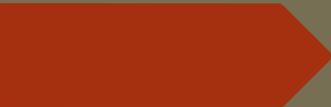


Identification of Trees in a Maltese urban context



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How do you identify trees?

All trees have clues and features that can help with identification.

You just need to know what to look out for.



Basic tree identification tips

- ▶ Look at the leaves or needles. Is it a broadleaf (usually deciduous) or is it a conifer (usually with needles or scales)?
- ▶ Different features will be present through the seasons. You can use twigs, leaf buds and bark on leafless winter broadleaf trees.
- ▶ Use as many features as you can, the more you use the more certain your identification will be. Take into account the overall shape and size of the tree, bark, leaves or needles, flowers, fruits, leaf buds and twigs.



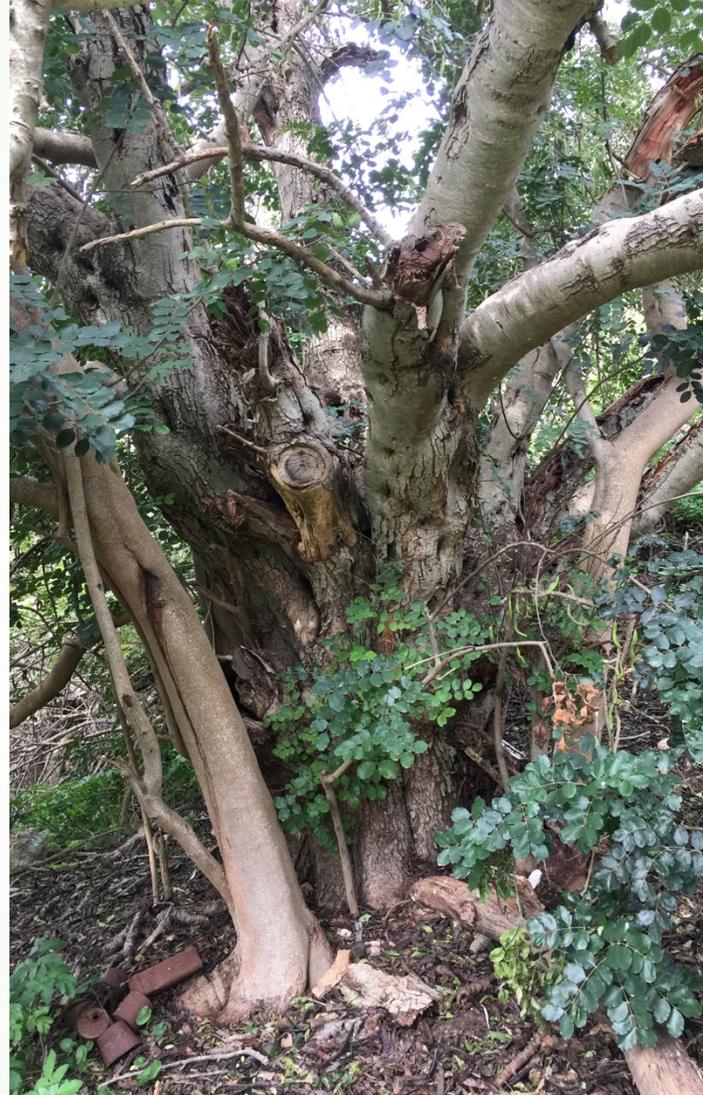
Shape and appearance

- ▶ Shape, size and bark are often the most memorable features of a tree.
- ▶ Some trees have a distinctive overall appearance and shape that can be used to identify them, especially from a distance.
- ▶ Overall shape is also useful when identifying conifers. It is particularly easy to recognize between a Sandarac gum tree, an Aleppo Pine tree and an Araucaria tree.
- ▶ Where a tree is growing will affect its appearance and shape. Trees in woodland often have narrower crowns compared to those growing in parks with lots of space around them.



Bark

- Bark is the corky, waterproof layer that protects a tree's living tissue against disease and external attack.
- Does the bark have a pattern of ridges or depressions, peeling flakes or is it fissured, smooth or shiny?
- Is the bark grey, white, red or green?
- Look at the bark all the way up the tree as it can vary between the base and the crown.



