

Barclay willow, arrow-leaved groundsel, valerian

Description:

There are two other shrub-carr types in BC described in other accounts

Scrub birch—willow—kinnikinnick (Sc 01)

Grey-leaved willow — glow moss (Sc02)

Shrub-carrs were traditionally described as wetlands, but more recently classifiers have grouped them along with moist meadows as transitional associations, because the soils are not flooded or saturated for the entire year.

These are cold sites, usually adjacent to small streams and wetlands, which are important in providing a continuous sub-surface flow of water, thus maintaining riparian and surface moisture levels.

The Barclay willow—arrow-leaved groundsel— valerian community is widespread in the interior of BC, found at higher elevations in the upper montane to the open parkland ESSF types. It is often adjacent to tall forb communities, and next to small streams and wetlands. Willows are low growing, in some cases shorter than their companion forbs. This is the most moist of the shrub-carr community types.

Location:

Common in cold, frost prone drainages in the Chilcotin, the northern boreal and the ESSF.

Representative Reference Area:

BEC Correlation Sc 03

BWBS	MS	ESSFdc
03	03	03

Site Characteristics

Cold, moist, seasonally saturated, fine textured brunisols and gleysols.

Soil:

Elevation range:

Above 1400 m

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Seral Stages

PNC Climax and Late Seral



A late seral-community in the Coastal Mountain Range

Plant Community PNC	
Species	Canopy cover (%)
Barclays willow	30-70
Narrow-leaved groundsel	5-20
Valerian	5-20
Showy sedge	2-10
Mosses	5-20
Bluejoint	1-15
Meadow rue	1-2

Productivity

100-250 kg/ha not including shrubs

Range Management consideration

These are cold sites with short growing seasons. The soils are subject to compaction and trampling damage if grazed when wet. Grazing should be delayed until forbs have fully flowered and wilted. Grazing should be followed by at least one full year of rest to allow plants to recover from grazing.

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Properly Functioning condition

Sites rate as properly functioning (PFC).

Mid-Seral

The mid-seral stage of this community that results from livestock grazing has a reduced cover of willow because of browsing damage, trampling and soil compaction.



<i>Plant Community Mid-Seral</i>	
<i>Species</i>	<i>Canopy cover (%) in comparison to PNC</i>
<i>Barclays willow</i>	-
<i>Narrow-leaved groundsel</i>	+
<i>Valerian</i>	-
<i>Showy sedge</i>	-
<i>Bluejoint</i>	+
<i>Mosses</i>	-
<i>Meadow rue</i>	-
<i>Strawberry</i>	+
<i>Subalpine daisy</i>	+
<i>Bare soil</i>	+

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Productivity
90 – 200 kg/ha

Range Management consideration

These sites should be free of grazing at least every second year to allow an improvement in vigour and incorporation of litter

Properly Functioning condition

These sites will rate as moderately at risk because of soil compaction and the development of a shallower rooted plant community.

Early Seral



This shrub-carr is adjacent to a tall forb community in the ESSF. It has been dried and altered by grazing. Shrubs are shorter and more sparse than at PNC.

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This grazed shrub-carr is compacted by livestock use and has reduced shrub cover.

<i>Plant Community Early -seral</i>	
<i>Species</i>	<i>Canopy cover (%) in comparison to PNC</i>
<i>Barclays willow</i>	-
<i>Narrow-leaved groundsel</i>	-
<i>Valerian</i>	-
<i>Showy sedge</i>	-
<i>Bluejoint</i>	+
<i>Mosses</i>	-
<i>Meadow rue</i>	-
<i>Strawberry</i>	+
<i>Subalpine daisy</i>	+
<i>Bare soil</i>	++

Productivity <

50 kg/ha

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Range Management consideration

Consider resting these sites from grazing for 3 to 5 years to rebuild surface litter and restore vigour to plants.

Properly Functioning condition

Sites rate as high risk to non-functional because of soil compaction, bare soil and the potential for soil erosion with a high rainfall or runoff event.