



Western England Region Annual Report 2016

Covering; Gloucestershire, Herefordshire, Shropshire, Staffordshire, Warwickshire, West Midlands and Worcestershire

The 2016 Season – An Overview

After a fairly cool and wet summer the autumn of 2015 turned exceptionally mild with record UK temperatures for November and the warmest December since records began in 1659. However, the mild conditions came with a price as low pressure to the west drew warm, moist air from the sub-tropical Atlantic region. Storm Desmond in early December and storm Eva just before Christmas brought heavy rainfall, which left the ground saturated. This was quickly followed by a further Atlantic low pressure system which brought the very heavy rain on Christmas Day and Boxing Day. Rainfall of up to 120mm (5 inches) fell in 24 hours in the Lancashire and Yorkshire areas causing probably the most widespread flooding in living memory. Beekeepers were affected too and it was sad to hear of the number of colonies lost and even whole apiaries washed away.



The mild winter continued into the New Year but the expected early spring never materialised due to weather conditions more appropriate to late winter persisting well into the season. By late March there were several reports of colonies that had dwindled rapidly during this period. This was not necessarily specific to particular areas of the country suggesting that it was more a result of colony condition. Early depletion of winter bees due to increased colony activity during the mild weather may have been a factor but most colonies examined had high Varroa levels. These may have resulted from mite levels increasing post late summer treatment or missed or ineffective winter treatments due to continued brood rearing and difficulty finding an appropriate time to treat.

Oil seed rape came into flower a week or two later than normal in most areas but there was little bee activity initially due to persisting cool, damp conditions. However, those colonies that had remained strong or picked up more quickly and were in areas which had a wider range of forage managed to produce a good surplus during the extended, if intermittent, spring flow. It was perhaps a case of being 'in the right place at the right time'. With so few consecutive days of good weather, queen rearing was rather 'pot luck' too. Unsuccessful or poor mating was very common and many colonies that appeared to have a laying queen subsequently became queenless or turned to drone laying.

The late and extended spring delayed the June gap into July and many colonies were found to be consuming stores at an alarming rate, prompting a starvation alert from the NBU office. A large colony can consume a good two full deep frames of stores in a week and so I would advise to ensure that at least this amount of food is present at every inspection. Failure to do so risks the slowing of colony development, or in a worst case, starvation.

Improving weather coincided with the flowering of the main summer crops such as blackberry and rosebay

willowherb and in some areas a very good flow from the limes. The earlier wet spring also benefited the Himalayan balsam which did better than the last couple of years. In recent times the ling heather has often started to bloom by the end of July, but this year was more reminiscent of a bygone era when beekeepers aimed to have their bees on the moors by the 'Glorious Twelfth' (August) – the start of the grouse shooting season. The heather bloom looked good but in southern and lowland areas had mostly stopped yielding by the end of August. Kinder conditions on the moors this year were less demanding on the bees which came back in good condition with queens still in lay. Some were surprisingly light after removing the crop; many single brood box colonies needing a supplementary feed to boost the winter stores.

An Indian summer, which lasted well into October, meant that the season was rounded off with a magnificent flow of ivy. This filled up brood boxes to bursting in some areas but we must all be very conscious that this crop granulates rock hard and often a heavy colony when hefted can starve if it can't get out to collected water to liquefy these granulated stores. Topping up with fondant immediately above the brood nest may be the way to go if this is the case.

Asian Hornet Arrives – in Tetbury!

On Saturday 17th Sept I received a call from Liz Gardner, SBI in Gloucestershire, saying 'I've have an Asian hornet' – my initial reaction was that this was a joke – set up to catch me because I'd wheedled out of running a contingency training exercise a few weeks previously. But it wasn't!



The hornet had been caught in a trap by a very vigilant beekeeper who had reported two weeks previously that he thought he had seen a hornet hawking in his apiary. Liz had spent several hours in that apiary with the beekeeper but no further hornets had been seen. So traps were deployed and the beekeeper asked to be vigilant. He was and it paid off – with a hornet being caught two weeks later!

