



Blagdon, Clevedon and District Branch
of Avon Beekeepers Association, Charity No. 271717

Branch Website: www.northsomersetbeekeepers.org

Issue 57 February 2013

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Editorial: This year we have a great three day BBKA Convention to look forward to in April and later in the Autumn the International Apimondia is to be held in Ukraine. If you have not been to either events please do consider them. Of course, I would urge you to book up to go to the Convention and especially for the lectures as Ivor arranges them-so I am biased! There are international as well as national speakers coming and workshops on all aspects of beekeeping....our own Tom Salter and Ivor will be leading some of these. We have been to several Apimondia around the world and love to hear the very up-to-date research and work done throughout the world. We particularly enjoy the trips and tours arranged before and after the events. We have made many friends at these occasions which is wonderful as we may not be able to speak the same language but we all speak bees!

My best wishes for a very good 2013. See you soon

At our Module 8 Study Group recently, the students discussed the theory about the 'Royal Line' in the hive that Professor Keith Delaplane (University of Georgia USA) explained to us at our birthday Lecture in September. I asked him if he would write a piece about it for the Newsletter and he kindly wrote the following article for us. Thank you very, very much Keith for your prompt response and your time.

Letter from Prof. Keith Delaplane “The gist of what the authors did was to genotype worker brood and determine the number of patrilines in the colony (no. of drones in the queen's spermatheca). They then removed the queens to stimulate queen cell construction then genotyped the resulting queen pupae. One would predict that the number of patrilines would be the same between the two groups, but it wasn't. Some patrilines were over-represented in the queens and very rare in the workers. Other papers have shown absence of nepotism in queen rearing in the honey bee; in other words, nurses do not preferentially seek out and nurse only their own supersisters. Thus, it seems that these rare "royal" patrilines are simply preferred by nurse bees. This is interesting in its own right, but it leaves unaddressed the theory and mechanism for the opposite side of the question - the under-representation of royals in the worker brood. Are these rare royals eaten and eliminated until, if and when the colony needs to rear a new queen? Moreover, the authors showed that incidence of "rare royalty" increases in colonies as polyandry increases (males represented in the queen's spermatheca). This supports that the over-riding benefit of polyandry is the fact that it captures rare alleles. For reasons I speculated about last summer, natural selection has made beneficial alleles (like hygienic behaviour) rare because they are so potent. How well would a colony survive that was 100% hygienic all the time? They'd go crazy and abort all their brood. Wonderful how evolution is an exercise in fine-tuning competing benefits!

Even though this is evidence that workers express choice in rearing queens, it does not answer whether those queens are "better." Do worker-selected queens (vs. beekeeper-selected) head colonies that are more fit? We still don't know. But it does open an interesting hypothesis with potential practical benefit to beekeepers.”

The paper referred to is: DOI 10.1007/s00114-005-0025-6

Rare royal families in honeybees, *Apis mellifera* by Robin Moritz

Branch Christmas Meal, 2012 Philip Clemente

The Branch Christmas Meal was held at the Clevedon Golf Club, on Saturday 8. December. We had 32 attend and the evening was a great success. The food and company was excellent.

A collection was made for a tip for the three waitresses, and this came to £33 (£11 each), reinforcing the approval of the service we received. Thank you to all who attended and made it a good evening.

Notes from the Committee

Helen Fordham BCD Sec.

Membership stands at 173 members. There are no new members. We have chased those yet to renew. I must emphasise that members who have not renewed by the end of January have to **pay an additional £5** to rejoin the BBKA, do not receive the **BBKA magazine** and **lose the protection** offered by the BDI scheme for 40 days minimum while their BBKA membership is processed. We would rather you renewed late than not renew at all. You can renew by cheque, cash or bank transfer. The account details are on the club website and so are the membership forms.

Introducing the new Education Coordinator

Rob Francis

It's a privilege to take on this role from Ivor. I've lived down in Somerset for the last four years having kept bees up in Derbyshire for thirty years before that.

I'm aiming to continue acting as a catalyst to encourage the passing on of good practice in caring for bees. If you would like a course on some aspect of beekeeping then just let me know. There are many courses running locally and further afield – I'll try and keep you informed about these and can help put you in the direction of courses that might interest you.

I also have responsibility for an impressive library of books on beekeeping and it would be good to extend its use to more members. If you have any ideas about how we might do this then let me know.

Finally I'm also interested in engaging local schools in beekeeping either through giving talks to groups, either in or out of school time. I'd be interested to receive your thoughts about this.

I can be contacted on email: rob-francis@virgin.net
or phone: 01275 462914.

Chair's Letter

Well what can I say as I look out on hives covered with a 5-inch-snow-stack? Only that I hope the colonies are coping. Let's hope the spring will be a favourable one for them.

We've had our first Committee meeting and, for those of you who don't visit our website regularly, we now have a central site for a new teaching apiary. Have a look at the photos there and in this Newsletter and perhaps that will encourage you to sign up for a bit of 'gardening'!



