Magnolia sprengeri and M. biondii

by DOROTHY J. CALLAWAY

The original description of *Magnolia sprengeri* was published in 1915 by R. Pampanini in the *Bullettino della R. Societa Toscana di Orticultura* Volume XX of the Third Series, pages 99-102. This publication was in Italian. Dr. August Kehr recently requested a translation from his former student Dr. Gerardo Perlasca of Como, Italy. Dr. Perlasca provided the translation presented here and his work is greatly appreciated, as are the efforts of Dr. Kehr in bringing this historical piece of literature to us in English.

Since the publication of Pampanini's article in 1915, some changes in nomenclature of these species have taken place. A brief introduction and discussion of these changes will make the original publication more clear to the reader.

Pampanini examined specimens collected in China from 1904-1914 by the Rev. P. C. Silvestri. In 1910, Pampanini named *Magnolia biondii* based on some of Silvestri's specimens. These specimens of *M. biondii* contained only flowers (since the species is precocious and specimens were collected in the spring). Thus, Pampanini's original description of *M. biondii* lacks information on the characteristics of the leaves.

Having named *M. biondii*, Pampanini continued to study the specimens of Silvestri and found another new magnolia, which he named *M. sprengeri*. The original description is that translated here.

In this description of *M. sprengeri*, Pampanini compares the plant to *M. aulacosperma*, a species named by Rehder and Wilson in 1913, based on leaf specimens collected by Wilson. Later botanist found that Wilson's *M. aulacosperma* specimens, which consisted of only leaves, and Silvestri's *M. biondii* specimens, which consisted of only flowers, represented the same plant. According to the *International Code of Botanical Nomenclature*, the earliest name *M. biondii* must be used to refer to that plant. Thus, *M. aulacosperma* is now a synonym for *M. biondii*. Pampanini also mentions *M. yulan* in the first paragraph of his description of *M. sprengeri*. This is a synonym for *M. denudata*.

In the second part of his article, Pampanini refers to collections of P. G. Giraldi from Central China and discusses the possibility that these collections represent a new species related to *M. biondii*. He does not, however, actually name a new species. Today, Giraldi's collections are considered to be specimens of *M. biondii*.

Translation of original description of *M. sprengeri*:

In the herbarium specimens of the botanical collection of the Rev. P. C. Silvestri made in Hupeh (Central China) from 1904 to 1914 there was named a new magnolia, the *Magnolia biondii*, a beautiful plant from which specimen it is possible to determine numerous, small, early flowers that precede the leaves. Following the study of these herbarium specimens I have now identified another magnolia that is believed to be new and I have given it the name of *M. sprengeri*.

The *M. sprengeri*, like *M. biondii*, belongs to the group of magnolias with flowers that precede the leaves, of which the best known is the one commonly called *M. yulan*, and is more related to the affinity of *M. salicifolia* Maxim. of Japan, and to the *M. aulacosperma* Rehd. *et* Wilson from Hupeh province. *M. salicifolia* differs from *M. sprengeri* by having thin branches, and flowers with only six tepals and with sepals narrow lanceolate and glabrous. The *M. aulacosperma* is not well known and the flowers have not yet been described, and it is not possible for me to describe completely *M. sprengeri* because I lack, as also for *M. biondii*, specimens with leaves. However, *M. sprengeri* cannot be identical to *M. aulacosperma* because according to the description of Rehder and Wilson, not only are the branches weak, but particularly the leaf buds are silvery yellow and shiny. In contrast with *M. sprengeri* the branches are robust and the leaf buds are glabrous, though sometimes slightly pubescent toward the tip. These are slight differences, but just enough to prevent me from assimilating the two plants, as well as making allowances for other differences which may yet be found in the leaves and flowers.

