



# The Chinese Tulip-Tree

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In 1859 Asa Gray published an important paper dealing with the relationships of the Japanese flora to that of North America and other parts of the north temperate zone. In it he presented a list of species which he considered identical in eastern North America and Japan, some of which also occurred on the mainland of Asia.

More recent studies have demonstrated that, although closely related, most of these disjunct species are not truly identical but are varietally or even specifically distinct.

It seems entirely likely that if the existence in Asia of the genus *Liriodendron* had been known to Gray he might have considered the eastern American tulip-tree (*L. Tulipifera*) to be identical with the tree that occurs in central China.

The Chinese species was discovered by a medical missionary in 1873 and two years later S. Moore, who studied the material, proclaimed it a new species. but refrained from giving it a name. Apparently at this time no flowers had been seen and Moore's opinion was based solely upon the character of the foliage.

In 1886 W. B. Hemsley described the Asiatic tree as a possible variety of the American species, naming it *L. Tulipifera* L. var. ? *chinense*. Some botanists considered the two plants identical, but in 1903, in his *Trees and Shrubs*, C. S. Sargent accorded the Oriental plant full specific status, so that today it is known as *L. chinense* (Hemsl.) Sarg.

In 1952 Mrs. Barnes obtained two small trees labeled *Liriodendron chinense*. One of them died, but the other survived and is now a robust, well-shaped specimen about twenty feet tall with a single trunk. Several visiting botanists to whom I have shown it have expressed doubt as to whether it really was the Chinese species. I have repeatedly examined the foliage and have been unable to discover any difference between its leaves and those of *L. Tulipifera*.

On May 30, 1973, our tree bore flowers for the first time and all doubts concerning its identity were completely dispelled. The flowers are appreciably smaller than those of *L. Tulipifera* and are borne on peduncles which are somewhat curved. The corollas are cup-shaped and the petals are a dull olive green with a faint splash of yellow at the base. The petals of the American tulip-tree, on the other hand, are greenish yellow with a broad orange band below the middle. If our tree bears fruit it will be interesting to observe whether the mature carpels are obtuse at their tips rather than acute, as mentioned in some descriptions.

Knowing that my friends at the United States National Arboretum were keenly interested in these two species, I put in a call to Dr. Frank S. Santamour, Jr. to inform him that our tree was in flower and to offer him pollen for the purpose of crossing it with the American species. He replied that, unfortunately, the latter was already well past flower in Washington and that we would have to wait until another year to attempt the experiment.

A few days later I received a letter from Santamour's colleague, Dr. Frederick G. Myer, saying he had heard about our tree and imploring me to prepare a herbarium specimen for them; I had already done so. He informed me that ours was the eighth report that they had received of the flowering of *L. chinense* in this country, the most recent being a thirty-five foot specimen in the Coker Arboretum at Chapel Hill, North Carolina.

The cross between these two species has already been made and was reported by Dr. Santamour at a recent meeting of the American Magnolia Society. Continuing efforts should be made to produce and study the progeny of these two representatives of a very ancient genus. \*\*\*