



South West Region Annual Report 2018 National Bee Unit

The 2018 Season – An Overview

The 2018 season started late after a cold winter and spring. However colonies that were healthy and strong coming out of the winter were able to take advantage of the good weather that followed and gathered a good crop of honey. From my own experience the honey has been of a good quality with most of the combs fully capped with the extracted honey having a low moisture content.

The Bee Inspectors have had another busy season. They have been carrying out their usual programme of risk based inspections for European Foulbrood (EFB) and American Foulbrood (AFB). There has been an increase in the levels of disease in Cornwall but the other counties which make up the South West Region (SW) have showed a significant decrease with Avon having no disease at all (see graphs further in the report).

In partnership with the local Beekeeping Associations we have continued to deliver our 'Bee Health Days'. This season the North Somerset/Avon Bee Health Day took place at the Langford Veterinary College, the Cornwall Bee Health Day was in Lostwithiel at the local community centre and the Devon Bee Health Day was hosted by Exeter Branch at the Kenn Centre just outside of Exeter.

I would like to thank all of the local association secretaries/training officers who helped us to manage the programme of Bee Health Days across the SW. We are also very grateful to the local beekeepers who allowed us to use their nearby apiaries for demonstration purposes.

The Inspectors also had a presence at the Somerset Lecture Day in February and Cornwall's 'Bit of a Do' (BOAD) in September.

We have again been carrying out Exotic Pest Surveillance (EPS) inspections around risk points such as ports and airports to check for incursions of Small Hive Beetle (SHB), Tropilaelaps and Asian Hornet. With local beekeepers help we set up four Enhanced Sentinel Apiaries, two are situated near Avonmouth Docks and two near Plymouth Docks, both are considered to be very high risk points. These apiaries are inspected three times a year by the local Bee



Comb Workshop in Cornwall-
Photo by Mike White



Inspector and floor samples are sent into the FERA laboratory for analysis.

In addition to these inspections there are 18 Sentinel Apiaries around the region. This is where beekeepers that have an apiary near a risk point assist the National Bee Unit (NBU) by regularly monitoring their colonies for Exotic Pests and twice a year they send in floor debris samples to be tested. I am very grateful to the South West Sentinel Apiary Beekeepers for all of their help this season, they are an important part of the NBU's surveillance programme.

Part of our work each season is to monitor imports of queens and package bees from the European Union (EU) and Third Countries (Argentina, Australia and New Zealand). Again this year we saw a large number of packages imported from Italy, some of which were bought by beekeepers in the South West (SW) region. These were inspected for SHB as they were decanted into hives and fortunately nothing was found (SHB was found in Southern Italy in 2014).

Throughout the season the SW Inspectors carried out enhanced surveillance for Asian Hornet in the Woolacombe area of North Devon to ensure nothing had been overlooked from the nest that we found and destroyed in 2017.

We were also in the thick of it again when Asian Hornet was found to be preying on bees in an apiary in Cornwall, details of which are below.

Asian Hornet (AKA- '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. After prolonged surveillance no further hornets were seen in the area. A single dead hornet was found in Hull, Yorkshire, confirmed on 9th September. 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 on the 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.

After a positive identification is confirmed, the process of finding Asian Hornet nests 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, on Jersey. By the 4th 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
- 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 for a reply.
- 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 organization. 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*)



Aethina Tumida Adult and larval stages

Surveillance of Small Hive Beetle (*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 further in the report) 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



