National Bee Unit

2018 Southern Region Annual Report

Animal & Plant Health Agency

The 2018 Season

I have been waiting many years since starting beekeeping for what was termed as a good year during my first season or two. Indeed many seasoned and experienced beekeepers that I met in my early days told tales of good years which come and go, where the colonies are huge, don't swarm and the flow just keeps coming. I realised after a few years that my expectations needed to be reined in a bit as a good year for me was one where my bees remained healthy, I collected all my swarms and managed to get a few pound of honey off of about half my hives.

Well after a long cold spring, with storm Emma setting in on March 1st, followed by the 'Beast from the East' at the end of March through into April, with a bitingly cold east wind, we welcomed a glorious May, which saw nectar and pollen piling into the hives like never before. The predominantly warm and dry weather over the next month meant forage coming in consistently, filling a super or two on strong stocks. There was a June gap in the first half of the month in some areas when the honey flow dropped off, but the nectar producing plants for the main flow, didn't disappoint and kicked in rapidly and early with continued warm sunshine.

Come July some beekeepers had already taken a crop to release supers and others were wondering whether they'd have enough boxes to keep one step ahead of the honey flow, which just kept on coming. However it dropped off abruptly in the middle of July as the drought really kicked in and, despite some rainfall resuming, there has not been much excess honey coming in since then. The season was condensed into under three hugely productive months, both with fabulous honey and wax production and also with better queen mating than recent years.

The largely dry autumn has been kind apart from storms in both September and October, causing flooding in some areas. Those that took most of the honey off in the summer have had to feed to ensure the strength of hives going into winter as it's not been replaced to any degree.

So it finally happened, I have had a good year, that's actually an understatement as I have had an unprecedented amount of honey from my production stocks, raised some nucs, kept swarming to a minimum, controlled Varroa numbers and achieved healthy well fed stocks going into the winter. Certainly 2018 will go down as a good year.

It's fair to say that Wasps and Hornets had a good year too, but more of that later.

Some of my stocks working the Borage flow……..

The NBU Southern Region

Wiltshire, Dorset, Hampshire & Isle of Wight, Berkshire, Oxfordshire, Buckinghamshire & Northamptonshire.

The team This year due to a temporary recruitment freeze and redeployment of some resources, the Southern team found themselves an inspector down at the start of the season. Berkshire was the area without a dedicated inspector but the rest of the team would be covering call outs, any disease outbreaks, import checks and any follow up visits that were due.

Dan Etheridge re-joined the Southern team, covering Hampshire & Isle of Wight and started work in late June following time off after the birth of twin boys in the Spring. Previously Dan had been working as a bee inspector in Wales and prior to that was part of the southern team, Dan brings a wealth of knowledge and experience to the region.

The region was also without a dedicated Regional Bee Inspector but Kevin Pope (Dorset) and Jonathan Palmer (Buckinghamshire) were covering the role between them ensuring the team were well acquitted to carry out the key inspections, respond to disease outbreaks, deliver Bee Health Days and ensure any import checks were carried in a timely manner. During July I moved across to the Southern region to take on the role of RBI until the end of the season which allowed Jonathan and Kevin to

concentrate more on their inspecting work. I later took on the Regional Bee Inspector permanently.

At the end of the 2018 season both Jonathan Palmer (Buckinghamshire) and Robert Carpenter-Turner (Wiltshire) retired. Both will be missed by the local beekeepers who they served so well and by the Southern team and wider NBU. Jonathan had completed 3 seasons and Robert 14 seasons. Both will be a hard act to follow and recruitment to fill the roles has now been completed.

Robert enjoying making pizzas during a rare break from hive inspections.

Avril Earl (Wiltshire) and Mark Lynch (West Oxfordshire & Berkshire) will be joining the team in 2019. I look forward to working with them and I am sure they are looking forward to meeting many of you during the course of their work

From April 1st 2019 you can use the post code search on the contacts page of BeeBase to check for your local SBI, but over the winter period please direct all enquiries to me. SBIs can be contacted on the numbers below from the beginning of April until the end of September whilst the RBI is contactable year-round. Please note, my email address has changed to peter.davies@apha.gov.uk , from March 2019 any emails sent to the 'gsi' version will not be received. This is the same for all inspectors.