Leaves and needles

- ▶ Leaf type, shape, appearance, texture and colour are all key characteristics when identifying trees. They are also often the most obvious feature, particularly in spring and summer. The needles and scales of conifers are also considered types of leaves.
- ▶ The leaves of broadleaved trees fall into two basic categories:
 - ▶ Simple
 - ▶ Compound
- ▶ Conifers can be separated into two broad groups.
 - ▶ Needles: includes pines, spruces, firs, cedars and larches.
 - ▶ Scales: covers species in the cypress family.



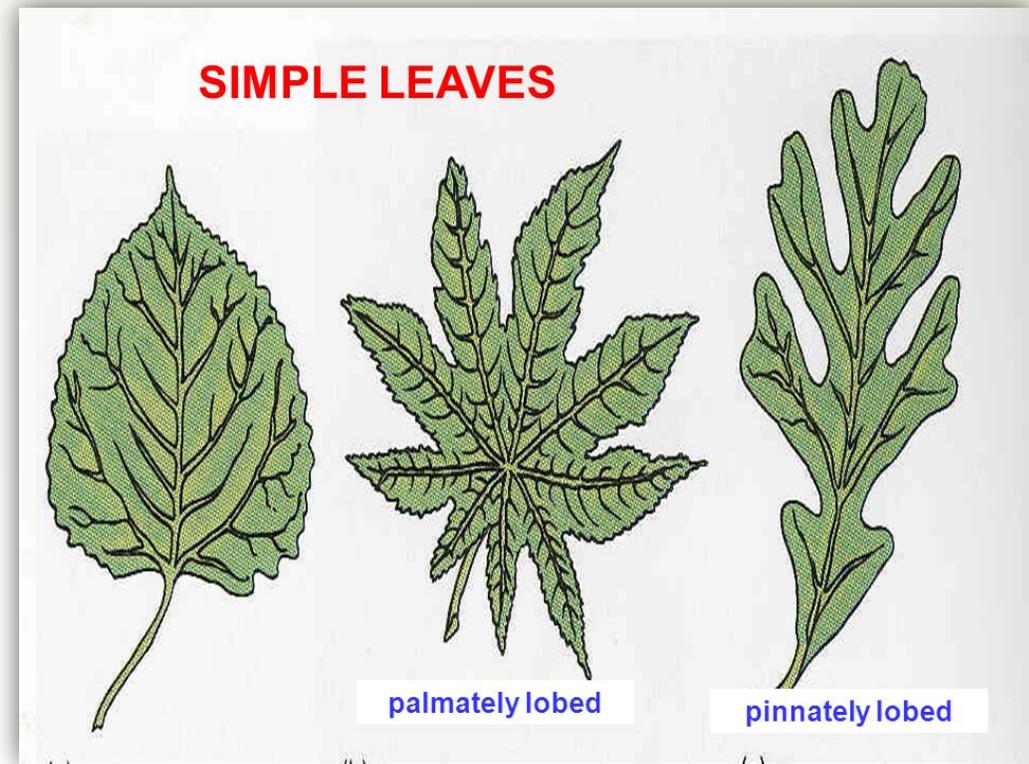
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Broadleaves - Leaf type

- Simple: leaves are whole and are not divided right to the central leaf vein. The edges of some simple leaves can be indented or lobed, so take care not to mistake these for compound leaves.
- Compound: leaves are divided right up to the central vein into separate leaflets. Compound leaves are either pinnate or palmate.
- Pinnately compound leaves are feather-shaped where leaflets are attached in pairs along the central vein such as carob, ash and elder.
- Palmately compound leaves have leaflets that join to a central point. They are palm-shaped, like the outstretched fingers of a hand.



Leaf shape

- ▶ Leaf shape is a description of the form of the leaf. The shape of leaves is a good feature to use, but there can be a lot of variation, even on the same tree. Look for the shape that best represents most of the leaves on the tree.
- ▶ Some basic leaf shapes and examples include:
 - ▶ Egg shaped (ovate) – Mediterranean buckthorn
 - ▶ Long and thin (lanceolate) - white willow
 - ▶ Triangular (deltoid) - silver birch, downy birch
 - ▶ Round (orbicular) - aspen, hazel
 - ▶ Heart-shaped (cordate) - limes



A



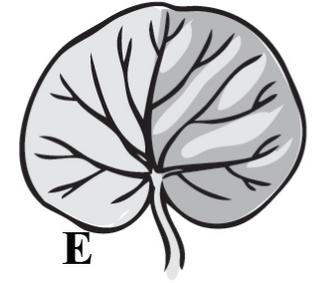
B



C



D



E



F



G



H



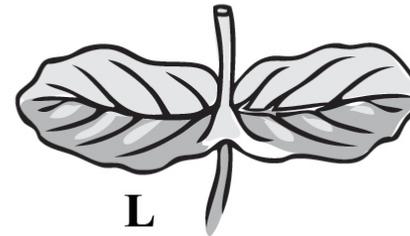
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J



