

# Recognition of Hazardous Trees

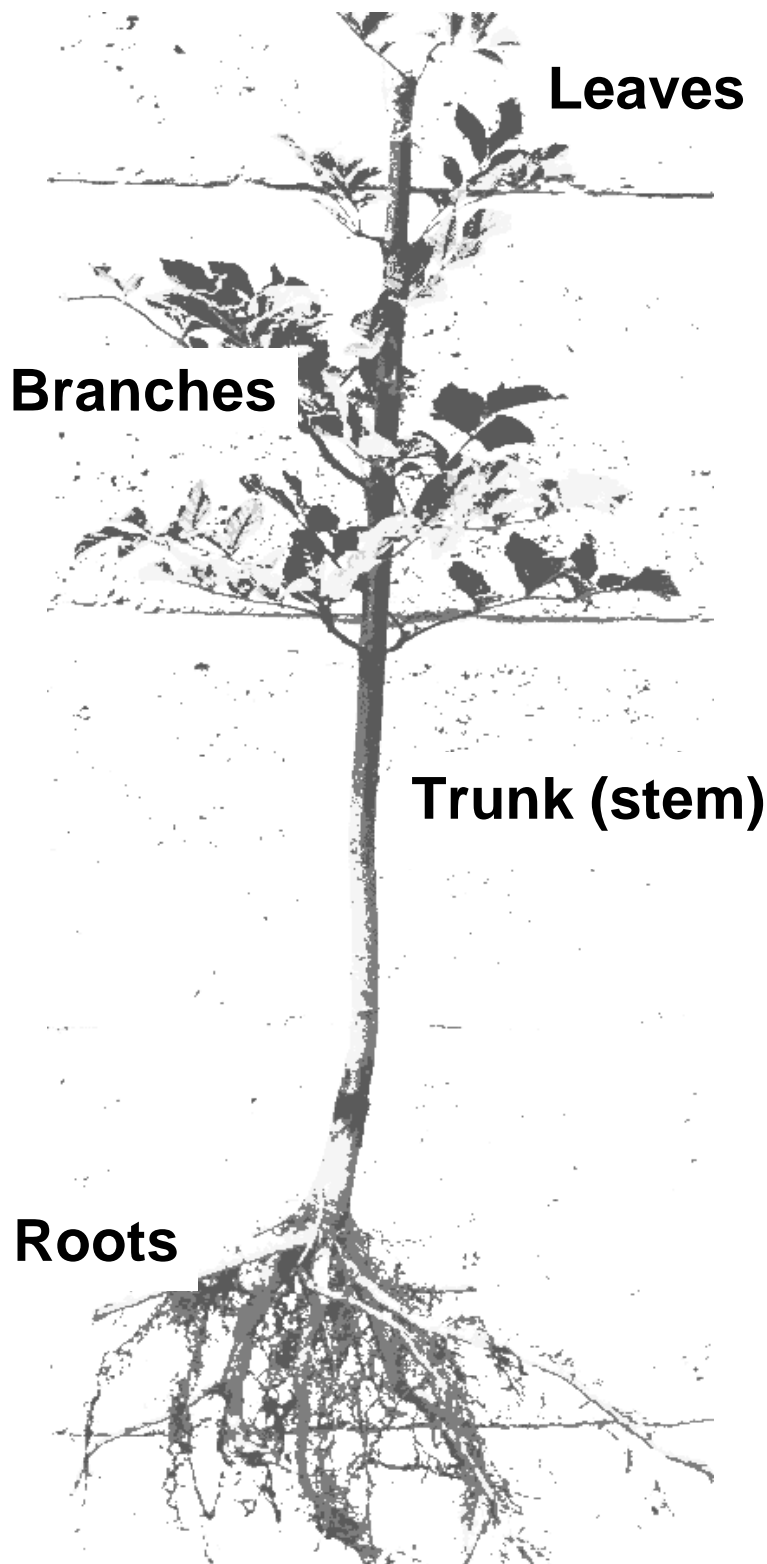


# Recognition of Hazardous Trees

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# Recognition of Hazardous Trees



## Structure

The structure of trees can be divided into 4 sections: -



By carefully inspecting each of these sections, potentially hazardous trees can often be identified.

# Recognition of Hazardous Trees

## Roots

Roots anchor the tree as well as take up moisture and nutrients.

Hidden defects to the root system are often reflected in leaf condition, see page 5

Obvious visible defects include: -



**Roots**



Fungal fruiting bodies on roots



Ground heave adjacent to tree.



