

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDAST4N060

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Helianthus arizonensis*

COMMON NAME: Arizona Sunflower

SYNONYMS:

FAMILY: Asteraceae

AUTHOR, PLACE OF PUBLICATION: Raymond Carl Jackson, *Brittonia* 15(3):
266, f.2. 1963.

TYPE LOCALITY:

TYPE SPECIMEN: Holotype IND (Indiana University). R.C. Jackson (2674), June 6, 1959.

TAXONOMIC UNIQUENESS: NatureServe lists over 80 species and subspecies of *Helianthus* in the U.S. and Canada. There are seven species and another seven subspecies found in Arizona. Three of these are actually monitored by HDMS, and *H. arizonensis* is thought to be the rarest of these.

DESCRIPTION: Perennials, 20–30 cm (roots creeping). **Stems** erect to ascending, glabrous (glaucous). **Leaves** cauline; opposite; sessile; blades (bluish green) lanceolate, 2–7 × 0.5–1.3 cm, bases cuneate, margins entire (undulate), faces glabrous (glaucous). **Heads** 1–7. **Peduncles** 2–7.5 cm. **Involucres** hemispheric, 9–18 mm diam. **Phyllaries** 16–19, lance-ovate, 3.5–7 × 2–2.8 mm, (margins ciliate) apices acute, abaxial faces glabrate, sparingly gland-dotted. **Paleae** 5.5–6.5 mm, 3-toothed (apices acute, gland-dotted). **Ray florets** 10–14; laminae 7–9 mm. **Disc florets** 30+; corollas 3–3.5 mm, lobes yellow; anthers reddish brown, appendages brownish. **Cypselae** 2.8–3.2 mm, glabrous; **pappi** of 2 deltate, erose scales 1–1.7 mm. **2n** = 34, 51. *Flora of North America*, 2013.

AIDS TO IDENTIFICATION: *Helianthus arizonensis* is morphologically similar to the polyploid *H. ciliaris*; *H. arizonensis* is diploid (or triploid) and has entirely yellow disc corollas whereas those of *H. ciliaris* are red or reddish tipped. *H. ciliaris* is 40-70cm tall; *H. arizonensis* is 20-30cm tall.

ILLUSTRATIONS:

TOTAL RANGE: Known from Arizona and New Mexico in the U.S., and Mexico.

RANGE WITHIN ARIZONA: Known from six historical collections in Arizona in Coconino and Navajo Counties (near Ashfork, Soldier Lake SE of Flagstaff, NE of Show Low, and SE of Fort Apache in the Bonita Prairie).

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous perennial, with long creeping roots, 20-30cm tall.

PHENOLOGY: Flowers: June-August, also September - November.

BIOLOGY:

HABITAT: Open pine and/or juniper woodlands.

ELEVATION: Literature reports 4000-7000 ft (1200-2100 m). Actual collections from Arizona range from 5400-6800 ft (1646-2073 m).

EXPOSURE: Probably open.

SUBSTRATE: Dry, frequently sandy soil (New Mexico Rare Plants); deep clayey soils, of igneous origin, in root plowed area reported from one Arizona collection.

PLANT COMMUNITY: Open pine and/or juniper woodlands, ponderosa grassland.

POPULATION HISTORY AND TRENDS: Considered a rare and little known plant. All known Arizona records (6) are historical (1945-1984).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None.

STATE STATUS: None.

OTHER STATUS: None.

MANAGEMENT FACTORS: Unknown.

PROTECTIVE MEASURES TAKEN: Unknown.

SUGGESTED PROJECTS: Continue surveys to determine if species is still extant in Arizona.

LAND MANAGEMENT/OWNERSHIP: U.S. Forest Service (Apache-Sitgreaves and Coconino NF), U.S. Bureau of Indian Affairs (Fort Apache Indian Reservation).

SOURCES OF FURTHER INFORMATION

REFERENCES:

- Flora of North America, Vol. 21, p. 145 (accessed via eFloras, June 28, 2013), http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=250066870.
- JSTOR. <http://plants.jstor.org/flora/fna021000410?s=t>, accessed 6/28/2013.
- NatureServe.
<http://www.natureserve.org/explorer/servlet/NatureServe?searchSciOrCommonName=Helianthus+arizonensis&x=5&y=6>, accessed 1/19/2010.
- Tropicos. <http://www.tropicos.org/Name/2710386>, accessed 1/19/2010.
- USDA. <http://plants.usda.gov/java/nameSearch>, accessed 6/28/2013.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

Revised: 2013-06-28 BDT

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