

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDBRA2G110

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Streptanthus lemmonii*
COMMON NAME: Lemmon's Jewelflower
SYNONYMS: *Caulanthus lemmonii* S. Wats.
FAMILY: Brassicaceae (Cruciferae)

AUTHOR, PLACE OF PUBLICATION: S. Watson, Proc. Amer. Acad. 25: 195. 1890.

TYPE LOCALITY: Santa Catalina Mountains, 5000 feet, Pima County, Arizona.

TYPE SPECIMEN: HT: GH s.n. J.G. Lemmon, April 1880.

TAXONOMIC UNIQUENESS: *S. lemmonii* is 1 of 34 species in the genus *Streptanthus*.

Fletcher (1979) believes the correct generic placement should be in the genus *Caulanthus*. He also recommends that "... the type specimen should be re-examined and compared with similar taxa such as *C. cooperi*."

According to NatureServe (2003), *Streptanthus lemmonii* S. Wats., an Arizona endemic, is not the same as the later-named *Streptanthus lemmonii* (S. Wats.) Jepson, listed by Kartesz (1994) as a synonym of *Caulanthus lemmonii*, which Kartesz (1999) treats as *Guillenia lemmoni*. The *Guillenia* (or *Caulanthus*) is endemic to California, west of the Sierra Nevada, whereas this element (a *Streptanthus* under current treatments) is endemic to the Santa Catalina Mountains, in Arizona. Sereno Watson named both *Caulanthus lemmonii* (1888), the California plant, and *Streptanthus lemmonii* (1890), the Arizona plant. Jepson later transferred the Californian species from *Caulanthus* to *Streptanthus*, using the "lemmoni" [*lemmonii*] epithet, thus using a name already applied to another species. The Arizona plant, meanwhile, was recognized by Kearney et al. (1951) with the original spelling of the epithet "lemmoni", the spelling was later corrected to "lemmonii" in order to conform to current nomenclatural rules. Kartesz (1999) now accepts both of these species, with the appropriate distribution data.

DESCRIPTION: A slender glabrous annual. Upper leaves are lanceolate and auricled (with an earlike appendage on either side at the base of the leaf), while the lower leaves are unknown, apparently withering early. Rameal bracts (bracts on the upper branches) are ovate to orbicular, cordate (heart-shaped), clasping with short lobes. Flowers are small, not more than 8 mm long, and only slightly urn-shaped in comparison with other *Streptanthus* species. The sepals are acuminate with recurved tips, while the petals are narrow and apparently white. The filaments are distinct. Seedpods are narrow, about 1 mm wide, 5-7.5 cm long, and on short pedicels.

AIDS TO IDENTIFICATION: When compared to *Streptanthus carinatus* ssp. *arizonicus* (Arizona twistflower or jewelflower), *S. lemmonii* is a more slender and branching plant, with bracts beneath the flower-stalks, along with seedpods that are pendent (Rickett 1970). The flowers are small, not more than 8 mm long, and only slightly urn-shaped in comparison with other *Streptanthus* species.

ILLUSTRATIONS:

TOTAL RANGE: Only known from the type specimen, Santa Catalina Mountains, Pima County, Arizona.

RANGE WITHIN ARIZONA: See "Total Range."

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous annual.

PHENOLOGY: Probably similar to the *Streptanthus carinatus* ssp. *arizonicus* which blooms from January to April.

BIOLOGY: Unknown

HABITAT: In the Santa Catalina Mountains, this plant is probably found on rocky thin soils, in a plant community dominated by Madrean evergreen woodlands.

ELEVATION: Type specimen collected at 5,000 feet (1525 m).

EXPOSURE: Unknown

SUBSTRATE: Probably similar to *S. carinatus* ssp. *arizonicus*, which is found on rocky substrates.

PLANT COMMUNITY: The Santa Catalina Mountains consist primarily of the Madrean Evergreen Woodland community, with the Semidesert grassland community on the lower slopes extending up into the Madrean evergreen woodlands. This mild winter-wet summer woodland is characterized in the Santa Catalina's by Emory Oak (*Quercus emoryi*) and Arizona White Oak (*Q. arizonica*). Besides the presence of pine and juniper species, Arizona Cypress (*Cupressus arizonica*) may be found on north-facing canyon slopes and drainages. Many of the cacti and leaf succulents of the semidesert grassland extend well up into the Madrean evergreen woodland. These include the Rainbow Cactus (*Echinocereus pectinatus* var. *rigidissimus*), Barrel Cactus (*Ferocactus wislizenii*), Cane Cholla (*Opuntia spinosior*), Engelmann Prickly Pear (*O. phaeacantha*), Purple Prickly Pear (*O. violacea* var. *santarita*), Schott Yucca (*Yucca schottii*), Thornber Yucca (*Y. baccata* var. *thornberi*), Palmer Agave (*Agave palmeri*), Parry Agave (*A. parryi*), and Sacahuista (*Nolina microcarpa*). The presence of scrubland species

varies from that of an occasional plant within the woodland to the attainment of landscape dominance. (Brown 1982).

POPULATION TRENDS: Unknown

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1996)
[C2 USDI, FWS 1993]
[C2 USDI, FWS 1990]
[C2 USDI, FWS 1985]

STATE STATUS: None

OTHER STATUS: Not Forest Service Sensitive (USDA, FS
Region 3, 1999)
Forest Service Sensitive [USDA, FS Region
3, 1990]

MANAGEMENT FACTORS: Unknown

PROTECTIVE MEASURES: Unknown

SUGGESTED PROJECTS: Surveys to determine population status, range and habitat requirements should be performed.

LAND MANAGEMENT/OWNERSHIP: Probably collected on the Coronado National Forest.

SOURCES OF FURTHER INFORMATION

REFERENCES:

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ADDITIONAL INFORMATION:

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