# The Auricle

# Moray Beekeepers Association Newsletter

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# **IT'S ALL GO AT BIRNIE!**



Group members with their stocked mini nucs

Moray Beekeepers Association (MBA) Training apiary at Birnie has been a hub of activity this season with beekeepers visiting from all over Scotland and Europe (see June's Auricle for details of the Swedish visit).

MBA is in the limelight due to funding for the Bee Aware in Moray project and a group of volunteers have been as 'busy as the bees' themselves. Pictured above are the students who attended the Nucleus Creation Workshop in June (see page 4), hosted by MBA on behalf of the Scottish Beekeepers Association. A week earlier the Scottish Government Bee Inspectors team, headed by Steve Sunderland, ran a Honeybee Health Day at Moray College with the practical sessions at Birnie and delegates travelled from all over Scotland.

The MBA Training Team have also run 6 Introduction to Beekeeping courses at Birnie, (80 adult students) as well as Honeybee Conservation sessions for 14 groups of school children, varying in age from 4 to 15 years, and numbering about 200.

With the onset of the school holidays the team of Tony Harris, Addy Ritchie, Yvonne Stuart and Andy Watson are taking a rest for a few weeks, but courses will be starting again in August. Dates on page 6 of this Auricle.

# JULY IN THE APIARY

July is a month of bounty and given half decent weather, honeybees will be hard at work, foraging on white clover, bramble, lime, charlock, bell heather and rosebay willow herb. It is now that all your efforts in managing your colonies and preventing swarming will reap a harvest and the strongest colonies will fill one, two or maybe three supers with honey.



honeybee on clover

Your chosen swarm control technique should continue until mid July by which time the swarming season should be over and provided you have enough supers on the hive you can go on holiday for a week or two. If you previously left a sealed queen cell in a hive as part of your swarm control, you need to check that she has managed to mate and is laying well. If she has been slow to mate due to bad weather she could become a drone laying queen (DLQ), i.e. capable only of laying unfertilized eggs and she will need replacing. If you find more than one egg in each cell, the young queen has either just starting laying or there are laying workers (LWs) in the hive but how can you tell the difference? Well, with laying workers, you will find that the eggs have been laid on the cell walls as the worker's abdomen is too short to reach the bottom of the cell.



Multiple eggs from laying workers

Laying workers will develop if the queen has died or been lost, on a mating flight for example, and the colony is 'hopelessly queenless', i.e. the bees have no means of raising a replacement queen on their own. It usually takes about 4 weeks for the workers' ovaries to develop until they start laying the unfertilized eggs that will only produce drones



tidy compact brood nest of a drone laying queen

Other indications are that a DLQ will keep a tidy, compact brood area and lay single eggs in cells while LW's will have a haphazard laying pattern while laying multiple eggs in the same cell. Both will have raised cappings over worker cells and many miniature drones running around.

The recommended procedure for dealing with a DLQ is to re-queen (if you have a queen available) or to unite to a queenright colony after removing the old DLQ. It is virtually impossible, however, to re-queen a colony with LW's as the colony usually kills an introduced queen, and the bees from the LW's hive are just as likely kill the queen of any colony it is united with. The best thing to do is to shake the bees out in front of a large colony and let them sort themselves out, entering any hive that will let them in.

When adding foundation to an expanding brood nest during a honey flow, it should be put two positions in. It is a mistake to add it to the flanks as the bees will draw it out and quickly fill it with honey before the queen has time to lay in it and we want the honey upstairs in the super, don't we? Whilst you should super early in spring it is wrong to over super towards the end of the season as you will find that the bees will half fill one and then half fill the second, whereas if you leave just the one it should be filled and capped nicely.

You should continue to monitor for varroa and should be thinking about which treatment you will be using when the honey flow is over. Fit and check your floor inserts. Count the number of mites and divide by the number of days you have had the insert installed and this will give you an idea of whether you need to treat. (if in doubt seek advice) The first week in August is the time to take your bees to the heather, and if you prepare the hive right, and there is a couple of weeks of warm, sunny weather, you should earn a reward of at least a super of heather honey. Hives for the heather should be absolutely packed full with bees and you can supplement this by adding up to 2 frames of emerging brood from another disease free hive a couple of weeks before the move.

If your hives are in pairs, as long as there is a honey flow on you can move one to another part of the apiary, allowing the flying bees to safely enter the remaining hive going to the heather – this will give you a very large number of foraging bees.