Regional Bee Inspector	**Area**	**Contact**
Peter Davies	Southern Region	07900 292160 Peter.davies@apha.gov.uk
Seasonal Bee Inspectors		
Kevin Pope	Dorset	07775 119466 Kevin.pope@apha.gov.uuk
Robin Oliver	New Forest	07557 157358 Robin.oliver@apha.gov.uk
Avril Earl	Wiltshire	TBC Avril.earl@apha.gov.uk
Dan Etheridge	Hampshire & Isle of Wight	07979 119376 Daniel.etheridge@apha.gov.uk
Phil Spillane	East Oxfordshire, Buckinghamshire	07775 119470 Phillip.spillane@apha.gov.uk
Mark Lynch	West Oxfordshire & Berkshire	TBC Mark.lynch@apha.gov.uk
Robert Poole	Northamptonshire	07990 138894 Robert.poole@apha.gov.uk

Beebase

If you keep bees please ensure you are registered on Beebase, it is free, if your bees have been inspected by the NBU, you will be registered but it is not an automatic consequence of joining a local beekeeping association. There are substantial benefits in registering, including: automatic alerts in the event of foulbrood or exotic pests being found in the vicinity of your apiary; emails with timely advice on the basis of the inspectorate's findings during the season e.g. to feed if we are finding starving colonies mid-season; and a facility to maintain your own beekeeping and apiary records. In

addition, we can come and check your bees and give advice in person if foulbrood or exotic pests are found nearby.

Southern region currently has 6,006 beekeepers registered, with 26,996 colonies kept in 8,072 apiaries.

Voluntary registration is very important and can be done online at www.nationalbeeunit.com or by calling our office on 0300 303 0094. This should be followed by periodic updating of Beebase records. To do so you will need a username and password and this can be obtained when registering or by calling the office.

The graphs and figures in this report are available on the public pages of Beebase, the NBU website (www.nationalbeeunit.com) in 'Bee Pests, Diseases and Maps'. The site also offers several pages of tips, advice and downloadable leaflets on disease control and bee husbandry.

Inspections

This year Southern Seasonal Bee Inspectors visited a total of 754 apiaries and inspected 3442 colonies. This represents a slight increase from 2017, 562 apiaries and 3243 inspections. The good weather helped with inspections, although at times it hindered too with temperatures climbing to over 35c by mid-afternoon in the apiaries, not ideal with full kit on! Most of the inspectors were able to flex their working hours on the hottest days with the help of the beekeepers which saw them starting earlier in the day or doing a few evening inspections where possible.

All set for a hot afternoon's work.

The first verified report of Asian Hornet came at the end of August and many of the team were engaged in tracking and destroying the nests in Cornwall and Hampshire (see later in this report) which somewhat curtailed further colony inspection work

