

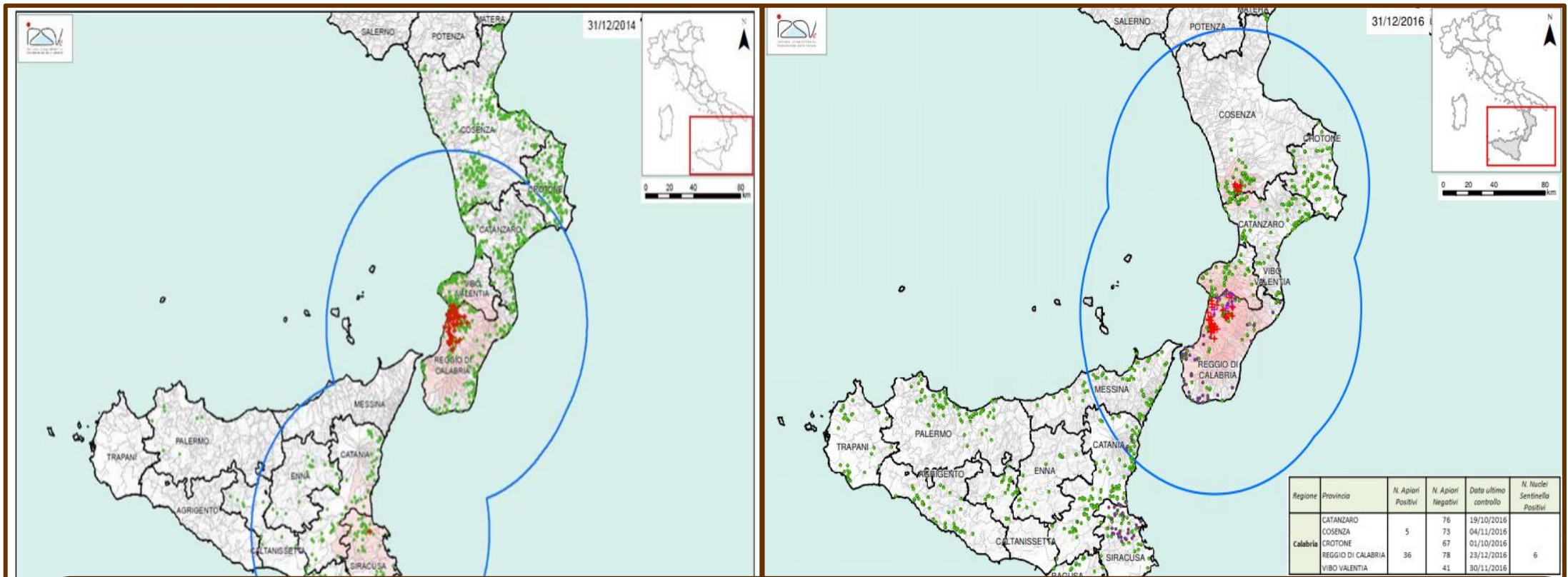
## Small hive beetle outbreak in Sicily Region

PAFF Committee – Animal Health and Welfare

8-9 July 2019



# SHB outbreaks in Italy from 2014 to 2018



- 2014-2018: Mainly Calabria Region.
- November 2014: Siracusa province (Melilli Municipality), 1 outbreak discovered after a tracing back conducted on beekeepers returning from Calabria region during the risk period. No other cases were ascertained after this case.
- After two years of surveillance Sicily has been reopened with Decision 2017/370/EU.



