

Investigation on the occurrence of Coleoptera on rotten fruits in Reggio Calabria province

A field investigation was carried out aiming at the possible identification of *Aethina tumida* on rotten Citrus, lime and kiwi collected in orchards of Reggio Calabria province in December 2014 – January 2015

Aethina tumida

Alternative food sources and life cycle



1. Life cycle completed on ripen/rotten fruits with poor reproductive success in experimental conditions (Elzen *et al.*, 2001; Buchholz *et al.*, 2008)
2. Life cycle outside the hive possible in nature according to experimental data, but not demonstrated (Buchholz *et al.*, 2008)

Aethina tumida – Differential diagnosis: adult

Coleoptera associated with beehives, but with no impact on honey bee health

Cychramus luteus - Germany

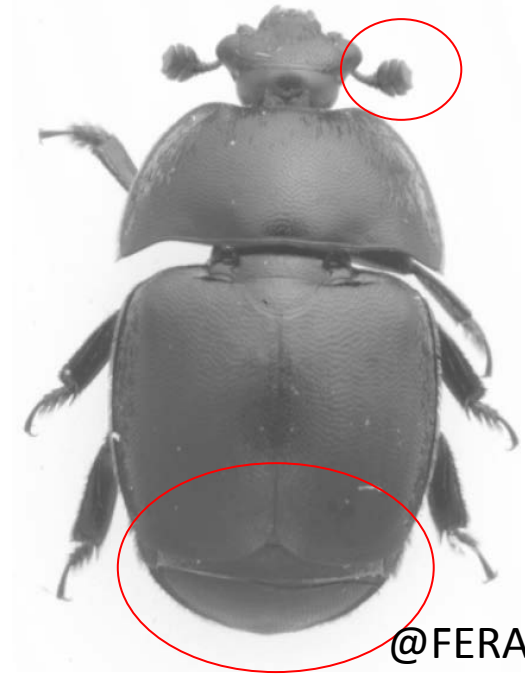


(Neumann e Ritter, 2004)



(Marini et al., 2013; Audisio et al., 2014)

Carpophylus lugubris - Italy



Aethina tumida - Differential diagnosis: adult

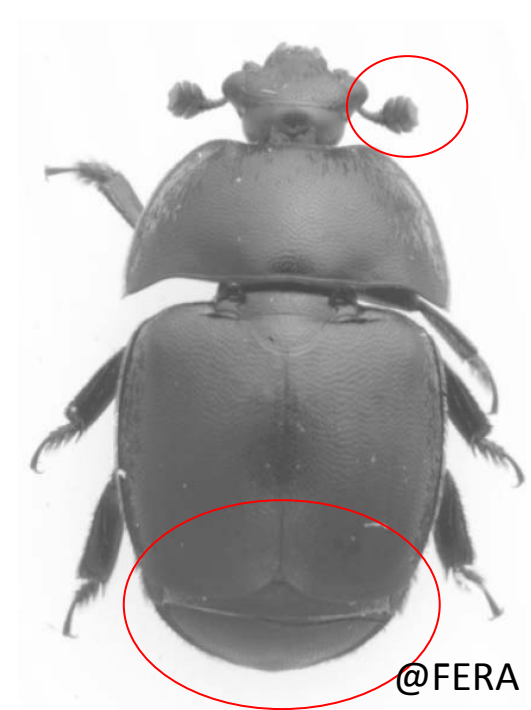
Calabria, Reggio Calabria province: December 2014 –
January 2015

Citrus and kiwi orchards visited

Rotten Citrus, lime and kiwi collected

Laboratory investigation for Coleoptera

Morphological identification

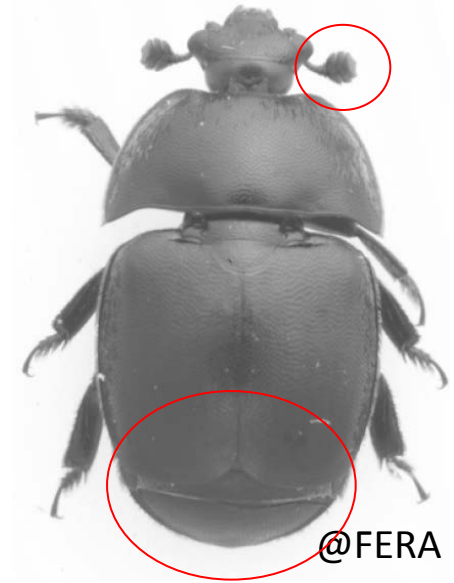


Aethina tumida – Differential diagnosis: adults

CARPOPHILUS SPP.



COLOPTERUS ABDOMINALIS



CARPOPHILUS NEPOS



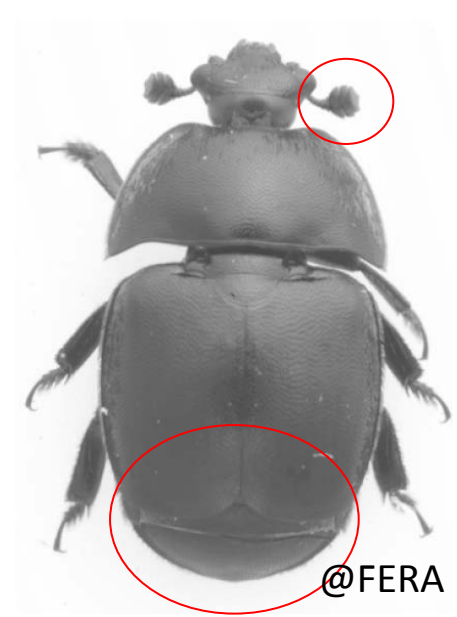
Calabria: dicembre 2014 - gennaio 2015

Aethina tumida - Differential diagnosis: adults

CARPOPHILUS MUTILATUS



EPURAEA OCULARIS



EPURAEA LUTEOLA

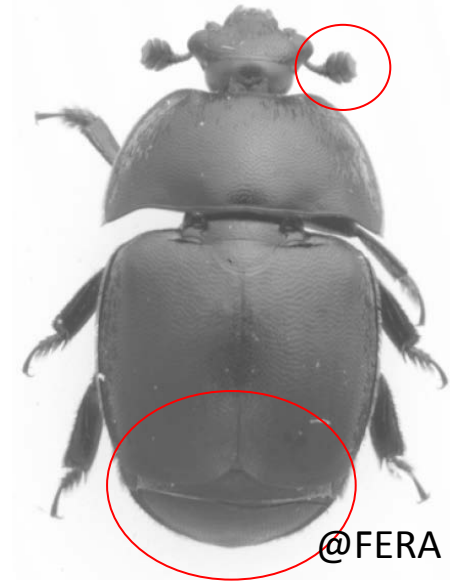
Calabria: dicembre 2014 - gennaio 2015

Aethina tumida - Differential diagnosis: adult

STELIDOTA GEMINATA



UROPHORUS HUMERALIS



Calabria: December 2014 – January 2015

Aethina tumida - Differential diagnosis: adult

Different species of adults Coleoptera belonging to Nitidulidae family have been detected on rotten Citrus and lime

No Coleoptera have been detected on rotten kiwi nor on "pastazzo" (Citrus industry by-product composed of Citrus and lime pulp)

Neither larval nor adult *Aethina tumida* has been detected on these non-beehive matrices

