

Great Bulrush

Description

This community occurs as a shallow water emergent in wetlands and lakes. Two species; hard-stemmed bulrush (*Scirpus acutus*); and soft-stemmed bulrush (*S. validus*) have been combined for the purposes of this account. Hard-stemmed bulrush is more prevalent in wave-exposed lakes, while soft-stemmed bulrush is more prevalent in protected wetlands. Minor fringes of spike-rush or cattail may be present. This community occupies a very similar situation as Cattail community. Separation may be that Cattails occur on more nutrient rich sites on areas less exposed to wave action and have greater depth of an organic soil horizon.

Lakes in natural drawdown should not be confused with poor function, unless the plant community has been altered and the soils trampled and compacted. Periodic drawdown allows the bulrush community to reinvigorate itself from dormant seeds found in the wetland soil. Decomposition and the release of bound nutrients also occur during these dry cycles. Water that is too deep (> 2 m), for too long will thin out the cover of great bulrush.

Location

Ubiquitous in shallow fresh still water less than 1.5m deep below 1400m

Representative Reference Area

Ball Diamond, Highway slough, Rock Lake.

BEC Correlation

Wm06 in BG, PP and IDF; also present occasionally in the MS.

Site Characteristics

Soils

Soils are mostly Gleysols and Humic Gleysols, though Terric Humisols occasionally occur. Floodwaters to 1.5 m depth in the spring are typical, with significant growing-season drawdown occurring.

Elevation range

0 to 1400m

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Seral Stages

PNC Climax & Late Seral



*Soft-stemmed bulrush community protecting a wetland
PNC*

Plant Community PNC & Late Seral	
Species	Canopy cover (%)
Spike-rush	0-5
Cattail	0-2
Great bulrush	50-100

Productivity

150 – 300 kg/ha of useable forage

Range Management consideration

This community is usually too wet and water too deep for livestock grazing but when water levels are low livestock will graze these. Forage from this type should not be included in forage supply assessments of an area. If these areas are being damaged there is likely a much greater problem in the surrounding uplands. Stocking rate, level of rest and utilization need to be examined.

Properly Functioning condition

PNC and late seral sites will score as properly functioning. Assessment with the PFC protocol should not be used in areas permanently under water.

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Early Seral

Great Bulrush Community impacted by both grazing and natural drawdown. Early Seral.



Early Seral site with an altered wetland and adjacent moist meadow.

Plant Community Early Seral	
Species	Canopy cover (%)
For slightly saline systems	
Silverweed	1-10
Foxtail barley	1-30

Great Bulrush

Great bulrush	< 20
For fresh water systems	
Kentucky Bluegrass	0-100

Productivity

700 kg/ha

Range Management consideration

If a wetland is in a natural drawdown condition, the seeds of great bulrush can remain dormant in the soil for years, ready to germinate if normal water levels return. If water level is going to be low for many years, then these areas need to be managed for a change in plant community. For fresh water systems this will probably be large sedges (beaked and water sedge). For slight to moderate saline areas this would be Nuttall's saltgrass, or alkali bulrush.

Rest is the best prescription for recovery and these areas should not be targeted for grazing. Incidental use during drought should allow for recovery. These sites need an opportunity for plants to grow without grazing and set seed. If rest the pasture is infeasible, early spring use is preferred. During spring, other water sources are usually available, upland grasses are lush, hot temperatures are not a factor, and wetland levels are usually at their highest, discouraging cattle use.

Properly Functioning condition

Sites will score as moderate risk to non-functional.