



## Annual Report – National Bee Unit North East Region December 2014

### The 2014 Season – An Overview

What a difference 12 months can make! The 2013 season came to a close with colonies well prepared for winter with ample stores of both honey and pollen. Colonies generally fared well in the exceptionally mild winter, maintaining high populations and allowing an early start to brood rearing. Admittedly with so many mouths to feed there was a need for some supplementary feeding, particularly of overwintered nucs, but overall winter losses were the lowest for many a year. Spring came very early and the abundant supply of fresh pollen available in most parts of the region saw colonies build up very rapidly and able to take advantage of a good start to the spring nectar flow.

Each season brings with it particular challenges and this year such a rapid expansion caused many colonies to start early preparations for swarming, particularly where the beekeeper was not ready with additional brood boxes and supers to give space to accommodate the colony growth. A less settled period of weather in May, with the odd fine day interspersed with cooler conditions and some rain, was not conducive to successful queen rearing or mating of virgin queens in those colonies that had previously swarmed and there were many reports of queenless colonies or drone laying queens resulting. Such experience proves the advantage of maintaining the colony integrity through good management in the early part of the season, or where queen cells are raised, instigating a method of swarm control so that the old queen is retained and can be re-united if replacement is unsuccessful.

May also saw the onset of reports of colonies affected by symptoms associated with Chronic Bee Paralysis Virus (CBPV). This viral disease of adult honey bees may be widespread but often without showing any effect. However when symptoms (such as crawling and/or trembling bees, sometimes with shiny, hairless or bloated abdomens) become apparent then the disease can spread quickly through the apiary and result in rapid depopulation of colonies affected. In severe cases masses of dead bees may be found on the floor or on the ground at the front of the hive and sometimes the colony may not survive. It is thought that the spread of the virus within the colony is exacerbated by overcrowding and confinement in periods of poor weather though cases were being reported right through the summer period. For further information on this and other viruses please see the recently revised NBU leaflet 'Common Pests, Diseases and Disorders of the Adult Honey Bee', available as a pdf download at [www.nationalbeeunit.com](http://www.nationalbeeunit.com).



After an early 'June' gap almost ideal weather conditions, warm but with some occasional rain, saw a fairly continuous nectar flow through the summer period – in fact in some parts of the region the 'complaint' was of too much honey and not enough supers! Several beekeepers in the region with many years' experience have said that overall 2014 has been the best they can remember.

However, there is no room for complacency! After a year or two where Varroa seemed to be having a much lower impact on colony health, our Inspectors noticed an increase in problems such as deformed wings associated with high Varroa levels in some colonies during the summer period. As time progressed and increasing numbers of mites competed for the decreasing available brood these problems became more severe and even larvae within unsealed brood cells became parasitized, the symptoms resembling European foul Brood and prompting several anxious calls. In a year where the bees have done well and queens have been able to lay over an extended period there will also have been a greater opportunity for Varroa to breed. The very short break in brood rearing last winter – in more sheltered areas or in colonies of a more prolific strain of bee, possibly no break at all – could also have resulted in lower efficacy of winter oxalic acid treatments. Bearing in mind that in an average colony with brood present the Varroa mite population will approximately double every 4 weeks, these factors combined would explain the high Varroa levels seen by late summer. Treatment regimes need to be adapted according to colony conditions determined by regular monitoring and will not be the same from year to year. Monitoring should be continued if possible during the winter period and further treatment using an authorised veterinary medicine carried out if the natural mite drop indicates a continuing problem. Please see the NBU leaflet 'Managing Varroa' (revised 2013) available on BeeBase at [www.nationalbeeunit.com](http://www.nationalbeeunit.com) for full details on monitoring techniques and the appropriate authorised treatments available.

