



The magazine of the York & District
Beekeepers Association

March 2009

Number 29

The Combings

www.ydbka.org.uk

Association News

Alan Johnston – who has organised the Yorkshire Foundation Offer again this year tells me that fifteen of you took up the offer, spending £800. This is a similar take up to last year.

At our regular meeting at Murton Wednesday 21 January, three long standing members received BBKA Long Service Awards. They were: - Bill Bell (who was unable to attend), Ken Barran and Jim Elliot. Each has been keeping bees for 50 years or more.

For those of you considering taking the BBKA Certificate in Beekeeping Husbandry, Yorkshire BKA is putting on a one day course on Saturday 16 May at the Yorkshire Showground at Harrogate. The course will start at 0900 and finish at 1630. Hot and cold drinks will be provided, however you must bring your own packed lunch if required.

David Aston sent me chapter and verse on how the day will be run, including these notes to give you some idea of how the course is being organised.

For the practical sessions the students will be divided into 3 groups, each group having 5 or 6 persons. There will be 2 hives of bees per group. Where possible the students should be given hands on experience. The practical topics covered will supplement the classroom sessions. The groups of students will rotate, having a practical session with each tutor during the course of the day.

1. It will not be possible to cover the whole syllabus in detail during the day, and therefore each tutor should prioritise the topics to be covered in the given time.
2. The tutors should make every effort to stick to the timetable.
3. Six hives of bees will be provided on site, separated into three groups, with two in each group. Any other equipment required by a tutor

should be brought by the tutor. If there are any problems please contact one of the organising committee – B Cadmore, D Shannon, I Flatman, J Whitaker

The cost is £5.00 and is limited to 24 places. The tutors will be David Aston, Gerry Collins and Ivor Flatman. The down side to this course is that it falls on the day of our auction! To take the Husbandry Certificate, you must hold your Basic Certificate, and have kept bees for at least three years. The Assessment takes place at the Candidates own apiary and is purely practical in nature.

If you go to the BBKA web site the Prospectus and Syllabus are there to download. The fee for this Assessment is £35.00.

If you are not able to go to the web site, then give me a ring and I will put one in the post for you.

At our meeting on Wednesday 21 January, Selwyn Wilkins told us that the government was giving money to CSL. This is on their website. It is good news.

£4.3 million bee health funding increase announced

An extra £4.3 million to safeguard and undertake more research into the health of bees was announced by Environment Secretary Hilary Benn today. Mr Benn said that nearly £2.3 million over the next two years would support the work of the National Bee Unit in its efforts to help England's beekeepers deal with the problems facing their bee colonies.

This will include identifying all those who keep bees and providing expert advice to them on tackling pests and diseases and applying good husbandry. In addition, Defra will put an extra £400,000 towards bee health research every year for the next five years. This extra funding – a total of £2 million – forms part of a

comprehensive bee health strategy, which is under development.

June Meredith has sent me more details of our Honey Show held last November. It always falls too late in November to include all the details in your December "Combings".

The number of exhibits was 55 – the lowest ever – it was remarked upon that two major exhibitors did not enter anything this year.

The winner this year was Jenny Smith, with Jim Elliot in second place and Alan Johnston in third.

Jenny also won the class "A block of beeswax over 1lb".

My jar of naturally set honey not only won 1st in its class, but also "Best honey in show" and "Best entry in show". No special preparation went into it. I have a cupboard where I put honey after bottling ready for sale. I had a look through my latest batch and picked on that one.

Report on Committee Meeting held on 14 January 2009 sent to me by Tom Robinson

The committee had a full agenda for the first meeting in 2009.

The Association has bought a laptop, projector and microscope and these will be used at Association meetings.

The Treasurer gave a report on the accounts the financial state remains positive.

The Secretary had received from BBKA 50-year certificates for Bill Bell, Ken Barran and Jim Elliott.

A letter from CSL asks for a volunteer Disease Liaison Contact from the association, the contact is to provide preliminary disease assessments.

Bookings are still being taken for the Annual Dinner on Friday 20 and these should be sent to the secretary ASAP.

