

Beaked Sedge – Water Sedge

Description

This mixed sedge wetland community is the most common wetland type in BC's interior rangelands. These sedge species are able to tolerate anaerobic soil conditions for the entire growing season. Beaked sedge dominates where flooding is deeper on mineral soils, while water sedge dominates where organic deposits and shallower flooding occurs. Water sedge often appears on natural hummocks, while beaked sedge does not. Mannagrass is often found in association.

The presence of deep water emergent vegetation (marsh) and the amount of non-sphagnum mosses (fen) differentiate the marsh type from the fen. The fen communities have natural water movement and are usually associated with creek systems that may be beaver controlled.

Where sites dry because of hydrological changes (loss of connectivity), removal of beaver dams, or trampling and compaction due to cattle, Canada reedgrass and slimstem reedgrass may replace the sedge species. These sites can further degrade to Kentucky bluegrass meadows with more drying and soil compaction.

Location

Throughout the southern interior at all elevations on lake shores with shallow gradients, and depressions that sustain season long water saturation.

Representative Reference Area

Akehurst, Venner meadow, Burnette lake, Fork meadow, paradise meadow, Rimrock swamp, Goose Carex,

BEC Correlation

Main Occurrence	Wm01 in BG, PP, ESSF, ICH, IDF, MS, SBPS and SBS zones (Marsh sites)
Also occurs in	Wf01 in IDF, MS, ESSF, ICH, BWBS, SWB, SBPS and SBS (Fen sites)

Site Characteristics

Soils

Acidic organics and gleysolics that are subject to prolonged anaerobic conditions.

Elevation range

Valley bottoms to sub alpine.

Beaked Sedge – Water Sedge

Seral Stages

PNC Climax & Late Seral



*A healthy mixed beaked sedge –
water sedge community.*
PNC



*A typical sedge fen.*PNC

Beaked Sedge – Water Sedge

Plant Community PNC	
Species	Canopy cover (%)
Beaked sedge	40-60
Water sedge	40-60
Mannagrass	<5
Common hook-moss	0-5

Productivity

Up to 2700 kg/ha

Range Management consideration

The marsh or fen differentiation does not affect management decisions.

Exposed soils are subject to pugging and compaction if grazed while wet. Sedge roots are strong and resist hoof damage. These sites can produce high volumes of forage and are best grazed later in the season when soils are not saturated. Cattle will re-graze sedge plants sequentially lower the longer they remain on a meadow. Plants should on average be grazed no lower than 20 cm, unless they are rested entirely during the following year. Sites that are dry and are compacted will tend to develop a more open and hummocky appearance. Eventually the hummocks may breakdown and reedgrasses may replace sedges as the dominant species. Further drying and compaction can lead to invasion by dandelions, bluegrass and silverweed.

Larger meadows can be fenced into separate riparian pastures, allowing for better control of cattle distribution, level of use, time of use and rest.

During extremely dry years, sedge meadows can provide a forage buffer to droughty upland range.

Properly Functioning condition

PNC and late seral sites will score as properly functioning.

Beaked Sedge – Water Sedge

Early Seral



A beaked sedge – water sedge community that is drying out and is being encroached by bluegrasses in the shrub zone. Early Seral.

A beaked sedge – water sedge community that has been heavily used and is hummocked; sedge species are still present on this degraded site. Early Seral.



Beaked Sedge – Water Sedge

Plant Community Early Seral	
Species	Canopy cover (%)
Canada reedgrass	50-100
Slimstem reedgrass	50-100
Bluegrass	50-100
Dandelion	20
Silverweed	15

Productivity

200 – 1000 kg/ha (depending on the degree of change)

Range Management consideration

The health and seral stage of the plant community will influence the management treatments necessary for recovery. Total rest from grazing is always the best treatment for non-brittle wetland types, but planned grazing can also work.

In the case of early-seral bluegrass communities, bluegrass should be grazed to a 10 cm stubble height. Any remnant sedge plants should be lightly grazed, leaving a 20 cm stubble.

If a wetland is flooded and inaccessible to cattle in the spring and early summer, grazing of the surround uplands, followed by summer and fall rest will help to restore this community.

Once a community is restored to sedge co-dominance, it can be safely grazed later in the season when soils are not saturated. Fall grazing can be tricky, however, as it is a time when cattle will begin to target willows. Willows retain their leaves and forage value longer than other deciduous shrubs, and cattle will browse them heavily as the volume of sedge is incrementally reduced over time. Sedge meadows should be grazed no lower than 20 cm on average.

Winter grazing is the least damaging to this community type but cattle may need a protein supplement if feeding exclusively on sedges.

Larger meadows can be fenced into separate riparian pastures, allowing for better control of cattle distribution, level use, time of use and rest.

Properly Functioning condition

Sites will score as moderate risk to non-functional depending on the amount of litter, soil compaction, bare soil and the degree of change to the plant community and its root system.