

Thompson Nicola Fraser Middle Grasslands

Description

This type occurs as a transition between the lower grassland and the upper grasslands. At PNC it is dominated by a combination of Bluebunch wheatgrass and rough fescue in all areas and with Idaho fescue in the Nicola area. The role of rough fescue declines north of Clinton. The type is treeless and with very few shrubs except in draws and cooler aspects and very low cover of sage brush and that only at the lowest elevation.

Location

This type occurs in the Thompson River valley from Lytton to Chase, in the North Thompson river valley from Kamloops to Barrier, and on the Fraser river from Lytton to Williams lake at elevations between 600m to 900 on warm and hot aspects

Representative Reference Area

Quilchena, Red Hill, West Mara, Rattlesnake 2-13, Farwell big sage, Farwell needlegrass, Big flat, Fraser eagle tree, Toosey, Cotton lake, Cotton lake corrals.

BEC Correlation

BGxw1/2	PPxh1/2			

Site Characteristic

Soil

Dark Brown chernozems on morainal blanket

Elevation range

600-900 meters

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Seral Stages

PNC Climax

<i>Plant Community PNC</i>	
<i>Species</i>	<i>Canopy cover (%)</i>
Rough Fescue (none in Cariboo)	15-30
Bluebunch wheatgrass	15-30
Idaho fescue (Nicola only)	15-30
Mixed forbs	<5%
Big Sage	1%
Litter	50-100%
Biological Crusts	5-15%

Productivity

500 kg/ha

Range Management consideration

Moderate Spring use every second year or alternate spring fall use with a grazing season rest will maintain productivity and functionality, but the site will degrade to late seral due to loss of rough fescue. Bluebunch wheatgrass is the primary increaser and should maintain production until the bottom of this seral stage. PNC could be achieved with light fall use.

Properly functioning condition

PNC will score as properly functioning

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Late Seral

Late seral stage of the middle grasslands. Rough fescue has been depleted and replaced with Bluebunch wheatgrass and Kentucky bluegrass.



Middle grassland late seral, bluebunch wheatgrass Idaho fescue.

Plant Community Late Seral	
Species	Canopy cover (%)
Rough Fescue (none in Cariboo)	5-15%
Blue Bunch Wheatgrass	5-15%
Idaho fescue (Nicola only)	5-15%
Needle and thread grass	5-15%
Kentucky bluegrass	10-30%
Mixed forbs	5-10%
Big Sage	5%
Litter	5-30%
Biological Crusts	10-30%

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Productivity

300-500 kg/ha

Range Management consideration

Light to moderate use every second year should maintain this seral stage. Repeated spring grazing will be hard on the rough fescue. Moderate fall use every second year should sustain this type, however trend should be reviewed and a longer rest initiated if a downward trend is observed.

Properly functioning condition

Late seral will score properly functioning.

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Mid Seral



Mid seral middle grasslands with bluebunch wheatgrass, needle and thread grass and sagebrush

<i>Plant Community Mid Seral</i>	
Species	Canopy cover (%)
Rough fescue (none in Cariboo)	1-5%-
Blue Bunch wheatgrass	5-40
Idaho fescue (Nicola only)	5-40
Needle and thread grass	5-40
Kentucky Bluegrass	5-50
Mixed Forbs	10-15
Big Sage	10
Litter	0-100
Biological Crusts	0-30

Productivity

300 Kg/ha. As rough fescue and blue bunch wheatgrass drop out of the community productivity will become more variable dependent on spring moisture. Years with greater than 100% normal could have production greater than the late and PNC while years with 50-75% normal precipitation could be less than half. On sites where needle and thread grass dominate with or without big sage productivity could

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be as low as 100kg/ha and spring growth delayed because of the later green up of needle and thread grass.

Range Management consideration

Any regime that includes substantial spring grazing without 18 months of rest will likely cause a loss of rough fescue component. The ranges given for each grass species are broad because which one comes to dominate the site is dependent soil moisture, disturbance history, and possibly chance. Predicting the makeup of the mid seral is difficult except that rough fescue and will be low cover. Litter has a very broad range because it depends on the species that dominates. If Kentucky blue grass dominates then even with very high use and short stubble litter cover can be very high. In a needle and thread grass dominated site litter could be missing

Properly functioning condition

Scores could remain high on sites dominated by Kentucky bluegrass because of its ability to protect the soil surface, and form litter. Scores for unoccupied root zone and compacted soil layers could be low. Sites dominated by needle grasses will score lower due to more bare ground and less litter.

Early Seral



Early seral dominated by needle-grasses and Kentucky bluegrass

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<i>Plant Community Early Seral</i>	
<i>Species</i>	<i>Canopy cover (%)</i>
Bluebunch wheatgrass	5-10
Needle and thread grass	5-40
Kentucky bluegrass	5-50
Mixed forbs	10-20
Big Sage	20-30
Litter	0-100
Biological Crusts	0-30

Productivity

250 Kg/ha. As rough fescue and blue bunch wheatgrass drop out of the community productivity will become more variable dependent on spring moisture. Years with greater than 100% normal could have production greater than the late and PNC while years with 50-75% normal precipitation could be less than half.

Range Management consideration

This seral stage could be dominated by any of the seral species, Kentucky blue grass, needle and thread grass and often has substantial big sage cover. In each there will be residual rough fescue and Idaho fescue plants that are very hard to see but livestock and wildlife seek them out. A few plants will remain in the plant community in spite of poor vigour and extreme use. Recovery will be difficult and require long rest or dormant season grazing only. Where sage brush has increased beyond 5% cover, a light burn may be needed to set it back to allow recovery of the grasses.

Resistance to weeds will be low and the annual bromes could be a big problem.

Properly functioning condition

Scores for needle and thread big sage sites will be low due to amount of bare ground, compaction, and erosion. Sites with a high cover of Kentucky blue grass will score slightly higher.

Altered States

No altered states of this type have been observed

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Seral Stage Diagram for the Thompson Nicola Fraser Middle grassland

