



## The maples of Europe – Part 2

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### Pan European species

#### B. Southern species – Section *Acer*, Series *Monspessulana*

##### 10. *Acer hyrcanum* Fischer & C.A. Meyer ssp. *hyrcanum*

The Balkan maple is a small tree up to 15m (49ft) in height, but not usually taller than 8m (26ft) in cultivation, or grows as a shrub. Buds are conical and brown. Leaves are very variable, 5-lobed, chartaceous, 4–10cm across, glaucous beneath. Lobes with a few large and obtuse teeth, sometimes lobulate. Flowers yellowish in erect, shortly pedunculate, glabrous corymbs. Samaras glabrous, paired wings nearly parallel to overlapping, 3cm long. Fruits have strong tendency to parthenocarpy.

*Natural occurrence:* It is native to the Balkan Peninsular, Turkey, Lebanon, Iran and Caucasus. This species grows singly or in small groups in different kinds of thicket and in light deciduous and coniferous forests, often on rocky mainly calcareous soil. It grows usually at submontane and montane elevations; mainly 2,600–5,850ft (800–1800m) but may occasionally be as low as 1,300ft (400m) or as high as 7,800ft (2,400m) a.s.l.

*Hybrids:* Not known

*Requirements and cultivation:* This is a drought resistant and xerophilous species requiring light and warmth. Hardy (Zone 6).

##### 11. *Acer hyrcanum* ssp. *intermedium* (Pancic) Bornmueller

*Natural occurrence:* Endemic to the mountains of southern Crimea, 400–1,300m (1,300–4,225ft), particularly in the understory of beech forests where it occurs quite frequently.

*Requirements and cultivation:* As for the type.

This subspecies grows as a small shrub with somewhat smaller leaves that have markedly bluish undersides. Otherwise identical to the ssp. *hyrcanum*.

*Natural occurrence:* It is native to the Balkan Peninsular.

*Requirements and cultivation:* As for the type.

##### 12. *Acer hyrcanum* ssp. *keckianum* (Pax) Yaltirik (not a European subspecies)

This small tree differs from the typical subspecies in having a markedly tomentose underside to the small leaves and much shorter petioles.

*Natural occurrence:* Found in western Taurus, Turkey and Lebanon.

*Requirements and cultivation:* As for the type.

**13. *Acer hyrcanum* ssp. *reginae-amaliae* (Orph. Ex Boiss.) A.E. Murray**

This is a 2–3m (–8ft) tall shrub, with thin shoots and very dry appearance. The leaves are conspicuously very small and leathery, 3-lobed with undulate and aristate serrulate margins. Flowers and fruit similar to the type.

*Natural occurrence:* An endemic species growing only in the mountains of Peloponnisos and Sterea Ellas in Greece, between 1,000–2,000m (3,250–6,500ft) in crevices of calcareous rocks.

*Requirements and cultivation:* As for the type.

**14. *Acer hyrcanum* ssp. *sphaerocarpum* Yaltiric (not a European subspecies)**

This forms densely branched shrubs with 5-lobed leaves, 3–5cm across. Fruits have globose nutlets and conspicuously wide wings.

*Natural occurrence:* Found at higher elevations in western Taurus, Turkey, in *Cedrus libani* forests.

*Requirements and cultivation:* As for the type.

**15. *Acer hyrcanum* ssp. *stevanii* (Pojarkova) A.E. Murray**

One of the tallest *A. hyrcanum* subspecies, reaching 12m (39ft), and growing as a small tree. Leaves have longer and narrower lobes with large acute teeth. The lower surface is light and glaucous. Fruit wings are narrower.

*Natural occurrence:* Endemic to the mountains of southern Crimea, between 400–1,300m (1,300–4,225ft), particularly in the understorey of beech forests where it occurs quite frequently.

*Requirements and cultivation:* As for the type.

**16. *Acer hyrcanum* ssp. *tauricum* (Boisse & Blanche) Yalt. (not a European subspecies)**

This maple is a 5–6m (16–20ft) shrub with 5-lobed, rather large leaves, 5–10cm across, deeply incised and with coarsely serrate margins. Leaf undersides pubescent to glabrescent.