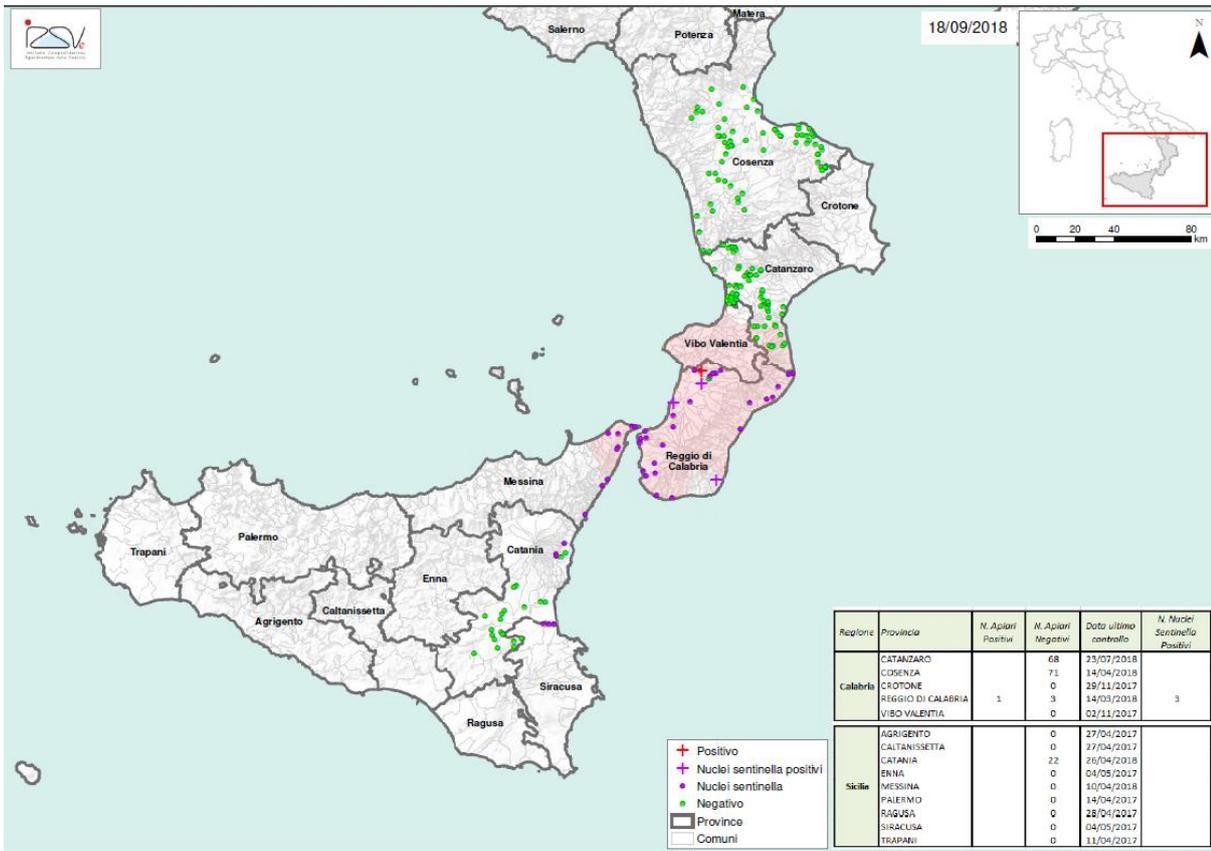
larva were detected. The second sentinel apiary was confirmed positive on August 7th in the municipality of Brancaleone situated approximately 15 km away from the protection zone on the south-east coast of the province of Reggio Calabria. Adults of SHB were detected. The last sentinel apiary was confirmed 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.



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 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 2018, at time of writing, are as follows (2017 figures in brackets for comparison):

- Queens imported from the EU 15,944 (15,210)
- Packages/Nucs of Bees imported from the EU 1,970 (1,795)
 - Of which from Italy 976 (1,310)
- Full colonies imported from the EU 52 (0)
- Queens from Third Countries 525-Argentina (525-Argentina)

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.

In order to maintain strong vigorous colonies, the NBU advice is to monitor and control Varroa appropriately. Control can be achieved by 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 throughout the season will help determine whether an earlier treatment is required.

