



MAWDESLEY PARISH

TREE MAP – PHASE 1

A REPORT TO MAWDESLEY

PARISH COUNCIL



BY JOHN LAMB

JUNE 2005

CONTENTS	Page No.
Acknowledgements	ii
1. INTRODUCTION	1-3
1.1 Background	1
1.2 “What is a tree?”	1-2
1.3 Seed dispersal	2-3
2. METHODS OF DELIVERING PHASE 1	4-6
3. INTERPRETING THE RESULTS OF THE TREE WALKS	7
4. HOW TO ESTIMATE THE AGE AND HEIGHT OF A TREE	10
5. PRONUNCIATION, DERIVATION AND MEANING OF THE TREE NAMES	11-13
6. USES OF COMMON SPECIES OF TREES AND SHRUBS	14-16
7. REFERENCES	17

List of tables, figures and appendices presented in this report:

Table 1.	Trees and shrubs observed during the four tree walks in the Parish of Mawdesley	7
Figure 1.	Diagrammatic representation of the Plant Kingdom	1
Figure 2.	Numbers of insect and mite species associated with trees and shrubs	9
Appendix 1.	Facts and figures about the main trees and shrubs found in the Parish of Mawdesley	18-19

Acknowledgements

John Lamb is grateful to the following persons and organisations that provided assistance in the preparation of this report:

Mawdesley Parish Council for commissioning the tree walks and production of this report,

Steven Beesley of Community Futures for initial discussions about the project and for providing a map of the Parish,

Pauline Collins of Mawdesley Parish Council for assisting with the organisation of the tree walks,

The various helpers on the walks who ensured that we were following the correct routes and footpaths, and finally to

The people of the Parish of Mawdesley who attended the tree walks and made the events so enjoyable and rewarding.

Survey and report by:

John Lamb M.Sc., “Hawksnest”, 33 Mercer Road, Lostock Hall, Preston. PR5 5TP.

Tel: 01772 463400

E-mail: johnlamb1@activemail.co.uk

John Lamb was born and brought up in Bamber Bridge, near Preston, attending Lostock Hall High School and Runshaw College in Leyland. He graduated from Liverpool University in 1986 with a B.Sc. Honours degree in Environmental Biology. In 1987 he worked as a countryside ranger on the internationally important sand dune system of the Sefton Coast in Merseyside, before heading south to Wye College in Kent, to study for a M.Sc. degree in Landscape Ecology, Design & Maintenance. Mr Lamb then worked for the Nature Conservancy Council as Assistant Scientific Officer and undertook a research contract for Dr George Peterken examining the ecological effects of the “Great Storm” of 16 October 1987. Mr Lamb then returned to Lancashire to take up his first post with the then Lancashire Trust for Nature Conservation, as Woodland Officer for the Central Lancashire Woodland Project surveying ancient woodlands in the Ribble Valley. He completed a Phase 2 habitat survey of sites in Burnley District and initiated an urban wildlife survey of Preston before moving to the Isle of Man to undertake a Phase 1 habitat survey for the Isle of Man government. In 1992 he took up the position of Conservation Officer with the Manx Wildlife Trust, a post he held for six years. In July 1998 John returned to his home county to take up his present employment as Conservation Officer for East Lancashire with the Wildlife Trust.

1. INTRODUCTION

1.1 Background

In February 2005 Mawdesley Parish Council applied for funding through the Green Partnership Awards* for Phase 1 of the two phase Mawdesley Parish Tree Map.

Phase 1 had the following intentions:

1. To organise a session on tree identification,
2. To arrange a series of guided walks along the public footpaths of the Parish of Mawdesley in the Borough of Chorley in Lancashire,
3. To produce a report on the species found, including notable species marked on a map, and
4. To identify suitable locations for the planting of individual trees, and
5. Organise a tree planting session.

The aim of Phase 2 is to employ a graphic designer to work with a number of volunteers to put all the information into an information guide (Parish Tree Map), which will be printed and distributed to every household in the Parish.

* Green Partnership Awards - Grants for environmental action in Lancashire, a partnership between Chorley Borough Council, Lancashire County Council, United Utilities and the Environment Agency. Tel 01772 530650, email: projectsandprogrammes@env.lancscc.gov.uk

1.2 “What is a tree?”

Trees are plants just as wildflowers and grasses are, figure 1, but whilst grasses all belong to a single Family, Gramineae, trees occur scattered throughout families, Orders and both Classes.

Figure 1. Diagrammatic representation of the Plant Kingdom

CLASS	ORDER	Representatives
Gymnospermae	Cycadales	Cycas, like a tree-fern
	Gnetales	shrubby or trailing plants
	Ginkgoales	one species - the Ginkgo TREE
	Taxales	small TREES
Angiospermae	Coniferales	nearly all TREES, a few shrubs
	Dicotyledons	herbs, shrubs and TREES
	Monocotyledons	herbs, bulbs, grasses and TREES

Gymnosperms – Vascular plants that reproduce by seeds that are not enclosed within an ovary. Gymnosperm is from the Greek *gymnospermos*, meaning "naked seed".

Angiosperms (or flowering plants) – Vascular plants whose ovules, or young seeds, are enclosed within an ovary. The Angiosperms can be divided into **Dicotyledons**,

which have two embryonic seed leaves or cotyledons that usually appear at germination and the **Monocotyledons**, which have a single cotyledon in the seed, such as orchids, grasses and lilies.

