

ACER ERIANTHUM Schwerin (1901)

WOOLLY-FLOWERED MAPLE

by Peter Gregory, with photographs by Hugh Angus

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Acer erianthum

This hardy small maple from central China is rarely seen in cultivation. The medium-sized 5-7 lobed leaves with relatively large sharp uneven saw-teeth on the margins and abundant tufts of whitish hairs beneath, the slender upright whitish-yellow flower spikes, the exceptionally woolly ovaries, and the eye-catching display of freely-produced purple-to-reddish “cones” of fruit render the woolly-flowered maple relatively easy to distinguish. The specific name refers to the conspicuous whitish hairy ovaries – from the Greek *eros* (wool) and *anthos* (flower). It is reported Graf von Schwerin, who described and named this species, compared the flower to “a very small white woolly paintbrush with only the stamens visible.”

The whitish-yellow upright flower spikes are similar to those of *Acer spicatum*, *Acer caudatum* and its subsp. *ukurunduense*. However, it is easily distinguished from these species by the glossy juvenile bark of the shoots persisting for several years, the conspicuous white hair tufts on the leaf undersurfaces, the obovate flower petals and very hairy ovaries, and the widely angled pairs of fruit wings. In the other three species, the 2nd year shoots are dull and slightly fissured, the hairs on the leaf undersides are straw to brown coloured, flower petals narrow ovate, and the pairs of fruit wings are almost parallel to right-angled.

Acer erianthum has been in cultivation for just over a century and, although it is hardy and reliable, easy to propagate from seed or by grafting onto *Acer palmatum* rootstock, and can be very colourful and attractive for several months with its red fruit, it is rarely found in gardens and collections. This may be because for the rest of the year it is not noticeable and its autumn colour display is quite ordinary. It is also reputed to be rather intolerant of alkaline soils. The British champion is growing at Borde Hill in Sussex and was 29ft (9m) tall when last measured in 1995.



Acer erianthum leaves, upper side

Distribution and Discovery

The woolly-flowered maple is a native of central China from the Yunnan and Guangxi provinces in the south, through Sichuan and Hubei to Shaanxi Province in the north. It grows in thickets and forest areas in mountainous regions at elevations of 4,875-9,750 ft (1,500-3,000m) a.s.l. This region is rich in maple species. For example, on Emei shan, in the heart of Sichuan, it is one of 26 species of maple growing there (T.Hsu & H.Su 1992).

Acer erianthum was first discovered in Sichuan during the 1880's by the Irish physician Dr Augustine Henry, then found in Shaanxi by the Italian missionary, Guiseppe Giraldi in 1897, and by Hugh Scanlon in 1899. Fritz Graf von Schwerin named and described this species in 1901 from samples sent back by Henry.

However, the woolly-flowered maple was not introduced into cultivation in the West until 1910, when Ernest Henry Wilson sent back seed he collected in October of that year, during his second plant-collecting expedition for the Arnold Arboretum, Massachusetts. He had already come across this species in July 1907 during his first expedition for the Arnold, too early for ripe seed. A young tree from the Wilson collection was raised in 1911 and planted in the Royal Botanic Gardens, Edinburgh. It is worth noting that, during his four Chinese expeditions, the first two for Veitch Nurseries, Wilson collected specimens and seeds of some 30 maple species, including *Acer erianthum*

Classification

Acer erianthum is in the Section *Palmata*, and is closely related to *Acer oliverianum* and the *Acer campbellii* complex in the Series *Sinensia*. This contains about two dozen species, ten of which are in Western cultivation [as of this writing]. The distinguishing characteristics of maples in this series are the bark remains juvenile for many years, buds have 4 pairs of valvate scales, and they have 3-7 lobed leaves with toothed margins, the teeth sometimes barely visible. The inflorescences are on terminal shoots, flowers 5-merous with 8 stamens inserted on top of the round receptacle discs. The active stamens and ovaries occur in separate flowers but on the same tree.

Detailed Description



Acer erianthum buds and twigs

A deciduous shrub or small tree, becoming 20-33ft (6-10m) tall with a broad dome-shaped crown when fully grown. However, it has been recorded up to 49ft (15m) in the wild. The current shoots are green tinged bronze to purplish-green with numerous white small round lenticels, hairless and sometimes covered in a greyish bloom. The shoots become clear mid-green by the 2nd to 4th year with the small lenticels becoming grey-brown. The young branches turn green-grey to silver grey and very lightly fissured from the lenticels on older branches. The bark becomes greenish-grey to grey-brown and smoothish, getting slightly roughened, as the tree matures. The small winter buds have four pairs of valvate scales, the outer pair enclosing the inner pairs and having shortish hairs along the margins.

Leaves: The palmate leaves have 5-7 lobes, the basal pair very small if 7-lobed, are 5-10cm long, mostly 7-8cm, usually about as wide or slightly wider, and with a truncate or slightly heart-shaped base. The lobes are ovate with rounded sides and short pointed tips, becoming ovate-triangular with longer tips on the larger leaves. The lobe junctions (sinuses) are acutely angled, the lobes divided up to halfway to the leaf base. Margins are coarsely, unevenly and often doubly saw-toothed. Venation is yellow-green to red, 5-palmate with irregular lateral veins becoming reticulate.



Acer erianthum leaf, under side



Acer erianthum, female flowers

The upper surface is mid-to-dark green, glabrous and with a crinkled texture, sometimes with conspicuous reddish main veins. The lower surface is a lighter green, slightly downy and with conspicuous clusters of white hairs scattered irregularly in the vein-axils. The slender petioles are round and slightly downy at the upper end, and up to as long as the leaves, green beneath, flattened or shallowly grooved and reddish above. The bases are swollen and slightly kinked.

Flowers: The numerous light whitish yellow to yellow-green flowers are crowded along the upper two thirds of slender upright spikes, 5-10 cm

long and 1-2 cm diameter. They appear on terminal shoots towards the end of May/early June after the leaves have developed. The 6 mm diameter saucer-shaped flowers have 8 conspicuous yellow stamens held well above the 4-5 sepals and petals, and a very woolly ovary. The yellow-green sepals are broad oval in shape and downy on the inside. The light yellow petals are slightly smaller, curled inwards and glabrous. The yellow stamens are held well clear of the perianth on long slender filaments arising from the top of the receptacle disc (extrastaminal). The disc and yellow-green ovary are covered in white woolly hairs.



Acer erianthum, male flowers



Acer erianthum, samaras

Fruits: The fruits are closely grouped in upright spikes (5-10 cm long times 5-8 cm wide). Each ripe samara (nut plus wing) is 2-2.5 cm long. The red to purple wings are strongly keeled and veined, 6-8 mm wide at the broadest point in the middle, narrowing only slightly to the round nutlet. The developing nutlets are covered in whitish hairs, soon becoming glabrous. Each pair of wings is spread at a wide angle to almost horizontal.

Additional editing and layout by Emery Davis.