

JONES' WAXY DOGBANE

Cycladenia humilis Benth. var.
jonesii (Eastw.) S.L. Welsh &
N.D. Atwood

Plant Symbol = CYHUJ

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Materials Program



Jones' waxy dogbane (Cycladenia humilis var. jonesii). Photo from USDI-NPS

Alternate Names

Cycladenia jonesii
Jones' cycladenia

Uses

There are no known uses associated with Jones' waxy dogbane.

Status

Jones' waxy dogbane was listed as a threatened species by the USDI Fish and Wildlife Service in 1986 (USDI-FWS, 1986). In 2008 the USDI FWS published a recovery outline assigning Jones' waxy dogbane a priority of 12C, moderate threat to a subspecies (USDI-FWS, 2008).

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: Dogbane family (Apocynaceae). Jones' waxy dogbane is a long lived herbaceous perennial forb. At maturity, plants are 10 to 15 cm (4 to 6 in) tall with wide, oval or elliptical leaves. The flowers are trumpet shaped, whitish pink to purple, and somewhat resemble morning glory flowers. The plant forms an underground woody crown extending to a deep taproot. The plants are clonal and may spread via rhizomes and stolons (Sipes and Wolf, 1997; Wolf et al., 1992).

Distribution:

Jones' waxy dogbane has been found in Emery, Grand, Garfield and Kane Counties Utah and in Mohave County, Arizona. For current distribution, consult the Plant Profile page for this species on the PLANTS Web site.

Habitat:

Jones' waxy dogbane grows in arid sites at 1,300 to 1,800 m (4,300 to 6,000 ft) elevation in desert scrub and juniper plant communities receiving 6 to 9 inches of mean annual precipitation.

Adaptation

This species is endemic to gypsiferous, saline soils of the Cutler, Summerville, and Chinle geologic formations. It is adapted to the arid desert scrub environment due to its deep taproot (Welsh et al., 2003).

Management

Jones' waxy dogbane has extremely limited fruiting and seed set. No seedling germination has been observed in multiple surveys. It is believed that the species has a complex pollination system and that suitable pollinators may have been lost (Sipes and Tepidino, 1996). Lack of recruitment puts this species at serious risk to habitat disturbances.

The major threats to Jones' waxy dogbane habitat are off-highway vehicle (OHV) use, and oil, gas, and mineral exploration. Additional threats include mountain biking and livestock grazing.

It has recently been determined that Jones' waxy dogbane is genetically similar to California populations of *Cycladenia humilis* and has therefore been recommended for delisting (Last, 2009).

Pests and Potential Problems

There are no known pests or potential problems associated with Jones' waxy dogbane.

Environmental Concerns

There are no known environmental concerns associated with Jones' waxy dogbane.

Seeds and Plant Production

Jones' waxy dogbane has not been observed to produce viable germinants. Natural seed set is limited and forced pollination has mostly resulted in aborted fruit.

References

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- Sipes, S.D. and P.G. Wolf. 1997. Clonal structure and patterns of allozyme diversity in the rare endemic *Cycladenia humilis* var. *jonesii* (Apocynaceae). American Journal of Botany. 84(3): 401-409.
- USDI-FWS. 1983. Endangered and threatened wildlife and plants; rule to determine *Cycladenia humilis* var. *jonesii* (Jones cycladenia) to be a threatened species. Federal Register. 51(86): 16526-16530.
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