Strictly speaking a tree is defined as “A woody plant that commonly achieves a height of six metres (20 feet) on a single stem” (Mitchell 1978). Whilst the majority of plants discussed in this report do meet the above definition of a tree, this report also includes a few shrubs such as blackthorn, elderberry and Rhododendron because these are common, prominent, attractive and interesting species and if a child was walking through a thicket of these species they would probably say that the shrubs were trees and that they were in a woodland.

Trees produce flowers in a huge variety of colour, size, shape and visibility. Plants, including trees, which produce petals do so because they are pollinated by animals, mainly insects but also birds and mammals, e.g. fruit bats which pollinate banana trees. The plants produce petals to advertise themselves and nectar is produced by the plants to tempt the animals to feed on the nectar, during the course of which they pick up pollen and may deposit it on the ripe receptacle of a female flower of another plant of the same species and result in successful fertilisation. Examples of insect-pollinated trees in Mawdesley include hawthorn, apple, cherry, sloe, pear, elder and rowan.

Trees that don't produce petals are pollinated by the wind (as are grasses and many other plants such as plantain, docks etc) hence have no need to produce petals or nectar to attract insects. Examples of wind-pollinated trees in Mawdesley include hazel, beech, oak, alder, birch, poplar/aspens, willows and elm.

1.3 Seed dispersal

The seeds of plants can be dispersed in a variety of ways:

- 1.3.1 By producing a fruit or berry surrounding the seed, the fruit being eaten by animals and usually passing unharmed through the digestive system and being deposited away from the parent tree. If the seed(s) in the animal dropping(s) land on suitable ground they can germinate and grow into a new tree. Examples of fruit-producing trees in Mawdesley include hawthorn, holly, apple, cherry, sloe, pear, elder, rowan and yew.
- 1.3.2 By producing their seed as a nut which is buried by animals as a winter store upon which the animals feed upon and stay alive over the winter when other food is unavailable. Some of the nuts get lost or don't get eaten and can then germinate if the conditions are suitable. Examples of nut producing trees in Mawdesley include hazel, beech and oak.
- 1.3.3 By producing small light seeds that, when ripe, blow in the wind and land some distance away from the parent tree. If the seed lands on suitable ground it can germinate and grow into a new tree. The seeds may have small very thin wings that help catch the wind. Examples of wind-blown seed producing trees in Mawdesley include alder, birch, poplar/aspens, willows and elm.

- 1.3.4 By producing seeds, larger than the above, that can be dispersed by the wind but the seeds have a larger, thicker and wider wing or wings and are usually twisted so that even if they fell on a windless day they spin and are dispersed away from the parent tree. On a day with wind they would be dispersed farther afield but not as far as the small light seeds above. Examples of wind-blown seed producing trees in Mawdesley include ash (seeds called keys) and sycamore (spinning jennies).
- 1.3.5 By exploding, i.e. self-propulsion, the seeds being produced in pods and as the pods ripen it twists and tension builds up (like in a coil or spring) so that when the tension gets to the point that it has to be released, the pod “springs” open, throwing the seed out. Members of the pea family (Leguminosae) produce their seeds in various size and shaped pods. None of the trees in this report disperse their seeds by this method but examples of pod- producing trees likely to occur in Mawdesley include laburnum and false acacia.
- 1.3.6 By having seeds covered with hooks that can become attached to the fur of mammals and at some stage are brushed, scratched, pulled or fall off away from the parent tree. If the seed lands on suitable ground it can germinate and grow into a new tree. This is not a method of seed dispersal normally used by trees but some good examples of plants that do this include burdock, cleavers or goosegrass and wood avens.
- 1.3.7 By having seeds that can survive/float in water and are dispersed by the currents. None of the trees in this report disperse their seeds by this method but an example is the coconut whose distinctive seeds are dispersed in the sea.

2. METHODS OF DELIVERING PHASE 1

Mawdesley Parish Council arranged for Chorley Borough Council's Tree Officer to lead an introductory session about the Parish Tree Warden scheme to be held in the Village Hall in March 2005 (item 1 in 1.1). However, the session was cancelled and tree identification was covered during the guided walks. The introductory session is to be reorganised.

John Lamb from Lostock Hall in South Ribble, who works as a Conservation Officer for the Lancashire Wildlife Trust, led four guided walks (item 2 in 1.1) on four Saturdays in April 2005 and covered the northwest, northeast, southeast and southwest quarters of the Parish respectively.

This document represents the report (item 3 in 1.1) on the species found, together with information on the tree species including number of insects that use the various trees as part of their life-cycles, how to estimate the age of a tree, the pronunciation, derivation and meaning of the tree names, and some traditional and medicinal uses of trees. Information on whether or not the trees are native or introduced to the UK (country of origin and date of introduction where known), size and age ranges is presented in appendix 1.

During the walks, Mr Lamb marked the occurrence of the various tree and shrub species onto a base map, and this can be used, if necessary, to highlight the occurrence of common and/or notable species or specimens onto a Parish Tree Map. However, it is recommended that if attention is to be drawn, through a published leaflet, to specific specimens of trees on private land (especially in gardens), then the landowner should be made aware of the intention and their permission sought for its inclusion in the leaflet.

