# HOW DO VELVET LONGHORN BEETLE POPULATIONS MOVE TO NEW AREAS?

That is still unclear. The adult beetle is capable of flight, so that is probably one method. It is also assumed that larvae can be transported if wood, or wood products, containing living larvae are moved – firewood, timber, lumber, infested packing crates, etc. Transportation inside infested nursery stock would also seem to be a logical infestation pathway, however, there has been no confirmed recorded evidence of this occurring, yet.



If you think you've encountered a Velvet Longhorn Beetle please take a clear digital photograph or collect the specimen in a plastic container and get the photo/specimen to your local Extension Office or contact the Idaho State Department of Agriculture (208-332-8620) to have the identification verified to aid in understanding the movement and effect of this new insect in the U.S.



For more information on other invasive insect species of concern in Idaho and how you can help keep them out or help stop their establishment/spread if they arrive here, please go to the Idaho State Department of Agriculture website at

http://www.agri.idaho.gov/Categories/PlantsInsects/RegulatedAndInvasiveInsects/Insectsformreports.php



#### Idaho State Department of Agriculture

2270 Old Penitentiary Road Boise, Idaho 83712 Phone: 208-332-8620 www.agri.idaho.gov

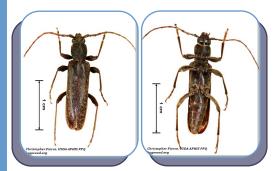






Some invasive species, when transported to a new area, become established quickly and spread like wildfire. Others take root in their new home and infestations grow slowly. The Velvet Longhorn Beetle, recently introduced into North America from Asia, appears to be one in the latter category. Its potential impact is still under evaluation. Knowing where it is, and size of the populations, is very important to understanding its role as a potential new pest.

### BEETLE IDENTIFICATION AND BIOLOGY



The adult, 10-20 mm long, which can be various shades of brown, is parallel-sided, with antennae approximately 2/3 the length of the body. Its appearance is similar to many other long-horned wood-boring beetles, however, the thorax and elytra (wing covers) are coated with tiny white hairs, often giving it a "velvet-like" appearance. The hairs may be distributed irregularly in patches.

Adults are nocturnal and can be found attracted to lights. They fly from June through August and lay eggs on the bark of host trees. Larvae, which emerge from the eggs, tunnel into the tree and, when small, feed beneath the bark. They eventually tunnel into the wood. Winter is spent there as a larva and pupation occurs in the spring. A single generation may take one or two years depending on wood quality and climate.

#### INFESTATION HISTORY

Velvet Longhorn Beetle, *Trichoferus campestris* (Faldermann), is native to China, Japan, Korea, Mongolia and Russia. Its earliest record in North America was a capture in New Jersey in 1999. Shortly after that, in 2002, a single specimen was picked up in Quebec, Canada. Another was found in Quebec in 2006 and in Rhode Island that same year. Small numbers have been found in New Jersey in 2007 and 2013, Ohio in 2009/2010, Illinois in 2009/2010/2011, Minnesota in 2010, Colorado in 2013 and New York in 2014. To date it has been found over a fairly widespread area, however, overall number of beetles has been rather low.

Utah, so far, appears to have the largest detectable population. The first year it was seen there, 2010, only four were captured. None were found the following year, but in 2012 eleven showed up in traps for general beetle monitoring. That number increased to 142 beetles in 2013 followed by 408 in 2014 – captured in several different types of traps, and some even reared out of infested peach and cherry trees.

Currently there is no known chemical attractant for Velvet Longhorn Beetle, so surveying for them relies on visual inspection of plants in likely situations/habitats. These include orchards, pallet manufacturing and lumber processing operations and locations where imported wood products or other imported commodities shipped in wooden crates are stored or redistributed. UV light traps can also be used to attempt to locate them, and they have turned up in general insect survey traps on occasion.

## WHAT VELVET LONGHORN BEETLE CAN DAMAGE

**It is a threat to urban,** orchard and riparian woodlots as it attacks living trees. Preferred hosts are:

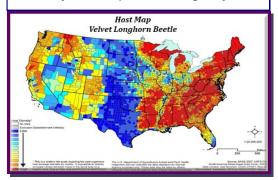
- ♦ Apple
- ◆ Crabapple
- ♦ Mulberry

It will also feed on wood of:

- ◆ Paper Mulberry ◆
- Honey Locust
- ♦ Mountain Ash
  - Fir
- 7 1
- ◆ Larch
- ♦ Locust
- Maple

- ♦ Birch
- Spruce
- Pine
- ♦ Willow
- CherryPeach
- ♦ Elm

At this point it has not been determined whether the beetle prefers healthy or stressed/dying trees (if it does have a preference). When trees are infested they exhibit thinning or yellowing of the canopy, epicormic shoots, frass deposits at the tree base and exit holes on trunks and branches. There may be an impact on fruit yield and/or tree longevity.



Velvet Longhorn Beetle has also been found feeding on dead, dry wood, such as timber or lumber. It appears able to use any species of dead tree including conifers.