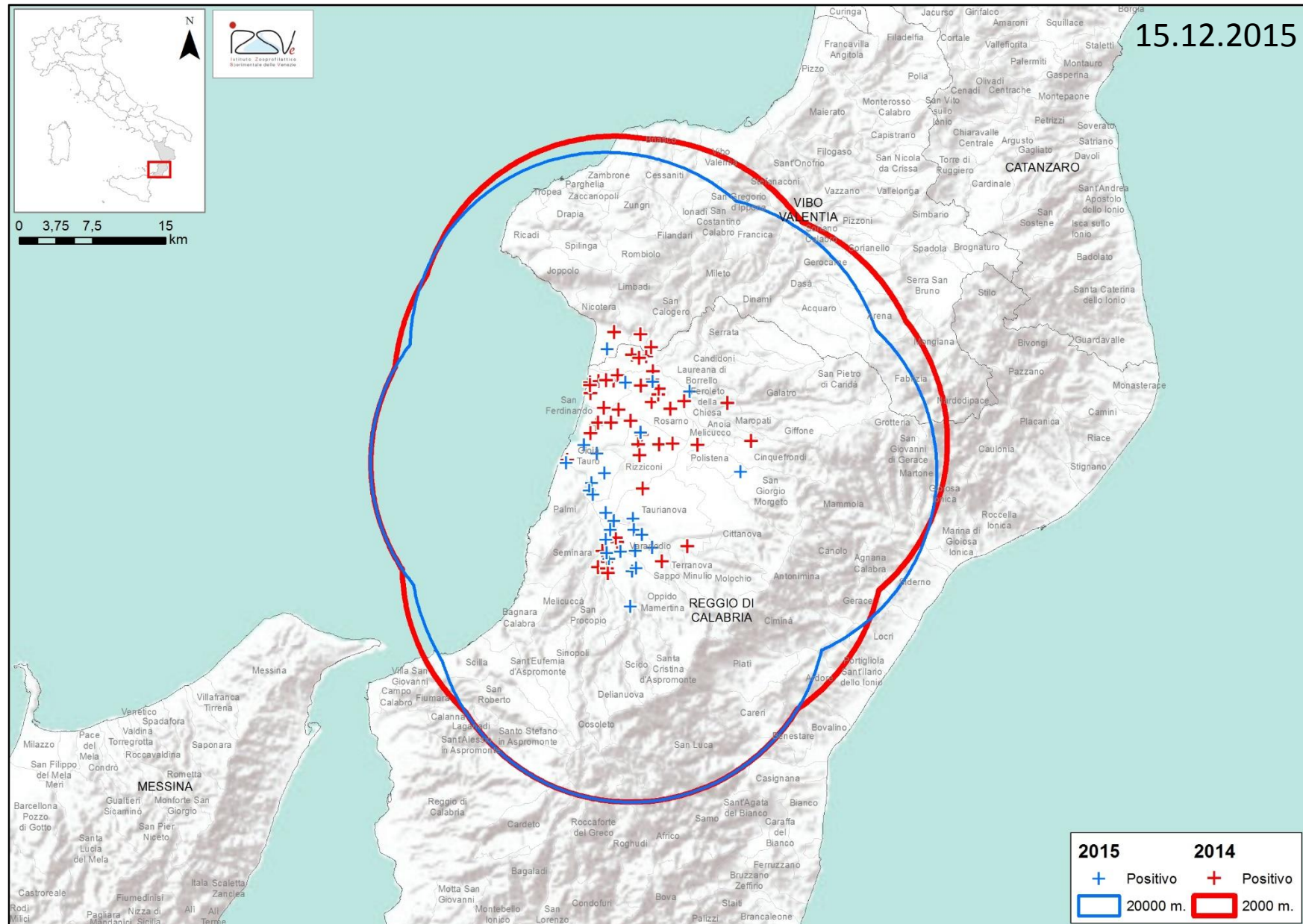


Small hive beetle in Italy: update, surveillance and the recent incident

Franco Mutinelli

National Reference Laboratory for beekeeping
Istituto Zooprofilattico Sperimentale delle Venezie
Viale dell'Università, 10
35020 Legnaro (PD), Italy
E-mail: fmutinelli@izsvenezie.it

