

National Bee Unit

2017 Wales Annual Report



Animal &
Plant Health
Agency

The 2017 Season

After a fairly unexceptional and mild winter, the weather started warming up in March, this continued to give a lovely dry and warm April and, except for some rain mid-month, May didn't disappoint either. However summer came and went in June with a hot spell at mid-summer and little rain in the month. The downhill slide began in July which was cooler and wet mid month, this trend continued in August apart from a warmer, dry spell towards the end of the month. The cool and changeable weather continued in September and October meaning there were no long settled spells since mid summer.

In beekeeping terms the spring was an uplifting experience with colonies coming on well even before the first inspection, there were full brood boxes in April and forage steadily filling the supers on strong stocks so some beekeepers who had run out of last year's honey were taking spring honey off. By May strong colonies had built up enough to make swarm preparations, so those beekeepers keeping an eye on the colony's progress and taking appropriate swarm management measures, will have increased and caught some good mating weather, which was not the case for the less wary.

Apart from hives at higher altitude with a later season, the very promising honey flow in June stopped pretty abruptly not long into the second week of July and those of us rubbing our hands together thinking we'd get a bumper crop were ultimately disappointed. The early season and hot weather in June gave a flow from lime but any flow from clover and blackberry was not prolonged, the end amount is similar to last year, averaging just under a 30lb bucket per hive.

Honey yield: *The average honey crop per hive recorded by the seasonal bee inspectors in Wales from their own areas in 2017 was 27lb, that's the same figure as last year.*

Reports of queen mating have been variable, overall there has been some improvement this year, largely good in spring and early summer but then tailing off. The end of any appreciable honey flow in July meant caution was required when taking honey off otherwise starvation was a distinct possibility if there were no honey stores in the brood box.

The NBU in Wales

The team

This year we welcomed Adam Parker as SBI for Monmouthshire, Blaenau Gwent, Torfaen & Newport which means Edmund Thomas has now taken over Cardiff, Vale of Glamorgan and Bridgend.

From April 1st 2018 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.

Regional Bee Inspector	Area	Contact
Frank Gellatly	Mid Carmarthenshire	07775 119480 01267 202732
Seasonal Bee Inspectors	Area	Contact
Jonathan Garratt	Anglesey, N Gwynedd, Lleyn	07775 119479
Tony Davis	Flintshire, Denbighshire, Wrexham	07900 166018
Paul Aslin	South Gwynedd, North Powys	07867 351605
Karen Smith	Ceredigion	07979 119374
Dan Etheridge	Mid & South Powys, East Carmms	07979 119376
Chris Welton	N Pembrokeshire, SW Ceredigion	07900 166143
Maggie Gill	S Pembrokeshire, W Carmarthenshire	07979 119373
Ade Bowen	Swansea, Neath Port Talbot, Merthyr	07775 119489
Edmund Thomas	Cardiff & the Vale, Bridgend	07901 517813
Adam Parker	Monmouthshire	07990 138902

Beekeeper numbers

There are currently 3,366 beekeepers in Wales registered on the NBU's online database Beebase. Between them, they have 18,675 colonies in 4,624 apiaries – an average of 5.5 colonies per beekeeper and 4 colonies per apiary. Over the past 5 years, the number of new beekeepers registering on Beebase in Wales has fluctuated - in 2013 there were 218 but 2014 saw an upward trend with 331 new beekeeper registrations, followed by 347 in 2015 dropping to 246 in 2016 and 205 in 2017.

Inspections

This year, Welsh Inspectorate visits totalled 730 beekeepers, 1280 apiaries and 6195 colonies. This represents 14 more beekeepers but 175 more apiaries and 1200 more colonies than the previous year. The reasons for the rise in numbers were good weather conditions early on and being three staff members up all season, our one new recruit completed field training in June. We also carried out 10 import inspections following up the importation of queens from other EU countries.

