

**Rare Plant Status Review: *Wislizenia refracta* ssp. *palmeri*
Proposed New Add to List 2.2**

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Background

Wislizenia refracta ssp. *palmeri* is an herbaceous perennial/sub-shrub in the Cleomeaceae (formerly included in the Capparaceae). *W. refracta* ssp. *palmeri* has been included as native to California in numerous historical floras, is included in the *Jepson Manual* (1993), *Jepson Desert Manual* (2004), and *Flora of North America* (treated as *W. palmeri*), and will be included in the upcoming 2nd edition of the *Jepson Manual* (Rob Preston, pers. comm. 2010). *W. refracta* ssp. *palmeri* is distinguished from other subspecies of *W. refracta* based on its “woody life form, grey (bark) to tan (seasonal) stems, ascending branches, narrow leaflets, elongate infl, ovate sepals...simple upper leaves typically, sometimes with looser flowering spikes and longer fruit receptacle than other subspecies” (Dave Silverman, pers. comm. 2010).

W. refracta ssp. *palmeri* is known from chenopod scrub, Sonoran desert scrub, Sonoran thorn woodland, and desert dune habitats from 0 to 300 meters in elevation. Dave Silverman (pers. comm. 2010) notes that it is known from, “desert basins, dunes, washes and beaches, of sand field ecotones where upland desert scrubs, typically creosote bush scrub or palo verde, transition to halophytic scrub (*Suaeda-Atriplex*) and/or mesquite. Growing in well-drained soils, often near wash or floodplain outflows, silty-sandy texture, of non-specific parent materials.”

In California, *W. refracta* ssp. *palmeri* is known from approximately 10 occurrences in the Sonora Desert of eastern Riverside, eastern San Diego, and southeastern San Bernardino counties. All but one of these occurrences are known from historical herbarium collections that have not been re-documented from between 20 and 83 years. According to the *Flora of North America*, *W. palmeri* is “essentially a Mexican species” and is known from the states of Baja California, Baja California Sur, and Sonora. It is also known from limited number of collections from Arizona. Suitable habitat within and beyond the known range of *W. refracta* ssp. *palmeri* should be searched for additional occurrences and historical occurrences should be relocated. It should be noted that numerous occurrences lack detailed location information and will need additional field work/information so that they can be mapped accurately by CNDDDB.

Occurrences and potential habitat of *W. refracta* ssp. *palmeri* are threatened by proposed solar energy development projects. In addition, a significant amount of its habitat has been converted to agriculture and may be threatened by future development. The ownership at most occurrences of *W. refracta* ssp. *palmeri* is unknown.

Based on this information CNPS and CNDDDB recommend that *W. refracta* ssp. *palmeri* be added to List 2.2.

Recommended Actions

CNPS: Add to List 2.2

CNDDDB: Add to CNDDDB as G4 / S2?

Please review the draft CNPS Inventory record below, respond Yes or No on the proposal to add this species to the Inventory and CNDDDB, and provide any edits/comments. If responding No, please provide supporting information.

Draft CNPS Inventory Record

Wislizenia refracta ssp Engelm. *palmeri* (A. Gray) S. Keller

Palmer's jackass clover

Cleomaceae

List 2.2

Riverside, San Bernardino, San Diego; Arizona, Baja CA

East of Victory Pass (078D) 3311573, Sidewinder Well (060B) 3311562, Barstow (182A) 3411781?, Thermal Canyon (064A) 3311661?

Chenopod scrub, Sonoran desert scrub, Sonoran thorn woodland, desert dunes; elevation 0-300 meters.

Blooms Jan-Dec.

Threatened by agriculture and solar energy development.