

UNDERSTANDING BOTANICAL NOMENCLATURE

Botanical nomenclature – the naming of plants – is scientific. It is systematic and definitive, based upon a hierarchical system – a process beginning with ‘all plants’ and ending with a singular unique ‘species’. Nomenclature – together with botanical taxonomy (the ordered classification of plants into like-for-like groups) – ensures all plants are accurately and correctly named.

Most plants referred to in this Lakeland's Waymarker Trees are classified as trees* – meaning, a particular botanical taxonomic form with distinct biological/morphological characteristics. For consistency, all botanical tree/plant names in this survey are given in accordance with accepted ‘rules’ of nomenclature, as defined in the *International Code of Nomenclature for algae, fungi and plants* (ICNafp, 2018).

That is, consider:

- **Common (vernacular) names** are conventionally written in normal lower case font – as in, for instance, ash, holly, oak, rowan, thorn, willow – unless part of the name is a noun for a person or place as in, for example, Scots pine, Norway spruce, Sitka spruce, Douglas fir (such as seen in *Dodd 2, 3, 5 and 6, BOOK FIVE*).
- **Botanical (scientific) names** are conventionally written in *italic* font, using the ‘binomial (two-name) system’, where a universally accepted name is formed from two distinct parts (that is, firstly a capitalised genus – as in, say, *Quercus* (all true oaks) which, secondly, is coupled with a lower-case specific epithet – as in, say, *petraea* (meaning ‘of rocky stony ground’) – which, when correctly combined, results in the explicit one-off botanical name of the species *Quercus petraea* (such as seen in *Red Screes 3, BOOK ONE*).
- **Botanical family names** are conventionally written in normal font, the first letter only of the name being capitalised. The vast majority of plant family names (with very few exceptions) end with the suffix ‘aceae’. That is, a typical plant family name is written as, for example, Cupressaceae, Pinaceae and Taxaceae. Plant families usually comprise multiple genera which share biological, botanical, ecological, evolutionary, morphological, reproductive and taxonomic characteristics. As one might expect, there are exceptions, where plant families contain only a single genus and species – wherein the family is referred to as being ‘monotypic’. An example of a monotypic family is Ginkgoaceae, whose solitary genus is *Ginkgo* and single species (the ginkgo or maidenhair tree) is *Ginkgo biloba*.

* With the following exceptions:

the “wild rose tree” (in *The Valley Route, Great End 7, BOOK FOUR*) refers to a scrambling burnet rose (*Rosa spinosissima*) which is not tree-like in form/size – included only as it is unusual (presumably why AW noted it).

the common juniper (*Juniperus communis*) found across the district (and referred to in multiple locations by AW) – is highly variable in form and stature (sometimes prostrate, shrubby or tree-like).

the common rhododendron (*Rhododendron ponticum*) in *Loughrigg Fell 6, BOOK THREE* which typically develops into dense suckering shrubby stands and, occasionally, small trees – included because AW noted it (but nowadays regarded as an invasive weed, usually controlled/removed for conservation/ecological reasons).

Whilst these plants have the characteristic of being woody they do not necessarily grow as ‘true’ trees.

Plant naming with accuracy and precision

All tree species (and other organisms) in Lakeland's Waymarker Trees are presented in a standard format – that is, a common name followed by the botanical/scientific name in parentheses – as in, for example, common ash (*Fraxinus excelsior*).

Common names vary and can cause confusion

Using a common name alone can be confusing. Common names are inconsistent and likely to be favoured differently from one district or region to another. The 'most likely' accepted common names are used here.

To make the point, two examples of trees found throughout The Lakes having more than one common name around the country are – a) hawthorn (*Crataegus monogyna*) which is also known as hawberry, May, Mayflower, Maythorn, Maytree, quickthorn, thornapple or whitethorn – and b) rowan (*Sorbus aucuparia*) which is frequently called mountain ash, but also quickbeam, rowan, rowan ash, rowan berry, rowan tree, sorb apple, witchbane or witchwood.

Botanical names are accurate universal

Common names are vital and have merit. They should always be used, of course. However, where certainty is important definitive identification can only be confirmed by a botanical/scientific name, as this specifies an exclusive universally accepted moniker (which is understood everywhere in the world).

From this study, you will have realised that simple common names alone – like 'ash', 'birch', 'cherry', 'larch', 'oak', 'pine' and 'spruce' – are inadequate, since more than one species of each of these types of tree exists. Given correct identification, only a precise botanical name can confirm an exact species.