

# Manchurian Catalpa

## *Catalpa bungei*

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Familiarity breeds contempt—for catalpa. The genus has nine accepted species, two in eastern North America, four in the West Indies, and three more in eastern Asia. The North American species (*Catalpa bignonioides* and *C. speciosa*) are the best known in the West, often overlooked as waifs in urban landscapes or as country trees, too large or messy for modern landscapes, yet tolerated when in flower in late May to June. Perhaps this sentiment permeated the group conscience on NACPEC's 1994 Wudang Shan expedition, when, on the first day of collecting, they were underwhelmed by Kevin Conrad's sighting of a lone pollarded catalpa in a field of soybeans and corn. Conrad, representing the United States National Arboretum (USNA), was on his first expedition to China, the wide-eyed and energetic newbie in a field of veteran collectors. Reluctantly, the group stopped to collect seed and vouchers of what was identified as the Manchurian catalpa, *Catalpa bungei*. As it turned out, it was the only catalpa seen on the trip and proved to be one of the most important collections of the expedition.

In 1831, Alexander Andrejewitsch von Bunge collected herbarium specimens of a catalpa near Beijing, which C. A. Meyer later identified and described as a new species, and named in honor of Bunge. *Catalpa bungei* and *C. ovata* are the two most commonly cultivated species of catalpa in China, both in agroforestry for their high quality wood and in religious circles as one of the "jeweled trees" of Chinese Buddhism. There is much research published in Chinese journals on propagation, breeding behavior, and silviculture of *C. bungei*, but this emphasis on its importance has not filtered to the West, where appreciation for the species is lacking. Early introductions of catalpa into Europe were erroneously ascribed to this new species, even as they came into flower with upright, many-

flowered panicles of small yellow or yellowish-green flowers that clearly identified them as *C. ovata*. The inflorescences of *C. bungei* are corymbose, with fewer but larger flowers conspicuously spotted with pink, effectively coloring the flowers rose. The first introduction of true *C. bungei* is attributed to the Arnold Arboretum in 1904, when wild-collected seeds were acquired (via American diplomat E. T. Williams) from the vicinity of Beijing. These seeds—and subsequent plants—were distributed to European botanical institutes, but the species remains almost nonexistent in cultivation, a victim of confusion generated by earlier misidentifications. The Arnold Arboretum still has a living plant of this accession (AA#12927), which has stood sentinel above the lilac collection for over a century.

The great plant collectors E. H. Wilson and F. N. Meyer did not overlook catalpa on their forays across China in the early twentieth century. Wilson, collecting for the Arnold Arboretum, never knowingly collected *C. bungei*, but based on herbarium specimens from his trips, his collections of *C. fargesii* (syn. *C. duclouxii*) are a mixed bag of phenotypes, some of which agree with *C. bungei*. But Meyer, collecting for the USDA, collected what he labeled *C. bungei* on five separate occasions, calling the species "one of the finest flowering trees in the world". The taxonomy of these species is not well resolved, but based on recent phylogenetic analyses, this group forms a clade separate from the North American and West Indian species. The USNA conducts on-going taxonomy and breeding work in the genus *Catalpa*, and *C. bungei* has taken center stage, thanks to its beautiful flowers, disease resistant foliage, and general adaptability. In our search for germplasm to introduce into our breeding program, we have scoured both domestic and foreign nurseries for material of *C. bungei* and related species.

We have yet to find a nursery offering the real *C. bungei*. Our search of botanical gardens and arboreta yielded only three accessions in North America that are true-to-type, two of wild origin: the original *C. bungei* 12927 at the Arnold, and *C. bungei* WD009 from the Wudang Shan trip in 1994. Unknowingly, NACPEC had made the first collection of *C. bungei* in 90 years, pro-

viding germplasm for urban tree breeding and increasing our knowledge of an underutilized and underappreciated genus.

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An herbarium specimen from the lone *Catalpa bungei* collected in Wudang Shan during the 1994 NACPEC expedition to Hubei, showing its foliage and long seed pods (bent to fit on sheet). Facing inside back cover: Manchurian catalpa (*Catalpa bungei*) bears lovely rose-tinted flowers. Photo by Richard Olsen.