

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

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CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Desmanthus covillei* (Britt. & Rose) Wiggins ex B.L. Turner

COMMON NAME: Coville Bundleflower, Coville's Bundleflower

SYNONYMS: *Acuan covillei* Britton & Rose, *A. palmeri* Britton & Rose, *Desmanthus covillei* (Britton & Rose) B. Turner var. *arizonicus* B. Turner, *D. palmeri* (Britton & Rose) B. Turner

FAMILY: Fabaceae

AUTHOR, PLACE OF PUBLICATION: *Desmanthus covillei* (Britton & Rose) Wiggins ex B. Turner, Field & Laboratory 18: 128. 1950. *Acuan covillei* Britton & Rose, North American Flora 23(2): 135. 1928.

TYPE LOCALITY: Guaymas, Sonora, Mexico.

TYPE SPECIMEN: HT: NY-1752. F.V. Coville 1670, 11 February 1903. IT: US-398093.

TAXONOMIC UNIQUENESS: *Desmanthus covillei* is 1 of 11 species in the genus *Desmanthus* in the United States, 1 of 5 in Arizona, and 1 of 24 worldwide (New World, USA to Argentina).

DESCRIPTION: Rare suffrutescent perennial shrub, 0.5-1.8 m (1.6-6.0 ft) tall, slender, openly branched, with (1)2-3 pairs of pinnae, long pods and relatively large seeds. Flowers yellow to yellowish white; stamens and staminodia of lower flowers are 6-8 mm long, and pods are numerous, 7-12 cm (2.8-4.7 in) long; occasionally single pod is 3-4 cm (1.2-1.6 in) long. (Isely, 1970).

For the genus: "Perennial herbs, unarmed; stipules setaceous; leaves bipinnate; flowers whitish, numerous, borne in axillary, long-pedunculate heads; calyx united, campanulate, 5-toothed; petals 5, distinct or connate only near the base; stamens 5, long-exserted; fruit obliquely oblong, glabrous, borne in compact subglobose clusters; seeds few." (Welsh et al., 1993).

AIDS TO IDENTIFICATION: Slender, openly branched shrub similar to *D. palmeri* in all respects except that stamens and staminodia of lower flowers are only 6-8 mm long, and pods are more numerous and 7-12 cm long. Occasionally a single pod in a head may be no more than 3-4 cm long. (Shreve and Wiggins, 1964).

ILLUSTRATIONS: Color photo of Holotype (Coville, NY-1752, in <http://207.156.243.8/emu/vh/specimen.php?irn=514004>)
Color photo of Isotype (Coville, US-398093, in <http://ravenel.si.edu/botany/types//fullRecords.cfm?myFamily=>)

TOTAL RANGE: Southern Arizona, and Mexico from central Sonora south into Sinaloa, and at the northern end of Baja California.

RANGE WITHIN ARIZONA: Baboquivari and Tucson Mountains, Pima County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial shrub/subshrub.

PHENOLOGY: Flowers August – October.

BIOLOGY:

HABITAT: Lower Sonoran Zone on canyon slopes, hillsides among boulders, thornscrub, and disturbed areas. In Mexico, collected in canyon bottom, in sandy soil among rocks at margin of watercourse.

ELEVATION: 2,760 – 3,900 ft (842-1190 m). In Mexico, collected at 33 – 721 ft (10-220 m).

EXPOSURE:

SUBSTRATE: Rocky, sandy soil.

PLANT COMMUNITY: Collected in Tucson mountains in Palo Verde-Saguaro Desertscrub.

POPULATION HISTORY AND TRENDS: Local and rare in Arizona; not common in Mexico.

SPECIES PROTECTION AND CONSERVATION

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

MANAGEMENT FACTORS:**PROTECTIVE MEASURES TAKEN:**

SUGGESTED PROJECTS: Surveys to determine the status, range, and habitat requirements need to be performed.

LAND MANAGEMENT/OWNERSHIP: Tucson Mountain Park. Possibly BIA – Tohono O’odham Reservation, FWS National Wildlife Refuge, State Land Department, Private.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

<http://www.hear.org/gcw/html/autogend/species/6423.htm>. The Global Compendium of Weeds: *Desmanthus covillei* (Britt. & Rose) Wiggins ex B.L. Turner. Accessed: 2/2/2005.

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

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