

## Name Changes of Legumes Used in Southwest Landscapes

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A number woody legumes in the landscape trade in the Southwest are widely known by botanical names that have been supplanted in current botanical usage by other names. While there is no reason for nurserymen and landscape architects to rush to adopt the name changes, it is useful to be aware of these names, as they are now appearing in books and other publications. This will eventually translate to requests for plants under the new names.

It is sometimes tempting to suggest that renaming of plants results from ivory tower researchers needing to publish in order to be awarded tenure, however, most work is based on careful studies that are subjected to peer review. Determining how to divide a continuum among closely related species is admittedly a subjective nomenclature decision. Ongoing investigations, much of it involving DNA and molecular studies, are providing new information and leading to revisions of previous concepts of the relationships of groups of plants. As our understanding of these organisms improves, some reclassification is inevitable. Most of these name changes are not recent but it has taken time for them to gain wider acceptance within the scientific community. It is interesting to note that in some cases, the names were originally published decades ago without benefit of modern investigative techniques. Recent research has supported these earlier classifications.

Most plants in the genus *Cassia* in the landscape palette are now recognized as being in *Senna* (Irwin and Barneby 1982, Randell 1988, 1989, 1990). In some cases the specific epithet has remained the same while in others it has changed. Various Australian cassias that were recognized as separate species are now considered to be subspecies of *Senna artemisioides* (Randell 1989). Studies by Hawkins (1996) strongly support including *Cercidium* within *Parkinsonia*. The large, catch-all genus *Pithecellobium*, has been separated into a number of smaller genera (Barneby and Grimes 1996) that in part reflects work done in the earlier part of the 20<sup>th</sup> century (Britton and Rose 1928). Barneby (1977) covers *Psoralea*. Table 1 presents many of the name changes affecting legume trees and shrubs in the landscape trade in the Southwest.

In addition to name changes due to reclassification, plants are occasionally misidentified and become established in

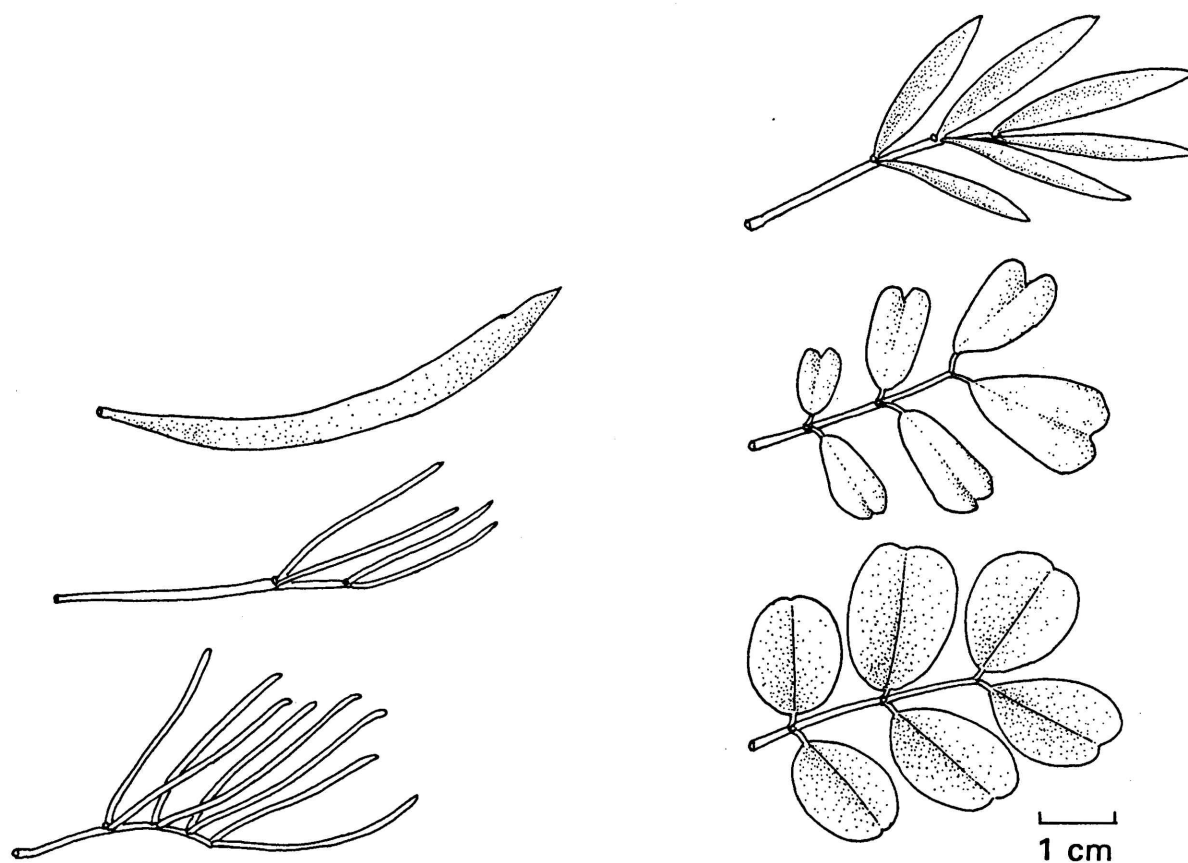
horticulture under an incorrect name. Such is the case with *Acacia visco*. The original plants of this species in Arizona were planted at the Boyce Thompson Southwestern Arboretum in the late 1920's. They had been received as seeds from a botanical garden in southern Europe under the name *Acacia abyssinica*. Several years ago, BTSA curator emeritus Bill Benson questioned whether the Arboretum plants were correctly identified, as they did not fit the description of *Acacia abyssinica*. *Acacia abyssinica* is distributed in areas of southern and eastern Africa. It has leaves, fruits and seeds that are different from those of the Arboretum plants, and the stems are armed with paired spines at the nodes. The features of the Arboretum plants seemed similar to those of plants of *Acacia visco* that were growing in the Desert Legume Program field plots in Tucson. *Acacia visco*, which is unarmed, occurs in Argentina and Bolivia. Comparison of leaves, flowers, fruits and seeds of these plants confirmed that they were the same species - *Acacia visco*, rather than *A. abyssinica*. So, in this case, the plants had been misidentified and this name had remained with the plants in horticulture. *Acacia abyssinica* and *Acacia visco* are distinct species from different continents.

