

Brown Marmorated Stink Bug in California 2015

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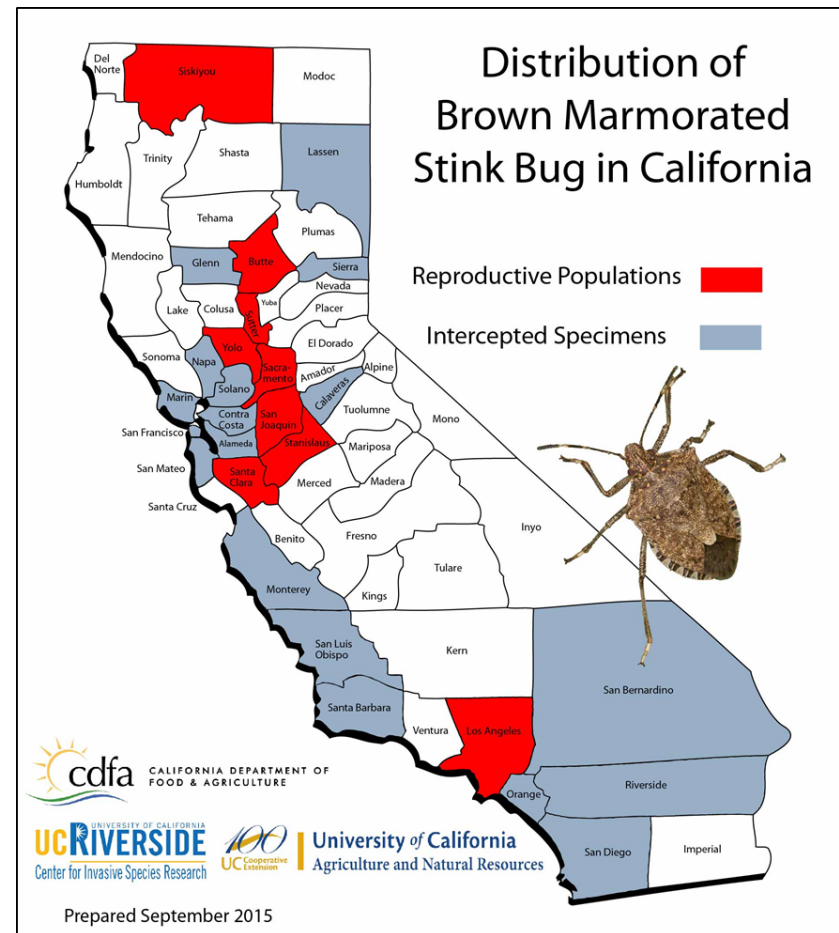
Winchester, Virginia
BMSB National Working Group Meeting

Overview, California 2015

- Survey for BMSB
 - Spread in state
 - Hosts plants
- Biological Control
 - Sentinel Egg Survey
 - Host specificity testing (Hoddle & Lara-Artiga)

Distribution of BMSB in California

- 2002 first report of BMSB in CA
- 2006 first reproducing population, LA County
- 2013, second county with BMSB pop.
- 2015, 9 counties



