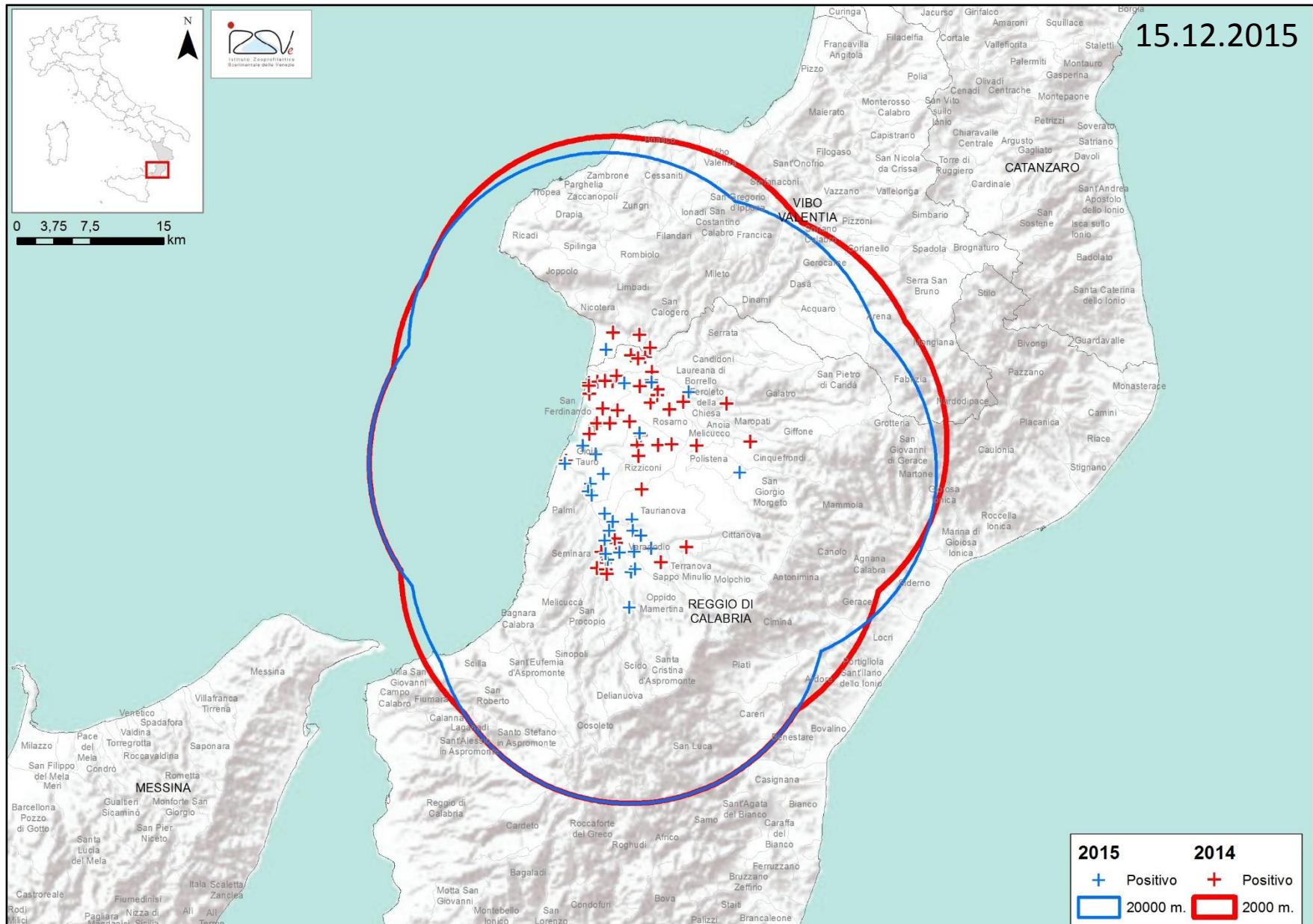


# Small hive beetle in Italy: update, surveillance and the recent incident

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