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M. Salicifolia: Made in Japan?

by Karl E. Flinck

Which cultivars or possible hybrids of *Magnolia salicifolia* Maximowicz should be chosen for our gardens?

M. salicifolia, in the botanical and horticultural literature, is treated in a variable way with regard to plants that differ from the classical concept of the species.

The treatment of M. salicifolia's taxonomy is best studied in:

- S. Spongberg's Magnoliaceae Hardy in Temperate North America
- S. Spongberg's Magnolia Salicifolia: An Arboretum Introduction
- C. Christensen's Magnolia Kobus og Magnolia Salicifolia Maxim

They both indicate a number of quantitative characteristics, but also conclude that only the leaf shape and lower leaf surface pubescence are diagnostic for the species and allow for correct identification.

Spongberg, who normally has a wide species concept, says: "While the putative hybrids involving *M*. *salicifolia* mentioned above do not appear (based on the type specimens and/or plants) to be hybrids but only variants of *M. salicifolia* itself, more study is definitely needed to fully resolve this problem."

Christensen has limited himself to establishing the differences which, in his opinion, separate *M. kobus* and *M.* salicifolia as species. He has, however, told me verbally that he considers some magnolias growing in my Swedish garden to be hybrids between *M.* salicifolia and *M. kobus*.

In the 8th edition of Bean's "Trees and Shrubs Hardy in the British Isles," *M. salicifolia* hybrids are described under the *M. salicifolia* heading.

In a written communication that I have received from Professor S. Kawakami, previously in charge of Nikko Botanic Garden, he mentions that a natural M. salicifolia $\times M$. kobus hybrid has been described from North Honshu under the name M. \times euchlora Momiuama. I have not had the opportunity to check the literature for a description and the validity of the Latin name.

Donald Wyman, in his book, "Trees for American Gardens," mentioned under *M. salicifolia* that particularly nice specimens were being grown in the Morton Arboretum and Swarthmore College.

Finally, a number of our society members have written in our journal about *M. salicifolia*, its hybrids and forms. It seems as if most of those writers accept the occurrence of *M. salicifolia* hybrids.

In addition to written comments, I would like to mention two verbal ones.

Brian Mulligan is convinced that the clone "Else Frye" is a true *M.* salicifolia. Phil Savage considers that he grows a *M. salicifolia* in his Bloomfield Hills garden. He is,



M. 'Joe McDaniel,' a newly introduced Gresham hybrid.



M. 'Todd Gresham,' another newly introduced Gresham hybrid.

however, surprised at the types of progeny he receives (not *M. salicifolia*-like), also when no other pollen spender is present.

My own observations are based on living material that I have grown in my Swedish garden, and what I have seen during trips to Denmark, England, Germany, Switzerland and USA.

In my Swedish garden, I have grown three plants, which originated from two shipments of wild Japanese seed. They flowered when only 30 cm. high. I have lost two of the plants, which died for unknown reasons, and the third one is recovering after having been smashed by a falling tree.

Of plants that have originated in Western gardens I grow or have grown the following: M. 'Else Frye,' M. 'Miss Jack,' M. * kewensis (nomen nudum), M. 'Iufer,' M. * proctoriana, and M. 'Wada's Memory.'

I also have seedlings raised from seed harvested in Phil Savage's garden and in Morton Arboretum.

I have trees received from the German nurseries Hesse and Bolje as *M. salicifolia*.

I have seen *M. salicifolia* plants in England and Switzerland that are of Japanese origin. Elsewhere I have only found plants that originate from Western gardens. Where originally plants were introduced from Japan or raised from wild collected seed, they all seem to have disappeared.

Spongberg states that *M. salicifolia* plants appear to be very tolerant to a

wide range of soils and exposures.

Since it has been impossible for me, in cold climates, to trace mature specimens raised from Japanese seed, I must conclude that *M. salicifolia* is either cold sensitive or in other respects quite demanding.

For *M. salicifolia* plants of proved Japanese origin 1 have noticed a much slower growth than for plants originating from Western gardens. In my Swedish garden *M. * kewensis* is the fastest growing one of all magnolias. It has, over a 20-year period, reached a height of 12 m. whilst over the same period *M. salicifolia* was only between 3-4 m. It took *M. salicifolia* in Kew Gardens 60 years to reach a height of 12 m. Of all named *M. "salicifolia"* clones, only 'Else Frye' is a fairly slow grower.

I should also like to point out that K. Wada has claimed that it was impossible to grow *M. salicifolia* in his Yokohama nursery.

The true Japanese-originating *M.* salicifolia has very floppy flowers, which stand up badly against bad weather. The plants I have seen also have flowers with narrow tepals. All cultivars I have tried have larger flowers with broader tepals that stand up better against bad weather.

How can those differences in appearance and behaviour be explained?

I am inclined to accept the indirect evidence that *M. kobus* is involved in most, if not all, cultivars. *M. kobus* is easy to cultivate, is very cold hardy, tolerates fairly hot climates, and has in some of its forms large flowers and broad tepals.

It is interesting that M. 'Wada's Memory' was introduced from Japan as *M. kobus.*

Based on my own and other people's cultural experiences, I would recommend the following to those who wish to grow *M. salicifolia* or use it for hybridization: Stay away from plants of Japanese origin; for fast growth and



M. 'Sweet Sixteen,' newly introduced Gresham hybrid.

large trees use: M. 'Wada's Memory' or M. × kewensis; for smaller space and still beauty: M. 'Else Frye' or M. "salicifolia" from Hesse.

I have a hope that *M. biondii* will produce larger flowers than *M.* salicifolia. If this will be the case, a hybrid between the Hokkaido form of *M. kobus* and *M. biondii* could be something to shout about.

Steve Spongberg has kindly read this article before publication and made a plea for interested members to make controlled crosses. I cite from his letter:

"Concerning your paper, I found it very interesting and certainly think the society should publish it in MAGNOLIA. You did leave the Spongberg references out of the bibliography, but that, obviously, is just an oversight. The one plea that I really wish you would make is for one (or more) of the members who grows *Magnolia kobus* and a "good" *M. salicifolia* (based on leaf shape and pubescence) to make the appropriate crosses and grow hybrid progeny to document both the fact that hybridization is possible and the morphology and behavior of the

progeny. If such a hybridization program were undertaken, an important aspect would be to prepare voucher specimens of both parents as well as of progeny as they develop and come into flower. The results, of course, would help enormously to explain the situation you described in your paper. It could also help resolve the "kewensis" problem as well as either support or refute my position concerning M. × proctoriana. Moreover, it would be nice to involve society members in some of this problem solving, particularly since these aspects of this problem are aspects in which most are proficient and interested. I'll be interested in your thoughts concerning this request."

References

- Bean, W.J., 1973. Trees and shrubs hardy in the British Isles ed. 8
- Christensen, C., 1980. Magnolia Kobus D.C. og Magnolia salicifolia Maxim. - to naertbeslaegtede Japanske Magnoliaarter. Dansk Dendrol. Arsskrift 5(3): 42-57
- MAGNOLIA: Journal of the American Magnolia Society, Vols. III.1, VIII.2, IX.1, XIV.1, XV.1, XVI.1, XVII.1.
- Spongberg, Stephen A. Magnoliaceae hardy in temperate North America. Journal of the Arnold Arboretum, Vol. 57, No. 3, July 1976
- Spongberg, Stephen A. Magnolia salicifolia: An Arboretum Introduction, Arnoldia, Vol. 41, No. 2, Mar./ Apr. 1981
- Wyman, Donald, 1951. Trees for American gardens



M. 'Lisa Odenwald,' newly introduced Gresham hybrid.