We were VERY lucky, the beekeeper is an excellent observer of the activity in his apiary and is very well versed in insect species identification – it was completely down to his vigilance and knowledge that we became aware of the Asian hornet being in Gloucestershire.

One reason why it was so difficult for this species to be noticed it that it wasn't really doing what we had expected - it wasn't foraging on honey bees as its primary food source, it wasn't hawking outside of beehives. It was working the ivy and trees covered in aphids – and picking up the odd insect on the ivy. We think this is because of lack of competition in the area and the abundance of alternative food – so it helped itself to the easiest forage – ivy and foraging insects being far easier to work than the energy consuming work of hawking outside bee hives.

Sunday 18th Sept saw Liz and me back in the beekeepers apiary for another couple of hours. During which we saw just one Asian hornet fly in and immediately take a honey bee – it happened in seconds and if we hadn't been expecting it we probably would have missed it or thought it was a wasp flying past – no hawking! It then flew to a nearby bush and spent about 15mins removing the head, wings and abdomen, leaving just the protein rich thorax to fly back to its nest with. When it flew off we took a very accurate, as it transpired, bearing on its flight line and it was from triangulating flight lines and bearings that we managed to locate the nest, within 1km of the original sighting – they don't forage far in a food abundant area.

After a mad dash upto York so the entomologists could confirm it was in fact an Asian hornet I then drove straight back down to Gloucestershire and immediately set about establishing Local Disease Control Centre. 48 hours later and bee inspectors from across the country were in Tetbury area searching for the nest. This is where the Contingency Training Exercises that we practice every year (see below) paid off – everyone

knew what was expected of them. It was fantastic how the National Bee Unit team all came together and responded to the outbreak. It took just over a week to find and destroy the nest – sounds like a long time but we had to establish if it was one or more nests and so inspected and set traps at apiaries both in the immediate area and upto 20kms out. We learnt a lot during that week – especially once we realised that the hornets were working the ivy and not honey bees which meant we had to completely change our search plans.

One aspect which really paid off was PR in the town of Tetbury with bee inspectors doing; garden searches, leaflets drops, placing posters in shop windows and the town hall, library and schools – raising awareness in the area. Several of our most important sightings were from members of the public calling in to say things like ‘I’ve just seen one of those wasp things outside Tescos – and they were right – the hornets were working the berberis in the Tescos car park!

Gloucestershire BKA were fantastic in helping us, we set up a special email box for their members to report to us any apiaries they had within 20km of Tetbury so we could check if they were on BeeBase – it was interesting just how many weren’t!

Again we ask that you take 5mins to log into BeeBase to check your details are up to date – just in case we need to check your area – this will be even more important should small hive beetle arrive!

The local commercial bee farmers were also really cooperative calling to offer some of their colonies as bait hives – it was brilliant to see how the beekeeping community worked together to tackle this problem.

The press releases raised awareness and the Non-Native Species Secretariat took literally thousands of calls (over 400 calls in one week) reporting suspected Asian hornets from across the country. These were triaged and credible sightings followed up by bee inspectors. One thing this did identify is that there are a lot of European hornets, *Vespa crabro*, out there! This is a fantastic insect and it is very important that we continue to make the public aware that it, and our other native wasps, are good for our gardens and food chains. *V.crabro* does little harm to our honey bee population and we need to encourage the public to champion this beautiful member of the wasp family. So please make sure you can identify and differentiate between the hornets, wasps and other similar species - the NNSS leaflet has been updated to help with this, it can be found on the dedicated pages on BeeBase at:

<http://www.nationalbeeunit.com/index.cfm?pageid=208>

A natural or assisted spread of the Asian hornet, *Vespa velutina*, from mainland Europe into the UK had been anticipated and a Contingency Plan put into place to deal with any confirmed outbreak. The google map illustrated (updated November 2016) shows the continuing spread of Asian hornet in Europe, including the first incursion into the British Isles in the Crown dependencies of Alderney and Jersey and subsequent incursions in the UK in Gloucestershire and North Somerset.



