

Field Identification Guide

Dothistroma needle blight



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LIFE programme



Dothistroma needle blight

In Britain, Dothistroma needle blight (DNB), also previously known as red band needle blight, is caused by the fungus *Dothistroma septosporum*.

Species affected	DNB has been found on a range of conifer species, but pines (<i>Pinus</i> spp.) are the most common hosts, with Corsican pine, lodgepole pine and Scots pine all now affected.
Symptoms	<p>Trees of all ages can become infected. Symptoms are first seen at the base of the crown on older needles. Infected needles typically develop yellow and tan spots and bands, which soon turn orange/red.</p> <p>As the disease progresses, the ends of the needles turn reddish-brown while the needle bases remain green. It is within the red bands that the small (<1 mm) black fruit bodies containing spores tend to be found.</p> <p>Symptoms are most apparent in June and July, when spores are released from the fruit bodies, leading to infection of the current year's needles.</p> <p>After this point, the symptomatic needles are shed and branches can have a typical 'lion's tail' appearance, with only a tuft of the recently infected current year's needles remaining at the branch ends.</p> <p>Defoliation can continue year on year and gradually weaken the tree, significantly reducing timber yields. It can also eventually lead to mortality.</p>
Timing	Symptoms are most apparent in June and July.
Reporting requirements	<p>If the disease is found in a nursery or garden centre, you must report it. Please report through Tree Alert.</p> <p>In Northern Ireland please report via the TreeCheck website (www.treecheck.net) or phone app, or by emailing afib.planthealth@dardni.gov.uk</p> <p>There is no statutory requirement for notification if DNB is found in woodland or other mature trees but it is helpful to do so. Please report through Tree Alert. In Northern Ireland please report via the TreeCheck website (www.treecheck.net) or phone app, or by emailing afib.planthealth@dardni.gov.uk</p>

Based on information available in August 2015.

Signs and symptoms



Clear example of DNB on a young Corsican pine tree.

Signs and symptoms



Clear example of DNB on a young Corsican pine tree.

Signs and symptoms

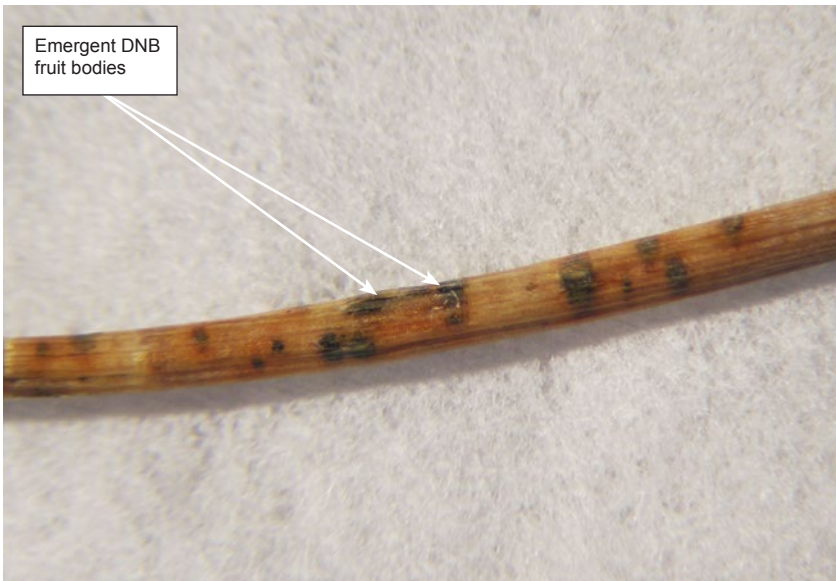
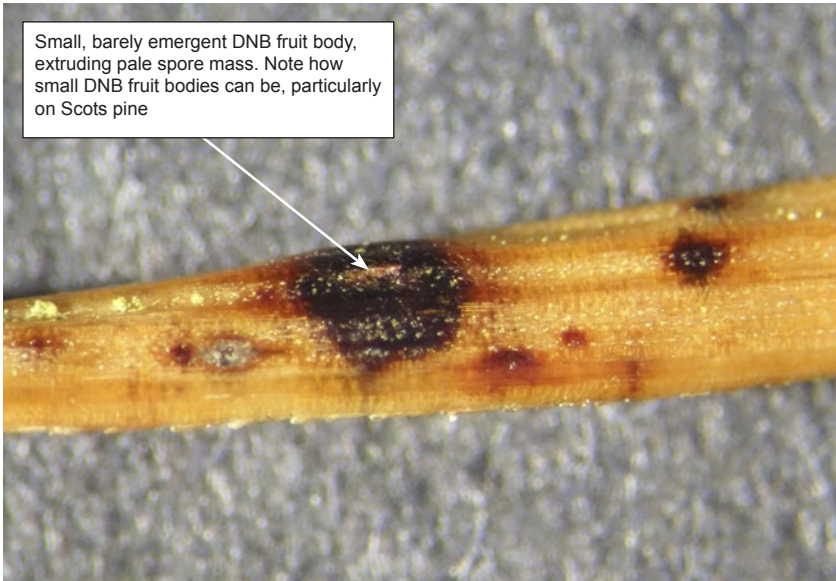


DNB on Scots pine needle.



