

ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDFAB1D0L0

Data Sensitivity: No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Desmodium gramineum*  
**COMMON NAME:** Grass-Leaf Tick-Trefoil, tick clover, narrowleaf ticktrefoil  
**SYNONYMS:** *Desmodium angustifolium*, *Desmodium angustifolium* var. *gramineum*, *Meibomia graminea*, *Meibomia angustifolia*, *Desmodium canum* var. *angustifolium*  
**FAMILY:** Fabaceae

**AUTHOR, PLACE OF PUBLICATION:** Gray, Asa. Smithsonian Contributions to Knowledge 5(6): 46. 1853.

**TYPE LOCALITY:** N. Mex. [on the Sonoita near Deserted Rancho]

**TYPE SPECIMEN:** Gray Herbarium (GH) #00053732. C. Wright (#1009). Sept. 17, 1851.

**TAXONOMIC UNIQUENESS:** NatureServe (2019) lists 49 species of *Desmodium* in the United States and Canada, with an additional eight varieties. Thirteen species and one variety are found in Arizona, and five of these species and the variety are found only in the State. *Desmodium gramineum* is one of the species found only in Arizona (and northern Mexico). Although NatureServe does list the species as occurring in New Mexico, no botanical records could be found in SEINet.

**DESCRIPTION:** General: Annual with stems erect to prostrate, flowering stems woody below, sparsely branched. Leaves: All unifoliate (single-leaved), leaves very long and narrow, not more than 5 mm wide, bright green with reticulate veins, minutely hairy on both surfaces. Flowers: In terminal or axillary racemes, simple or compound, corolla purple, 2-3 mm long, inconspicuous, on lax racemes, with slender pedicels 10-15 mm long. Fruits: Flat loments sessile, with several single seeded segments, segments of the fruit not contorted, indehiscent, 5-7 jointed (SEINet).

**AIDS TO IDENTIFICATION:** This species is unique from the other *Desmodium* with its long, grass-like, solitary leaves. The only other species in our region that is unifoliate is *D. psilophyllum*. The flowering stems of *D. gramineum* are more or less woody below, and the leaves are longer and not more than 5 mm wide; *D. psilophyllum* stems are not woody, and 12 – 28 mm wide (Kearney and Peebles 1960).

**ILLUSTRATIONS:**

Photos and Herbarium Mounts: <http://swbiodiversity.org/seinet/taxa/index.php?taxon=2883#>.

**TOTAL RANGE:** *Desmodium gramineum* has been found in southeast Arizona, and south down the Sierra Madres to around Navojoa, Sonora, Mexico. Kearney and Peebles (1960) also report that the species extends to northern South America.

**RANGE WITHIN ARIZONA:** The species occurs in the Santa Catalina and Rincon Mountains around Tucson, as well as the Babquivari, Santa Rita, Atascosa, Patagonia, Huachuca, and Mule Mountains, in Pima, Santa Cruz, and Cochise Counties.

**SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Perennial subshrub / vine.

**PHENOLOGY:** Flowering: August-September.

**BIOLOGY:**

**HABITAT:** Found on dry, rocky slopes among live-oaks and grasses.

**ELEVATION:** 3,500-5,000 feet (1067-1524 m).

**EXPOSURE:** Not specified.

**SUBSTRATE:** Not specified.

**PLANT COMMUNITY:** Pine and/or oak woodlands and associated grasslands. Associated species include: *Quercus emoryi*, *Quercus arizonica*, *Pinus discolor*, *Juniperus deppeana*, *Arctostaphylos pungens*, *Bouteloua curtipendula*, *Bothriochloa barbinodis*, *Elionurus barbiculmis*, *Dasyilirion wheeleri*, *Penstemon barbatus*, *Castilleja tenuiflora*, *Carphochaete bigelovii*, *Q. grisea*, *Pinus cembroides*, *Nolina microcarpa*, *Rhus virens*, *Agave palmeri*, *Muhlenbergia emerseleyi*, *Schizachyrium cirratum*, *Trachypogon secundus*, *Heteropogon contortus*, *Bouteloua radicos*, *Eragrostis intermedia*.

**POPULATION HISTORY AND TRENDS:** Unknown. In Arizona, there are only 12 known occurrences, and most of these (75%) are historic. Although the species is fairly widely distributed in central-south Arizona, which appears to be the northern extent of the range for *D. gramineum*, it seems to be uncommon. There is inadequate information available to determine population status or trend.

**SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None.  
**STATE STATUS:** None.  
**OTHER STATUS:** None.

**MANAGEMENT FACTORS:** None specified.

**PROTECTIVE MEASURES TAKEN:** None.

**SUGGESTED PROJECTS:** Given that the majority of known occurrences are historic, efforts should be made to return to known collection sites to ascertain whether the species is still extant.

**LAND MANAGEMENT/OWNERSHIP:** Dept of Agriculture US Forest Service (Coronado National Forest), Dept of Interior US National Park Service (Saguaro National Park), Bureau of Indian Affairs (Tohono O'Odham Reservation), and Dept of Defense (Fort Huachuca Military Reservation) and private land holdings.

**SOURCES OF FURTHER INFORMATION****REFERENCES:**

JStor: Global Plants. Accessed June 28, 2019.

<https://plants.jstor.org/search?plantName=%22Desmodium+gramineum%22&syn=1>.

Kearney, Thomas H. and Robert H. Peebles. 1960. 2<sup>nd</sup> edition with Supplement. Arizona Flora. University of California Press, Berkeley. 1085 pp.

NatureServe. 2019. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://explorer.natureserve.org>. (Accessed: June 28, 2019 ).

SEINet, accessed June 28, 2019.

<http://swbiodiversity.org/seinet/taxa/index.php?taxon=2883#>.

Tropicos.org. Missouri Botanical Garden. Accessed June 28, 2019.

<http://www.tropicos.org/Name/13017658>.

**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

**ADDITIONAL INFORMATION:** *Desmodium* is from the Greek desmos for chain, which is a reference to the jointed seed pods, while *gramineum* means grass like. There is no specific use recorded for this species, however the genus was used as an infusion to treat vomiting and colds and as a wash for sores (SEINet).

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