

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDPGL021U0

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Polygala intermontana*
COMMON NAME: Intermountain Milkwort
SYNONYMS: *Polygala acanthoclada* var. *intricata*
FAMILY: Polygalaceae

AUTHOR, PLACE OF PUBLICATION: Wendt, Thomas Leighton. Jour. of Arnold Arboretum 60(4): 505-514. 1979.

TYPE LOCALITY: Utah: San Juan Co.: Willow Creek, Barton's Range.

TYPE SPECIMEN: California Academy of Sciences: CAS 1001. A. Eastwood (10). July 14, 1895.

TAXONOMIC UNIQUENESS: *Polygala* is a large genus with some 500 species of herbs, shrubs and trees worldwide in temperate and tropical regions. NatureServe lists 55 species in the United States with an additional 23 varieties. Arizona has 13 species and one other variety.

DESCRIPTION: Subshrub, shrub, stiff-branched, \pm open, < 10 dm, occasionally mat-like. Stem: twig hairs dense, white, appressed to irregularly ascending. Leaf: 3–25 mm, linear to obovate, hairs incurved or appressed. Inflorescence: thorn-tipped; flowers 1–7; pedicel 2.5–9 mm, glabrous. Flower: 2.5–5.2 mm; outer sepals glabrous or ciliate, occasionally sparsely hairy near tip, wings cream or \pm green; keel petal beak 0 or minute. Fruit: 3.5–5.8 mm including stalk. Seed: 2.8–4.2 mm, including hairs; sparsely pubescent to glabrous; aril glabrous. (Jepson eFlora 2015).

AIDS TO IDENTIFICATION: It is a small shrub growing erect or forming tangled, mats of thorny, highly branched stems. The stems are hairy in texture with white fibers. The sparse leaves are linear to oval in shape. The inflorescence bears one to seven flowers, each just a few millimeters in length. The flower has a winglike pair of greenish or whitish sepals and a keeled central petal that lacks the beaked tip of other *Polygala* species (EOL 2015).

ILLUSTRATIONS:

Photo and Herbarium Mounts:

http://swbiodiversity.org/seinet/taxa/index.php?taxon=Polygala_intermontana.

TOTAL RANGE: East-central California (along Nevada border), across central Nevada into Utah, north-western and south-eastern Utah, northern Arizona.

RANGE WITHIN ARIZONA: Northern and north-eastern Arizona. There are three widely spaced collections: near Fredonia (Coconino County), near Winslow and just south of the Utah border in Monument Valley (north of Kayenta) in Navajo County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Stiff-branched shrub or sub-shrub, perennial, occasionally mat-like.

PHENOLOGY: Flowers: May to August.

BIOLOGY:

HABITAT: Not specified, but the literature references desert scrub and pinyon-juniper woodlands, and one Arizona collection noted “gullied, white clay hills.”

ELEVATION: Jepson eFlora: 8500 – 10100 feet (2600-3080 m) for two plants collected east of the Sierra Nevadas very near the Nevada border. The three dispersed collections in Arizona range from 4750 – 5250 feet (1450-1600m).

EXPOSURE: Not specified.

SUBSTRATE: Not specified, but one Arizona collection noted “gullied, white clay hills.”

PLANT COMMUNITY: Desert scrub and Pinyon-Juniper woodland.

POPULATION HISTORY AND TRENDS: Unknown for Arizona. All three Arizona collections were made in the 1940s. NatureServe considers the species critically imperiled.

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 the widely dispersed collections (see Range within Arizona) it seems reasonable that the species occurs elsewhere in northern Arizona. Surveys for this species would be useful.

LAND MANAGEMENT/OWNERSHIP: BLM Arizona Strip, BIA Navajo Nation, and private/Arizona State Land.

SOURCES OF FURTHER INFORMATION

REFERENCES:

- EOL (Encyclopedia of Life), accessed 1/9/2015, <http://eol.org/pages/581730/details>.
Jepson eFlora, accessed 1/08/2015, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=39065.
NatureServe, Online Encyclopedia of Life, accessed 1/07/2015,
<http://explorer.natureserve.org/servlet/NatureServe?searchSciOrCommonName=Polygala&x=8&y=6>.
Tropicos, accessed 1/08/2015, <http://www.tropicos.org/Name/25900429>.
Wendt, Tom. 1979. Notes on the genus *Polygala* in United States and Mexico. Jour, Arnold Arboretum 60(4): 504-514.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

Tom Wendt, University of Texas Herbarium, Austin Texas.

ADDITIONAL INFORMATION: Cronquist and N.H. Holmgren in Cronquist et al. (1997) consider this taxon (as a variety) and *P. acanthoclada* to be well marked geographic varieties, whereas Welsh et al. (1993) consider this taxon (as a variety) weakly separable from *P. acanthoclada* (EOL 2015).

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