The numbers for the visit to the National Bee Unit on Wed 20 May are limited and names should reach the secretary by or on the 18th March at our next meeting in order that a draw is made if necessary.

York + DBKA is now included in The Yorkshire Museum of Farming publications and bee keeping events are planned.

We will continue to use the Bee Pavilion and support the Yorkshire Museum of Farming and the committee will meet to consider any changes and decorations need to be done.

We also need volunteers to man the Pavilion on Sundays and also volunteers for apiary visits in the summer 2009.

The Chairman attended another meeting of the Yorkshire Museum of Farming committee and insurance and room rates have been agreed. The Museum has asked what improvements we would like and these will be ongoing.

We will arrange to contact previous beginner's class members to encourage them to attend events.

A visit to Chain Bridge Honey Farm is to be arranged and provisionally this will be on Saturday 6 June. Please let any members of the committee know if you are interested.

There is a further message from Tom Robinson regarding this trip:

A visit to Chain Bridge Honey Farm near Berwick has been arranged with Willy Robson on Saturday 6th June as part of the summer Programme. In order to arrange a bus to take our party, we require to know how many members are interested in visiting this interesting venue.

Please let the Secretary know if you intend to go, either at the half yearly meeting on 8th April or by telephoning Tom Robinson on 01 904 626 170.

Chairman David Gray has sent me a copy of a letter he received from Regional Bee Inspector Ivor Flatman. He is asking our Association to put forward names to train as Disease Liaison Contacts.

Below is a copy of Ivor's letter – there are a further two pages enlarging on what you see below. If you would like to become a Disease Liaison Contact or if you wish or to get more information then contact Chairman David Gray or Secretary Tom Robinson.

RE: North East Region - Disease Liaison Contacts (DLC's)

I write to you hoping that you will be able to recommend someone from your Beekeeping Association who would be a suitable candidate for training as a Disease Liaison Contact (DLC).

The DLC scheme has largely fallen by the wayside in our area in recent years, perhaps partly due to a lack of enthusiasm on behalf of some organizations concerned that the scheme may be an attempt to use beekeepers to do the work of Bee Inspectors, enabling cuts to be made to the Inspection Services.

This is not the intention at all, rather I see the scheme as an opportunity to "train the trainers" and create a network of experienced beekeepers who are in many cases the first port of call for the less experienced in their local area.

Ideally I see DLC's as having some position within the local Beekeeping Association; teaching beginners classes, running apiary demonstrations or someone that beekeepers may wish to turn to first for advice and guidance before calling out the Bee Inspector. Such a person may spot something wrong in a colony that the less experienced may not - I believe early detection is the key to stemming the rise of notifiable disease in the North East. Some Associations may already have 'District Advisors' or a 'Disease Advisor' who would appreciate this training.

I intend to organise a two-day training session in July 2009 for DLC's at the National Bee Unit, Sand Hutton, please see the additional information attached."

For the last two years David Aston and I have given assistance to those of you wishing to take the BBKA's Basic Assessment. We will do the same again this year.

You need to have kept bees for a year to qualify. What we did in the past was to sit with a candidate and go through the syllabus item by item followed by opening a colony of bees (weather permitting) taking best part of two hours about it. It is not a training course, nor is it

compulsory. It is more of a polishing up exercise.

You can get a copy of the syllabus off BBKA's web site, or failing that give me ring and I will put one in the post. The cost this year to take this assessment is £15.00. Let me know 01 757 638 388 or David on 01 757 638 758 by Sunday 7 June.

I have been told that amount of borage being grown this year will be the same as last year, as there is still plenty of oil in stock. Things should be back to normal next year.

Editor's Musings

When you go to out apiaries, tell your nearest and dearest where you are going and what time you anticipate returning home. If you have a mobile 'phone, have it on your person, fully charged and switched on ready for use in an emergency. Accidents by definition cannot be predicted.

Still on out apiaries, make a note of grid references of each of your sites, for they are often remote and possibly difficult to give any one directions to get there.

Also take your nearest and dearest to your sites occasionally so they are familiar with there locations.