Before the start of the first tree walk, Mr Lamb gave an outline of the importance of trees and shrubs and the many uses to which they have been put in the past and in many ways in which we still rely on them today (see section 6). Trees have long been used to make houses (including roof timbers, internal supports, floorboards, doors and windows), beds, seating, kitchen units, spoons, bowls, chopping boards, rolling pins etc. The "wattle" in "wattle and daub" that was previously plastered over to make walls was made of interwoven hazel sticks.

In the past wood was the primary source of fuel for cooking and heating and is still a major source of fuel today in open fires, wood burning stoves, ranges (such as Aga and Rayburn), barbecues (charcoal is wood burnt in the absence of oxygen).

Timber is still used to make yachts and canal barges but in the past all ships, including cargo and war ships, were made primarily of wood, especially oak. Timber was also used inside the old style railway carriages and even made it into some cars such as the Morris Minor with its distinctive wooden framework.

Wood has been used for footwear, with clogs being a local example in Lancashire, and other clothing such as buttons and toggles as well as jewellery (e.g. earrings and necklaces).

People also eat produce from trees and shrubs, from fruit (apples, oranges, pears, damsons etc) make wine or alcoholic drinks out of the berries (elderflower “champagne”, elderberry wine, sloe gin etc) and some species have medicinal properties, e.g. aspirin contain Salicylic acid, which occurs naturally in willows (*Salix* species).

The walks started at 10am from the Parish Hall in Mawdesley and varied in length from 2 hours to 3 hours 45 minutes and followed the following routes:

Saturday 2nd April 2005, northwest quarter: from the village hall west along the footpath to Smithy Lane then heading north on Gales Lane, turning west along New Reed Brook to a track at The Sluice, across Mill Ditch to Meadow Lane and onto the White Bridge* (where hawthorn was seen in flower, one of the first locations in the UK as recorded by BBC TV’s Springwatch 2005). The walk continued along Little Meadow Lane to the parish boundary, following the path to a plantation of poplar trees and onto Old Reed Brook, past Back House and down a track to Brook Farmhouse and onto New Street and back to the village hall.

Saturday 9th April 2005, northeast quarter: from the village hall along Hurst Green and New Street to Brook Farmhouse, bearing right along the footpath to Cliffs Farm and along Wood Lane and Nook Lane to Blue Stone Lane then left onto Hand Lane and right into Tannersmith Lane, along the footpath past Thompsons Farm into Knowles Wood **, through the wood and out past Heskin Old Hall Farm, crossing Hall Green Lane onto the path to Salt Pit Lane, then the footpath to Little Bluestone Lane and north to Nook Lane, taking the footpath south past Rector’s Wood (which has some Scots pine trees) and across the fields back to Brook Farmhouse and onto New Street and back to the hall.

Saturday 23rd April 2005, southeast quarter: From the village hall along Hurst Green, New Street and Hall Lane to a footpath opposite the War Memorial, heading south past a former quarry and then east to Bradshaw Lane, past Woodside Farm and Monk Farm onto Back Lane East, then Moody lane to Bentley Lane and following the parish boundary before taking the path past Harrock View in a northwesterly direction to Old Lane and then past Cedar Farm craft gallery to School Lane and Back Lane before taking the footpath back towards the disused quarry by taking the path to New Street and back to the hall.

Saturday 30th April 2005, southwest quarter: from the village hall following the footpath to Smithy Lane and then High Street to the footpath past the Old Rectory to School Lane, turning into Jay Bank, then out of the parish onto Daub Lane to Rufford Road then taking the footpath to the River Douglas, which is the parish boundary, before backtracking to Rufford Road, heading northwest before taking a path across the field to Sandy Lane and east past Church Farm and onto High Street and back to the hall.

* At the White Bridge there is a Biological Heritage Site (BHS - the County Wildlife Sites system for Lancashire) associated with the railway

embankments. Its is named Rufford Railway Hollows (BHS ref 41NE02), grid ref: SD 464 150 and meets the BHS selection guidelines for flowering plants and ferns, swamp and fen, woodland and scrub and other invertebrates.

** Knowles Wood is a BHS (ref 51NW01), grid ref: SD 518 157 and meets the BHS selection guidelines for woodland and scrub, and is believed to be an ancient woodland i.e. present on the maps of around 1600, i.e. over 400 years old but possibly derived from the original wild wood that covered the area before its clearance for agriculture.

The BHS system is a partnership between Lancashire County Council, Lancashire Wildlife Trust and English Nature. For further details about the BHS system or the sites outlined above contact the environment directorate at Lancashire County Council in Preston.

3. INTERPRETING THE RESULTS OF THE TREE WALKS

During the guided walks, Mr Lamb, stopped at numerous points and gave the attendees the opportunity to say if they already knew the tree or shrub in question before pointing out distinguishing features of the trees and shrubs. As well as the common name(s) the scientific name was also used and this often explained why the plant was so named (see section 5 below). Other facts about the plants were also pointed out such as whether or not it was native to the UK, method of seed dispersal, traditional uses of the timber and medicinal properties, see section 6 below.

Trees, and other plants, are considered native if they survived the last ice-age or made their way to the British Isles by natural means following the retreat of the last ice-age that ended about 10,000 years ago. Many species recolonised across the land "bridge" that connected Britain to mainland Europe before the sea levels rose and formed the English Channel giving rise to the British Isles as we know them. Plants and animals have colonised, and continue to colonise, the British Isles in more recent times by natural means such as carried by the sea, carried by birds or even blown over in very strong winds.

