

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

Element Code: PDAST8V010

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Stevia lemmonii* Gray

COMMON NAME: Lemmon's stevia, Lemmon's candyleaf

SYNONYMS: *Stevia lemmoni*

FAMILY: Asteraceae

AUTHOR, PLACE OF PUBLICATION: A. Gray, Proc. Amer. Acad. Arts Sci. 17: 204. 1882.

TYPE LOCALITY: United States of America: Arizona: Near Santa Catalina.

TYPE SPECIMEN: HT: GH-12736. J.G. Lemmon 189, 1881.

TAXONOMIC UNIQUENESS: The species *lemmonii* is 1 of 67 species in the genus *Stevia* (1 of 8 species in North America per USDA, NRCS 2004) and falls under the series Corymbosea, which contains approximately 54 of the 67 species of *Stevia*. Corymbosea contains two subseries; *S. lemmonii* falls into the subseries Fruticosae. According to Lehr (1978), there are 5 species of *Stevia* that occur in Arizona. The species *Stevia lemmonii* is comprised of two varieties, with var. *hispidula* endemic to Mexico (Grashoff 1974 in NatureServe 2004; Martin et al. 1998).

DESCRIPTION: Low erect or curved-ascending perennial shrub (mound-shaped), 3-6 dm (12-24 in) high (Epple 1995 reports up to 3 ft high), with many leafy, virgate branches; stems brownish. Grayish green, hairy, rough leaves, are linear-elliptic or lanceolate, opposite, entire, usually firm, subsessile by a cuneate base or (especially the lower) shortly petioled. Leaves are 4-6(-13) cm long [1.6-2.4 in] and 1-1.5(-3.8) cm wide, much less than half (rarely over 1/6) as wide as long, 3-nerved but not strongly veined; lanate at least along the midrib beneath. Inflorescence terminal on stem and branches, and of dense rather large corymbously disposed glomerules. The heads are subsessile, 9-12(14) mm long, in dense, fastigiate cymose panicles. Flowers are white, tubular, 5-lobed, with long stamens, 3 mm wide and 13 mm long; in clusters to 5 cm wide. The phyllaries are covered by a dense spreading grayish hispid puberulence, pale green. Pappus a very short, toothed crown of completely connate scales, about 0.4 mm deep; achenes alike. (Robinson 1930; Kearney and Peebles et al. 1951; Epple 1995).

AIDS TO IDENTIFICATION: *Stevia lemmonii* can be distinguished from *S. plummerae* and *S. serrata* by its leaves. The leaves of *S. plummerae* and *S. serrata* are serrate, linear to

lance-oblong, as opposed to entire and linear-elliptic or lanceolate. Their pappus is also not a toothed crown, but rather of squamellae (Kearney et al. 1960). *Stevia lemmonii* var. *lemmonii* has glands on the involucre bracts, rather than harsh hairs as in *S. l.* var. *hispidula* (Martin et al. 1998). Also, *S. lemmonii* can be distinguished by its white flowers, whereas *S. serrata* has purplish flowers

ILLUSTRATIONS:

Color photo of flower head (L.E. Epple in A.O. Epple 1995: Pl. 236)

Color photos: <http://swbiodiversity.org/seinet/taxa/index.php?taxon=2180&clid=2537>.

TOTAL RANGE: Southern Arizona and northern Mexico (mountains of Durango northward, in the states of Sonora, Durango, Chihuahua).

RANGE WITHIN ARIZONA: From the Santa Catalina, Rincon, Quinlan, Santa Rita, Baboquivari, Atascosa, Huachuca, and Patagonia Mountains in Pima, Santa Cruz and Cochise Counties.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial shrub/subshrub.

PHENOLOGY: Flowers from March-June; blooms from February to May per Epple (1995). Flowers (Feb-)Apr-May(-Sep) according to FNA.

BIOLOGY:

HABITAT: Rocky, canyon slopes, roadcuts, ravines, and streambeds in oak and pine-oak forests/woodlands.

ELEVATION: In Arizona, ranges from 3,000 to 4,580 feet (915-1397 m). Throughout its whole range, found from 2,950-5,575 feet (900-1700 m).

EXPOSURE: North facing.

SUBSTRATE: Sand or rocks.

PLANT COMMUNITY: Oak and pine-oak forests/woodland; upper Sonoran foothills. Associated plant species may include: *Dasyllirion* sp. (spoonflower), *Platanus* sp. (sycamore), *Populus* sp. (cottonwood), *Quercus emoryi* (Emory's oak), and *Vauquelinia* sp.

POPULATION TRENDS: Unknown. There are eight known occurrences in Arizona, but virtually no information about population numbers. Some of these have been collected over

many decades suggesting a probably stable trend. *S. lemmonii* was recently (2019) ranked as imperiled by HDMS/

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: None
OTHER STATUS: Forest Service Sensitive (USDA, FS Region 3 2013)
[Forest Service Sensitive (USDA, FS Region 3 1999)]

MANAGEMENT FACTORS: Not specified.

PROTECTIVE MEASURES TAKEN: The species has been listed as Sensitive by the Forest Service, which means it should be at least considered in Forest Management Plans. Populations found within Saguaro National Park probably benefit from the additional protections afforded by the USNPS.

SUGGESTED PROJECTS: Any studies that better define the life history or any threats to *Stevia lemmonii* would be beneficial.

LAND MANAGEMENT/OWNERSHIP: BIA - Tohono O'odham Nation; NPS - Saguaro National Park; USFS - Coronado National Forest.

SOURCES OF FURTHER INFORMATION

REFERENCES:

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

In its North American occurrences, *Stevia* extends chiefly in uplands, being specially diversified and developing strong endemism in Mexico.

Stevia is named for the Spanish botanist Pedro Jaime Esteve (d. 1566), while *lemmonii* is named for Gil and Sara Lemmon, botanists collecting in the southwestern US, the people for whom Mt. Lemmon in the Catalina Mountains north of Tucson was named.

This plant has a wonderful aroma and flavor. This is the same genus from which the natural sweetener, stevia, is derived.

Revised: 2000-02-10 (JCP)
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