# Reinforced controls in the ports of Calabria and Sicily



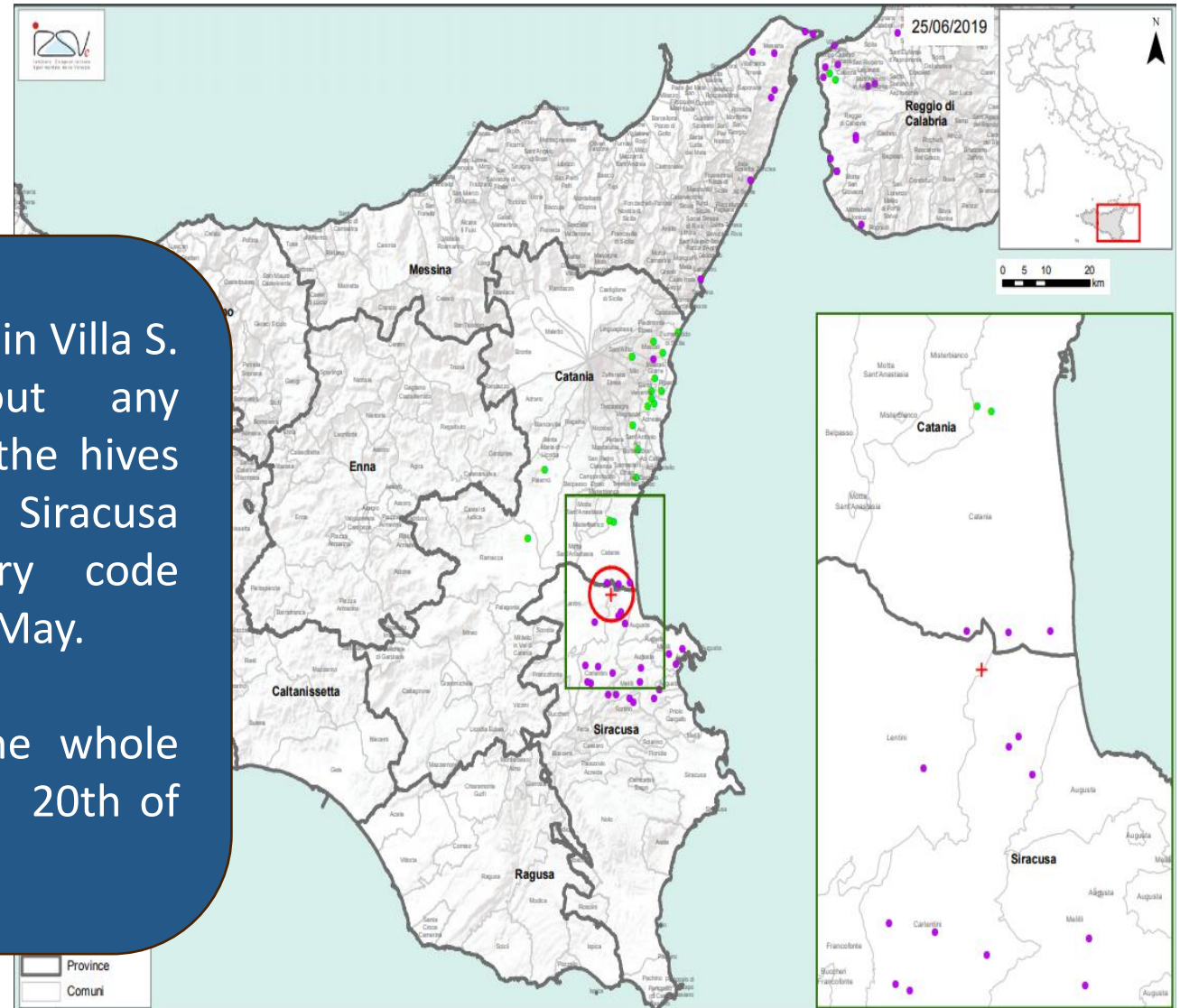
- National surveillance plan for SHB in the whole country since 2014 including also random clinical controls in apiaries and sentinel nucleus located in the whole territory of Sicily (328).

- In addition to prevent the movements of apiaries between Sicily and Calabria risk based controls are enforced in the ports of Messina (Sicily) and Villa S. Giovanni (Calabria). Controls are carried out by police corps with the collaboration of Official veterinarians based on information gathered from beekeepers association and Local veterinary unit.

