

Brown Marmorated Stink Bug – a potential pest of California nut crops

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Photo by: Mike Lewis, Center for Invasive Species Research, UC Riverside

History

The brown marmorated stink bug (BMSB), *Halyomorpha halys*, has been detected in the Los Angeles and Sacramento regions of California. Wherever BMSB takes up residence, it causes severe crop and garden losses and becomes a nuisance to people (Fig. 1, 2). Until now BMSB has not been found in commercial nut orchards. However, growers should be aware that this pest is spreading quickly throughout the U.S. and it is likely just a matter of time before it spreads throughout nut-producing regions of California (Fig. 3).

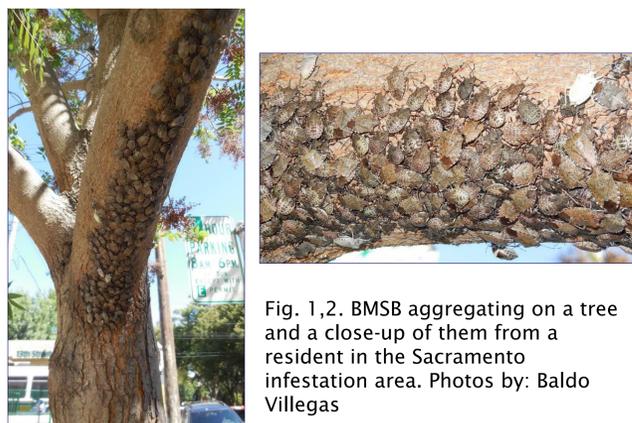


Fig. 1,2. BMSB aggregating on a tree and a close-up of them from a resident in the Sacramento infestation area. Photos by: Baldo Villegas

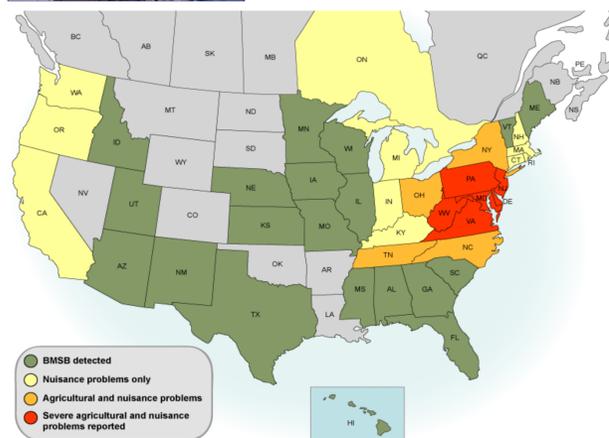


Fig. 3. As of May 2013, BMSB has been detected in 40 states, T. Leskey USDA-ARS. Map from USDA-NIFA SCRI Coordinated Agricultural Project, stopbmsb.org, maintained by the Northeastern IPM Center.

Identification

The illustration below shows several characteristics in identifying BMSB (Fig. 4). The eggs are barrel-shaped and laid in clusters of 20-30 (Fig. 5) similar to the consperse stink bug, *Euschistus conspersus* (Fig. 7). The BMSB young nymphs are orange with brown markings (Fig. 5). Older nymphs start to show banded legs and antenna, a brown thorax with yellow markings, a rust-colored abdomen with brown markings, and spines on the front of the eyes and shoulder edges (Fig 4, 6).

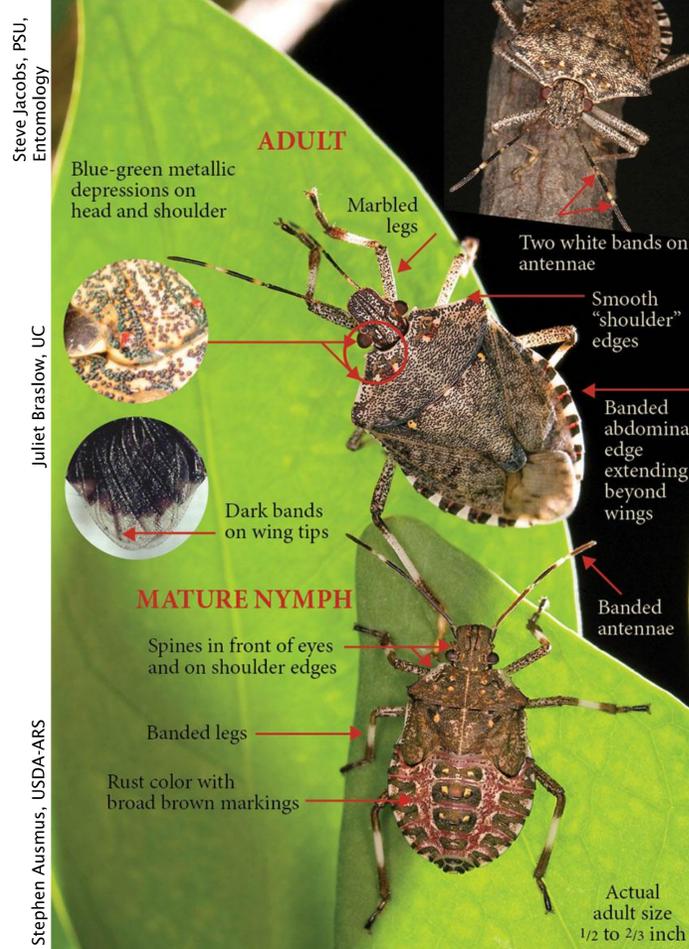


Fig. 4. Guidelines for identifying BMSB. The educational brochure can be found at the UC IPM Guidelines website: <http://www.ipm.ucdavis.edu/pestalert/pabrownmarmorated.html>



Fig. 5. BMSB young nymphs and eggs.



Fig. 6. BMSB older nymph (left) and adult (right).



Fig. 7. Consperse Stink Bug



Fig. 8. Red Shouldered Stink Bug



Fig. 9. Rough Stink Bug

Similar Stink Bugs

BMSB looks similar to other brown stink bugs. Some differences between these are stated below:

- **Consperse Stink Bug**, *Euschistus conspersus*, (Fig. 7) is 1/2 long, has legs dotted with dark spots and no antenna bands.
- **Red Shouldered Stink Bug**, *Thyanta pallidovirens*, (Fig. 8) is less than 1/2 long, edge of abdomen concealed and antennal bands, if present, are not white.
- **Rough Stink Bug**, *Brochymena sulcata*, (Fig. 9) is 3/8 inch long, no antenna bands and has distinctive teeth jutting out from shoulder.

Other common stink bugs in Almonds and Pistachios are:

- **Green Stink Bug**, *Acrosternum hilare* (Fig. 10)
- **Southern Green Stink Bug**, *Nezara viridula* (Fig. 11)
- **Say Stink bug**, *Chlorochroa sayi* (Fig. 12)



Impact of BMSB on fruit crops

BMSB may reach very high numbers. Adults and nymphs suck juices from fruit and seeds, creating pockmarks and distortions that make fruits and vegetables unmarketable. Damaged flesh under the skin turns hard and pithy (Fig 13, 14, 15). BMSB damages fruits (e.g., apple, pear, citrus, stone fruits, and fig), berries, grapes, legumes, vegetables, and shade trees. Damage to nut crops is not documented but is anticipated in California.



Fig. 13-15. BMSB damage to tomato (Fig. 13), peach (Fig. 14) and pear (Fig. 15).

Report any sightings

If you find a stink bug that you suspect might be a BMSB, place it in a container that is labeled with the collection date and location. Take the sealed container to your county agricultural commissioner or local UC Cooperative Extension office.

For more information, visit www.ipm.ucdavis.edu