



ALLEN J. COOMBES

# THE BOOK OF LEAVES

A LEAF-BY-LEAF GUIDE TO SIX HUNDRED  
OF THE WORLD'S GREAT TREES

EDITED BY ZSOLT DEBRECZY



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LEAF TYPE	Bipinnate
LEAF SHAPE	Oval in outline
LEAF SIZE	To 3 ft x 23 in (1 m x 60 cm)
ARRANGEMENT	Alternate
BARK	Gray-brown, often spiny
FLOWERS	Small and white in rounded heads borne in large open panicles
FRUIT	A spherical black berry about ¼ in (5 mm) across
DISTRIBUTION	China, eastern Russia, Korea, Japan
HABITAT	Open forests



ARALIA ELATA

## JAPANESE ANGELICA TREE

(MIQUEL) SEEMANN

Up to 33 ft  
(10 m)

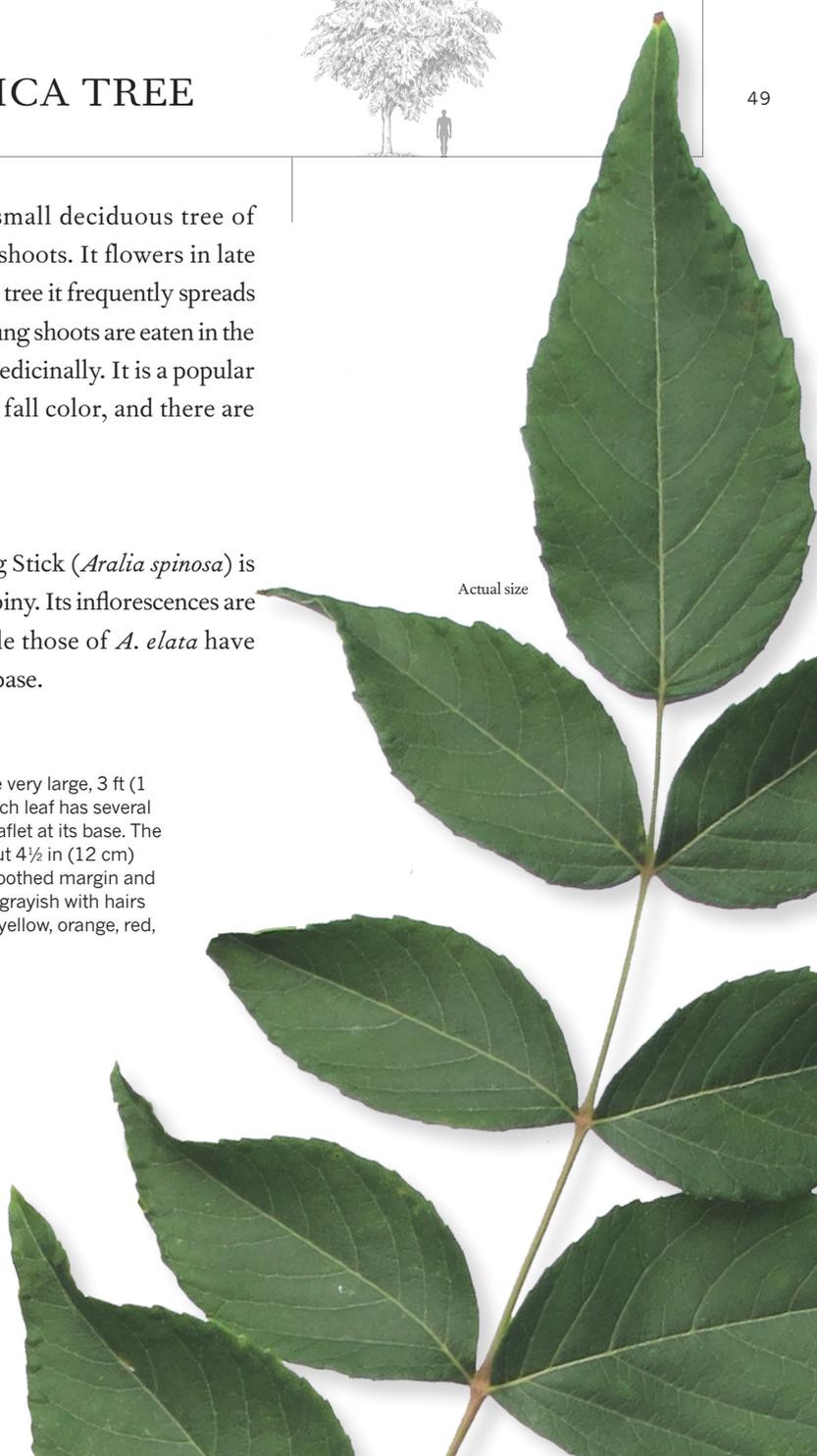
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The Japanese Angelica Tree is a small deciduous tree of spreading habit with slightly spiny shoots. It flowers in late summer and fall. Although it can be a tree it frequently spreads by suckers, forming thickets. The young shoots are eaten in the Far East, and the root bark is used medicinally. It is a popular ornamental, grown for its fruit and fall color, and there are several forms with variegated leaves.

