

Research Note

A NEW NAME FOR *SOPHORA JAPONICA*

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The tree currently known and grown under the botanical name *Sophora japonica* L. was introduced into cultivation in the West in the 1700's. In recent years, this species has been gaining in popularity for urban planting in the United States. Although native only to China, it had been widely cultivated in Japan, and the specific epithet "*japonica*" is evidence of that fact. Common names of this species include "Chinese scholar-tree" and "Japanese pagoda-tree."

For many years, we have been troubled by the fact that the reported somatic chromosome number of *Sophora japonica* ($2n=2x=28$) was so different than that of other species of this genus ($2n=2x=18$). Different basic chromosome numbers can occur among species within many herbaceous genera, but woody plants tend to be more conservative in this regard. Generally, the major variations in chromosome numbers within woody plant genera are those arising from polyploidy, which are exact multiples of the same basic number. The situation in *Sophora* was quite different, since $28(x=14)$ is certainly not a multiple of $18(x=9)$.

The name "*Sophora japonica*" was created by Linnaeus in 1753, and we were well aware that the plant *Sophora japonica* was used by Schott in 1830 as the "type" species in the new genus *Styphnolobium*. However, until recently, there had been no reports of any other species of "*Sophora*" with $2n=28$ chromosomes that could probably be re-classified with *Sophora japonica* in the genus *Styphnolobium*. Somehow, we had missed the report by Peter Goldblatt that the United States

native *Sophora affinis* Torr. also had $2n=28$ chromosomes (1).

Two more recent papers (in Spanish) have provided the morphological and cytological bases for a sensible redefinition of the genera *Sophora* and *Styphnolobium* and reclassification of species in these genera. The first paper (3) recognized nine species in the genus *Styphnolobium*, including *Styphnolobium japonicum* (L.) Schott (= *Sophora japonica*) and *Styphnolobium affine* (Torr. & A. Gray) Walp. (= *Sophora affinis*). Aside from the two species noted above, the other species are native to Mexico and Central America.

The second paper (2) reported the chromosome numbers in various species of both genera, including a count of $2n=18$ for *Sophora secundiflora* (Ortega) Lag. ex DC, the so-called Texas mountain laurel. Thus, this native species is properly classified in the genus *Sophora*.

Very often, nomenclatural changes for familiar plants are proposed by botanists based on the rule of priority or other factors that might seem trivial to practical nurserymen and horticulturists. We believe that the *Sophora* - *Styphnolobium* situation represents a major change that will influence studies in genetics, breeding, and physiology (roots of *Sophora* harbor nitrogen-fixing bacteria, those of *Styphnolobium* do not) and urge the adoption of these new names in the nursery trade. Granted that *Styphnolobium* (Stiff-no-lobe-ee-um) does not trip off the tongue as easily as *Sophora*, the use of this "new" name will bring the nursery industry into conformity with botanical science.

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3. Sousa S. M. and V.E. Rudd. 1993. *Revision del genero Styphnolobium (Leguminosae: Papilionoideae: Sophoreae)* Ann. Missouri Bot. Gard. 80:270-283.