*Natural occurrence:* Native to the central Anti-Taurus mountains in Turkey, also in Syria and Lebanon.

*Requirements and cultivation:* As for the type.

**17. *Acer monspessulanum* L. ssp. *monspessulanum***

The Montpellier maple is a very variable species growing as a dense tree or large rounded shrub 6–12m (20–39ft) tall. Leaves are mostly 3-lobed, 3.5cm across, with cordate to sub-cordate base and triangular to ovate lobes, dark green and glossy above, glaucous beneath. Margins are entire or remotely serrate, sometimes lobulate. Flowers green–yellow in pendulous corymbs. Fruits have hard, keeled-convex nutlets and 2–2.5cm long samaras. The wings of the paired samaras are parallel.

*Natural occurrence:* The only subspecies growing in the “old” part of Europe. Its area



**Table 2. Comparison of *Acer hyrcanum* subspecies.**

Subspecies	Ht (m)	Leaf width (cm)	Leaf underside	Leaf margin	No. of lobes	Samara length (cm)
<i>hyrcanum</i>	10–15	4–11	Glaucous, green	Coarsely & obtusely dentate to lobulate	5	3
<i>intermedium</i>	6	3–8	Glaucous, bluish	As above	5	3
<i>keckianum</i>	5	3–6 tiny petiole	Tomentose	Central lobe with <4 rounded teeth	5	3
<i>reginae-amaliae</i>	2–3	0.15–1.5	?	Undulate, aristate, serrulate	3 (–5)	?
<i>sphaerocarpum</i>	6	3–5	?	Entire	3–5	1
<i>stevenii</i>	12	5–10	Light green pubescent veins	Coarsely, sharply dentate to lobulate, dark blue-grey	5	flat nutlets
<i>tauricum</i>	6	5–10	Green pubescent to glabrescent	Completely, sharply dentate to lobulate, dark green	5	3

covers southern and S.E. Europe, N.W. Africa and S.W. Turkey. It usually grows on exposed sunny slopes in communities of xeromorphic shrubs and in open forests, usually singly, more rarely in groups. It is found usually at elevations between 300–1,700m (975–5,525ft).

*Hybrids:* This species hybridizes with *A. campestre* (*A. x bornmuelleri*) or *A. opalis* ssp. *obtusatum* (*A. x coriaceum*) in the Balkan Peninsula and also with *A. opalis* ssp. *opalis* (*A. x martini*) in southern Europe where areas of both species overlap.

*Requirements and cultivation:* The most common taxon of Series *Monspessulana* in cultivation although found usually in botanical collections and parks only. It is an undemanding, frost (Zone 6), drought and heat tolerant species, preferring warm and sunny sites. It tolerates all well-drained soils but prefers lime. It can be used as a street tree or hedge plant.

#### **18. *Acer monspessulanum* ssp. *ibericum* (M. Bieb. ex Willd.) Yaltirik**

A small tree with 3-lobed coriaceous leaves, 9cm across. Leaf undersurface is arachnoid pubescent, glabrescent, with persisting pubescence along nerves. Lobes are ovate or triangular, obtuse or acute, usually entire or serrate. Flowers yellow-green, similar to those of the typical subspecies. Fruits somewhat larger, 2.5–3.5(4)cm long.

*Natural occurrence:* Native to the Caucasus, Eastern and N.E. Anatolia and N.W. Iran. It



grows in mountains on dry stony and rocky slopes and in deciduous forests.  
*Requirements and cultivation:* As for the type.

Other subspecies of *A. monspessulanum* not native to Europe, and not described here include:

- A. monspessulanum* ssp. *asyriacum* (Pojark.) Rech. f.
- A. monspessulanum* ssp. *cinerascens* (Boiss.) Yaltiric
- A. monspessulanum* ssp. *microphyllum* (Boiss.) Bornm.
- A. monspessulanum* ssp. *oksalianum* Yaltiric
- A. monspessulanum* ssp. *persicum* (Pojark.) Rech. f.
- A. monspessulanum* ssp. *turcomanicum* (Pojark.) A.E.Murray

### 19. *Acer obtusifolium* Sibthorpe & Smith

This Syrian or Cypriot maple is a fully evergreen small tree to about 10m (33ft), or a low shrub. The leaves are grey-green, leathery, rugose, unlobed to shallowly 3-lobed, glabrous on both surfaces, and 3.5–6cm wide. The margins are entire or serrulate and sinuate. The flowers are yellow-green in erect corymbs. The fruits are 2.5cm long, with the wings held at an acute angle to right-angled.

