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THE INTRODUCTION OF OUR HARDY STEWARTIAS

THE Stewartias are large shrubs or small trees with relatively large white flowers in early summer. Their value in the decoration of the average suburban garden has been frequently overlooked. They are all valuable for their disease and insect resistance, their white flowers produced in early- to mid-July, and some of them have the added attractions of colorful autumn foliage and decorative bark patterns in the fall and winter.

The genus *Stewartia* contains about nine species, of which five are reliably hardy at the Arnold Arboretum. Of these, one is worth cultivating for almost any excuse.

The genus *Stewartia* was established by Linnaeus to accommodate a plant which grows on the coastal plain of the southeast United States from Virginia southward. The plant first flowered in cultivation in England, in 1742. The next year an illustration was made of the plant by George Ehret, one of the most famous and talented of botanical illustrators. A copy of this illustration was sent to Linnaeus who published an engraving of it with his description of the genus in 1846 (Plate VIII). About two years later another copy of the same illustration was published by Mark Catesby in his *Natural History of Carolina, Florida, and the Bahama Islands*. This was *Stewartia Malacodendron*, a plant of stream banks in rich deciduous woods of the coastal plain from Virginia to Louisiana. Coker and Totten (*Trees of the Southeastern States*) record that it is frequently associated with Beech. This, the Silky Stewartia, is from personal experience, not easy to grow, and apparently not hardy north of Long Island. Loudon, in the *Arboretum et Fruticetum Britannicum* (Vol. 1, p. 378, 1838) comments that it was uncommon in British Gardens in his time, and that the price of a nursery-grown plant was 5 shillings in London or 50 cents in New York.

The second species, in order of discovery, was the Mountain Stewartia (*Stewartia ovata*) (Plate IX). This plant is a shrub or small tree very similar in general appearance to the Silky Stewartias, but differing in floral details and

growing naturally in the Piedmont and mountain region of the Southeast. When it was first introduced into cultivation or who first discovered it is uncertain. It was originally confused with the Silky Stewartia. It is certain that flowering plants were growing at the Royal Botanic Gardens, Kew, in 1785. And it is also certain that William Bartram saw it in Oconee County, South Carolina, in 1776. This species is hardier, and apparently easier to grow, than the Silky Stewartia. At least it does well in the Arnold Arboretum!

It was not until the 1860's, and the opening up of Japan, that the next species of *Stewartia* appeared, and it appears to have been first cultivated in the Occident in New York. Thomas Hogg, the younger, was born in London, England, on the 6th of February 1820. His father was in charge of the greenhouse of William Kent, Esq., who was reputed to have, at that time, the largest private collection of plants in England. In 1822, the elder Thomas Hogg moved to New York and set up a nursery business, which was continued after his death in 1855 by his two sons Thomas Jr., and James.

In1862 Thomas Hogg, Jr. received an appointment as a United States Marshal under which he spent the following eight years in Japan. In 1869 or 1870 he resigned his post and returned to the United States, but went back to Japan in 1873 to spend two years as a member of the Japanese Customs Service. During this entire period (1862–1875) he sent many Japanese plants to his brother in New York. It was Thomas Hogg who sent *Stewartia pseudocamellia* (Plate XI), to New York about 1866. In contrast to our two native species which are shrubs, *S. pseudocamellia* is recorded as being a tree up to 50 feet tall and with a trunk sometimes two feet in diameter. Although the plants at the Arnold Arboretum, received in 1879, are now, after 89 years, bushes only about 10–12 feet tall, they appear to be stump sprouts, probably reflecting damage in the 1938 hurricane. The flowers, which are somewhat more cup-shaped than our native species, are about $2\frac{1}{2}$–3 inches across, somewhat smaller than our two native species, which have flowers $3\frac{1}{2}$–4 inches across. The particular value of this species, at the time it was introduced, lay in its hardiness (it is hardy in Boston), the autumn color of its leaves (purplish), and its bark, which scales off in large thin flakes, like Sycamore, having a light and dark grayish mottled appearance.

E. H. Wilson collected *Stewartia sinensis* in Western Hupeh, China, in 1901. The Veitch nursery firm in England introduced the species to cultivation. The bark, like the last, is scaly. Our plant grown under this name (Plate X) was started in 1936 from seed obtained from the Lu-Shan Arboretum in China. The plant grows well under our conditions and is now about 12 feet tall. As yet our plant has not shown the character of exfoliating bark.

Stewartia monadelpha (Plate XI) is somewhat of an enigma. It is alleged to have been introduced into cultivation in 1903. But it may be that this reference was to Wilson's *Stewartia sinensis*, which was first sold by Veitch as *Stewartia monadelpha*.

PLATE VIII

Stewartia Malacodendron L. Flowering twig $\times\frac{1}{2}$. Reproduced from an engraving of an illustration by George Ehret, published in the "Acta" of the Royal Academy of Sciences. Uppsala. 1741–1746.

In any event, we obtained seed from Sun Yat-Sen Memorial University in Nanking in 1934. Our plant is about 15 feet tall with rather good exfoliating gray and white bark.