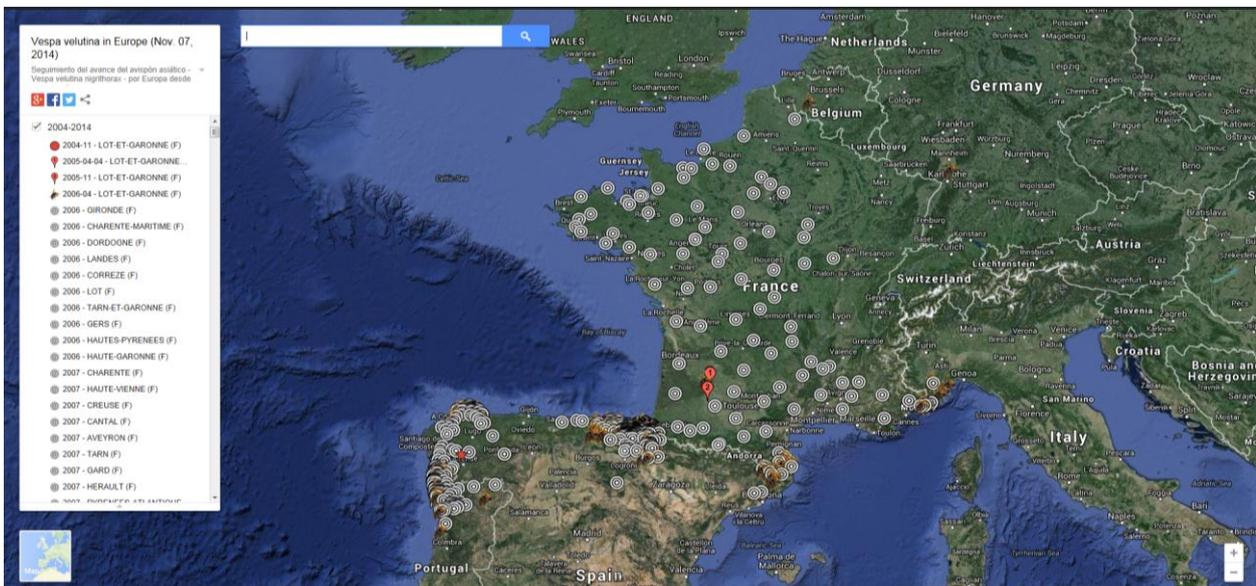
2013 was generally a good heather year but according to several reports 2014 was even better, though the continuing summer flow may have resulted in the honey being a little less 'pure' from moors within reach of other nectar sources. The tail end of tropical storm 'Bertha' did interrupt the flow from the early flowering ling heather in South Yorkshire and Derbyshire and the best yields this year were probably from North Yorkshire, though the heather again failed to bloom well in some coastal areas.

### **Asian hornet and Small Hive Beetle – Increased threats to beekeeping in the UK**

The Asian hornet, *Vespa velutina*, continues to spread through mainland Europe and in the ten years since being first reported in south west France, is now established throughout France, in Spain and Portugal and confirmed as present in Belgium, Italy and



most recently, Germany. At the NBU we were braced for a report of an incursion of Asian hornet in the UK this year, particularly in the more susceptible south and south east of the country. However, all suspect sightings proved to be other species such as the European hornet, *Vespa crabro*, or wood wasps. Colleagues who have seen the Asian hornet at first hand in the south of France report on the continuing impact on beekeeping in the area – high losses due to direct predation and weakened colonies and significantly lower honey yields - despite all efforts to destroy any nests found. It is therefore imperative that we continue to monitor for this exotic pest and report any suspect sightings to the NBU and the Non-Native species secretariat (NNSS) at [alertnonnative@ceh.ac.uk](mailto:alertnonnative@ceh.ac.uk). An identification sheet for the Asian hornet and details of monitoring traps are available as downloads from BeeBase.