Many of the trees that are common in the UK have been introduced from other countries/continents and are not native, e.g. sycamore, horse chestnut, larch, spruce, all pines except Scots pine, and many fruit trees. The Romans are believed to be responsible for the introduction of sycamore, horse chestnut and poplar into the UK, but the majority of the introductions have occurred more recently, in the 1700's and 1800's through the Victorian plant collectors and by foresters for timber.

Some trees that are native to the UK didn't naturally occur in the original wildwood that existing throughout most of Lancashire but were confined to southern England and have, at some time in the past, been deliberately planted in the northwest, such as beech, hornbeam and yew.

Whilst the walks concentrated on the trees and shrubs in the countryside, some specimens in the gardens of houses and farmyards were also pointed out. If it is intended to highlight any of these in a publication such as the Parish Tree Map or other leaflets, then the owners of the trees should really be consulted.

Over 40 species of trees and shrubs were observed during the guided walks, the main ones being listed in table 1 and appendix 1.

The native species of trees and shrubs, in particular oak and willows, support many more species of insects than introduced trees, see fig 2., as the insects tend not to be introduced with the trees and are adapted to survive in different climates than the UK.

Table 1. Trees and shrubs observed during the four tree walks in the Parish of Mawdesley.

Scientific name	Common name	Walk 1	Walk 2	Walk 3	Walk 4
<i>Acer pseudoplatanus</i>	Sycamore	•	•	•	•
<i>Aesculus hippocastanum</i>	Horse chestnut		•		
<i>Alnus glutinosa</i>	Alder	•	•	•	•
Araucaria araucana	Monkey puzzle	•		•	
<i>Betula pendula</i>	Silver birch	•	•	•	•
<i>Betula pubescens</i>	Downy birch				
<i>Carpinus betulus</i>	Hornbeam				•
<i>Chamaecyparis lawsoniana</i>	Lawson's cypress	•		•	•
<i>Corylus avellana</i>	Hazel		•	•	
<i>Crataegus monogyna</i>	Hawthorn	•	•	•	•
<i>Eucalyptus</i> sp.	A eucalyptus tree		•		
<i>Fagus purpurea</i>	Copper beech		•		
<i>Fagus sylvatica</i>	Beech	•		•	•
<i>Fraxinus excelsior</i>	Ash	•	•	•	•
<i>Ilex aquifolium</i>	Holly		•	•	
<i>Larix decidua</i>	European larch	•	•	•	
<i>Malus domestica</i>	Apple	•		•	
<i>Picea abies</i>	Norway spruce				•
<i>Picea sitchensis</i>	Sitka spruce				
<i>Pinus nigra</i>	Black pine	•	•	•	•
<i>Pinus sylvestris</i>	Scots pine		•		
<i>Populus nigra</i>	Black poplar	•	•	•	•
<i>Prunus avium</i>	Wild cherry	•		•	
<i>Prunus domestica</i>	Damson		•		
<i>Prunus spinosa</i>	Blackthorn/Sloe	•	•	•	
<i>Pyrus communis</i>	Pear		•		
<i>Quercus petraea</i>	Sessile oak	•	•	•	•
<i>Quercus robur</i>	Common oak				
<i>Rhododendron ponticum</i>	Rhododendron				•
<i>Sambucus nigra</i>	Elder			•	•
<i>Salix capraea</i>	Goat willow	•			
<i>Salix cinerea</i>	Grey willow	•			
<i>Salix fragilis</i>	Crack willow	•	•		•
<i>Salix</i> sp.	An unidentified willow	•	•		
<i>Salix x sepulcralis</i>	Weeping willow	•			
<i>Sorbus aucuparia</i>	Rowan or	•	•		

	mountain ash				
<i>Taxus baccata</i>	Yew	•			
Tilia x europaea	Common lime				•
<i>Ulmus glabra</i>	Wych elm			•	•

Figure 2. Numbers of insect and mite species associated with trees and shrubs (after Kennedy and Southwood 1986).

Tree/shrub	Scientific name	No. of associated species
Willows	Salix (5 species)	450
Oak	Quercus robur & petraea	423
Birch	Betula (2 species)	334
Hawthorn	Crataegus monogyna	209
Poplars	Populus (4 species)	189
Scots Pine	Pinus sylvestris	172
Sloe	Prunus spinosa	153
Alder	Alnus glutinosa	141
Elms	Ulmus (2 species)	124
Crab apple	Malus sylvestris	118
Hazel	Corylus avellana	106
Beech	Fagus sylvatica	98
Norway Spruce*	Picea abies	70
Ash	Fraxinus excelsior	68
Mountain ash	Sorbus aucuparia	58
Lime	Tilia (2 species)	57
Hornbeam	Carpinus betulus	51
Field maple	Acer campestre	51
Sycamore*	Acer pseudoplatanus	43
European larch*	Larix decidua	38
Juniper	Juniperus communis	32
Sweet chestnut*	Castanea sativa	11
Holly	Ilex aquifolium	10
Horse chestnut*	Aesculus hippocastanum	9
Walnut*	Juglans regia	7
Yew*	Taxus baccata	6
Holm oak*	Quercus ilex	5
False acacia*	Robinia pseudoacacia	2

Note: * = Non-native trees to the UK. Some native species such as mountain ash and holly, do not have a high insect count but they are valuable in providing berries for birds and in the case of the holly being a foodplant for the holly blue butterfly.

