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NOTES

FIRST RECORD OF HAIRY WOODRUSH FROM SOUTH DAKOTA --

Hairy woodrush (*Luzula acuminata* (Juncaceae)), a native perennial graminoid, has recently been recorded for the first time from South Dakota. I first discovered hairy woodrush (var. *acuminata*) in western South Dakota, Lawrence County, during botanical surveys of the Black Hills in 2000. Hairy woodrush has been reported previously from Alberta, east to Nova Scotia and Prince Edward Island, and south and west in the United States to as far as Georgia, Arkansas, Missouri, Iowa, and Minnesota where it occurs in open woods, meadows, and hillsides, from 0 to 500 m (Flora of North America Editorial Committee 2003). This species has not been reported from South Dakota (D. Ode, South Dakota Department of Game, Fish and Parks, and G. Larson, South Dakota State University, personal communication). Neither Dorn (1977), Larson and Johnson (1999), Van Bruggen (1996), nor the Great Plains Flora Association (1986) include hairy woodrush in the flora of South Dakota or the Great Plains. Since 2000, its distribution has been further expanded to include nine distinct geographical locations, all within Lawrence County. Numbers of individuals at each location range from a dozen to several thousand. My report extended the range of hairy woodrush and represented the farthest western-known occurrence of this species in the United States.

Occurrences of hairy woodrush in Lawrence County, South Dakota, were in a 21 by 15 km area, approximately 10 km south of Deadwood, South Dakota. In the Black Hills this species usually occurs in the White Spruce (*Picea glauca*) Alluvial Black Hills Forest type and less frequently in the Paper Birch (*Betula papyrifera*)/Hazel (*Corylus cornuta*) Forest type described in Marriott and Faber-Langendoen (2000). Occurrences were in mesic habitats of partial to closed canopies at elevations ranging from 1,353 to 1,829 m and on slopes from 0 to 50%. All occurrences were in dry or perennial drainage bottoms or on northwest to northeast-facing low slopes adjacent to drainages where moist cool conditions persist. Associated species included quaking aspen (*Populus tremuloides*), ironwood (*Ostrya virginiana*), common juniper (*Juniperus communis*), twinflower (*Linnaea borealis*), Oregon grape (*Mahonia repens*), bunchberry dogwood (*Cornus canadensis*), wild lily-of-the-valley (*Maianthemum canadense*), wild sarsaparilla (*Aralia nudicaulis*), rough-leaved ricegrass (*Oryzopsis asperifolia*), and various sedges (*Carex* spp.). Sites occurred within the Central Core of the Black Hills, which is composed of Precambrian granite and metamorphic rock (Larson and Johnson 1999). Sites often had a high cover of mosses and lichens.

Hairy woodrush has solitary flowers (early May) and a cymose inflorescence, characteristics that differ from other *Luzula* species found in the northern Black Hills, such as common woodrush (*Luzula multiflora*) and smallflowered woodrush

(*Luzula parviflora*). Leaves of hairy woodrush often turn a reddish color in the fall, which facilitates the ability to locate this plant. Additionally, the long soft cobwebby hairs along the leaf margins are a good diagnostic characteristic of the genus *Luzula*. When early spring inflorescences are lacking and without the reddish color in the fall, this plant blends in with other wide-leaved graminoids and is easily overlooked. Presumably, hairy woodrush is distributed more widely in the northern Black Hills than initially thought.

Voucher specimens were deposited in the Rocky Mountain Herbarium (which includes the National Herbarium of the United States Forest Service); University of Wyoming at Laramie, Wyoming; and the Charles A. Taylor Herbarium at South Dakota State University, Brookings, South Dakota.--*Katherine A. Zacharkevics, United States Forest Service, Black Hills National Forest, Spearfish, SD, 57783. E-mail address: kzacharkevics@fs.fed.us*

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