

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

Plant Abstract

Element Code: PDSOL0S590

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Physalis pubescens* L.

COMMON NAME: Broadleaf Groundcherry

SYNONYMS:

Physalis latiphysa Waterfall

Physalis barbadensis Jacquin

Physalis barbadensis var. *glabra* (Michaux) Fernald

Physalis floridana Rydberg

Physalis hylophila Standl.

Physalis nodosa Lam.

Physalis pubescens var. *glabra* (Michaux) Waterfall

Physalis pubescens var. *integrifolia* (Dunal) Waterfall

Physalis turbinata Medik.

OTHER COMMON NAMES:

Broadleaf Ground-cherry

Downy Ground-cherry

Groundcherry

Husk Tomato

Husk-tomato

FAMILY:

Solanaceae

AUTHOR, PLACE OF PUBLICATION: Linnaeus, C. 1753. Species Plantarum, Vol. 1:183

TYPE LOCALITY: USA: Arizona: Pima County, Rondstadt Ranch east of the Baboquivari Mountains.

TYPE SPECIMEN: HT: ARIZ-90142. T. H. Kearney & R. H. Peebles (14425). 1939-09-23.

TAXONOMIC UNIQUENESS: Flora of North America (FNA) (2023) treats *Physalis pubescens* as including *P. turbinata* Medikus, *P. latiphysa* Waterfall, and *P. pubescens* var. *glabra* (Michaux) Waterfall as indistinct. Twenty-four species of *Physalis* occur in North America, with ten species recognized as occurring in Arizona (FNA 2023).

DESCRIPTION: Herbaceous annual 15–45 cm (6–18 in), tall, commonly hairy, with branched leafy stems, leaves alternate. The thin translucent leaf-blades range from ovate to broader than long, 5–7 cm (2–2.8 in) long, with or without a few teeth; the leaf stalk is about as long as the blade. Petioles are 1.5–7 cm (0.6–2.8 in) long (Landrum et al. 2013). Solitary flowers with calyx 3–6 mm long with lobes about half that long, on lateral peduncles that are 3.5–9 mm long. The yellow corollas are dark-spotted and small, 4–6 mm long (landrum et al. 2013). Fruiting calyces with sparsely appressed hair are strongly 5-angled, 2–4 cm long and 1.5–3 cm wide. Fruiting berry is globose, while seeds are many and flat (FNA 2023).

AIDS TO IDENTIFICATION: Can be recognized by the pubescent stem, purple to blue anthers, simple corolla maculations, and villous, strongly five-angled fruit calyx (Martínez 1998, Martínez et al. 2023). Most similar to *P. neomexicana* but distinguished by its acute to acuminate leaf apices and acute marginal teeth on leaves, both of which are rounded in *P. neomexican*, and the more prismatic shape of the fruiting calyces in *P. pubescens* (SEINet 2025). Distinguished from *P. philadelphica* by the densely pubescent stems, and from *P. angulata* by the larger flower (0.4–1 cm wide in *angulata*) and fruiting calyx 2–4 cm long (1–2 cm long in *angulata*) (SEINet 2025).

ILLUSTRATIONS:

Color photos (iNaturalist, <https://www.inaturalist.org/taxa/78570-Physalis-pubescens>)

Color photos (Martínez et al 2023)

Color photos (Plants of the World Online 2025)

Color photos (SEINet 2025)

<https://swbiodiversity.org/seinet/taxa/index.php?taxon=Physalis+pubescens&formsubmit=Search+Terms#>

Color photos (Weakley and Southeastern Flora Team 2025)

TOTAL RANGE: Ranges from the U.S. south through Mexico, Central America, and much of South America; introduced in Europe, Asia, Africa, and Australia (Plants of the World Online 2025). In the U.S., occurs throughout eastern, southern, midwestern, and southwestern U.S. from New Jersey west to Michigan, Wisconsin, Iowa, Kansas; south to Florida; west through the southern states to California (Natural Resources Conservation Service 2025).

RANGE WITHIN ARIZONA: Occurs in Cochise, Gila, Graham, Greenlee, Maricopa, Pima, Santa Cruz and Yavapai counties (Kearney et al. 1960, Landrum et al. 2013).

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous annual (FNA 2023).

PHENOLOGY: Flowering year-round in areas without frost, mostly May–Oct (FNA 2023). flowers and bears fruit mainly from June to October (Martínez et al. 2023).

BIOLOGY:

HABITAT: Washes, often in the shade of shrubs and boulders, in desertscrub, or grasslands. Found in forests, canyons, riparian, moist, or disturbed areas growing with mesquite, cottonwood, oak, and juniper (Landrum et al. 2013)

ELEVATION: 3,000–8,000 feet (915–2,400 meters) (Kearney et al. 1960, Landrum et al 2013).

EXPOSURE:

SUBSTRATE: Granitic gravelly soils.

PLANT COMMUNITY: East upland, Chihuahuan Desert Scrub, *Flourensia-Larrea* Association, and in Fremont Cottonwood and Goodding Willow riparian forest understory. Mixed shrub and grassland. Associated plant species include: *Amaranthus palmeri* (Palmer’s Amaranth), *Apodanthera undulata* (Melon-loco), *Celtis* sp. (hackberry), *Cucurbita digitata* (Finger-leaf Gourd), *Flourensia* sp. (tarbush), *Fraxinus* sp. (ash), *Larrea tridentata* (Creosote Bush), *Platanus* sp. (sycamore), *Populus fremontii* (Fremont Cottonwood), *Prosopis* sp. (mesquite), *Salix gooddingii* (Goodding Willow), and *Solanum elaeagnifolium* (Silver-leaf Nightshade).

POPULATION TRENDS:

SPECIES PROTECTION AND CONSERVATION

Status definitions: <https://bit.ly/hdms-status-definitions>

Heritage Network Conservation Status Rank definitions: <https://bit.ly/hdms-rank-definitions>

ENDANGERED SPECIES ACT STATUS:

STATE STATUS:

HERITAGE NETWORK STATUS:

GNR

S1

OTHER STATUS:

Forest Service Sensitive, as *Physalis latiphysa* (USDA, FS Region 3 1999, 2007, 2013)

LC (IUCN, Martínez and Vargas-Ponce 2020)

MANAGEMENT FACTORS:

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Little known on biology, habitat, current distribution and trends.

LAND MANAGEMENT/OWNERSHIP: USFS - Coronado National Forest; Private.

SOURCES OF FURTHER INFORMATION

REFERENCES:

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MAJOR KNOWLEDGEABLE INDIVIDUALS:**ADDITIONAL INFORMATION:**

Etymology: *Physalis* comes from the Greek *physalis*, "a bladder or bubble," because of the inflated calyx, while *pubescens* refers to the dense pubescence of the plant.

Physalis pubescens was commonly used in folk medicine to treat diseases related to inflammation (Cheng et al 2022). The fruit of *Physalis pubescens* is consumed around the world, and wild populations of this plant hold genetic diversity that can improve low ground-cherry, this plant's cultivated counterpart. *Physalis pubescens* is a potential gene donor to and wild secondary relative of tomatillo and Cape gooseberry (Martínez and Vargas-Ponce 2020).

Revised: 1999-11-19 (RHB)
2000-01-25 (JCP)
2004-04-20 (SMS)
2022-02-24 (KSL)
2025-05-04 (KCM)

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