### SIMILAR SPECIES

The North America Devil's Walking Stick (*Aralia spinosa*) is similar but more shrubby and more spiny. Its inflorescences are conical with a single main axis while those of *A. elata* have several spreading branches from the base.

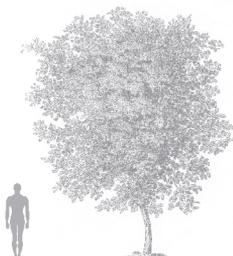
**The leaves of the Japanese Angelica Tree** are very large, 3 ft (1 m) or more long and 23 in (60 cm) across. Each leaf has several pairs of opposite pinnae, each with a single leaflet at its base. The pinnae have up to 11 ovate leaflets up to about 4½ in (12 cm) long; they are taper-pointed at the tip with a toothed margin and a very short stalk. They are dark green above, grayish with hairs and sometimes spiny on the veins. They turn yellow, orange, red, and purple in fall.





LEAF TYPE	Pinnate
LEAF SHAPE	Oblong in outline
LEAF SIZE	12 x 6 in (30 x 15 cm)
ARRANGEMENT	Opposite
BARK	Gray-brown, deeply ridged, thick and corky
FLOWERS	Small and creamy white, the corolla 5-lobed, in broad, flattened heads
FRUIT	A glossy black, juicy berry
DISTRIBUTION	Europe, North Africa, west Asia
HABITAT	Woodland, hedgerows

Up to 26 ft  
(8 m)



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*SAMBUCUS NIGRA*

## ELDER

LINNAEUS

**The leaves of the Elder** are up to 12 in (30 cm) long and are dark green above and paler beneath. They are composed of usually 5 or 7 short-stalked leaflets that are ovate to elliptic and up to 4 in (10 cm) long, each edged with small, pointed teeth. Some forms grown in gardens have purple or deeply and finely cut leaves.

The Elder is a broadly columnar to spreading, small tree, more often shrubby, with stout shoots dotted with numerous pale lenticels, producing its fragrant white flowers in early summer. Both flowers and fruits are used to make wine and other drinks although the fruits can be poisonous unless cooked. The fruits, which are very attractive to birds, are also used in various preserves. Small extrafloral nectaries at the base of the leaves and leaflets are thought to provide food for beneficial insects.

### SIMILAR SPECIES

Other species in this genus are rarely trees, some are herbaceous. The American elderberry, *Sambucus nigra* subsp. *canadensis*, is more shrubby with more leaflets, occurring south to Mexico, where it has been called *S. mexicana*. *S. nigra* subsp. *cerulea*, from western North America, has blue-white fruits.



Actual size

LEAF TYPE	Palmately lobed
LEAF SHAPE	Rounded in outline
LEAF SIZE	To 5 x 6 in (13 x 15 cm)
ARRANGEMENT	Alternate
BARK	Blackish brown
FLOWERS	Individually inconspicuous, greenish, without petals or males and females in separate spherical heads on the same plant
FRUIT	A spherical cluster of up to 26 small, woody capsules
DISTRIBUTION	Central and south China
HABITAT	Mixed mountain forests.



Up to 85 ft  
(25 m)