Disease and Pests

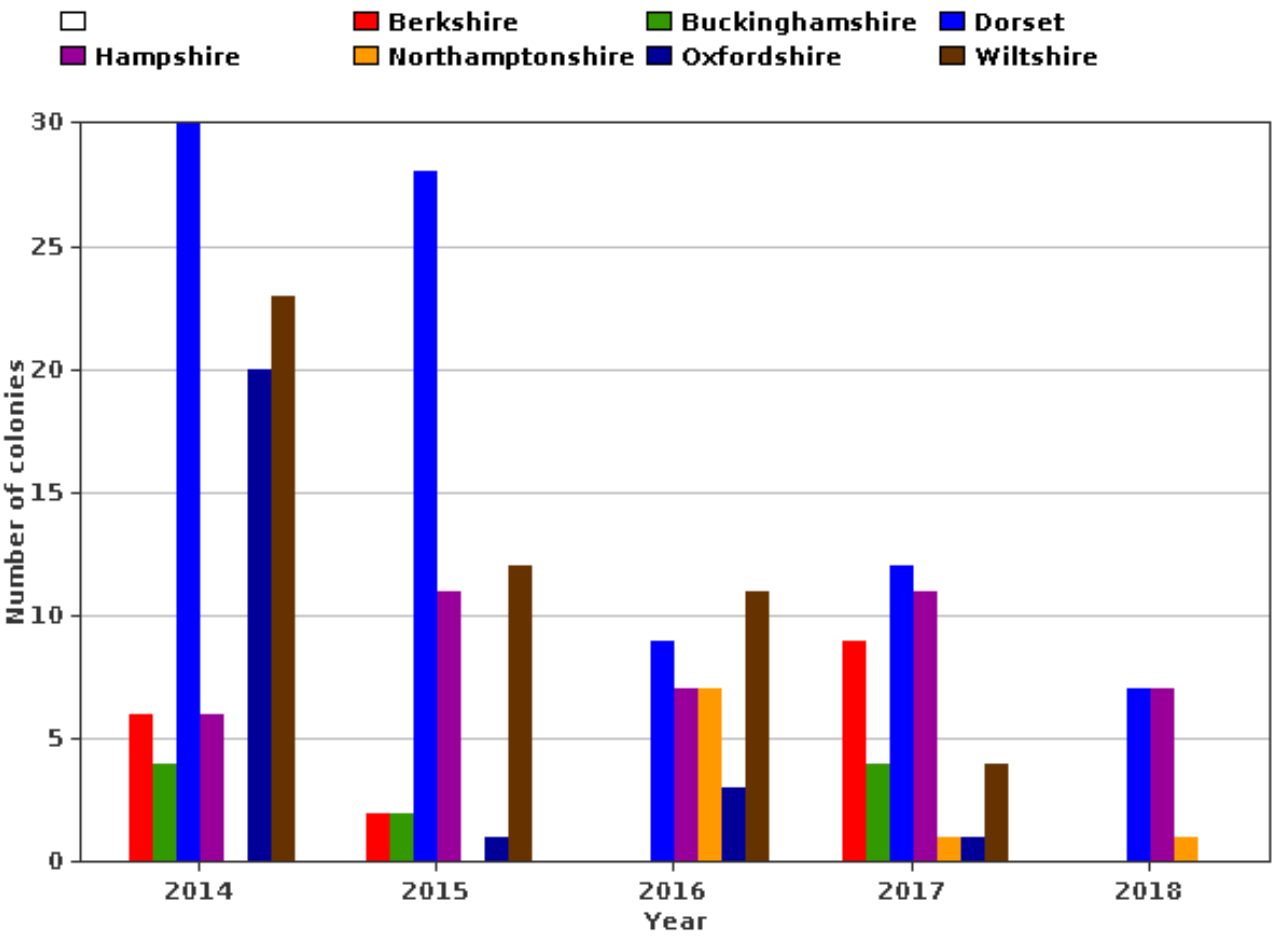
Notifiable diseases: European Foulbrood (EFB) and American Foulbrood (AFB)

This season, we found foulbrood in 11 apiaries, affecting 13 colonies. This is a decrease of 2017 levels when 16 apiaries were found with 29 diseased colonies.

