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739. AKEBIA QUINATA

Lardizabalaceae

Maarten J. M. Christenhusz and Martyn Rix

Summary. The chocolate vine or akebi, *Akebia quinata* (Houtt.) Decne. is illustrated. Its introduction into horticulture is provided and its distribution, habitat and colour forms are discussed. Suggestions for its cultivation are given.

Of all members of the family Lardizabalaceae, *Akebia quinata* is certainly the commonest in cultivation, being very hardy and attractive with its divided leaves and unusual, deep, blackish-purple flowers. It is recorded as having been introduced to cultivation in 1845 by Robert Fortune (1812–1880), during his first visit to China, from the island of Chusan, southeast of Shanghai. Fortune travelled along the east coast of China from August 1843 until 1846, sending living plants and seeds from Chinese gardens to the Horticultural Society in London. He visited Chusan in late 1843 and again in March 1844, when he recorded seeing *Akebia* in flower, festooning the trees, and scenting the surrounding air (Lindley, 1847; Kilpatrick, 2007).

The first scientific description of *Akebia* was as *Rajania quinata*, by Houttuyn, based on a specimen collected by Carl Peter Thunberg (1743–1828) in Japan (see page 238.) Thunberg visited Japan for a little over a year in 1775, but, like the other botanists who worked as doctors for the merchants of the Dutch East India Company (VOC) based on Deshima Island, was very restricted in his botanising, and only managed to collect specimens smuggled to him or snatched along the road on the annual visit to Edo which the merchants were allowed to make. *Rajania* L. is a genus in the *Dioscoreaceae* and Decaisne realised this when he coined the new name, *Akebia*, taken from the Japanese name for the plant.

The genus *Akebia* consists of five species (Christenhusz, 2012) see page 256. Two species, *A. quinata* and *A. trifoliata* (Thunb.) Koidz. are common in Japan and China, and their presumed hybrid, *A. × pentaphylla* Makino, occurs occasionally in Japan with the parents; all three taxa are found in cultivation. The other three species are rarer: *A. apetalata* (Xia, Suen & Peng) Christenh., (formerly in the genus *Archakebia*) is confined to Gansu, Shaanxi and Sichuan and *A. longisepala* (H.N. Qjin) Christenh. to Gansu. *Akebia longgeracemosa* Matsum. is found on Taiwan and in Fujian, Guangdong and Hunan.



Plate 739 *Akebia quinata* 'Alba'

ANDREW BROWN

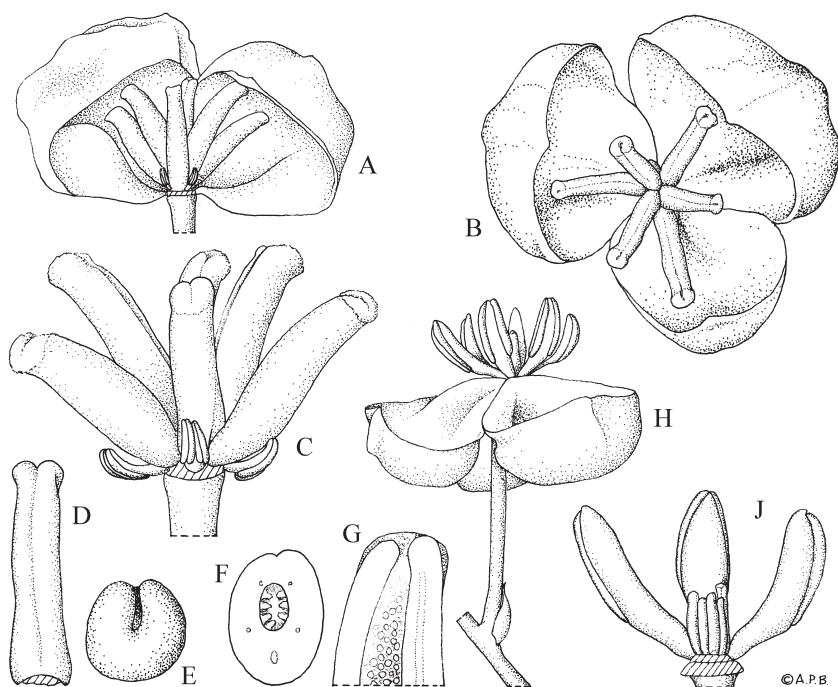
Akebia quinata is found throughout Japan, except for Hokkaido, in Korea and in China, as far west as Sichuan and western Hubei; it appears to be not uncommon around Ichang, where it was collected by Wilson and probably by Henry though his specimens are unlocalised (Rehder & Wilson, 1913). The flowers are generally deep blackish-purple, but pale-flowered forms, like the one illustrated here, are found occasionally. In the herbarium at Kew there is a white-flowered form collected in Shizuoka prefecture, by Miyoshi Furuse (*Furuse* 33451).

Pale-flowered forms of *Akebia quinata* have been brought into cultivation and given names such as 'Alba', cream-flowered, 'Shiro Bana' and 'White Chocolate', the latter by Crûg Farm; some appear to be totally albino, others, like the one illustrated here, have white sepals but pale purple carpels. There are also varieties that have crimson rather than the common purple flowers, and in the cultivars 'Amethyst' and 'Amethyst Glow', the male flowers are pinkish while the female are purple. The flowers of all species and cultivars have a sweet, cinnamon-like scent, which carries on the air.