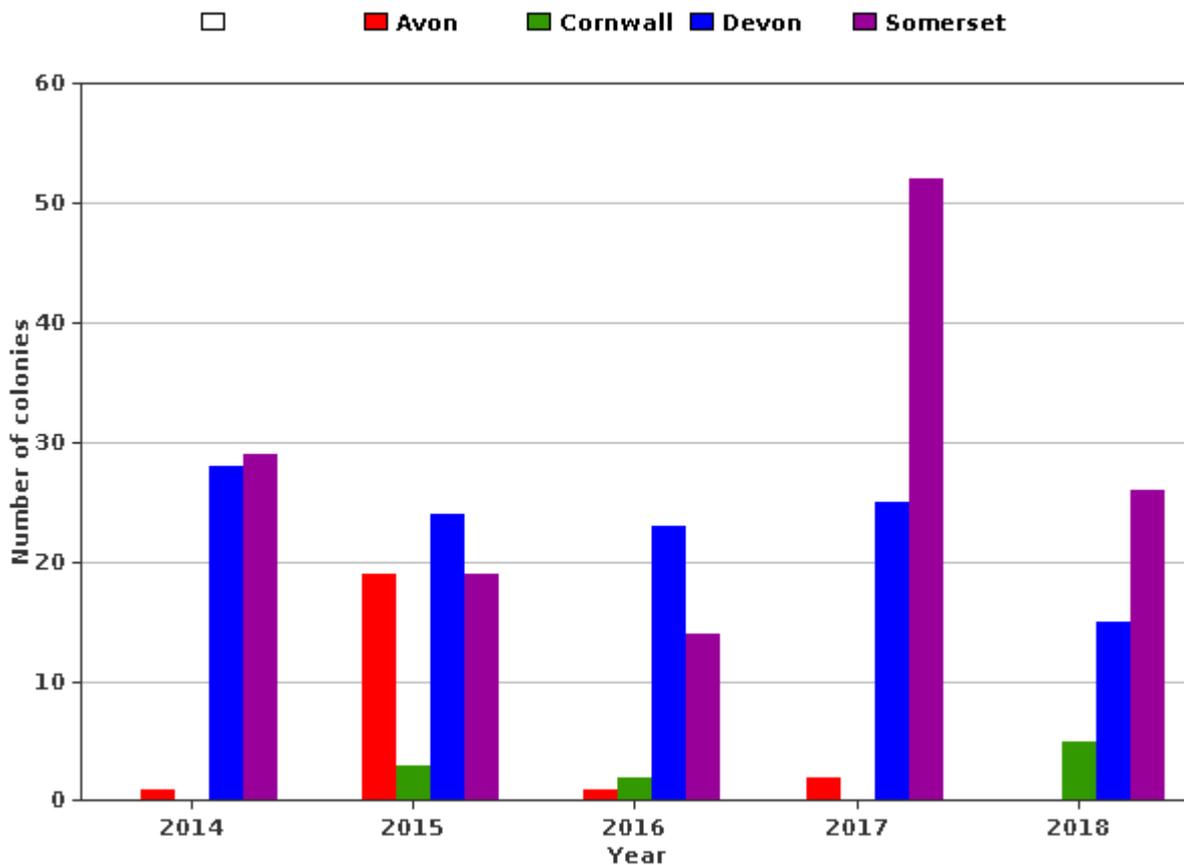
Varroa acts as a vector for viruses which will reduce the longevity of the bees and so impact on the foraging capability of colonies during the summer. Hives treated too late in the season may result in winter bees being affected by viruses or they may be weakened by the Varroa mites feeding on them. This may lead to colony mortality in the winter or early spring.



Foulbrood Diseases and Inspection Statistics for the South West in 2018

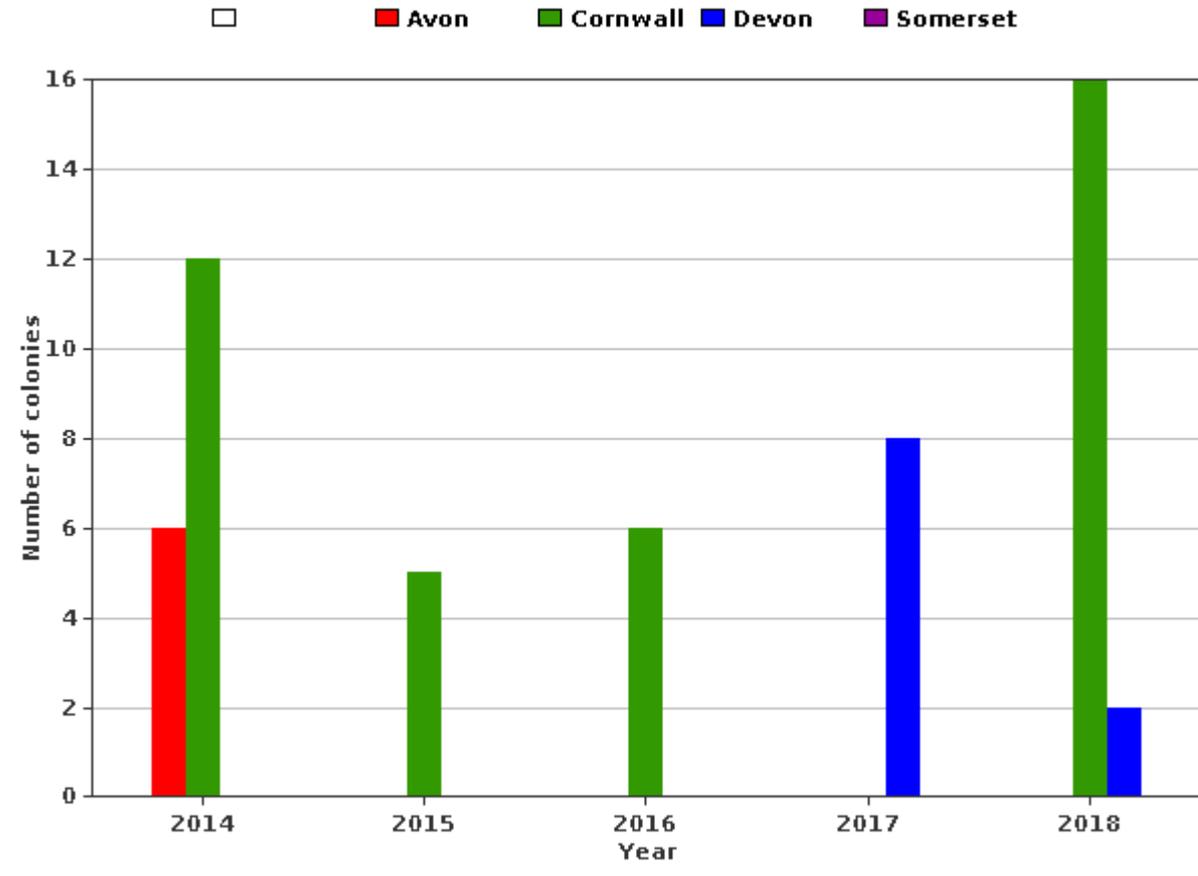
3307 colonies were inspected and 851 apiary visits made within the region, this is up on last year in terms of the number of apiary visits. Sixteen hives infected with AFB were found in Cornwall and two hives were found in Devon. Five hives infected with EFB were found in Cornwall, fifteen in Devon and twenty six in Somerset. Unfortunately both EFB and AFB have increased in Cornwall. However in the three other Counties which make up the South West Region there is a general decrease in disease levels and it is encouraging that EFB in Somerset and Devon is down by 50% compared with the figures for 2017.