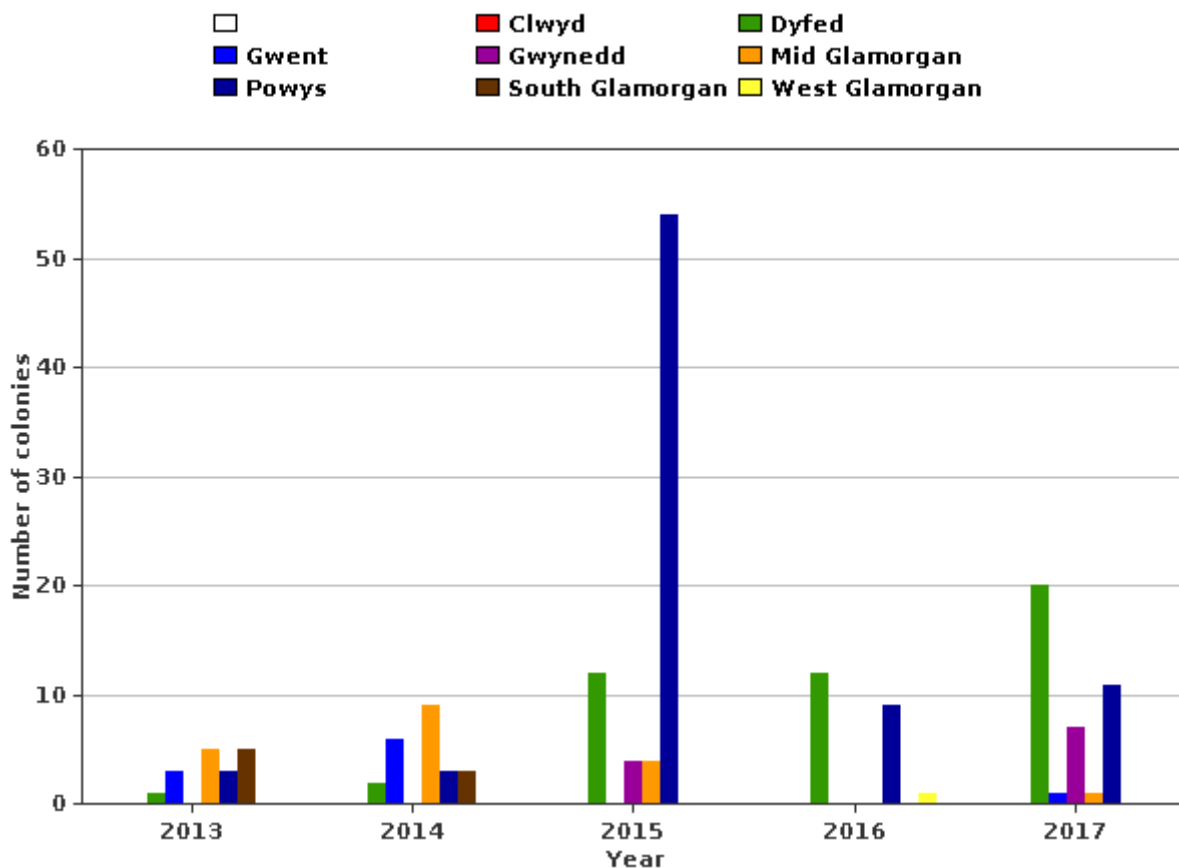
Disease and Pests

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

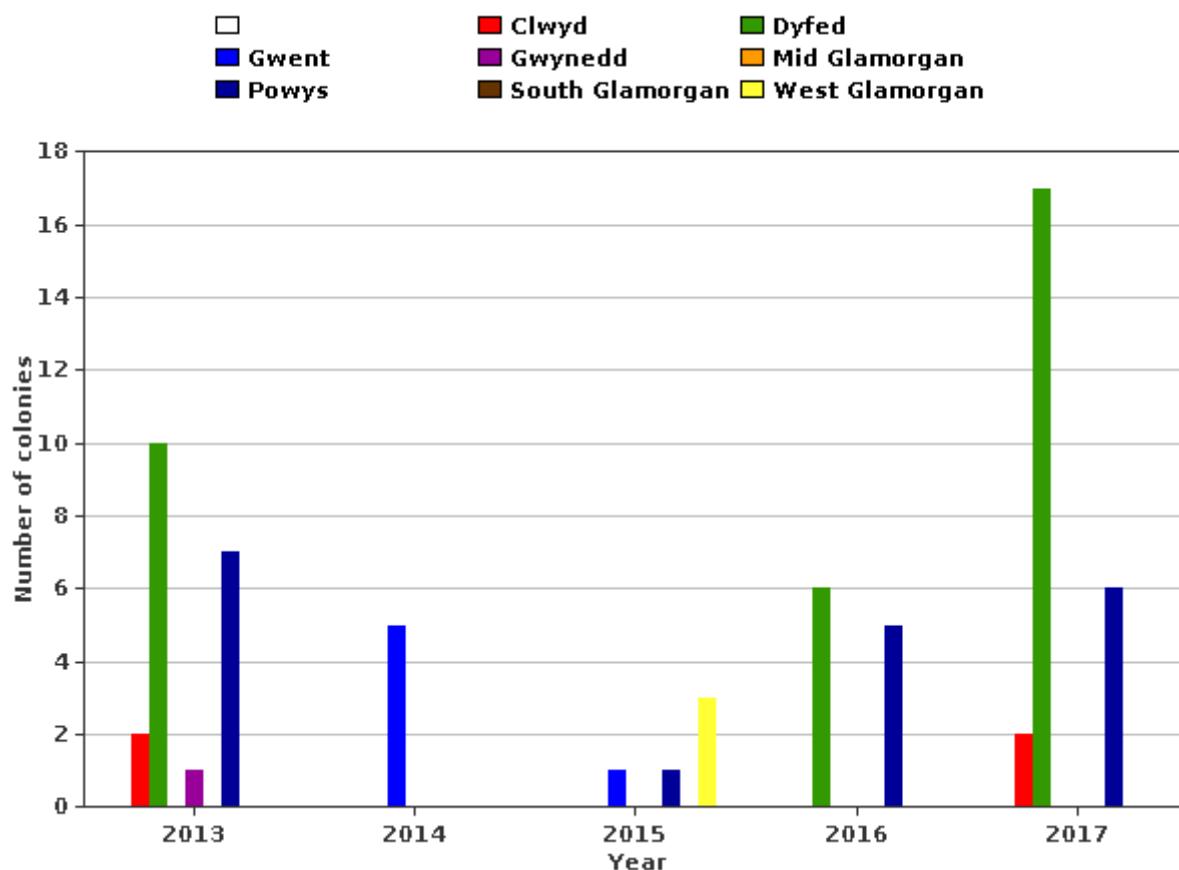
This season, we found foulbrood in 34 apiaries, affecting 65 colonies. This is an increase on 2016 levels when 23 apiaries were found with 31 diseased colonies. It represents a 48% rise in infected apiaries and a 110% rise in infected colonies.

The rise in cases of disease is primarily attributable to the rise in the number of inspections carried out, the Beebase generated inspections targeted at high risk areas unfortunately reaps results. 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: 1.4% (10 in number) of beekeepers inspected were found to have AFB and 1.9% (14 in number) EFB.

Incidence of EFB in Wales 2013 – 2017 (per preserved county)



Incidence of AFB in Wales 2013 – 2017 (per preserved county)



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

NBU advice for strong, vigorous colonies is to monitor and control varroa appropriately using biotechnical methods and authorised products as directed. As well as the tried and tested thymol varroa treatments such as Apiguard, Api-life Var and Thymovar, Api-bioxal 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.

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 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.

It is perhaps worth mentioning here that there have been some additions recently 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 SPCs giving full details of use. For the full list select 'Bees' on the drop down list of Species in the product search link. Apivar is the most recent addition and Apitraz has now become available in the UK. Both of these are strips containing Amitraz as the active ingredient. Now that they are on general release they may be obtained from UK

beekeeping suppliers and will no longer require a veterinary prescription. Oxuvar, an oxalic acid based treatment applied by the 'trickle' method was also approved late last year but is currently without a UK distributor.

