

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Plant Abstract**

**Element Code:** PMORC0Q092

**Data Sensitivity:** Yes

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Cypripedium parviflorum* var. *pubescens* (Willd.) Knight  
**COMMON NAME:** Yellow Lady's Slipper, Large Yellow Lady's Slipper, Large-flowered Yellow Lady's Slipper, Whippoorwill shoe

**SYNONYMS:** *Cypripedium pubescens* Willd., *C. calceolus* var. *pubescens* (Willd.) Correll, *C. calceolus* var. *planipetalum* (Fern.) Victorin & Rouss., *C. flavescens* de Candolle, *C. furcatum* Raf., *Cypripedium planipetalum* (Fern.) Morris & Eames, *C. parviflorum* var. *planipetalum* Fern., *C. veganum* Cockerell, P. Barker & M. Barker

**FAMILY:** Orchidaceae

**AUTHOR, PLACE OF PUBLICATION:** *Cypripedium parviflorum* Salisbury var. *pubescens* (Willdenow) Knight, Rhodora 8(89): 93. 1906. *Cypripedium pubescens* Willdenow, Hortus Berolinensis 1: Pl. 13. 1804.

**TYPE LOCALITY:** North America.

**TYPE SPECIMEN:**

**TAXONOMIC UNIQUENESS:** *Cypripedium* is a genus of 30-40 species. The apparent confusion of the name, in part, is due to the extreme variation of *C. parviflorum* var. *pubescens* across its range. The size of the plant, size of the lip, size and shape of the petals, and twisting of the petals vary from site to site and within colonies. Sheviak (1995) believed the variation depends on soil type and exposure to sun. Plant structure especially depends on environmental conditions. In the open, plants have ascending narrow leaves while those in shadier conditions have leaves that are spreading and broader. (Coleman, 2002).

**DESCRIPTION:** Herbaceous perennial herb from a stout rhizome, 16-60 cm (6.3-23.6 in) tall. The stem, bracts and leaves are pubescent and the flower stem rises 10 cm (4 in) above the leaves. The abaxial surface of the distal-most sheathing bract (and often the next) is densely and conspicuously silvery-pubescent when young (later sometimes glabrescent). Bright green leaves 4-6 (3-5 per FNA 1993+), on proximal portion of or more evenly spaced along the stem, alternate, erect to spreading; blade orbiculate or broadly ovate to elliptic-lanceolate or oblanceolate, 7.9-20.9 x 1.5-12 cm. They are covered with fine hairs on the underside and a few hairs on the topside. Inflorescence of 1 flower (rarely 2) with a leafy bract below, 5-10 cm long and 2-4 cm wide (very small in some boreal and northern cordilleran specimens), scent moderate to faint, rose or musty. Flower is a bright yellow

pouch with greenish to reddish sepals and petals that turn to dots near the pouch; up to 10 cm high x 10 cm wide. The ovate-lanceolate sepals have fine hairs on back and edges, while twisted; the upper sepal is 4-7 cm long, and the lower sepals are usually fused together except at the tips. The linear petals are very conspicuously spirally twisted, and have fine hairs on back along well-defined central ridge; few hairs on inner one-third toward pouch. The waxy lip is bright yellow to orange-yellow, obovoid (pouch or slipper shaped), 3.2 cm wide x 4.0 cm high; opening 1.2 x 2.0 cm, with incurved margin. In addition, the lip has red dotted stripes on veins and faint reddish dots on inside and back of pouch. The capsule is ellipsoidal, pubescent, 2.2-3 cm long x 0.6-1.3 cm in diameter. (FNA 1993+, Coleman 2002, NatureServe 2005).

**AIDS TO IDENTIFICATION:** *Cypripedium parviflorum* var. *parviflorum* (lesser yellow lady's slipper) may be easily differentiated from var. *pubescens* by its small leaf, lip, and plant size, leaf shape, degree of twisting in lateral sepals, sepal color, and habitat preference (NatureServe 2005). *Calypso bulbosa* (fairy slipper) has a single pink flower and a single leaf (Spackman et al., 1997).

**ILLUSTRATIONS:** Color drawing (Niehaus et al. 1984)  
Line drawing (Cronquist et al. 1977: p. 549)  
Hitchcock et al. 1961.  
Color photo (Coleman 2002: Pl. 8)  
Color photos of habitat, plant and flower (*In* [http://plants.usda.gov/cgi\\_bin/plant\\_search.cgi](http://plants.usda.gov/cgi_bin/plant_search.cgi))  
Color photo (*In* <http://www.vtladyslipper.com/vtlscwebpg3PUB.html>)  
Color photo (Saulys *in* <http://www.geocities.com/sophronitis/pics/cyppubescens1.jpg>)  
Color photo of Isotype (MBG, *in* [http://robot.mobot.org/cgi-bin/search\\_vast](http://robot.mobot.org/cgi-bin/search_vast))  
Line drawing (FNA 1993+, *in* [http://www.efloras.org/florataxon.aspx?flora\\_id=1&taxon\\_id=242102237](http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242102237))  
Line drawing (Dawn Adams, *in* Spackman et al. 1997)  
Color photos (*B. Jennings*, *in* Spackman et al. 1997)  
Color photos (Robert Sivinski 2005, *in* CalPhotos, [http://elib.cs.berkeley.edu/cgi/img\\_query/](http://elib.cs.berkeley.edu/cgi/img_query/))  
Color photos (Richard Reeves 1999, *in* <http://nativeorchid.com/LargeYellow.htm>)  
Color photo (Thomas Kornack 1988-2005, *in* <http://androsace.com/?id=100>)

**TOTAL RANGE:** From Newfoundland to British Columbia, south to Georgia, Arizona, and Washington; excluding OR, CA, NV, FL, LA, and OK. Also found in Europe.