4. HOW TO ESTIMATE THE AGE AND HEIGHT OF A TREE (after Mitchell 1978)

Most trees largely conform to a simple rule: the mean growth in girth of most trees *with a full crown* is one inch (2.5cm) a year, hence a tree 8ft (2.44m) in girth is usually about 100 years old. Grown in a wood, it will be 200 years old, and in an avenue, or slightly hemmed in, it will be 150 years old. This has been found to be true of hundreds of specimens of almost every species, coniferous or broadleaved, of the larger growing trees. The girth is measured at 1.5m (5 foot) from the highest point of the surrounding ground.

Such a rule needs some refining as the early growth in almost any tree is rather faster than one inch of girth per year, then there is a period of about that rate, followed by a long period of a slower rate. So for much of its life, a tree's girth is near one inch for each year of its life.

Young oaks on a good site often grow 1.5-2 inches a year for their first 60-80 years. From them on until they are about 20-22 feet (6-6.6m) in girth they maintain the "standard" rate. Thereafter they slow further, the decrease depending on the loss of the leafing crown. They seldom survive with a slower rate than one inch in 5-6 years.

Allowance should be made for young trees and for very old trees, and there are also species, which are, when growing normally, much faster, and a few much slower than the general rule above. The major exceptions are:

Normal growth 2-3 inch per year (rarely to 6 inches in Wellingtonia):

Wellingtonia, Coast Redwood, Low's Fir, Grand Fir, Cedar of Lebanon, Monterey Cypress, Sitka Spruce, Douglas Fir, Western Red Cedar, Western Hemlock, Cricket-bat Willow, Black Italian and other hybrid poplars, Wingnuts, *Nothofagus* spp., Red and Chestnut-leaved Oaks, Hungarian and Turkey oaks, Tulip-tree, London Plane and most *Eucalyptus* spp.

Normal growth soon falling much below 1 inch per year:

Most small-growing trees, plus Scots Pine, Norway Spruce, Yew (see below), Horse Chestnut and Common Lime.

Instruments called hypsometers can be bought to measure tree height but a simple method is to take a branch, plant stem, long piece of grass or a length of string and to break, cut or fold it to the exact distance from the eyeball to the farthest reach of the finger and thumb holding it away. The stick, stem or string is then held vertically looking at the tree and the observer moves away from the tree until the top and bottom of the stick are in line with the canopy and base of the tree. The ground should be marked where the person is stood and the height of the tree is equal to the distance from the centre of the tree to that mark, which can be measured with a tape measure or by accurate pacing.

5. PRONUNCIATION, DERIVATION AND MEANING OF THE TREE NAMES (after Johnson & Smith 1972)

Field maple (*Acer campestre*). *Acer* (pronounced A-ser): classical Latin name, possibly from *acer*, hard or sharp, the wood once having been used for writing tablets, and *campestre* (pronounced kam-pes-tre): growing in fields.

Sycamore (*Acer pseudoplatanus*). *Acer* (as above), and *pseudoplatanus* (pronounced sued-o-plat-a-nus): false plane tree.

Horse chestnut (*Aesculus hippocastanum*). *Aesculus* (pronounced es-ku-lus): ancient Latin name of an oak or mast (i.e. big seed) bearing tree, and *hippocastanum* (pronounced hip-po-kas-ta-num): Greek *hippos*, a horse, and Latin *castanea*, the Chestnut tree of Virgil.

Alder (*Alnus glutinosa*). *Alnus* (pronounced al-nus): Latin name for alder, and *glutinosa* (pronounced glu-tin-o-sa): sticky, referring to the foliage which can get gummy.

Silver birch (*Betula pendula*). *Betula* (pronounced bet-u-la): the Latin name for birch, and *pendula* (pronounced pen-du-la): pendulous or weeping.

Downy birch (*Betula pubescens*). *Betula* (as above) and *pubescens* (pronounced pub-es-senz): pubescent or downy, the leaf and stem being covered in tiny hairs.

Hornbeam (*Carpinus betulus*). *Carpinus* (pronounced kar-pine-us): ancient Latin name for hornbeam, and *betulus* (pronounced bet-u-lus): generic name for birch, which it resembles.

Hazel, also called Cobnut and Filbert, (*Corylus avellana*). *Corylus* (pronounced kor-il-us): possibly from the Greek *korys*, a hood or helmet, as in the calyx covering the nut, or the Greek *karyon*, a hazel nut, and *avellana* (pronounced av-el-la-na): after Avella, a town of Campania where the hazel was largely grown for its nuts.

Hawthorn (*Crataegus monogyna*). *Crataegus* (pronounced kra-te-gus): from Greek *krataigos*, a flowering thorn, believed to be derived from *kratos*, i.e. strength, referring to the hardness of the wood, and *monogyna* (pronounced mon-o-jin-a): having a single seed inside the berry.

Lawson's cypress (*Chamaecyparis lawsoniana*). Previously called *Cupressus lawsoniana*. *Cupressus* (pronounced ku-pres-sus): classical name, said to be from the Greek *kuo*, to produce and *parisos*, equal, referring to the symmetrical form of Italian Cypress; possibly from an ancient Latin word signifying a box, the wood once being used for coffins!, and *lawsoniana* (pronounced law-so-ne-a-na): after Lawson, an Edinburgh nurseryman.

Eucalyptus (pronounced u-kal-ip-tus): from the Greek *eu*, good or well, and *calypha*, covered, referring to the calyx which covers the flower like a lid.

