

-State Species Abstract-
-Wyoming Natural Diversity Database-

DESCURAINIA TORULOSA
WYOMING TANSYMUSTARD
Family: Brassicaceae

Status:

US Fish & Wildlife Service: None (formerly a C2 candidate for listing under the Endangered Species Act).
Agency Status: USFS Region 2: Sensitive; USFS Region 4: Sensitive; BLM Rock Springs Field Office: Special status.

Heritage Rank:

Global: G1 State: S1
WYNDDB Plant List: State endemic (High conservation priority)

Description: Wyoming tansymustard is a multiple-stemmed biennial or short lived perennial herb growing to 15 cm tall. Finely divided, star-shaped (stellate) hairs give the stem, leaves, and fruit a gray-green appearance. The leaves are pinnately divided, 2-3 cm long, and located mainly at the base of the plant. Flowers are yellow, four-petaled, and 1.5 mm long. The fruits are 8-15 mm long, strongly constricted between the seeds (torulose), long-tapering to the tip, and borne on stalks less than 3 mm long and closely appressed to the inflorescence axis (Fertig 1992; Fertig et al. 1994).

Similar Species: Varieties of *Descurainia incana* have hairless fruits or glandular-hairy stems and leaves. *D. pinnata* has hairless, club-shaped fruit (Fertig et al. 1994). A 1998 DNA sequencing study by Jerry Bricker and Greg Brown of the University of Wyoming suggests that *D. torulosa* is similar genetically to *D. incana*, and should be recognized as a variety of the latter.



Above: *Descurainia torulosa* in flower and fruit by Hollis Marriott.

Below: *D. torulosa* by Kaye Thorne

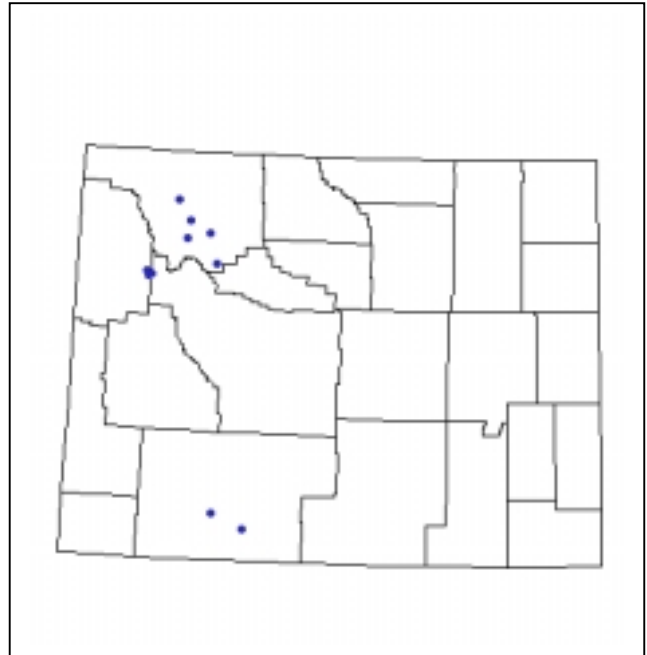


Flowering/Fruiting Period: Flowering and fruiting July-September.

Distribution: State endemic restricted to the southern Absaroka Range (Fremont, Park, and Teton counties) and Rock Springs Uplift (Sweetwater County) in Wyoming.

Habitat: Grows in sandy soil at the base of cliffs composed of volcanic breccia or sandstone, under slight overhangs, in cavities in the volcanic rock, or on ledges (Marriott 1991). Elevation 7700-10500 ft.

Occurrences in Wyoming: Known from 8-11 occurrences in Wyoming, several of which are in the same general area and might be better treated as metapopulations rather than individual occurrences. One population at Carter Mountain (Park County) may not represent this species (Dorn 1989). Rollins (1993) recognizes only the type population (Brooks Lake, Fremont County) as authentic.



Wyoming Distribution of *Descurainia torulosa*.

Abundance: The total population of this species probably numbers less than 1500 (Marriott 1991, 1992, Fertig 1997). Most populations average less than 40 individuals and may be restricted to a single ledge. Numbers may vary from year to year (Dorn 1989).

Trends: Generally considered to have fluctuating population sizes, although overall the species is probably stable. Recent follow-up surveys in the BLM Rock Springs Field Office suggest at least a severe short-term decline (B. Amidon, personal comm.).

Protection status: Two occurrences in the BLM Rock Springs Field Office are protected within Special Status Plant ACECs (established under the Green River Resource Area Management Plan in 1997). Two populations in the Absaroka Range are in the North Absaroka and Washakie Wilderness Areas. A taxonomically questionable population is found in the BLM's Carter Mountain ACEC. All other occurrences are on public lands managed for multiple use.



Above: *Descurainia torulosa* habitat on N Sublette Ridge in the Absaroka Range by Hollis Marriott.

Threats: Anthropogenic threats are minimal due to the plants rugged habitat, although some sites could potentially be impacted by exotics.

Managed Areas: Occurs on lands managed by Bridger-Teton NF (Buffalo RD), Shoshone NF (Wapiti and Wind River RDs), and the BLM Rock Springs Field Office. Reports from the BLM Cody Field Office are based on a questionable specimen.

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Updated: 00-06-15