For *M. sprengeri* I have very few herbarium specimens which are in a bad state of preservation with the flowers completely blackened. The branches are robust and glabrous, with internodes only 8-15 mm long and a diameter of 4 mm with the leaf buds glabrous or slightly pubescent toward the tip, with flower buds slightly hairy as soon as fully grown, leaves are deciduous, the flower precedes the leaves with a very short stem; the bracts are 3 in number and not exactly alike, and the external dimensions are 4 x 2 cm and the inner big one one is 5 x 3 cm, all silky-hairy for the long section sepals, and the petals are 8 or 9 in number, oblong spatulate, round toward the tips, about 6 cm long. The outer ones are a little bigger than the others and about 2 cm wide; the stamens have a very short filament (3.5 cm) as compared to the anther (11 cm) ending with an extended connective tissue (2/3 mm). The spike of the ovaries during anthesis is very short (1.5-2 cm). It was collected by P. C. Silvestri in Northern Hupeh on the U-Tan-Scian Mountain in March 1912 and on the Zan-Lan-Scian Mountain in April 1913. In these locations the plant is known, as P. C. Silvestri writes, with the name In-cioen-sciu or In-tchoen-hoa.

In the botanical collections of the Rev. P. G. Giraldi in Shensi

Province (Central China) I found some specimens of another magnolia, which Diels, who studied that collection, considered new but did not describe. My research confirms Diels' opinion and now I publish the plant relating to *Magnolia aulacosperma* Rehder and Wilson. Unfortunately even these specimens are incomplete, lacking flowers, and fruits create doubts that perhaps the plant belong to the genus *Michelia,* with such a high level of affinity to the genus *Magnolia* that is was confused with it. Actually in the plant of P. Giraldi the leaves, because of their papery consistency and the reticulum of the venation observed on both blades, would resemble more closely species of *Michelia* rather than *Magnolia,* while the terminal buds are more like the latter.

In the first case it is less distant from *Magnolia salicifolia* Maxim. from Japan, but the latter plant is completely glabrous except the underside of the leaves, scattered with few hairs and it has much larger and longer leaves, according to the description of Dunn, 20-65 cm, narrow at the base and with more numerous lateral veins (20-40); in addition it has glabrous flower buds and petioles that are 10-12.5 cm long.