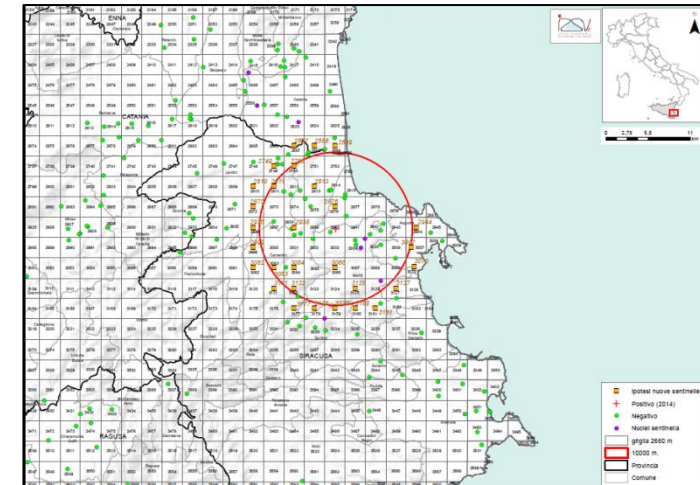
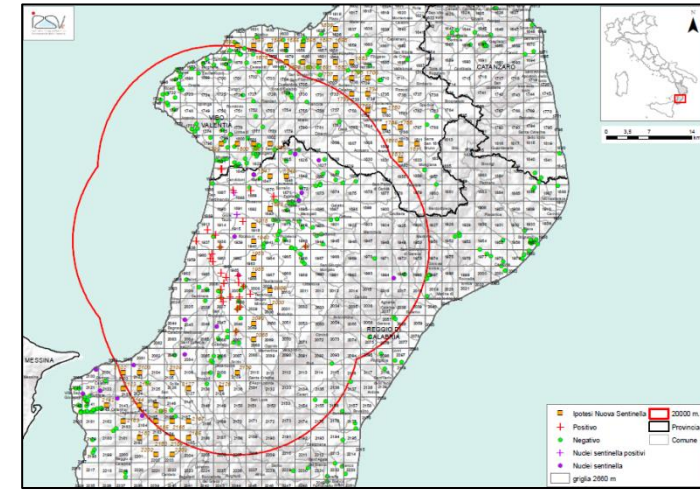
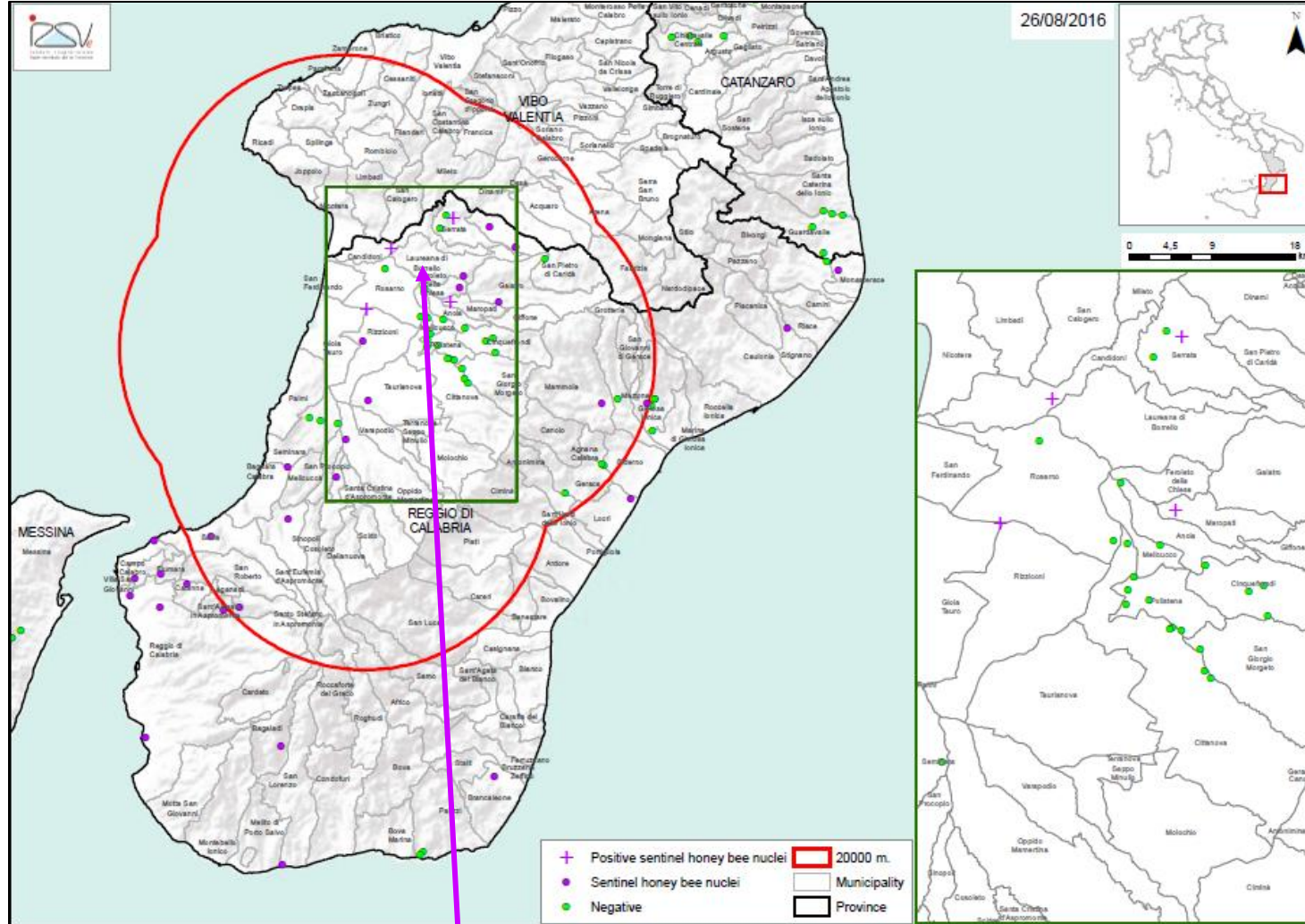
Comparison between 2014 (red) e 2015 (blu) infested apiaries



