

## DESERET MILKVETCH

*Astragalus desereticus* Barneby

Plant Symbol = ASDE2

Contributed by: USDA NRCS Idaho and Utah Plant Materials Program



Deseret milkvetch (*Astragalus desereticus*). Photo from Center for Plant Conservation (2010)

### Uses

There are no known human uses of Deseret milkvetch. This species appears to be non toxic to cattle, and though not considered primary forage, it may be inadvertently grazed along with other food sources (USDI-FWS, 1999).

### Status

Deseret milkvetch was considered extinct for decades until its rediscovery in 1981. It is known from a single population in Utah County, Utah. Deseret milkvetch was listed in 1999 by the Fish and Wildlife Service as threatened (USDI-FWS, 1999). In 2007, the Fish and Wildlife Service gave advanced notice of intention to remove Deseret milkvetch from the list of endangered and threatened plants in the near future (USDI-FWS, 2007). It was determined that previous threats were not as significant as once believed, and that the species is not likely to become in danger of extinction throughout all or a significant portion of its range in the foreseeable future. Surveys conducted in 2006 indicated that the known population had increased by 31 percent since the time of listing (USDI-FWS, 2007).

Consult the PLANTS Web site and your State Department of Natural Resources for this plant's

current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

### Description

**General:** Legume family (Fabaceae). Deseret milkvetch is a short-lived perennial forb rising from a subterranean caudex. The leaves are 4 to 12 cm (1.6 to 4.7 in) long with 11 to 17 leaflets, each being 2 to 14 mm (0.08 to 0.6 in) long and 1.5 to 8 mm (0.06 to 0.3 in) wide. The leaves and stems are hairy. The inflorescence is a 5 to 10 flowered raceme. The flowers are whitish with pale purple wings and a purple-tipped keel. The fruit is a densely hairy, curved, oval pod, 10 to 20 mm (0.4 to 0.8 in) long and 5 to 10 mm (0.2 to 0.4 in) thick (Welsh et al., 2003).

### Distribution:

Deseret milkvetch is known from a single location in Utah County, Utah in the Thistle Creek watershed east of Birdseye, Utah. The total occupied area covers approximately 345 acres (USDI-FWS, 2007).

For current distribution, consult the Plant Profile page for this species on the PLANTS Web site.

### Habitat:

Desert milkvetch is restricted to steep, sandy, west and south facing slopes of the Moroni Formation at elevations from 1,645 to 1,700 m (5,400 to 5,600 ft). The associated vegetation is an open pinyon-juniper community with sagebrush (*Artemisia tridentata*), bitterbrush (*Purshia tridentata*), Indian ricegrass (*Achnatherum hymenoides*) and needle-and-thread (*Stipa comata*).

### Adaptation

This species is endemic to sandy-gravelly soils weathered from conglomerate outcrops of the Moroni Formation (USDI-FWS, 2007). The mean annual precipitation for the population is 30 to 35 cm (12 to 14 in) (Western Regional Climate Center, 2010).

### Management

This species was listed as threatened due to its restricted population size and several potential threats to its habitat. Those threats included rural development, cattle grazing and impacts to pollinator habitat. Since listing, the population has grown considerably and the threats do not appear as significant as earlier believed. Approximately 67 percent of the species' range is managed by the Utah

Department of Wildlife Resources as part of the Northwest Manti Wildlife Management Area. UTDWR management provides protection against anticipated threats, thus mitigating concern for the species.

#### **Pests and Potential Problems**

There are no known pests or potential problems regarding Deseret milkvetch.

#### **Environmental Concerns**

There are no known environmental concerns regarding Deseret milkvetch.

#### **Seeds and Plant Production**

Deseret milkvetch flowers and sets seed in May and June. Its primary pollinators are believed to be bumblebees or other pollen generalist bee species (CPC, 2010).

#### **References**

- Center for Plant Conservation. 2010. Online.  
<http://www.centerforplantconservation.org/>.  
Accessed 28 December, 2010.
- USDI-FWS. 1999. Endangered and threatened wildlife and plants; final rule to list *Astragalus desereticus* (Deseret milkvetch) as threatened. In: Federal Register. 64(202): 56590-56596.
- USDI-FWS. 2007. Endangered and threatened wildlife and plants; anticipated delisting of *Astragalus desereticus* (Deseret milkvetch) from the list of endangered and threatened plants; prudency determination for designation of critical habitat. In: Federal Register. 72(16): 3379-3382.
- Welsh, S.L., N.D. Atwood, S. Goodrich, and L.C. Higgins. 2003. A Utah Flora. Third Edition, revised. Brigham Young University, Provo, UT.
- Western Regional Climate Center. 2010. Online.  
<http://www.wrcc.dri.edu/index.html>. Accessed 28 December, 2010.

#### **Prepared By:**

*Derek Tilley*; USDA NRCS Plant Materials Center, Aberdeen, Idaho.

*Loren St. John*, USDA NRCS Plant Materials Center, Aberdeen, Idaho.

*Dan Ogle*, USDA NRCS, Boise, Idaho.

#### **Citation**

Tilley, D., L. St. John and D. Ogle. 2010. Plant guide for Deseret milkvetch (*Astragalus desereticus*). USDA-Natural Resources Conservation Service, Idaho Plant Materials Center. Aberdeen, ID.

Published Jan 2010

Edited: 03Jan2011 djt, 03Jan2011 ls, 03jan2011dgo

For more information about this and other plants, please contact your local NRCS field office or Conservation District at <http://www.nrcs.usda.gov/> and visit the PLANTS Web site at <http://plants.usda.gov/> or the Plant Materials Program Web site <http://plant-materials.nrcs.usda.gov>.

PLANTS is not responsible for the content or availability of other Web sites.