Exotic pest surveillance (EPS)

We carried out 430 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), Tropiclaelaps 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 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 Wales 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 Tropiclaelaps. 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 carry out this work, please do get in touch if you would like to be involved.

Asian Hornet

Early this year surveillance for the Asian hornet, *Vespa velutina*, was resumed and traps were deployed in Gloucestershire and North Somerset following last year's discovery and destruction of a nest at Tetbury and individual hornets found in North Somerset. No further hornets have been found in those areas but an insect caught flying inside a large distribution warehouse near Glasgow, Scotland in March 2017 was confirmed as an Asian hornet. It can only be assumed that this hornet had travelled all the way from southern Europe inside a container and flew out into the warehouse when goods were unloaded. This is a stark reminder that 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. The Scottish incursion could well have been a mated queen emerging from hibernation and if released into the open, may have been able to establish a nest.

Further sightings of Asian hornets have been confirmed this year in the Channel Isles. In Jersey a primary nest was discovered in a bee hive quite early in the year but several more nests in various stages of development have been found there and destroyed right through the season.

Towards the end of September an outbreak of Asian hornet (*Vespa Velutina*) was discovered in the Woolacombe area of north Devon by a vigilant beekeeper and reported to the National Bee Unit (NBU). A Local Disease Control Centre was established to coordinate the response between the various agencies and teams involved. Work to track down and destroy the nest included a two mile surveillance zone with Bee Inspectors, in APHA Operations, working closely with their colleagues in Science using skills learned from the Tetbury outbreak last year.

The nest wasn't in a typical position, high up in a tree as in Tetbury, but hidden within a tall hedge. Cutting away the cover revealed a nest of about 50 cm diameter. Initial laboratory examination and analysis of the nest indicate that this was a fresh incursion from the French Asian hornet population and not directly related to the nest discovered in Tetbury last year. DNA tests on the brood show that reproduction had reached the stage of drone eggs only. As with other *Vespa* species, drones are produced before gynes (virgin queens) and so we can be fairly certain that this nest was destroyed before it reached the stage of releasing queens capable of setting up new colonies next spring.



Since the destruction and removal of the nest, no further Asian hornets have been seen foraging in the area but it is possible Asian hornets could reappear in the UK and beekeepers, along with members of the public are urged to report any suspected sightings through the following routes -

