due to overcrowding in the hive. Q.S. is a pheromone produced by the queen and it is passed around the hive to each worker by reciprocal feeding, known as trophallaxis. Q.S. prevents the development of the workers' ovaries and inhibits the building of queen cells in the colony. Any congestion (overcrowding) in the hive interrupts this process of food transfer and thus acts as a barrier in the distribution of Q.S.

A minimum threshold amount of Q.S. is required by each worker bee to prevent the building of queen cells. When the supply of Q.S. is below the threshold required for colony cohesion, the queen's egg laying rate will rapidly decrease because the workers feed her less. Those eggs that have been laid in the queen cups, which are part of every normal colony, will not be removed but will be allowed to hatch out into larvae. Queen cells will result and the colony will be on its way to swarming.



*queen or play cups*



*unsealed Q cell with larva inside*



*1 sealed on left & 1 unsealed Q cell*



*good size Q cell on right*



*Q emerging from cell*



*marked queen*



*marked & clipped queen*



*nucleus box*

Relieving congestion in a hive minimises swarming so it is important to give your bees plenty of space both in the brood chamber and by adding supers in good time. The key is to give the queen room to lay and the bees room to spread out while also providing them with comb space to hang nectar in while the water is being evaporated off. When the bees are covering three quarters of the frames in the brood box, add a super of drawn comb if you have one. When the bees are occupying two thirds of the first super a second super should be added. The second super can be of foundation and if it is it should be placed below the first super, so the bees have to pass through it to reach the top super they have been working in, while it will also benefit from the heat in the brood chamber. If you don't have any drawn comb you can add supers of foundation from the start but bear in mind that the bees will only draw it out if there is a honey flow on – if there isn't you will have to feed sugar syrup. Also, use fresh foundation from a sealed pack. If it has been fitted to frames from last season you can warm it with a hair dryer or place it in a greenhouse or even the car to raise its aroma and make it more acceptable to the bees.

The other thing worth noting is that the amount of Q.S. produced by a queen decreases as she gets older so it is important to maintain young queens if you can, ideally no older than two full seasons.

The two management techniques to control swarming are firstly, clipping the queen's wings early in the season and secondly, rigorously timed inspections to ensure the beekeeper does not miss queen cells, once built up.

If you have a clipped queen and your bees are not making queen cells you can safely carry out inspections every 14 days. If your queen is not clipped then you should carry out 7 day inspections. The reasoning is that a queen cell is sealed 8 days after the egg is laid and an unclipped queen will usually emerge with a swarm on day 8. A clipped queen however will usually emerge with a swarm when the first virgin is about to emerge and that will be on about day 16. The clipped queen, being unable to fly, will usually be lost on the ground and the swarm will return to the hive, awaiting the emergence of the first virgin queen when they are likely to leave with her. This gives the beekeeper an extra week to take action and although the queen is lost, the bees are not (and it is they that gather the honey) until the first virgin queen is on the wing.

Despite your best efforts a time will come when you will find queen cells in your hive and some method of swarm control must then be used or the honey yield will be dramatically reduced. Don't confuse what are called 'queen cups' (see photo above) with queen cells. Queen cups are built by the bees all the time but unless you see one of these actually with a larva in it you can ignore it as far as swarm control is concerned. It is best to have a plan now! In simplest terms you will need a nucleus box or a spare hive for each colony of bees you own. The idea is to separate the queen, along with some brood, bees and stores, from the queen cells, brood and remaining bees. If all goes well with your chosen swarm control technique you will have doubled your number of colonies or if you don't want to make increase you can unite the two colonies later after removing the oldest queen.

If you do not have a clipped queen and you find queen cells in your hive which you destroy, don't fall into the trap of thinking you can leave the next inspection for 7 days (as it takes 8 days for a queen cell to be sealed after the egg is laid, right? WRONG!) If the bees are set on swarming they can take a 3 (or even 4) day old larva and feed it royal jelly so it becomes a queen. This means that a queen and swarm may issue from your hive as early as 2 days after your inspection. This is because the egg hatches after 3 days, and if the bees then select say a 3 day old larva, it will be sealed 2 days later on day 8, and the swarm will be gone before you know it. The same principle applies if you have clipped queens although you will have more time, about 9 days before the first virgin leaves with the swarm.

## 'NUCLEUS METHOD' OF SWARM CONTROL by Andrew Tassell

**Equipment needed:** Nucleus hive, (a complete empty hive can be used instead of a nuc hive), dummy board, hive stand.

**1<sup>st</sup> Inspection:** If you see queen cups with eggs or young larvae inside cut them out. This might be enough to dissuade the bees from swarming (if helped by a change in the weather for example). It also gives you a week's grace to get equipment ready.



