The Weekly Plant
20 May 2012

Common names: whitethorn acacia, white-thorn acacia, mescat acacia, twinthorn acacia
Scientific name: *Vachellia constricta,* formerly *Acacia constricta* [1]

TAV location:
Along the road: on Galileo south of Javelina way on Rincon side of road (by metal poles). Very widespread around the Village.

Whitethorn acacia is most frequently a shrub but can grow to a small tree with sufficient water.

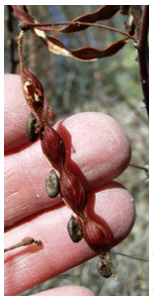
Discussion:
My initial reading led me to believe that this Arizona plant was still in the genus *Acacia*. But why? It is very, very similar to sweet acacia, which is now *Vachellia farnesiana*. I think it is a matter of the literature (even online) not yet catching up with the recent changes. The "Acacia controversy" made fascinating reading. Here's a summary.

Each plant has a single accepted scientific name. As we learn more about plants and as more plants are discovered, the accepted scientific name can change. Every six years, the International Botanical Congress meets and decides on proposed name changes using rules of the International Code of Botanical Nomenclature (ICBN). Scientists can petition for these rules to be broken under certain situations. That's what happened during the splitting of the genus *Acacia,* though not everyone agreed with the rule-breaking.

Note two white stipular spines, compound leaves, and balls of yellow flowers. Individual plants can be more or less spiny and the newest growth will have small spines.

Everyone did agree to split *Acacia* into five parts. Which part should retain the name *Acacia*? Based on ICBN rules, a small group of 163 plants remained *Acacia* while the group of "Acacias" in Australia (by far the largest with over 950 species and distinctly different from the other "Acacias") was placed in the genus *Racosperma*. All 950+ Australian species would have to be renamed. It seemed easier (especially to the Australians) to ask for an exception to the rules, placing the Australian plants in *Acacia* and renaming the others. This exception was granted at the 2005 Congress, then reaffirmed at the 2011 Congress.

So, which attributes tell me that whitethorn acacia is a *Vachellia*? First, it's not Australian so it's not an *Acacia*. It is native to Arizona, as well as New Mexico, Texas, and Mexico. It has no prickles, so it's not in the genus *Senegalia* (see catclaw acacia, last week's plant). It's not in the genus *Acaciella*, which has no spines, thorns, or prickles. It does have stipular spines, a characteristic of *Vachellias*. Stipules are small outgrowths of the leaves, found on each side of the base of the leaf stalk. There are always two. If you look at the spines on whitethorn acacia you will see there are two spines, the give-away that these are stipular spines. The spines can be small on new growth, white and up to an inch long on older growth.



The seedpods of sweet and whitethorn acacia also differ. (left) Whitethorn acacia seedpod, note constrictions.[2] (above) Sweet acacia seedpod is cylindrical and curved.

Sweet acacia, *Vachiella farnesiana* is similar, with small yellow balls of flowers, white stipular spines, and many small leaflets. Sweet acacia has more leaflets than whitethorn acacia and blooms much earlier, February-March instead of May.

[1] *Vachellia constricta* is the name listed by the UA Herbarium: http://ag.arizona.edu/herbarium/.
[2] From http://dendro.cnre.vt.edu/dendrology/syllabus/factsheet.cfm?ID=614

Photos and text by Mary Welch-Keesey