Following the international code for marking Queens - 2013 is red

Members' Corner

Congratulations to **David Welham** who has passed his Module 6 BBKA Assessment. Also to **Bob Kirkwood** and **Gerry Scott Wilson** who passed the Module 1.

Neil Seymour, Avon BKA Education Secretary reminds us that the deadline for March module Applications is 10th Feb so please send the forms to him ASAP for him to get them to the BBKA in time.

Neil Seymour 07921 256120

FORTHCOMING MEETINGS 2013

Sat 9 Feb. 2.pm

BRANCH HONEY SHOW

Open judging by Tom Salter

Tickenham Village Hall *Bring something for shared tea*

Sat 2 Mar. 2.pm **Long hives/Warry hives talk by**

Jo Taylor & Kaye Crowe

Churchill Memorial Hall Bring something for shared tea

Sat 6 April. 2.pm **Poly hives & Long hives talk by**

Stephen Brain at The Limes.

Fri. 12 April. /Sat. 13 April /Sun. 14 April

BBKA Spring Convention

Harper Adams University, Shropshire.

Ffi: please contact John Banks 01275 855685

Ja.banks1@btinternet.com or the website

www.northsomersetbeekeepers.org



In the apiary.....

The hives at Langford were treated with oxalic acid and top insulated at the end of last month. I have also put some fondant on top of the feed holes of the hives so they do not have far to go for food in the current cold weather.

The exciting news is that we have reached an agreement with Solarsense UK Ltd (for more information about them visit www.solarsense-uk.com) to use a section of their site at Brockley Lane as a branch apiary. (See photos above) This site has the advantages of being central to the branch area, having a tarmac car park adjacent to the apiary, and toilet facilities. At the moment it is little more than a mown area in the corner of a field, but hopefully by the time you read this we will have put down some bases for hive stands. I am optimistic that by April it will be up and running as the main branch apiary. I will be reliant on help from fellow members to achieve this and will be organising working parties at various weekends to carry out the tasks needed. I will email details of these as they arise and also put information on the website.

I am hoping to introduce some different types of hive into the branch apiary so that new beekeepers (and experienced ones for that matter) can get a feel for working different hives, and make a more informed choice when it comes to getting their own. As a first step I have obtained a 14 x 12 polystyrene hive at a discounted price from Paynes Bee Farms. It will be interesting to see how this compares with the cedar hives.

David Capon (Apiary Manager) djcapon@gmail.com 07551994848

Bristol Invitation

Jane Moseley, BBKA Operations Manager is giving a talk

on the 13th February at Filton Folk Centre entitled

"What has the BBKA done for us?"

All Avon members are welcome, talk starts at 7:30pm, please contact Sue Jones, 07813 306882 Bristol Branch

Feeding Bees in Winter

Ivor Davis NDB

After the mild and wet Autumn and Winter, many colonies will have consumed their winter stores and will be on the verge of starvation. Whilst it sounds counter intuitive, warm winters are bad for bees and encourage them to continue producing brood and consuming stores, whereas a cold winter will slow egg laying considerably and eventually the queen will stop laying eggs and the core temperature of the colony will reduce from 33 Celsius to about 20 Celsius. The lower temperature can be maintained with far less consumption of stores.

If a colony receives a liquid sugar solution the first action is to consume the solution to raise energy levels. The next action is to store the solution as 'honey' for later use. Invariably, this will require the bees to process the solution by reducing the water content and inverting the sugar so that it can remain liquid at high concentrations. A concentrated sugar/ water solution made with sugar from the supermarket will be about 60% sugar and 40% water. If the bees wish to store this they will have to reduce the water content to less than 20% which requires a lot of work. It is hard and difficult to do this when the ambient temperature is low and the humidity is high (typical winter conditions).

Even Ambrosia syrup and similar products prepared for feeding bees require some processing by the bees for them to be able to store it. Ambrosia is about 72% sugar and 28% water. Reduction to less than 20% water is much easier but still requires hard work. So it is better not to feed liquid sugar solutions in winter.

The better way is to use candy. When bees are fed candy they will use what they need to keep alive but will not store it – it doesn't need storing as it will not ferment! Candy can be made by boiling a water and sugar solution and stirring it whilst it cools. It can be bought quite cheaply from bakers (as bakers' fondant) it costs about £15 for 12.5 Kg. Bakers' fondant contains glycerine but does not seem to have any adverse effect on the bees. It can also be bought as a product prepared for bee colonies as Ambrosia bee paste (and other varieties). This has the added advantage that it is partially inverted and seems more acceptable to colonies.

In all cases the candy should be enclosed in a polythene bag that is cut and slightly opened on one side. The bag is then placed on top of the brood frames with the opening facing downwards. The crown board then placed on top (probably with an eke under it to make space for the candy). The bag can then be left until all the candy has been consumed or until Spring comes along and there is plenty of forage for the bees to collect.