

# The Auricle

Moray Beekeepers Association Newsletter  
Hot off the 'press'

Issue No: 3/10

May 2010

**WE ARE CURRENTLY LOOKING FOR SPONSORS FOR THIS NEWSLETTER!**

## M.B.A. APIARY NOW OPEN!

The grand opening of the Association Apiary in April was hit by cold winds and the occasional snow shower and needless to say it was too cold to disturb the bees as they were well tucked up in their hives. Despite the poor weather, about 2 dozen members turned out to see the finished apiary, along with hives of bees in situ and a freshly painted shed. Six colonies of bees (mainly over wintered nucs), donated by members, are now in place and the queens in each hive have been marked and clipped and are laying well. Fortnightly inspections will be taking place as the colonies build up and M.B.A. members who want to learn more about beekeeping are invited to come and observe – bring your own suit/gloves. (details of the Open Apiary sessions are on the web site or contact the Apiary Manager, Tony Harris)

Undeterred by the snow, the kettle was soon boiling (thanks to Kev and Sheila West) and as members enjoyed a cuppa and a cake, Tony gave a talk on the swarming process and ever the optimist he showed off his swarm collection equipment, ever present in his car during the summer months. (see page 2 for a detailed article on swarming and its control).

### RAFFLE WINNERS



Shareen Gauld receiving her prize, a bottle of Glenfiddich Special Reserve, from M.B.A. Vice Chairman, Graham Hill



2<sup>nd</sup> prize went to Barbara Westie

The following Sunday saw the first 'Honeybee Taster Session' at the apiary and 10 adults and 4 children attended to learn about our native bees including honey bees and how to entice them into the garden. Again, the weather was appalling, pouring with rain but just as Tony finished the talk about bees it stopped and the sun came out. Aply assisted by Allison Laws, Andye Watson and Ruth Burkhill, Tony then opened up a hive and all present were delighted to see the queen (well spotted Andye!), worker bees, eggs, larvae and sealed brood. A 'Question and Answer' session, and tea and cake rounded the afternoon off and the MBA members then marked and clipped the queens in all of the hives at the apiary.



Casper, almost 8 years old, was our most enthusiastic visitor at the 'taster session' and he was not put off by the dismal weather at the start of the meeting (hence the dull photo!). The clouds cleared, the rain stopped, and the sun came out to make Casper a very happy boy. Casper and his dad, Michael have since joined the Association and plan to come to our monthly meetings.

NEXT MEETING IS ON **SATURDAY** 15th APRIL AT PLUSCARDEN ABBEY, PLUSCARDEN, 2.30PM WHEN WEATHER PERMITTING WE WILL BE OPENING SOME HIVES AND CARRYING OUT GENERAL INSPECTIONS.

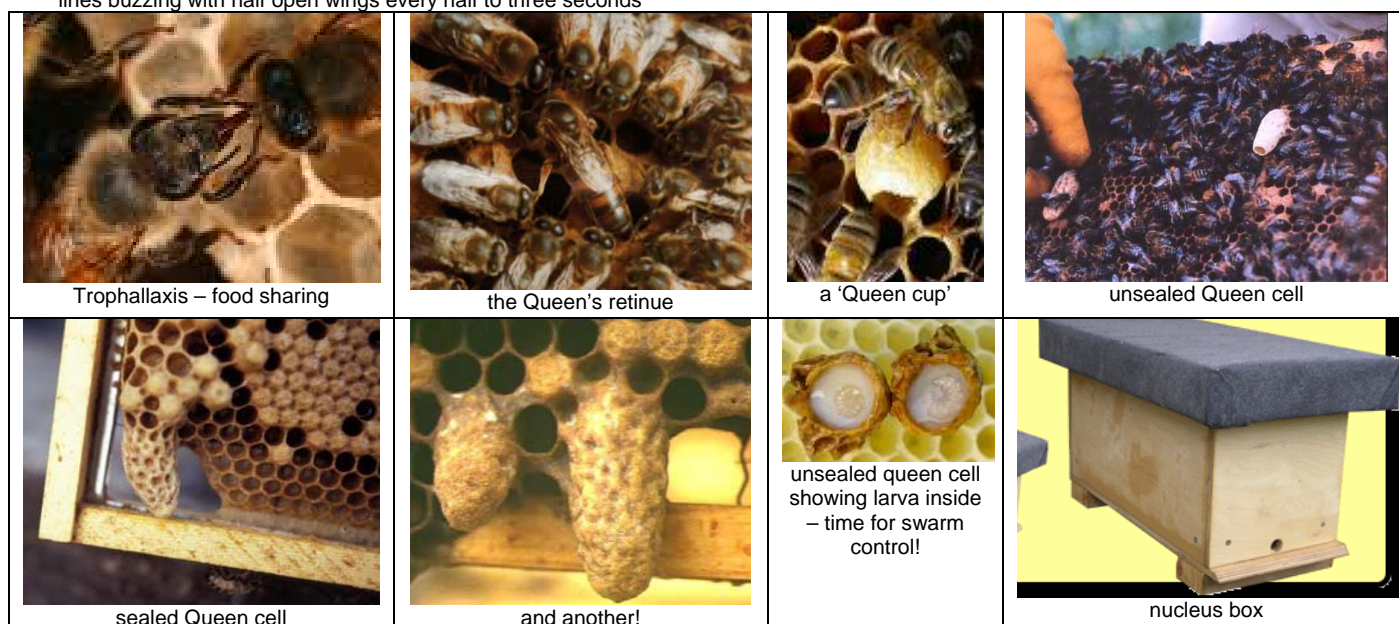
(Full details of all monthly meetings, Open Apiary Sessions and Courses are at [www.moraybeekeepers.co.uk/Program.htm](http://www.moraybeekeepers.co.uk/Program.htm))