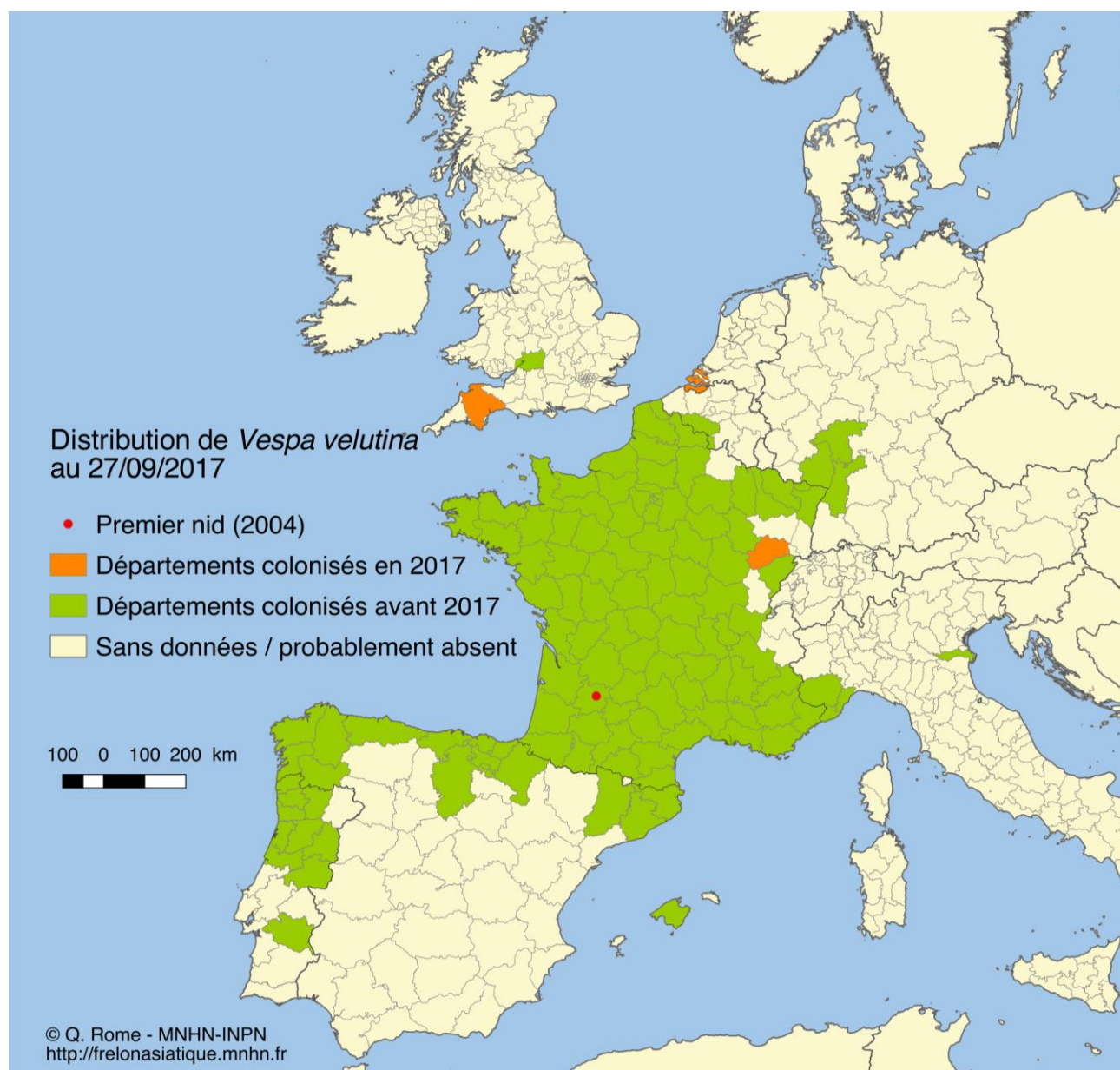
- The 'Asian Hornet Watch' app is available to download from the Apple and Android app stores
- Members of the public can also report sightings by email to alernonnative@ceh.ac.uk . Please provide a photo along with where you found it and a contact number to reply to.
- Reports can be sent via the online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

Remember, our best defence against the Asian hornet is to quickly detect any arrivals and prevent them from establishing; 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 Asian hornet and Small Hive Beetle as well as other pests and pathogens and general beekeeping topics. All images are subject to © Crown copyright 2010 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 The Animal and Plant Health Agency (APHA), Crown Copyright" alongside each image.

