

Tree of the Month, September 2015: White mulberry (*Morus alba* 'Unryu')

With contorted branches that spread out in a wide canopy, *Morus alba* 'Unryu' is sometimes called corkscrew mulberry. Its lush, shiny, bright green leaves can reach 30 cm in length and range from heart-shaped to intricately lobed. 'Unryu' is a Japanese word that can be translated as "sky dragon", but can also mean "twisted", referring to a dragon's undulating form as it ascends into the clouds.

Morus alba is native to China and is the preferred food of the domesticated silkworm (*Bombyx mori*). The moth larvae, commonly called "silkworms", are attracted to the jasmine-like scent (an organic compound called "jasnone") in the white mulberry leaves that they are fed. When the larvae are ready to pupate, they wind themselves up in protective silk cocoons. If allowed to complete their transformation and emerge as moths, the pupae would release enzymes that break down the silk and help them to emerge. Since this is not desirable when making silk, the cocoons are boiled to kill the silkworms. The silk is then unwound in a single strand, which can be over 1.5 km in length, and woven into cloth. Silk production, or sericulture, has been practiced in China for over 5000 years, and likely began with the harvesting of the cocoons of wild silk moths found on forest trees.

Because of its importance to the silk industry, *Morus alba* has been planted wherever sericulture has spread: Japan, Korea, India, Afghanistan, Iran, Southern Europe and North America. In Ontario and the eastern United States, white mulberry has become an invasive species, hybridizing with or outcompeting the native red mulberry, *Morus rubra*.

Morus alba is dioecious, meaning there are separate male and female plants. In the summer female trees produce large amounts of aggregate fruit, similar to blackberries, which ripen to white, pink, red or purple. 'Unryu' produces very few, dark purple fruit. *Morus alba* is wind-pollinated, and male trees have numerous catkin flowers with spring-loaded stamens that catapult pollen into the air at over half the speed of sound. Male trees are sometimes sold as "fruitless mulberry" since they don't drop messy fruit on the ground, but the pollen can be a real problem for those who suffer from hay fever.

At VanDusen, *Morus alba* 'Unryu' can be found near the Fern Dell in the Sino-Himalayan Garden.