

# Colorado Butterfly Plant



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## Species Description

**Description:** Short-lived perennial herb up to 90 cm tall; multiple-branched, reddish pubescent stems with lance-shaped lower leaves; higher leaves are smaller and reduced in number. Flowers have four white petals that turn pink with age, 1-1.5 cm wide.

**Phenology:** Flowers June – September.

**Look Alikes:** Velvetweed (*Gaura parviflora*) and scarlet beeblossom (*Gaura coccinea*).

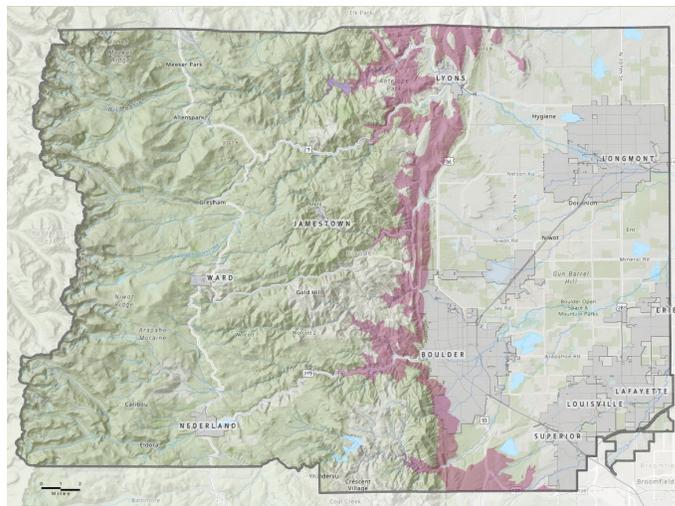
**Habitat:** Sub-irrigated, alluvial soils of drainage bottoms surrounded by mixed-grass prairie; often found in early- to mid-succession riparian habitat, including streambanks, outside of the stream channel but within the floodplain, and spring-fed wet meadows; moist meadows and along ditches.

## Background

The Colorado butterfly plant is a rare perennial forb that has been threatened by significant habitat degradation or loss from land development and oil and gas activity in the county. The plant has also declined because of alteration of hydrology, invasive species, and the use of pesticides. It was listed as a federally threatened species in the year 2000, and in 2019 it was delisted because of successful progress toward its recovery within its entire geographic range. The plant remains rare in Colorado even though it is no longer threatened from becoming extinct, and ongoing efforts and monitoring must continue to maintain its recovered status.

## Distribution & Range

The Colorado butterfly plant is a regional endemic riparian species in Colorado, Wyoming, and Nebraska. It is found in Boulder, Douglas, Adams, Arapahoe, Jefferson, Larimer, and Weld Counties in Colorado.



## Threats

**Habitat loss & Degradation:** Habitat loss caused by development poses a serious issue for the species, as its specialist nature predisposes it to limited geographic distribution, poor ability to disperse, and restrictive habitat requirements

**Invasive Species:** Canada thistle (*Cirsium arvense*) and leafy spurge (*Euphorbia esula*), both listed B noxious weeds, pose the largest threat to the Colorado butterfly plant, given their occupation of the same habitat.

**Grazing:** Heavy grazing at key times of the year during the life cycle of the Colorado butterfly plant may be detrimental to populations by removing reproductive individuals and eliminating seed production for that year. Additionally, the presence of livestock may result in trampling of plants.

**Pesticides/Herbicides:** Because the invasive Canada thistle and leafy spurge often grow alongside the Colorado butterfly plant, the use of non-selective broadleaf herbicides to control them can have negative effects on this rare plant.

**Alteration of Disturbance Regimes:** Loss of floodplain connectivity can threaten the Colorado butterfly plant because the plants are sub-irrigated, and disturbances caused by flooding help to create suitable habitat. In the absence of occasional disturbance, the Colorado butterfly plant's habitat can become choked out by excessive vegetation, like dense stands of willow, grasses, or exotic plants.

## Management Considerations

**Policy & planning:** This should include actions such as requiring a site inventory for the species when impacting or altering habitat, mitigating alterations to hydrologic systems in order to preserve habitat, or designating areas that would be strong candidates for reintroduction and/or habitat restoration.

**Invasive Plant Management:** Colorado butterfly plant and other forbs that support pollinators that the plant relies on are vulnerable to broadleaf herbicides. Consequently, any control efforts implemented for broadleaf invasive plants could have detrimental effects to the butterfly plant.

**Agriculture:** Although the plant benefits from some agricultural activities (grazing, burning, flooding, and mowing), these actions are beneficial only if they are done in the winter or early spring, prior to the start of the flowering period in June. Mowing should occur after the plant has gone to seed in the fall.



2021

The areas displayed in this map indicate known and potential locations of the following species of special concern in Boulder County:

## *Oenothera coloradensis*



Colorado butterfly plant

The Colorado butterfly plant is a rare, short-lived perennial forb endemic to riparian areas of Colorado, Wyoming, and Nebraska. It is often found streamside, within floodplains, and in wet meadows. It is threatened by significant habitat degradation, land development, alteration of hydrology, and invasive species. It was listed as a federally threatened species in 2000 but removed in 2019 due to some progress in its conservation. It remains critically imperiled (S1) in Colorado and is a Boulder County Species of Special Concern.

This map shows only potential suitable locations of this species in Boulder County based on its known elevation range.

 Potential Location