Factsheet No 15—Nosema Disease

Alan Johnston sent me this CSL fact sheet. It is appropriate for this time of the year with our bees just coming out of winter.

Nosema is a common insect disease that is host specific. It is a unicellular parasite of the class of microsporidian with two described species for honeybees, *Nosema apis* and *Nosema ceranae*.

Nosema develops and multiplies in the cells of the epithelium in the mid-gut of adult bees and is mainly spread by transfer of spores during Trophallaxis or when young bees clean up faecal material on contaminated combs. Young queens that ingest Nosema spores normally are superseded within a month. **Nosema apis** reduces the lifespan of infected bees, increases winter mortality and causes poor Spring build-up, there are no specific symptoms but the

disease is linked with dysentery (visible on brood comb and around the hive entrance), disjointed wings and crawling bees outside the hive.

Colonies that survive through to summer recover as the bees defecate away from the hive and infected bees die without transmitting their infection. Spores of *Nosema apis* withstand temperature extremes and dehydration, these spores persist on contaminated comb and often trigger a more severe infection the following winter.

Colonies that develop high levels of infection defecate on the combs in October, November and December then die.

Nosema ceranae has jumped species from its Asiatic host *Apis cerana* and does not display the symptoms associated with *N. apis* as infected field bees die away from the hive; the continuous reduction in the number of bees causes less and less fodder to be brought in to the point where the colony collapses.

N. ceranae has been found to be more virulent than *N. apis* and although numbers of spores build up more slowly they go on to reach higher levels and resulted in higher mortality in cage experiments

N. ceranae can also be spread when foragers add nectar from their infected crops to the pollen they collect; this contaminated pollen is fed direct to larvae and prevents the removal of infection during the summer that occurs with *N.*

apis and can lead to colonies dying out during the summer.

Diagnosis of *Nosema* can be carried out using a microscope with X 400 magnification. Collect about 20 bees and mash the abdomens in a pestle and mortar with a few drops of water. Deliver a single drop of the resulting soup onto a microscope slide and put on a cover. Under the microscope look for little pale rice shaped grains that are *Nosema* spores. There is little difference to be seen between *N. apis* and *N. ceranae* spores, if you need to know send a sample to the NBU for analysis.

Treatment Fumidil B is an antibiotic for use against *Nosema* and is successful at temporarily reducing this parasite. N.B. Both species of *Nosema* spores persist in the hive.

Autumn feed Each colony should receive 166mg of Fumagillin. A small pack of Fumidil B represents 0.5gm of Fumagillin (25gm of soluble powder) and will treat 3 colonies.

1. Heat 7 pints of water per colony to 38deg C (DO NOT EXCEED 49)
2. Add one third of the small pack for each colony and dissolve.
3. While water is still hot add 6.35kg (14lbs) of sugar per colony and stir to make clear syrup.
4. Feed the syrup to the bees in the usual way.

Spring treatment for small colonies Dissolve a small (25gm) pack of Fumidil B in 12 litres of

CLARO BEES for all your beekeeping supplies

Large stock and very keen prices on all items.

Cedar National hive parts, frames (all in first and second quality), clothing, gloves, foundation, jars, spacers ,tools, smokers, medicines, straps etc. etc. all normally in stock and at below list prices.

Advice on the selection and use of beekeeping equipment always available.

Open every Saturday morning 0900 hrs to 1230 hrs April to October inclusive.

Beside the Harrogate Arms, past the RHS Harlow Carr Gardens, Crag Lane, Harrogate, HG3 1QA, or by arrangement.

A map showing our location is available at www.hrbka.org.uk

strong sugar syrup and syringe 50ml to 100ml of warm syrup over the top bars and bee ways near the cluster to encourage the bees to clear it up.

Repeat 3 to 5 times at two-day intervals then feed remaining syrup in a contact feeder.

A feed supplement such as Vita feed gold used in a similar manner will be beneficial, (follow the instructions on the pack).

Caution: Use protective equipment when handling Fumidil B.

