

The time has now come where, *with your help*, we can involve more and more beekeepers, training them to conduct similar tests as those carried out by SHCG then to breed queens and build new bee colonies which in time will make Swindon & District an area of hygienic bees. The area will be continuously increased.

This will only be the start as we intend involving more and more beekeepers over wider areas year on year.

This project is the only one like it in the UK, probably in the world, as SHCG are the only people known to have been able to selectively breed this bee and the achievement potential has been recognised all over the world.

I enclose a report from Canada by Tom HenHeffer.

After reading that article I am sure you will wish to assist and support this venture by your generous sponsorship and be part of the "Save the Honeybee" campaign.

I would be pleased to come and talk with you if it will help?



Uncapped bee larva ready to be expelled from the hive.

June 2010 **THE FUTURE**

Having achieved major success we are now confident that we are able to selectively breed bees which mostly are able to fend for themselves against the Varroa Mite without man's chemical interventions.

Swarms not collected and hived will once again survive in the wild to kick-start the revival of British Feral Honeybees, essential for humans and for the survival of wildlife in remote regions where beekeepers do not keep bees.

Next Phase (1)

As all this development and breeding has taken place in our apiary within Stanton Park, near Swindon, we are conscious that only a limited area of bees has the benefit of receiving genes from our drones (males) when mating in flight with any passing virgin queen.

In order to expand this area we have plans to equip beekeepers around Swindon with Special Nucleus Hives (SNH) containing one of our queens with a few thousand bees, plus a powerful magnifying lens and a dissecting microscope to aid the studying of Varroa Mites. Besides encouraging local beekeepers to undertake, and maintain, studying varroa for signs of bee-hygienic behaviour all drones bred in these hives will be increasing the 'footprint' of their genes to cover Swindon.

Phase 2,

When the SNH becomes too strong the beekeeper will be allowed to keep the bees and frames in a hive they own, to still produce drones, but will return our SNH for re-stocking, together with the lens and microscope for placement with new beekeepers outside of Swindon, increasing the footprint further every time.

During following seasons our plans are to continue this very important program over ever wider areas.

This essential conservation project is unique in Britain.

Financing target

We are seeking sponsorship donations to purchase the equipment. It is estimated that the cost of one set -- Hive, Frames, Foundation, Magnifying Lens and Microscope will be around £350.

Our target is to obtain urgently, at least twenty such sets, Many more if we can raise enough cash.

Any donation, however small, should be made payable to:
S.H.C.G. c/o Ron Hoskins, 10 Larksfeld,
Swindon, Wilts, SN3 5AD.

ron@honeybee1.org.uk 01793 535 364

Hygienic Behaviour **Success (2010)**

By the...

**THE SWINDON
HONEYBEE
CONSERVATION
GROUP (SHCG)**

BASED IN STANTON PARK

Stanton Fitzwarren



SAVE THE HONEYBEE ADOPT A HIVE SPONSORSHIP SCHEME

Can you, your Company or your Organisation afford £350 to help "SAVE THE HONEYBEE"?

Your money will buy one full set of equipment, i.e. a Beehive, a Dissecting Microscope, a Powerful Hand Lens and all the other bits and pieces to 'loan' to a local bee keeper for the extension of our work; *together with a "Swindon Queen" and bees donated by the*

Swindon Honeybee Conservation Group.

(Please read accompanying papers and the last page of this leaflet to fully understand the serious need for this unique Swindon Project).

We have purchased some equipment with monies already received but need much more to make this scheme effective. Your name or company name (*you choose the wording*) will be engraved on a Plaque attached to the hive. You will receive an invoice acknowledging your sponsorship of this scheme. You will also be credited on a list of Sponsors at our Stanton Park Apiary which is open to the public and visited by many. The Hive Plaque may look something like this but with your specified details ...



Your cheque should be made payable to:
Swindon Honeybee Conservation Group
And sent to: **Ron Hoskins**
10 Larksfield
Swindon.
Wilts.
SN3 5AD
☎ 01793 525 364 Mb 07737 400 515
ron@honeybee1.org.uk

You may of course sponsor more than a single set?
Don't forget to add how you wish the Plaque to read?

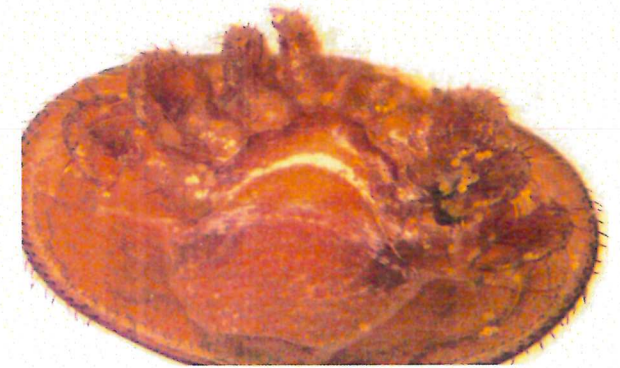
SHCG 005

In 2001, my colleagues and I made the decision to stop the use of chemicals to control the Varroa mite. This decision came from the knowledge that most chemicals being used at that time, and still, were the major cause of queen failure due to their adverse effect on the viability of drone semen. Queens instrumentally inseminated by me were being superseded within a few weeks of introduction. At the time we had around eighty colonies between us which very quickly dwindled to nearly half that number despite the dusting with 'bee-friendly' icing sugar to control mite numbers. (The mites have sticky pad feet that become clogged with the icing sugar causing them to drop). It became obvious to us the surviving colonies appeared able to 'deal' with varroa and we needed to know how. A new apiary of some thirty colonies was set up in 2004. All hives have wire mesh floors with deep under-trays. Hives and trays are numbered for record purposes. Mites were carefully collected from the trays on a daily basis on site, therefore free of hive debris and undamaged by us, placed into numbered mini-pots then examined at home under a dissecting microscope. In just two years about 50,000 mites were examined for signs of hygienic behaviour by the bees. Many thousands of them were been found damaged, typically with carapace damaged or legs removed.



Mite with carapace torn.

The Varroa mite is less than the size of a pin-head. They breed within the cell of a larval bee. They exit with the bee after pupation and attach to an adult bee. We have bred from bees where the adults have developed the hygienic ability to groom mites from each other.



Legs Removed

Tests have proved that the grooming hygienic behaviour is genetic. Several years of selective breeding has led to whole colonies of hygienic bees.

Then in 2007 a new discovery was made. One colony was discovered where the worker bees were able to detect that varroa were breeding within a capped cell on the larval bee so they uncapped that cell, and many more similarly afflicted, removing and destroying the larvae (complete with baby mites), as they were never going to be of use within the colony.

This removal causes a major set-back in the mite breeding cycle and dramatically reduces the potential build-up of mite population.

By breeding queens from that one colony we now have seventeen colonies doing the same thing.

The adult female is capable of producing about nine generations; her daughters have the same potential. Therefore by the simple removal of baby mites, the bees they have prevented a mite build up of thousands. They now needed no further help from man.