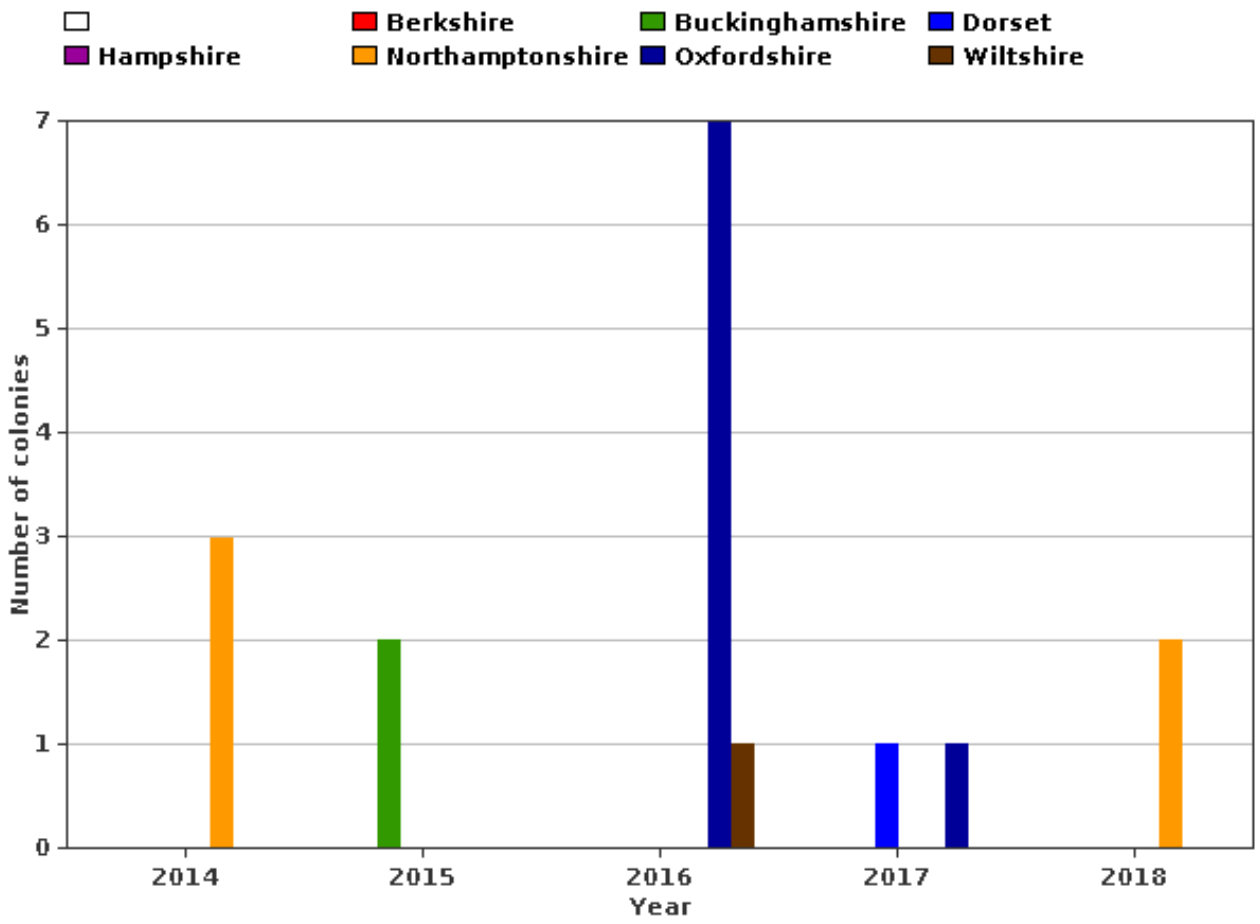
Beekeepers should not drop their guard, but can take some comfort from the fact that the likelihood of their bees being affected by foulbrood remains low at 0.37% (when the 13 affected colonies are divided by 3442, the number inspected.)

The old adage of 'If we don't look we won't find it' holds true.

Incidence of EFB in Southern region over the last 5 years



Incidence of AFB in Southern region over the last 5 years



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

Varroa

This year again there have been additions to the Varroa treatments available in the UK. The list of those registered and approved for use by the Veterinary Medicines Directorate (VMD) is available on their web site http://www.vmd.defra.gov.uk/ProductInformationDatabase/Default.aspx together with the Summary of Product Characteristics giving full details of use. For the full list select 'Bees' on the drop down list of species in the product search link.

Oxybee Powder and Solution by DANY Bienenwohl is the most recent addition to become available in the UK, the active ingredient being oxalic acid dihydrate, an oxalic

acid based treatment applied by the ‘trickle’ method. As well as the tried and tested thymol varroa treatments such as Apiguard, Api-life Var and Thymovar, oxalic acid treatment is popular not only by dribbling but increasingly by vaporisation. Many associations have invested in applicators and associated PPE to allow members to use oxalic acid sublimation at little cost for this effective treatment.

NBU advice for strong, vigorous colonies is to monitor and control varroa appropriately using biotechnical methods and authorised products as directed. Varroa treatments should be targeted before colonies start to produce their ‘winter’ bees but monitoring of Varroa levels during the season will help determine whether an earlier treatment is required. Viral damage, which is associated with varroa as they are such good vectors for viruses, will seriously reduce the longevity of the adult bees and so impact on the foraging capability of colonies with a high Varroa infestation level in the summer period. Treated too late in the season, so that the winter bees are affected by viruses or purely weakened by the mites feeding on them, is frequently the cause of colony mortality in the late winter and early spring.