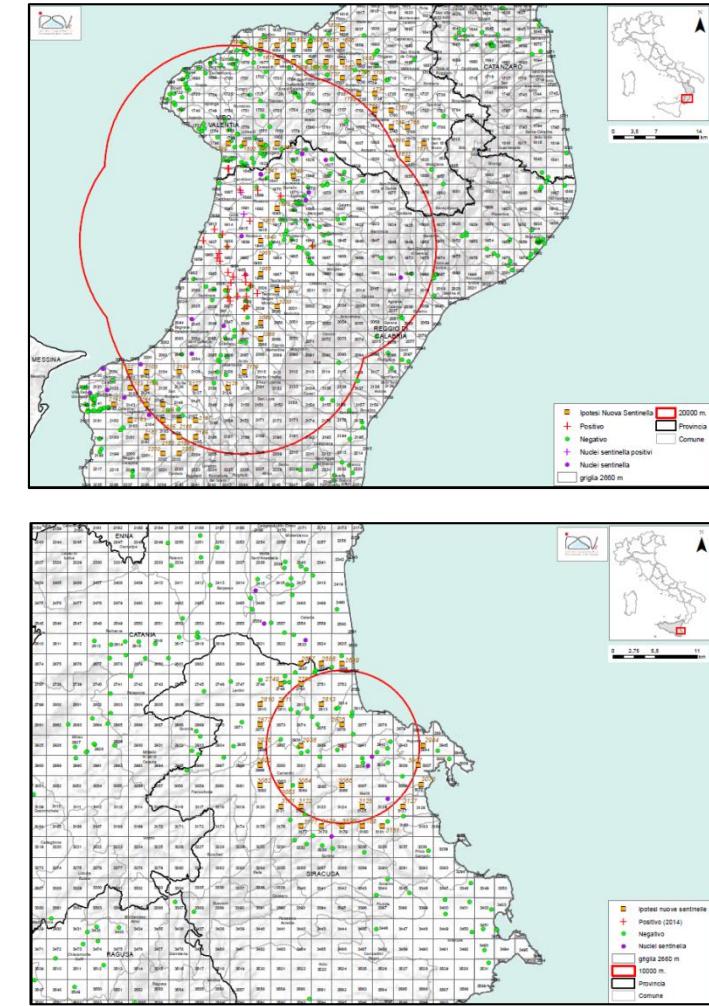
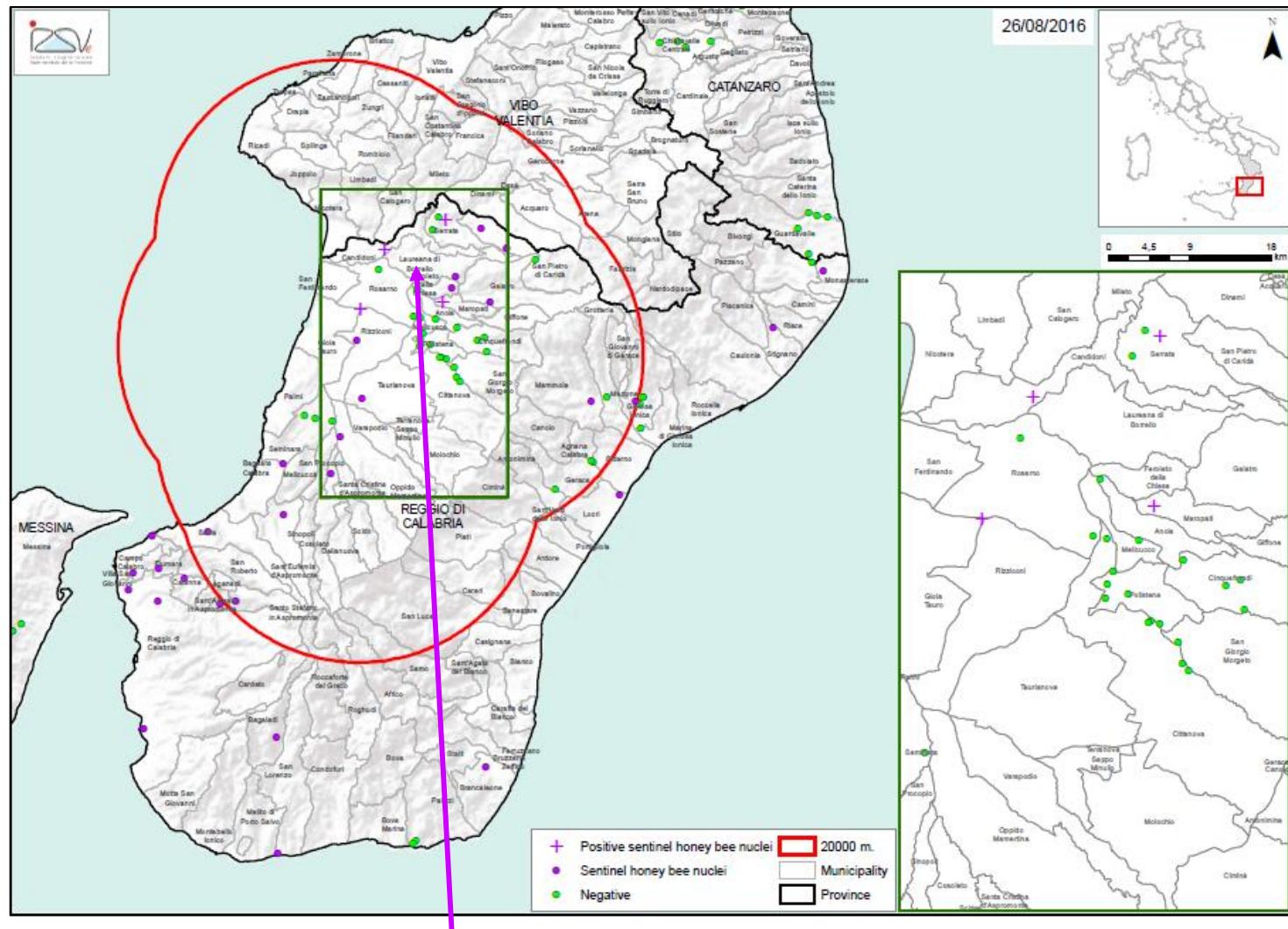
## Comparison between 2014 (red) e 2015 (blue) infested apiaries



