

## SILER'S PINCUSHION CACTUS

*Pediocactus sileri* (L.D. Benson)

K.D. Heil & J.M. Porter

Plant Symbol = PESI4

Contributed by: USDA NRCS Idaho and Utah Plant Materials Program



© Jane Villa-Lobos  
Figure 1. Siler pincushion (*Pediocactus sileri*). Photo from Jane Villa-Lobos @ USDA-NRCS PLANTS Database

### Alternate Names

Gypsum cactus  
*Echinocactus sileri*  
*Utahia sileri*

### Uses

There are no known human uses associated with Siler's pincushion cactus.

### Status

Siler's pincushion cactus was listed as an endangered species in 1979 (USDI FWS 1979) and later reclassified as threatened in 1993 (USDI FWS 1993) when it was no longer considered to be in imminent danger of extinction throughout significant portions of its range. Critical habitat was not designated with either ruling.

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:* Cactus family (Cactaceae). Siler's pincushion is a small, globose cactus which grows solitary or in clusters. Individuals grow about 25 cm (9.8 in) tall and 12 cm (4.7 in) wide. Central spines

are blackish brown, 15 to 30 mm (0.6 to 1.2 in) long, and radial spines are 10 to 20 mm (0.4 to 0.8 in) long and white. Flowers are about 20 mm (0.8 in) in diameter with yellow petals which may have purplish veins. Flowering occurs in the spring (Welsh et al 2003).

*Distribution:* All known populations of this species occur in Kane and Washington counties, Utah and in Mohave and Coconino counties, Arizona. The majority of the habitat occurs on USDI BLM land. Small portions of the species range occur on lands managed by the Kaibab-Paiute Indian Tribe, Arizona and Utah State trust lands and private holdings.

*Habitat:* This species inhabits a variety of plant communities including Great Basin desert shrub, Mohave Desert scrub, pinyon-juniper forestlands and grasslands (USDI FWS 1993). Plants occur from 850 to 1,650 meters (5400 feet).

### Adaptation

Siler's pincushion is found on gypsiferous clay and sandy soils derived from the Moenkopi Formation. Most of the populations are found on the Shnabkaib Member of the formation, while others occur on the Middle Red member.

### Management

Threats to the species include offroad vehicle use, trampling by cattle, soil erosion and mineral exploration. Many plants in plots monitored by the BLM died of natural causes including drought, insect and small mammal herbivory. A relatively new potential threat to Siler's pincushion is the proposed development of a pipeline from Lake Powell to St. George, Utah.

A Siler's pincushion Cactus recovery plan was developed in 1986. Management goals include continued monitoring, providing conservation assistance to the Kaibab-Paiute Indian Tribe, closing areas with dense Siler's pincushion to ORV use, and conducting research on insect predators (USDI FWS 1986).

### Pests and Potential Problems

Cactus borer beetles (*Moneilema* spp) are known to parasitize close relatives of Siler's pincushion, but they have not yet been documented on this species (USDI FWS 2008).

**Environmental Concerns**

There are no known environmental concerns associated with this species.

**Seed and Plant Production**

This species is difficult to grow under cultivation. Seed germinates readily, but plants quickly die due to the species' restricted soil adaptation. Transplanting and grafting have not been successful (USDI FWS 1993).

**References**

- USDI Fish and Wildlife Service. 1986. Siler pincushion cactus (*Pediocactus sileri*) recovery plan. 57 p.
- USDI Fish and Wildlife Service. 1993. Endangered and threatened wildlife and plants; reclassification of the plant *Pediocactus sileri* (Siler pincushion cactus) from endangered to threatened status). Federal Register. 58 (246): 68476-68480.
- USDI Fish and Wildlife Service. 2008. Siler pincushion cactus (*Pediocactus sileri*) 5-year review: summary and evaluation. Phoenix, AZ.
- Welsh, S.L., N.D. Atwood, S. Goodrich, and L.C. Higgins. 2003. A Utah Flora. Third Edition, revised. Brigham Young University, Provo, UT.

**Prepared By:**

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

*Dan Ogle*; Plant Materials Specialist, USDA NRCS, Boise, Idaho.

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

**Citation**

Tilley, D., St. John, L. and D. Ogle. 2010. Plant guide for Siler's pincushion cactus (*Pediocactus sileri*). USDA-Natural Resources Conservation Service, Idaho Plant Materials Center. Aberdeen, ID 83210.

Published August, 2010

Edited: 20Aug2010djt; 20August 2010ls;  
25Aug2010dgo

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.