# 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, also 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 would interrupt this process of food transfer and thus act 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 of reduced feeding of the queen by the workers. 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. Other signs inside the hive:

- The queen's retinue increases to up to 20 bees
- The DVAV (or vibration) dance occurs around the queen
- The queen lays in the queen cups
- The queen ceases to be fed and decreases in weight by about 30% to enable her to fly.
- The reduced feeding of the queen leads to reduced egg laying
- House bees will be reluctant to accept nectar loads from foragers.
- Foraging decreases and redundant foragers become scouts and start to look for a new nest
- The first queen cell is sealed
- The bees gorge themselves with honey ready for departure
- Emergence of the swarm is preceded by the 'whir' or 'buzz' dance where the bees run backwards and forwards across the combs in horizontal lines buzzing with half open wings every half to three seconds



## WHAT CAN BE DONE TO PREVENT/CONTROL SWARMING

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. As you examine your bees in April you can remove any honey/pollen clogged brood frames from the outside of the box, or old deformed brood frames (make sure there are no eggs in this comb), and replace them with drawn combs or frames of foundation. The key at this time is to give the queen room to lay, 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 filling 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 usually 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 after killing the oldest queen. (Check out Andrew Tassel's article on the Nucleus Method of Swarm Control on page 3)

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 brood inside cut them out. This might be enough to dissuade the bees to swarm (if helped by a change in the weather). It also gives you a week's grace to get equipment ready.



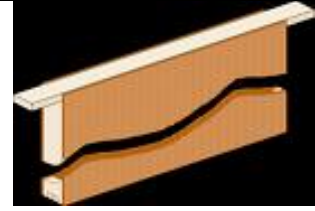
Unsealed Queen Cells with developing larva inside



Sealed Queen Cell



Queen cup



Dummy Board- is inert, made of wood and merely replaces a frame to maintain proper spacing within a hive.

Inspection a week later: If there are queen cells with well developed brood 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 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.

In the parent colony, without disturbing the marked frame with the queen cell, shake the bees off the remaining frames and destroy any queen cells. 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. Use a brush to remove bees from this frame when checking it so as not to disturb your chosen queen cell.

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.

**EDITOR'S NOTE: leaving the colony for 1 week after cutting out queen cells is no guarantee that the bees won't swarm in the meantime, unless you have a clipped queen. Read the article on swarming on page 2 in particular the last paragraph**

## WHY DO WE MARK & CLIP QUEENS

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.

Beekeepers clip the queens' wings as an aid in swarm control as it allows more time between inspections (see page 2)

Ian Craig now gives some good advice on marking and clipping queens.

'I do not mark and clip queens during the summer in which they were born because there is a danger that the bees will detect your odour or that of the paint and supersede your new queen. Whereas if the marking is done in April, before the drones are flying and fertile, the bees know that she cannot be replaced and there is little likelihood that she will be killed. As a further safeguard, I never handle a queen. When found, I use a 'press-on' type queen cage to first clip and then mark her. Only about a quarter of one pair of wings need be clipped. 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. I keep queens for no more than two full seasons, therefore I only use yellow or white marking paint, which are more easily seen in a populous colony.