Regional trends of EFB- by county in South West England





Regional trends of AFB- by county in South West England



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.



BeeBase Registration and Association Membership Lists



I would like to remind everyone how essential it is that all apiaries are registered on BeeBase so that we can identify any at risk of notifiable disease or an incursion of an exotic pest 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 on **0300 303 0094** or your Regional Bee Inspector.

All beekeepers registered on BeeBase with a current email address will receive an automatic email alert if disease is found within 3km of the registered apiary. If you are self-registered, please ensure that you keep your apiary records up to date or contact me if you are unsure. Self-registration is recommended as it also gives beekeepers secure password protected access to personal details and inspection records.

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 Information Commissioner's Office (ICO) website provides guidance on best practice).

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 send 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 in the UK or more Asian Hornets in our region in the coming season.



Education and Advisory Services

In 2019 the SW team would like to run our usual Bee Health Days around the region. It is good to see that Bee Disease Insurance (BDI) have agreed to continue with their £100 grant to help the County Associations with the cost of running these events. If you are thinking of running a Bee Safari next season please contact me or the local Seasonal Bee Inspector (SBI) as soon as possible as we get booked up very quickly. Because of time constraints, there are a limited number of these events that we can run during the active season.

As part of our Bee Health Days we ask attendees to fill out feedback forms. Leila Goss who is the SBI for North Devon has done some analysis of this year's feedback.

In the main it seems that you think that we are getting things about right. There were some concerns raised about the biosecurity of the comb workshops. We obviously do not want to take any risks and for this reason we ensure that attendees taking part in the apiary workshop do so before they attend the comb workshop. We also provide gloves, aprons and antibacterial hand cleaner and attendees are closely supervised. This is an approach that has been well tried and tested by the NBU. Other comments raised have asked if we could provide training on wider beekeeping subjects, unfortunately our remit is bee health and other training should be provided by the local beekeeping groups.

It has been a challenging year and I would like to take this opportunity to thank my team for all their support and hard work.



Cornwall Bee Health
Day-Photo by Mike
White



Animal &
Plant Health
Agency

The new season will start on 1st April 2019 and from that date you can contact the SW team as follows:

Hazel Vallis – **Cornwall** - 07775119457- hazel.vallis@apha.gov.uk

Eric James- **Cornwall**- 07979119369- eric.james@apha.gov.uk

Martin Hann- **Devon**- 07979119377- martin.hann@apha.gov.uk

David Packham- **Devon**- 07775119463- david.packham@apha.gov.uk

Leila Goss- **Devon**- 07775119453- leila.goss@apha.gov.uk

Eleanor Burgess- **Somerset**- 07775119465- eleanor.burgess@apha.gov.uk

Megan Seymour-**Somerset and Avon**- 07775119475- megan.seymour@apha.gov.uk

My e-mail is changing.

The 'GSI' element is being removed from all government e-mail addresses. My new email address will be simon.jones@apha.gov.uk . My new email address is already working so please start using my new email address now.

After March 2019 any e-mails sent to the Bee Inspectors containing the 'GSI' version will not reach us.

If you have any concerns prior to the 1st of April then please contact me.

Simon Jones

Regional Bee Inspector, South West England



Animal &
Plant Health
Agency

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