

The Weekly Plant

16 November 2014

Common names:

- 1) willow acacia. In Australia: cooba, native willow, Broughton willow, willow wattle
- 2) shoestring acacia. In Australia: river cooba, eumong, river myall, belalie, gurley, ironwood

Scientific name: 1) *Acacia salicina* 2) *Acacia stenophylla*¹

TAV location: Willow acacia can be found directly across Langtry from lot 89 near the corner of lot 121. Shoestring acacia can be found at the south end of Langtry on the OST side of the road, across the street from lots 149-152.

Discussion

There are several Australian acacias used as landscape plants in Arizona. We have two growing in the Village² and they have an interesting story.

The genus *Acacia* has undergone a major reorganization recently. New scientific research showed the acacias weren't as closely related to each other as previously thought. Instead of one large group, the acacias are now divided into 5 genera. Plants still in the genus *Acacia* (950+ species) are found in Australia and nearby tropical Asia. "Acacias" from the Americas and Africa (about 350 species) have been placed mainly in the genera *Senegalia* and *Vachellia*, with a few plants in the genera *Acaciella*, and *Mariosousa*.



Above, top: flowers and phyllodes of willow acacia. Note prominent center vein of phyllodes.

Above, bottom: compound leaves of catclaw acacia, *Senegalia greggii*.

Far right: longitudinal veins of a phyllode of shoestring acacia.

Below, right: size comparison of willow and shoestring acacia phyllodes.

The Australian *Acacias* can be easily distinguished from plants in the other four genera. They usually aren't thorny, a quite noticeable characteristic of *Senegalia*, *Vachellia*, and *Mariosousa*. The leaves are clearly different. Instead of having many small leaflets (see lower photo left), Australian acacias usually have none, not even one. The "leaves" are just leaf stalks (the petioles) that have expanded and lengthened. These structures are called phyllodes and are characterized by veins that run the length of the phyllode (like the "strings" in a celery stalk). Willow acacia "leaves" are 4-6" long, 1/2" wide and have a single vein running down the center. Shoestring acacia "leaves" are 16" long, 1/4" wide, and have many longitudinal veins. The plants here in the Village are close to the road. If you walk regularly, take a moment to reach over and rub a "leaf" between your finger. The veins are easy to feel.

These two acacias may be trees in the Phoenix area, but they haven't fared well in Tucson or in the Village. The 17°F cold snap a few winters ago killed these plants to the ground. The new growth looks much more like a shrub than a tree. Both plants are just starting to flower. This is another example of how plants aren't like animals. When an animal becomes sexually mature, the change affects the whole body. With plants, however, it is only after they reach a certain size (varies by species) that they start producing sexually mature wood, that is, wood that can produce flowers. Only this new wood can produce flowers. Wood produced before this transition will never, ever produce flowers. Thus, you will see flowers on the upper and outer portions of a tree or shrub, never on the lower, inner portions of the plant. Our two Australian acacias are fall-flowering, just starting to produce sexually mature wood.



Above: willow acacia.
Below: shoestring acacia



¹ Tropicos is the source of the currently accepted scientific name: <http://www.tropicos.org/>

² Some residents have planted a groundcover Australian acacia: *Acacia redolens*. For more info see: <http://tinyurl.com/GCacacia>