

Crosby's buckwheat (*Eriogonum crosbyae*)



THREATENED



Flowers (left), habit (center), and habitat (right) of Crosby's buckwheat. Photos by Thomas Kaye. If downloading images from this website, please credit the photographer.

Family

Polygonaceae

Taxonomic Notes

Synonyms: *Eriogonum capistratum*, *E. capistratum* var. *muhlickii*, *E. capistratum* var. *welshii*, *E. meledonum*, *E. ochrocephalum* var. *alexandrae*, *E. verrucosum*

Plant description

Crosby's buckwheat is a low, matted perennial 0.5-15 (-20) cm tall by (1-) 10-30 cm in diameter, growing from a woody caudex with matted stems. Stems bear persistent leaf bases and reach up to 1/5 the height of the plant. Leaves are basal and arranged in tight terminal clusters, the petiole 0.2-3 (-3.5) cm long and tomentose, occasionally glandular, the blade oblanceolate to spatulate or elliptic to obovate or ovate, (0.5-) 1-2 (-3) cm long by 0.2-1 (-1.5) cm wide, and densely white- or grayish-tomentose on both surfaces, sometimes less so and greenish white adaxially. Inflorescences are capitate, 0.7-1.5 cm wide, subtended by three scalelike narrowly triangular to triangular bracts 1-3 mm long, and borne on weakly erect to erect, slender scapelike stems, floccose to tomentose or glabrous, sometimes only or also sparsely to densely glandular. Involucres number (3-) 5-8 per cluster, are turbinate to campanulate, (1.5-) 2-5 (-5.5) mm by 2-4 (-4.5) mm, rigid or membranous, tomentose to floccose, occasionally glabrous except for floccose teeth, or rarely sparsely pilose and glandular, with 5-7 teeth 0.5-1.5 mm long, erect to spreading or reflexed. Flowers are yellow to pale yellow (rarely cream), 1.5-3.5 (-4) mm, glabrous or sometimes minutely glandular (some pustulose), tepals oblong to oblong-ovate and 1/4-1/3 connate at the base, stamens 1.5-4 mm long and exserted, filaments glabrous or sparsely pilose at the base. Achenes are light brown, 2-4 mm long, and glabrous or occasionally with minute bristles on the beak.

Distinguishing characteristics

Three other similar species of *Eriogonum* occur within or near the range of Crosby's buckwheat in Oregon: *E. prociduum*, *E. cusickii*, and *E. ochrocephalum* var. *calcareum*. *Eriogonum prociduum* is distinguished from Crosby's buckwheat by its glabrous scapes

(versus usually floccose to tomentose and/or glandular scapes) and its involucre, glabrous or floccose only on the teeth (versus usually floccose or tomentose throughout, or glandular); *E. cusickii* has loose umbellate-cymose inflorescences, usually with only one involucre per node (versus tightly capitate clusters of several involucre); and *E. ochrocephalum* var. *calcareum* has, on average, longer scapes, (6-) 10-40 (-50) cm, that are usually glabrous or rarely slightly floccose (versus scapes 0.2-15 (-18) cm and usually floccose to tomentose and/or glandular) and involucre that are sparsely floccose or glabrous (versus usually floccose or tomentose throughout, or glandular).

When to survey

Surveys for Crosby's buckwheat should be completed when the species is flowering, typically June through July.

Habitat

In Oregon, Crosby's buckwheat is restricted to light-colored (white and tan) tuffaceous sandstone substrates, usually on rounded, gentle slopes where the rock has not crumbled into fragments, at elevations ranging from 1600-1670 m (5250-5460 ft).

Although vegetation is sparse on the sedimentary tuff outcrops, there are a number of plant species that commonly occur with Crosby's buckwheat, including *Artemisia* spp., *Astragalus* spp., *Atriplex confertifolia*, *Ericameria* spp., *Erigeron linearis*, *Eriogonum* spp., *Stenotus acaulis*, *Ipomopsis congesta*, *Penstemon* spp., *Poa* spp., *Scutellaria nana*, *Stipa* spp., and *Tetradymia* spp.

Range

Crosby's buckwheat was once thought to be restricted to southeastern Oregon (in Guano and Coleman Valleys in southeastern Lake County and Fish Fin Rim in southwestern Harney County) and northwestern Nevada. Although the distribution of the species in Oregon remains the same, Reveal's (2005) treatment of Crosby's buckwheat in the *Flora of North America* has broadened the concept of the species. As currently defined, Crosby's buckwheat is widely scattered in valley bottoms, foothills, and mountaintops in central Idaho and western Montana, and is disjunct to southwestern Idaho, southeastern Oregon, northwestern Nevada, and also Elko County, Nevada.

A status review will be necessary to determine if this geographic re-interpretation of the species might lead to de-listing of Crosby's buckwheat by the State of Oregon.

Oregon counties

Harney, Lake

Federal status

Species of Concern

Threats

Crosby's buckwheat is threatened by range improvement projects and grazing by livestock and rabbits. Habitat loss due to gold mining activities poses a risk to the long-term survival of the species. Several Crosby's buckwheat occurrences have been significantly harmed or destroyed by mining operations. Off-road vehicle use also poses a potential hazard for the species.

Did you know?

Bureau of Land Management botanist Virginia Crosby discovered Crosby's buckwheat in 1978 in the southern end of Guano Valley in Lake County, Oregon while conducting a floristic survey of the Lakeview District. James Reveal described the species in 1981, naming it in Crosby's honor.

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