Akebia is one of the plants used in Traditional Chinese Medicine, when it is called 木通 *mu tong*, or *Akebiae caulis*; both *A. quinata* and *A. trifoliata* seem to be used. Although dried stems and roots are the parts traditionally used, the dried, immature fruits are sold also, called Yuzhizi, Bayueza or Bayuegua. (<http://libproject.hkbu.edu.hk>).

CULTIVATION. *Akebia quinata* is easily grown in any good soil, thriving in sun or shade; it can be planted to climb on a pole or pergola. The ideal is to grow it on a large shrub such as a hazel, so the flowers can be seen hanging down from the arching branches. It is very hardy, surviving at least -10°C without damage, and is cultivated successfully even in southern Finland (where temperatures regularly go down to -35°C). Fruit is usually produced only when two clones are grown together, as the flowers are self-incompatible. *Akebia trifoliata* is as hardy or hardier, and the species from Gansu, *A. apetalata* and *A. longisepala*, should be hardy too. *Akebia longeracemosa* from Taiwan is said to be more tender, and requires a warm, humid climate to flower well.

The plant from which plate 739 was drawn was kindly provided, as *Akebia quinata* 'Alba', from Guy Sissons of The Plantsman Nursery, and cultivated in North Devon.



***Akebia quinata* 'Alba'**. A, female flower with one sepal removed, lateral view, $\times 2\frac{1}{2}$; B, female flower, face view, $\times 2\frac{1}{2}$; C, carpels and rudimentary stamens of female flower, $\times 4\frac{1}{2}$; D, carpel, dorsal view, $\times 4\frac{1}{2}$; E, apex of ovary, $\times 10$; F, transverse section of ovary, $\times 10$; G, longitudinal section of apex of ovary (dorsal surface on left), $\times 10$; H, male flower, lateral view $\times 2\frac{1}{2}$; J, androecium of male flower, three stamens removed to show rudimentary carpels (pistillodes) in two groups of three, $\times 4\frac{1}{2}$. Drawn by Andrew Brown from material cultivated in Devon.

Akebia quinata (Houtt.) Decne., Arch. Mus. Nat. Bot., sér. 2 12: 107 (1839). *Rajania quinata* Houtt., Nat. Hist. 2: 366 (1779). Type: JAPAN. *Thunberg* s.n. (lectotype UPS-THUNB 23530!, see page 238). Note: Qin (1997) erroneously designated a specimen by R. Oldham in GH as lectotype, but this specimen was not extant at the time of description of this species.

Akebia micrantha Nakai., Fl. Sylv. Kor. 21: 44 (1936). Type: CHINA. Zhejiang, Yuan-hai, 20 April 1934. *Chen* 2946 (holotype TI).

DESCRIPTION. Deciduous or semi-evergreen, *monoecious vines*. Stems glabrous, coiling round a support. Branches woody, with greyish-brown bark covered densely with elliptic lenticels, thicker branches speckled grey. First year branches green. *Leaves* alternate, usually with five subequal, pale green stalked leaflets. Petioles 5–12 cm, petiolules 1–3 cm. Leaflets 3–7(–7.5) \times 1–3.5(–4) cm, obcordate or obovate to oblong or elliptic, the bases broadly cuneate to rounded, the margins entire, not lobed or wavy, the apices obtuse to retuse, with

a hair-like mucro; glabrous and dark green above, bright green and glabrous beneath; veins distinct. *Flowers* in axillary racemes 6–12 cm long, with 1–3 long-stalked female flowers at the base, and 4–10, short-stalked, smaller male flowers towards the apex; flowers scented, usually blackish-purple, but sometimes paler or rarely pure white. *Carpellate flowers* with 3 fleshy, cupped sepals, 1–2 × 8–1.5 cm, 3–6 sessile, free carpels and rudimentary, sterile stamens. *Staminate flowers* with 3 fleshy, cupped and reflexed sepals, 6–8 × 4–6 mm and 6 erect or spreading *stamens*; anthers with a very short filament; pistillodes 6, in 2 groups of 3. *Fruit* 5–8 cm long, sausage-shaped, purplish with a greyish bloom when ripe. *Seeds* many, blackish, carried in a white edible pulp.

DISTRIBUTION. Japan, on Shikoku, Kyushu and Honshu; China, from Shandong to Fujian westwards to E. Hubei and Sichuan.

HABITAT. Margins of bamboo and evergreen forest, in scrub, and along streams, 300–1500 m.

PHENOLOGY. Flowering April–May, fruiting June–August (fide Chen & Shimizu, 2001).

REFERENCES

- Chen, D. & Shimizu, T. (2001). *Akebia*. In: Wu, Z.Y., Raven, P.H. & Hong, D.Y. (eds). *Flora of China, Vol. 6 (Caryophyllaceae through Lardizabalaceae)*. Science Press, Beijing, Missouri Botanical Garden Press, St. Louis. http://libproject.hkbu.edu.hk/was40/detail?lang=en&channelid=1288&searchword=herb_id=D00312 [accessed July 2012].
- Christenhusz, M.J.M. (2012). An overview of Lardizabalaceae. *Curtis's Botanical Magazine* 29(3): 235–276.
- Kilpatrick, J. (2007). *Gifts from the Gardens of China*. Frances Lincoln, London.
- Lindley, J. (1847). *Akebia quinata*. *Edwards's Botanical Register* 33: t. 28.
- Rehder, A. & Wilson, E.H. (1913). Lardizabalaceae. In: Sargent, C.S. (ed.). *Plantae Wilsonianae*. Vol. 1. University Press, Cambridge. pp. 347–348.