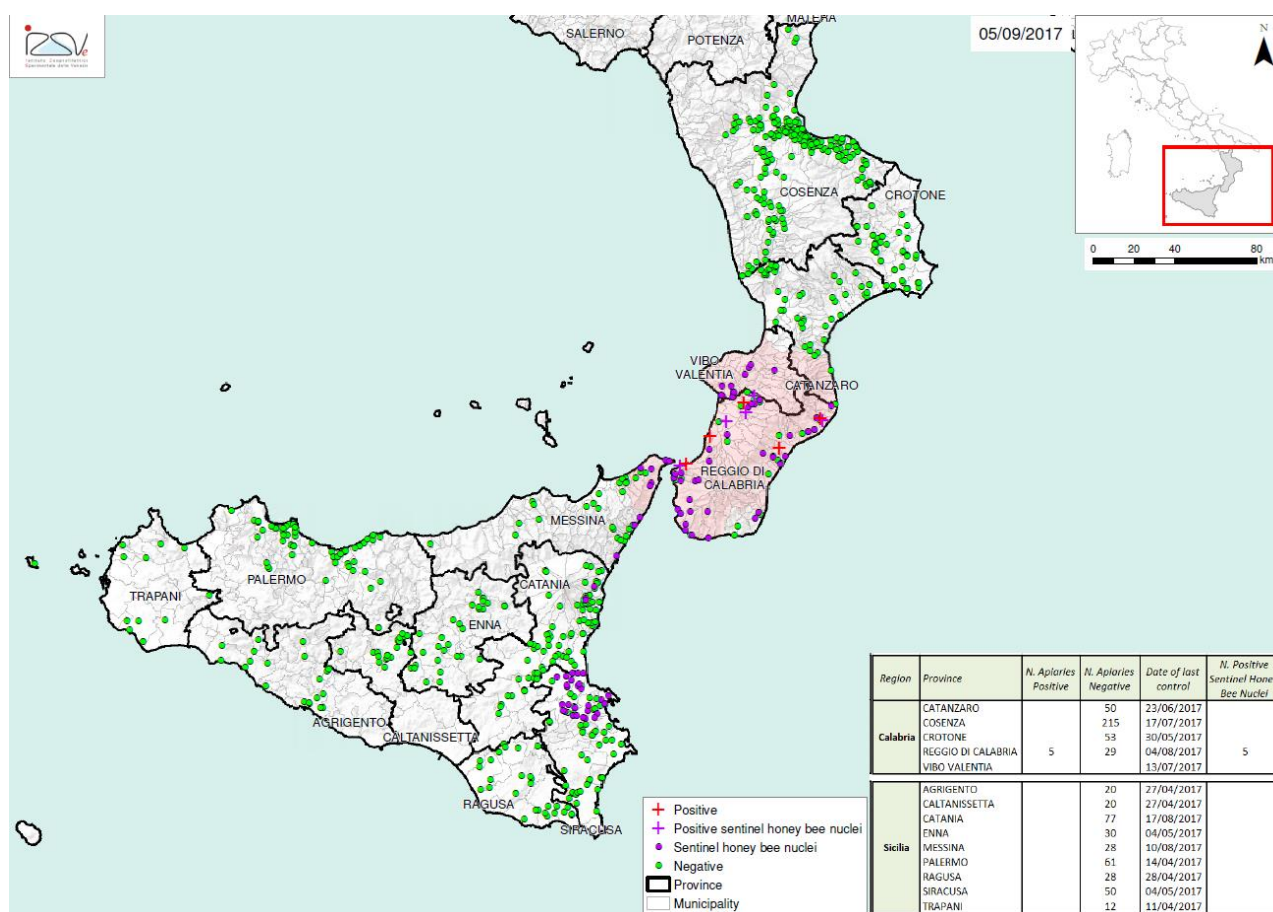
The French map illustrates below the 2016 and 2017 nests and individual hornet incursions within the UK and the continuing spread of Asian hornet in Europe, north into the Netherlands and east across northern Italy.