Reducing infection levels A Bailey frame change or Shook Swarm into a clean (scorched) hive will reduce spore counts. Supers and brood frames can be fumigated with 80%, acetic acid. Stack supers as tightly sealed as possible with an acetic acid pad over every two supers, protect metal parts with Vaseline and leave for a week to 10 days. Air frames well before use. Prepared Fumidil B is viable for only 2 weeks.

First find the Queen ...

This is the opening gambit that you read when doing an artificial swarm or replacing an undesirable queen. If you have a full size colony then this can be quite a problem – particularly if they are tetchy. There are various techniques for doing this, but these two are new to me. I have reservations about the first method. Being dead and frozen, will there be any pheromones left to attract another queen to her, but the second method is well worth a try. One of you have a go and let me know how you get on.

Finding your Queen

First method:

When you have to get rid of an unsatisfactory queen, don't put your foot on her but put her in a matchbox and place her in the freezer. Whenever you want to find a queen in a colony, take this old dead queen out of the box and pin her to the top bar of centre frame. Close the hive. Wait 10 minutes and then open up quietly. The queen you want to find will be there, busily trying to get rid of her (dead) opponent.

Second method:

For this method you need two queen-right hives. To find the queen in hive 1 take a frame of emerging brood from hive 2 and shake off the bees. Exchange it for a similar frame from hive 1. Close the hives and wait 20 minutes. The queen will be on that frame (because it smells different to her).

This snippet came from Tom Robinson via BEES scheme and Ludlow BKA newsletter (originally published in Shropshire BKA newsletter).

End of Season Report

I have just received the "End of Season Report" from Val Francis - BBKA Examination Secretary.

Here are a few points that may be of interest to you.

Examination Dates—2009

Module Examinations - 21 March 2009

(Applications in by 10th February 2009)

Advanced Certificate in Beekeeping

Husbandry - 20 June 2009. *(Applications in by 28 February 2009)*

General Certificate in Beekeeping Husbandry

in middle of beekeeping season and **Microscopy** usually in October - dates arranged with the Examinations Board Secretary *(Applications in by 28th February 2009)*

Basic and Junior Certificate date by arrangement with the County Examinations Secretary *(Applications 1 month before assessment)*

Fee Changes in 2009

Examination Assessment Fee	
Junior	£ 2
Basic	£15
Modules (each)	£18
General Certificate	£35
Advanced Certificate	£40
Show Judge	£30
Microscopy	£30
Correspondence Courses (each)	£45

There have been a number of requests for a food hygiene certificate specifically focussed on honey processing and the Board is investigating how this might be best achieved.

BBKA Membership for Examinations & Assessments

Just a reminder that membership is not required for the Basic Assessment but it is for any follow on examinations or assessments. For a non member an additional fee equivalent to the individual membership fee is required (currently £33). Candidates with a partner already a member are best advised to become a partner member.

For those of you thinking of taking the Basic assessment – the pass rate last year was 96%. Just because it is high do not become complacent. The pass rate for the General Certificate in Beekeeping Husbandry last year was 71%.

EDITOR'S NOTE

If hygiene certificates are introduced, it can only be a good thing—probably what most of us do now as a matter of course.

Those of you that started keeping bees last year will now be approaching your first swarming season. Alan Johnston sent me this BBKA Advisory leaflet which you should find helpful. There are many variations of this system- they all start by saying "first find your queen". Marking queens as in 3(a) is to be recommended.

Swarm Control for the Beginner

This leaflet explains a dependable method of Swarm Control, which has been defined as "those actions which are taken to avoid the issue of a swarm when queen cells are in process of development for the purpose of swarming".

1. There is no magic method which will surely and certainly prevent the issue of a swarm without the employment of some modicum of work and skill. Nevertheless, it should be appreciated that swarming will be largely prevented by the use of good beekeeping

practice, viz:

- a. the use of a strain of bee with a low incidence of swarming;
- b. using young and vigorous queens, ie queens which have headed full colonies for not more than two seasons;
- c. providing ample room within the hive, for honey storage and breeding;
- d. ventilation.

