



Animal &  
Plant Health  
Agency

# North East Region Annual Report 2018

## National Bee Unit

### Introduction.

The season started with significant changes in North East region, Ivor Flatman who had been my manager and mentor since I started with the NBU in 2009 retired and I was appointed as Regional Bee Inspector. Ivor is now a gentleman of leisure with the time to enjoy his own bees and the more enjoyable aspects of the craft.

For those of you who have yet to meet me, my name is Dhonn Atkinson and I have been an inspector with the NBU since 2009. I covered the area of Central Yorkshire between Ripon and Rotherham (North to South): Market Weighton to Pudsey (East to West). During this time I inspected approximately 1000 colonies in 200+ apiaries per season. I have also been heavily involved in beekeeper education in the region, working alongside Ivor to deliver training courses, bee health days and presentations. Over the summer I have been familiarising myself with the areas where I have had no previous contact and learning the RBI role which is significantly different to my role as an SBI.

After 9 very enlightening seasons in the field, working with beekeepers to detect and control statutory notifiable pests and diseases, I now find myself trying to get to grips with the tasks Ivor performed behind the scenes.

North East team has been operating with only 3 seasonal inspectors this season. This resulted in large areas of the region not having SBI cover and inspectors travelling across the counties for “call out” and “follow up” inspection resulting in a diminished service in all areas. We have also had to reduce the number of events attended because of the staffing constraints. We will be back up to full strength for 2019 as I have had the pleasure of welcoming Phil Khorassandjian onto the team at the beginning of September 18, just in time for the Hull Asian Hornet incursion. Phil is a well-known member of the beekeeping community in South Yorkshire, he is the Chair of Sheffield BKA and holds the BBKA master beekeeper certificate, Phil has previously held office within BIBBA. We also have a successful candidate from our last round of recruitment, David Bough, who will be starting with us in the spring. David is a well-known member of York BKA, he has been heavily involved in new beekeeper training in York association for many years and also instructs “developers” in Queen rearing techniques at the workshops he runs from his home apiary in Holtby. This will bring us back up to a full complement of field inspectors for North East region.

The 2018 Beekeeping season got off to a poor start with the early spring weather being more like mid-winter, the “Beast from the East” took its toll on winter weakened colonies and the return of the beast or “Mini Beast from the East” as it became known, had a

### National Bee Unit

APHA, National Agri-Food Innovation Campus  
Sand Hutton, York. YO41 1LZ

Telephone 03003030094 Email [nbuoffice@apha.gsi.gov.uk](mailto:nbuoffice@apha.gsi.gov.uk) NBU Web Site [www.nationalbeeunit.com](http://www.nationalbeeunit.com)

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severe impact and losses were high. Colonies that survived the winter were below par in many areas and took time to build up, this, coupled with the short OSR window meant that many beekeepers in OSR areas did not achieve the crop they expected.

The cold start to April was soon replaced with exceptionally warm weather brought about by high pressure over the near continent drawing in warm air from the south east with some areas experiencing temperatures in the high 20's. Once the weather improved inspections of the regions apiaries got underway and we returned to business as usual, as best we could with only 3 inspectors and myself to cover the region.

### **Asian Hornet in the North**

During the NBU spring technical training week a photograph of a Yellow legged Asian Hornet (*Vespa velutina nigrothorax*) was received at Sand Hutton, it had been found in the Bury area of Lancashire (just over the border!) by a non-beekeeper who had been made aware of the hornet situation through the media. The photograph was of very good quality and left no doubt as to what the insect was. Unfortunately the home owner had taken it outside for better lighting and as the insect warmed in the sun it flew away. Hornet traps were deployed around the area and regular visits by Northern team led by Graham Royle then ensued. Tracings suggested the insect may have been brought into the area in produce which was believed to have originated from Lincolnshire. NE inspectors were deployed into Lincolnshire to assist Eastern region, once again reducing our presence on home turf. After extensive monitoring in both Lincs and Lancs nothing more was found.