Sacramento, CA 2015,
Olive



Feeding on Olives In Lab



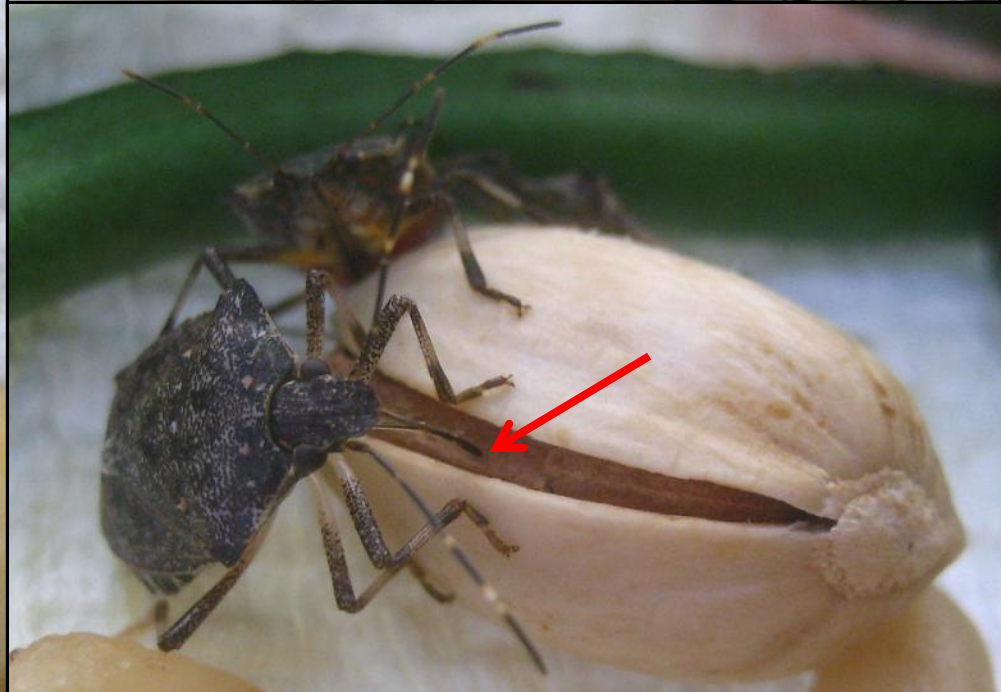
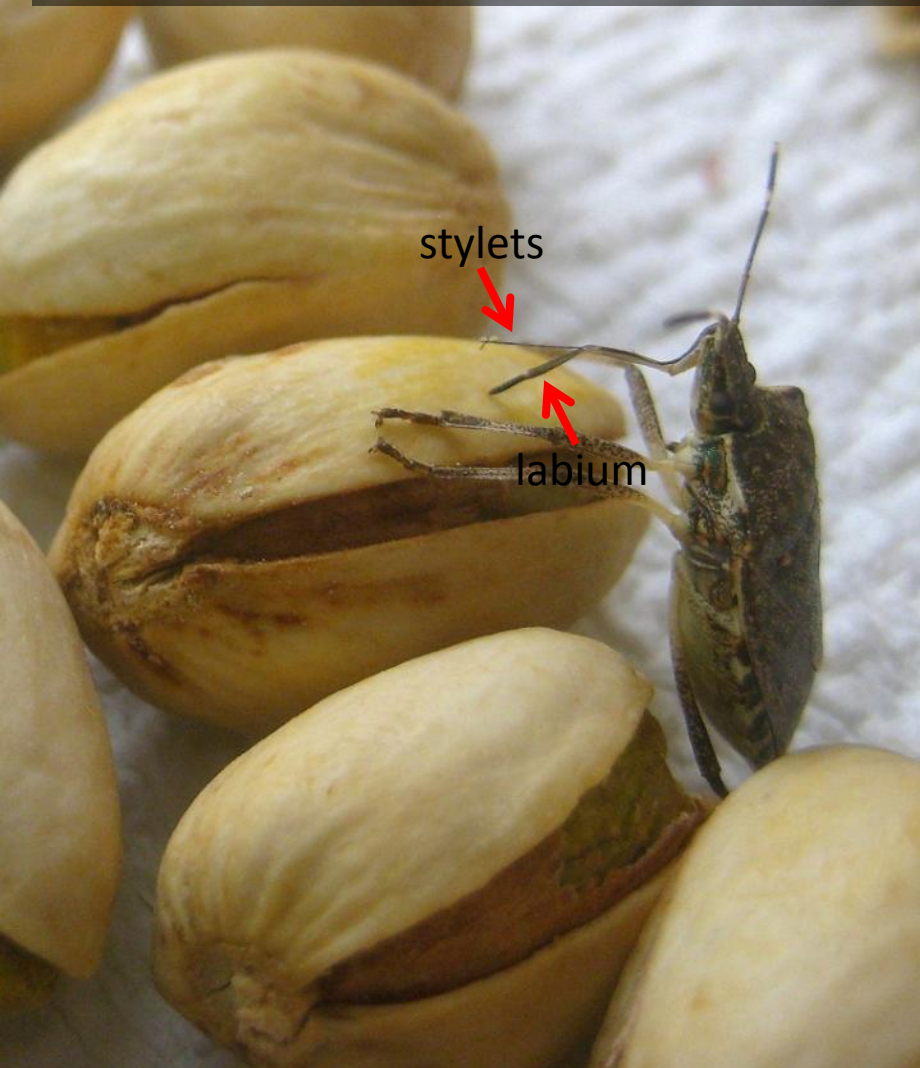
Avocados