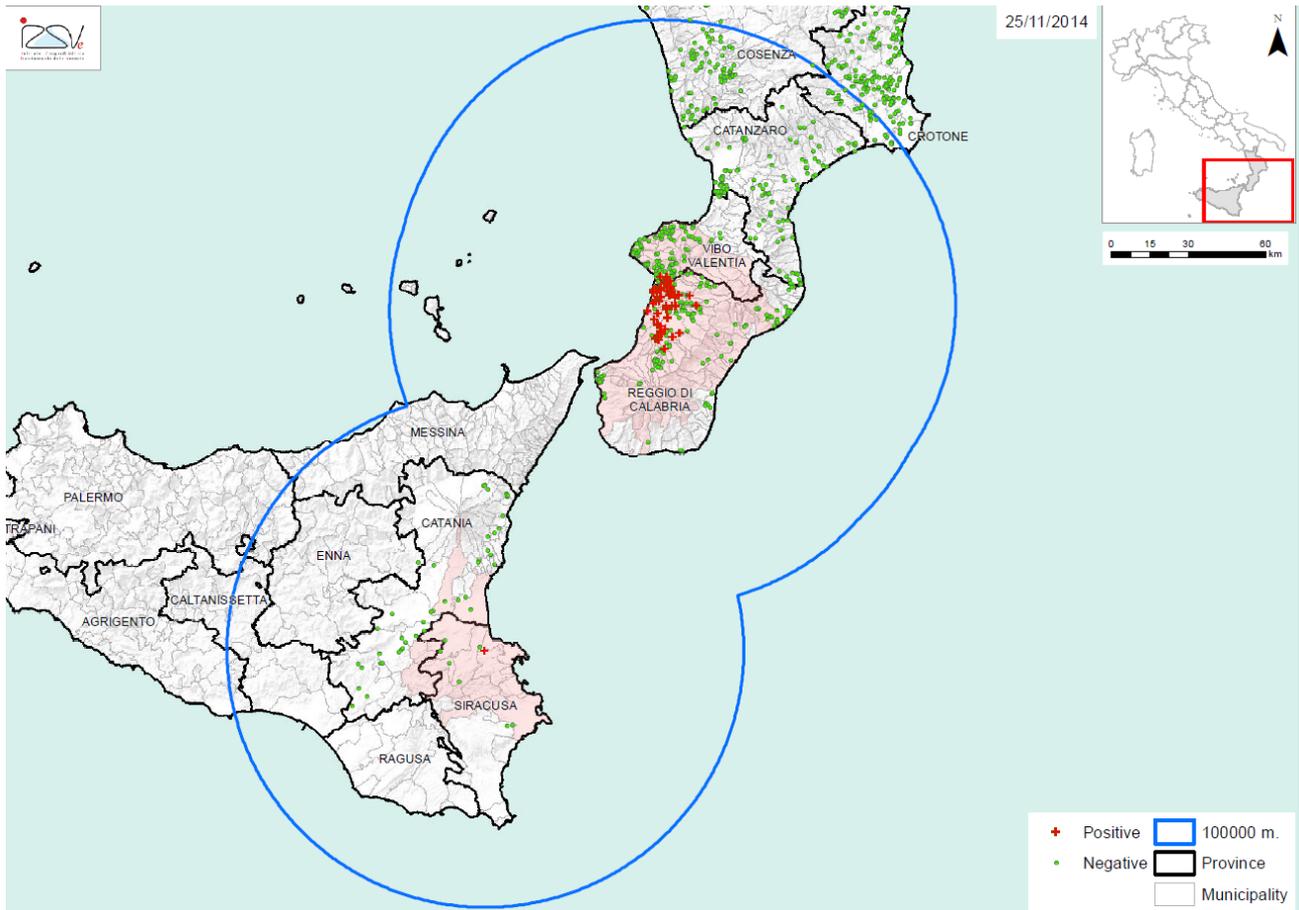
Map of the current spread of Asian hornet in Europe showing the initial incursion, and confirmed sightings of nests and hornets. Note the threat to the south coast of the UK. Ref.

<https://maps.google.de/maps/ms?msid=213339588704969522525.0004e8b11f3aba350c18e&msa=0>

In September, just as the beekeeping season here was drawing to a close, the Italian Istituto Zooprofilattico Sperimentale delle Venezie, National Reference Laboratory for Apiculture (IZSV) confirmed the first detection of the presence of Small hive beetle (SHB) in south west Italy, in the port city of Gioia Tauro. Following the initial discovery of the SHB the Italian authorities established a 20km radius protection zone and a 100km surveillance zone around this site and commenced a rigorous inspection programme in Calabria and neighbouring regions. SHB has since been confirmed in over 50 apiaries within the initial 20km protection zone indicating that the beetle has been present in the area long enough to go through at least one breeding cycle. There has also been a limited (so far) outbreak



at one apiary in Sicily caused by movement of colonies in August from the Gioia Tauro area prior to discovery of the SHB. For the current situation concerning SHB in Italy please follow the link to the IZSV website (in English) which can be found on the SHB page within the Pests and Diseases section of BeeBase at [www.nationalbeeunit.com](http://www.nationalbeeunit.com).



Map of the current spread of SHB in southern Italy and Sicily. Ref.

<http://www.izsvnezie.it/images/stories/Pdf/apicoltura/aethina-tumida/2014-11-25/2014-11-25-zoom100km-en.pdf>

Since 2011, there has been a substantial level of imports of package bees and queens from Italy into the UK including around 600 packages into England and Wales this year, though fortunately not from the region of Calabria where the initial incursion appears to have occurred. Fine weather in late September enabled the NBU to trace and inspect these colonies and no evidence of SHB was found.

However, now that the SHB is present in Europe the risk of introduction into the UK is far greater and all beekeepers should be both aware of the appearance of all life stages of the



SHB and be examining their colonies on a regular basis. Please refer to the NBU leaflet, 'The Small Hive Beetle – a serious threat to European apiculture' available as a download from BeeBase at [www.nationalbeeunit.com](http://www.nationalbeeunit.com) or as a hard copy.