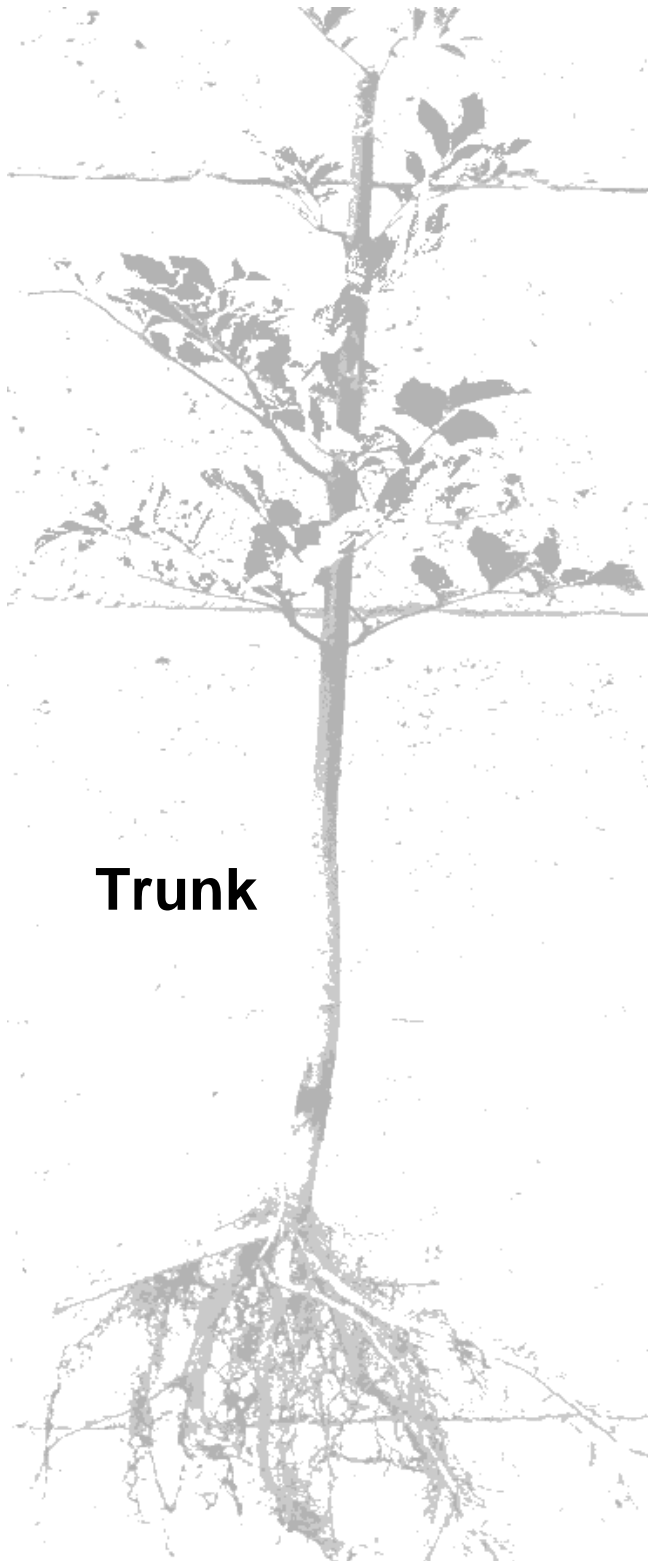
Basal cavities

# Recognition of Hazardous Trees

## Main stem/trunk

The trunk provides structural support to the branches within the crown and transports water and nutrients from the roots to the branches and leaves.

Structural weaknesses can be indicated by: -



**Trunk**



Cavities and fungal bodies



Weak v forks with cracking



Loose bark and woodpecker damage

# Recognition of Hazardous Trees

## Branches

The main branches support the twigs and leaves and transport water and nutrients to the leaves.

Structural weaknesses include internal decay indicated by fungal fruiting bodies; cracks, loose bark and woodpecker activity.



Hung-up branches



Damage/cracked branches



Abrupt bend with decay



Heavy branches

# Recognition of Hazardous Trees

## Leaves

### Leaves



Leaves are the factories of the tree, synthesising carbohydrates (sugars) in the presence of sunlight from materials transported from the roots.

Unhealthy leaves/needles often indicate root/stem problems.

Symptoms of ill health include: -



Small deformed needles



Chlorotic (yellow) leaves

# Recognition of Hazardous Trees

## Other Conditions



The natural growth of trees may cause branches to overhang rights of way or interfere with utilities i.e. power lines etc.



Pollards  
i.e. severely cut back trees with branch re-growth; note sudden change in stem diameter. Decay may be present!