2. Given all these things and taking an average of years, one may still anticipate some 20-30% of colonies may make swarming preparations. It is to find and control these that the following procedure is recommended:

- a. early in the season queens should be marked and preferably wing dipped, (Marking makes queens easier to find when it is essential to do so, and when they are usually hard to locate, ie swarming time;
- b. clipping halves the number of inspections necessary. Neither of these operations are difficult and will readily be demonstrated by a local expert);
- c. the first super with comb (not foundation) should be given when brood is on seven combs, A second super should be added ten to 14 days later. If frames fitted with foundation must be given add the super when the brood appears on 9 combs.
- d. routine inspections (for queen cells) should begin at the start of the swarming season. This is usually May and June, but the season may be two to four weeks later in some districts, particularly in some northern districts and perhaps earlier in the south, if April weather is very favourable. Weekly, or nine day inspections are necessary with an unclipped queen; fourteen day inspections with a clipped one. Beginners should not confuse cell cups and queen cells. The former are queen cells in embryo form and, it should be appreciated, are normally present during the summer months. Although necessary precursors to the swarming act they are not an indication of future intent. They should, however, be inspected, One quickly learns to recognise a queen cup which has been put to use.

3. When queen cells, are found during a routine inspection:

- a. if sealed queen cells are observed it is

possible a swarm has already departed. In this event the queen, if dipped, may have accompanied the swarm, fallen to the ground, and been lost. The swarm will then have returned to the hive to await the emergence of a virgin. Search should be made for the old queen (here, more than at any other time, we will appreciate the utility of queen marking). If she is present proceed as in (b) below. Should, however, the colony be queenless, remove all sealed queen cells and those with large larvae in them, leaving those with eggs and small larvae. Seven days later proceed as from 5 (iii) below.

a. All queen cells unsealed:

(i) Find the queen and remove her, together with the bees, on the comb on which she is found, to a nucleus box or make-shift hive. Add a second comb of bees, sealed brood and stores, A third comb should contain some stores and an area of empty cells for egg laying, Shake in bees from one other comb. Close the combs to normal spacing against one side of the box and use a dummy or division board to close off the rest of the hive space, Provide a small entrance and move the hive away about six to ten feet. Do not feed the nucleus until it has been established three days, after which gentle feeding will help to keep the queen laying. Add empty combs as the nucleus develops;

(ii) the parent colony should have the combs pushed together to one side of the brood box, and the empty space filled with drawn out comb, if available; or use dummy or division board as above, It is usually bad practice to use frames fitted with foundation for this purpose the bees do little work on them and tend to make holes in the wax, Examine each comb carefully. Destroy those queen cells which are near sealing and those which contain large larvae, leaving all others. Reassemble the hive placing the excluder and supers as they were before.

(iii) seven or eight, better eight, days later. Carefully examine the brood combs and remove all queen cells but one. This should be well placed on the face of the comb, of good size and "well worked" i.e.

lots of "little dimples' or alternatively comb hexagon, On no account leave a small smooth cell Shake the bees from all the combs, except that with the selected cell, on to a hiving board running from the ground to the alighting board or entrance to the hive, Clearing the comb will ensure that no queen cell is overlooked, for they are often located in odd corners, may be misshapen, and therefore not readily observed when bees are on the comb. Examine' the comb bearing the selected cell carefully, moving clusters of bees by touching lightly with the fingers or using a little smoke. Be sure not to invert this comb nor jar it. Re-assemble the hive.

(iv) This completes the operation. No further attempts at swarming are likely to be made during the season. Further manipulations will be concerned with the provision of storage room and routine matters.

4. If increase is not desired, and if it is desired to maximise the honey crop, the nucleus with the old queen may, on some future occasion (preferably at the start of the main nectar flow), be united back to the parent colony. Two alternative methods of doing this are given **either**

- a. immediately bees stop flying in the evening remove the roof of the parent hive and any covering over the feed hole. Place a single sheet of newspaper over this and a piece of queen excluder (both of such a size as to fully cover the feed hole). With a pin make three small holes through the paper. Place an empty brood box on top and transfer the combs of bees from the nucleus to this. Remove the old queen (if not seen search for her can be made next day). Cover up and replace the roof. The bees will amalgamate through the newspaper and, in 24 days, the combs will be empty and can be removed. Sometimes the bees will build queen cells in this upper box. It is desirable therefore that inspection should be made for this possibility 8 or 9 days after uniting. The inspection also allows any drones, which may find themselves confined, to leave the box, **or**

- b. when the young queen is laying, gradually proceed to move the nucleus closer to the main colony. In the evenings, after flying days (not rainy ones where the bees are kept combined to the hive) move the nucleus about two feet towards the parent hive. When eventually the hives are adjacent turn the entrance gradually (over 3 or 4 days) until both hives face the same direction.