Finally, there is *Stewartia koreana* (Plate XII), which is perhaps our finest *Stewartia*. E. H. Wilson collected seed from a tree on the slopes of Chiri-san in the province of South Keisko, in southern Korea, on November 14, 1917. The seed was sown at the Arnold Arboretum in January of 1918. Plants from this seed did not flower until 1927. Two years later (July 1929) Wilson wrote of it:

> *Stewartia koreana* is again in blossom near the old White Pine trees on Bussey Hill. It is flowering much more freely than last year and its distinctive characters are more obvious. The flower is fringed, pure white, from $3\frac{1}{2}$ to 4 inches in diameter, flat and saucer-like with the ovary and stamens rich yellow. The leaves are ovate-elliptic, shining bright green with impressed veins and rounded base. It is a more cheery looking plant than its close relative, the Japanese *Stewartia pseudocamellia*, which has dull green leaves, longer and narrow at the base, less prominently impressed veins and flowers more cupped. The Korean Stewartia is showing remarkable vigor; it has suffered no winter injury and as the tree matures will doubtless bloom as freely as any of its tribe.

Over the years, enthusiasm about *Stewartia koreana* has increased. In 1956 Dr. Wyman included *Stewartia koreana* as one of his "Eighty Trees for the Small Place." He had earlier noted that the plant was of value in the garden in the winter on account of its mottled dark and light brown bark, a mottling caused by the exfoliation of large flakes of the outer bark. In addition, the leaves do, at least in some years, possess an orange or red autumn color.

This is, beyond doubt, the choicest of the Stewartias. It is also one of the finest of our large shrubs or small trees. There can be no doubt but that it will become increasingly popular with the gardening public.

GORDON P. DEWOLF, JR.

PLATE IX

Stewartia ovata (Cav.) Weatherby. a, flowering twig × ½; b, fruiting twig × ½; c, longitudinal section of flower × 1; d, longitudinal section of fruit × 1; e, cross section of fruit × 1.

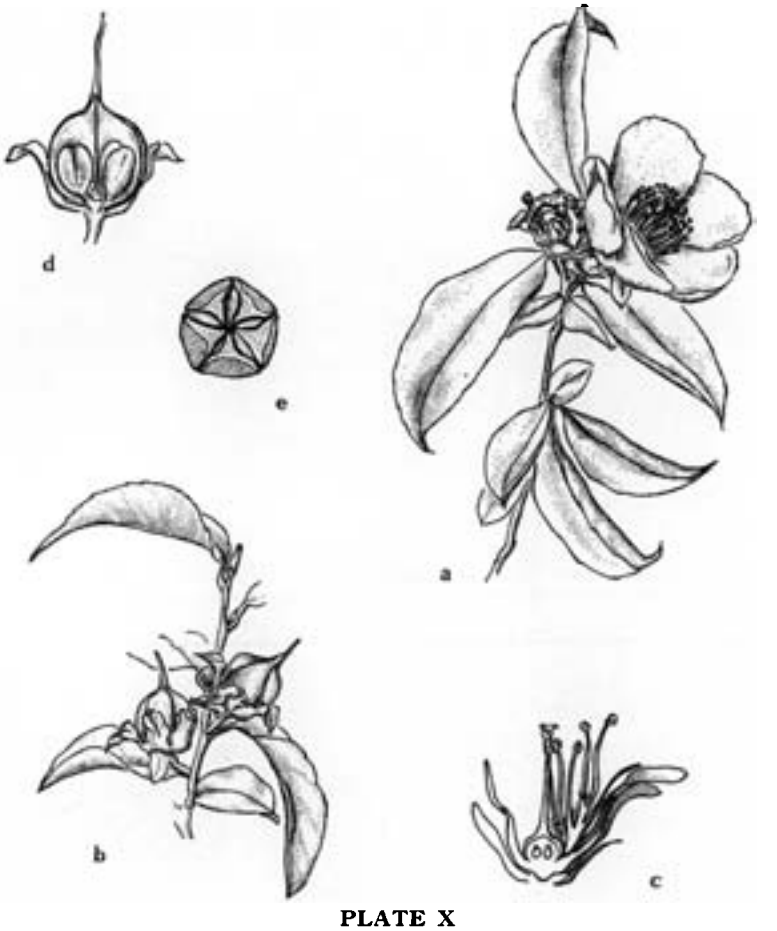

PLATE X

Stewartia sinensis Rehder & Wilson. a, flowering twig × ½; b, fruiting twig × ½; c, longitudinal section of flower × 1; d, longitudinal section of fruit × 1; e, cross section of fruit × 1.

PLATE XI

(1) *Stewartia pseudocamellia* Maxim. a, flowering twig × ½; fruiting twig × ½; c, longitudinal section of flower × 1; d, longitudinal section of fruit × 1; e, cross section of fruit × 1.

(2) *Stewartia monadelpha* Sieb. & Zucc. a, flowering twig × ½; b, fruiting twig × ½; c, longitudinal section of fruit × 1; d, cross section of fruit × 1.

PLATE XII

Stewartia koreana Rehder. a, flowering twig × ½; b, fruiting twig × ½; c, longitudinal section of stamens and petals × 1; d, carpels and sepals with corolla and stamens removed × 1; e, longitudinal section of fruit × 1; f, cross section of fruit × 1; g, seed × 2.