## RECOMMENDED INSPECTION PROCEDURES

It is recommended that the following procedures and checks be followed when inspecting trees to ascertain any potential hazards.

### General

It is recommended that tree inspections are carried out in September or October when any leaf symptoms would still be apparent; also at this time, fresh decay fungi fructifications would be visible. Old fungal fruiting bodies maybe evident throughout the year, in many cases these may wither and fall and could be missed by an inexperienced eye.

- 1) View the tree from a distance to evaluate shape, balance of crown and use binoculars if necessary. Compare the overall shape and balance of the tree, leaves and branches with a known healthy specimen.
- 2) Note any unusual lean and any other unusual defect. Compare with other specimens.
- 3) Check for heavy long branches.

# Recognition of Hazardous Trees

## **Roots**

- 4) Carry out close inspection around base of tree for any obvious defects.
- 5) Check for any damage to buttress roots, cracks in the soil adjacent to roots and main stem.
- 6) Check for fungi growths on or adjacent to roots.

## **Main Stem (Trunk)**

- 7) Inspect trunk for damage and loose bark.
- 8) Check for bracket fungi, cavities, woodpecker damage and any other obvious defect.
- 9) Check for break out cavities where branches have fallen and torn a hole in the main trunk, decay may be present.
- 10) Check for weak forks.
- 11) Check for sudden change in trunk diameter, with numerous branches coming from the same location (a pollarded tree). Decay may be present at the pollard point.

# Recognition of Hazardous Trees

## Main Branches

- 12) Check for weak forks.
- 13) Check main branches for damage and loose bark.
- 14) Check for fungus growth, cavities, woodpecker damage and any other obvious defect
- 15) Check for broken, damaged and hung up branches.
- 16) Are there any perennial or target cankers?
- 17) Check for abrupt ends to the branches resulting from past breaks or pruning, decay may be present and re-grown branches weakly anchored
- 18) Check for break out cavities where branches have fallen and torn a hole in the main branch, decay may be present.
- 19) Check for sudden change in stem diameter, with numerous branches coming from the same location (pollard tree). Decay may be present at the pollard point.

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## **Twigs and leaves.**

- 20) Are the leaves/needles normal or small, sparse, pale etc?
- 21) Check for dead twigs, use binoculars if necessary.
- 22) Did the tree flush its leaves at the correct time or late? Have the leaves fallen early?

**Where defects are found, advice from a Professional Arboriculturalist should be obtained and further investigations carried out as required.**

# Recognition of Hazardous Trees

## Useful Contacts

PBA Consulting  
Bryn Gardens  
Rake Road  
Liss Hants  
GU33 7HB

Tel No 01730 893460

Fax No 01730 893460

[www.pba-consulting.co.uk](http://www.pba-consulting.co.uk)

Arboricultural Association  
Ampfield House  
Ampfield  
Nr Romsey  
SO51 9PA

Tel No: 01794 368717

[www.trees.org.uk](http://www.trees.org.uk)

Institute of Chartered Foresters  
7a St Colme Street  
Edinburgh  
EH3 6AA

Tel No: 0130 2252705

[www.charteredforesters.org](http://www.charteredforesters.org)

Arboricultural Advisory & Information  
Service  
Forest Research Station  
Alice Holt Lodge  
Wrecclesham  
Farnham  
GU10 4LH

Tel No: 01420 22255

(tree advice trust) [www.treehelp.info](http://www.treehelp.info)

Forestry Commission

See Local telephone directory

[www.forestry.gov.uk](http://www.forestry.gov.uk)

# Recognition of Hazardous Trees

## PBA Consulting: - A Synopsis

By understanding and meeting client needs, PBA Consulting provides a professional and comprehensive service. The latest technologies enable us to provide a cost effective facility as expected by our clients.

### Our complete landscape and vegetation management consultancy covers: -



GIS/GPS equipment

- Landscape design, project management and specifications .
- Facilities inspections and surveys including highways .
- Arboricultural surveys, tree inspections; BS5837 and TPO assessments; Section 154 Notices (Highways Act).
- Specialist investigations and condition reports including soil contaminates.
- Turfculture and sports ground agronomy and management including staff appraisals and appointments.
- Habitat and vegetation surveys including Japanese Knotweed, Ragwort identification and control.
- Habitat surveys including pest and disease identification
- Contract preparation, administration and vetting of contractors.
- Drawing preparation, specifications, schedule of rates.
- Liaison with local planning authorities.
- Hard and soft landscape features mapping.
- Area checks and boundaries



Car mounted GIS/GPS video surveys

Following current best practice, PBA Consulting provides a complete range of expertise giving reassurance as to the condition and safety of tree and landscape facilities.