

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDAST8H0N0

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Packera cardamine*
COMMON NAME: Bitter-cress Groundsel, Bittercress Ragwort, Heartleaf Groundsel
SYNONYMS: *Senecio cardamine* (basionym)
FAMILY: Asteraceae

AUTHOR, PLACE OF PUBLICATION: Weber, William Alfred and Askeell Löve.
Phytologia 49(1): 46. 1981.

TYPE LOCALITY: New Mexico: Mogollon Mts.

TYPE SPECIMEN: University of Notre Dame Herbarium – E.L.Greene Collection,
NDG 62932 (original material of *Senecio cardamine*). Edward Lee Greene, #s.n. April 27,
1881.

TAXONOMIC UNIQUENESS: There are about 64 species of *Packera* found in subtropical, temperate and arctic regions of North America. *Packera* is a segregate of *Senecio*. It contains species that have traditionally been referred to as the "aureoid senecios," an informal group first recognized by Asa Gray. Base chromosome numbers of $x = 22$ or 23 and a suite of morphologic characters have been used in circumscription of *Packera*. Studies involving molecular data and palynological analysis lend additional support for recognition of the genus (Flora of North America 2015). NatureServe lists nine species plus four varieties found in Arizona. Two of the species are found only in the State.

DESCRIPTION: **Perennials**, 20–60+ cm; rhizomatous (rhizomes erect to ascending, stout). **Stems** 1, glabrous. **Basal leaves** petiolate; blades orbiculate-ovate, orbiculate, obovate, or subreniform, 30–80+ × 30–80+ mm, bases cordate to contracted, margins crenate, dentate, or wavy. **Cauline leaves** abruptly reduced (proximal petiolate or sessile and clasping, broadly lanceolate, irregularly incised or crenate; mid ones sessile, clasping, sometimes auriculate, oblong to hastate, irregularly dentate; distal bractlike, entire). **Heads** 3–8 in open, cymiform arrays. **Peduncles** conspicuously bracteate, glabrous. **Calyculi** conspicuous. **Phyllaries** 13, light green, 5–9+ mm, glabrous. **Ray florets** usually 8+, rarely 0; corolla laminae 8–11 mm. **Disc florets** 30–45+; corolla tubes 4–5 mm, limbs 6–7 mm. **Cypselae** 1.5–2 mm, glabrous; **pappi** 9–10 mm. (Flora of North America 2015).

AIDS TO IDENTIFICATION: This species should not be confused with any other *Packera*. It's broadly rounded basal leaf blades are distinctive (New Mexico Rare Plants 2015).

ILLUSTRATIONS:

Photos and Herbarium Mounts:

<http://swbiodiversity.org/seinet/taxa/index.php?taxon=Packera%20cardamine>.

Photos: http://nmrareplants.unm.edu/rarelist_single_photo.php?SpeciesID=123.

Line Drawing: http://nmrareplants.unm.edu/rarelist_single_line.php?SpeciesID=123.

TOTAL RANGE: Arizona and New Mexico.

RANGE WITHIN ARIZONA: White Mountains in Greenlee County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial forb.

PHENOLOGY: Flowers: mid-June through end-July (Flora of North America 2015). Late April to August (New Mexico Rare Plants 2015).

BIOLOGY:

HABITAT: Canyons, meadows, Spruce forests (Flora of North America 2015). Steep slopes and forest understory in upper montane coniferous forests (New Mexico Rare Plants 2015).

ELEVATION: 7870 – 10500 feet (2400-3200m), Flora of N. Amer. 2015.

EXPOSURE: Sometimes found on open slopes at high elevations.

SUBSTRATE: Not specified.

PLANT COMMUNITY: Endemic to the climax spruce-fir forest (New Mexico Rare Plants 2015).

POPULATION HISTORY AND TRENDS: Unknown for Arizona. Known from about eight collections, but has not been documented since 1987. Observations from New Mexico (2015), state that populations are small and sporadic, but not infrequent in suitable habitat.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None.
STATE STATUS: None.
OTHER STATUS: Forest Service Sensitive (USDA, FS Region 3 2013).
[Forest Service Sensitive (USDA FS Region 3 2007)]

MANAGEMENT FACTORS: Many populations are on steep, inaccessible slopes. The plant's response to timber harvest and to wildfires have not been studied (New Mexico Rare Plants 2015).

PROTECTIVE MEASURES TAKEN: Listed as "Forest Service Sensitive" by USDA Apache-Sitgreaves National Forest.

SUGGESTED PROJECTS: The species has not been collected in Arizona since 1987. Verify if it is still extant at any of the known collection sites.

LAND MANAGEMENT/OWNERSHIP:

SOURCES OF FURTHER INFORMATION**REFERENCES:**

- Barkley, T.M. 1978. *Senecio*. In: North American flora, series 2. 10:50-139. Flora of North America (eFloras.org), accessed 11/13/2015, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=250067235.
- JStor| Global Plants, accessed 11/13/2015, <http://plants.jstor.org/stable/10.5555/al.ap.specimen.ndg62932>.
- NatureServe Explorer, accessed 11/13/2015, <http://explorer.natureserve.org/index.htm>.
- New Mexico Rare Plant Technical Council. 1999. New Mexico Rare Plants. Albuquerque, NM: New Mexico Rare Plants Home Page. <http://nmrareplants.unm.edu> (Latest update: 20 April 2015), accessed 11/13/2015.
- Tropicos, accessed online 11/13/2015, <http://www.tropicos.org/Name/50230121>.
- USDA Forest Service Region 3. 2007. Regional Forester's Sensitive Species list.
- USDA Forest Service Region 3. 2013. Regional Forester's Sensitive Species list.
- Weber, W.A. and Åskell Löve. 1981. New combinations in the genus *Packera* (Asteraceae). Phytologia 49:44-50.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION: *Packera cardamine* is uncommon, rarely collected, and known only from the Mogollon Mountains of New Mexico and the White Mountains of Arizona.

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