# Small hive beetle outbreak in Italy in 2019

- 2nd May: a truck with 64 hives was blocked in Villa S. Giovanni port (Calabria side) without any accompanying document. The owner with the hives was sent back to the apiary of origin in Siracusa Province Municipality of Lentini (apiary code IT055CT497). First random control on the 3<sup>rd</sup> May.

- Clinical controls were carried out on the whole apiary on the 6th of May and again on the 20th of May with favorable results.





# Small hive beetle outbreak in Italy in 2019

- 11th June: another control was carried out in the apiary without notice which led to discover other 13 hives of unknown provenience. One suspect hive was sent to laboratory examination but the result was negative (laboratory report of 14 June).
- 18th June: clinical controls were repeated in all the hives and two adults were found in two of them (one per each).
- 20th June: NRL confirmed SHB presence.

Investigations discovered that the hives were stolen from the protection zone of Reggio Calabria on the 9th of June!!!!





# Measures adopted in the outbreak

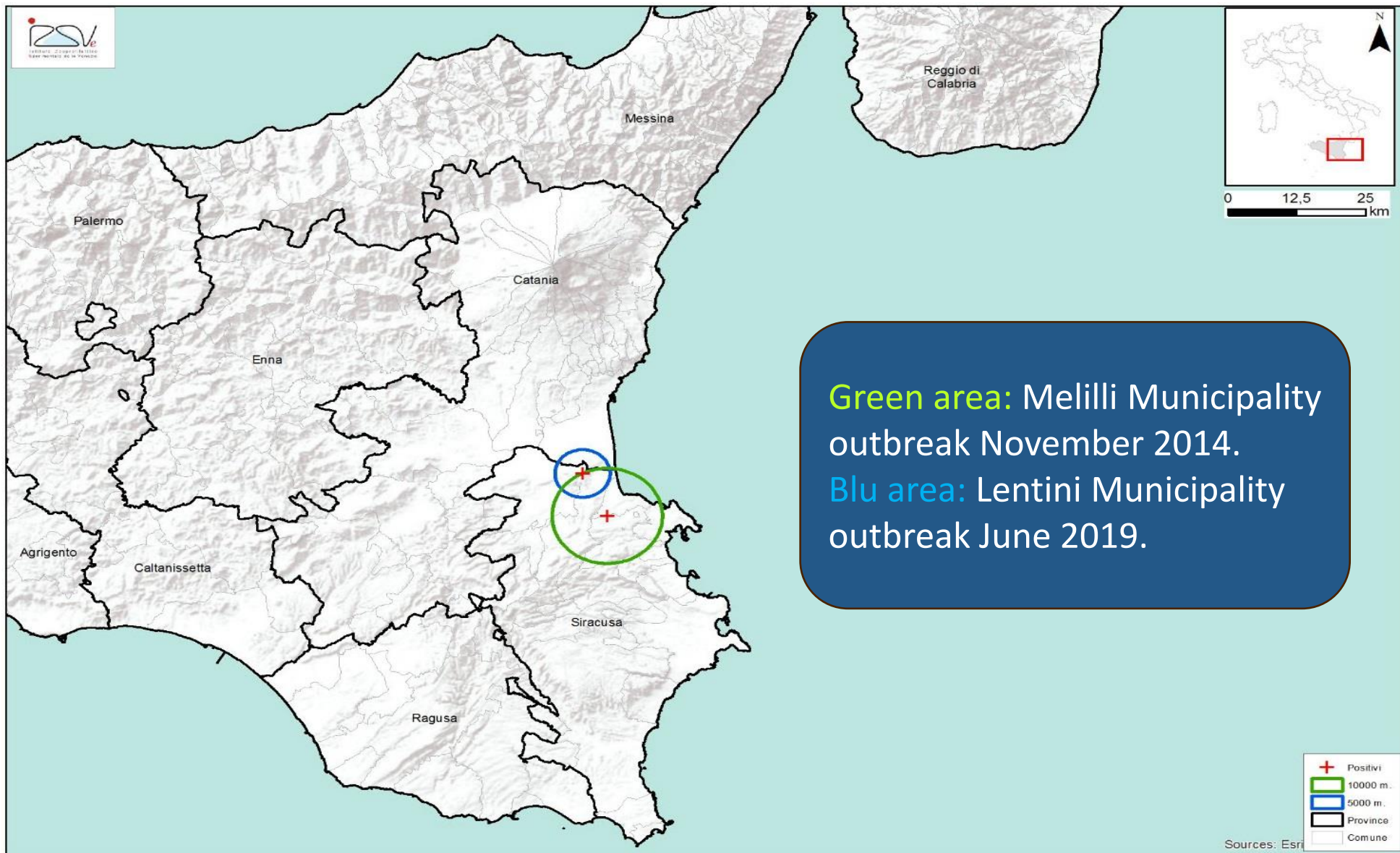
- The apiary was totally destroyed on the 23rd June.
- Soil was cleaned of grass and treated with solution of permethrin 40%.
- A protection zone of 5 km radius was set.