Young queens, preferably of the current year's hatch, are also essential for heather going hives as they tend to continue laying longer, again meaning less space in the brood frame for the bees to store the precious honey – Remember, we want the honey in the supers!



heather moors

Other tips include moving frames of eggs and brood to the outside of the brood frame and frames of honey to the centre. As the bees usually like to store honey in the outside frames, leaving the centre frames for the queen to lay in, they usually move this honey to a super, and this should be done a few weeks before and then a couple of days before the move.

The day before the move, remove these supers and place a super of drawn comb, or thin unwired foundation for cut comb on top. Secure your hives with ratchet straps or the like, and move to the heather at dawn. It is easy to block the hive entrance with a strip of foam rubber and it is always a good idea to add a travelling screen on top to allow greater ventilation during the move. Hives can be brought home from the heather in the 1st or 2nd week in September and you then have to get your hands on that beautiful heather honey! (Editor's note: see next month's Auricle if you want to see how to extract vour honey)

### SCOTTISH BEEKEEPERS ASSOCIATION

AUTUMN CONVENTION Saturday 21<sup>st</sup> September 2013 8.45am to 5.10pm in Inverness College – UHI 3 Longman Road, Inverness, IV1 1SA

Mike Brown – Head of the National Bee Unit

Supporting Britain's Bees & Beekeepers Activities of the National Bee Unit

The NBU's Queen Rearing System

Dr Mario Pahl - University of Wuerzberg

Honeybee Biology Honeybee Cognition (learning, memory and navigation in a miniature brain)

Tickets £30 including coffee, lunch and tea (students half price)

TRADE STANDS BeeCraft, Bibba, SBA, Brunel information, Solway Bee Supplies, Scottish Govt Bee Inspectorate, Abelo Beekeeping Equipment

Bookings for Convention to Alan Riach Woodgate, 7 Newland Ave, Bathgate, EH48 1EE Tel. 01506 653839 Email: alan.riach@which.net

# JULY MEETING & DEMONSTRATION

OUR NEXT MEETING IS AT BIRNIE APIARY ON SUNDAY 28<sup>TH</sup> JULY, 1.00PM START.

WEATHER PERMITTING WE WILL BE CHECKING THE BEES AND SEEING IF THIS FINE WEATHER HAS RESULTED IN A DECENT HONEY HARVEST.

FRAMES, FOUNDATION AND JARS WILL BE ON SALE AT DISCOUNTED PRICES AND YOU CAN PAY YOUR 2013 SUBSCRIPTION, SO BRING CASH OR CHEQUE BOOK WITH YOU.

#### A RAFFLE WILL TAKE PLACE AND REFRESHMENTS WILL BE AVAILABLE AFTERWARDS!

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

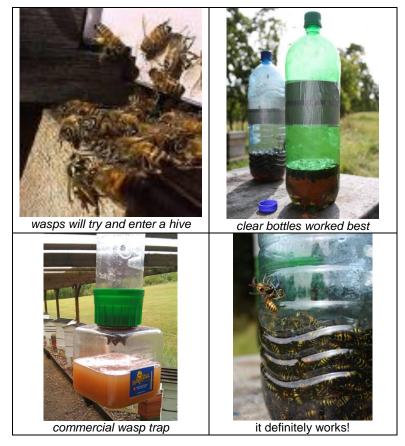
www.moraybeekeepers.co.uk

# WASP TRAPS

Wasps start to be real nuisance at this time of year, robbing hives of valuable honey as well as chomping through bees as they return from foraging flights. They just love anything sweet, i.e. honey and sugar syrup, and if your hive is left unprotected, wasps can quickly outnumber and over-run your bees, destroying the colony. There are however, a few things you can do to help your bees.

- 1. Put a reduced entrance block in place so the hive entrance is easier for the bees to guard.
- 2. Placing a wasp trap next to your hives will catch hundreds of wasps and surprisingly few bees.
- 3. Take care not to spill any honey, wax comb or sugar syrup near your hives or in your apiary as this will attract every wasp in the neighbourhood. Once they have started visiting the apiary, they will stay around until the frosts kill them off but by this time your bees may have been killed off as well.

You can buy wasp traps from suppliers or you can save a few pounds and make one yourself from a clear 2 litre plastic bottle, as shown in the photographs below. – it will work just as well.



