

How to identify *Monochamus* longhorn beetles and the symptoms of the pine wood nematode?

Adult beetle (= longhorn beetle)

There are different types of *Monochamus* longhorn beetle species that can transmit the pine wood nematode, with a number of common characteristics:

- 15-30 mm long
- Antennae longer than the body
- A large stout lateral spine on both sides of the pronotum (neck)
- Dark elytra (backs) with varying white to yellow spots
- Typical yellow to brown triangular scutellum between the pronotum and elytra
- Round exit holes
- These longhorn beetles carry the nematodes on the body and spread them during feeding and laying eggs.



M. sartor – Jožka © 2016

Symptoms of the pine wood nematode (*Bursaphelenchus xylophilus*)

Nematodes block the sap flow, leading to local wilting, which is the first visible symptom.

Dying off of the entire tree. This can happen within a year.

Can you help us?

The pine wood nematode is included in the **EPPO A2 list**. This list contains plant-harmful organisms that may cause **severe damage** to many wild and cultivated plants. Therefore, it is important to report if you have seen this insect or symptoms of the nematodes. **Early detection** allows a fast and efficient implementation of control measures so that this invasive exotic species **cannot establish itself**.

If you spot *Monochamus* or the pine wood nematode:

If possible, take a photo of the insect and note the precise location.

Report via waarnemingen.be/species/Q-organismen

More info?

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Source of info and images: (BURSXY) <https://gd.eppo.int>
and tidcf.nrcan.gc.ca/en or see images

STOP *Monochamus*!

These longhorn beetles are
vectors of

pine wood nematode
Bursaphelenchus xylophilus



M. galloprovincialis courtesy of
Rowerromaniak @
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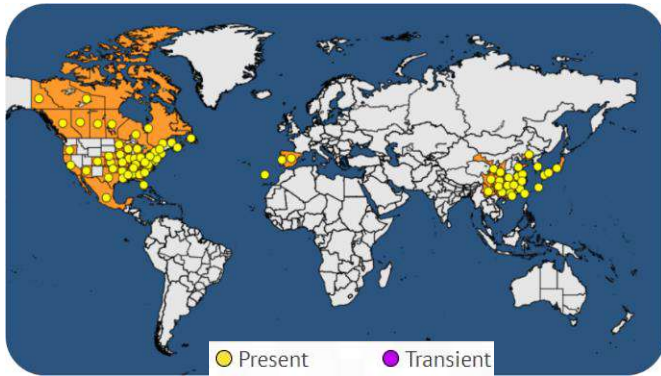


Bursaphelenchus xylophilus (BURSXY) <https://gd.eppo.int>



In collaboration with EUPHRESKO and EPPO www.eppo.int

Distribution



The nematode and longhorn beetles were found in **Portugal** in 1999. Since then, several outbreaks have been observed in **Portugal and Spain**. An exotic *Monochamus* longhorn beetle was once found in Germany in 2006. There are several species of the genus *Monochamus*. Some are exotic and originate from **North America** (*M. carolinensis* and *M. scutellatus*) or **Asia** (*M. alternatus*). Five species are **native to Europe** (*M. galloprovincialis*, *M. sartor*, *M. sutor*, *M. saltuarius* and *M. rosenmuelleri*).

The nematodes can be spread through **raw, infected wood**, e.g. wood chips or bark for mulching. The longhorn beetles can also be spread via **raw wood**, but also through **wood packing material** such as pallets.

Damage symptoms



Phytosanitary measures

- Removal and destruction of **infected trees**
- Removal and destruction of **host plants** in the immediate vicinity
- **Traps** for *Monochamus* up to 20 km around the infected trees for further inspection

Host plants



For both the longhorn beetle and the nematode, **Pinus** is the main host plant, but other **needle-leaf trees and conifers**, both dead and alive, can be infected, e.g., fir (*Abies* sp.), cedar (*Cedrus* sp.), Japanese cedar (*Cryptomeria* sp.), larch (*Larix* sp.), spruce (*Picea* sp.) and Douglas-firs (*Pseudotsuga* sp.).