Beech (*Fagus sylvatica*). *Fagus* (pronounced fa-gus): the Latin name for a beech tree, some authorities deriving the word from the Greek *phagos*, to eat, the seeds being edible, and *sylvatica* (pronounced sil-vat-ik-a): inhabiting woods.

Ash (*Fraxinus excelsior*), *Fraxinus* (pronounced fraks-in-us): Latin name for an ash tree, possibly from the Greek *phrasso*, to fence, the wood being useful for fence-making, and *excelsior* (pronounced ek-sel-se-or): taller.

Holly (*Ilex aquifolium*). *Ilex* (pronounced I-leks): from the old Latin name *ilex*, an evergreen oak (Holm Oak), to which the holly was supposed to resemble, and *aquifolium* (pronounced ak-we-fo-le-um): old name meaning pointed leaves.

European larch (*Larix decidua*). *Larix* (pronounced lar-iks): old Latin name for the larch, and *decidua*, the European larch being deciduous, i.e. sheds its leaves in winter.

Apple (*Malus* species). *Malus* (pronounced ma-lus): Latin for apple tree, old generic name for the crab apple.

Norway spruce (*Picea abies*). *Picea* (pronounced pis-e-a): Ancient Latin name for spruce, and *abies* (pronounced a-be-as or a-beez): ancient Latin name, possibly from the Latin *abeo*, depart, i.e. from the ground, referring to the great height to which some species grow.

Sitka spruce (*Picea sitchensis*). *Picea* (as above), and *sitchensis* (pronounced sit-ken-sis): of Sitka.

Black pine (*Pinus nigra*). *Pinus* (pronounced py-nus): ancient classical name for a pine tree, and *nigra* (pronounced nig-ra): black.

Scots pine (*Pinus sylvestris*). *Pinus* (as above) and *sylvestris* (Pronounced sil-ves-tris): of woods.

Hybrid black poplar (*Populus nigra* x *P. deltoides*). *Populus* (pronounced pop-u-lus): the arbor-populi (tee of the people) of the Romans, the Italian or Lombardy poplar being much planted in their cities, and *nigra* (pronounced nig-ra): black.

Aspen (*Populus tremula*). *Populus* (as above), and *tremula* (pronounced trem-u-la): trembling, referring to the quivering of the leaves in the wind.

Wild cherry (*Prunus avium*). *Prunus* (pronounced proo-nus): classical name of the plum, and *avium* (pronounced av-e-um): Latin, *avis*, a bird, the tree also known as Gean and Bird Cherry even though there is another species called bird cherry (*Prunus padus*).

Sloe or blackthorn (*Prunus spinosa*). *Prunus* (as above), and *spinosa* (pronounced spin-o-sa): spiny.

Pear (*Pyrus communis*). *Pyrus* (pronounced py-rus): classical name for a pear tree, and *communis* (pronounced kom-mu-nis): gregarious.

Sessile or Durmast oak (*Quercus petraea*). *Quercus* (pronounced kwer-cus): Latin name for an oak tree, some authorities derive the word from the Celtic, *quer*, fine, and *cuez*, a tree, and *petraea* (pronounced pet-re-a): of rocks.

Rhododendron (*Rhododendron ponticum*). *Rhododendron* (pronounced ro-do-den-dron): from the Greek *rodon*, rose, and *dendron*, a tree, and *ponticum* (pronounced pon-tik-um): after Pontic, a region of the Black Sea.

Goat or Pussy willow (*Salix caprea*). *Salix* (pronounced sa-likes): Latin name for a willow, possibly from the Celtic, *sal*, near, and *lis*, water, and *caprea* (pronounced kap-re-a): a goat.

Grey willow (*Salix cinerea*). *Salix* (as above), and *cinerea* (pronounced sin-er-e-a): ash-coloured.

Crack willow (*Salix fragilis*). *Salix* (as above), and *fragilis* (pronounced fraj-il-is): brittle, the branches easily snapping off and making a cracking sound.

Elder (*Sambucus nigra*). *Sambucus* (Pronounced sam-bu-kus): ancient Latin name of elder, said to be derived from the Latin *sambuca*, the name of a musical instrument which was made of elder wood, and *nigra* (pronounced ni-gra): black, referring to the colour of the fruits or elderberries.

Rowan or Mountain ash (*Sorbus aucuparia*). *Sorbus* (pronounced sor-bus): from the Latin *sorbum* (*Sorb* being an apple), once the generic name for the Service tree.

Yew (*Taxus baccata*). *Taxus* (pronounced taks-us): Latin name for a yew tree, perhaps from the Greek *taxon*, a bow, the wood being used for making bows, and *baccata* (pronounced bak-ka-ta): berried.

Common or European lime also known as the Linden tree (*Tilia x europea*, hybrid of *Tilia platyphyllos* and *Tilia cordata*). *Tilia* (pronounced til-e-a): old Latin name for lime tree, and *platyphyllos* (pronounced plat-e-fil-lus): broad-leaved, and *cordata* (pronounced kor-da-ta): heart-shaped, referring to the leaves.

Wych elm (*Ulmus glabra*). *Ulmus* (pronounced ul-mus): old Latin name for an elm tree, perhaps from the Celtic name *ulm*, and *glabra* (pronounced gla-bra): smooth or hairless.