Exotic pest surveillance (EPS)

We carried out 597 inspections specific to exotic pests this year, targeting a combination of identified risk points and random sites. EPS inspections check for Small Hive Beetle (SHB), Tropilaelaps mites and Asian Hornets (AH) as well as being a normal brood inspection looking for foulbrood. The identified risk points are ports, airports, crude hive product importers, fruit and vegetable wholesale markets, larger queen importers and landfill sites associated with imported products. Given the continued presence of Small Hive Beetle in Italy this year and the incursion of the Asian Hornet from across the channel in France, the importance of exotic pest surveillance work cannot be overstated.

We have 15 Sentinel Apiaries in Southern region in order to improve our capacity to combat the arrival of pests from abroad. Sentinel apiaries are set up in areas considered ‘at risk’ where a volunteer beekeeper agrees to monitor their colonies specifically for exotic pests. As well as visual inspection, floor debris from the designated hives is sampled twice a year and tested for Small Hive Beetle and Tropilaelaps. All equipment and paperwork is supplied to the beekeeper who collects samples as directed and sends them to the NBU laboratory for screening. SHB & AH traps are provided and checked at normal colony inspections and noted on a log sheet. Thank you to those beekeepers who currently carry out this work, but also, please do get in touch if you would like to be involved in the future.

Asian Hornet (the ‘yellow legged hornet’)

There have been nine confirmed Asian Hornet sightings in England in 2018, beginning with an individual hornet found in a cauliflower by a householder in their kitchen in Bury, Lancashire, confirmed on 13th April. The cauliflower was grown in Lincolnshire but it is thought that it may have been stored with vegetables from France.

After a quiet summer, a beekeeper in Fowey on the coast in Cornwall found a dead Asian Hornet in a trap in his garden apiary. He contacted his local SBI and a positive

ID was confirmed on 3rd September by which time the South-Western inspection team had already been mobilised. Following an NBU surveillance operation, a nest was found in dense brambles within a kilometre of the initial find and destroyed on Sept 6th.

Nearby in Liskeard, Cornwall a single drone was reported by a beekeeper caught in a trap, ID was confirmed 7th September 2018 but after prolonged surveillance, no further hornets were seen in the area. A single dead hornet was found in Hull, Yorkshire, confirmed on 9th September, but after an extensive search in the area, it was presumed to have been a single insect inadvertently brought over from France.

Meanwhile back in Fowey, Cornwall, all was quiet following destruction of the nest on September 6th until after a week later when a few further hornets were caught in traps in the same area and suspicions were aroused that these were more than stragglers from the first nest. Within two days a second nest was located in woodland adjacent to the first and on 20th September 2018 it was also destroyed. It should be emphasised that although close to the first nest, the terrain was extremely difficult to carry out surveillance and the second nest could only be seen in the tree from one viewing position at the bottom. Analysis shows that the two nests in Fowey were primary and secondary nests from the same queen and so the same colony.

Later in the month in New Alresford, Hampshire, a householder reported seeing Asian Hornets foraging in his garden. The local SBI was mobilised and positively identified them. By careful observation he was able to get some lines of sight and located the nest within a few hours of arriving. It was low down in a bush adjacent to a house a short distance away and the nest was destroyed on 24th September 2018.

Following quickly on the heels of this finding, on the coast below Beaulieu also in Hampshire, a householder noticed hornets feeding on fallen apples in her garden and alerted a beekeeper friend who reported them. Within a few days again, on 26th September 2018, a nest was found and destroyed in woodland half a kilometre away.

In Guildford, Surrey another dead hornet was discovered in a new Mini at a car dealership, but the source of the insect is unknown.

Finally in Dungeness, Kent, two Asian Hornets were found, both foraging on ivy, one in a garden and the other at the RSPB reserve nearby. After several days of extensive surveillance no further hornets were seen and the operation was wound down, with just a few traps being kept in the area. It is thought that these individuals may have been blown over from France. Both were identified as drones.