Cut about 5 holes in the bottle, about 1/3 of the way up and above that, about 2/3 of the way up, wrap a couple of bands of duck tape. Pour in the magic mix, then screw the top back on and sit on the ground beside the hive or just park it on the roof. The small holes were originally supposed to be the diameter of a thick straw and round, but two quick cuts with a Stanley knife blade and folded back to expose a small triangular hole is equally effective. If it is windy you can secure the bottle by trapping between a couple of boulders or attaching it somehow to the side of the hive.

The idea is that the odour of the mix attracts the wasps in quickly, and when they wish to leave they fly up to the light above the dark bands of duck tape. They eventually fall down into the thick mix and drown.

The mix? Something fruity (fruit juice, jam, actual fruit) plus a small pile of sugar, plus more water and a good glug of vinegar. Then a couple of drops of washing-up liquid to hasten the drowning and make escape unlikely.

If you are new to beekeeping or haven't experienced wasps robbing a beehive you will be shocked at the numbers involved. Last summer I caught hundreds of wasps in the bottle over just a few days!

# SBA NUCLEUS WORKSHOP MORAY

**Tony Harris** 

Agreeing to run a Nucleus Creation Workshop for the SBA seemed a good idea in the depths of winter but the late spring we have all endured meant is was more challenging than usual and has added a few grey hairs to the few I still have left!

The obvious point to be made is that colonies just haven't built up as quickly as usual so much so that the other two workshops, planned on the same date, at Newbattle and Edinburgh have been postponed until the end of June.

But up here in the Scottish Riviera of Moray, we are blessed with a much kinder climate and although we also had a late spring, with some stimulative feeding of 1:1 sugar syrup I was able to help three of my over-wintered double brood box colonies, in Smith hives, build up to an acceptable strength of at least 8 frames of brood a fortnight before the course date.

Eleven members had signed up for the course at our newly re-furbished apiary near Elgin and so on a glorious sunny morning on Saturday 8<sup>th</sup> June I welcomed them, some having travelled from Argyll, Aberdeenshire and the remainder from Moray.

SBA Education Convener, Alan Riach, had provided excellent handouts for the course along with a presentation on preparing nuclei and I added some further information on queen rearing and grafting larvae which I felt was essential for the course.

My queen rearing system is a straight copy of the system advocated by David Wilkinson and Mike Brown, head of the National Bee Unit at Sand Hutton in York and involves rearing queens in a queen right colony (published in American Bee Journal 2002). There are slight variations to this but the essence of the system is to use a strong double brood box colony as your rearer colony and to re-arrange the colony as follows.

Eight to 24 hours before the first grafting, the rearer is arranged so most of the sealed brood is above a queen excluder and the queen and most of the unsealed brood are below it. At the same time the graft frame containing 24 empty plastic queen cups (JZs BZs) is added to the top box to allow the bees to polish the cell cups and add a small rim of beeswax to each. A comb of pollen is put in the top box close to the graft bar, and a comb of young larvae, preferably also with some pollen stores, is also placed adjacent to the graft bar. This young brood attracts the nurse bees to the graft area. if there is not a nectar flow on at the time, one is



Workshop tutor, Tony Harris, holds up the successful graft frame to students

stimulated by feeding one to two litres of 60% sugar syrup (1 kg white granulated sugar per 650 ml water) per week in a frame feeder.

So after doing this at 5pm on 29 May, the next day, at 2pm I selected a frame of young larvae, 8 - 24 hrs old, from my preferred breeder colony and grafted 24 of them into the cell cups (easier said than done – I needed strong magnifying glasses!) and placed this into the rearer colony next to the frame of young brood. It is important to brush the bees off the frame, no shaking as you can dislodge larvae, and to shelter the larvae from direct sun and wind to prevent them drying out. I used a Chinese grafting tool picking up each very small larva from the outer convex curve of its 'c' shape and to enable better access each side of a row of cell walls can be pressed aside with your hive tool.

Three days after grafting and the day of truth dawned as it was time to see how many larvae had been accepted by the bees. This is always a worrying time as you just do not know if you have 'rolled' or damaged a larva as you have placed it in the cell cup. With some trepidation I opened up the rearer and removed the grafting frame and PHEW was I relieved to find that 17 out of the 24 grafts had been accepted. The bees had extended the walls of these cells and by carefully turning the frame upside down and brushing the bees off I could see each accepted larva was floating in a bed of roval jelly.