To combine the two ...

In the middle of a good flying day, when nectar is coming freely into the hive, remove the supers. Find and remove the old queen from the nucleus, place a hiving board from the ground to the entrance of the main colony. Remove the division board, dummy, or empty combs from the hive. Now shake the bees from the two or three combs of the parent colony (making sure not shake the comb with the queen) onto the board. At once shake the bees from the nucleus on top of these, placing the bee free combs in the parent hive. Reassemble the hive placing the excluder and supers as they were before. Shake the remaining bees from the nucleus hive and remove it. This latter method is quick, simple and effective.

Summing Up

All the above may appear to require some considerable skill and time. In practice these methods will be found much easier to perform than describe and to read. In essence the method is:-

When the queen cells are seen (i) remove the queen and (ii) ensure no sealed queen cells are present (iii) reassemble the hive (iv) seven/eight days later remove all queen cells but one (v) leave the hive alone until the new queen is laying (vi) unite'.

Take the brood away – leave it to its own devices or split and make NUC's if you wish to increase your

colony numbers.

We have been reading about wasps surviving through the winter. I find this hard to believe as they do not store food for the winter as bees do – if it is warm enough for them to fly, there is nothing for them to forage on - or do they hibernate- which they are not programmed to do. So I was interested to get this e.mail from Dick Gardener in mid December. And like Dick, I have a lot of admiration for wasps.

Wasp Happening?

Nobody seems to like wasps. Least of all beekeepers. Yes, they can be an awful nuisance and, yes, they pack a nasty punch. But surely they are also much to be admired. They are so persistent. So opportunistic. And they build the most wonderful nests in the most unpromising places. It must be hard work, being a wasp.

Yesterday, Friday 12 December, I found a live queen wasp on the floor inside our back door. What on earth was she doing there?

Well, it's quite a long story, to which I don't know the answer . . .

Months ago, possibly in late July - I'm not too sure after all this time - we noticed wasps above our back door sneaking up under the gutter board, indicating a nest somewhere in the roof/ceiling space above and behind. As their front door was rather public we felt we should "do something" about it. There was no way of getting to the actual nest without breaking through the roof and/or several ceilings. So I just sprayed the few gaps up under the board as well as I could and hoped for the best. We noticed no more wasps and thought no more about them - until, that is, early November. The back door lobby and its adjoining cloakroom form a lean-to against the main house (two floors plus a large attic reached by a stair/ladder in a first-floor lobby which has a small window above the said

EDITOR'S NOTE

Looking for a queen in a populace colony is not always easy. If you have been through your colony a couple of times without finding your queen then you can do what is in effect a "shook swarm". You brush (brushing is best at this time as shaking can harm queens sealed in cells) all your bees including the queen into a new brood box, queen excluder over and your box of brood and queen cells over that. Within a few hours all the young nurse bees will have gone

ground-floor lean-to).

Some time in early November we needed something from the attic. We found this window covered in live wasps trying to get out, mostly queens. Since then, we have had to deal with possibly up to 500 of them, all coming out inside the house.

Being an old house it is clear they could find their way up through holes in the internal fabric, leading most of them upwards to this window and a few downwards into the back door lobby (and cloakroom). If you've followed me this far (it's tricky to describe the building, it's so complicated, not having been built all neat and tidy) you'll likely be asking yourself several questions.

What were the wasps doing between my initial, rather weak, spray (in July?) and early November when we just happened to spot them trying to get out of the first floor window? They surely couldn't have survived all that time and produced a crop of queens without flying normally. But where was their front door? We hadn't noticed a thing. And why, later, when the queens needed to disperse and find hidey-holes for the winter, did they come out into the house? OK, it was (relatively) warmer but they had to find their way up through dark, interconnected roof and floor spaces, thick with debris and the dust of ages. And wasn't it rather late in the year, anyway, for all this to be happening at all?