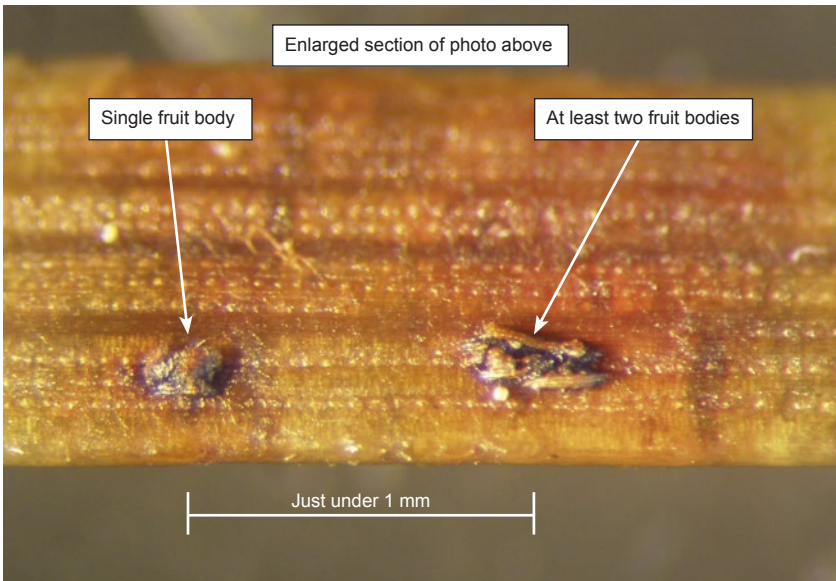
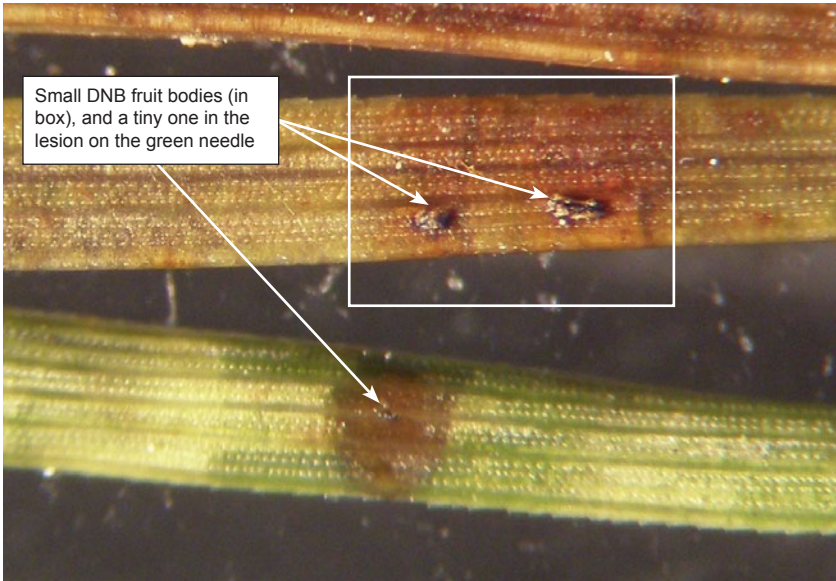
DNB on Scots pine needles.

Signs and symptoms



Enlarged photos of needles showing DNB on Scots pine.

Signs and symptoms



DNB on Scots pine.

Signs and symptoms



DNB on Scots pine.

