

Betula papyrifera / Corylus cornuta Forest

COMMON NAME	Paper Birch / Beaked Hazel Forest
SYNONYM	Paper Birch / Hazel Forest
PHYSIOGNOMIC CLASS	Forest (I)
PHYSIOGNOMIC SUBCLASS	Deciduous forest (I.B)
PHYSIOGNOMIC GROUP	Cold-deciduous forest (I.B.2)
PHYSIOGNOMIC SUBGROUP	Natural/semi-natural (I.B.2.N)
FORMATION	Montane or boreal cold-deciduous forest (I.B.2.N.b.)
ALLIANCE	<i>Betula papyrifera</i> Forest Alliance

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM Upland

RANGE

Globally

This community occurs in North Dakota, South Dakota, and Wyoming.

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This community occurs throughout the study area. It is best developed in major drainages, such as Grizzly Bear Creek, Starling Basin, Lafferty Gulch, and other tributaries south of Battle Creek.

ENVIRONMENTAL DESCRIPTION

Globally

This community has been sampled in the Kildeer Mountains of North Dakota and the Bear Lodge Mountains of Wyoming. It was found on nearly level ground with silt loam soil in North Dakota (Girard et al. 1989, McAdams et al. 1998) and on steep north facing slopes in Wyoming (Jones 1992).

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This community occurs in drainage bottoms and adjacent lower slopes. It was observed on slopes ranging from 0 to 20 degrees and the aspect generally was northerly.

MOST ABUNDANT SPECIES

Globally

<u>Stratum</u>	<u>Species</u>
Tree canopy	<i>Betula papyrifera</i>
Shrub	<i>Corylus cornuta</i> , <i>Prunus virginiana</i>
Herbaceous	<i>Actaea rubra</i> , <i>Aralia nudicaulis</i> , <i>Carex</i> spp., <i>Maianthemum canadense</i>

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<u>Stratum</u>	<u>Species</u>
Tree canopy	<i>Betula papyrifera</i>
Subcanopy	<i>Betula papyrifera</i> , <i>Populus tremuloides</i> , <i>Quercus macrocarpa</i>
Tall shrub	<i>Corylus cornuta</i>
Herbaceous	<i>Aralia nudicaulis</i> , <i>Maianthemum canadense</i> , <i>Viola canadensis</i> (see Vegetation Description below)

USGS-NPS Vegetation Mapping Program
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DIAGNOSTIC SPECIES

Globally

Betula papyrifera, Corylus cornuta

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Betula papyrifera, Corylus cornuta

VEGETATION DESCRIPTION

Globally

This community has a predominantly closed canopy dominated by *Betula papyrifera*. Other trees that may contribute significantly to the canopy are *Quercus macrocarpa*, *Populus tremuloides*, and, in the Bear Lodge Mountains, *Pinus ponderosa*. *Fraxinus pennsylvanica* may be present, especially as small trees or saplings. There is a tall shrub layer that usually reaches 2 m or more. The most abundant shrub is *Corylus cornuta*. Other species found in this layer are *Amelanchier alnifolia* and *Prunus virginiana*. Jones (1992) reported a low shrub layer that consisted of *Symphoricarpos* spp., *Spiraea betulifolia*, *Shepherdia argentea*, and *Ribes* spp. Common herbaceous species include *Actaea rubra*, *Maianthemum canadense*, *Carex* spp., *Aralia nudicaulis*, *Apocynum androsaemifolium*, and *Schizachne purpurescens*.

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This community is dominated by *Betula papyrifera* in the canopy and subcanopy. *Populus tremuloides* and *Quercus macrocarpa* are often present but not dominant. A few tall pines may form an emergent stratum. Canopy coverage is at least 10% and often in the 60 to 100 % range. Subcanopy coverage is more variable, but can be high as well. Tall shrub cover typically is in the 25 to 60% range, but can be greater. *Corylus cornuta* strongly dominates this stratum. Herbaceous cover usually is greater than 60% and very species-rich. No species occurs in abundance; several of the more consistently occurring species are listed above.

OTHER NOTEWORTHY SPECIES Information not available.

CONSERVATION RANK G2?

RANK JUSTIFICATION

Currently there are seven occurrences documented from North Dakota; the community is also reported from Wyoming and South Dakota. The state rank in Wyoming is S1S2. Estimated total number of occurrences is fewer than 25 but may be larger. The total currently documented acreage is less than 120 ha. Most occurrences are smaller than 20 ha, so the total acreage is probably less than 250 ha. The range may be fairly restricted. Most of the documented occurrences are also in good condition.

DATABASE CODE CEGL002079

COMMENTS

REFERENCES

Girard, M. M., H. Goetz, and A. J. Bjugstad. 1989. Native woodland habitat types of southwestern North Dakota. Research Paper RM-281. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO. 36 p.

Jones, G. 1992. Wyoming plant community classification. Wyoming Natural Diversity Database, The Nature Conservancy, Laramie. 183 p.

McAdams, A. G., D. A. Stutzman, and D. Faber-Langendoen. 1998. Black Hills Community Inventory, unpublished data. The Nature Conservancy, Midwest Regional Office, Minneapolis, MN.