ADOXA MOSCHATELLINA
MOSCHATEL
Family: Adoxaceae

Status:
US Fish & Wildlife Service: None.
Agency Status: None

Heritage Rank:
Global: G5 State: S2
WYNDD Plant List: Sparse (Low Conservation Priority)

Description: Moschatel is a musky-scented perennial herb with delicate stems 5-20 cm tall. Basal leaves are long-stalked and divided into three compound leaflets. Leaflet blades are thin and round-toothed. One pair of smaller, three-parted leaves is attached just above the middle of the stem. The compact, head-like terminal inflorescence contains five dimorphic, greenish flowers. The central flower in the inflorescence has two sepals and a four-lobed corolla, while the four lateral flowers have three sepals and a five-lobed corolla. The fruit is a dry drupe with 4-5 nutlets (Cronquist et al. 1984).

Similar Species: Species in the umbel family (Apiaceae) can be distinguished by their sheathing leaf bases, stalked flowers, and two-parted fruits.

Flowering/Fruiting Period: June-August.

Distribution: Circumboreal; extending irregularly south in North America to New York, Iowa, South Dakota, Colorado, and Utah. Distribution is sparse in Wyoming, where it occurs in the Black Hills, Bighorns, Absarokas, and Medicine Bow ranges and Yellowstone Plateau in Albany, Crook, Park, Sheridan, and Washakie counties.

Habitat: Shady, moist, moss-rich limestone cliffs and ledges in coniferous forests of Engelmann spruce and Douglas-fir at 4400-8000 feet.

Occurrences in Wyoming: Known from 10 occurrences in Wyoming, 8 of which are extant (most recently observed in 1997), and 2 of which are historical records (dating from the 1890s).
Abundance: Populations are generally low and restricted to small areas of suitable habitat. One population in the Black Hills had 300-400 plants in an area of 500 square meters in 1990. Two populations found in the Bighorns since 1993 were observed to be locally abundant (although one had only 80 individuals at the month of a cave).

Trends: Not known.

Protection status: Five occurrences are protected in The Nature Conservancy's Tensleep Preserve, Yellowstone National Park, the Upper Sand Creek Special Botanical Area, and Sand Creek Late Successional Landscape (Black Hills NF). One other population is found in the potential Tensleep Canyon Research Natural Area in Bighorn National Forest. All other known occurrences are on public lands managed for multiple use.

Threats: Small, isolated populations and limited areas of suitable habitat makes this species vulnerable to habitat disturbance. Logging may be a threat in some forests.

Managed Areas: Occurs on lands managed by Bighorn, Black Hills, and Shoshone National Forests and Yellowstone National Park. May also occur on Medicine Bow National Forest (record is old and vague).

References:


Fertig, W. 2000. Rare vascular plant species in the Wyoming portion of the Utah-
Wyoming Rocky Mountains Ecoregion. Prepared for the Wyoming Nature Conservancy by the Wyoming Natural Diversity Database, Laramie, WY.


Larson, G.E. and J.R. Johnson. 1999. Plants of the Black Hills and Bear Lodge Mountains. South Dakota State University College of Agriculture and Biological Sciences & South Dakota Agricultural Experiment Station, Brookings, SD.


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