

Cleome multicaulis

MANY-STEMMED SPIDER-FLOWER

Family: Capparaceae

Agency Status:

US Fish & Wildlife Service: None (former C2 candidate for listing under the Endangered Species Act).

WY Bureau of Land Management: Sensitive

Heritage Rank:

Global: G2G3

State: S1

Range Context: Disjunct

Wyoming Contribution Rank: High

Description: Many-stemmed spider-flowers is a slender, glabrous annual forb with erect, unbranched or sparingly branched leafy stems 20-70 cm tall. The leaves are sessile (or nearly so) and palmately compound with 3 narrow leaflets 1-2 cm long and less than 1.5 mm wide that may be folded along the midrib. Flowers have 4 pink or pinkish-white petals 4-6 mm long and are borne on thin stalks in the axils of reduced leaves. The 6 stamens are equal in length to the petals. Fruits are narrow, multi-seeded capsules up to 2 cm long with a stalk-like base (gynophore) and droop at maturity. Seeds are light brown, smooth, nearly globose, and less than 2.5 mm (Fertig et al. 1994, 2000; Iltis 1958; Vanderpool and Iltis 2010).

Local field characters: Best recognized when in flower or fruit.

Similar Species: *Cleome serrulata* is a more robust, with broader leaflets, larger fruit, and entire (undivided) flower bracts, and has stamens that are much longer than the petals. *C. lutea* has yellow flowers.

Phenology: Late June-early September.

Distribution: Occurs from Arizona to Texas, and northward, disjunct in south-central Colorado and central Wyoming. In Wyoming, known only from the



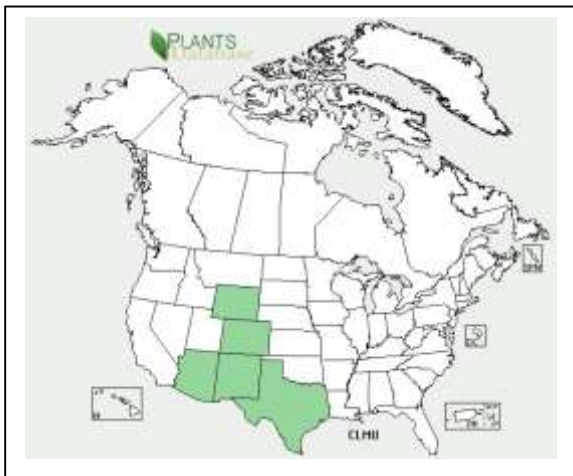
Above and below: *Cleome multicaulis* by Walter Fertig



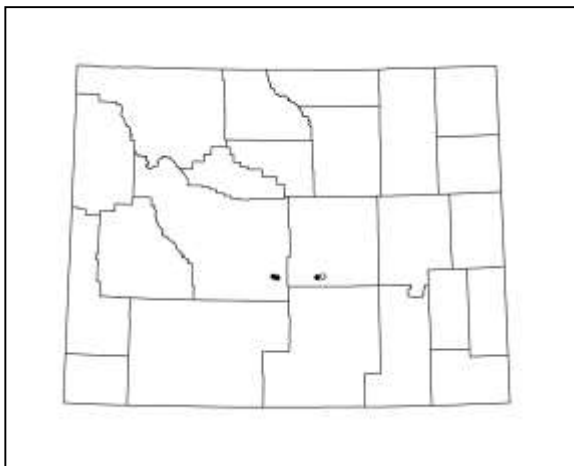
Above: *Cleome multicaulis* by Bonnie Heidel

Sweetwater River drainage (Fremont and Natrona counties).

Habitat: Wet meadows and alkaline flats in Colorado (Weber and Wittmann 2012). Wyoming populations are on borders of shallow playa lakes, dried lakebeds and swales above shores on damp flats, and sometimes on clayey dunes and low hummocks. Soils are alkaline, often with whitish salt accumulation at the surface and a strong hydrogen-sulfide scent. Vegetation is sparse, with *Spartina gracilis*, *Distichlis stricta*, *Triglochin maritimum* and *Sarcobatus vermiculatus* (Fertig et al. 1994, Fertig 2000, Heidel 2015).



Above: Rangewide distribution of *Cleome multicaulis*



Above: Wyoming distribution of *Cleome multicaulis*

Occurrences in Wyoming: Known from 3 extant occurrences in Wyoming, last observed in 2014. A fourth record reported to be 6 miles to the east of the known Pathfinder Reservoir occurrence has not been relocated. The label information from the latter specimen

may be erroneous, and the two Reservoir records are the same.



Above: *Cleome multicaulis* habitat by Walter Fertig



Above: *Cleome multicaulis* habitat by Bonnie Heidel

Abundance: Surveys in 1999-2000 documented approximately 500,000-1,000,000 individuals in 200 acres. Density ranges from 135-1300 individuals per square meter, depending on habitat quality. Population size may fluctuate annually, depending on moisture conditions and seed bank size.

Trends: Long-term trend data are lacking, although there is some evidence that the Natrona County population has been present since 1843 (Fertig 2000). Since 1992, the population has been stable to increasing. This species may experience annual population fluctuations depending on climate conditions.

Protection Status: A large occurrence is found within Pathfinder National Wildlife Refuge. This occurrence

may extend onto adjacent private lands where it is not formally protected.

Threats: The net affects of Pathfinder Reservoir construction may be negative or positive. Potentially threatened by noxious weeds.

Managed Areas: Occurs on lands managed by the BLM Lander Field Office, possibly the BLM Casper Field Office and the U.S. Fish and Wildlife Service - Pathfinder National Wildlife Refuge.

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