

Tree of the Month, July 2013: Goat Horn Tree (*Carrierea calycina*)

The Goat Horn Tree, so called because of its horn-shaped, green seed pods, is quite rare in cultivation, and we at VanDusen are very lucky to have two specimens. With glossy green leaves and remarkable pale green flowers, this elegant tree has been the object of a 100-year struggle to introduce the species to western horticulture.

In 1908, while on an expedition in western China, the famous plant-hunter Ernest H. Wilson collected seed from *Carrierea calycina* in Sichuan province. As he thought this lovely tree would be suitable for British gardens, he sent the seed to Veitch Nurseries in the UK. The Veitch family grew those seeds into seedlings and in 1912 distributed the young plants to a number of gardens in Great Britain, including Bodnant Garden in North Wales and Royal Botanical Gardens, Kew. Unfortunately, most of these plants only survived until the late 1920's. The tree at Kew died before its first flowering. Only two trees from Wilson's original collection survive today, both in Northern Ireland - one at Birr Castle; the other (which didn't flower until 2010) at Rowallane, headquarters of the Northern Irish National Trust.

In 1994, Peter Wharton, curator of the David C. Lam Asian Garden at the University of British Columbia Botanic Garden, decided to try and re-introduce the Goat Horn Tree to cultivation. With the cooperation of the Nanjing Botanical Garden Memorial Sun-Yat-Sen, Mr. Wharton organized a collecting trip to the Dashahé Cathaya Reserve, a remote conservation area in the Dalou Mountains of Northern Guizhou, China. During the 15-day expedition, *Carrierea calycina* were found growing near the Dasha He River, and again in thick forest on a rocky slope. Mr. Wharton made two seed collections, PW 68 and PW 84. Upon returning to Vancouver these were sent to several botanical gardens - Kew Garden (UK), University of Washington (Seattle, USA), National Botanical Gardens (Glasnevin, Ireland), and Pukeiti Trust Garden (New Plymouth, New Zealand). At UBC Botanical Garden, some of the seeds were grown into seedlings, several of which were given to us.

Our two Goat Horn Trees are now more than 18 years old, and they flowered for the first time around five years ago. Goat Horn Trees are often dioecious, meaning there are separate male trees and female trees. They can also be hermaphroditic, with flowers containing a combination of male and female parts, or monoecious, meaning both male and female flowers are found on the same tree. *Carrierea calycina* was first collected in 1900 by a botanist named Cavalerie, and that specimen was monoecious.

At VanDusen, we have a male tree growing on the Rhododendron Walk, and a second one, which may be monoecious, in the shady Sino-Himalayan Garden. The male tree has more flowers, likely because it is growing in full sunlight. If our trees stay healthy, we may be able to get some viable seed and start making the Goat Horn Tree available to the public, finally fulfilling the ambition shared by Ernest H. Wilson and Peter Wharton.