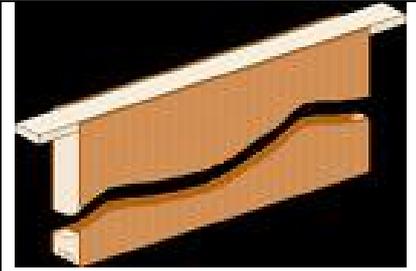
*unsealed queen cell showing larva inside – time for swarm control*



*swarm cells*



*sealed queen cell*



*dummy board*

**Inspection a week later:** If there are queen cells with well developed larvae in them you will need to make up the queen right nucleus. Find the queen (this is why it pays to mark her earlier in the season). Place her and the frame she's on in the nuc hive, cutting out any queen cells on the frame.

Back in the hive select a queen cell to raise a queen in. It should be a good size, nice shape and have a well-developed larva in it. Don't pick a sealed queen cell, as it might be empty. Use a bee brush to brush the bees off the frame and destroy any other queen cells. Mark this frame with a drawing pin on the top of the frame.

In the nuc hive place a frame of brood and one of stores making sure there are no queen cells. Shake in bees from a fourth frame and put the dummy board in and close up the nuc hive. Place it on the hive stand 3 to 4 feet from the parent hive and block the entrance lightly with grass.

In the parent colony, without disturbing the marked frame with the queen cell, shake the bees off the remaining frames and destroy anything that looks like a queen cell. Close up the hive.

**A week later:** In the parent hive go through and destroy any queen cells apart from the one on the marked frame that will now be sealed. Use a brush to remove bees from this frame when checking it so as not to disturb your chosen queen cell. The timing is important - it must be a week later, i.e. 7 days!

**Two weeks later:** The new queen should have emerged and should be starting to lay. If there are no signs of eggs, leave it for another week. If there are still no eggs, you can place a test frame with eggs from the nuc hive in it; if the bees raise queen cells your hive is queenless, if they do nothing your queen is there and hasn't started to lay yet.

## MAKE UP A BAIT HIVE TO CATCH A SWARM

With bees and swarms at a premium in recent seasons you can increase your chances of getting hold of some bees by making up a bait hive to see if you can entice a passing swarm to set up home in it.

A bait hive can be almost anything – a nuc box, a spare hive, a roughly made up box or even a skep or wicker type basket. You will increase your chances of attracting a swarm if you fill it with frames of wax foundation or even better, frames of drawn comb, and, you place the hive off the ground and in the vicinity of a feral colony of bees (about 100 metres away).



*bait hive up a tree*



*A swarm moving in!*



*basket bait hive entices swarm*



*swarm lure*

In the days prior to swarming, scout bees will be busy searching for a new nest site. Ideally they are looking for a cavity of between 20 and 80 litres, with a relatively small entrance of less than 70cm square at the bottom of the cavity. They prefer the cavity and the entrance to be a few metres above the ground and if the cavity has comb in it, built by a previous colony, it is particularly attractive to the bees as they can use it immediately to store nectar and pollen.

So make your bait box as attractive to the bees as you can and you may be rewarded with a new colony of bees!

A final tip is to use 'Swarm Lure', a mixture of pheromones, which can be bought from suppliers and pinned inside the hive or box. It is said to attract swarms into the hive and so maybe increase your chances further.

# SWARM COLLECTING KIT

Another way of getting hold of some bees this year is to collect a swarm yourself! You will obviously need a hive ready for the bees to move into but you will also need some extra equipment and the kit shown below includes everything (well almost) you will need.



I keep all of this kit, along with a nuc box, in the back of my car from May to August so that if I get a call about a swarm I am ready to go straight to it without any delay. Okay, we all know that there are not as many swarms about as there used to be, mainly due to the demise of feral colonies of bees, but there still are some feral colonies surviving, and, you can guarantee that swarms will issue from many a 'managed' apiary without the 'beekeeper' even knowing about it. And in that situation, unless the beekeeper is trying to catch the swarm himself, it is fair game to the ardent beekeeper!

So, you arrive at the swarm and it should be hanging in cluster on a branch, or it could be on a fence post, gate, wall or just about anywhere. The key is not to panic and to proceed slowly and methodically. Put your veil on and place a sheet, sacking or the like on the ground below the swarm. In the easiest scenario you simply take the cardboard box or skep, place it underneath the swarm and raise it upwards to enclose as much of the swarm as possible. Give the branch a quick sharp knock and the bees will fall off into the box. Place a wooden board or old crown board over the top, turn the box upside down and place it on the floor on the sheet with one corner raised to allow bees to enter. If the Queen is in the box you will see the bees at the entrance with their 'bums' in the air, fanning their wings and calling the other bees to join the Queen inside the box. If you missed the Queen somehow, the bees will very quickly leave the box and will join her wherever she has settled. You then have to start again.