*Natural occurrence:* This eastern Mediterranean species is native to Cyprus, Syria, Lebanon and northern Israel. It occurs at elevations from sea-level to 1,340m (4,360ft) on Cyprus, where it is common in pine forests. In Lebanon and Israel it grows in *Quercus coccifera* – *Pistacia palaestina* association.

*Requirements and cultivation:* It is a very drought resistant species and will grow on any soil. It prefers sunny sites. It is the hardiest of the evergreen maples (Zone 7) although it may not be sufficiently hardy in central Europe.

### 20. *Acer opalus* Mill. ssp. *opalus*

The Italian maple is a small tree 10–13m (33–43ft) tall, or a shrub. The leaves are variable, 3–5 lobed, 6–15cm across, leaf undersurface glabrescent, or glabrate and pubescent along the veins, wavy. The lobes are shallowly incised, round and sub-acute, the margins irregularly and shallowly serrate. The yellow flowers are in short pendulous umbels, appearing before the leaves. The fruit is 2.5–3.5cm long, and the pair of wings are held at a right or acute angle.

*Natural occurrence:* A Mediterranean species. It occurs in mountain ranges of southern Europe and in northern Africa.

*Hybrids:* In nature, it makes a hybrid with *A. monspessulanum* (*A. x martini*) in areas where both species occur.

*Requirements and cultivation:* It is a warm loving, heat tolerant, drought resistant species, slightly susceptible to late frosts, but is a generally hardy species.



**21. *Acer opalus* Mill. ssp. *opalus* var. *corallinum* Beauverd**

This variety differs from the type only by its coral-red samaras.

*Natural occurrence:* Not known.

*Requirements and cultivation:* As for the type.

**22. *Acer opalus* ssp. *hispanicum* (Pourret) Jahandiez & Maire**

A Spanish subspecies of the Italian maple is a small tree or shrub with small 5-lobed coriaceous leaves 2.5–6cm across. The lobes are incised about half the leaf length or deeper. They are ovate with large rounded teeth or lobulate. The veins on the leaf underside are pubescent. The flowers and fruits are the same as the type.

*Natural occurrence:* It occurs in the mountainous areas of Spain and southern France, mainly in the Pyrenees, and also in Morocco and on the Balearic Islands.

*Requirements and cultivation:* Not known.

**23. *Acer opalus* Mill. ssp. *obtusatum* (Waldst. & Kit. Ex Willd.) Gams**

This forms rather small trees to about 15m (49ft) tall. It differs from the typical subspecies by slightly larger leaves, more rounded and shorter lobes. It has sinuate and sparsely denticulate or almost entire margins. The leaf underside is softly tomentose. The flowers and fruits are like the type.

*Natural occurrence:* It occurs in the mountain regions of sub-Mediterranean and Apennino-Balkan areas, usually at elevations of 400–1,700m (1,300–5,525ft). It grows singly in thickets or at the edge of deciduous forests.

*Requirements and cultivation:* As for the type.

**24. *Acer sempervirens* L.**

A semi-evergreen species growing very slowly as a small tree 5–12m (16–39ft), or as a shrub. It is distinguished by the extreme variability of the leaves, which may be undivided and then mostly ovate-elliptic, or 3-lobed and wide-ovate in outline, 1–4cm long and 1–2cm across. The margins are slightly undulate, and entire or sparsely serrulate. Both sides of the leaves, as well as the shoots, are glabrous.

*Natural occurrence:* This is a native to the Aegean Sea area of Greece and some islands, and in southern Anatolia, where it grows at an elevation of 300–1,350m (975–4,250ft). It is quite frequent in some areas growing on rocky calcareous soils in maquis, phrygana or light coniferous forests in small or larger groups, or sometimes forming small woods. It is most often met in areas situated not far from the sea, much more seldom inland.

*Requirements and cultivation:* It is one of the most drought and heat tolerant species in the genus. However, it is frost tender in central Europe.