

***Antennaria soliceps*** Blake (1938)**CHARLESTON PUSSYTOES**

**FAMILY:** *Asteraceae*, the sunflower family.

**STATUS:** **Heritage Program SENSITIVE LIST, ranks: G1G2 S1S2**

**USFWS/ESA:** species of concern. **STATE OF NEVADA:** none. **BLM:** none. **USFS:** Humboldt-Toiyabe NF Sensitive Species. **NNNPS:** watch list.

**POPULATION CENSUS:** **7 occurrences mapped** at 1.0 km (0.6 mi) separation, **OR 25 occurrences mapped** at 0.16 km (0.1 mi) separation; total estimated **individuals 122,000+**, total estimated **area 72.1+ ha (178+ ac)**.

**TREND:** unknown.

**IMPACTS AND MAJOR THREATS:** Free roaming horses, mountain biking, hiking on scree slopes, and expansion of other recreational use in the Spring Mountains, extreme rarity, climate warming.

**INVENTORY EFFORT:** Surveys have been extensive and are largely complete. Most recent entered survey 1994, average year of last survey 1994. **Years since last entered survey** (percent of mapped records at various survey ages): **6-10 yrs:** 96%; **11-20 yrs:** 4%.

**LAND MANAGEMENT** in decreasing predominance: Humboldt-Toiyabe National Forest, designated wilderness, private lands.

**RANGE:** Clark County, Nevada. Endemic to the Spring Mountains. Maximum **range dimension 7.6 km (4.7 mi)** excluding most disjunct record. **Type specimen** collected in Clark County.

**ELEVATIONS RECORDED:** 8660-11650 feet (2640-3551 meters).

**HABITAT:** Open carbonate scree, talus, gravel, and crevices in the subalpine conifer, lower alpine, and upper montane conifer zones.

**PHENOLOGY:** flowering summer. Range of most frequent **survey months:** July-September.

**LIFE-FORM AND HABIT:** small matted stoloniferous perennial herb.

**DESCRIPTION:** A perennial herb that forms mats to 4.5 dm wide. Leaves are white-wooly. Flowering stems each bear a single flower head surrounded by bracts with conspicuous blackish-brown spots. Blooms in July and August. Reproduces exclusively vegetatively.

**PHOTOGRAPHS:** Knight (1990), Weixelman and Atwood (1990); Nevada Natural Heritage Program slide collection (1986-present) and files.

**ILLUSTRATIONS:** Mozingo and Williams (1980), Weixelman and Atwood (1990).

**OTHER GENERAL REFERENCES** (listed separately): Clokey (1951), Knight (1992), Nachlinger (1994).

**SPECIFIC REFERENCES:**

- Atwood, D. 1980. Status report for *Antennaria soliceps*. Provo, Utah: U. S. Forest Service, Region 4.
- Bayer, R. J., and G. L. Stebbins. 1987. Chromosome numbers, patterns of distribution, and apomixis in *Antennaria* (*Asteraceae*: Inuleae). *Systematic Botany* 12: 305-319.
- Bayer, R. J., and T. M. Minish. 1993. Isozyme variation, ecology and phytogeography of *Antennaria soliceps* (*Asteraceae*: Inuleae), an alpine apomict from the Spring Mountains, Nevada. *Madroño* 40(2): 75-89.
- Blake, S. F. 1938. Two new *Asteraceae* from the Charleston Mountains, Nevada. *Proceedings of the Biological Society of Washington* 51: 7-10.
- Harper, K. T., D. C. Freeman, W. K. Ostler, and L. G. Klikoff. 1978. The flora of the Great Basin mountain ranges: diversity, sources, and dispersal ecology. *Great Basin Naturalist Memoirs* 2: 81-103.
- Knight, T. A. 1990. Status report for *Antennaria soliceps*, "Charleston pussytoes." Carson City: Nevada Natural Heritage Program, prepared for the Toiyabe National Forest, Las Vegas Ranger District. 25 pages.
- Smith, F. 1995. Status report for *Antennaria soliceps*. Reno: The Nature Conservancy, prepared for the U. S. Fish and Wildlife Service, Reno. 11 pages + two appendices.
- Smith, F. 1995. Status report for *Ivesia cryptocaulis*. Reno: The Nature Conservancy, prepared for the U. S. Fish and Wildlife Service, Reno. 11 pages + two appendices.
- Smith, F. 1995. Status report for *Sphaeromeria compacta*. Reno: The Nature Conservancy, prepared for the U. S. Fish and Wildlife Service, Reno. 10 pages + two appendices.

**OF FURTHER INTEREST:** All populations appear to represent a single female genotype that reproduces asexually (Bayer and Minish 1993). The absence of genetic variation poses a challenge to the long-term survival of the species, particularly in the face of potential climatic warming.

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