

-State Species Abstract-
-Wyoming Natural Diversity Database-

POLYPODIUM SAXIMONTANUM

ROCKY MOUNTAIN POLYPODY
POLYPODIACEAE

Status:

US Fish & Wildlife Service: None.

Agency Status: None.

Heritage Rank:

Global: G3? State: S1

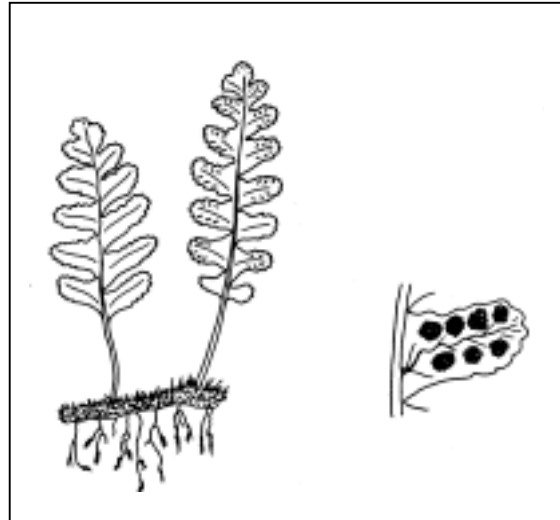
WYNDD Plant List: Regional endemic
(Medium conservation priority)

Description: Rocky Mountain polypody is a perennial fern with leathery, once-pinnately compound leaves borne along a creeping, scaly rhizome. Leafstalks are green to yellow and 1-12 cm long. The leathery, evergreen leaf blades are 3-20 cm long x 1-4 cm wide and once-pinnately divided. Leaflets are 2-8 mm wide with rounded tips and round-lobed margins. Spore clusters (sori) are round, 1-2 mm in diameter, and lack a membranous covering (indusium) (Dorn 1992; Windham 1993; FNA 1993).

Synonyms: *Polypodium vulgare* var. *columbianum*.

Identification Comments: The presence of round, naked sori and once-pinnate, leathery leaves is unique for a Wyoming fern.

Similar Species: Other Wyoming fern taxa differ in having elongate or linear spore clusters (sori), a membranous covering over the sori (indusium), or twice (or more) pinnately divided leaves (Dorn 1992).



Above: *Polypodium saximontanum* by Jane Dorn from Dorn and Dorn (1972).

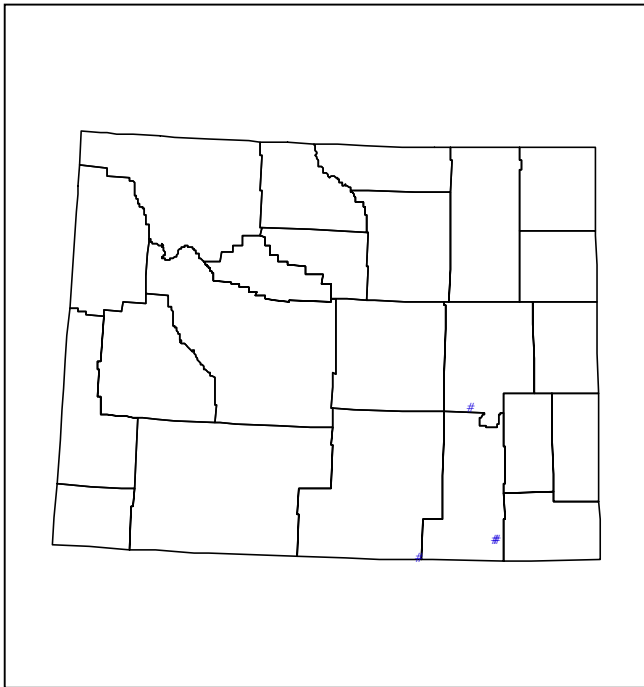
Flowering/Fruiting Period: Produces spores in summer and fall. Reproduces by spores and extends vegetatively by rhizomes.

Distribution: Regional endemic of the southern Rocky Mountains and Black Hills, extending from northeastern New Mexico to northwest South Dakota. In Wyoming, known only from the Laramie and Medicine Bow ranges in Albany, Carbon, and Converse counties.

Habitat: Windham (1993) reports this species from "cracks and ledges on rock outcrops, apparently confined to granitic and gneissic substrates". In Wyoming, this species occurs on granite rock outcrops and boulders in open or shady canyons within Douglas-fir, aspen, or Rocky Mountain maple forests at 7600-8700 feet.

Associated Rare Species: *Asplenium trichomanes*, *A. septentrionale*.

Occurrences in Wyoming: Known from 4 extant occurrences in Wyoming, all of



Wyoming distribution of *Polypodium saximontanum*.

which have been discovered or relocated since 1986 (most recently in 2000).

Abundance: Populations are often widely scattered and small, consisting of subpopulations of 1-300 fronds. Not all potential habitat is typically occupied.

Trends: Trend data are lacking for most occurrences, but the Brady Rock population is thought to have persisted since at least 1903.

Protection status: One occurrence is found within the Platte River Wilderness Area (Medicine Bow NF). Potential habitat could exist in the North Platte River potential Research Natural Area. Other known occurrences are on public lands, but none are within special management areas.

Threats: Threats are low due to the plant's rugged habitat.

Managed Areas: All known WY occurrences are found on Medicine Bow National Forest and state lands.

References:

Burke, M. 2000. Survey of selected rare plant species in the Pole Mountain area of Medicine Bow National Forest. Report prepared for University of Wyoming Botany Department.

Dorn, R.D. 1992. Vascular Plants of Wyoming, second edition. Mountain West Publishing, Cheyenne, WY.

Flora of North America Editorial Committee. 1993. Flora of North America North of Mexico. Vol. 2 Pteridophytes and Gymnosperms. Oxford Univ. Press, New York.

Haufler, C.H., M.D. Windham, and E.W. Rabe. 1995. Reticulate evolution in the *Polypodium vulgare* complex. Systematic Botany 20:89-109.

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.

Welp, L., W.F. Fertig, G.P. Jones, G.P. Beauvais, and S.M. Ogle. 2000. Fine filter analysis of the Bighorn, Medicine Bow, and Shoshone National Forests in Wyoming. Wyoming Natural Diversity Database, Laramie, WY.

Windham, M. D. 1993. New taxa and nomenclatural changes in the North American fern flora. Contributions Univ. Michigan Herbarium 19: 31-61.

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