-State Species Abstract-
-Wyoming Natural Diversity Database-

ASTRAGALUS GILVIFLORUS VAR. *PURPUREUS*
DUBOIS MILKVETCH
Family: Fabaceae

Status:
US Fish & Wildlife Service: None (Former C2 candidate for listing under the Endangered Species Act).
Agency Status: WY BLM Sensitive

Heritage Rank:
Global: G5T2 State: S2
Range Context: Local Endemic
Wyoming Contribution Rank: Very High

Description: Dubois milkvetch is a loosely matted perennial herb with a branching caudex. Leaves are silvery pubescent, long-petioled, and divided into three oval leaflets 7-30 mm long. Pea-like flowers are borne in pairs among the densely packed basal rosette of leaves. The banner petal is blue or purple (occasionally pinkish), 12-28 mm long, and has a spoon-shaped blade that tapers evenly to a narrow base. The fruits are upright, elliptical pods that are often hidden among the leaf bases (Dorn 1988; Fertig et al 1994).

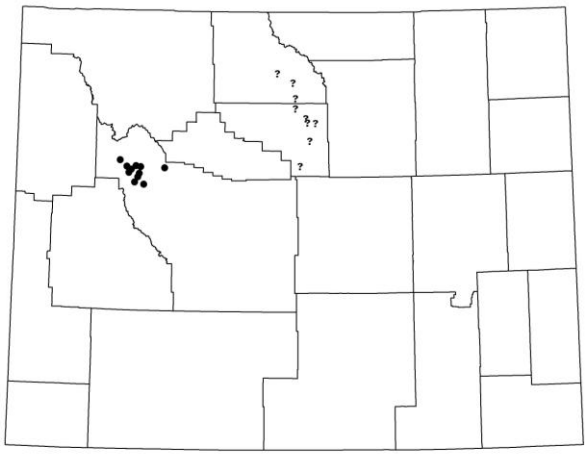
Synonyms: *Orophaca triphylla* var. *purpurea; Astragalus shoshonensis* (Roberts 1977) was not validly published.

Similar Species: *Astragalus gilviflorus* var. *gilviflorus* has white or cream colored flowers and a wider geographic distribution. *A. proimanthus* and *A. hyalinus* have fiddle-shaped banner petals. Other milkvetches with three leaflets have smaller flowers.

Flowering/Fruiting Period: Flowering occurs from late May to early July, while fruits are produced from mid June to July.

Above: *Astragalus gilviflorus* var. *purpureus* by Hollis Marriott.
Below: *A. gilviflorus* var. *purpureus* by Walter Fertig.

Distribution: Local endemic of the Dubois Badlands in the northwestern Wind River Basin and adjacent foothills of the northeastern Wind River and southern Absaroka ranges in Fremont County, Wyoming. Taxonomic status of material from the eastern Big Horn Basin is unresolved (Heidel 2011).



Wyoming distribution of *A. gilviflorus* var. *purpureus*.

Habitat: Dubois milkvetch occurs primarily in sparsely vegetated cushion plant/bunchgrass communities on sandy-clay soils with abundant surface gravel on mid to upper slopes of badlands slopes actively eroding below the occupied habitat. These communities may lack a shrub component, or contain widely scattered individuals of Wyoming big sagebrush, mountain big sagebrush, or black sagebrush. This species may also be found on semi-disturbed roadbanks with short, sparse vegetation (total cover less than 40%). Less common habitats include mountain big sagebrush/bluebunch wheatgrass communities with over 50% cover and lemon scurfpea/ prickly phlox/cushion plant communities on whitish sandy slopes. Populations are typically found on mid to upper slopes near the crest of badland ridges or low knolls at 6400-8800 feet. Soils are mostly derived from the Tertiary Wind River or Indian Meadows formations, although some populations occur on deposits of the Cretaceous Cody Shale, Triassic Chugwater and Dinwoody formations, Paleozoic limestones, or gravelly moraines (Fertig 1998).

Occurrences in Wyoming: Known from 11 extant occurrences, 6 of which have been discovered or relocated since 1990 (most recently in 1997). Several specimens of this taxon (labeled as *A. shoshonensis*) are cited by M.L. Roberts in his 1977 thesis, but have never been relocated. Nine more occurrences of unresolved taxonomic status were surveyed in 2009-2010 (Heidel 2011).

Abundance: Population conservatively estimated at 100,000-150,000 in 1996 survey by Fertig (1998).

Trends: No trend data are available, but there is little evidence to suggest a large-scale population decline.

Protection Status: Several occurrences are known from private conservation easements (TNC and Jackson Hole Land Trust). Also found in the Dubois Badlands ACEC and on WY Game and Fish Department wildlife habitat areas.

Threats: May be threatened by dislodgement and soil erosion and compaction from off-road vehicles and by urban expansion in the Dubois area. Mineral development is a potential threat, although current interest in the area is low. Does not appear to be grazed (Fertig 1998).

Managed Areas: Known from lands managed by the BLM Lander Field Office, Shoshone National Forest, and the Wind River Indian Reservation.

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