### 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



'press on' queen cage

Once marked, I ease the pressure of the cage on the queen and keep her in the cage until the paint has dried. When looking for a queen, concentrate solely on that task. When found, clipped and marked, she should remain in the cage until you have carried out other tasks, so that you know her whereabouts.

**EDITOR'S NOTE: The correct type of marker, which can be purchased from equipment suppliers, should be used, as use of some marking material, eg. Amyl acetate can prove fatal. Also, when releasing the queen from the cage always place her onto a frame containing brood where the bees would expect to find her.**

## JOHN FALCONER, A NEW BEEKEEPER WITH AN AMBITIOUS PLAN

I have had an interest in honey bees for many years and a greater appetite for comb honey for longer. It has been a challenge for me for a long time to find a beekeeper that would, or even could, sell me comb honey. Last year the press coverage regarding the demise of the honey bee got me thinking that, maybe, I could help myself to get comb honey and help the honey bee population at the same time.



John, his WBC hive and his bees



A round section tray

Commonsense told me that if I was to have a hive of bees I needed a place to put the hive. Fortunately I had the ideal spot in the garden with no adjoining neighbours (well none that would complain anyway) and the spot had good shelter from the wind. Initially I searched the internet for help and advice to help me set up my mini-apiary. What became abundantly clear was that the answer to my need was to be a member of a local beekeeping association. With little effort I found the MBA website and made contact with Andrew Tassell by email. I am sure Andrew will remember that.

By invitation I went along to the first MBA outdoor meeting in 2009 and after witnessing the bees in their hives I decided that I should at least make an effort to become a beekeeper. After that meeting I met with Tony Harris who signed me up as a member.

It was then that the work started and I began to search for a hive hoping that eventually I would be fortunate enough to get some bees. Because the hive would be in my garden, I thought for customary reasons and also as a matter of interest to others, I wanted a WBC hive. Tony Harris came to the rescue and he sold me a complete WBC hive with all the parts that go with it.

The next part of the work was to construct a wooden frame for the hive to sit on and you can see from the picture how easily this was done and it has the added advantage that I do not need to bend down into the hive when doing an inspection. Traditionally all WBC hives have been white, so with that in mind I set about painting the whole hive a brilliant white and completed the work by adding roofing felt on the roof. When I had the WBC hive in place Tony got in touch with me to offer a swarm of bees (from the apiary of Andrew Tassell) which I gladly accepted.

It appears that my colony of bees has come through the winter pretty well and therefore, the next challenge for me is to produce some comb honey. I openly admit that I have been advised against this course of action many times as I am only an apprentice beekeeper but, nevertheless that is the challenge I have set myself. I am purchasing a frame that takes round comb honey sections (see photo above) in keeping with what Dr Richard Taylor recommends in his book, as the bees are reluctant evidently, to fill up the corners of the traditional square sections. Time will tell if I have taken the correct course, but I am sure Tony will keep you up-dated in the Auricle.

*Editors note: John has very ambitious plans to get his bees to produce 'section honey' in his first season. Watch how he gets on in future issues of the Auricle. If you would like to share any of your beekeeping stories, ideas, successes or even failures, please send your story to me via e mail or post - address on back page*

## THIS MONTH'S FORAGE

The month of May is when the bees begin foraging in earnest and given half decent weather with not a lot of rain a surplus of honey may well be waiting for you in your super at the end of the month.

If your bees happen to be within a couple of miles of Oilseed rape (OSR), they will find it and you can expect a bumper crop of OSR honey as the bees will forage on not much else.

But what else will the bees be foraging on in May? Top fruit (apples, pears, cherry, plum) should continue to flower and will provide a good source of nectar and pollen for bees. Sycamore will be in flower along with hawthorn, laurel, dandelion and raspberry. Have a look at the pollen loads the bees are taking into your hive on their back legs and it will give you an idea of what forage is available locally. Shown below are the pollen colours of the plants and trees mentioned.

 Oil Seed Rape


 Plum/Wild Cherry

 Dandelion

 Hawthorn

 Pear Prunus/Crab Apple

 Sycamore

 Laurel

 Raspberry

## 'BEE'GINNERS' CORNER

**QUESTION: This is my first season and my bees have survived the winter. What should be a priority for me now?**

You will need to check the brood box to make sure the **queen is laying** - look for eggs, larva and sealed brood. If you can find the queen mark her. If the brood box is not full of comb **add frames of foundation** to fill the box. When the bees are covering  $\frac{3}{4}$ 's of the brood frames, remove the roof, crown board, and place a queen excluder on top of the box and **add a super** containing foundation on top. Place the crown board on top of the super and then replace the roof. Make sure you are kitted up with **protective equipment** and **use smoke** at the entrance and on the top bars to control the bees - not too much, and **choose a warm sunny day** if you can to do this. You then need to keep up **7 day inspections** looking for any **queen cells with larva inside** otherwise your bees may swarm without you knowing it. Once found you need to carry out a **swarm control technique** (Andrew's article on page 3 contains good advice). If the bees draw the foundation out into comb in the super, and they then cover say  $\frac{2}{3}$ 's of the super, add another one, but place it below the first, on top of the queen excluder..

