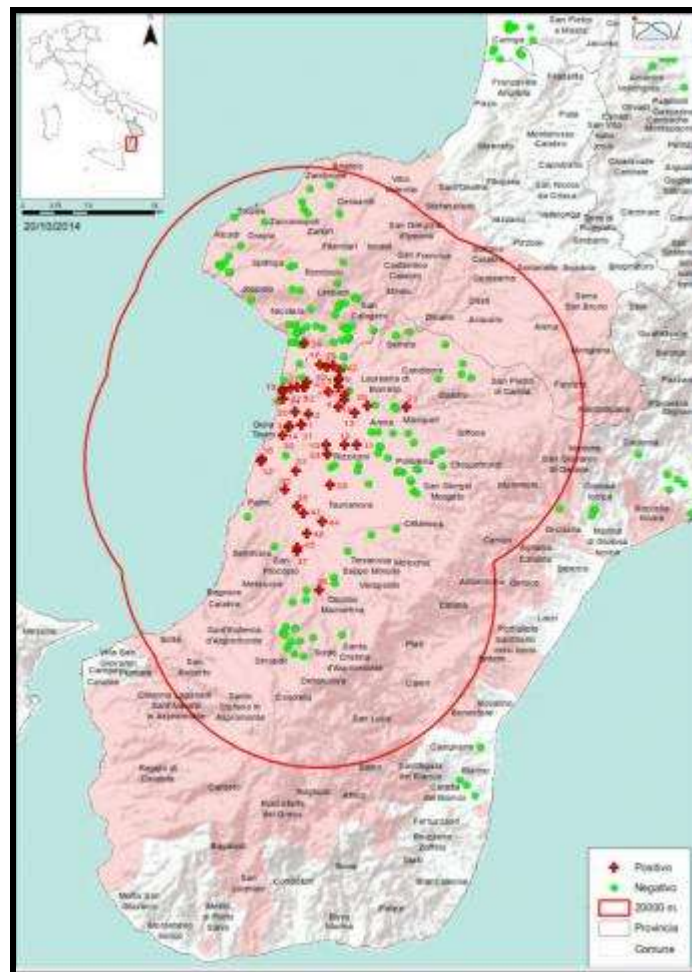


OCTOBER 2014 - SMALL HIVE BEETLE CONFIRMED IN SOUTH WEST ITALY

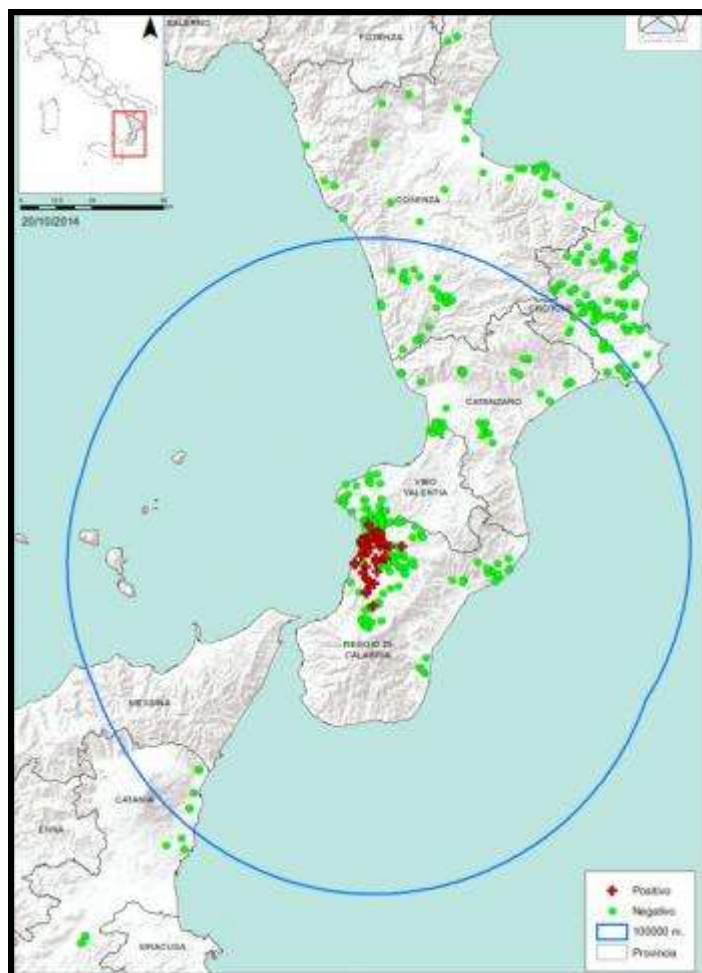
DEVELOPMENTS IN ITALY

On September 11 2014, the Italian National Reference Laboratory for Apiculture (IZSV) confirmed the first detection of the presence of Small hive beetle (SHB) in South West Italy, in the port city of Gioia Tauro. Since its discovery, urgent measures are underway to measure the extent of the outbreak, complete tracings (sales and movements of bees from the area) and eradicate and control its spread. In line with EU legislation and safeguards, Italian authorities have established a protection zone (radius 20km) and a wider surveillance zone (radius 100km) around the site of first discovery. Surveillance and control activities have been focused within the 20km zone and movement restrictions throughout the entire 100km zone, preventing any export or movement of bees.