The only certain aspect of this puzzle is that it must have a very simple and natural explanation. There always is. But what is it? Can anyone work it out?

As I was saying, you've got to admire those wasps . . .

A message from Dick on 5 February - we haven't seen any more wasps since I last emailed you. They finally ran or conked out in very early December.

I received a letter from Chris Clayton who has been in touch with his MP about the neonicotinoid imidiclopid. His MP sent it in turn to Jeff Rooker who has the grand title of "Minister for Sustainable Farming and Food and Animal Welfare". Mr Rooker's answer was a lot of waffle and did not answer Mr Clayton's question.

Sarah Scriven sent me this email. I have heard of **Fibonacci Numbers**, so to get more information I went on to the internet – and there was masses of it – some of it very complicated and way beyond me.

The Bee Ancestry Code

Fibonacci numbers also appear in the description of the reproduction of a population of idealised bees, according to the following rules:

If an egg is laid by an unmated female, it hatches a male. If, however, an egg was fertilized by a male, it hatches a female. Thus, a male bee will always have one parent, and a female bee will have two. If one traces the ancestry of any male bee (1 bee), he has 1 female parent (1 bee). This female had 2 parents, a male and a female (2 bees). The female had two parents, a male and a female, and the male had one female (3 bees). Those two females each had two parents, and the male had one (5 bees). This sequence of numbers of parents is the Fibonacci sequence. (1, 1, 2, 3, 5).

This is an idealisation that does not describe bee ancestries. In reality, some ancestors of a particular bee will always be sisters or brothers, thus breaking the lineage of distinct parents.

Fibonacci, or more correctly, Leonardo da Pisa, was born in Pisa in 1175 AD. The Fibonacci sequence is a series of whole numbers in which each number is the sum of the two preceding numbers. Beginning with 0 and 1, the sequence of Fibonacci numbers would be 0, 1, 1, 2, 3, 5, 8, 13, 21, 34 and so on.

The Fibonacci sequence was well known in [ancient India](#), where it was applied to the metrical sciences ([prosody](#)), long before it was known in Europe. Developments have been attributed to [Pingala](#) (200 BC), [Virahanka](#) (6th century AD), [Gopāla](#) (c.1135 AD), and [Hemachandra](#) (c.1150 AD).

Past Events

Wednesday 14 January

A Committee meeting was held at Fulford Methodist Hall.

Wednesday 21 January

There was a good turnout for our first meeting of the year. After Long Service Awards had been

presented to Ken Barran, Bill Bell and Jim Elliot, Chairman David Gray told us that the Association had spent £1000 on a compound microscope with a facility to allow what is being observed on a slide to be projected onto a screen using a laptop and a projector. Our Microscopist Nigel Davies made a slide and showed us nosema spores on the screen.

We also had Selwyn Wilkins and Ben Jones from CSL who had brought with them a compound microscope and a dissecting microscope (both very nice pieces of equipment). One of the things we were able to look at where AFB spores.

It was pointed out to the meeting that Fumidol B is still available in the UK. Fumidol B is an anti biotic. Users should take care to ensure that it does not get into supers and be extracted.

Saturday 7 February

The Committee met in the Bee pavilion at Murton and discussed how to improve the pavilion and our relations with the Museum.

Forthcoming Events

Saturday 14 March

Yorkshire BKA Spring Conference. Buckles Inn, Tadcaster Road, Bilbrough, York.YO23 3PW, Speaker: Ivor Davis. Lecture - Alternatives to Pyrethroids for control of varroa and dealing with resistant mites.

Wednesday 18 March

David Aston is to be our speaker this evening - his topic -"Preparing colonies for honey production"

Saturday 4 April

Lincoln District BKA Auction — The first of this years auctions will be held at the County Showground, Scampton – a few miles north of Lincoln on the A15. From experience this is a well run auction with many lots. In the past there have been colonies of bees for sale. Auction to commence at 1200. More details from Alan Campion on 01 522 522 679.