Small Hive Beetle

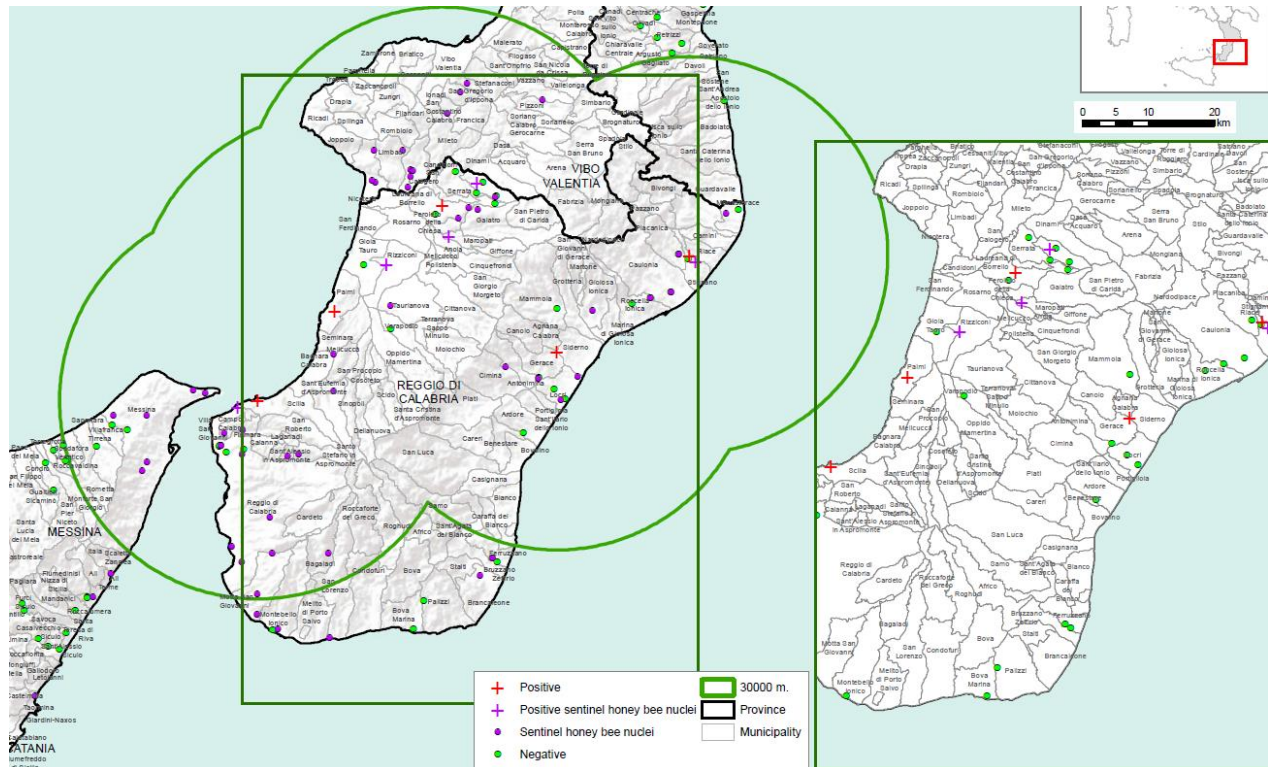


At the time of writing there have been a total of just 10 apiaries reported positive for Small Hive Beetle in the province of Reggio Di Calabria in the region of Calabria, southern Italy. Two of these were in fact feral colonies and 5 others were sentinel apiaries set up by the authorities.



Surveillance inspections in Sicily (326 apiaries) and in the more Northern Regions of Cosenza, Crotone and Catanzaro (318 apiaries) have all been clear. This indicates that the secondary outbreaks in Sicily in 2014 and Cosenza last year (the latter due to the illegal movement of colonies) may have been eradicated. On the basis of information received from the Italian competent authorities relating to their experience with small hive beetle occurrences in Southern Italy the Commission Implementing Decision (EU) 2017/2174 of 20 November 2017 has been passed, amending Annex E to Council

Directive 92/65/EEC as regards the health certificate for trade in bees and bumble bees such that in respect of SHB, as well as meeting other measures, honey bee queen exports must originate from an area at least 30 km distance from the limits of a protection zone of at least 20 km in radius around confirmed occurrence(s) of the small hive beetle. The previous 100km exclusion zone remains in place in respect of *Tropilaelaps* sp. mites.



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

The map above indicates that SHB is now present right across the region of Reggio Di Calabria with three new positives in two of the eastern provinces.

I would again like to thank all the beekeepers in Wales who actively volunteer through the Sentinel Apiary Programme to help with the NBU exotic pest surveillance in the UK. The Italian experience does suggest that early detection and immediate action before SHB becomes established may enable a small localised outbreak to be eradicated and once again 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'. See the dedicated pages for SHB on BeeBase <http://www.nationalbeeunit.com/index.cfm?pageid=125> for links to the leaflet, a video and much more detailed information.

