

President's Message:
Jackass Clover, *Wislizenia*
(Cleomaceae) Rare Species
in Kern County and Elsewhere

by Rich Spjut

I HAVE RARELY COLLECTED PLANTS IN THE genus *Wislizenia*, which is interpreted in TJM2 to have only one species, *W. refracta*, divided into three subspecies, all considered herbaceous and rare, 2B.2; however, I report here that *Wislizenia* includes shrubs, not just short-lived perennials as reported in TJM2. The flowers and leaves are similar to those of bladderpod (*Isomeris arborea*), but fruits differ in their two divergent separate carpels, which at a glance collectively appear like a peanut. Plants in Kern County are annuals, < 1.5 m tall, referred to as *W. refracta* ssp. *californica*. This subspecies is known only from the Valley, occurring as far north as Sacramento. It has been rarely collected in Kern County, and apparently not recorded in any of our checklists. The CCH herbarium records have reported it from **Kern Lake Watershed near Greenfield** (Lyman Benson, Oct 1935), **Buena Vista Lake** (H & M Dearing, Oct 1938), **Goose Lake**, 6.8 miles north of Buttonwillow (Twisselmann, Sep 1954), **Panama Road west of Old River Road** (Twisselmann, Nov 1962), **Jerry Slough** at Tracy Ranch (Twisselmann, Oct 1968), **Jct. of I-5 and Stockdale Hwy.** (Errter, Sep 1987), and **Tule Lake** (L. Maynard Moe, Sep 2004). The former BC herbarium, now within the **Buena Vista Museum of Natural History and Science**, has one specimen — bearing a collector's signature I could not decipher (in photo of the specimen) — reportedly collected from the **Kern River Preserve** on *Atriplex* flats east of Enos Lane, which is near the junction of Highways 43 and I-5.

My first encounter with the genus *Wislizenia* was



Wislizenia fruticosa, near type locality, Baja California.

a shrub on sand dunes in a remote area of central **Baja California** along the Gulf Coast in April 1990 and again in 1994. Since Wiggins in his **Flora of Baja California** (1980) considered the genus to be strictly annuals, I thought perhaps I found a new species. Upon further investigation, I discovered that **Edward Greene** had described *W. fruticosa* as a new species from near the locality where I encountered it. His description: "Low, compact, suffrutescent with yellowish and shiny bark on the woody parts of stem..." is evident in the image shown above. Other interesting associated species that I noted were *Bursera microphylla*, *Errazurizia megacarpa*, *Hesperocallis* sp., *Hoffmanseggia densiflora*, *Horsfordia newberryi*, *Peucephyllum schottii*, *Stegnosperma watsonii*, and *Viscainoa geniculata*.

Later, I photographed another plant in California on dunes near the vicinity of **Palen Lake** during a CNPS vegetation workshop in east Riverside County, Feb 5–6, 2011. Calphotos shows plants in flower, all appearing to have erect stems from the base in contrast to basal sprawling stems in my photo from Baja California. Nevertheless, I subsequently referred to my collections of perennial plants as *W. palmeri* A. Gray, but now I revert to my earlier view that the Baja California plant should be recognized as *W. fruticosa*, and is possibly an endangered species from off-road recreational activity observed in April 1994 encroaching on the habitat where it occurs.¹ Greene, in his revision of the genus *Wislizenia* (Proc. Biol. Soc. Wash. Vol. 19: 127-132. 1906), had distinguished them as species, and differentiated *W. palmeri* A Gray from *W. fruticosa* Greene in his key among eight other species as follows:

- Valves pyriform, closely and sharply lineolate and with some elongated reticulation, the summit crowned with a circle of 5 spreading mammiform tubercles. *W. fruticosa*



Wislizenia palmeri, vicinity of Palen Lake north of Desert Center, CA

Photos by Richard Spjut unless otherwise noted.



Inflorescence of *Wislizenia fruticosa* close-up shown in plant on preceding page on lower left.

- Valves long, subturbinate-pyriform, strongly striate, near the summit fenestrate-reticulate, the summit with a circle of long connivent tubercles. *W. palmeri*

Although Greene's revision of *Wislizenia* may be viewed as a splitter, he was also a lumpner in regard to his treatment of bladderpod (*Isomeris arborea*), in the genus *Cleome*, *C. isomeris*. He had to change the epithet because *C. arborea* was already used for species in South America. Although currently recognized in TJM2 as *Peritoma arborea*, the name for bladderpod changed again, to *Cleomella arborea*, along with vars. *globosa*, and *angustata* (Roalson et al. 2015. Phytotaxa 205: 129-144). Of course, I continue to recognize *Isomeris*, which in a very strict sense can be supported in some of the phylogenetic trees that I have seen. 🌱



Wislizenia fruticosa, close-up of fruits enlarged and cropped from the image above on the left.



Wislizenia palmeri, near San Jose de Guaymas, Sonora.

¹ The expedition was mainly collecting lichens for a lichen flora of Baja California. One lichen I found interesting was the subject of separate paper: Spjut, R.W. (1995) Occurrence of *Mobergia calculiformis* (Physciaceae, Lecanorales) in the Northern Vizcaino Desert of Baja California, Mexico. In: Daniëls, F.J.A., M. Schulz, and J. Peine (eds), FlechtenFollmann: Contributions to Lichenology in Honour of Gerhard Follmann, pp. 475-482. Geobotanical and Phytotaxonomical Study Group, Botanical Institute, University of Cologne, Cologne, Germany. This is now regarded as an endangered species by the IUCN, assessment dated July 1, 2020.



Wislizenia palmeri close-up of fruits enlarged and cropped from corresponding image above right.

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