Details of the current (daily) situation regarding the extent of the outbreak can be found on the IZSV website at http://www.izsvenezie.it/index.php?option=com_content&view=article&id=1731:aethina-tumida-epidemiological-situation&catid=119:-beekeeping&Itemid=893 and on the European Union Reference Laboratory's (EURL's) ANSES website <https://eurl-milk.anses.fr/en/minisite/abeilles/eurl-bee-health-home>. Information is provided in the form of maps and also a table, which provides more detail about whether confirmed findings included eggs and larval stages as well as adult beetles. At time of writing (22nd October 2014), SHB has been confirmed present in 48 apiaries. All of these sites are located within the 20km zone. In the majority of cases only adult beetles have been reported; in 4 apiaries, immature (larval and or pupal) stages were also found. Control measures include the destruction of all colonies where the beetle is found and treatment of surrounding soil in the apiaries.



Map 1: Location of the *A. tumida* outbreaks (20th October 2014) – 20km zone



Map 2: Location of the *A. tumida* outbreaks (20th October 2014) – 100km zone

SUMMARY OF ACTIONS IN THE UK

Apiary Inspections

Bee health inspectors across the UK have been active in:

- Tracing and checking past imports of bees
- Increasing inspections of high-risk apiaries near ports and airports
- Providing training and guidance materials on pest recognition to inspectors responsible for checking UK imports of plants and plant products (e.g. Plant Health and Seeds Inspectors and Horticulture Marketing Inspectors) as these products could provide a route by which the beetle is introduced to the UK.
- Working with beekeeper associations, government agencies and importer trade associations (e.g. Fresh Produce Consortium) to raise awareness amongst beekeepers, plant produce importers and growers who use managed bees for pollination services

International Collaboration

Policy officials and experts from the National Bee Unit (NBU) continue their discussions with the Italian Authorities and our European partners to ensure that we are best placed to stop the beetle from entering the UK and harming our bee population. The first meeting of NBU officials with experts from Bee Health National Reference Laboratories (NRL) from across Europe took place on the 22nd-23rd Sept and (colleagues from the Italian NRL) provided officials with first-hand experience of the situation in Italy. Officials also shared best practice in identifying the beetle and this guidance has been shared with diagnosticians across the EU. The Italian NRL has since maintained regular contact with the NBU to

ensure that we are kept informed of developments. In addition a member of the NBU has recently returned from the US as part of an exchange programme with US officials. Here, he has gained practical experience of managing apiaries in areas where the beetle is endemic and reports are planned to share best practice.

Fruit Imports and Small Hive Beetle

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. Although SHB has been associated with rotten fruit no evidence could be found as to whether the beetle is a primary pest able to attack healthy fruit, or if it is a secondary pest that requires existing damage before it can feed on fruit. While introduction of SHB via fruit has been assessed as a possible pathway, the most likely (i.e. highest risk) route of entry to the UK is still considered to be via movement of honey bees: queens and packaged (worker) bees for the purposes of trade. The Chief Plant Health Officer has provided the following statement regarding the potential for small hive beetle (*Aethina tumida*) to be associated with produce and other plant products from Italy: The European Commission evaluates plant health risks according to Directive 2000/29/EC. If existing measures to prevent the introduction of a plant pest into the Union are not considered sufficient, the Union will impose stricter measures or a complete ban to improve protection of the Union against the introduction of that organism. Recent examples of this include stricter measures imposed on South Africa for export of citrus to prevent introduction of citrus blackspot and a temporary ban on mangoes from India to prevent introduction of non-European fruit flies. Such measures are usually focused on produce being imported from outside the EU, rather than fruit being traded within the EU Single Market, where routine border checks are not undertaken. Although SHB can be associated with ripe and rotting fruit, this is not sufficient evidence to use plant health legislation to take measures against this insect. However, plant health and seeds inspectors (APHA) and horticultural marketing inspectors have been alerted to the risk of entry on fruit and have been asked to look out for the SHB. We have also liaised with the Fresh Produce Consortium to raise awareness amongst the industry and encourage importers and others to be vigilant. During the course of their plant health inspection duties, the APHA inspectors have intercepted other nitidulid species (the family of beetles to which SHB belongs) on a variety of plant products from Asia, Africa, North and South America, over several years - there has never been any finding of SHB, even from areas where this species is established.

Surveillance Networks

Bee health inspectors across the UK are maintaining heightened inspections in areas where there is a high risk that new (exotic) pests and diseases could enter the UK. In England, Wales and Scotland selected groups of beekeepers have been specifically monitoring their colonies for exotic pest species. These beekeepers provide a valuable additional front-line defence against exotic pest incursion. For example, in England and Wales there are fifteen 'sentinel apiary' (SA) holders in each of eight beekeeping regions (i.e. 120 in total across England and Wales), which are in both 'at risk' and random areas to maximise the likelihood of detection. Hives within the SAs are regularly examined by the beekeepers, according to specific monitoring protocols. Twice in each season samples of hive debris are submitted to the NBU where they are tested for the presence of SHB. The establishment of SAs marks an increase in the level of surveillance for exotic pests, improving the chances for early interception and successful. Scientists from the NBU, Fera and the Universities of Warwick and Swansea are working on a collaborative Defra-funded project to "stress test" the existing SA network. The results from this project (due early 2015), will allow the density and configuration of participating apiaries to be refined (if necessary) to optimise chances of early detection of a range of invasive species of honey bee pests, including SHB. The NBU will produce a more complete article on this project for a forthcoming issue of BBKA news.