<https://www.google.com/maps/d/viewer?m sa=0&mid=1jRfoi4oF6GmiGRgbXuD71Qpbw8 s&ll=46.60925415505642%2C2.68916106764 5273&z=6>

The recent Defra press release <https://www.gov.uk/government/news/asian-hornet-outbreak-contained-in-gloucestershire-and-somerset> confirms the destruction of the nest found at Tetbury, Gloucestershire and no subsequent Asian hornet activity in this area or that of the two individual sightings in North Somerset (both dead specimens).



Further details and pictures of the nest at Tetbury can be found on BeeBase 'recent news', <http://www.nationalbeeunit.com/public/News/news.cfm#177>

How did it get her?

Well there are several routes in – we had anticipated it might come across the channel as many other insect species have managed to do. But it is likely that this queen arrived via some form of human transportation; either commercial movement of goods or in a holiday makers

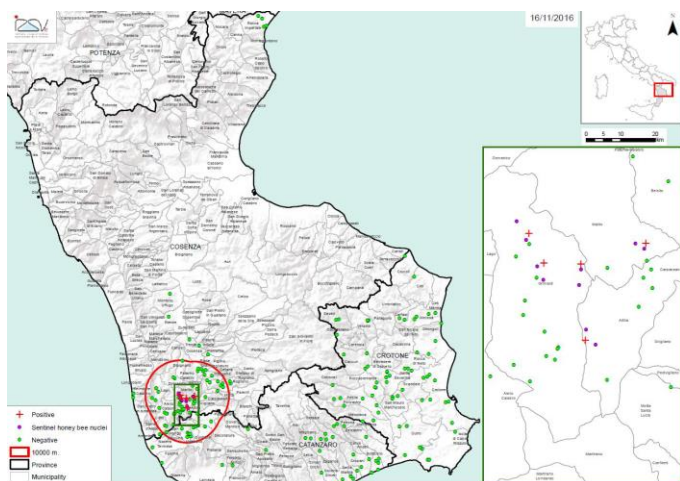
luggage or tucked away somewhere in a vehicle e.g. a caravan. With the amount of traffic, both commercial and private, entering the UK from Europe further incursions are highly likely and, as this years' experience has shown, could occur anywhere in the UK, not just in the higher risk areas along the South and South East coasts. The NBU will be assisting beekeepers in placing hornet traps in the affected areas early next year but all beekeepers are advised to put out monitoring traps with a sweet bait in apiaries in late winter. Experience in France has shown that these are highly attractive to queen hornets coming out of hibernation. These should be checked regularly, preferably daily so that non-target species can be released, and any suspect sightings reported to the Non-Native Species Secretariat at alertnonnative@ceh.ac.uk and the NBU office or your Regional Bee Inspector.

A fact sheet detailing a suitable home-made monitoring trap can be found on BeeBase at <http://www.nationalbeeunit.com/index.cfm?pageid=167>

There are also some Asian Hornet videos available for viewing on the APHA YouTube channel which may be found here: https://www.youtube.com/playlist?list=PLouExecY1KnfANGcLUd2D6KkLRHE_n-T