SHB surveillance program - Italy - 2016

Territory	Epidemiological units	N. apiaries	N. hives for apiary
Italy (excluded Calabria and 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%
Region	Territory/zones	N. apiaries	N. hives for apiary
Sicily	Catania Siracusa 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%
Region	Territory/zones	N. apiaries	N. hives for apiary
Calabria	protection zone	53 apiaries	5% expected prevalence CI 95%
	surveillance zone + 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

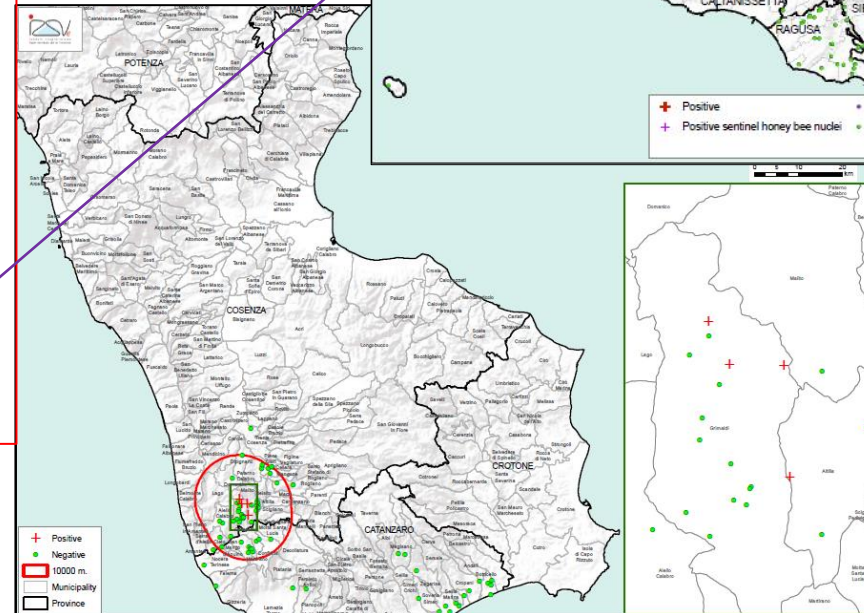
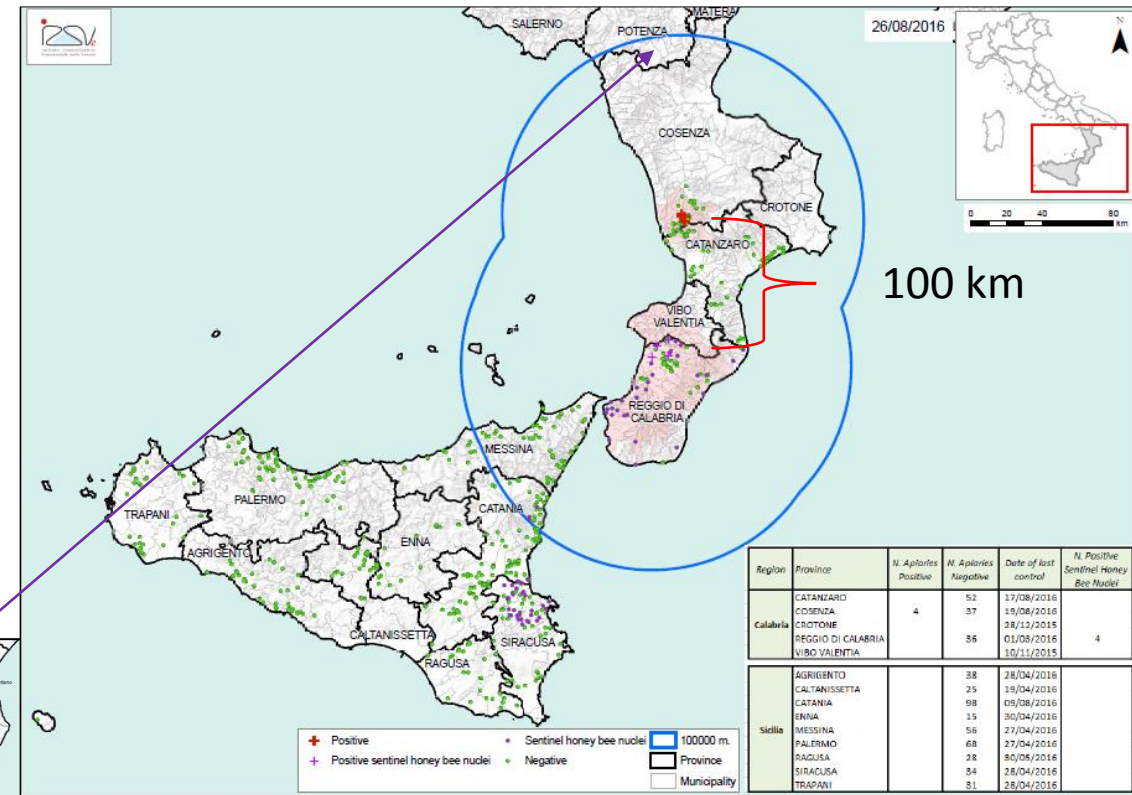
4 infested apiaries destroyed (128 colonies)

