

Fact Sheet

Green's Tuctoria (*Tuctoria greenei*)

Taxonomy and Physical Description

- The genus *Tuctoria* is in the grass family Poaceae, subfamily Chloridoideae, and is a member of the Orcuttieae tribe.
- *Tuctoria greenei* grows in tufts of several stems, which are erect or decumbent and break easily at the base. The entire plant tends to be hairy.
- The pith-filled stems are usually 5 to 15 centimeters (2.0 to 6 inches) tall and are unbranched and it lacks distinct leaf sheaths and ligules (scale-like leaf appendages), and produces an exudate.
- It has purplish nodes and leaves no wider than 5 millimeters (0.20 inch).
- The inflorescence can be as much as 8 centimeters (3 inches) long; usually consists of 7 to 15 spikelets, but may contain as many as 40.
- The spikelets are arranged in a spiral, with those in the upper half crowded together and those near the base more widely separated. Each spikelet consists of 5 to 15 florets and 2 glumes.

Habitat

- Greene's tuctoria is dependent on vernal pools.
- Occupied pools are or were underlain by iron-silica cemented hardpan, tuffaceous alluvium, or claypan.
- *T. greenei* often grows in shallower pools than other members of the tribe or on the shallow margins of deeper pools.
- The plants apparently do not tolerate long periods of inundation.

Distribution and Abundance

- Greene's tuctoria is endemic to California's Central Valley and Modoc Plateau regions.
- It has been reported in 11 counties, including: Shasta, Tehama, Butte, Glenn, San Joaquin, Stanislaus, Madera, Merced, Fresno, Tulare, and most-recently Modoc County. The Service is aware of over 40 occurrences.
- Elevations of occupied pools range from less than 440 feet in the Central Valley, to 3,500 feet in Shasta County, and to 4300 ft in Modoc County.
- Population size in *T. greenei* varies widely from year to year (up to 3 orders of magnitude), and populations that have no visible plants one year can reappear in large numbers in later years.
- Population fluctuations may be due to annual variations in weather, particularly rainfall, to changes in management, or combinations of the two.

Reproduction and Conservation Needs

- Optimum germination of *T. greenei* seed occurs when they are exposed to light and anaerobic conditions after stratification.
- Germination occurs about 2 months following inundation.
- Flowers occur from May to July, with peak flowering in June and July
- Conservation needs are (1) habitat protection, (2) adaptive habitat management and monitoring, (3) status surveys, (4) research, and (5) public participation and outreach (USFWS 2005).