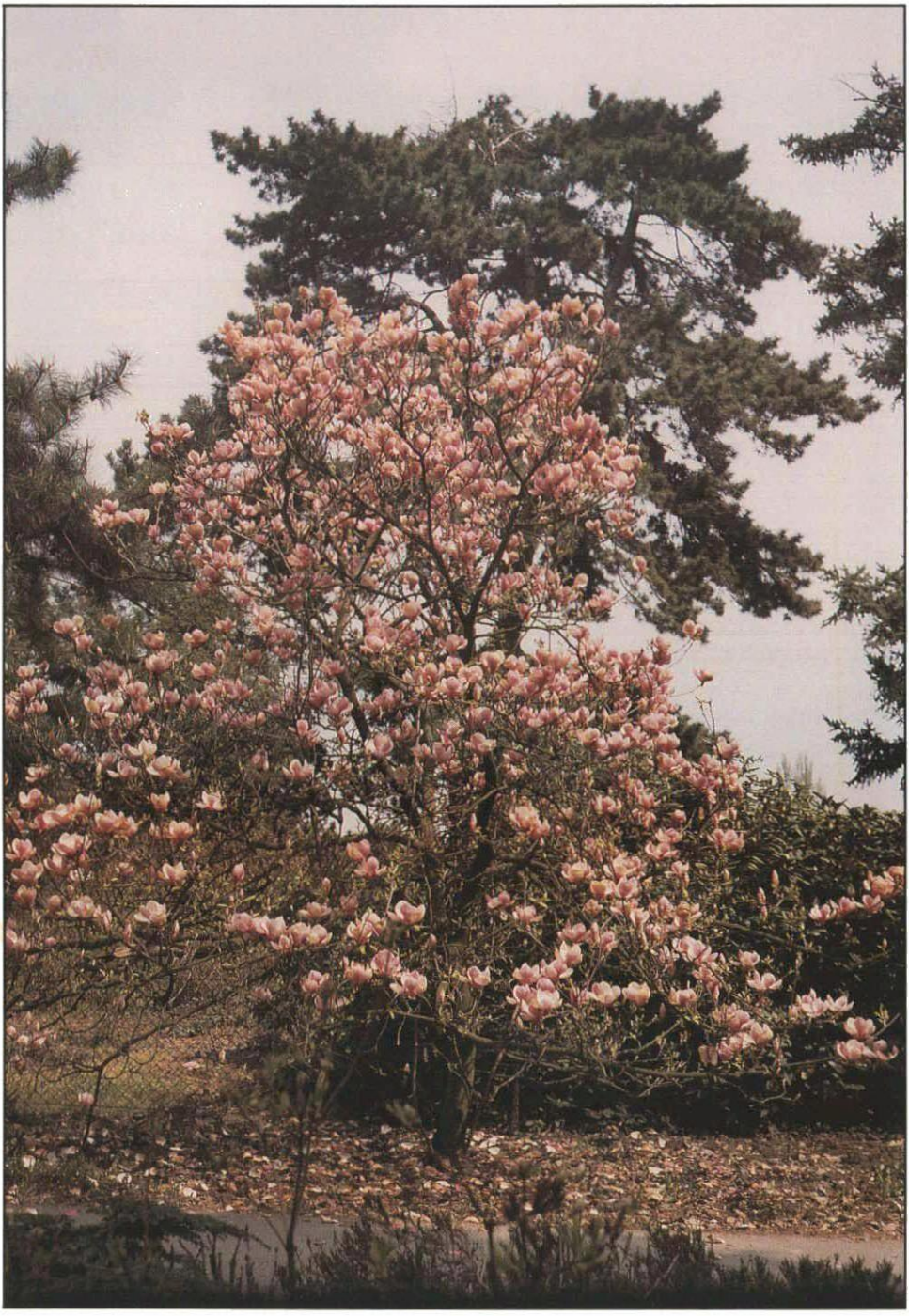
In the second case, due to the appearance of the venation of the leaves, the position of the flower buds and their very short petiole, it is closer to *Michelia wilsonii* Finet *et* Gagnep., but in the latter the leaves are leathery and always completely glabrous, more narrow (13-15 x 4-5 cm) and very thinning toward the base, glossy on the upper side and glacous on the under side, the flowers subterminal.

Diels to the contrary thought the plant of P. Giraldi had more affinity to *Michelia lanuginosa* Wall. from India and *Magnolia stellata* Maxim. from Japan; but the first has axillary flowers, and even old leaves have hairs on the underside, while the second has much smaller leaves.

These specimens of *M. aulacosperma* can be characterized in the following way: rather thin twigs with internodes 3-5 cm long and about 3 mm in diameter, densely silky hairy when young, leaf buds and even more so the flower buds, which are terminal, retaining their white silky character; young persistent leaves more or less silky hairy on the underside and totally glabrous when old, leather under dry condition, elliptical-lanceolate, acuminate, wedge shaped toward the base, 14-19 cm long and 4-7 cm wide with stems 7-12 mm long, with about 20 lateral veins, the middle one protruded only on the underside, the the reticulum of the other, prominent on both sides under dry conditions.

P. G. Giraldi collected it in Northern Shensi at In-Gia-Pon on October 20, 1892, on the Tui-Kia-Son mountain in 1893, in the vicinity of In-Kia-Po in the summer of 1896, on the Si-ku-tzui-san mountain on July 10, 1900. *M. aulacosperma* has been recently described in 1913 by Rehder and Wilson from the specimens collected by Wilson in West Hupeh in September and June 1907. ❧

Magnolia kobus *in Kórnik Arboretum, Poland*



Magnolia x soulangiana *'Lennei' in Kórnik Arboretum, Poland*