A report of an Asian Hornet was followed up in the Leeds area after information was received from a person who was considered to be a "Credible Witness" contacted the NBU. Traps were deployed and monitored on a regular basis for six weeks. Nothing was found and the monitoring was wound down, beekeepers in the area were asked to be vigilant and report anything out of the ordinary.

The Hull Hornet, this caused alarm and inspectors were drawn in from surrounding regions to assist in the surveillance. After 2 weeks of surveillance and following up other suspect sightings in the area, which turned out to be native hornets, the operation was scaled down to bi-weekly trap monitoring. This carried on until mid-October when policy colleagues gave the instruction to collect in the traps and wrap up the situation.

During the summer we received numerous calls about Asian Hornets being sighted in the region. These turned out to be European Hornets (*Vespa Crabro*) which appear to have extended their range and have now been found as far North as North Allerton. This could be a result of the hot summer or global warming, we'll see next year.

More on Asian Hornet in the South to follow:

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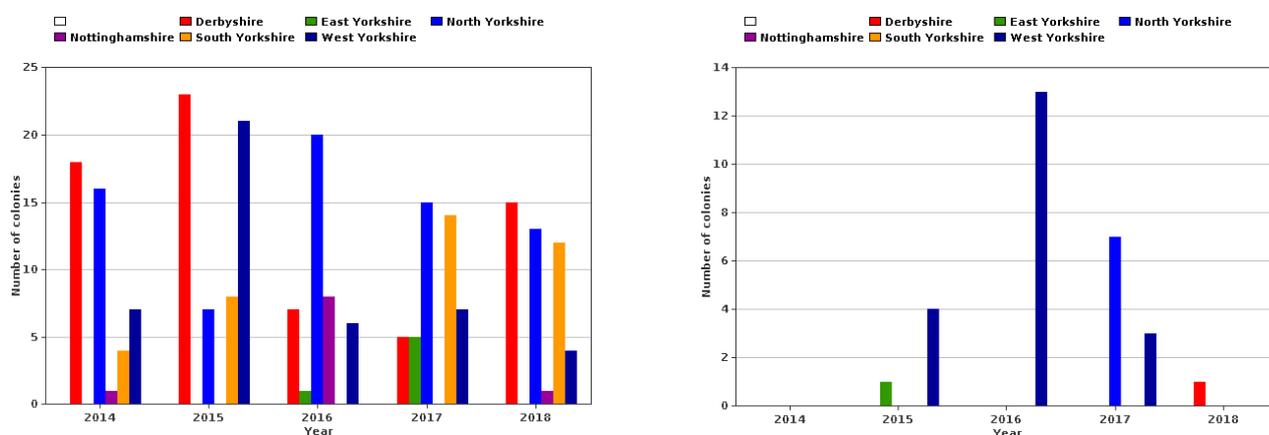
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## Disease round up

North East team inspected 436 Apiaries containing 2,106 colonies during the season, diagnosing 29 cases of EFB and 1 case of AFB. All figures are down on last year which were, 633 apiaries inspected, 37 cases of EFB and 5 cases of AFB.



157 exotic pest inspections (EPS) were carried out around areas considered to be high risk for Small hive beetle, *Tropilaelaps* and now Asian Hornets (EPS 236, 2017).

All shortfalls in inspection figures are consistent with the loss of field inspection time, as previously outlined.

## Varroa

Early callouts & inspections where losses occurred were nearly all down to *Varroa*. Probably due to poor treatments & monitoring and the effects of the late cold snap, basically, any weak colonies failed to survive, reducing the number of “*Varroa* reservoirs” available to re-infest surviving stocks. The knock on effect being that *Varroa* numbers were significantly reduced and fewer mites were seen in the colonies that survived leading to fewer observations of PMS (persistent mite syndrome).

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

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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.