Ten days after grafting, the ripe queen cells should be within a couple of days of emerging, they are removed from the rearer colony and used where needed. We were able to split another strong double brood box colony into 5 nuclei each containing at least 1 frame of pollen, 1 frame of stores and at least 2 frames of brood. The queen is found and placed into another nuc. The nucs are placed around the colony to be split in a circle, 2 metres away and when the operation is complete, the original hive is removed from the apiary. The flying bees distribute themselves amongst the nucs and all that is required is to check the next day to see if any nucs are considerably weaker that any other. If they are, the weak colony exchanges places with the strong one.

Students on the course were also able to make up an Apidea mini mating nuc and insert a ripe queen cell. This was a very delicate affair as after inserting a cupful of wet bees into the Apidea, it wasn't easy securing the queen cell in place so that it didn't fall to the floor. We managed to do eventually by twisting this and manipulating a number of paper clips around each queen cell. The Apideas remain sealed and are placed in a dark room for 3 or 4 days before being sited and released in the apiary in the late evening. The bees in the Apideas really do 'roar' but once the queen emerges they quieten down and start building the mini comb. We placed an 8oz cut comb container of fondant in the feed compartment of the mini nuc as these are easy to remove and replenish with a new container when necessary.

Two days after placing the Apideas in the dark portacabin several of us attended the apiary and the first thing I noticed was that the bees were no longer roaring. A good sign? Had the queens emerged? We were then treated to the sound of a virgin queen quacking in one of the mini nucs and this was soon answered by several more until we had a veritable orchestra of queens piping and quacking. It was a special time and a real treat for some of the newer beekeepers present who had never heard this before.

According to Yates Study notes, Young queens still in their cells 'quack' before the exit of a swarm while 'piping' is produced by virgins after emergence and is thought to be a challenge to fight. It is unclear how the queens make the sounds but it is thought to be by the indirect flight muscles when both wings are either furled or unfurled.

I placed the Apideas outside the next day and now we have to wait and see if the queens can successfully mate, make it back to the Apideas, and commence laying. Queen rearing and Nuc making can be challenging but is enjoyable and very rewarding when you can introduce one of your own carefully selected and reared queens into a full colony. If you haven't tried it yet I urge you to have a go! It really will improve your beekeeping knowledge and experience and it is always beneficial to have a few queens available.

### INTRODUCING A QUEEN TO A COLONY

As with most things beekeeping there are various methods described for introducing queens, from simply running a new queen into the hive, to caging her for a few days inside the hive, half drowning the queen in water or even weirder still, dunking the queen in royal jelly and then placing her in the hive. But when the time comes for you to introduce a queen, how are **you** going to do it, and how should you prepare the hive to ensure the bees accept her?

We can do no better than to quote from Ted Hooper's, 'Guide to Bees and Honey' in listing the general conditions introducing queens. for 'When introducing a new queen to a colony it must be done in such a way that both the colony and the gueen are in the right condition to accept each other. The colony must be queenless, should not be in an excited condition from any cause, and should come into contact with the new queen fairly slowly. The queen should be in an undisturbed condition, should be hungry enough to solicit food from any worker who comes into contact with her, and if possible, her odour, which will be that of a stranger, should be masked or her direct contact with the bees delayed until her scent has changed to something nearer their own.'

The time of year is also important as queen introduction is usually easier during late August and September when the main flow is over, and in April and May, only where there is no oilseed rape to producing foraging excitement. If you were to introduce queens into large colonies any time between, when swarming, the excitement of foraging and bad weather confinement can make the bees 'edgy', many queens will be lost.

So what I am going to describe is considered to be one of the safest ways to introduce a queen and that is by introducing the queen first to a nucleus and then introducing the whole nucleus to the full colony. This is particularly relevant if you have received an expensive bought queen in the post and you want to minimise any risk of getting her killed and this is what you do.

Make up a 3 frame nucleus, ideally of young house bees, from the colony to be re-queened and place next to it but facing the other way, so it is ready to receive the new queen. If you want to make sure the nuc is hopelessly queenless, i.e. the bees are unable to raise a new queen, you should make up the nuc and seven days later go into it and remove any queen cells the bees have made. It is a good idea to feed sugar syrup, 2lb of sugar to 1 pint of water, as there will be few flying bees in the nuc.