Wednesday 8 April

Half Yearly General Meeting. Names for a visit to CSL at Sand Hutton to be chosen. (I understand that there is a limit to the numbers that can be shown round at any one time. If you are interested, then be at this meeting).

Friday 17th, Saturday 18 & Sunday 19 April

BBKA Spring Convention Stoneleigh. Saturday 18th is public day. Looking at the advert in Beecraft, I would say there are more speakers and workshops than previous years – too many to enumerate here. Enquiries to Tim Lovett on 01 372469 086.

Thursday 23 - Sunday 26 April

Great Yorkshire Showground - The North of England Horticultural Society's "Spring Flower Show".

Saturday 25 April

Yorkshire BKA Bishop Burton Conference. Bishop Burton College, Beverley.

Sunday 26 April

Beverley BKA — Annual Auction at Woodmansey Village Hall. Viewing from 11.00 and sale starts at noon. All items for the auction must be notified to the Secretary before the sale and any colonies being offered for sale must be inspected by the Bees Inspector prior to being moved to the site. Refreshments available all day together with equipment sales from East Riding Bee Supplies. Honey jars always in stock

Tuesday 5 May

The first of this year's Beginners Classes will be held this evening and will run for eight lessons. If you know any one interested, point them in Sue Hesp's direction.

Saturday 16 May

This is the day for York BKA's Annual Auction. A flyer with all the details is enclosed with your "Combings"

Saturday 16 May **Yorkshire Showground, Harrogate**

Yorkshire BKA are holding a one day course at a cost of £5.00 for those of you contemplating taking your Husbandry Assessment. Details at the beginning of "Combings". Those wishing to register please contact Yorkshire Treasurer Mr. John Whitaker without delay on 01937-834688 or email johnmartinwhitaker@hotmail.com

Wednesday 20 May

We are visiting CSL at Sand Hutton this evening. Be at Sand Hutton for 19.00.

Saturday 6 June

A visit to Chain Bridge Honey farm near Berwick has been arranged with Willy Robson on Saturday 6th June as part of the summer Programme. In order to arrange a bus to take our party, we require to know how many members are interested in visiting this interesting venue. Please let the secretary know if you intend to go, either at the half yearly meeting on 8th April or by telephoning Tom Robinson.

Sunday 7 June. Hardcastle Crags. 0930.

The National Trust is having another "Balsam Bash". The idea being to rid the area of the Himalayan Water Balsam that we as beekeepers get a good crop of honey from.

Thursday 11 & Friday 12 June

Countryside Days (schools day for 8-11 year olds) Great Yorkshire Show Ground Harrogate.

Saturday 13 June

Yorkshire BKA Field Day. Your host this year is Leeds BKA at their apiary at Temple Newsam. More details in June's "Combings"

Wednesday 24 & Thursday 25 June

Lincolnshire Show at the Lincolnshire Showground on the A15 just north of Lincoln.

Saturday 11 July (0900 'till 1600. Wragby)

Thorne's Open Day. Free entry. Workshops commence 1100.

Tuesday 14 - Thursday 16 July

Great Yorkshire Show. Great Yorkshire Showground, Harrogate

Wednesday 22 July

Driffield Show at the Kellythorpe Showground to the south of Driffield.

Wednesday 22 - Sunday 26 July

Royal Horticultural Society's Tatton Park Flower Show.

Saturday 1 August

Tockwith Show.

Saturday 29 - Monday 31 August

(Bank Holiday Weekend)
Cawood Craft Fair

Tuesday 15 - Sunday 20 September

Apimondia in Montpellier, France.

Friday 18 - Sunday 20 September

North of England Horticultural Society's Autumn Flower Show at the Yorkshire Showground.

Thursday 29 - Saturday 31 October

The National Honey Show will be held again at St George's College, Weybridge, Surrey.

Wednesday 19 November

Our Annual Honey Show.

Finally ...

Having a maritime background, this Christmas cracker joke made me titter.

Q How do you know when the tide has gone out?

A It gives a wave.