Forestry Commission

For more details, please visit
www.gov.uk/guidance/eight-toothed-european-spruce-bark-beetle-ips-typographus.

Larger Eight-toothed European Spruce Bark Beetle - *Ips typographus*

Source: William M. Ciesla, Forest Health Management International, Bugwood.org

The larger eight-toothed European spruce bark beetle *(Ips typographus)* is a small, brown bark beetle that primarily affects spruce *(Picea)* species, but has also been known to affect some species of pine *(Pinus)* and fir *(Abies)*. It is widely present on the continent, and can be found throughout Eurasia to Japan.

It is mainly a secondary pest, preferring to infest stressed or weakened trees, but larger populations can result in attacks on living trees as well. As such, *Ips typographus* is considered to be the most serious spruce pest in Europe, and could cause significant damage to Britain's spruce-based forestry and timber industries if left uncontrolled.

KEEP IT CLEAN

Don't give pests and diseases an easy ride

If you think you have spotted this tree pest, report it to the Forestry Commission via TreeAlert (online) **www.treealert.forestresearch.gov.uk**

You can help slow the spread of this pest by complying with all import regulations and implementing good biosecurity measures.

Think kit

Adult beetles are small (approximately 5 mm) and hibernate in soil and leaf litter over winter. Reduce the risk of spread by removing soil, leaf litter and other organic material from all kit, tools, vehicles and machinery between site visits.

Think transport

Timber and other wood products with bark derived from host trees are a known pathway for *Ips typographus.* The UK has protected zone status against this pest, so imports of these products are controlled. For more information on controls visit **www.gov.uk/guidance/eight-toothed-european-spruce-bark-beetle-ips-typographus.**

Think trees

Inspect stressed or weakened host trees regularly for signs of infestation, as these are the beetle's preferred habitat. Trees that have been windblown, damaged or recently felled fall in to this category, and should be inspected as a priority.

Symptoms Guide: Larger Eight-toothed European Spruce Bark Beetle

Nuptial chambers

Adult beetles create nuptial chambers between the bark and the sapwood in which to mate. The first female will mate and bore upwards, whilst the next two will bore downwards – creating a distinctive upside-down Y-shape. Sometimes just two females build nuptial champers, in which case the gallery becomes a vertical I-shape.

Source: Milan Zubrik, Forest Research Institute– Slovakia, Bugwood.org

Galleries

Larval galleries are created as the larva feed between the bark and sapwood. These galleries typically radiate horizontally off of the nuptial chambers.

Source: Louis-Michel Nageleisen, Département de la Santé des Forêts, Bugwood.org

Entrance holes

Boring adult beetles will create small, round entrance holes in the bark of host trees, approximately 2 – 2.5 mm in diameter.

Source: Milan Zubrik, Forest Research Institute - Slovakia, Bugwood.org

Tree dieback

Trees that have been attacked by *Ips typographus* will eventually show dieback symptoms in the form of discoloured crowns. This is as a result of disruption to the tree's water and nutrient transport systems by boring beetles and larvae.

Source: Milan Zubrik, Forest Research Institute – Slovakia, Bugwood.org

Blue-stain fungus

The beetle acts as a vector for spores of several blue-stain fungi which can affect the phloem and cambium of infected trees. Infestation by the beetle combined with infection by the fungus can hasten the death of affected trees.

Source: Forest Research

Woodpecker damage

Although not a symptom specific to the presence of *Ips typographus,* the presence of woodpecker damage can help surveyors identify where infestations may be present. This is because woodpeckers will often peck holes into or break off large pieces of infested bark of host trees in the search for developing beetle larvae.

Source: Barnaby Wylder, Forestry Commission