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

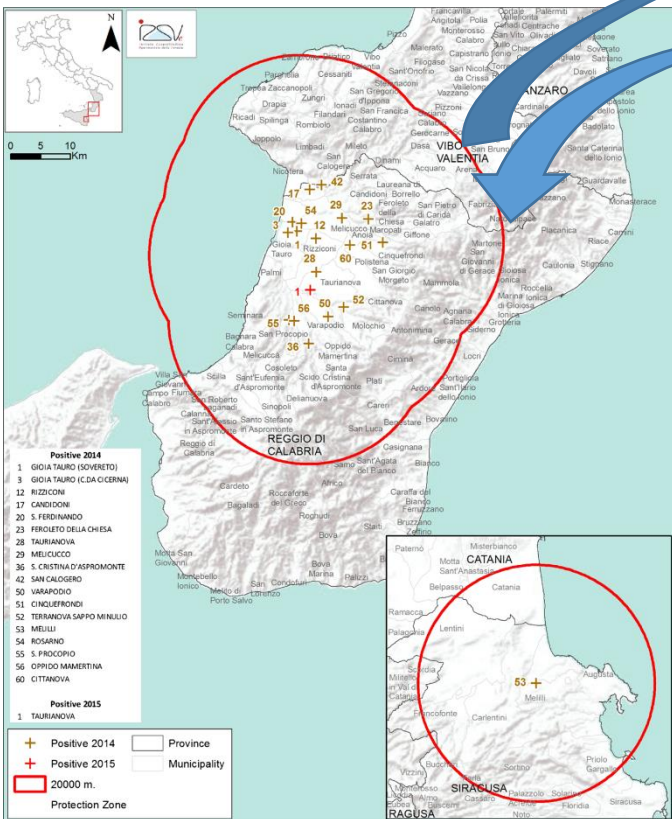


Region	Province	N. Apiaries Positive	N. Apiaries Negative	Date of first control	N. Positive Sentinel Honey Bee Nuclei
Calabria	CATANZARO	4	52	17/08/2016	
	COSENZA		37	19/08/2016	
	CROTONE		38/12/2016		
	REGGIO DI CALABRIA		86	01/08/2016	4