The process of finding Asian Hornet nests, after a positive identification is confirmed, conforms to a Standard Operating Procedure whereby a Forward Operating Base (FOB) is established at a suitable location in the area e.g. APHA offices or a fire station. The operation is closely monitored by the NBU and Defra policy with daily reports reaching right up to the cabinet office and Lord Gardiner. Bee inspectors are deployed with traps and bait stations around the area with the aim of establishing lines of sight of the hornets returning to their nest after foraging for food. This requires good observation, patience and tracking skills, but is rewarded when they can be plotted on a map with the lines converging on the nest location. Even when the nest location has been narrowed down considerably, if the area is densely

wooded it can still be very difficult to locate it in a thick tree canopy. This year we have trialled infrared photography, drones and radio tracking to enhance our capabilities but success has prevailed with human lines of sight above all else.

Nests destroyed this year have been sent to FERA for analysis, the results of this work will be released in due course. We are again reminded that the Asian hornet (and other exotic pests) could arrive almost anywhere in the UK given the vast volume of traffic and goods arriving in the UK from across the channel and other countries where exotic pests are endemic. Further sightings of Asian hornets have been confirmed this year in the Channel Isles, in Jersey by the 4th October, 52 nests in various stages of development had been found and destroyed right through the season.

Asian Hornet Fowey

Since the destruction and removal of the nests in Cornwall and Hampshire, no further Asian hornets have been seen foraging in the areas or caught in traps. However, it is possible Asian hornets could reappear in the UK next spring and beekeepers, along with members of the public are urged to report any suspect sightings through the following routes:-

- The 'Asian Hornet Watch' app is available to download free from the Apple and Android app stores
- Members of the public can also report sightings by email to alertnonnative@ceh.ac.uk . Please provide a photo along with where you found it and a contact number to reply to.
- Reports can be sent via the online submission form on the Non-native Species Secretariat website, again with a photo.
- Details on the appearance of an Asian hornet can be found on the Bee Base guide or the NNSS Asian hornet ID sheet.

N.B. A dead insect is much better than a missed photo, so catch the hornet if possible and freeze it or knock it down with anything to hand! Remember, our best defence against the Asian hornet is to quickly detect any arrivals and prevent them from establishing; monitoring traps are the best way to help aid detection. The traps can be home-made and there are links to a leaflet (and a YouTube video) describing how to make one on BeeBase, see http://www.nationalbeeunit.com/index.cfm?pageid=208

Monitoring traps are advised in areas away from a confirmed outbreak, as regular inspection will allow other beneficial insects to be released unharmed.

The image gallery on BeeBase http://www.nationalbeeunit.com/gallery/index.cfm contains several pictures of the particular Asian hornet that we are concerned about and Small Hive Beetle as well as other pests and pathogens and general beekeeping topics. All images are subject to © Crown copyright but may be used free of charge in any format for non-commercial research, private study or internal circulation within your organisation. When reproducing images, please associate the phrase "Courtesy of the Animal and Plant Health Agency (APHA), Crown Copyright" alongside each image.