Imports 2017

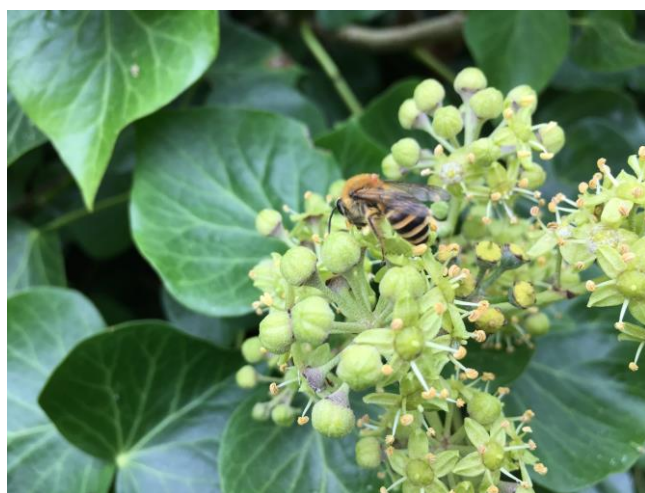
Import or export of bees, (including queens, packages and colonies) is permitted only if accompanied by an Official European Union (EU) or Third Country health certificate issued by the competent authority where the bees originated. It is a **legal** requirement that you notify the **National Bee Unit** 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 us. 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>

The number of queens imported into England, Scotland and Wales from other EU countries continues to rise year on year. Import numbers for 2017 at time of writing are as follows (2016 figures in brackets for comparison):

- Queens imported from the EU 15,210 (13,924)
- Packages of Bees imported from the EU 1,776 (1,924)
- Of which from Italy 1,310 (1,354)
- Nucs imported from the EU 19 (23)
- Full colonies imported from the EU 0 (0)
- Queens from Third Countries 525 (Argentina) (335, also Argentina)

Welsh Government (WG) Action Plan for Pollinators



Overseen by WG Nature Policy and Land Use since 2013 this plan has been in place to reduce, and reverse, the decline in wild and managed pollinator populations. Pollinators include bees, some wasps, butterflies, moths and hoverflies, some beetles and flies. The work of the National Bee Unit contributes to the plan by helping to maintain a healthy managed bee population in Wales, while other contributors work to increase habitats and biodiversity for wild pollinators.

Ivy Bee (*Colletes hederarum*) photo Edmund Thomas

Beekeeper Training

We ran seven Bee Health Days in May, June and July, which were hosted and publicised by local beekeeper associations, open to members and non-members alike, and were attended by a wide range of beekeepers. The events followed a slightly different format from previous workshops in order to offer greater variety and flexibility for busy beekeepers, they were 'drop in' surgeries, allowing attendees to come and go at a time of their choosing, and to focus on the issues of greatest concern to them.

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.

In 2018 we have four events organised covering South, North & Mid Wales. The first is hosted by Bridgend BKA on June 16th at Coytrahen, followed by S Clwyd BKA on June 30th in Llangollen and the two in Mid Wales will be at the WBKA 75th Anniversary Conference on July 13th & 15th at Aberystwyth University. 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.

Beebase

If you keep bees please ensure you are registered on Beebase, if you have been inspected, you will be registered (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; 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.

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. Your association can send us their list of members if they wish, but can only do this if they satisfy the requirements of the Data Protection Act. The easiest way to do this is to amend the membership renewal form to contain the following phrase -

"Please note that a condition of membership is your agreement to membership details being held on a computer. This information will be used for the efficient running of the association by its officials, for the distribution of the WBKA magazine, for WBKA Insurance, for Bee Disease Insurance, and passed to the Regional Bee Inspector for inclusion on BeeBase to aid them in the control of notifiable bee diseases".

These lists are very useful to us as they allow us to identify new beekeepers and to update contact details for existing beekeepers. Secretaries – if you currently have this in place, please email me your current membership list, so I can ensure our records are as accurate and complete as possible. This is something that will be incredibly important if we are unfortunate enough to find Small Hive Beetle or Asian Hornet in the UK in the coming season.

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.

Finally

I would like to thank the team of Seasonal Bee Inspectors for all their hard work which resulted in us uncovering more disease this year. 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 across Wales, 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/>

Frank Gellatly

Regional Bee Inspector, Wales | Arolygydd Gwenyn Rhanbarthol, Cymru

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