My Inspectors and I regularly see treatments misused and therefore ineffective, the most common of these is not sealing up *Varroa* floors when using Thymol based treatments, this allows the vapour to simply fall through the floor (Thymol vapours are heavier than air) and the required vapour build up in the hive is not achieved.

### **REMEMBER TO FOLLOW THE MANUFACTURERS INSTRUCTIONS!**

#### **Honey Production**

In many parts of the region as the summer moved on, a distinct lack of moisture and baking heat took its toll. The summer sun did nothing for the nectar producing plants and in many areas the "flow" was minimal and alerts from the NBU were circulated advising beekeepers to check the level of stores in hives and feed if necessary. Localised rain showers and moisture from the sea kept some areas productive. Reports from around the region suggest that this season's honey production has been variable with comments from the "worst I've seen in 20 yrs" to "best summer I've ever had", overall it would appear that production was down as the grumbles outweighed the positives.

It is now clear that 2018 has been one of the hottest summers on record for the UK, however, the margin between the mean temperatures at the top of the league tables ([records dating back to 1910](#)) is so small it is impossible to say if 2018 will be an outright winner. It is very close to the record-breaking summers of 2006 (15.78C), 2003 (15.77C), and 1976 (15.77C) all of which are within 0.01C of each other. (met office stats)

On a positive note, reports from some of our Queen breeders in the region have shown the prolonged warm weather benefitted them with queens having the opportunity to get out and get mated properly reducing the number of new queens going drone layer.

#### **Imports**

The region has seen a large number of imports this season but with a 25.5% fall in total numbers from last year.

Queens imported 2018 **2,431**.

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Queens imported 2017 **3,267**.

This could be due to a fall in demand due to the good mating weather this season. All were imported from EU countries with no third country imports. There has also been large numbers of package bees imported into the region this year. These packages were subjected to decant inspections, detritus from the packages was collected for analysis at Sand Hutton to check for the presence of small hive beetle, all clear!

### **Please note:**

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>

### **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 6<sup>th</sup> 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

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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

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Channel Isles, in Jersey by the 4<sup>th</sup> October, 52 nests in various stages of development had been found and destroyed right through the season.



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

#### *Asian Hornet Fowey*

- Members of the public can also report sightings by email to [alertnonnative@ceh.ac.uk](mailto: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**

### **National Bee Unit**

APHA, National Agri-Food Innovation Campus  
Sand Hutton, York. YO41 1LZ

**Telephone** 03003030094 **Email** [nbuoffice@apha.gsi.gov.uk](mailto:nbuoffice@apha.gsi.gov.uk) **NBU Web Site** [www.nationalbeeunit.com](http://www.nationalbeeunit.com)

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*Aethina Tumida Adult and larval stages*

## Surveillance of *Aethina tumida* in Italy in 2018

As of 26<sup>th</sup>. 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 1<sup>st</sup>. in the municipality of Palmi where adults and a larva were detected. The second sentinel apiary was confirmed positive on August 7<sup>th</sup>. 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 4<sup>th</sup>. 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 2<sup>nd</sup> 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.