# Outbreaks confirmed in November 2014 and June 2019





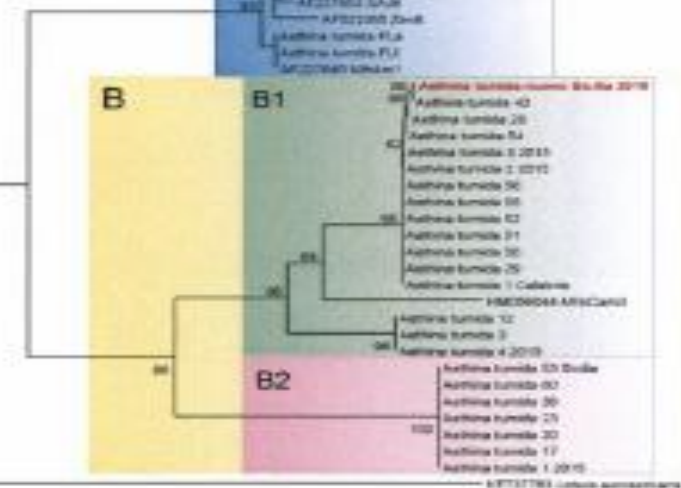
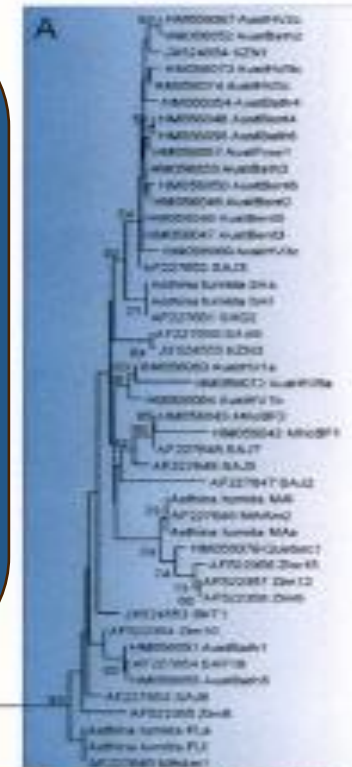
# Phylogenetic analysis results on the SHB

**Group A** : genetic sequence of SHB isolated in other continents.

**Group B** : genetic sequence of SHB isolated in Calabria and Sicily:

- **B1** = SHB genetic sequence of SHB found only in Calabria region;
- **B2** = SHB genetic sequence of SHB found in Calabria region and in the outbreak confirmed in Sicily in November 2014.

The sample taken in the current outbreak belongs on group B1 then no epidemiological connection with the previous outbreak confirmed in Sicily in November 2014.



# Conclusions

- The outbreak is due to an illegal movement of hives from an apiary located in the protection zone of the Reggio Calabria province.
- The outbreak is not a consequence of a diffusion of SHB from the environment as the genetic profile of the SHB isolated in the current outbreak is different with the one isolated in the previous outbreak (November 2014). The genetic profile is similar to other SHB isolated in Calabria but not in Sicily.
- The number of SHB found is very low (only two adults) isolated during the two clinical controls carried out in the apiary.
- No larvae were found.





**Thank you**