## SHB surveillance program - Italy - 2016

| <b>Territory</b>                              | <b>Epidemiological units</b>                 | <b>N. apiaries</b>  | <b>N. hives for apiary</b>    |
|---|--|---|-------------------------------|
| Italy<br>(excluded<br>Calabria and<br>Sicily) | Northern                                     | 177 non migratory random selected (2% expected prevalence CI 95%) | 2% expected prevalence CI 95% |
|   | Central                                      | 170 non migratory random selected (2% expected prevalence CI 95%) | 2% expected prevalence CI 95% |
|   | Southern                                     | 163 non migratory random selected (2% expected prevalence CI 95%) | 2% expected prevalence CI 95% |
| <b>Region</b>                                 | <b>Territory/zones</b>                       | <b>N. apiaries</b>  | <b>N. hives for apiary</b>    |
| Sicily  | Catania Siracusa<br>Ragusa                   | 134 non migratory random selected (2% expected prevalence CI 95%) | 5% expected prevalence CI 95% |
|   | rest of territory                            | 198 non migratory random selected (2% expected prevalence CI 95%) | 5% expected prevalence CI 95% |
| <b>Region</b>                                 | <b>Territory/zones</b>                       | <b>N. apiaries</b>  | <b>N. hives for apiary</b>    |
| Calabria                                      | protection zone                              | 53 apiaries   | 5% expected prevalence CI 95% |
|   | surveillance zone +<br>the rest of territory | 147 random (2% expected prevalence CI 95%)                        | 5% expected prevalence CI 95% |

# Calabria region: since April 2016



4 honey bee sentinel units (8 nucleus colonies) have been found infested by SHB adults