**VARROA** - You really need to monitor your hive for varroa but if you can't do anything else at this time here is a very simple and effective method of killing off some of the varroa in your hive. **DRONE BROOD REMOVAL** is a very simple way of fighting back against varroa, it doesn't require a high level of skill and is something you should be doing now up to the end of July!

How does it work? Well, varroa prefer to lay eggs in drone brood due to the extra days it takes for drones to emerge from the cell (they can make more babies) and beekeepers can take advantage of this. Simply **insert a shallow frame** of drawn comb or foundation in the **middle of the brood chamber**, and invariably, the bees will build drone comb on the underside of the frame. Once the queen lays in this comb the varroa will move in and once it is sealed, the sealed drone brood, along with the varroa mite inside the sealed cell, can be **cut away and disposed of** (our chickens love it!). The shallow frame can be **immediately replaced** in the brood box and the entire procedure repeated again and again. It is very **important not to let the drones emerge** because if this happens you will be making the situation worse rather than better!

Finally, **pay your subs**, and come to as many Moray Beekeeping meetings/Apiary sessions as you can so that you **will learn more** about your hobby. A well informed and knowledgeable beekeeper is a happy beekeeper!

**QUESTION: Can you please explain what is meant by the term 'double brood box'**

A double brood box is simply 2 deep boxes, one on top of another, the queen having free reign to lay anywhere in the 2 boxes, with the queen excluder on top of the second box and any supers (usually shallow boxes) going on top of this. It is a system of management used by beekeepers in warmer climates, e.g. south of England, who keep the yellow Italian bee but is also practiced by some in Scotland (Auricle contributor Ian Craig for one),

The Italian bee lays up a larger brood nest than our dark mongrel British bee. The yellow Italian bee isn't suited to the Scottish climate as they are slow to build up in spring, convert all their stores to brood regardless of the weather (so that if a cold spell comes along they sometimes don't have enough food for the brood), and they don't fly at low temperatures. They are very good tempered bees however and remain very calm on the comb, a characteristic our dark bee isn't really known for.

You also may hear the term 'brood and a half'. This system uses a deep box and then a shallow box for the brood nest. Some systems of management are benefited by use of double brood boxes but I always tell beginners that, generally, there is no need to use a double brood box in Scotland with the bees we have - they have enough room in one brood box.

**BEES ARE PRETTY SCARCE AT PRESENT AND WE HAVE NEW MEMBERS LOOKING FOR BEES AS WELL AS EXISTING MEMBERS WHO HAVE LOST THEIR BEES. WE WILL MAKE UP A LIST OF THOSE WANTING BEES WITH PRIORITY GOING TO PAID UP MEMBERS WHO SUPPORT M.B.A. ACTIVITIES, NEW MEMBERS WHO HAVE ATTENDED ONE OF OUR COURSES, AND MEMBERS WHO HAVE NO BEES AT ALL! CONTACT THE SECRETARY TO GO ON THE LIST AND BEAR IN MIND THAT YOU WILL PROBABLY HAVE TO PAY FOR ANY BEES YOU RECEIVE UNLESS IT IS A SWARM!**

### A WARM WELCOME TO THE FOLLOWING NEW MEMBERS

Michael & Casper Hawkins, Vicky Dawes, Michael Roy & Bernard Shoult

Baseball caps, T-shirts, sweat shirts and fleeces are available with the Moray Beekeepers logo embroidered on from:

**EMBROIDERY DESIGNS**, Easter Lochend, Balcroy, Nairn IV12 5NY  
Tel:01667 404635

E-mail: [user@embroiderydesign.dial.netmedia.co.uk](mailto:user@embroiderydesign.dial.netmedia.co.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 £78.63

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

The Association website is packed with lots of useful information on beekeeping and bees and has links to national associations, suppliers and other bee sites around the world. It is well worth a visit - the address is shown below.

[www.moraybeekeepers.co.uk](http://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](mailto:tonyharris316@btinternet.com)

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