

Colusa Layia

(*Layia septentrionalis*)

Legal Status

Federal: None

State: None



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Global and State Conservation Status: G2S2.2: Global Rank, G2 = Imperiled: At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors; State Rank S2 = Same as global rank, but only for the range of the taxa in California. State ranks in California often also contain a threat designation attached to the S-rank, S2.2 = threatened.

CNPS List: 1B.2; 1B: Rare, threatened, or endangered in California and elsewhere. 0.2: Fairly endangered in California.

Recovery Plan: None.

Species Description and Life History

Colusa layia (*Layia septentrionalis*) is a 6 to 35 cm (2 to 14 inches) annual, herbaceous, unscented, glandular member of the sunflower family (Asteraceae) (Hickman 1993; UCANR 2001; FNA 2007). This species is also known as “Colusa tidytips” (Calflora 2007). It is distinguished by its narrow involucre-radiate heads with chaff scales in 1-series between the ray and disk flowers and flowers with densely woolly plumose pappus (Hickman 1993; UCANR 2001). The flowers have five to nine golden yellow ray florets and yellow anthers (UCANR 2001; FNA 2007). This species has eight sets of chromosomes and its lack of a flavonol biosynthetic pathway sets it apart genetically from other species groups in the *Layia* genus (Crins *et al.* 1988).

Habitat Requirements and Ecology

Colusa layia occurs on loose serpentine or other rocky soils in fields or on grassy slopes within chaparral and cismontane woodland habitats (CNPS 2001; CDFG 2007). This species has been identified from 100 to 1,095 m (328 to 3,593 ft) in elevation and blooms from April to May (CNPS 2001). Some of the species known to occur in association with *Colusa layia* in the Central Valley include one-sided bluegrass (*Poa secunda*), spinster's blue-eyed Mary (*Collinsia sparsiflora*), imbricate scorpionweed (*Phacelia imbricata*), Fremont's death camas (*Zigadenus fremontii*), varileaf phacelia (*Phacelia heterophylla*), and California poppy (*Eschscholzia californica*) (CDFG 2007).

Species Distribution and Population Trends

Distribution

Colusa layia is endemic to California and its distribution, as defined by Calflora 2007, is based on 92 observations. Many of the densest occurrences outside of Yolo County are on road cuts and it often occurs on shale and serpentine balds (M. Gause pers. com. 2007). Two occurrences of the species within Yolo County date from 1938 and are located in the Comanche Hills, 4 miles northeast of Rumsey and on a grade along Rumsey-Arbuckle Road (CDFG 2009). Specimens have also been collected in Tehama, Mendocino, Glenn, Colusa, Lake, Sonoma, Napa, and Sutter counties by M. Gause (CDFG 2009). In 2008 approximately 100 plants were discovered growing on a steep east facing rock face on the Tuleyome Ireland Ranch (CDFG 2009).

Population Trends

Population trends of *Colusa layia* have not been documented and it is unclear whether this species is in decline. According to the CNPS (2001), occurrences of *Colusa layia* in California are limited and the species is at risk throughout its range.

Threats to the Species and Other Conservation Issues

The primary threat to *Colusa layia* is the loss of habitat through development (CNPS 2001). Most reported occurrences of *Colusa layia* are on naturally infertile soils or on soils rendered infertile through grading during road construction and tend to exist as isolated populations growing in relatively small patches within landscapes where wild fire and soil erosion are important disturbance agents. Research should address the role of disturbance regimes and competition, dispersal vectors and the role of dispersal in maintaining the isolated populations, seed bank dynamics, the possibility of fire acting as a germination cue for cryptic populations within fire adapted vegetation, and plant breeding system and pollinator requirements. Comparisons between the biological and ecological characteristics of the natural isolated populations with those of the large roadside populations would also be informative.

Contributors to this species account:

Cathy Little, HT Harvey & Associates
John Gerlach, TAIC

References

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