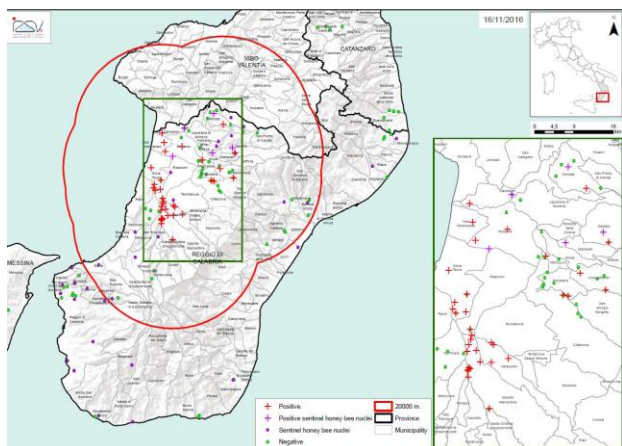
Small Hive Beetle Update

In July this year we had the unwelcome news of a further outbreak of Small Hive Beetle about 100km north of the original finding near Gioia Tauro in Calabria, South West Italy. It is understood that this outbreak was found after the Italian authorities became aware of and traced an illegal movement of a significant number of colonies from the restricted area to several apiaries in the province of Cosenza, Calabria.



All the colonies were destroyed and inspections of surrounding apiaries commenced. A small number of adult beetles have since been found in one other apiary close by. Only time will tell whether the prompt action has eradicated SHB from this area as (so far) appears to be the case for Sicily where colonies were moved just before the first outbreak was discovered. 6
A large number of sentinel apiaries have been

set up in Calabria and Sicily, near apiary sites where SHB has been previously found and to monitor for any spread into other areas. Once again this year there was little found until late summer, apart from some adult beetles and one larva picked up in a small number of sentinel colonies in Calabria. However, since September and to date (16/11/16) another 34 apiaries within the original protection zone have been found to be infested with a significant cluster to the south of Gioia Tauro.



See <http://www.izsvenezie.com/aethina-tumida-in-italy/>

Despite considerable effort it is apparent that the Italian authorities have not yet managed to eradicate SHB from southern Italy, demonstrating the absolute necessity for the earliest detection of an incursion for this to be possible. The NBU continues to step up monitoring for SHB under the exotic pest surveillance programme at apiaries within England and Wales near to identified risk points for incursion. I am

thankful to those beekeepers who add to the surveillance effort by being part of the Sentinel Apiary programme but I would encourage all beekeepers to make themselves aware of the signs of SHB and monitoring techniques as described in the NBU leaflet, 'The Small Hive Beetle – a serious threat to European apiculture', available as a download from BeeBase at www.nationalbeeunit.com or as a hard copy.

I make no apology for mentioning once again how essential it is 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. Self-registration is free via the link at www.nationalbeeunit.com, or you can register by contacting the NBU office or your Regional Bee Inspector. It is also essential that all beekeepers abide by UK regulations for the import of bees from Europe and elsewhere, including submitting an Importer Notification Form, either on-line or to the NBU office so that we are able to follow up on imports. It is of course illegal to import bees, queens or any bee-related products from within the 100km zone around the affected areas. Further details can be found on the Imports/Exports pages of BeeBase at <http://www.nationalbeeunit.com/index.cfm?sectionid=47>

Sentinel Apiaries

We continue to have sentinel apiaries across the country where beekeepers local to identified high risk areas are asked to; regularly monitor in their apiaries, have traps in their colonies, take samples and report back on a regular basis on their findings.

A huge thank you to the 15 beekeepers in Western region that have once again performed this important service.



Contingency Training Exercises

This year there were two training exercises where all the NBU staff, Bee Inspectors and the office team, practiced their response to a simulated outbreak of small hive beetle. For the first time these were unannounced; and the local Regional Bee inspectors and the SBIs having to sort out a control centre, hotels, plan inspections, draft in staff etc. with no prior planning. The first was in the Poole area and then a week later a second sighting was simulated in Yorkshire. Local BKAs help by allowing us to inspect their colonies some of which have fake small hive beetles planted in them to check our inspection techniques are up to scratch.

These practical practice sessions mean that the National Bee Unit Bee Inspectors and office staff are ready

to go when there is an exotic pest incursion and proved invaluable when Asian Hornet was found in Gloucestershire in late Sept as everyone knew what was expected of them.