**RANGE WITHIN ARIZONA:** It is rare in Arizona at the extreme southwestern limit of its range. Occurs in Apache, Graham and Greenlee counties.

**SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Herbaceous perennial.

**PHENOLOGY:** Flowers Apr – Aug (May-June); flowers June-July in Colorado. In Arizona most plants bloom in early June. The rate of fruit set in Arizona is low with only 20-25 percent of the flowers forming a capsule.

**BIOLOGY:** *Cypripedium parviflorum* var. *pubescens* is a colony-forming species, so counting methods need to account for this. This species is reportedly very difficult to cultivate. It is considered to be a semi-parasitic species and must be grown in very controlled conditions. (NatureServe). However, according to Coleman (2002), techniques for propagating this species are available, and the plant and seeds are being sold commercially.

**HABITAT:** Grows in boggy and swampy areas, damp woods, near rivers or canal banks, and wet meadows. It has also been found in rocky wooded hillsides on north or east facing slopes, wooded loess river bluffs, and moist creek sides or swales in spruce zones. Mesic deciduous and coniferous forest, openings, thickets, prairies, meadows, fens (FNA 1993+). In Colorado, found in aspen groves and ponderosa pine/Douglas-fir forests (Spackman et al. 1997).

**ELEVATION:** 6,000 - 9,560 feet (1830-2914 m). In Colorado (Spackman et al., 1997), elevation ranges from 7,400-8,500 feet (2257-2593 m).

**EXPOSURE:** In New Mexico, it has been found on east to northeast aspects.

**SUBSTRATE:** Rich moist soils or in sandy loams to loams.

**PLANT COMMUNITY:** High elevation riparian scrub and woodland and wet meadows.

**POPULATION TRENDS:** NatureServe (2003, 2005) reports that “Although there may be far more than a thousand populations of this species throughout its extensive range, most are small, and *Cypripedium parviflorum* var. *pubescens* (*Cypripedium pubescens*), when treated taxonomically to exclude the more widespread var. *makasin* (as by Kartesz, 1999) is clearly vulnerable to habitat loss, horticultural collecting, and medicinal collecting rangewide. There are very few reports of large, demonstrably secure populations anywhere in North America. All reported populations contain less than 400 individuals, and most contain less than 30. There are numerous threats to this species and its habitats, and the typically small populations of this species are highly vulnerable to extirpation. Extirpation of two populations has been documented in Arizona, and it is likely that many others have been recently extirpated. Despite efforts to protect this species from collectors, it continues to be impacted by this practice. Though quantitative data is not available at this time, available information suggests that this species is still in decline, and further measures to protect it should be implemented.”

## **SPECIES PROTECTION AND PRESERVATION**

**ENDANGERED SPECIES ACT STATUS:** None  
**STATE LIST STATUS:** Highly Safeguarded (ARS, ANPL 1999)  
[Highly Safeguarded (ARS, ANPL 1993)]  
**OTHER STATUS:** At Risk (United Plant Savers 2000)

**MANAGEMENT FACTORS:** This species is vulnerable to habitat loss, horticultural collecting, and medicinal collecting range-wide. It is also vulnerable to grazing, off-road recreation, and road maintenance. Many orchid species have a reputation for difficulty of cultivation, which may be one reason that wild populations tend to be targeted for harvesting.

**CONSERVATION MEASUREMENTS TAKEN:** Of the several varieties of *Cypripedium*, *Cypripedium parviflorum* var. *pubescens* is the usual source for dried roots. After an industry resolution passed in 1988 to discontinue sales of wild-collected lady's slipper root, many responsible herb companies complied. However, some companies persist in selling it. In addition, although many herb companies have agreed not to sell *Cypripedium* material, some large companies continue to pay root diggers for rhizomes. (NatureServe 2003).

**SUGGESTED PROJECTS:** Monitoring of populations throughout the range of this species is needed to determine current population trends.

**LAND MANAGEMENT/OWNERSHIP:** BIA-Fort Apache Reservation; USFS - Apache-Sitgreaves National Forest (AZ) and Gila National Forest (NM).

## **SOURCES OF FURTHER INFORMATION**

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**ADDITIONAL INFORMATION:**

Seen at Hannagan Meadow (White Mountains); unable to relocate West Fork of Black River locale (pers. comm. Gibson).

The Cherokee Indians as a treatment for worms, used the roots of *Cypripedium*. And the roots of all *Cypripedium* species were used as a treatment for insomnia, and nervousness.

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