

Populus wilsonii
Bigleaf poplar - Salicaceae

This is the only Wilson's poplar (*Populus wilsonii*) in VanDusen Botanical Garden. It was planted in 1981. I first noticed it in fall when its green heart-shaped leaves had turned yellow. I couldn't believe how large some of the fallen leaves were – up to 20 cm!

It is not surprising that it belongs to the section of *Populus* called *Leucoides* – bigleaf poplars or necklace poplars. Two are in eastern Asia, Wilson's poplar and Chinese necklace poplar; one is in southeastern North America, swamp cottonwood.

The leaves are spirally arranged with a long petiole. The petioles are laterally flattened, making the leaves wobble back and forth in the breeze. This gives the whole tree a twinkling appearance.

Poplar trees thrive in moist soil and need space to spread out. Like willows, poplars have vigorous and invasive root systems stretching out to 40 m from the tree. They don't grow well in compact areas where they have a difficult time absorbing nutrients. This highly ornamental, medium-sized tree is planted in a good spot. It has lots of space and its roots can grow downhill for moisture. Its large leaves contrast nicely with the pinnate ones of the cork tree (*Phellodendron amurense*) and Sorbus nearby.

Populus wilsonii is native to central and west China. Growing by water, it is key to water conservation. The forestry institute in its native area is concerned about the loss of these trees because of the big power projects in the area. Damming has been extensive.

The genus *Populus* are all important players in water retention. In United States, there is a remarkable example of this in the ephemeral streams of the southwest. These streams run dry in the day. The cottonwood along their banks have sucked up the water into their massive roots system. But come evening, the streams are running. The cottonwood have released the water. Without these trees, the water would dry up in the heat. Poplars are planted along streams and rivers that need restoration.

Going back in history, the name *Populus* refers to the practice of planting the trees near public meeting places in Rome in the early sixth century. Big leaf poplar is an excellent shade tree. But it had other uses too - the Greeks and Etruscans used poplar wood for shields. Most famous Renaissance Italian paintings including the Mona Lisa were painted on poplar wood.

There are many uses for this wood today. Poplar wood is excellent for snowboard core because it is flexible wood. It is used to make electric guitars, drums and even chopsticks. In addition, it is widely used for paper and inexpensive hardwood.



Underside of *Populus wilsonii* foliage. Note spiral arrangement of leaves and wrinkled bark.

Hillier's Manual of Trees and Shrubs

The Secret Knowledge of Water – Craig Childs

<http://www.fao.org/forestry/16874-0251b233f0d75e18543c17c897e3d38df.pdf>