It is also essential that all apiaries are registered on BeeBase (as well as beekeeper contact details) so that we can identify apiaries at risk in the event of an incursion of SHB into the UK and target control measures effectively.

It is not known at present how the SHB was introduced into Southern Italy, though it is possible that it arrived on produce imported into the region through the port of Gioia Tauro. Since 2003 the NBU and its Inspectors have increased statutory surveillance programmes to monitor for exotic pests including SHB at apiaries designated as 'at risk' due to their location near airports, freight depots and ports of entry for fruit and other foodstuffs as well as risks associated with the movement of honey bees and bumble bees for trade.

In 2009 the NBU introduced the Sentinel Apiary Programme in which a selected group of beekeepers has been specifically monitoring their colonies for exotic pests and submitting samples of hive debris to the NBU for examination. Together these two initiatives greatly improve the chance of early interception of SHB if it were to be introduced to the UK, which is the only hope we have of eradicating the pest before it becomes established.

The most serious threat of the introduction of SHB into the UK remains the trade in bees and hive products. Import regulations are our main defence and it is essential that all beekeepers abide by them. If in any doubt, please contact me or the NBU office.

### **Colony Losses 2013-14**

The figures presented are derived from information gathered during inspection visits and personal contact with approximately 150 beekeepers during the season – a smaller sample size than in some previous years but sufficient to give an indication of 'winter' colony losses for the period 30<sup>th</sup> September 2013 to 1<sup>st</sup> April 2014. The combined average for 2013/14 from across the region was just below 10.0%, the lowest figure for many years and reflecting, I believe, the good condition of colonies in late autumn and mild winter. Some losses were due to starvation but more often queen related – those colonies that came through the winter but were found to be queenless or drone laying and had to be united are included as losses.



Region	Colony Losses (%)						
	2007-8	2008-9	2009-10	2010-11	2011-12	2012-13	2013-14
Derbyshire	31.2	34.4	21.1	14.8	14.3	35.6	9.2
East Yorks	50.0	19.8	14.6	15.2	13.6	34.0	2.2
North Yorks	34.0	11.7	29.9	11.3	14.1	22.9	11.2
Nottinghamshire	48.3	15.7	12.6	16.3	10.7	53.6	11.5
South Yorks	56.5	30.7	36.8	12.7	12.2	37.0	8.4
West Yorks	35.7	21.6	19.1	20.3	11.5	34.1	9.0
County average	42.6	22.3	22.4	15.1	12.7	36.2	8.6

Whether the winter of 2012/13 was just an anomaly and the trend of reducing winter losses over the last few years will continue remains to be seen, but the coming winter may be more challenging despite November being one of the mildest since records began. Late brood rearing will have caused many colonies to eat into winter stores and so beekeepers should take care that colonies are not allowed to starve. As previously mentioned, colonies may also be carrying higher Varroa loads into winter this year, which could result in higher bee mortality and weakened colonies, particularly if the winter is hard and late.

The National Bee Unit also conducts a randomised husbandry survey of beekeepers each year as part of the healthy bees plan to monitor trends. The survey provides valuable information on beekeeping practices and the health of colonies in the UK and I would encourage all beekeepers selected for the survey to take part.

### **Foulbrood Diseases and Inspection Statistics 2014**

I am pleased to report that both the overall number of cases of foulbrood and number of apiaries affected were slightly lower than last year. Over 3700 colonies were inspected in 687 apiaries within the region. No AFB was found this year and just 46 colonies with EFB in 32 apiaries. These were largely in areas where EFB has previously been reported,



though not necessarily linked to previous outbreaks. One exception was a small new outbreak affecting 5 colonies in 3 apiaries in West Yorkshire. It is worth noting that no recurrence was found of the 2013 outbreak in the South Yorks/Lincs borders, another example of how rapid intervention by the Inspectors involved and excellent cooperation from local beekeepers can eradicate disease from an area where it is not deeply embedded.

123 Apiaries were inspected as part of the exotic pest surveillance programme, already nearly 40% more than for 2013, but a figure that will increase further in 2015 in light of the increased threat of SHB entering the UK.

The locations of foulbrood disease by 10km squares are listed in the following table.