It can take a while for all the bees to join the Queen so once you are satisfied that most of them have, it is a simple task to lower the raised corner of the box, and wrap it up with the sheet, before carrying it to the car and to your apiary. A word of warning here! A large swarm can quickly overheat, and die if there is no ventilation in the box or skep so I always use a ventilated travelling screen as a base, and remove the sheet once in the car.

Once back at your apiary you need to shake the bees into a nuc or spare hive in which you have placed frames of wax foundation and once they have moved into the brood chamber, place the crown board on and feed with sugar syrup. You will be surprised at how quickly a swarm will draw the foundation out and if the weather is fine, the bees will be bringing in pollen the next day.

It is also a good idea to treat the swarm for varroa as the mites will be on the adult bees so insert a strip of apistan for a week or trickle with oxalic acid.

For more difficult swarms you may have to entice the bees up into the skep, or onto an old brood frame, or you may have to brush the bees out of awkward crevices or cut your way through a veritable jungle of brambles and bushes, but that is all part of the adventure! Isn't it?

## 'WORK TO DO IN MAY

Regular inspections of the brood comb should be started this month as part of your swarm control – 7 days if you have an unclipped Queen, 14 days if clipped. The brood nest should be expanding quickly now on the spring nectar flow so place drawn brood frames or foundation on either side of the brood nest to allow the queen space to lay. Remember, congestion is a major cause of swarming! If necessary remove outside frames containing excess food or pollen and store them so you can feed back to the bees in the autumn. Place a shallow frame of drawn comb or foundation in the brood chamber (next to the brood a few frames in) as part of your battle against varroa. The bees will build drone brood beneath it and as this is more attractive to the mites, if you cut it out and discard when sealed you will be removing good numbers of varroa as well. Replace the frame and repeat until the end of July.

Additional supers may be required this month – use drawn comb if you have it, if not foundation will do.

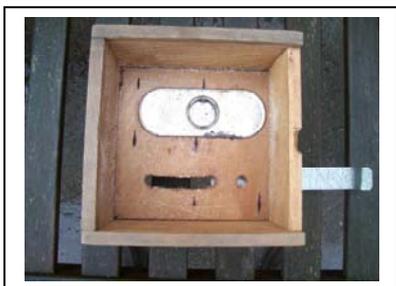
If your bees are located within 2 or 3 miles of oil seed rape (OSR) you will have to remove and extract supers as soon as they are full as OSR honey crystallises very quickly on the comb. A large colony on OSR can draw out a super of foundation and fill it with honey in 2 or 3 days so be on your guard or you will end up with supers of crystallised honey. Don't forget that you can borrow an extractor from the Association. Finally, place one or more 'bait hives' in the apiary to catch swarms.

## BIRNIE APIARY UPDATE

We have 4 colonies of bees remaining at the apiary. Hindsight is a great thing but we probably should have united some of the colonies last September as it looks like they were just not large enough to get through the prolonged cold spell from November into December.

But, we live and learn and will be making every effort to re-stock the apiary up to the original 8 hives!

We do have money in the kitty from the 2010 courses that we would consider spending on re-stocking the apiary so if anyone knows of any 'bees for sale', or you would like to donate a nuc to MBA, please contact any member of the Committee.



This bit of kit was inherited by Graham Hill in an auction lot. It is about 6 inches square, and has a removable glass lid. There is a slot in the base of the box that can be opened or closed and also a porter bee escape to allow the bees back out of the box. If anyone knows what the box is used for Graham would love to know!

## BIRNIE RAFFLE WINNERS



As usual a raffle was held to help pay for the refreshments.

## SCOTTISH BEEKEEPERS ASSOCIATION (SBA)

Moray Beekeepers Association is affiliated to the SBA and you are encouraged to join. Membership of £25 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](http://www.scottishbeekeepers.org.uk)

## ASSOCIATION HEATHER STANCE SOUGHT

If any member can offer any suggestions for an MBA heather site please contact any member of the Committee (details on the website or your membership card)

### BEE SUITS/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 £82.50

[www.bbwear.co.uk/](http://www.bbwear.co.uk/)

### ANALYSIS OF BEES FOR DISEASE

Any member who wishes to have their bees checked under the microscope for adult bee diseases can now send or take them to MBA Secretary, Tony Harris. You can call Tony on 07884 496246 or e mail [tonyharris316@btinternet.com](mailto:tonyharris316@btinternet.com). The analysis and report will cost you £10.

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](mailto:tonyharris316@btinternet.com) or phone 07884 496246

**PLEASE REMEMBER TO PAY YOUR SUBS FOR 2011, NOW £10 ADULT, £5 OVER 65YRS AND 12-16YRS!**