K



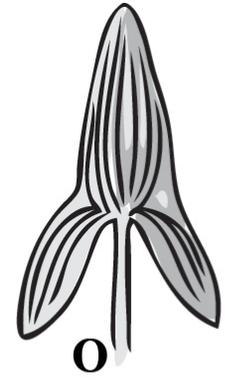
L



M



N



O



P

- | | | |
|----------------|------------------------|---------------|
| A. Elliptic. | G. Trullate. | M. Ensiform. |
| B. Obovate. | H. Deltoid. | N. Ligulate. |
| C. Ovate. | I. Rhomboid. | O. Sagittate. |
| D. Lanceolate. | J. Amplexicaul. | P. Plated |
| E. Reniform. | K. Perfoliate. | |
| F. Cordate. | L. Connate-perfoliate. | |

Leaf Margin

- The edge, or margin, of a leaf or leaflet can be a distinguishing feature. Look out for edges that are serrated or toothed, prickly, wavy or lobed.
- Leaf margins that are smooth and have no obvious features are called entire.

Leaf base

- Trees that are closely related to each other show similar characteristics. For example, elms have leaves with a characteristic asymmetrical base.
- In elms, the base of the leaf does not equally meet the leaf stalk, also know as the petiole.

Leaf texture

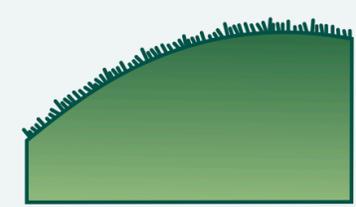
- Leaves can be glossy, dull or hairy. Look at both sides of the leaf to see whether the hairs cover the whole leaf or are just on the underside.

Leaf colour

- Leaf colour is also important, especially as they change in autumn.