Foulbrood Update

The region continues to have foulbrood hot spots for both EFB and AFB, see table below.

EFB has been rumbling along in Gloucestershire, Worcestershire, and Herefordshire for at least the last 5 years. With the high level of bees brought into the region for pollination this becomes hard to control.

Beekeepers need to remain vigilant and maintain a high level of apiary hygiene. In particular isolating and checking any locally acquired swarms before introducing into the main apiary is very important.



Luckily the large outbreak of EFB last year in Shropshire appears to be back under control – but beekeepers in the area shouldn't be complacent and should maintain the high level of biosecurity we were pleased to see so many adopted when we announced the outbreak.

AFB has again popped up in Staffordshire – the strain typing of each diagnosed case is helping us trace the possible sources and links between these incidences.

Foulbrood diagnoses and treated in Western England region in 2016

County	10 km Squares EFB Found	Area Name	Number of Positive EFB Diagnoses (including recurrences)	Month Foulbrood Found	AFB /EFB
Gloucestershire	SO72	NEWENT	1	May	EFB
Gloucestershire	SO92	CHELTENHAM	2	May	EFB
Herefordshire	SO34	EARDISLEY	2	May	EFB
Herefordshire	SO63	MUCH MARCLE	2	May	EFB
Shropshire	SJ50	WEST TELFORD	1	May	EFB
Staffordshire	SJ95	LEEK	1	May	AFB
Staffordshire	SK10	WEEFORD	2	May	EFB
Warwickshire	SP39	NUNEATON	3	May	EFB
Worcestershire	SO84	SEVERN STOKE	1	May	EFB
Worcestershire	SP07	ALVECHURCH	2	May	EFB
Gloucestershire	SO72	NEWENT	1	June	EFB
Gloucestershire	SO73	HOLLYBUSH	1	June	EFB
Gloucestershire	SO83	TEWKESBURY WEST	1	June	EFB
Herefordshire	SO44	TILLINGTON	1	June	EFB
Herefordshire	SO52	PETERSTOW	2	June	EFB
Herefordshire	SO63	MUCH MARCLE	3	June	EFB
Herefordshire	SO82	NORTON STAVERTON	1	June	EFB
Worcestershire	SO73	HOLLYBUSH	2	June	EFB
Herefordshire	SO34	EARDISLEY	3	July	EFB
Herefordshire	SO42	KENTCHURCH	2	July	EFB

Herefordshire	SO43	CLEHONGER	1	July	EFB
Herefordshire	SO51	SYMONDS YAT	5	July	EFB
Herefordshire	SO63	MUCH MARCLE	2	July	EFB
Herefordshire	SO73	HOLLYBUSH	1	July	EFB
Worcestershire	SO94	PERSHORE	4	July	EFB
Worcestershire	SP07	ALVECHURCH	3	July	EFB
Gloucestershire	SO72	NEWENT	2	August	EFB
Gloucestershire	SO82	NORTON STAVERTON	1	August	EFB
Herefordshire	SO63	MUCH MARCLE	1	August	EFB
Herefordshire	SO42	KENTCHURCH	1	September	EFB
Herefordshire	SO45	MONKLAND	2	September	EFB
Staffordshire	SJ81	WHEATON ASTON	2	September	AFB
Worcestershire	SO94	PERSHORE	2	September	EFB

Last year I gave some hints and tips on how to minimise picking up and/or spreading disease in your apiaries – I make no apologies for mentioning these again:

- **Familiarise yourself with foulbrood** – Download NBU Foulbrood Disease of the Honey Bee advisory leaflet: <http://www.nationalbeeunit.com/downloadDocument.cfm?id=7>
- **Check your brood regularly** - shaking bees off the brood. If you don't look you won't find!
- **Isolate all incoming stock** - (purchases and swarms) for 6 weeks and check the brood
- **Clip your queens** - minimises feral colonies establishing & becoming reservoirs for disease
- **Practice good swarm control** - as above
- **Clear away dead colonies asap** - if you can't do immediately; seal it up to prevent robbing
- **Avoid the temptation to re-use drawn comb** – especially from unexplained losses
- **Replace old brood combs regularly** - if you can't see through them when they are held up to the light they need changing, this can happen in one season
- **In foulbrood areas it is best not to use bait hives** - but if you really still wish to do so then minimise the risks:
 - Use an old hive with plenty of smell to it
 - Ensure hive is scraped and scorched (which the bees seem to like)
 - Provide full complement of frames and fresh foundation(a full box stops wild comb)
 - Utilise a swarm lure

Healthy Bee Days

Two highly successful events days were hosted this year one in June by Shropshire BKA and the other in July by Warwickshire BKA. These comprises of the Regions Bee Inspectors providing; lectures covering topics such as Barrier Management and disease recognition, a series of hands on workshops including the ever popular comb workshop where beekeepers get to see EFB and AFB first hand in a controlled environment – hopefully the only time they will encounter these notifiable diseases - Varroa management, live bee apiary demonstrations on how to inspect for disease and this year we introduced an exotic pest quiz which went down very well.



Both were well attended and feedback from the events was very positive.

These days are very popular, but take up a lot of valuable Bee Inspector inspection time, so we do have to limit them – normally to two a year per region done on a rolling schedule around the region. 2017 plans have not been finalised as the Asian hornet incursion will impact on next year's workload but we hope that we will be able to provide one in North Staffordshire and one in Gloucestershire.

Regional Association Forum

During the winter of 2015/2016 I met with the officers from each of the county BKAs in the region. One of the topics we discussed was whether there would be interest in a regional association forum where representatives from each BKA came together for a day towards the end of the season to be brought up to date on the disease issues in the region and to discuss and share ideas on how to help progress the promotion of maintaining healthy bee colonies.

There was a 100% interest in this so I have to apologise that I didn't manage to arrange a forum in 2016. As it transpired the date we had planned to have it would have coincided with the discovery of Asian hornet and so it probably would have been postponed at short notice anyway. Hopefully, Western region can host their first forum in 2017.

New Advisory Leaflet

A new free leaflet called 'Starting Right with Bees' is available for download from BeeBase. This is aimed at new beekeepers and would be ideal for new beekeepers on your beginners courses.

<http://www.nationalbeeunit.com/index.cfm?pageid=167>

Team Update and Changes in the NBU

This season has seen several changes to staff in the Western Team; in June we were delighted to welcome Noel Parker and Clive Rogers onto our team covering Staffordshire and Shropshire respectively.

In September we were sad to see Julian Routh retire after 10 seasons. Julian has gone on a PhD course in entomology at Harper Adams, we wish him well (in fact most of us are quite envious!). If anyone out there wishes to consider a bee inspector role then please register your interest with the NBU.

Due to some changes in my personal circumstances I have also decided to stand down and will be leaving on 23rd Dec this year. I have thoroughly enjoyed working with all the beekeepers and Bee Inspectors and would like to take this opportunity to thank everyone for their support and cooperation over the last few years.

Very sadly, Andy Wattam left the National Bee Unit in October after 15 years of service, 9 years of which was as National Bee Inspector.

He takes with him a wealth of experience and knowledge and is a huge loss to the NBU. Andy has gone back to his roots and will be working in the farming arena.

I am sure everyone will wish him well.



A final note

May I take this opportunity to thank the team of Western Region Seasonal Bee Inspectors and the office team up at York, for their considerable hard work and support.

Thank you also to all the beekeepers I have visited for your friendly cooperation even when I have had to be the bearer of bad news.

Finally, I'd like to wish you all a successful and trouble free season, but, if the worst happens, please remember the NBU are here to help; <http://www.nationalbeeunit.com/>

Jo Schup

Jo Schup Regional Bee Inspector, Western England Region