

Cronquist's stickseed (*Hackelia cronquistii*)



THREATENED



Flower (left), habit (center), and habitat (right) of Cronquist's stickseed. Photos by ODA staff. If downloading images from this website, please credit the photographer.

Family

Boraginaceae

Plant description

Cronquist's stickseed is an erect, taprooted perennial 20-65 cm tall. Stems are glabrous below the middle and sparsely antrorse-strigose above, arising from a compactly branched caudex. Leaves are hirsute or strigose, the basal leaves usually persistent, narrowly elliptic or lance-elliptic, 6-14 (-21) cm long by 0.5-2 (-3.5) cm wide, with long petioles. Cauline leaves are narrowly elliptic to narrowly oblong or sometimes lanceolate, 2.5-11 (-14.5) cm long by 0.2-0.8 (-1.3) cm wide, strongly ascending, mostly sessile, and progressively smaller upward along the stem, the bracts small and insignificant in the inflorescence. Flowers are white tinged with blue, the corolla limb 0.8-1.5 cm wide, the tube 2-2.2 mm long, shorter than to slightly exceeding the calyx lobes. The fornications in the throat of the corolla have papillate to papillate-puberulent appendages. Nutlets are lanceolate to lance-ovate, (2.5-) 3-3.5 mm long, the dorsal surface strongly warty with firm, stiff hairs and short and long prickles ranging from (0.2-) 0.5-3.5 (-4) mm long.

Distinguishing characteristics

A few other species of *Hackelia* occur within or near the range of Cronquist's stickseed: *H. patens* var. *patens*, *H. cusickii*, *H. micrantha*, and *H. hispida* var. *hispida*. *Hackelia patens* var. *patens* most closely resembles Cronquist's stickseed, though the former is distinguished by stems that are hairy throughout, and corolla fornications with conspicuously papillate-hairy appendages. *Hackelia cusickii* is distinguished from Cronquist's stickseed by stems that are hairy throughout and blue corollas; *H. micrantha* has stems sparsely hairy to hairy throughout, and blue corollas; *H. hispida* var. *hispida* has ochroleucous or greenish tinged corollas, the limb usually only 4-5 mm wide, with glabrous fornications.

When to survey

Surveys for Cronquist's stickseed should be completed in May when the species is in peak flower.

Habitat

Cronquist's stickseed inhabits shrub-steppe communities typically dominated by sagebrush. It occurs on sandy north-facing hillsides with slight to extreme slope, sometimes on moist slopes in ravines, at elevations ranging from 610-1110 m (2000-3640 ft).

Commonly associated plant species include *Achillea millefolium*, *Achnatherum hymenoides*, *Arabis* sp., *Artemisia tridentata*, *Balsamorhiza sagittata*, *Chrysothamnus viscidiflorus*, *Crepis acuminata*, *Ericameria nauseosa*, *Eriophyllum lanatum*, *Erysimum capitatum*, *Festuca idahoensis*, *Leymus cinereus*, *Lupinus argenteus*, *Phlox longifolia*, *Poa secunda*, *Pseudoroegneria spicata*, *Purshia tridentata*, and the invasive *Bromus tectorum*.

Range

Cronquist's stickseed is restricted to central eastern Oregon (primarily northern Malheur County, with one report from southeastern Baker County) and adjacent Payette and Washington counties in Idaho. It occurs within the Northern Basin and Range ecoregion.

Oregon counties

Baker, Malheur

Federal status

Species of Concern

Threats

Intensive livestock grazing poses a threat to Cronquist's stickseed occurrences and promotes invasion by fire-prone exotic weeds, which results in further impacts to the rare species from competition and habitat degradation. Herbicide use may also threaten occurrences of Cronquist's stickseed. Road construction, irrigation ditch construction, and residential and agricultural development are likely causes of historic habitat destruction that has impacted this species over time.

Did you know?

This taxon was first collected in Malheur County in 1896. It was first formally described by Cronquist as a variety of the closely related *Hackelia patens* in 1963. After further study, it was elevated to the species level and named in Cronquist's honor by Gentry in 1972. Cronquist's stickseed was thought to occur only in Oregon until fruit farmer Mary Trail discovered the species on her land near Payette, Idaho in 1993.

References

Atwood, D. and A. DeBolt. 2000. Field guide to the special status plants of the Bureau of Land Management Lower Snake River District. Unpublished report for the Bureau of Land Management, Lower Snake River District, Boise, Idaho.

Gentry, J. L. and R. L. Carr. 1976. A revision of the genus *Hackelia* (Boraginaceae) in North America, north of Mexico. *Memoirs of the New York Botanical Garden* 26: 144, 168-170.

Hickman, J.C., ed. 1993. *The Jepson manual: Higher plants of California*. University of California Press, Berkeley, California.

Hitchcock, C. L., A. Cronquist, M. Ownbey, and J. W. Thompson. 1959. Vascular plants of the Pacific Northwest. Part 4: Ericaceae through Campanulaceae. University of Washington Press, Seattle.

Meinke, R.J. 1982. Threatened and endangered vascular plants of Oregon: An illustrated guide. Unpublished report for the U.S. Fish and Wildlife Service, Region 1, Portland, Oregon. Oregon Department of Agriculture, Salem, Oregon.

Moseley, R. K. 1996. Report on the conservation status of *Hackelia cronquistii* in Idaho. Unpublished report for the Idaho Department of Parks and Recreation. Idaho Department of Fish and Game Conservation Data Center, Boise, Idaho. Accessed April 15, 2011.

OFP (Oregon Flora Project). 2010. Oregon Plant Atlas.
<http://www.oregonflora.org/atlas.php>. Accessed April 15, 2011.

ORBIC (Oregon Biodiversity Information Center). 2010a. Rare, threatened and endangered species of Oregon. Institute for Natural Resources, Portland State University, Portland, Oregon. 105 pp. Available at
<http://orbic.pdx.edu/documents/2010-rte-book.pdf> (pdf document, 971 kB). Accessed December 13, 2010.

ORBIC (Oregon Biodiversity Information Center). 2010b. ORBIC element occurrence database. Portland, Oregon.