MARGIN



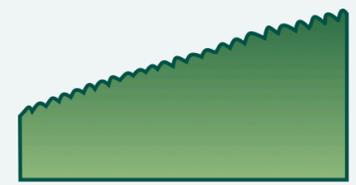
Ciliate
with fine hairs



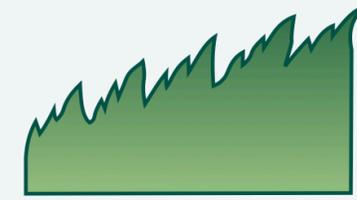
Crenate
with rounded teeth



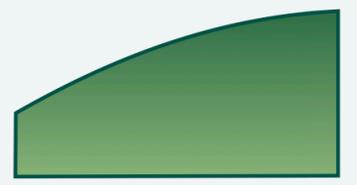
Dentate
with symmetrical teeth



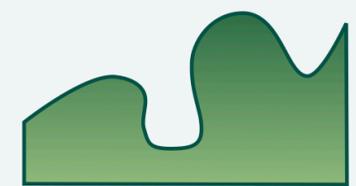
Denticulate
with fine dentition



Doubly Serrate
serrate with sub-teeth



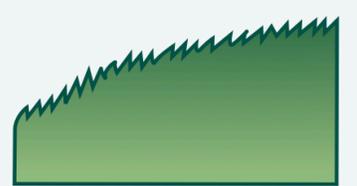
Entire
even, smooth throughout



Lobate
indented, but not to midline



Serrate
teeth forward-pointing



Serrulate
with fine serration



Sinuate
with wave-like indentations



Spiny
with sharp stiff points



Undulate
widely wavy

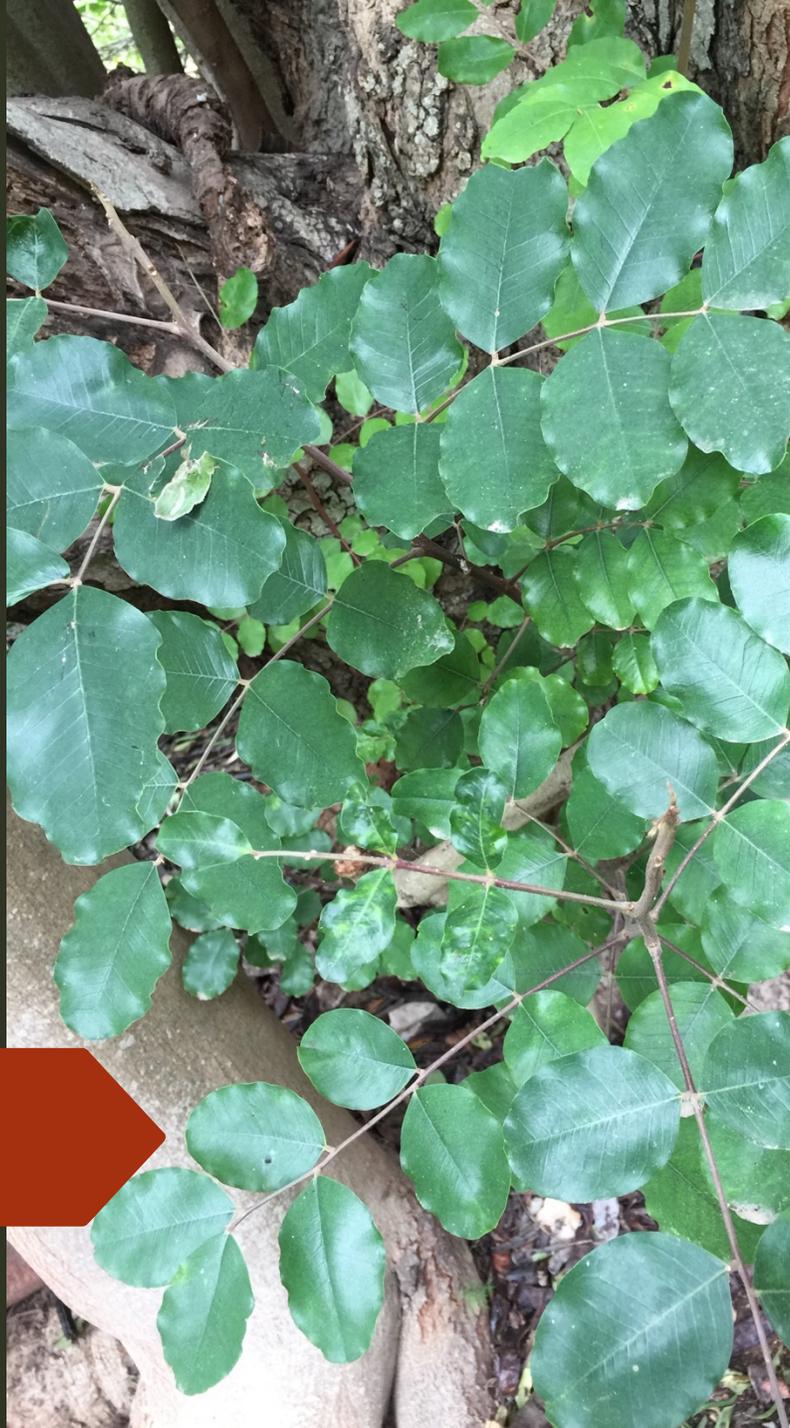
Conifers

- ▶ If the foliage on the tree is needles or scales then you are probably looking at a conifer that is in the pine, fir, cypress, larch or spruce family.
- ▶ Most conifer trees have needles or scales present all year that can be used for identification. One of the few exceptions is European larch which loses its needles in winter.
- ▶ Needles can be different shapes, sizes and arranged differently on twigs.



Carob tree – Il-Harruba

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Judas tree – Is-sigra ta' Guda

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Dwarf Fan palm - Gummara

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Myrtle - Rihan

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Mediterranean Oak – Sagra tal-Ballut

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Olive tree – Sigra taz- Zebbug

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Aleppo Pine - Znuber

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Lentisk - Deru

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White Poplar – Sigra tal-Luq

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Mediterranean Buckthorn - Alaternu

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Sandarac Gum Tree – Sigra tal- Gharghar

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Oleander

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False Brazilian
Pepper tree –
Schinus
terebinthifolia

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Canary Island Palm
—
Phoenix canariensis

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Cypress tree - Cipress

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Prickly pear – Bajtar tax- Xewk

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Blue leaved
Wattle –
Acacia saligna

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Castor oil tree – Zejt ir-Riegnu

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Lantana camara

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Casuarina

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Ficus nitida

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Fig tree – Sигра тат-
Тин

Eucalyptus camaldulensis

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