

PHACELIA GLANDULOSA VAR. *DESERTA*
DESERT GLANDULAR PHACELIA
Family: Hydrophyllaceae

Status:

US Fish & Wildlife Service: None.

Agency Status: None.

Heritage Rank:

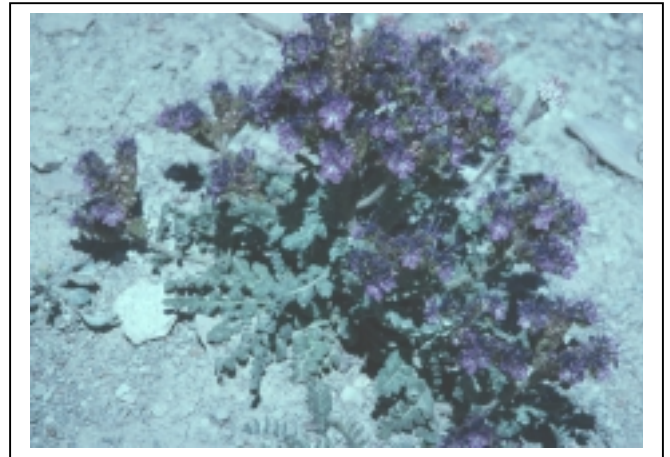
Global: G4T1T2 State: S1?

WYNDD Plant List: State endemic? (High conservation priority?)

Description: Desert glandular phacelia is an annual or biennial herb with erect, branched or unbranched stems 0.6-20 cm tall. The stems are densely pubescent with short grayish hairs and occasional glands. Leaves are lanceolate to oblong and pinnately divided into 5-9 round-toothed segments. The inflorescence is a dense panicle of coiled cymes that elongates to 6.5 cm in fruit. Flowers have a bright blue, pinkish, or purple open, bell-shaped corolla consisting of 5 rounded lobes, conspicuously exerted stamens, and deeply cleft styles. Fruits are oval, pubescent capsules bearing elliptic to oblong, pitted seeds (Atwood 1975; Coulter and Nelson 1909; Fertig 1998, 1999; Nelson 1898).

Similar Species: *Phacelia glandulosa* var. *glandulosa* has densely glandular pubescent stems and inflorescences. *P. sericea* is a perennial from a branched, woody rootstalk (Coulter and Nelson 1909; Dorn 1992; Fertig 1998, 1999).

Flowering/Fruiting Period: Flowering and fruiting occurs from mid June to late August. Reproduces by seed. Pollinators are attracted by the plants strong odor and dark purple



Above: *Phacelia glandulosa* var. *deserta* from ridge NE of Whalen Bottom, near Green River, WY. Photo by Walter Fertig.

flowers. Bumblebees, wasp-like flies, and solitary bees were observed pollinating plants in 1998 (Fertig 1999).

Distribution: *Phacelia glandulosa* var. *deserta* is apparently endemic to the Great Divide Basin and the desert foothills of the Overthrust Belt in southwestern Wyoming in Lincoln, Sweetwater, and Sublette counties.

Habitat: Desert glandular phacelia occurs primarily on semi-barren south or west facing upper slopes of gray clay shale covered by fragments of bleached slate in cushion plant and bunchgrass communities dominated by *Cymopterus terebinthinus*, *Arenaria hookeri*, *Haplopappus armerioides*, *Elymus salinus*, and *Oryzopsis hymenoides*. These sites are usually on outcrops of the Green River Formation, but may also occur on river deposits or conglomerates of the Bridger Formation. Less frequently, this species may also occur on chalky, limey-slate outcrops dominated by *Phlox muscoides* and other cushion plants, or in openings within a matrix of shadscale, green rabbitbrush, and greasewood (Fertig 1999).



Above: Habitat of *Phacelia glandulosa* var. *deserta* on outcrops of the Green River shale near Green River, WY. Photo by Walter Fertig.

Occurrences in Wyoming: Known from 8 extant occurrences (with about 30 subpopulations) in Wyoming. Six of the extant occurrences were surveyed in 1997-98. Six additional vague, historical records are known in Wyoming (Fertig 1999).

Abundance: The state population was estimated at 6900-9500 individuals in at least 53 acres of habitat in 1998 (Fertig 1999). Two occurrences discovered in 1995-96 were not surveyed in 1998.

Trends: Long-term trend data are absent for most populations, although sites in the Green River and Opal areas have been known since the 1890s and 1920s.

Protection status: No occurrences are currently known to be formally protected. The Ross Butte population is within an area that is being considered for ACEC designation.

Threats: Some colonies may be threatened by habitat disturbance associated with ORV recreation or mineral exploration.

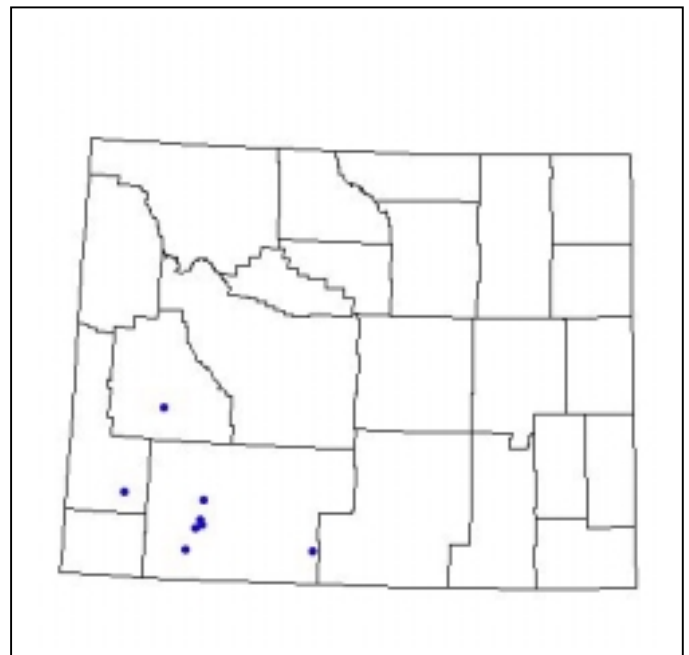
Managed Areas: Occurs on lands being managed by the BLM Kemmerer, Pinedale, Rawlins, and Rock Springs Field Offices and by Flaming Gorge National Recreation Area (Ashley National Forest).

Additional Comments: This variety is being resurrected by Duane Atwood of Brigham Young University, a long-time student of the genus. Much of the Wyoming material that has been attributed to this variety, may actually belong to the more common, typical variety.

References:

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