Signs and symptoms



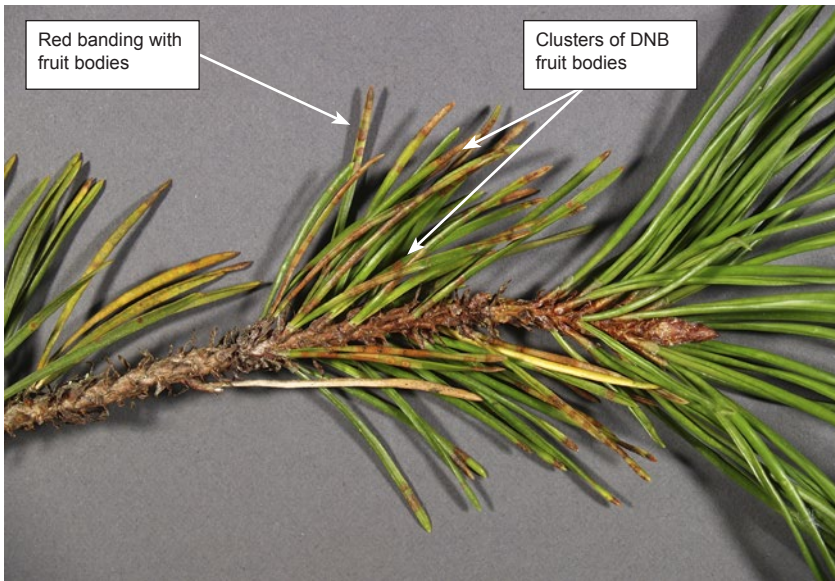
DNB on Scots pine.

Signs and symptoms



DNB on Corsican pine.

Signs and symptoms



DNB on lodgepole pine.

Signs and symptoms



DNB on lodgepole pine.

Signs and symptoms



DNB on spruce.



DNB on spruce.



Comparison - *Elatobium* on Sitka spruce.

Look-alike signs and symptoms



Douglas fir needles.

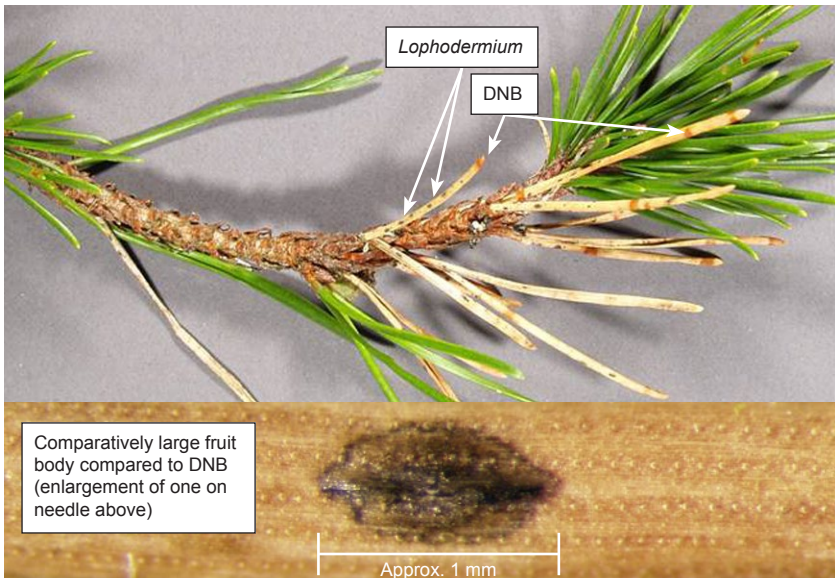


Early *Elatobium* damage on Sitka spruce. Needles will become brown, with darker bands.

Look-alike signs and symptoms

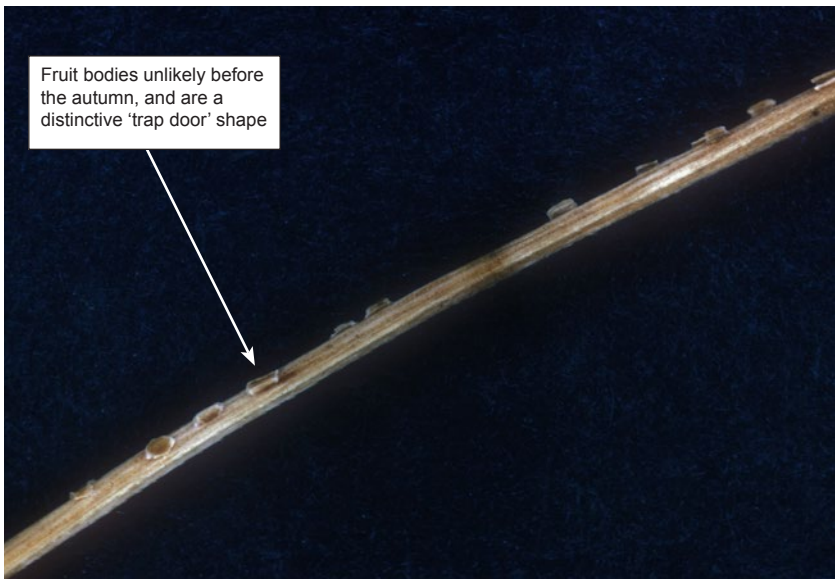


Lophodermium spp.



DNB and secondary *Lophodermium* on lodgepole pine.

Look-alike signs and symptoms



Cyclaneusma on Scots pine.

Look-alike signs and symptoms



Lophodermella on Scots pine needles.

