

Name application: *Salix chaenomeloides* Kimura vs.
S. gracilistyla Miq.

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The binomial *Salix chaenomeloides* Kimura with the common names “giant pussy willow” or “Asian pussy willow” is frequently attached to a group of plants with large catkins found in nursery stock offerings and botanical garden collections across North America and Eurasia.

A recent morphological investigation revealed that the *S. chaenomeloides* binomial was often misapplied to a group of plants consisting of *S. gracilistyla* Miq. and its hybrid, and only a few accessions were positively identified as *S. chaenomeloides* (Kuzovkina, Dodge and Belyaeva, 2016). The analyses of nursery and germplasm holdings confirmed that considerable misuse of the *S. chaenomeloides* binomial was apparent, as almost all accessions listed as *S. chaenomeloides* were indeed *S. gracilistyla* or its hybrids.



Aments of *S. gracilistyla* (left) and its cultivar ‘Melanostachys’ (right). Photo courtesy of M. Dodge, Vermont Willow Nursery.

Thus, the presence of three distinct taxa, recorded or cultivated as S. chaenomeloides, was recently established:

- *S. chaenomeloides* Kimura
- *S. gracilistyla* Miq. and its cultivars
- *S. × leucopithecia* Kimura (*S. caprea* L. × *S. gracilistyla* Miq.) and its cultivars.

Salix chaenomeloides and *S. gracilistyla* are two unrelated species and morphological differences between them are considerable. The reason why the misuse of the name *S. chaenomeloides* occurred remained unanswered until recently, when a herbarium specimen of *S. × leucopithecia* Kimura from the Herbarium Universitatis Florentinae, Italy, incorrectly identified as *S. chaenomeloides*, was discovered (Kuzovkina, Dodge and Belyaeva, 2016). This specimen may have resulted in the confusion, which was adopted for the later incorrect description by Newsholme (1992) more than 20 years ago followed by other horticultural references.

The table below lists the most distinguishing characteristics of *S. gracilistyla*, *S. × leucopithecia* and *S. chaenomeloides* that can be used for accurate identification:

Character	<i>S. gracilistyla</i> & <i>S. × leucopithecia</i>	<i>S. chaenomeloides</i>
bud scales	united	imbricate (overlapping)
leaf surface	sericeous (with silky hair)	glabrous
petiole glands	absent	present
flowering phenology	precocious	coetaneous
aments	densely flowered	loosely flowered
number of stamens	2 connate (fused)	(3)4-5 free
anthers	reddish	yellow



Flower buds, catkins and foliage of *S. chaenomeloides* (top row) and *S. × leucopithecia* (bottom row). A note regarding the ornamental value of both species: catkins of *S. chaenomeloides* are green and inconspicuous among the developing leaves, while catkins of *S. × leucopithecia* are densely pubescent and very ornamental when developing in early spring before leaf emergence (central column). Photo courtesy of M. Dodge, Vermont Willow Nursery.

There are a few cultivars of *S. gracilistyla* valued for their early spring catkin display, variegated foliage and pendulous habits, including ‘Melanostachys’, ‘Mt. Aso’, ‘Pendula’, ‘Variegata’ and four cultivars of *S. × leucopithecia*, including ‘Lubber’s Zwart’, ‘Rabbit’s Foot’, ‘The Hague’ and ‘Winter Glory’.



Two recently described ornamental cultivars of *S. × leucopithecia*: *S.* ‘Winter Glory’ (left; photo courtesy of M. Dodge) and *S.* ‘Rabbit’s Foot’ (right; photo by Y.A. Kuzovkina), which were previously erroneously circulated in North American nurseries and collections as *S. chaenomeloides*.

References:

- Kuzovkina, Y.A., M. Dodge, and I.V. Belyaeva** (2016). Clarifying affiliations of *Salix gracilistyla* Miq. cultivars and its hybrids. *HortScience*. 51(4): 334-341.
- Newsholme, C.** (1992). *Willows: the genus Salix*. B.T. Batsford Ltd., London.