

-State Species Abstract-
-Wyoming Natural Diversity Database-

ASTRAGALUS NELSONIANUS
NELSON'S MILKVETCH
Family: Fabaceae

Status:

US Fish & Wildlife Service: None.

Agency Status: BLM sensitive

Heritage Rank:

Global: G3 State: S3

Range Context: Regional endemic/ Core

Wyoming Contribution Rank: Very High

Description: Nelson's milkvetch is a perennial herb with fleshy-leathery stems 10-30 cm tall. Stems are decumbent at the base and arise from a woody rhizome. Lower stipules are papery and fused, while the upper stipules may be free or fused only at the base. Leaves are 4-9 cm long, nearly sessile, and divided into 5-11 linear to oblong leaflets, often selenium-scented. The leaflets are equally pubescent above and below with short, appressed, basally attached hairs. Individual leaflets are attached directly to the grooved rachis without a distinct joint. The inflorescence is a raceme of 6-20 white flowers with banners over 20 mm long. The calyx tube is 7-9 mm long. Fruits are oblong to elliptical, 15-33 mm long, semi-woody at maturity, and borne on downward-curved stalks (Barneby 1964, 1989; Dorn 2001).

Synonyms: *Astragalus pectinatus* var. *platyphyllus*

Similar Species: *Astragalus grayi* has erect to ascending fruits, calyx tubes shorter than 6 mm, and cream-colored flowers. *A. pectinatus* var. *pectinatus* has smaller fruits and extremely narrow leaflets with strongly inrolled margins. *A. bisulcatus* often has



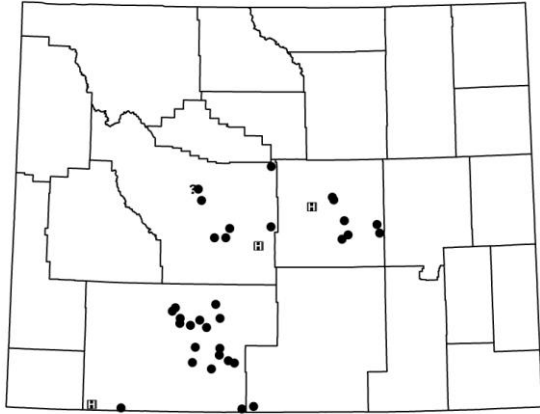
Above: *Astragalus nelsonianus* by B. Heidel

Below: Habitat of *Astragalus nelsonianus* by B. Heidel



purple or bicolored flowers, leaflets jointed to the rachis, and 2-grooved fruit (Dorn 2001).

Flowering/Fruiting Period: Flowers from early-late June. Fruits present from late June-August. May reproduce vegetatively by rhizomes.



Wyoming distribution of *Astragalus nelsonianus*.

Distribution: Regional endemic of southwest and central Wyoming, northeast Utah, and northwest Colorado. In Wyoming, it is known from the Wind River, Green River, Washakie, southern Powder River, and Great Divide basins, Owl Creek Mountains, and the Rock Springs Uplift in Fremont, Natrona, and Sweetwater counties.

Habitat: Occurs on alkaline, often seleniferous, clay flats, shale bluffs and gullies, pebbly slopes, and volcanic cinders. Known occurrences are found primarily in sparsely vegetated sagebrush and cushion plant communities at elevations of 5200-7600 feet.

Occurrences in Wyoming: Known from 32 recent records in Wyoming, and 3 historical records.

Abundance: Population census data are lacking for many occurrences. Most censused colonies number in the 100's and there are 7 colonies of over 300 plants. Abundance is estimated in the range of 10,000-100,000+ individuals.

Trends: Trend data are lacking, but populations are presumed to be stable at present based on relocation of several historic collections. There is evidence for localized

expansion in roadside settings. Long-term drought impedes flowering.

Protection status: All known populations are on public or private lands managed for multiple-use.

Threats: Threats include habitat disturbance associated with oil and gas development, and herbicide treatment along road right-of-ways. At present, these threats are low within much of its habitat.

Managed Areas: Found on public lands managed by the BLM Casper, Lander, Rawlins, and Rock Springs Field Offices, Ashley National Forest (Flaming Gorge National Recreation Area) and state lands.

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