6. USES OF COMMON SPECIES OF TREES AND SHRUBS

Just a few examples of some traditional and more current uses of the timber and some of the known medicinal properties are outlined below:

Alder: Traditional uses: clog soles, brush backs, textile rollers and gunpowder manufacture (alder charcoal).

Current uses: turnery, toys, artificial limbs, hat blocks and underwater structures.

Medicinal uses: Tonic and astringent. A decoction of the bark is useful to bathe swellings and inflammations, especially of the throat, and has been known to cure ague

Ash: Traditional uses: cart shafts, wheel spokes, agricultural implements, bodywork framing for cars and vans.

Current uses: sports goods, turnery, tool handles and furniture.

Medicinal uses: Ash bark has been used as a bitter tonic and astringent, and is said to be valuable as an antiperiodic. It has been considered useful to remove obstructions of the liver and spleen, and in rheumatism of an arthritic nature.

The *leaves* have diuretic, diaphoretic and purgative properties, and are employed in modern herbal medicine for their laxative action, especially in the treatment of gout and rheumatism.

Beech: Traditional uses: brush backs, shoe heels and chairs.

Current uses: furniture, turnery, pattern making, toys, kitchenware, tool handles and veneers.

Medicinal uses: The tar is stimulating and antiseptic, used internally as a stimulating expectorant in chronic bronchitis, or externally as an application in various skin diseases.

Birch: Traditional uses: bobbins, spindles, boxes, brush backs, handles and turnery.

Current uses: furniture, toys and plywood.

Medicinal uses: The *young shoots* and *leaves* secrete a resinous substance having acid properties, which, combined with alkalies, is said to be a tonic laxative. The *leaves* have a peculiar, aromatic, agreeable odour and a bitter taste, and have been employed in the form of infusion (Birch Tea) in gout, rheumatism and dropsy, and recommended as a reliable solvent of stone in the kidneys. With the *bark* they resolve and resist putrefaction. A decoction of them is good for bathing skin eruptions, and is serviceable in dropsy

Horse chestnut: Traditional uses: bobbins, turnery, dairy and kitchen utensils.

Current uses: toys, fruit storage racks (wood absorbs moisture).

Medicinal uses: The bark has tonic, narcotic and febrifuge properties and is used in intermittent fevers. As an external application to ulcers. The fruits are used in the treatment of rheumatism and neuralgia, and also in rectal complaints and for haemorrhoids.

Cherry: Traditional uses: furniture and cabinet making.

Current uses: furniture and cabinet making, turnery.

Medicinal uses: Astringent tonic, pectoral, sedative. It has been used in the treatment of bronchitis of various types. Is valuable in catarrh, consumption nervous cough, whooping-cough, and dyspepsia

Wych elm: Traditional uses: boat building and turnery.

Current uses: steamed bent wood, general estate work, canal lock gates.

Medicinal uses: Tonic, demulcent, astringent and diuretic.

Hornbeam: Traditional uses: wooden cogwheel teeth, wood screws, tool handles and pulleys.

Current uses: mallet heads, skittles, butchers blocks.

Lime: Traditional uses: carving, furniture making, turnery and beehives.

Current uses: traditional uses and pulpwood.

Medicinal uses: Lime-flowers are only used in infusion or made into a distilled water as household remedies in indigestion or hysteria, nervous vomiting or palpitation. Prolonged baths prepared with the infused flowers are also good in hysteria.

Oak: Traditional uses: wheel rims, shipbuilding, railway wagons, cooperage, swill baskets and tanning.

Current uses: coffin boards, beams, gates, fencing, estate use, veneers and chipboard.

Medicinal uses: the *bark* is now employed in medicine. Its action is slightly tonic, strongly astringent and antiseptic.

Poplar: Traditional uses: colliery tramway wagons, floors of lorries, brake blocks, matches, matchboxes, chip baskets and toys.

Current uses: plywood, pulpwood, box boards.

Medicinal uses: Febrifuge and tonic, chiefly used in intermittent fevers. It has been employed as a diuretic in urinary affections, gonorrhoea and gleet. The infusion has been found helpful in debility, chronic diarrhoea, etc.

Sycamore: Traditional uses: textile rollers, brush backs, bobbins, breadboards and rolling pins.

Current uses: turnery, toys, kitchen and dairy utensils, furniture and cabinet making.

Willow: Traditional uses: cricket bats, toys, chip baskets.

Current uses: cricket bats, toys, artificial limbs and pulpwood.

Medicinal uses: Tonic, antiperiodic and astringent. It has been used in dyspepsia connected with debility of the digestive organs. Tonic and astringent useful in convalescence from acute diseases, in worms, in chronic diarrhoea and dysentery. Bark contains tannin and salicin (used in aspirin).

Lawson's cypress: Uses: joinery, wardrobes and clothes chests, fencing.

Larch: Uses: building work, gates, fencing, boat building, chipboard and garden furniture.

Medicinal uses: Stimulant, diuretic, astringent, balsamic and expectorant. As an external application it has been found useful in chronic eczema and psoriasis. Its chief official use is as a stimulant expectorant in chronic bronchitis, with much secretion. Its action is that of oil of turpentine. It has also been given internally in haemorrhage and cystitis

Scots pine: Uses: building construction, gates, fencing, boxes, overhead service line poles, pitprops.

Medicinal uses: Rubefacient, diuretic, irritant. A valuable remedy in bladder, kidney, and rheumatic affections and diseases of the mucous membrane and respiratory complaints; *externally* in the form of liniment plasters and inhalants.