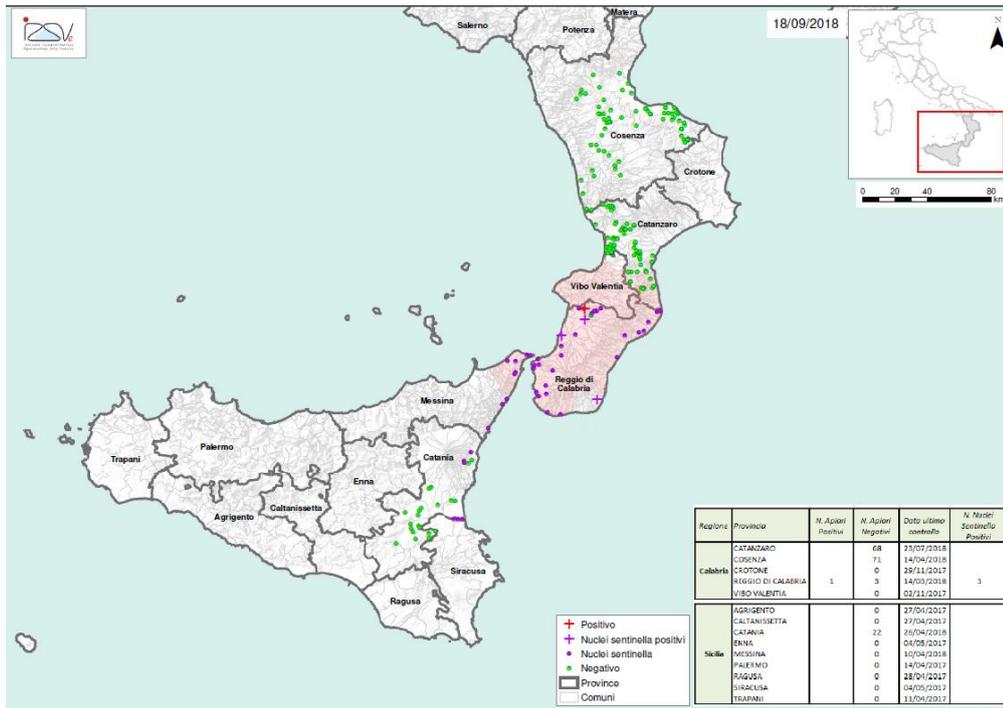
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Note: the Commission Implementing decision (EU) 2017/370 of March 1<sup>st</sup>. 2017 removed Sicily from the list of areas subject to protective measures in relation to SHB in Italy and extended the period of application of certain protective measures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



## Training

If any of the association would like to contact me with regard to training days please feel free. We are limited to the number we can attend so call soon. There are incentives from BDI to help with the costs of promoting an event so check it out and give me a call.

## TEAM NE 2019

<b>Dhonn Atkinson</b>	<b>Regional Bee Inspector</b>	<b>07775 119 437</b>
<b>Tim.Roper@apha.gov.uk</b>	<b>SBI Derbyshire/ N. Notts</b>	<b>07775 119 441</b>
<b>Adrian.Wilford@apha.gov.uk</b>	<b>SBI North Yorkshire</b>	<b>07775 119 444</b>
<b>Nick.Mitchel@apha.gov.uk</b>	<b>SBI East Yorkshire</b>	<b>07796 548 575</b>
<b>Phil.Khorassandjian@apha.gov.uk</b>	<b>SBI South/West Yorkshire</b>	<b>07554 330 488</b>

## National Bee Unit

APHA, National Agri-Food Innovation Campus  
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<b>David.Bough@apha.gov.uk</b>	<b>SBI North/West Yorkshire</b>	<b>tbc</b>
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## Finally

I would like to thank Tim Roper, Adrian Wilford and Nick Mitchell for all their good work this summer their expertise and professionalism have helped keep everything on track.

I would also like to thank those of you who helped with local reports of conditions and observations used in compiling this report.

Please remain vigilant and report any suspected disease in your colonies to your local SBI or myself. With the potential of Asian hornet arriving in our region I would like to ask you all to become familiar with our native species of hornet and wasps as well as the Invader, this could reduce the number of false alarms we receive at NNSS and the Bee unit.

Between the 1<sup>st</sup> Jan and 6<sup>th</sup> Nov 2019 we received 7929 records: 5285 emails, 990 online records, 1654 through the Asian Hornet Watch app. (available for your smart phone from your app store)



Native Hornet

Pic from BWARS



Asian Hornet feeding next to common wasp.

Pic NBU

Thank you

Dhonn Atkinson

Regional Bee Inspector, North East.

[Dhonn.atkinson@apha.gov.uk](mailto:Dhonn.atkinson@apha.gov.uk)

07775119437

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APHA, National Agri-Food Innovation Campus  
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