### Literature Cited

- Barneby R.C. 1977. Daleae Imagines, An illustrated Revision of *Errazurizia* Philippi, *Psoralea* Rydberg, *Marina* Liebm., and *Dalea* Lucanus emend. Barneby, including all species of Leguminosae tribe Amorphae Borissova ever referred to *Dalea*. Memoirs of the New York Botanical Garden 27.
- Barneby R.C. and J.W. Grimes. 1996. Silk tree, guanacaste, monkey's earring - a generic system for the syandrous Mimosaceae of the Americas - part I. *Abarema*, *Albizia*, and allies. Memoirs of the New York Botanical Garden 74(part 1).
- Britton N.L. and J.N. Rose. 1928. North American Flora vol. 23, part 1 - (Rosales) Mimosaceae. The New York Botanical Garden, Bronx Park.
- Hawkins J. 1996. Systematics of *Parkinsonia* L. and *Cercidium* Tul. (Leguminosae, Caesalpiniaceae). Ph.D. thesis, University of Oxford.
- Irwin H.S. and R.P. Barneby. 1982. The American Cassiinae - a synoptical revision of Leguminosae Tribe Cassiinae subtribe Cassiinae in the New World. Memoirs of the New York Botanical Garden, 35(parts 1 and 2).
- Randell B.R. 1988. Revision of the Cassiinae in Australia. 1. *Senna* Miller Sect. *Chamaefistula* (Colladon) Irwin and Barneby. Journal of the Adelaide Botanical Garden 11(1):19-49.
- Randell B.R. 1989. Revision of the Cassiinae in Australia. 2. *Senna* Miller Sect. *Psilorrhagmus* (J. Vogel) Irwin and Barneby. Journal of the Adelaide Botanical Garden 12(2): 165-272.
- Randell B.R. 1990. Revision of the Cassiinae in Australia. 3. *Senna* Miller Sect. *Senna*. Journal of the Adelaide Botanical Garden 13:1-16.

**Table 1.** Nomenclature changes involving selected legumes used in Southwest landscaping.

<i>Bauhinia congesta</i>	= <i>Bauhinia lunarioides</i>
<i>Cassia artemisioides</i>	= <i>Senna artemisioides</i> subsp. <i>xartemisioides</i>
<i>Cassia biflora</i>	= <i>Senna pallida</i>
<i>Cassia corymbosa</i>	= <i>Senna corymbosa</i>
<i>Cassia covesii</i>	= <i>Senna covesii</i>
<i>Cassia goldmanii</i>	= <i>Senna polyantha</i>
<i>Cassia hamersleyensis</i>	= <i>Senna artemisioides</i> subsp. <i>hamersleyensis</i>
<i>Cassia helmsii</i>	= <i>Senna artemisioides</i> subsp. <i>helmsii</i>
<i>Cassia nemophila</i>	= <i>Senna artemisioides</i> subsp. <i>filifolia</i>
<i>Cassia nemophila</i> var. <i>zygophylla</i>	= <i>Senna artemisioides</i> subsp. <i>zygophylla</i>
<i>Cassia oligophylla</i>	= <i>Senna artemisioides</i> subsp. <i>oligophylla</i>
<i>Cassia phyllodinea</i>	= <i>Senna artemisioides</i> subsp. <i>petiolaris</i>
<i>Cassia purpusii</i>	= <i>Senna purpusii</i>
<i>Cassia sturtii</i>	= <i>Senna artemisioides</i> subsp. <i>xsturtii</i>
<i>Cassia wislizenii</i>	= <i>Senna wislizenii</i>
<i>Cercidium floridum</i>	= <i>Parkinsonia florida</i>
<i>Cercidium microphyllum</i>	= <i>Parkinsonia microphylla</i>
<i>Cercidium praecox</i>	= <i>Parkinsonia praecox</i>
<i>Dalea spinosa</i>	= <i>Psoralea spinosa</i>
<i>Lysiloma thornberi</i> /L. <i>microphylla</i> var. <i>thornberi</i>	= <i>Lysiloma watsonii</i>
<i>Pithecellobium flexicaule</i>	= <i>Ebenopsis ebano</i>
<i>Pithecellobium mexicanum</i>	= <i>Havardia mexicana</i>
<i>Pithecellobium pallens</i>	= <i>Havardia pallens</i>

**Figure 1.** Leaves of subspecies of *Senna artemisioides* (from top left) subsp. *petiolaris*, subsp. *filifolia*, subsp. *xartemisioides*, (from top right) subsp. *xsturtii*, subsp. *helmsii*, subsp. *oligophylla*. Illustration by Matt Johnson.



**Figure 3.** *Acacia visco* along an arroyo on the north side of the Sierra de Velasco, La Rioja Province, Argentina, November 2000. Cultivated trees of this species in Arizona have been mistakenly identified as *Acacia abyssinica*. (photo by Matt Johnson)