

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDAPI1X010

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Pteryxia davidsonii* (J.M. Coult. & Rose) Mathias & Constance
COMMON NAME: Davidson's wavewing, Davidson's cliff carrot
SYNONYMS: *Aletes davidsonii* Coult. & Rose, *Pseudocymopterus davidsoni* Mathias
FAMILY: Apiaceae

AUTHOR, PLACE OF PUBLICATION: *Pteryxia davidsonii* (J.M. Coult. & Rose) Mathias & Constance. Bull. Torrey Bot. Club 69(3): 248. 1942. *Aletes davidsonii* J.M. Coult. & Rose. Contr. U.S. Nat. Herb. 7: 107-108. 1900. *Pseudocymopterus davidsoni* Mathias. Ann. Missouri Bot. Gard. 17: 213-477. 1930.

TYPE LOCALITY: Near Coronado Mine, Clifton, Arizona, among rocks in moist creek.

TYPE SPECIMEN: HT: US-594207. A. Davidson 161a, 7 June 1900. IT: GH, MO, NY.

TAXONOMIC UNIQUENESS: Species *davidsonii* is 1 of 4 in the genus *Pteryxia*, and the only species of this genus found in the state. *P. davidsonii* may be congeneric with *Cymopterus lemmonii*.

DESCRIPTION: Herbaceous perennial 15-40 cm (6-16 in) tall, faintly scabrous-hairy stems branching above; stem leaves several. Leaves oblong to somewhat oblong-oval in outline, but tripinnate (subdivided three times). The ultimate blade divisions are linear, acute-mucronate at tips, 1-30 mm long and 1-3 mm wide. The overall leaf size is 1.5-14 cm long and 1-9 cm wide; leaves are both basal and on the stems. Petioles 1-7 cm long. Each stem is terminated by a compound umbel with 5-9 primary branches (rays). The rays are 5-30 mm long, primary bracts either absent or broad and partially enclosing the primary branches; secondary bracts filamentous and subtending the terminal flower clusters. Flowers are yellow or purple; pedicels 1-5 mm long. The oblong fruits are small, 3-4 mm long and 1-2 mm wide, with narrow lateral wings. When young, fruits are puberulent (fuzzy), but become glabrous (smooth) when mature.

AIDS TO IDENTIFICATION: The differences between this species and *Cymopterus lemmonii* are slight. In general, *C. lemmonii* has fewer stem leaves and somewhat larger fruits with broader wings.

ILLUSTRATIONS: Line drawing (Vic Stein, in

<http://nmrareplants.unm.edu/drawings/ptedav.htm>)

Color photo of Isotype (MO, collected by A. Davidson, in
http://mobot.mobot.org/cgi-bin/search_vast?name=01700991)

Color photo of Holotype (US-594207, collected by A. Davidson, in
<http://ravenel.si.edu/botany/types//fullRecords.cfm?myFamily=>)

TOTAL RANGE: Southeastern Arizona and western New Mexico.

RANGE WITHIN ARIZONA: Southeastern Arizona, near Clifton in Greenlee County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial forb/herb.

PHENOLOGY: Blooms in August.

BIOLOGY:

HABITAT: Occurs on sheer cliffs (north facing) and in rocky, damp, drainages and mountainsides, in piñon-juniper woodland and lower Montane coniferous forest.

ELEVATION: 6,500 - 8,000 ft. (1,983-2,440 m).

EXPOSURE: North facing.

SUBSTRATE:

PLANT COMMUNITY: Associated species include: *Brickellia californica* (California Brickell-bush), *Cercocarpus montanus* (Colorado Birch-leaved Mountain-mahogany), *Opuntia spinosior* (Cane prickly-pear), *Penstemon pinifolius* (Arizona beardtongue), *Perityle coronopifolia* (Arizona rockdaisy), Pinyon pine sp., *Poa fendleriana* (Muttongrass), *Quercus hypoleucoides* (Silver-leaf oak), *Quercus reticulata* (=rugose, Net-leaf oak), and *Yucca baccata* (Fleshy-fruit Yucca).

POPULATION HISTORY AND TRENDS: According to NatureServe (2004), this species is estimated to be stable for want of any data to the contrary. It is found in a relatively small geographical area, and has been reported or collected infrequently since it was first found in 1900.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS: None
OTHER STATUS: None

MANAGEMENT FACTORS: This species generally inhabits rather inaccessible cliff habitat that is unlikely to be threatened by typical land uses. However, this species also grows in moist areas and thus any land use practice that results in drying out wet areas within its range may be a threat. The documented decline in wetlands within its range may have contributed to its infrequent collection. (NatureServe 2004).

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: The distribution, abundance, and habitat requirements for this species are poorly known and need additional study.

LAND MANAGEMENT/OWNERSHIP:

SOURCES OF FURTHER INFORMATION

REFERENCES:

BONAP. Available:

http://www.csd.tamu.edu/FLORA/cgi/b98_map?genus=Pteryxia&species=davidsonii.

Coulter, J.M. & J.N. Rose. 1900. Monograph of the North American Umbelliferae. Contr. U.S. Nat. Herb. 7: 1-256.

Harvard University Herbaria (HUH). 2001. Index of Botanical Specimens. Accessed: 12/6/2004, from <http://brimsa.huh.harvard.edu/cms-wb/specimens>.

<http://nmrareplants.unm.edu/maps/ptedav.htm>.

Integrated Taxonomic Information System (ITIS). Retrieved 2/4/2004 from ITIS, <http://www.itis.usda.gov>.

Kearney, T.H., R.H. Peebles with collaborators. 1951. Arizona flora. Second edition with supplement by J.T. Howell, E. McClintock and collaborators. 1960. University of California Press. Berkeley, California. p. 619.

Mathias, M.E. 1930. Studies in Umbelliferae. III. A Monograph of Cymopterus including a critical study of related general. Ann. Missouri Bot. Gard. 17: 213-477.

Mathias, M.E. & L. Constance. 1942. New Combinations and New Names in Umbelliferae—II. Bull. Torrey Bot. Club. Pp. 244-248.

Missouri Botanical Garden – TROPICOS, Nomenclatural Data Base. *Pteryxia davidsonii* Mathias & Constance. http://mobot.mobot.org/cgi-bin/search_vast. Accessed: 6 Dec 2004.

NatureServe. 2004. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.1. NatureServe, Arlington, Virginia. Available: <http://www.natureserve.org/explorer>. (Accessed: August 19, 2004, and October 14, 2004).

- Rickett, H.W. 1970. Wild Flowers of the United States. McGraw-Hill Book Company. New York, New York. Pp. 282.
- Sivinski, R. 1999. Web abstract *Pteryxia davidsonii* (Davidson's cliff carrot). Accessed 12/6/2004 from <http://nmrareplants.unm.edu/reports/ptedav.htm>.
- The New York Botanical Garden. NYBG Specimens Detailed Results. http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail_list. Accessed: 12/6/2004.
- U.S. National Herbarium Type Specimen Register (US). Accessed: 12/6/2004 from <http://rathbun.si.edu/botany/types/fullRecords.cfm?myFamily=>
- USDA, NRCS. 2004. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

MAJOR KNOWLEDGEABLE INDIVIDUALS:**ADDITIONAL INFORMATION:**

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