# New SHB incident on 25 July 2016 in the province of Cosenza (Calabria region)

An unregistered beekeeper

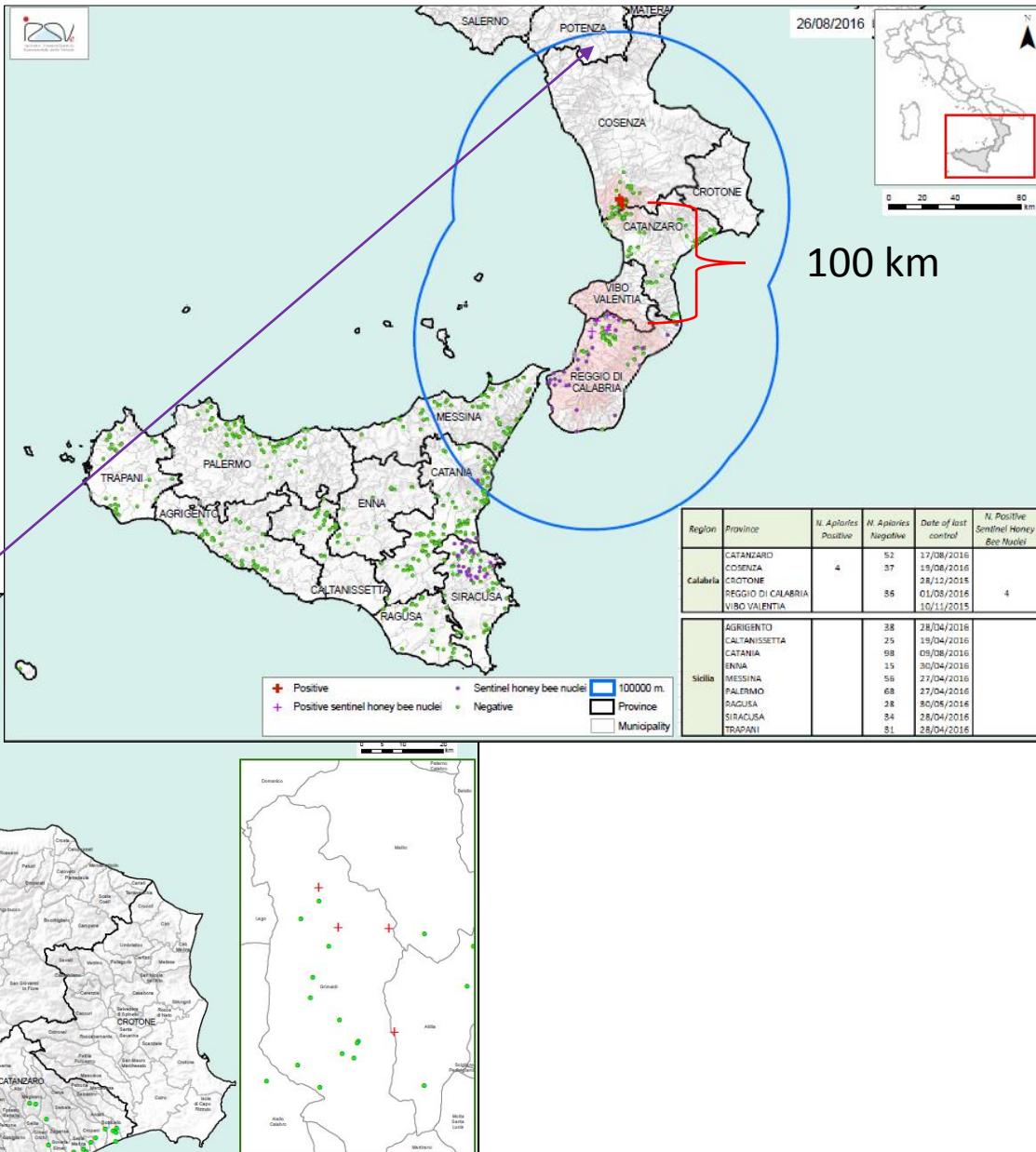
4 infested apiaries destroyed (128 colonies)

2 negatives still alive (115 colonies)

Protection zone = 10 km

Surveillance zone = the whole territory of the Calabria region

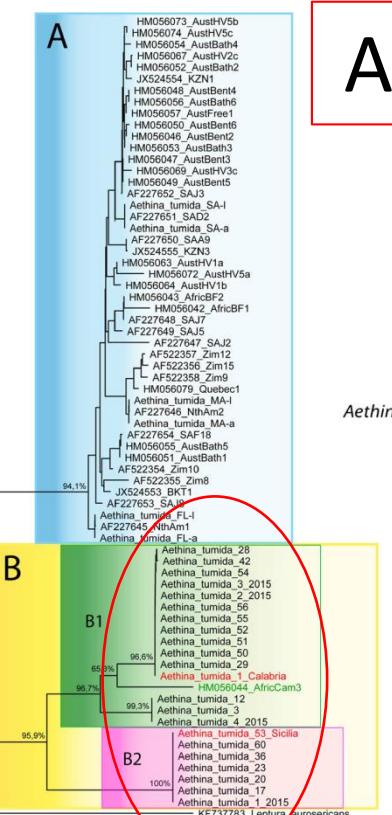
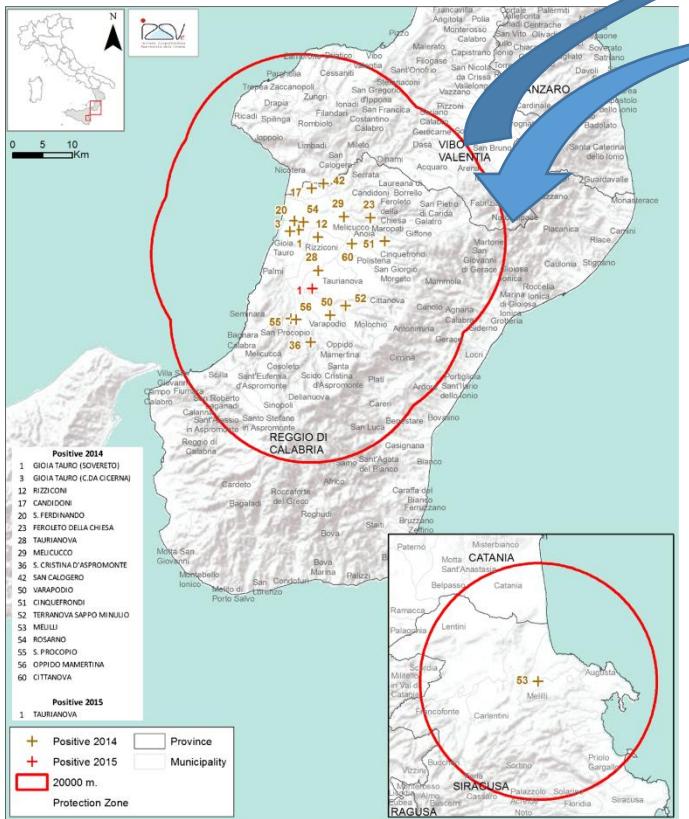
Potenza province, Basilicata region: Directive 92/65/EEC