County	10km Square	Colonies with EFB	Colonies with AFB
Derbyshire	SK34	10	
	SK36	3	
	SK37	4	
	SK47	1	
North Yorks	SE25	1	
	SE28	1	
	SE35	4	
	SE46	2	
	SE53	3	
	SE56	2	
	SE59	1	
	SE86	2	
East Yorks			
Notts	SK52	1	
South Yorks	SE10	1	
	SE50	3	
West Yorks	SE22	2	
	SE41	5	

Further details and mapping can be found on the disease incidence pages of BeeBase at [www.nationalbeeunit.com](http://www.nationalbeeunit.com). It is recommended that these are checked regularly to see if there is any foulbrood disease close by.



All beekeepers should ensure that they are registered on BeeBase. This can be done through the NBU office (tel. 0300 3030094), through your Bee Inspector, or by self-registration. I am grateful to the majority of Beekeeping Associations who have sought permission to forward member's contact details to the NBU so beekeepers can be advised if there is a notifiable disease nearby, either through the automatic e-mail alert if the disease is within 3km of the apiary or by telephone. However, self-registration is still recommended, especially for beekeepers whose apiaries are not at their home address. Self-registration also gives beekeepers secure password protected access to their own details and inspection records.

### **Education and Advisory Services**

The NE team of Regional and Seasonal Bee inspectors have provided a number of talks, workshops and demonstrations to District and county Associations throughout the year and represented the NBU at the Great Yorkshire Show, YBKA Annual Conference and other events. I would especially like to thank the Associations at Chesterfield, Sheffield and Leeds for hosting the Bee Husbandry Day events which attracted good attendances from their respective counties (and some from further afield). I am already looking at plans for two or three more of these events next year in other parts of the region with an increased emphasis on the recognition and management of exotic pests.

### **Launch of the Animal and Plant Health Agency (APHA)**

On 1st October 2014, the Animal and Plant Health Agency was launched following the merger of the Animal Health and Veterinary Laboratories Agency (AHVLA) with parts of the Food and Environment Research Agency (FERA) responsible for plant and bee health.

The merged agency combines the animal health and welfare functions previously delivered by AHVLA with teams of field-based inspectors working in the areas of bee and plant health. It is also responsible for maintaining the National Listing of new plant and seed varieties and for inspection and enforcement services related to the deliberate release of genetically modified organisms.

All parts of the new organisation have considerable experience in dealing with widespread disease outbreaks and pooling this experience and resource will allow best practice and greater resilience for the future. Creating a single organisation, with a single management structure and common identity, will ensure that the agency is best placed to exploit opportunities for synergies and efficiencies, increasing resilience, enhancing flexibility and strengthening the emergency-response capability.



The National Bee Unit Inspectorate is part of the New Agency though Diagnostics and Research functions remain within FERA. Beekeepers should notice little change, apart from the new logo and e-mail addresses. Mike Brown remains head of the NBU and NBU Programme support and Technical Advice remain at Sand Hutton, though there is a new telephone number and e-mail for the NBU office (0300 3030094, [nbuoffice@apha.gsi.gov.uk](mailto:nbuoffice@apha.gsi.gov.uk)). Please visit [www.nationalbeeunit.com](http://www.nationalbeeunit.com) contacts page for full details.

### North East Inspectors and 2015 Season

I would like to take this opportunity to thank the Seasonal Bee Inspectors who make up the NE team: Sandra Kinchin, Dhonn Atkinson Tim Roper and Adrian Wilford, for all their hard work during the year.

The 2015 season will start on 1<sup>st</sup> April and from that date their contact details will be as follows:

Sandra Kinchin	<a href="mailto:sandra.kinchin@apha.gsi.gov.uk">sandra.kinchin@apha.gsi.gov.uk</a>	07775 119440
Dhonn Atkinson	<a href="mailto:dhonn.atkinson@apha.gsi.gov.uk">dhonn.atkinson@apha.gsi.gov.uk</a>	07775 119437
Tim Roper	<a href="mailto:timothy.roper@apha.gsi.gov.uk">timothy.roper@apha.gsi.gov.uk</a>	07775 119441
Adrian Wilford	<a href="mailto:adrian.wilford@apha.gsi.gov.uk">adrian.wilford@apha.gsi.gov.uk</a>	07775 119444

Please note the change to e-mail addresses – messages to the old addresses are being forwarded at present but this will not continue indefinitely. From 1<sup>st</sup> April the post code search function on the BeeBase contacts page will identify your local Inspector, but for any enquiries before then please contact me.

Finally I would like to wish all beekeepers in the Region a very Happy Christmas, good wintering and every best wish for the New Year.

*Ivor*

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