

Mini data sheet on *Saperda candida*

Saperda candida was added to the EPP0 A1 List in 2010. A full datasheet will be prepared, in the meantime you can view here the data which was previously available from the EPP0 Alert List (added to the EPP0 Alert List in 2008-deleted in 2010).

Saperda candida (Coleoptera: Cerambycidae) - Round-headed apple tree borer

Why: In summer 2008, the presence of *Saperda candida* was detected for the first time in Germany and in Europe. This wood boring insect was observed on the island of Fehmarn on urban trees and eradication measures were taken against it. *S. candida* is considered as a pest of apple trees and other tree species in North America. *S. candida* is a regulated pest in Quebec, Canada. Considering the risk it may present to fruit trees and ornamental trees in Europe, the NPPO of Germany suggested that it could be added to the EPP0 Alert List.

Where:

EPP0 region: Germany (isolated findings on urban trees, *Sorbus intermedia*, *Malus* and *Crataegus*, on the island of Fehmarn, under eradication).

North America: Canada (Manitoba, Nova Scotia, Ontario, Quebec, Saskatchewan), USA (reported to be present across the USA, recorded at least in Arkansas, Colorado, Florida, Georgia, Minnesota, Mississippi, Missouri, North Dakota, West Virginia).

On which plants: *Malus* is the preferred host plant, but *S. candida* also attacks *Amelanchier*, *Aronia*, *Cotoneaster*, *Crataegus*, *Cydonia*, *Prunus*, *Pyrus*, and *Sorbus*.

Damage: Adults feed on foliage but damage is caused by the larvae which attack both healthy and weakened trees. They bore galleries into the stems and trunks, preferably at the base of the trunk. Feeding damage may girdle the stems, cause dieback and eventually tree mortality (particularly on young trees). Attacked trees are more susceptible to wind breakage.

In North America, the life cycle takes 2 to 3 years to complete. Adults are light brown beetles of with two white stripes extending along the length of the body on the back. The body is 20 mm long and the antennae are at least as long. Adults are present from May/June to July, during which time they mate and females deposit eggs in slits at the base of stems. The hatched larvae begin feeding within the bark and by September, they are found between the bark and the sapwood, usually creating some sap flow at the point where they begin to feed. Larvae are whitish or yellowish (mature larvae are 20 to 45 mm long). Pupation occurs within the galleries and adults emerge in June. Populations are not synchronized so adults are produced each year.

More images can be viewed on the Internet:

<http://www.flickr.com/photos/gillesgonthier/2607652110/>

<http://bugguide.net/node/view/58896>

<http://www.pbase.com/tmurray74/image/48529356>

Dissemination: There is no data on the natural spread of this insect. Over long distances, it may be transported by infested plants.

Pathway: Plants for planting of *Malus* and other hosts, wood?

Possible risks: Fruit trees species such as *Malus*, *Pyrus* and *Prunus* are widely grown across the EPP0 region. *Cotoneaster*, *Crataegus*, and *Sorbus* are widely planted in parks and gardens for ornamental purposes and also occur in the wild. *S. candida* is causing problems in nurseries and young plantations. Because of the hidden behaviour of *S. candida*, the pest is likely to be moved undetected inside infected host plants. Control is difficult as the insect spends most of its life cycle inside the trees. Chemical control may be applied around the egg-laying period to kill adults and young larvae before they enter into the trees. In areas

where the pest occurs, it is usually recommended to inspect trees for signs of infestation (e.g. sap flows, sawdust, exit holes) and kill larvae with flexible wires probed into the galleries, and also to destroy heavily infested trees. No natural enemies are reported, only woodpeckers might impact pest populations. Considering its host plants and its area of origin (present across Canada and USA), it is likely that *S. candida* can establish in the EPPO region. Although more information would be needed on the economic damage in North America, *S. candida* may be a threat for the EPPO region, more particularly to fruit trees in nurseries and young plantations.

Sources

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EPPO RS 2008/139

Panel review date -

Entry date 2008-07