Citrus

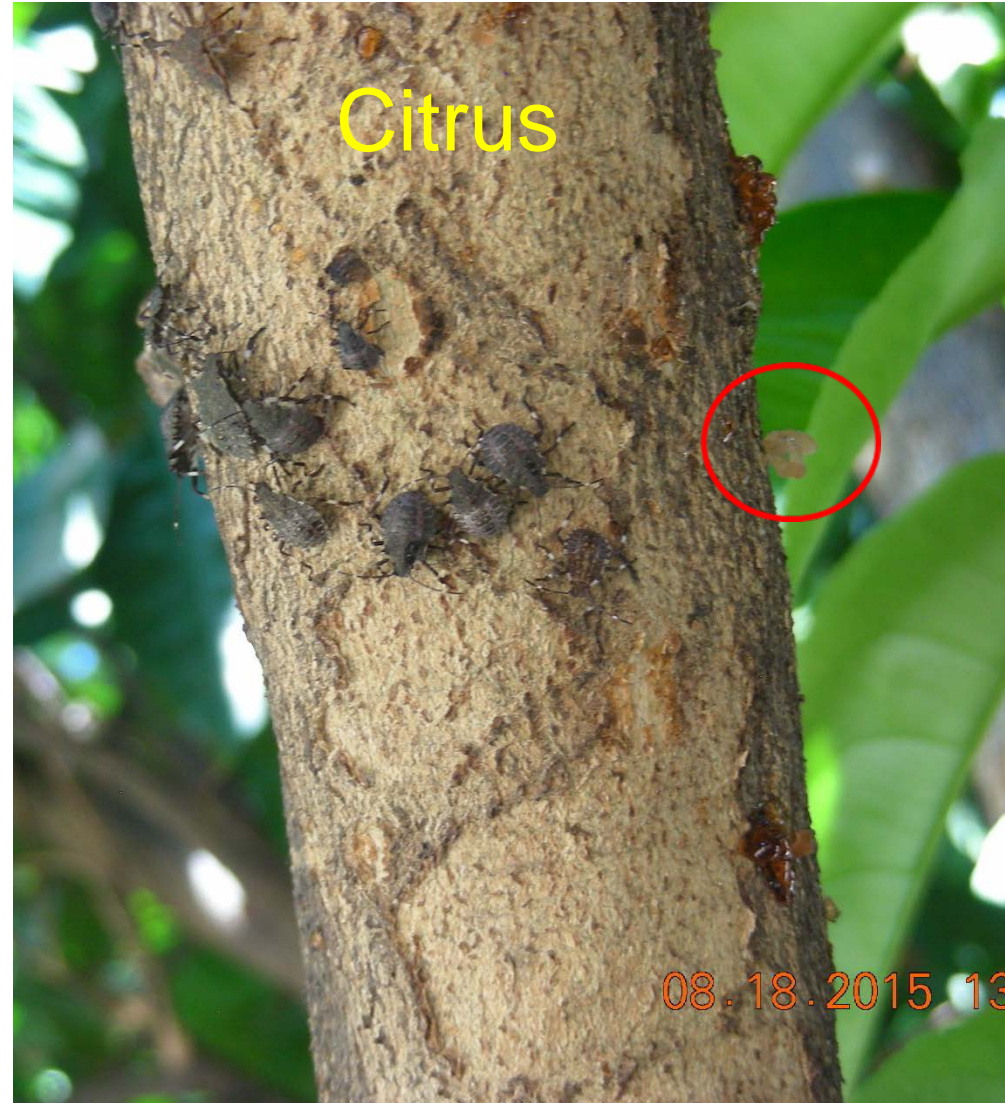


BMSB feeding on raw pistachios harvested in Kern County under laboratory conditions



Feeding Through Bark

Sacramento, CA 2015





Trees associated with BMSB in California

Surveys

- Sacramento
- Chico
- San Jose

Most common hosts

- Tree of heaven
- Chinese pistache
- Elm (*Ulmus davidiana*)
- Maple (*Acer buergerianum*)
- Catalpa sp.
- Crepe-myrtle

Biological Control of BMSB

- Resident Natural Enemies?

Parasitoids

Predators

Results from Sentinel Eggs

- Predation
 - 11% of eggs removed (263 masses deployed)
 - Carabid, *Laemostunus complanatus*
 - Earwig, *Euborellia annulipes*
 - *Astata spp.*, predacious wasp
- Resident parasitoids
 - Less than 3% of masses attacked (n=546)
 - *Trissolcus* & *Telonomus*

Rat eating BMSB eggs on sentinel card

Sacramento, October 2015
Imaging by M. Stadtherr (CDFA)



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