

-State Species Abstract-
-Wyoming Natural Diversity Database-

EQUISETUM SYLVATICUM
WOODLAND HORSETAIL
Family: Equisetaceae

Status:

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

Heritage Rank:

Global: G5 State: S1
WYNDD Plant List: Disjunct (Medium
Conservation Priority)

Description: Woodland horsetail is a perennial with dimorphic, annual sterile and fertile stems. Sterile stems are 30-70 cm tall, greenish, and have 8-18 ridges bearing rows of sharp (often hooked) spicules. The main stem is 1.5-3 mm wide with a large central cavity over 1/2 its diameter. Sheaths are 4-12 mm long with persistent reddish-brown teeth fused into 2-5 clusters. Stem branches are slender, drooping, and twice-branched and arranged in whorls at the nodes of the main stem. Fertile stems are initially straw-colored to pale brown, unbranched and topped with round-tipped deciduous cones (strobili) 15-30 mm long. These stems later produce whorls of green, compound branches similar to the sterile stems (Cobb 1956; Hitchcock et al. 1969; Lellinger 1985; Dorn 1992).

Similar Species: *Equisetum arvense* and *E. fluviatile* have simple (unbranched) whorled lateral branches and sheath teeth that are not fused.

Flowering/Fruiting Period: Produces spores in strobili in May and early June.

Distribution: Alaska to Newfoundland south to Washington, Wyoming, Iowa, and West Virginia. In Wyoming, known only from the



Above: *Equisetum sylvaticum* by Walter Fertig.

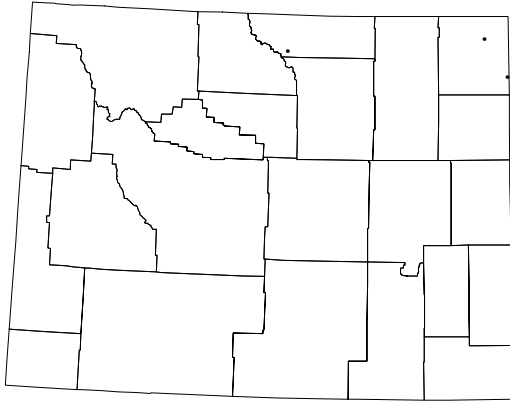
Black Hills (Crook County) and the Bighorn Mountains (Sheridan County).

Habitat: Wet meadows, marshes, streambanks, and moist woods, often on subacidic soils (Lellinger 1985). Elevation ranges from 4000-5900 feet.

Occurrences in Wyoming: Known from 3 occurrences in Wyoming, all of which have been located since 1983 (most recently in 1999).

Abundance: One population at Preacher Rock Bog numbered in the thousands in July 1999. The total area of occupied habitat, however, is quite limited (less than 15 acres). Population counts are not available from the Black Hills.

Trends: Not known.



Above: Wyoming distribution of *E. sylvaticum*.

Protection status: One population is found within the Preacher Rock Bog Special Interest Area on Bighorn National Forest. A population in the Black Hills is found upstream of the Upper Sand Creek Botanical Management Area. This and other occurrences in the Black Hills are on public lands managed for multiple use.

Threats: May be vulnerable to habitat loss from wetland draining, logging, or high recreation use.

Managed Areas: Occurs on Black Hills and Bighorn National Forests.

References:

Dorn, R.D. 1983. *Lycopodium complanatum* and *L. annotinum* found in the Black Hills. American Fern Journal 73: 62.

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

Evert, E. F. and R. L. Hartman. 1984. Additions to the Vascular Flora of Wyoming. Great Basin Naturalist 44: 482-483.

Fertig, W. 1999. The status of rare plants in the Bighorn Landscape. Report prepared for

The Nature Conservancy Wyoming Field Office by the Wyoming Natural Diversity Database, Laramie, Wyoming.

Fertig, W. 2000. Target plant species and potential plant conservation sites in the Wyoming portion of the Black Hills Ecoregion. Report prepared for The Nature Conservancy Midwest Science Division by the Wyoming Natural Diversity Database, Laramie, WY.

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.

Hitchcock, C.L., A. Cronquist, and M. Owenbey. 1969. Pt. 1. Vascular Cryptogams, Gymnosperms, and Monocotyledons, IN: Hitchcock, C.L., A. Cronquist, M. Owenbey, and J.W. Thompson (eds). Vascular Plants of the Pacific Northwest. University of Washington Publications in Biology 17(1): 1-914.

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.

Lellinger, D.B. 1985. A Field Manual of the Ferns and Fern Allies of the United States and Canada. Smithsonian Institution Press, Washington, D. C.

Neighbours, M. and D. Culver. 1990. 1989 Floristic survey of Preacher Rock Bog, Bighorn National Forest, Wyoming. Report prepared for the Tongue Ranger District, Bighorn National Forest, by the Wyoming Natural Diversity Database, Laramie, WY.

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.

Author: Walter Fertig

Updated: 00-08-21