

-State Species Abstract-
-Wyoming Natural Diversity Database-

ARNICA LONCHOPHYLLA
NORTHERN ARNICA
Family: Asteraceae

Status:

US Fish & Wildlife Service: None.

Agency Status: USFS Region 2: Sensitive

Heritage Rank:

Global: G4State: S2

WYNDD Plant List: Disjunct (Medium
Conservation Priority)

Description: Northern arnica is a perennial herb with solitary or loosely-clustered, glandular-hairy stems 17-45 40 cm tall. The leaves are coarsely toothed, opposite, and lanceolate to ovate with 3-7 parallel main veins. Lower leaves are petioled and mostly 1-3 times as long as wide, while the upper stem leaves are reduced and sessile. The 1-7 glandular flower heads are 9-13 mm long with 7-10 yellow rays and goblet-shaped disk flowers. The fruits are pubescent achenes 4.5-6 mm long with abundant white-bristly pappus (Downie and Denford 1988; Fertig et al. 1994).

Similar Species: *Arnica rydbergii* has densely clustered stems, mostly smooth-margined leaves, and tubular disk flowers. *A. fulgens* and *A. sororia* have proportionally narrower, smooth-margined lower stem leaves (4-10 times longer than wide) and 10-23 ray flowers. *A. cordifolia* has leaves with pinnate venation and heart-shaped leaf bases.

Flowering/Fruiting Period: June-July.

Distribution: Alaska to Newfoundland, south to S Alberta, Minnesota, and New Brunswick, with disjunct populations in Wyoming and South Dakota (these have been segregated as



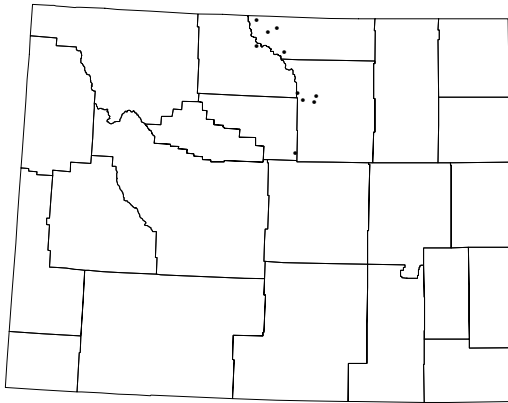
Above: *Arnica lonchophylla* by Walter Fertig (from Fertig et al. 1994).

Var. *arnoglossa* by some authors). In Wyoming, known from the Bighorn Mountains in Johnson, Sheridan, and Big Horn counties (with a vague, historical report from Washakie County). If variety *Arnoglossa* is recognized, this taxon is a regional endemic of South Dakota and Wyoming. This taxon also occurs in the Black Hills of South Dakota, but has not yet been located on the Wyoming side.

Habitat: In Wyoming, *A. lonchophylla* may occur in subalpine granite talus slopes and rocky meadows, montane limestone or

granite talus slopes, montane Douglas-fir, limber pine, or Engelmann spruce slopes covered by dense moss, and Engelmann spruce riparian woods on mossy knolls and boulders at 5300-10,300 feet.

Occurrences in Wyoming: Known from 9 extant occurrences in Wyoming and one historical record that has not been relocated since 1901. Seven occurrences have been discovered since 1992 (most recently in 1999).



Above: Wyoming distribution of *A. lonchophylla*.

Abundance: Population size is poorly known in Wyoming. Most occurrences have been reported as patchy and small. The largest known occurrence in the state contains ca 1400-2400 plants in 7 small colonies covering ca 10 acres. In the South Dakota Black Hills, populations range in size from "dozens to hundreds" (Dave Ode, personal comm.). Recent surveys by Ode and Gary Larson have documented nearly 30 new populations in South Dakota, prompting them to recommend dropping the species from the USFS Region 2 Sensitive list.

Trends: Unknown.

Protection status: Three occurrences are found within the potential Mann Creek, Crazy Woman Creek, and McLain Lake Research Natural Areas on Bighorn National Forest.

All other known occurrences are on public lands managed for multiple use.

Threats: Threats not known. Potentially threatened by grazing or logging activities, but no analysis has been completed.

Managed Areas: Occurs on lands managed by Bighorn National Forest and the BLM Buffalo Field Office (a vague historical record may also be from the BLM Worland Field Office).

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