

Condition Survey of Non-Woodland Amenity Trees: Colour Photo-guide 2005.

The figures below illustrate a number of common tree pests and diseases. Some of the photographs show a condition specific to one of the tree species included in the survey. Others show more general problems which can occur on many tree species. Most of the conditions will also be illustrated and fully described in the 'Diagnosis of Ill-Health in Trees' book by R. G. Strouts and T. G. Winter. All volunteers are issued with a copy of this prior to beginning the survey. To help you look up further information in many cases I will refer you to the relevant page numbers (used in the 2nd edition of S & W).

When you fill in the assessment form **please enter a score in every column.** The score is generally between 0 (no symptoms) and 3 (severe symptoms)

1. Sooty Bark Disease



Sooty bark disease of sycamore (and rarely other maples) caused by *Cryptostroma corticale*. Look for dead bark bearing a dark brown or blackish spore layer under the peeling paper-thin outer layer.

(S & W Fig. 381)

2. Tar Spot of Sycamore and other maples



Tar spot caused by *Rhytisma acerinum*. (S & W Fig. 209)

3. Knopper Gall on Oak



Oak knopper gall caused by the insect *Andricus quercuscalicis*.
(S & W Fig. 193)

4. Giant Willow Aphid (*Tuberolachnus*) on Willow



Giant Willow aphid on *Salix* spp.
Tuberolachnus salignus;
Recognisable by its large size (bodies up to 5mm long) and stem-feeding habit.

5. Cherry Leaf Scorch (*Apiognomonina*) on *Prunus*



Leaf scorch on some types of cherry caused by *Apiognomonina erythrostoma*.
NB. The diseased brown leaves fail to fall in the Autumn. (S & W Fig. 216)

6. *Blumeriella* leaf spot on *Prunus*



A leaf spot on cherry caused by *Blumeriella jaapii*. NB. The spots are dark purple turning to reddish brown and sometimes fall out to leave shot-holes. The diseased leaves either fall in the Autumn, or discolour and fall prematurely. (S & W Fig. 217)

7. Leaf blotch on *Aesculus* (*Guignardia*)



Leaf blotch of horse chestnut caused by *Guignardia aesculi*. Blotches with yellow 'haloes' may extend to the leaf edges but discoloration only at the edges, with no yellow halo, indicates a different disease (marginal leaf scorch).

(S & W Fig 174)

8. Beech scale insect



Beech scale insects, *Cryptococcus fagisuga*, form felt-like white spots on the bark.

(S & W Fig 129)

9. Holly leaf miner (*Phytomyza*)



Eggs are laid by adult *Phytomyza* in the midribs of the leaves, from where the larvae tunnel out and feed within the leaf lamina.

(S & W Fig 177)

10. Cankers



Bacterial canker caused by *Pseudomonas syringae* spp. *savastanoi* pvl *fraxini*.

Most bacterial cankers are irregular rough and tumour-like

(S & W Fig. 28)



Perennating canker caused by a fungus, in this case *Nectria galligena*. Apart from the rough dead bark around their edges perennating fungal cankers are usually less rough than those caused by bacteria. Many show target-like concentric rings of dead callus.

(S & W Fig. 259)

11. Bleeding canker



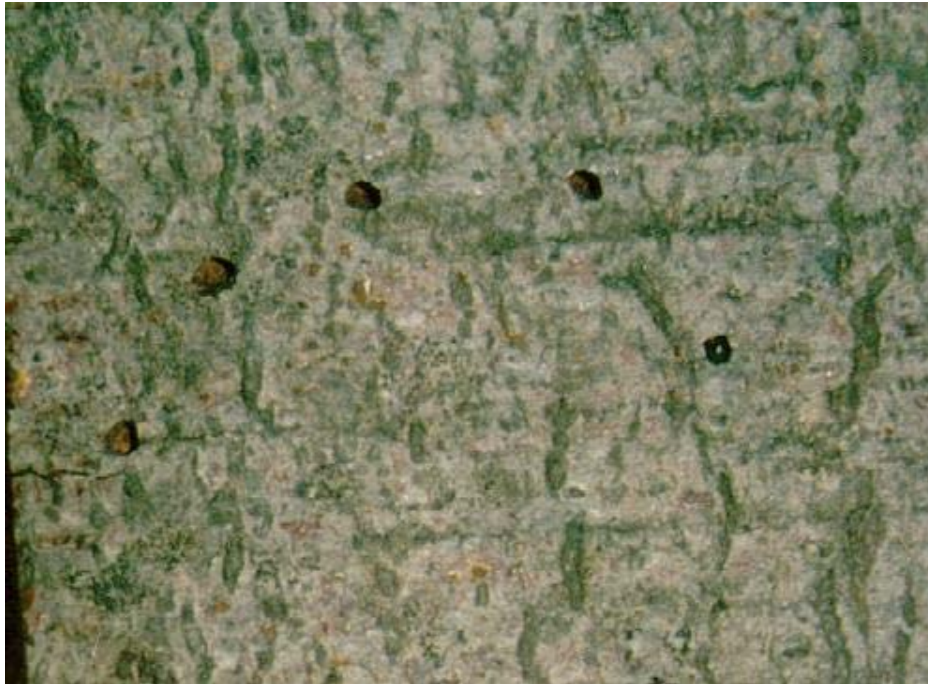
Black or brown tarry liquid oozing from the trunk or branches indicates bleeding canker, and is often caused by *Phytophthora* species (S & W Fig. 290)

12. Fruit bodies



An example of large fungal fruit bodies (*Ganoderma adspersum*) on the stem of a mature tree

13. Insect Exit Holes



Insect exit holes can vary in size and shape depending on the species of borer. E.g. D-shaped exit holes are caused by Buprestid beetles such as *Agrilus* sp.



This hole is caused by the bark beetle *Phloeosinus thujae* on *Cupressus lawsoniana*. Note the frass around the edges of the hole.

14. *Pulvinaria* leaf scale



Pulvinaria leaf scale can be found on many hosts including *Acer*, *Aesculus*, *Tilia* etc.

(S & W Fig. 187)

15. Mildew



Powdery mildew (in this case *Microsphaera alphitoides* on oak) forming a white powdery coating of fungal hyphae and spores on the leaf surface.

(S & W Fig. 312)

16. Leaf Rust



Melampsora rust on Poplar. Look for small yellow spots on one side of the leaf and masses of (usually) yellow or orange spores on the other. Tiny blackish spots succeed the spore masses before or after leaf-fall which is often premature. (S & W Fig. 353 & 354)

17. Fireblight on *Sorbus*



Fireblight is seen on hawthorn whitebeam and pome fruits etc. (NB not cherries or other *Prunus* spp.) It is caused by *Erwinia amylovora*. Look for dead, scorched-looking flowers, shoots or branches with signs of bark death. S & W Fig 136.

Do not confuse with scattered twig death due to *Nectria* canker (this would result in distinct girdling cankers at the base of dead shoots).

18. *Cameraria* leaf miner on *Aesculus*



Cameraria ohridella has so far only been found on horse chestnut in London and in places along the M40 corridor. The larvae of this tiny moth form mines within the leaves. Heavy infestations result in leaf browning and drying, and can result in complete defoliation.

Do not confuse with the fungus *Guignardia aesculi* as brown *Guignardia* blotches are surrounded by a distinctive yellow border and do not appear translucent when held up to the light.