sicilia	VIBO VALENTIA		10/11/2015		
	AGRIGENTO		38	28/04/2016	
	CALTANISSETTA		25	19/04/2016	
	CATANIA		98	09/08/2016	
	ENNA		15	30/04/2016	
	MESSINA		56	27/04/2016	
	PALERMO		68	27/04/2016	
	RAGUSA		28	30/08/2016	
SIRACUSA		34	28/04/2016		
TRAPANI		81	28/04/2016		

Aethina tumida: phylogenetic analysis

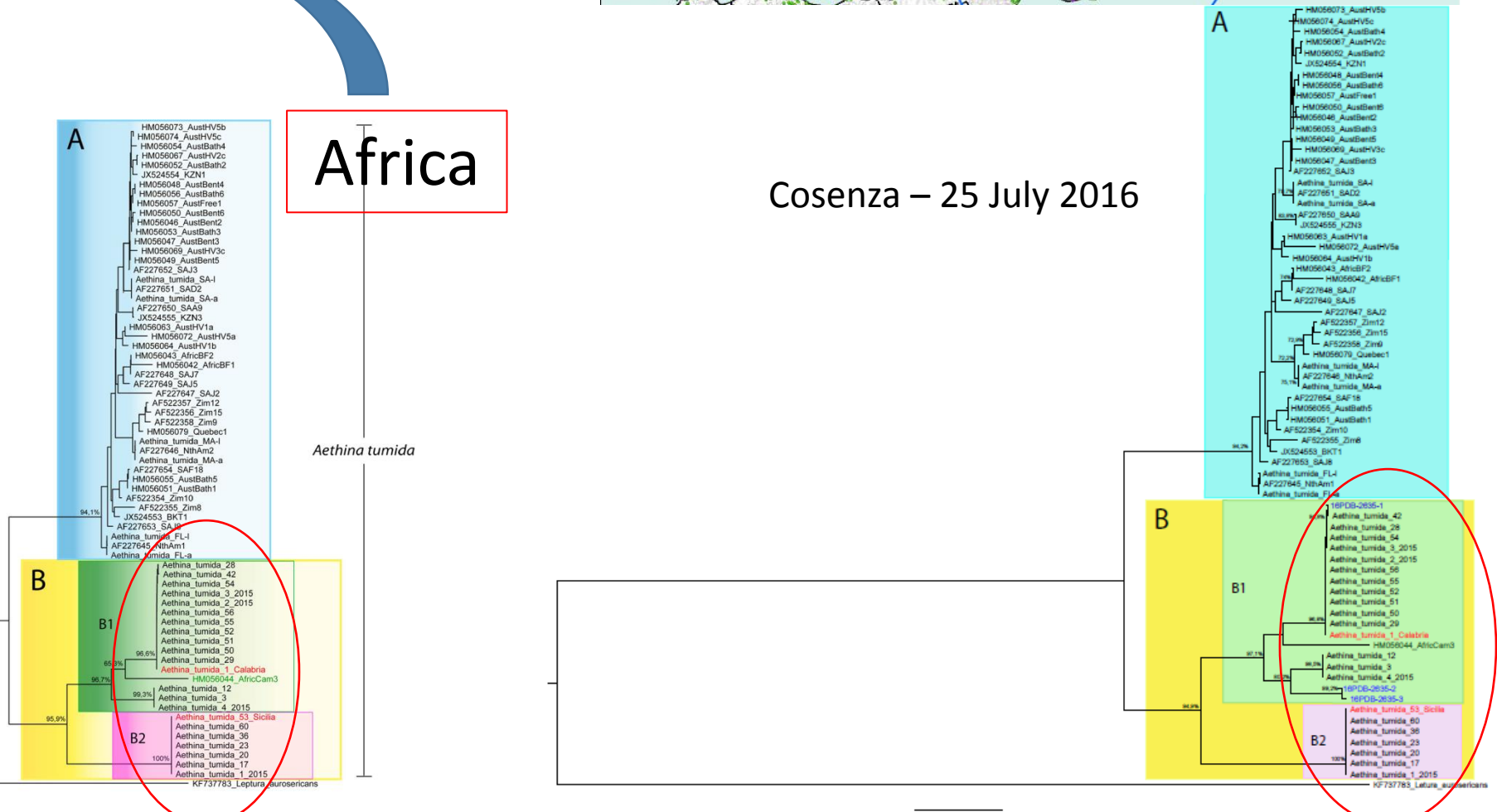
(Granato et al., 2016)

