Juncus balticus Herbaceous Vegetation

COMMON NAME	Baltic Rush Herbaceous Vegetation
SYNONYM	Baltic Rush Wet Meadow
PHYSIOGNOMIC CLASS	Herbaceous vegetation (V)
PHYSIOGNOMIC SUBCLASS	Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP	Temperate or subpolar grassland (V.A.5)
PHYSIOGNOMIC SUBGROUP	Natural/semi-natural (V.A.5.N)
FORMATION	Seasonally flooded temperate or subpolar grassland (V.A.5.N.k.)
ALLIANCE	*Juncus balticus* Seasonally Flooded Herbaceous Alliance

CLASSIFICATION CONFIDENCE LEVEL 1

USFWS WETLAND SYSTEM Palustrine

RANGE
Globally
This community is found in Montana, Idaho, Oregon, Washington, Nevada, Utah, New Mexico, Colorado, Wyoming, extreme western Nebraska, and maybe California.

Agate Fossil Beds National Monument
This community is found along the Niobrara River throughout the length of the Monument.

ENVIRONMENTAL DESCRIPTION
Globally
This community has been described in eastern Wyoming as found at low elevations (<8000 ft) on flat to gently sloping ground near seeps or meandering streams. Soils are usually sandy clay loam or fine sands and mottled or gleyed (Jones and Walford 1995).

Agate Fossil Beds National Monument
This community occurs on both lower and higher portions of the lower terraces along the river and in abandoned river channels throughout the floodplain. Soils are fine sands and fine sandy loams, and may contain muck in the lowest, mostly saturated portions. Soils may range from not noticeably alkaline to moderately alkaline, and are somewhat poorly to very poorly drained.

MOST ABUNDANT SPECIES
Globally

Stratum	Species
Herbaceous	*Juncus balticus*, *Carex praegracilis*, *Carex nebrascensis*

Agate Fossil Beds National Monument

Stratum	Species
Herbaceous	*Agrostis stolonifera, Calamagrostis stricta, Carex nebrascensis, C. pellita, C. praegracilis, Distichlis spicata, Eleocharis erythropoda, Elymus trachycaulus, Hordeum jubatum, Juncus balticus, Muhlenbergia asperifolia, Panicum virgatum, Spartina gracilis*

DIAGNOSTIC SPECIES
Globally
Juncus balticus, *Carex praegracilis*, *Carex nebrascensis*

Agate Fossil Beds National Monument
Carex nebrascensis, C. pellita, Cicuta maculata, Hordeum jubatum, Juncus balticus, Muhlenbergia asperifolia, Panicum virgatum

VEGETATION DESCRIPTION
Globally
This community is dominated by a heavy cover of herbaceous vegetation approximately 0.5 m tall. *Juncus balticus* is the most abundant of these, but *Carex praegracilis*, *C. nebrascensis*, *Hordeum jubatum*, and *Agrostis stolonifera* can be common. *Salix* spp. are the most common woody species found, but are not abundant.

Agate Fossil Beds National Monument
This community is by far the most heterogeneous of any recorded on the Monument. It is generally dominated by graminoids 0.5-1 m tall, though numerous places are dominated by perennial forbs. Species composition varies with soil moisture and alkalinity. Areas along the river which are mostly saturated are dominated by *Carex nebrascensis, Eleocharis erythropoda*, and *Leersia oryzoides* and usually occupy narrow bands along the river margin (or at the margin of marshes). The area surrounding these sites, which are not saturated but which have a very high water table are dominated by *Carex pellita* and *Juncus balticus*, the former often producing near monocultures in wet swales. Slightly drier areas within the community are often slightly alkaline as well, and are dominated by various combinations of *Carex pellita, C. praegracilis, Elymus trachycaulus, Hordeum jubatum, Juncus balticus, Muhlenbergia asperifolia, Panicum virgatum*, and *Spartina gracilis*. The most noticeably alkaline areas occur at the margin of the floodplain meadow community and contain *Distichlis spicata* in addition to *Muhlenbergia asperifolia, Carex praegracilis*, and *Spartina gracilis*. Salt crusts are seldom present.

Forb species may dominate in higher portions of this community. In the western half of the Monument, open shrubby patches of *Symphoricarpos occidentalis* may be present among coarse forbs such as *Cirsium arvense, Glycyrrhiza lepidota, Solidago canadensis*, and *Sonchus arvensis* ssp. *uliginosus*. In other places these forbs occur as dense stands with, or sometimes to the near exclusion of the graminoid layer. Species diversity is moderate to high.

OTHER NOTEWORTHY SPECIES
Agate Fossil Beds National Monument
Spiranthes diluvialis occurs in this community upstream from the Monument. Other unusual, disjunct species occurring in this community in the immediate vicinity of the Monument include *Glaux maritima* and *Argentina anserina*.

CONSERVATION RANK G5

RANK JUSTIFICATION

DATABASE CODE CEGL001838

COMMENTS
Agate Fossil Beds National Monument
It is likely that this community might be split up into two or more communities, but more work is needed. Ungrazed portions of this community are often overrun with annual and perennial forbs. Invasion by *Cirsium arvense* represents a potentially serious threat to this community on the Monument.

REFERENCES
Jones, G. and G. Walford. 1995. Major riparian vegetation types of eastern Wyoming. A report submitted to the Wyoming Department of Environmental Quality, Water Quality Division. 245 pp.