

***Pinus bungeana* Zucc ex Endl – A Sacred Pine**

Despite the cold, I have always found January to be an interesting month for the Garden. No longer are flowers at the forefront, but rather the leafless forms of the trees combined with evergreen shrubs and conifers are now paramount to a Gardens' design. Among the many conifers that provide dramatic presence is an infrequently used evergreen with wonderfully attractive bark – the Lacebark Pine or *Pinus bungeana*.

Pinus bungeana, as one would gather, is a member of the Pine Family or Pinaceae and is native to mountainous regions of NE and Central China at elevations near 4,000 ft. The genus *Pinus* was officially ascribed to this group of plants by Carl Linnaeus (1707-1778) in 1753 as it was already the Latin name for Pine Trees. The name may have come from the Indo-European name of *Pīt* or resin, a reference to the sticky resinous sap or pitch of most Pine Trees. The species name honors Aleksandra (Alexander) von Bunge (1803-1890), a Russian Botanist who taught at the University of Dorpat. During his 1830-31 expedition to China, Bunge collected seed and dried specimens from a plant located in the temple gardens of Beijing. Joseph Zuccarini (1797-1848), a German botanist who focused upon describing plants from Asia, honored Bunge



with the species epithet and described the plant as best as possible from the rather limited specimens at hand. It was not until Robert Fortune (1812-1880) brought back living plants of Lacebark Pine in 1846 that the Austrian botanist Stephan Ladislaus Endlicher (1804-1849) was able to provide a complete description in 1847. Since the description by Endlicher was based upon Zuccarini's work, both botanists are recognized as the authors!

Although first discovered and described by Bunge, it was Fortune who was far more attuned to literary prose and wrote at length about the beauty of the Lace Bark Pine. In Chinese Temples, the plants live well beyond 100 years of age and reach heights nearing 100' (a 15 year old specimen is pictured above right). The plants are typically 'multi-trunked', with the individual trunks growing bolt upright. In Fortune's description of one tree that had some 8 to 10 trunks, one trunk measured at 3' above the ground was 12' in circumference! However, the habit of the tree is not the main attraction of the plant; rather, as the common name reveals, it is the bark.



And oh, what bark! When the plants reach 10 years of age, the grayish brown bark begins to ‘pop-off’ or exfoliate in patches (pictured at left). The bark initially reveals a green underbark that – much as with people – becomes an attractive white with age. In China, the entire trunk will transition to a ghostly white, which is what attracted the plant explorers and gave this plant a location of honor near Temples. Unfortunately, for reasons unknown, the white underbark rarely coalesces into totally white stems outside of Asia. Yet, the trunks still remain highly attractive. A recent selection from the Dawes Arboretum of Ohio is ‘Silver Ghost’, which develops white underbark at an early age. Another element that the plant explorers overlooked is the texture of the foliage, since the 2-3” long, deep green needles are bundled in fascicles of 3, rather than the normal 2 or 5. In addition, for those that like to forage, the seeds or

pine nuts are edible and are prized for the sweet, nutty taste. The seeds are pictured in the cone pictured 2 images below on left. Although relatively minor, I always have found the pink colored male flowers that appear in May to be rather ornamental as well (pictured below)

In 1924, a botanist from Sweden’s Uppsala University, Dr. Harry Smith, traveled to Shanxi Province of China. His travels led him to a temple that had an associated preserved forest consisting of primarily Lacebark Pine. This was unusual, since *Pinus bungeana* is relatively rare in the wild. The soils were dry and stony, with the forest featuring an understory of *Cotoneaster*, *Lespedeza*, *Vitex* and *Rhamnus*. I feel is always handy to know what companion plants grow naturally in association with a plant in order to inspire better designs in the Garden!

Of course, no tree is without its issues. *Pinus bungeana* is slow growing from seed, typically only growing a few inches during the first few years. During adolescence, as again with people, the plants begin to ‘stretch-out’ and grow 8-10” annually. Although it is native to windy cliffs and cold mountainous regions, the brittle wood is not





tolerant of New Jersey's heavy wet snow. It is not unusual for a magnificent older specimen to lose a major leader following a snowstorm. The solution is to select or train plants as single-stemmed specimens.

Although the North American forms of *Pinus bungeana* may not be the ghostly white barked pine of Asia, it remains a very graceful plant with bark that is more than deserving of a sacred garden location. Combined with a constitution that tolerates winds, heat, cold and droughty soils, along with edible fruits, the plant almost justifies the need for two authors!