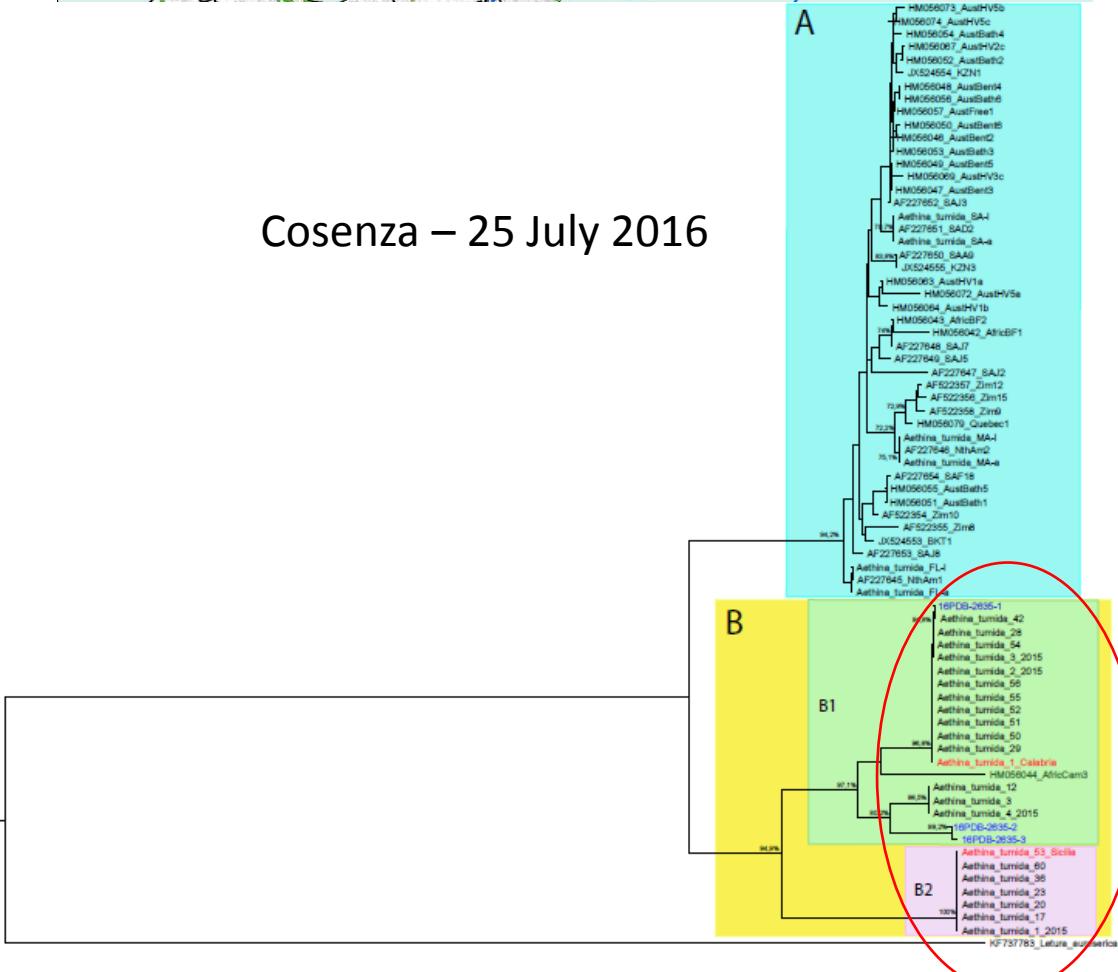
# *Aethina tumida*: phylogenetic analysis