Small Hive Beetle

Aethina Tumida Adult and larval stages

Surveillance of Aethina tumida in Italy in 2018

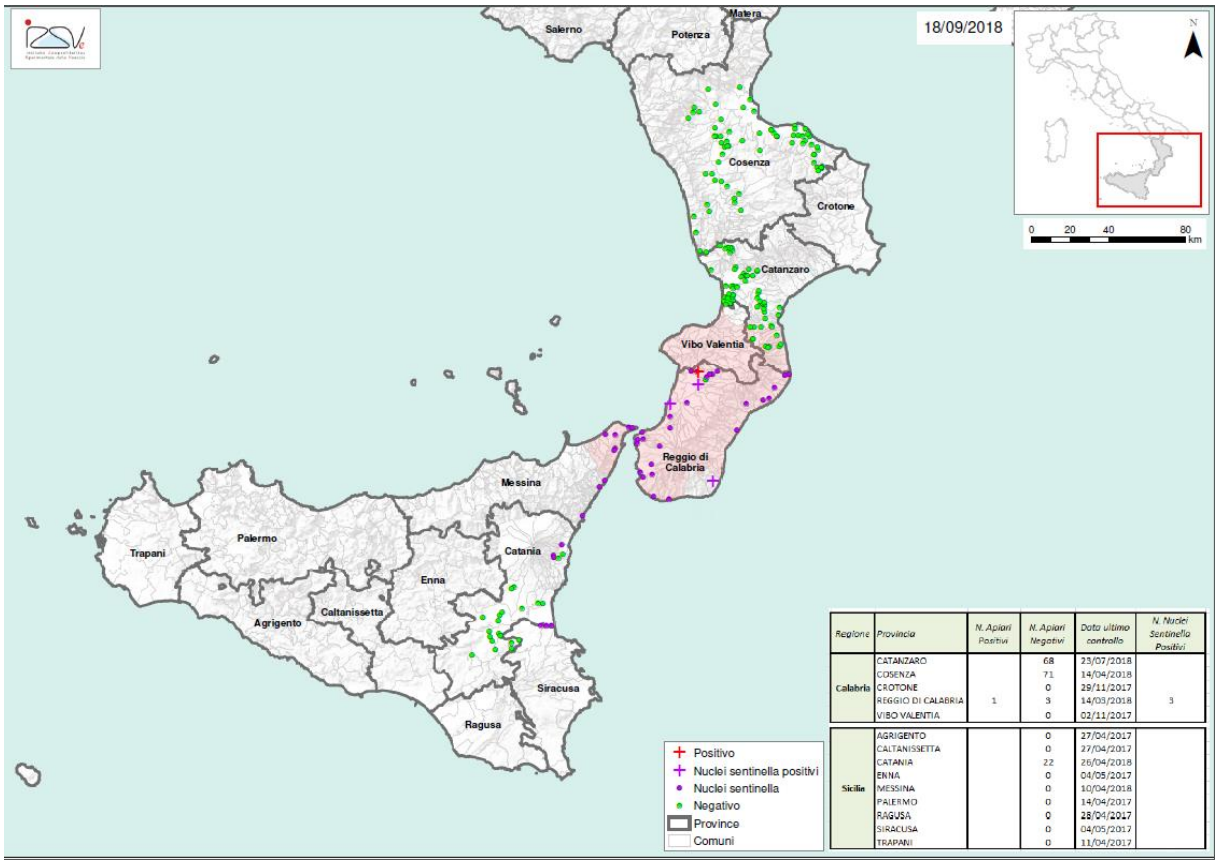
As of 26th. October 2018, four cases of infestation by Aethina tumida have been identified this year in the province of Reggio Calabria in the South of Italy, the province where it was originally found in 2014. Three sentinel apiaries were confirmed positive (purple crosses on maps below) two of which were situated in the protection zone of 30 km. The first one was confirmed on August 1st. in the municipality of Palmi where adults and a larva were detected. The second sentinel apiary was confirmed positive on August 7th. in the municipality of Brancaleone situated approximately 15 km away from the protection zone on the south-east coast of the province of Reggio Calabria. Adults of SHB were detected. The last sentinel apiary was confirmed positive in Rosarno on September 4th. This sentinel apiary was infested with adults and larvae. It was situated approximately 12 km away from the outbreak confirmed in Laureana Di Borello – see next paragraph.

A new outbreak, not in a sentinel apiary, was confirmed on August 2nd in the municipality of Laureana Di Borello (red cross on maps) in the protection zone of 30 km. SHB were in a swarm which was infested by adults and larvae. It has to be noted that not all the inspections scheduled in the rest of the Calabria region and in Sicily have yet been reported when this news was published.

The clear status of Sicily remains unchanged, where no new cases have been discovered since 2014. No new outbreaks have been discovered in the province of Cosenza, situated in the North of Calabria since September 2016. The regular reappearance of cases in the infested zones since 2014 show that SHB remains present in these zones.

