



Regione  
Lombardia



MINISTERO DELL'AGRICOLTURA  
DELLA SOVRANITÀ ALIMENTARE  
E DELLE FORESTE

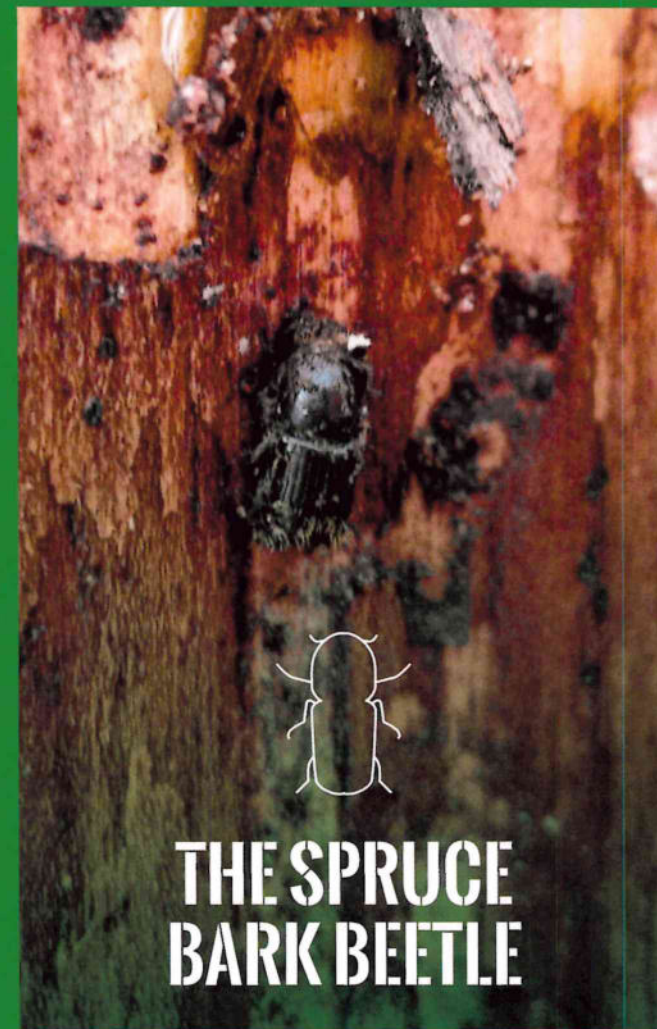


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Document produced by the working group on the spruce bark beetle at the Ministry of Agriculture, Food Sovereignty and Forestry.



## THE SPRUCE BARK BEETLE







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Servizio Fitosanitario



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## The problem: bark beetle

The health of Norway spruce (*Picea abies*) is threatened by a small insect, the spruce bark beetle *Ips typographus*. Groups of standing trees are turning from green to reddish-brown in a short time because the insect is feeding under the bark. The insect is a natural component of the forest ecosystems and it is generally associated with declining trees.



Typical tunnels in the wood dug under the bark by the spruce bark beetle.

## The effects of the Vaia windstorm

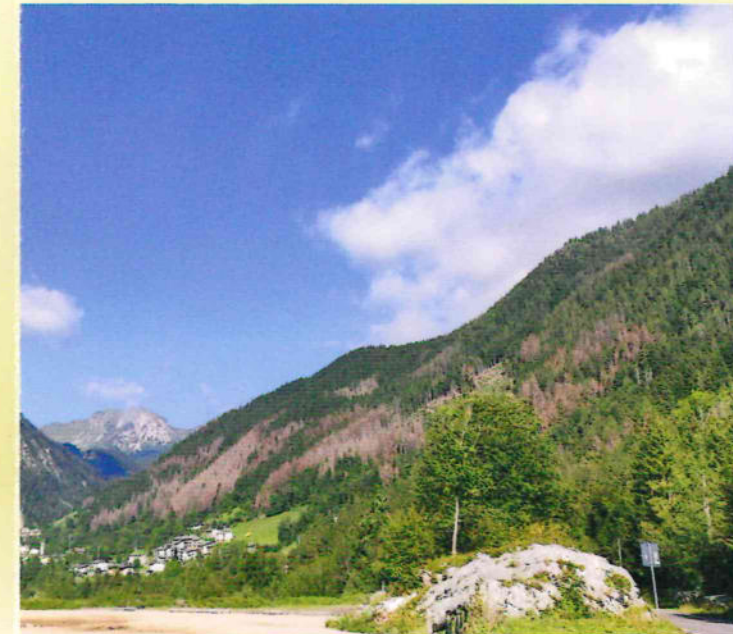


*Ips typographus* L.

The windstorm called Vaia hit the forests of the Eastern Alps at the end of October 2018, resulting in millions of spruce trees laying on the ground, broken or uprooted. The trunks were promptly colonized by the spruce bark beetles, which increased greatly in numbers. Then the beetles started to colonise the standing trees that survived the windstorm.

## The management and the natural evolution

The current outbreak of the spruce bark beetle requires specific management measures, although these are difficult to be deployed because of the large extension of the area affected. It is expected that natural regulation of the beetle population by competition and natural enemies will help to contain the damage in the coming years. Management measures addressed to make the future forests more resilient to disturbances like windstorms and beetle outbreaks are undertaken. The plant protection and forest authorities are committed to manage actively the outbreak through a continuous monitoring and containment of the beetle's populations.



Group of trees killed by the spruce bark beetle.