*LIQUIDAMABAR ACALYCINA*

## LIQUIDAMBAR ACALYCINA

H.T. CHANG

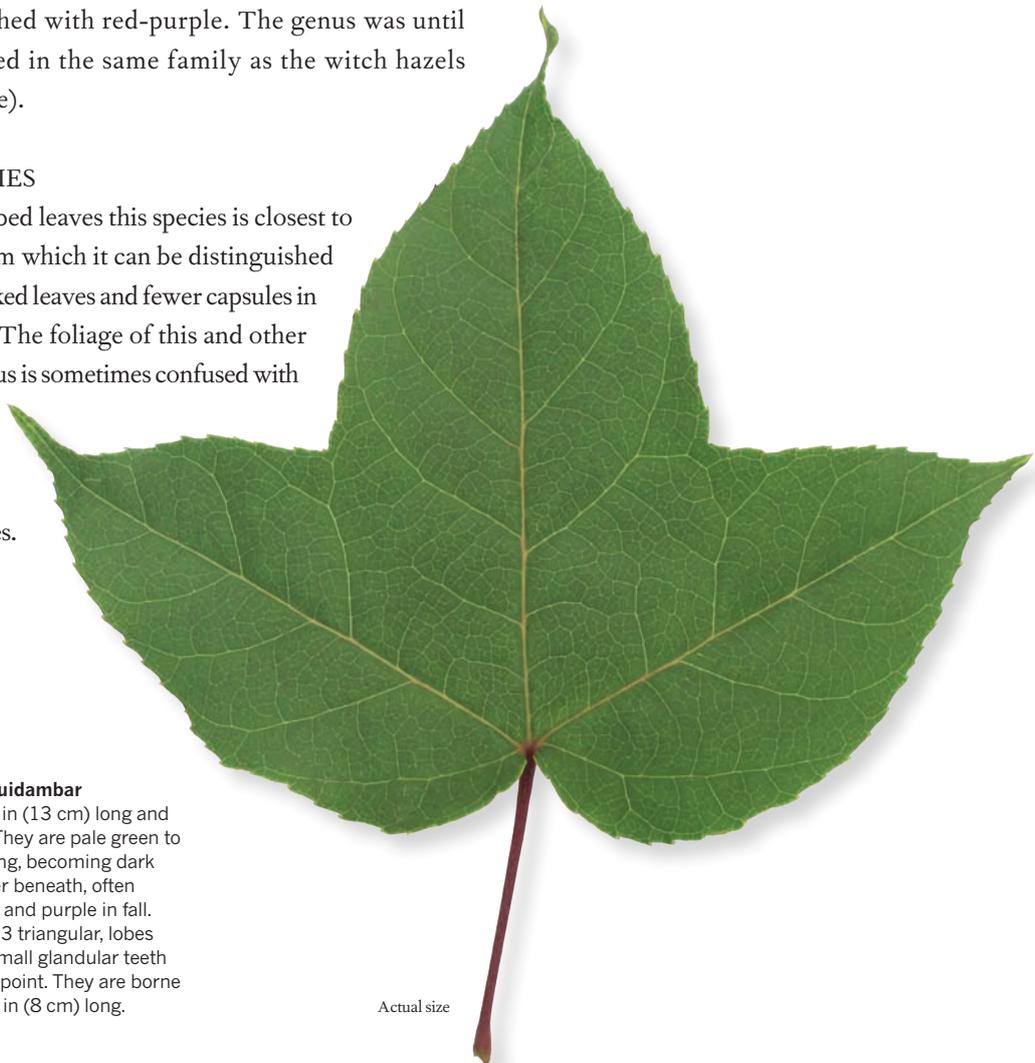
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*Liquidambar acalycina* is a fast-growing deciduous tree of conical to columnar habit, producing its small flowers in spring. In recent years it has proved to be a popular ornamental tree in Europe and North America for its young foliage that is attractively flushed with red-purple. The genus was until recently included in the same family as the witch hazels (Hamamelidaceae).

### SIMILAR SPECIES

With its three-lobed leaves this species is closest to *L. formosana* from which it can be distinguished by its shorter stalked leaves and fewer capsules in the fruit cluster. The foliage of this and other species in the genus is sometimes confused with that of maples (*Acer*) but can be recognized by the alternate leaves.

**The leaves of the *Liquidambar acalycina*** are up to 5 in (13 cm) long and 6 in (15 cm) across. They are pale green to red-purple when young, becoming dark green above and paler beneath, often turning orange to red and purple in fall. They are divided into 3 triangular lobes that are edged with small glandular teeth and end in a tapered point. They are borne on a petiole up to 3¼ in (8 cm) long.

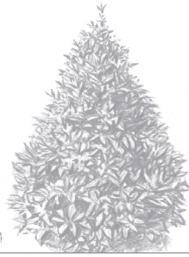


Actual size



LEAF TYPE	Simple
LEAF SHAPE	Oblong
LEAF SIZE	To 8 x 3¼ in (20 x 8 cm)
ARRANGEMENT	Alternate
BARK	Dark gray
FLOWERS	Small and yellowish green, in large clusters in the leaf axils; male and female on separate plants
FRUIT	A dull brick-red berry about ⅝ in (8 mm) across
DISTRIBUTION	China, Japan
HABITAT	Forests and thickets on hills and mountains

Up to 65 ft  
(20 m)



*ILEX LATIFOLIA*  
**TARAJO**  
THUNBERG

The Tarajo is a conical to columnar, evergreen tree of dense habit, bearing its fragrant flowers in spring. Its bold foliage has made it valuable for plant breeding, and many hybrids have been raised from it. In China the young leaves are used to make a bitter tea. In Japan, where it is often planted near shrines or temples, the wood is used for charcoal.