The surveillance plan implemented in 2018 follows the monitoring scheme put in place in the previous years. Surveillance is ongoing in SHB free areas such as Sicily and the rest of Italy to guarantee the free status of these areas. Changes were brought in to the monitoring scheme, notably a reduced number of apiaries to be inspected in the protection zone was implemented (corresponding to an expected prevalence of 10% with a confidence interval of 95% instead of an expected prevalence of 5% applied the previous years). This reduction, along with the establishment of sentinel apiaries situated in strategic locations (i.e. on the coast in front of Sicily, along the Ionian Coast, along the frontiers with Vibo Valentia and Catanzaro, in Vibo Valentia) suggest a gradual achievement of the objectives of the control of SHB spread and a containment of the infestation in the protection zone.

Note: the Commission Implementing decision (EU) 2017/370 of March 1st. 2017 removed Sicily from the list of areas subject to protective measures in relation to SHB in Italy and extended the period of application of certain protective measures until 31st. March 2019.



Regione	Provincia	N. Apiari Positivi	N. Apiari Negativi	Data ultimo controllo	N. Nuclei Sentinella Positivi
Calabria	CATANZARO		68	25/07/2018	
	COSENZA		71	14/04/2018	
	CROTONE		0	29/11/2017	
	REGGIO DI CALABRIA	1	3	14/03/2018	3
	VIBO VALENTIA		0	02/11/2017	
Sicilia	AGRIGENTO		0	27/04/2017	
	CALTANISSETTA		0	27/04/2017	
	CATANIA		22	26/04/2018	
	ENNA		0	04/05/2017	
	MESSINA		0	10/04/2018	
	PALERMO		0	14/04/2017	
	RAGUSA		0	28/04/2017	
	SIRACUSA		0	04/05/2017	
	TRAPANI		0	11/04/2017	

Imports 2018

Import or export of bees, (including queens, packages and colonies) is permitted only if accompanied by an Official European Union (EU) or Third Country health certificate issued by the competent authority where the bees originated. It is a **legal** requirement that you notify the **National Bee Unit** of imports of bees from outside the UK. You can do this by completing the Importer Notification Form and posting, faxing or emailing it to the NBU office. Alternatively, if self-registered, you can log in to the Beekeeper pages of BeeBase and click the 'Import Notifications' link from the left hand index. It is of course illegal to import bees, queens or any bee-related products from within the SHB exclusion zone around the affected areas in southern Italy. Further details can be found on the Imports/Exports pages of BeeBase at http://www.nationalbeeunit.com/index.cfm?sectionid=47

44 Import inspections were carried out in the Southern region in 2018, many of these were large consignments of queens, but there were also packages, nucs and colonies.

Beekeeper Training

During 2018 we ran 2 Bee Health days in Buckinghamshire and Wiltshire, these were well attended by a wide range of beekeepers. We brought selected diseased combs, displayed under special licence, to give attendees first hand and, we hope the only, experience of brood disease.

We provided stalls of information covering a wider range of pests and diseases and relevant good beekeeping practice, from varroa control to biosecurity and exotic pests. The practical and visual elements of the events, especially the chance to see and handle diseased comb 'in the flesh', is an opportunity much appreciated by participants. As well as beekeepers going away with a better understanding of biosecurity, hygiene, good husbandry and the importance of inspecting for disease, we enjoy being able to demonstrate the work that we do to a wider audience in an informative and accessible way.

8 talks and demonstrations were given by the team and wider NBU colleagues across the region, Hampshire 3, Dorset 3, Oxford 1 and IOW 1.

For 2019 we have Bee Health Days booked for Berkshire, New Forest, Romsey and Dorset.

Finally

I would like to thank the team of Seasonal Bee Inspectors for all their hard work in keeping our managed honey bee colonies healthy. Please be vigilant, check for brood disease and look out for Asian Hornets, if you don't look, you don't find. Many thanks also to the local association secretaries/training officers who helped us to manage the programme of bee health days, we'd like more attendees next year so please come along and see what diseased combs look like, how to avoid disease, varroa and spot those exotic pests. I'd like to wish you all a successful and trouble free season next year but, if the worst happens, please remember the NBU are here to help http://www.nationalbeeunit.com/

Peter Davies
Regional Bee Inspector, Southern Region - National Bee Unit

Wiltshire, Dorset, Hampshire, Isle Of Wight, Berkshire, Oxfordshire, Buckinghamshire, Northamptonshire

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