Queen in travelling cage with attendants

When a queen arrives through the post she will be in a travelling cage along with half a dozen or so workers to look after her and a small amount of food in the form of candy or fondant. She will likely be in a poor condition physically and not in lay so a slow introduction to the nuc is called for. Take the travelling cage to the bathroom (with all doors, windows and plug holes closed) or to the car, again with doors and windows closed (and ventilation slots below windscreen covered up) and release the attendant workers.



Home made cages Being very careful, introduce the queen into a Butler cage, one end being plugged permanently and then cover the other end with newspaper and an elastic band. If she manages to fly off at this stage she will fly towards the bathroom or car window but won't be able to escape and you will easily be able to catch her. Be careful if handling a queen and only hold her by the wings or thorax not her abdomen but better still, try and coax her into the cage without touching her.



Cage is fixed onto the top of a brood frame

Attach the Butler cage or you can keep the gueen in the cage she arrived in, near to the top of the frame of brood with a nail so that it hangs down over the brood, close the hive and top the feeder up with syrup. The mesh in the cage allows the bees to have contact with the queen, to feed her but they cannot harm her. The bees normally release her after 24 hours or so but if you want to be extra careful you can plug both ends of the cage and supervise her release yourself. Then leave the nuc alone for 2 weeks by which time the queen should be laying. You can then unite the nuc with the parent hive, after removing the old queen, via the newspaper method, or by simply placing the 3 frame nuc back in the hive in the same place the frames were removed from a couple of weeks Introduce before. the nuc immediately after the old gueen is removed and it is also a good idea to spray both the colony and the nucleus with sugar water to stop the bees running about. A guick examination of the colony from which the queen has been removed is also advisable in case there are signs that the bees are starting to think of swarming and if any queen cells are present you must destroy them. Queen introduction using the nucleus method is a very safe method at any time although, as any beekeeper knows, there are no guarantees!!



Good result - Queen laying well!



## SUMMER & AUTUMN PROGRAMME 2013

Sunday 28th July, Saturday 17<sup>th</sup> August Sunday 25th August. Sunday 1<sup>st</sup> September Saturday 21<sup>st</sup> September Sunday 29<sup>th</sup> September, Sat 12<sup>th</sup> October Saturday 19<sup>th</sup> October Saturday 26<sup>th</sup> October

Monthly Meeting, Summer Inspections, Birnie Apiary, 1.00pm MBA Honeybee Health & Disease course, Birnie, 10am-4pm Trip to the Heather, venue to be confirmed MBA Honeybee Health & Disease course, Birnie, 10am-4pm, SBA Autumn Convention, Inverness Talk & Demonstration, 'Extracting Honey' Birnie Apiary, 1.00pm MBA Honey Show (venue to be confirmed) MBA Honey Extraction & Marketing Course, Birnie, 10am - 4pm, MBA Honey Extraction & Marketing Course, Birnie, 10am - 4pm,

### M.B.A. SHOP SALES AND RULES

MBA members can benefit from discounted prices on beekeeping equipment and also save on postage by buying from the MBA shop. The prices are shown below along with the shop rules.

Deep wired foundation, pack of 10	£ 8.00
Shallow wired foundation, pack of 10	£ 5.00
DN4 Unassembled Hoffman frames, pack of 10	£10.00
SN4 Unassembled Hoffman frames, pack of 10,	£10.00
1lb Honey jars and lids, pack of 54	£20.00

You must have paid your subs for the current year and produce your membership card at the time of purchase! (if you haven't received a membership card or have lost it please contact Joy Malcolm).

Equipment will only be on sale at advertised Apiary Sessions or Monthly meetings (see website or membership card).

Pre-ordering to Andy Watson by phone, Tel 07786247327 is recommended, as your journey will be wasted if your item is not in stock.

A maximum purchase of 20 frames and 40 sheets of foundation only will be allowed

Tony Harris, Tel. 07884 496246 has sourced a stock of 8oz hexagonal jars inc lids at £15 per pack of 36 so give him a call if you want any.

### **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) www.bbwear.co.uk/

BB1 Full suit £84.00

A VERY WARM WELCOME TO ALL OUR NEW MEMBERS

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

PLEASE REMEMBER TO PAY YOUR SUBS FOR 2013, NOW £12 ADULT £7 OVER 65YRS AND 12-16YRS!