**SIMILAR SPECIES**

The Tarajo is usually a very distinct species because of the large size of its leaves. It can be confused with some of its hybrids, which normally have smaller leaves with fewer spines.

Actual size



**The leaves of the Tarajo** are oblong and up to 8 in (20 cm) long and 3¼ in (8 cm) across. Glossy dark green above, pale green beneath, the leaves are borne on a stalk to 1 in (2.5 cm) long and are edged with numerous black-tipped teeth. They are among the largest leaves of any holly.



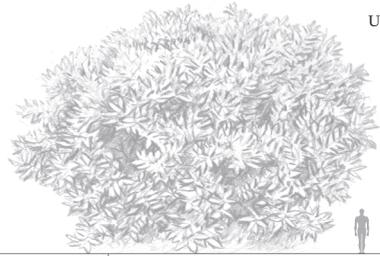
LEAF TYPE	Simple
LEAF SHAPE	Ovate to elliptic
LEAF SIZE	To 4½ x 2 in (12 x 5 cm) or more
ARRANGEMENT	Alternate
BARK	Light gray, with conspicuous white lenticels
FLOWERS	Small and white, in clusters in the leaf axils; males and females on separate plants
FRUIT	A nearly spherical, black berry to ¾ in (1.5 cm) across, somewhat depressed and broader than long
DISTRIBUTION	China
HABITAT	Mountain forests



*ILEX MACROCARPA*

## ILEX MACROCARPA

OLIVER



Up to 33 ft or more  
(10 m)

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While the best-known hollies are the evergreen members of the genus, there are also those that are deciduous, and *Ilex macrocarpa* is one of the most unusual of these. The glossy black, cherrylike fruits are among the largest of any holly. In China they form an important part of the diet for the catlike palm civets, which are thought to aid in their dispersal. This very distinct and unusual species was introduced to gardens from China by plant collector Ernest Wilson in 1907. Although rare in cultivation, it is a striking tree when bearing its glossy black fruits.

### SIMILAR SPECIES

The deciduous habit and large black fruits are characteristic of *I. macrocarpa*. It is more likely not to be recognized as a holly than to be confused with another plant in the same genus.



**The leaves of *Ilex macrocarpa*** are ovate to elliptic, and up to 4½ in (12 cm) or more long and 2 in (5 cm) across. They are smooth or nearly so on both sides, with a shallowly toothed margin and a taper-pointed tip. Borne on a petiole of about ½ in (1 cm) long, they are dark green above, paler beneath, turning yellow in fall when the fruit is ripe.

Actual size

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Of all our childhood memories, few are quite as thrilling, or as tactile, as those of climbing trees. Scampering up the rough trunk, spying on the world from the cool green shelter of the canopy, lying on a limb and looking up through the leaves at the summer sun almost made it seem as if we were *made* for trees, and trees for us.

Even in adulthood, trees retain their power, from the refreshing way their waves of green break the monotony of a cityscape to the way their autumn transformations take our breath away. In this lavishly illustrated volume, the trees that have enriched our lives finally get their full due, through a focus on the humble leaves that serve, in a sense, as their public face. *The Book of Leaves* offers a visually stunning and scientifically engaging guide to six hundred of the most impressive and beautiful leaves from around the world. Each leaf is reproduced here at its actual size, in full color, and is accompanied by an explanation of the range, distribution, abundance, and habitat of the tree on which it's found. Brief scientific and historical accounts of each tree and related species include fun-filled facts and anecdotes that broaden its portrait.

The Henry's Maple, for instance, found in China and named for an Irish doctor who collected leaves there, bears little initial resemblance to the statuesque maples of North America, from its diminutive stature to its unusual trifoliate leaves. Then there's the Mediterranean Olive, which has been known to live for more than 1,500 years and whose short, narrow leaves only fall after two or three years, pushed out in stages by the emergence of younger leaves.

From the familiar friends of our backyards to the giants of deep woods, *The Book of Leaves* brings the forest to life—and to our living rooms—as never before.

**Allen J. Coombes** is botanist at the Sir Harold Hillier Gardens and Arboretum in Hampshire, England, and the author of many books about plants and trees. **Zsolt Debreczy** is research Director of the International Dendrological Research Institute in Boston.

8<sup>1</sup>/<sub>8</sub> x 10<sup>1</sup>/<sub>2</sub>

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Levi Stahl

Publicity Manager

The University of Chicago Press

1427 E. 60th Street

Chicago, IL 60637

P 773 702 0289

F 773 702 9756

lstahl@press.uchicago.edu

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