

Townsendia jonesii (Beaman) Reveal ***var. tumulosa*** Reveal (1970)**CHARLESTON GROUNDDAISY**

FAMILY: *Asteraceae*, the sunflower family.

STATUS: **Heritage Program SENSITIVE LIST, ranks: G4 T3 S3**
USFWS/ESA: species of concern. **STATE OF NEVADA:** none. **BLM:** Special Status Species. **USFS:** Humboldt-Toiyabe NF Sensitive Species. **NNNPS:** watch list.

POPULATION CENSUS: **27 occurrences mapped** at 1.0 km (0.6 mi) separation, **OR 39 occurrences mapped** at 0.16 km (0.1 mi) separation; total estimated **individuals unknown**, total estimated **area 7.2+ ha (17.8+ ac)**.

TREND: unknown.

IMPACTS AND MAJOR THREATS: Increased recreational use of the Spring Mountains.

INVENTORY EFFORT: Some targeted surveys have been conducted, but much potential habitat remains unexamined. Most recent entered survey 1993, average year of last survey 1981. **Years since last entered survey** (percent of mapped records at various survey ages): **6-10 yrs:** 51.3%; **11-20 yrs:** 12.8%; **21-30 yrs:** 15.4%; **31-50 yrs:** 7.7%; **51+ yrs or unknown:** 12.8%.

LAND MANAGEMENT in decreasing predominance: Humboldt-Toiyabe National Forest, U. S. Fish and Wildlife Service, designated wilderness, U. S. Bureau of Land Management, Nevada state lands, private lands, U. S. Department of Defense (?).

RANGE: Clark and Nye counties, Nevada. **Nevada endemic.** Maximum **range dimension 90.9 km (56.5 mi)** excluding most disjunct record. **Type specimen** collected in Clark County.

ELEVATIONS RECORDED: 5200-11060 feet (1585-3371 meters).

HABITAT: Open, sparsely vegetated calcareous areas, on shallow gravelly carbonate soils on slopes and exposed knolls in forest clearings mostly in the montane conifer zone with *Pinus ponderosa*, extending to the pinyon-juniper, mountain mahogany, and lower subalpine conifer zones, recurring on knolls of white, alkaline, calcareous, silty lacustrine deposits in the upper shadscale/mixed-shrub and lower sagebrush zones.

PHENOLOGY: flowering late-spring. Range of most frequent **survey months:** May-August.

LIFE-FORM AND HABIT: small matted short-lived perennial herb.

DESCRIPTION: not available (see references).

PHOTOGRAPHS: Nachlinger (1994), Weixelman and Atwood (1990); Nevada Natural Heritage Program slide collection (1986-present) and files.

ILLUSTRATIONS: Cronquist (1994), Mozingo and Williams (1980), Weixelman and Atwood (1990).

OTHER GENERAL REFERENCES (listed separately): Ackerman (1981), Clokey (1951).

SPECIFIC REFERENCES:

- Reveal, J. L. 1970. A revision of the Utah species of *Townsendia* (Compositae). *Great Basin Naturalist* 30: 23-52.
Woodbury, K. 1980. Status report for *Townsendia jonesii* var. *tumulosa*. Portland, Oregon: U. S. Fish and Wildlife Service.
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