Spruce: Uses: boxes, joinery, pulpwood, building work, pit props, kitchen furniture, chipboard.

7. REFERENCES

The following publications are referred to in the text, have been consulted and/or are relevant to the preparation of this report:

Grieve, M. (1971) *A Modern Herbal*. Dover Publications, New York.
www.botanical.com

James, N.D.G. (1989) *The Forester's Companion*. Fourth Edition. Blackwell, Oxford.

Johnson, A.T. and Smith, H.A. (1972) *Plant names simplified*. Their pronunciation, derivation and meaning. Hamlyn.

Kennedy and Southwood T.R.E. (1986) *The numbers of insect and mite species associated with trees and shrubs - a reassessment*. Journal of Ecology,

Mitchell, A. (1978) *A field guide to the trees of Britain and Northern Europe*. Second Edition. Collins. London.

Savidge, J.P. *et al* (1963) *Travis's Flora of South Lancashire*. Liverpool Botanical Society.

Stace, C. (1991) *New Flora of the British Isles*. Second Edition. Cambridge University Press.

<u>Scientific Name</u>	<u>Common Name</u>	<u>Status</u>	<u>Country of origin</u> <u>(& year) if known</u>	<u>Max</u> <u>height</u> <u>(m)</u>	<u>Age-</u> <u>range</u> <u>(years)</u>	<u>No. of</u> <u>insect</u> <u>species</u>
<i>Acer campestre</i>	Field maple	N,c-o		25		51
<i>Acer pseudoplatanus</i>	Sycamore	I,c	C & S Europe (~1550)	35		43
<i>Aesculus hippocastanum</i>	Horse-chestnut	I,c	Albania, Greece (1616)	39		9
<i>Alnus glutinosa</i>	Alder	N,c		22(26)		141
<i>Araucaria araucana</i>	Monkey-puzzle	I	Chile, Argentina (1795)	30		
<i>Betula pendula</i>	Silver birch	N,c		30	50-60(180)	334
<i>Betula pubescens</i>	Downy birch	N,c		25		334
<i>Carpinus betulus</i>	Hornbeam	N(I), o		30		51
<i>Corylus avellana</i>	Hazel	N,c		12		106
<i>Crataegus monogyna</i>	Hawthorn	N,c		15		209
<i>Chamaecyparis lawsoniana</i>	Lawson's cypress	I	California/Oregon (1854)	41		
<i>Eucalyptus</i> sp.	A eucalyptus species	I	Australia	35-40		
<i>Fagus sylvatica</i>	Beech	N(I),c-o		46		98
<i>Fagus sylvatica</i> 'Purpurea'	Copper beech	I	Europe (<1700)	32		
<i>Fraxinus excelsior</i>	Ash	N,c		37		68
<i>Ilex aquifolium</i>	Holly	N,c-o		23		10
<i>Larix decidua</i>	European larch	I	Alps (about 1620)	32 (45)		
<i>Malus domestica</i>	Apple	I		10		
<i>Picea abies</i>	Norway spruce	I	Europe (before 1500?)	43		
<i>Picea sitchensis</i>	Sitka spruce	I	Alaska (1831)	58		
<i>Pinus nigra</i>	Black pine	I	Italy	35		
<i>Pinus sylvestris</i>	Scots pine	fN(I),c	formerly native in Lancs	35	250(400)	172
<i>Populus x canadensis</i>	Hybrid black poplar	I	France (1750)	40		
<i>Populus tremula</i>	Aspen	N/I,f		20		
<i>Prunus avium</i>	Wild cherry	N,f		31		

<u>Scientific Name</u>	<u>Common Name</u>	<u>Status</u>	<u>Country of origin (& year) if known</u>	<u>Max height (m)</u>	<u>Age- range (years)</u>	<u>No. of insect species</u>
<i>Prunus domestica</i>	Plum or damson	I	SW Asia	8(12)		
<i>Prunus spinosa</i>	Sloe or blackthorn	N,c		4		
<i>Pyrus communis</i>	Pear	I	Europe & W.Asia	15(20)		
<i>Quercus petraea</i>	Sessile oak	N,c		42		423
<i>Quercus robur</i>	Pedunculate oak	N,c		34	>800	423
<i>Rhododendron ponticum</i>	Rhododendron	I,c	SE Europe/SW Asia	5		
<i>Salix caprea</i>	Goat willow	N,c		16		450
<i>Salix cinerea</i>	Grey willow	N,c		15(20)		450
<i>Salix fragilis</i>	Crack willow	N/I,c		18		450
<i>Salix x sepulcralis</i>	Weeping willow	I	France (about 1820)	22		450
<i>Sambucus nigra</i>	Elder	N,c		10		
<i>Sorbus aucuparia</i>	Rowan	N,c		18		58
<i>Taxus baccata</i>	Yew	N(I),f		28		6
<i>Tilia x europaea</i>	Common lime	N(I),f		40(44)		57
<i>Ulmus glabra</i>	Wych elm	N,c		37		124
Trees and shrubs: 40 species	Country of origin of trees from Mitchell (1978), otherwise Stace (1991)					
	Height from Mitchell (1978) otherwise Stace (1991)					
	No. of insect species from Kennedy & Southwood (1986)					
Note: although particular native species such as mountain ash, yew and holly, do not have a high insect count they are valuable in providing berries which are eaten by birds and in the case of the holly being a foodplant for the holly blue butterfly.						