Look-alike signs and symptoms

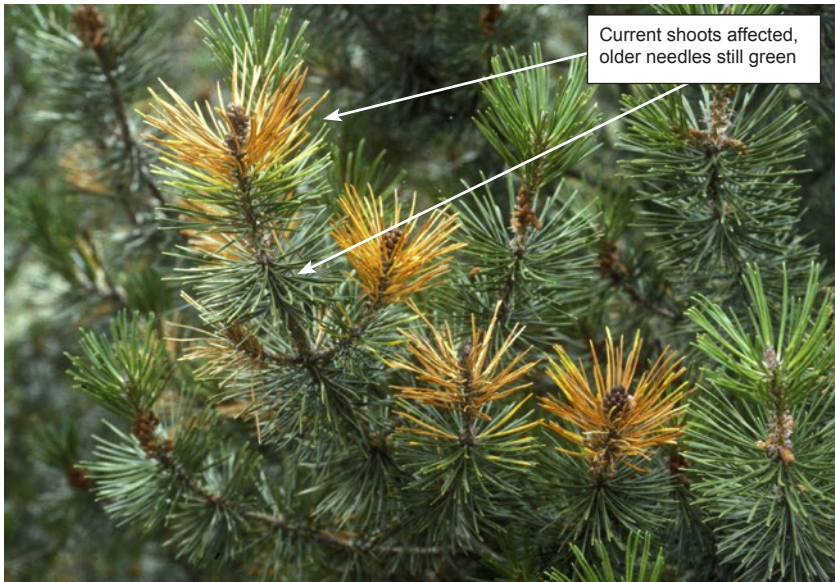


Lophodermella on Scots pine.

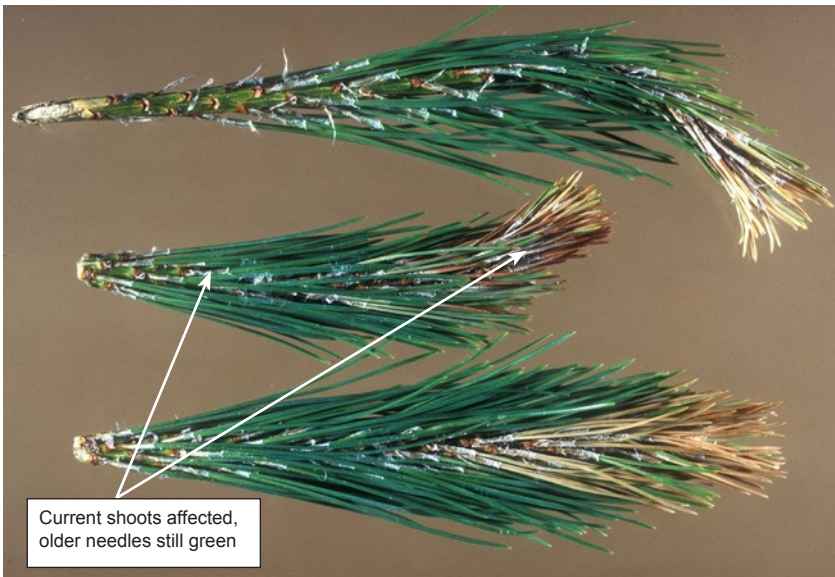


Scots pine needle pair with both DNB and *Lophodermella*.

Look-alike signs and symptoms



Shoot disease - *Ramichloridium pini*.



Shoot disease - *Brunchorstia pinea** (*Gremmeniella abietina*).

* In Northern Ireland, if you suspect you have seen this shoot disease, please report as per page 2.



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Published by Forest Research as part of the Observatree project.

Observatree aims to create a tree health early warning system using citizen science. Funded by the EU's LIFE programme, Observatree is a partnership project led by Forest Research, the research agency of the Forestry Commission. Project partners are Fera Science Ltd, Forestry Commission (GB and countries), the National Trust and the Woodland Trust. Supporting the project are the Animal & Plant Health Agency (APHA), the Department for Environment, Food & Rural Affairs (Defra) and Natural Resources Wales.

Acknowledgements:

Dr Suzanne Sancisi-Frey, Forest Research, for compiling this guide based on a review of current literature and with technical contributions from experts across the Observatree partnership.

All those who have given permission for images to be used within the guide.

The Communications Team, Forest Research, for the original design and creation of the guide.

This booklet forms part of a set that supports Observatree volunteers when out looking for priority pests and diseases. It supplements face-to-face training and is not intended as a full or detailed description. It will also be useful for others who have some knowledge of the particular pest or disease and understand how to look for these. Further information is available online from the websites listed below:

Observatree: www.observatree.org.uk

Forestry Commission: www.forestry.gov.uk

Forest Research: www.forestry.gov.uk/forestresearch