

# Small Hive Beetle in South West Italy

by Ivor Flatman and Simon Jones, NBU APHA

## First discovery of SHB in Italy

On 11 September 2014 Small hive beetle (SHB) was detected in South West Italy, in the port city of Gioia Tauro. Following this initial discovery the Italian authorities established a 20km radius protection zone and a 100km surveillance zone around this site. Surveillance and control activities were focused on the 20km zone and movement restrictions placed in the 100km zone preventing any export or movement of bees, bee products and equipment from the zone. A rigorous inspection programme has shown a number of additional apiaries affected within the 20km zone in the province of Reggio Calabria and the southern most border of Vibo Valentia. The protection zone was extended to cover the area 20km around each new detection. By the end of November a total of 58 apiaries were known to be affected within the original 20km zone plus a new notification of one apiary affected in the Siracusa region of Sicily (i.e. 59 apiaries in total). This new finding was determined to have resulted from the movement of colonies from within the Gioia Tauro area to Sicily in August, before the first discovery of SHB, and demonstrates the ease with which the pest can be spread by the movement of colonies. As a result a second 20km protection zone has now been established around the Sicilian outbreak, encircled by an additional 100km surveillance zone, and corresponding apiary inspections, control actions and movement restrictions are in action.

To date, all other findings in Calabria and Sicilia have been within their respective 20km surveillance zones. Checks on apiaries outside these protection zones (in Italy and across the EU) have all been negative. At present the Italian authorities are still attempting to eradicate the pest with all apiaries affected being destroyed and the surrounding soil treated with insecticide. Although SHB larvae have so far been detected in only four of the positive apiaries, the spread within the original 20km zone indicates that SHB has been present long enough to go through at least one breeding cycle. The area is a popular one for migratory beekeeping and queen rearing and naturally there is concern that SHB may have spread into other provinces through the movement of bees or equipment before the first detection.

## Further details about the Italian outbreak

The situation in Italy continues to evolve, so please see further details as they are reported on the website of the Italian National Reference Laboratory for Apiculture (IZSV) at [http://www.izsvenezie.it/index.php?option=com\\_content&view=article&id=1729:aethina-tumida-situazione-epidemiologica&catid=59&Itemid=373](http://www.izsvenezie.it/index.php?option=com_content&view=article&id=1729:aethina-tumida-situazione-epidemiologica&catid=59&Itemid=373) or at: <https://sites.anses.fr/en/minisite/abeilles/detection-aethina-tumida-small-hive-beetle-southern-italy-0>. Both websites are available in English versions and include detailed maps of the outbreak, which are updated very regularly. They also present a variety of additional information in the form of video clips and photographs of control regimes.

## Tracing imports

Since 2011, there has been a substantial level of imports of package bees and queens from Italy into the UK. The National Bee Unit (NBU) has completed all the tracing of imports of packages imported from Italy this year, around 600 colonies, and all results have been negative. Fortunately none of the imports were from the region affected.

## Association of SHB with, and trade in, plants and plant produce from Italy

Fruit imports (e.g. avocado, grapes, bananas and grapefruit) and soils or composts associated with the plant trade could present risk pathways through which the beetle could be introduced. At the request of the Chief Plant Health Officer, expert Pest Risk Analysts have re-considered the potential for SHB to be introduced into the UK with produce and other plant products currently imported from Italy. They have concluded that although the pathways related to fruit and soil associated with plants for planting cannot be completely discounted, the evidence suggests that they pose a much lower risk compared to the movement of bees, beekeeping equipment and bee-related products.

## International efforts

The NBU continues its discussions with the Italian Authorities and its European partners to ensure that we are best placed to stop the beetle from entering the UK and harming our bee population. The Italian authorities have maintained regular contact with the NBU to ensure that we are kept informed of developments since the first official notification of the outbreak. In addition a member of the NBU (Damian Cierniak) has recently returned from the US as part of an exchange programme with US officials. Damian has gained valuable practical experience of managing apiaries in areas where the beetle is endemic and his completed report will be used to share best practice with UK beekeepers.

## Contingency planning and risk reporting

Contingency plans and a pest risk-assessment have been published for the SHB. This plan was tested this summer with the completion of two field exercises in the south-east and eastern regions of England. Following the discovery of the beetle in Italy, Defra and APHA officials have been re-evaluating the risk assessment. At present we consider the most likely introduction scenario to the UK would arise if a primary trader were to import infected packages of bees, overwinter them and then distribute them to other beekeepers across the UK before discovery; the probability of successful eradication would be highly dependent on the scale of introduction and subsequent trade. Rapid detection is key to preventing establishment.

## Be vigilant

Now that the SHB is present in Europe the risk of introduction into the UK is far greater and all beekeepers should be both aware of the appearance of all life stages of the SHB and should examine their colonies on a regular basis. If you import bees, make sure you only do so through appropriate channels and with appropriate health certification. Import regulations are our main defence against the introduction of SHB (and other very serious bee pests and diseases) from overseas to the UK. It is absolutely essential that all beekeepers abide by them. For information about import legislations and how to check your colonies for SHB please refer to the NBU leaflet, *The Small Hive Beetle – a serious threat to European apiculture*, available as a download from BeeBase at [www.nationalbeeunit.com](http://www.nationalbeeunit.com)

### Note: NBU Revised Contact Details

The National Bee Unit, Animal and Plant Health Agency,  
Sand Hutton, York, YO41 1LZ  
NBU email: [nbu@apha.gsi.gov.uk](mailto:nbu@apha.gsi.gov.uk); Office tel: 0300 3030094