(Granato et al., 2016)

Reggio Calabria – 2014 and 2015



Cosenza – 25 July 2016



# Conclusions

- ✓ Calabria 2014, Reggio Calabria and Vibo Valentia provinces
- ✓ Calabria 2015, Reggio Calabria province
- ✓ Calabria 2016, Reggio Calabria province – **sentinel** honey bee nuclei only,  
**Cosenza** province
- ✓ Sicily 2014, Siracusa province – one infested apiary
- ✓ Potenza province (part of) under Directive 95/62/EEC

Calabria:

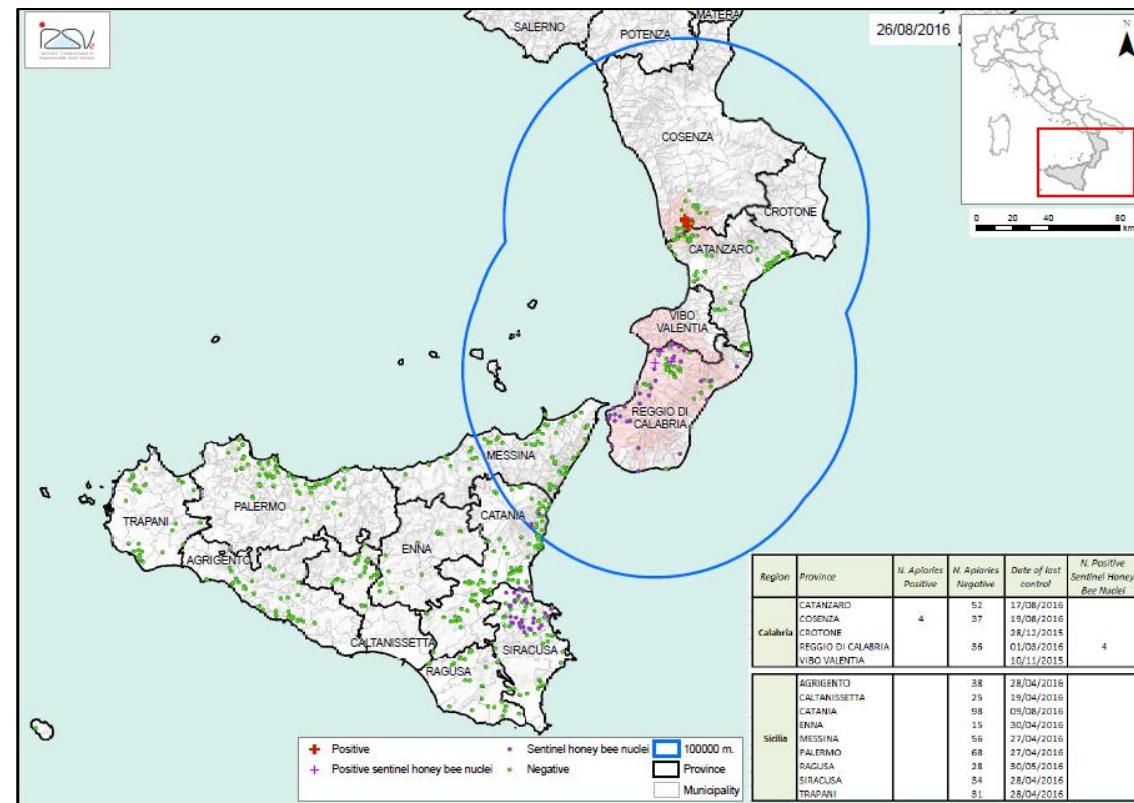
Protection zone = 20 km (Reggio Calabria and Vibo Valentia)

Protection zone = 10 km (Cosenza)

Sicily:

protection zone = 10 km (Siracusa and Catania)

Surveillance zone = the whole territory of the two concerned regions





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# Thank you for your attention

<http://www.izsvenezie.com/aethina-tumida-in-italy/>