Reggio Calabria – 2014 and 2015



Africa

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:

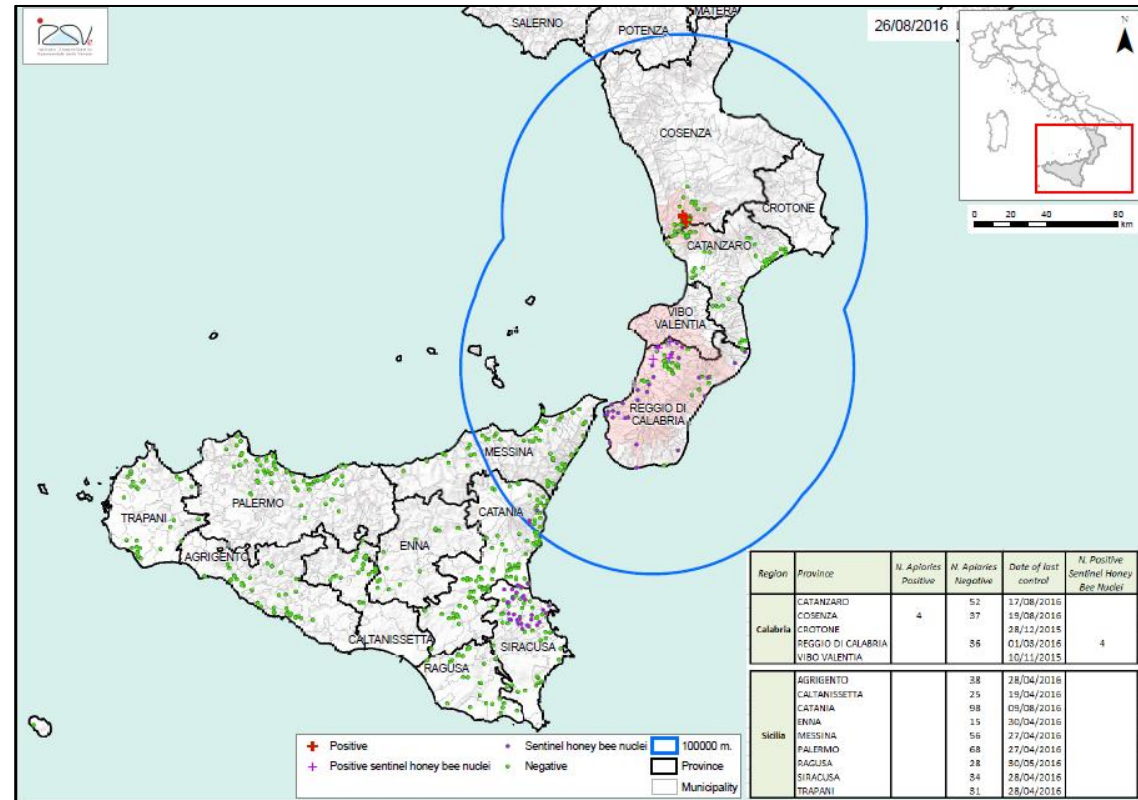
Protection zone = 20 km (Reggio Calabria and Vibo Valentia)

Protection zone = 10 km (Cosenza)

Sicily:

protection zone = 10 km (Siracusa and Catania)

Surveillance zone = the whole territory of the two concerned regions





Thank you for your attention

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