

Rocky Mountain juniper (Jr) - *Juniperus scopulorum*

Tree Species > Rocky Mountain juniper



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BC Distribution of Rocky Mountain juniper (Jr)

Range of Rocky Mountain juniper



Scattered Rocky Mountain juniper in a parkland-like common douglas and ponderosa pine forest west of Ashcroft

Geographic Range and Ecological Amplitudes

Description

Rocky Mountain juniper varies in size from a shrub to small-sized (rarely >10 m tall) tree. It is an evergreen, scale-leaved conifer, at maturity with a tapered stem, long branches, and fibrous stringy bark. In British Columbia, it is not used for any wood products; however its wood is attractive—fine grained, with white sapwood and deep red heartwood, is resistant to decay, and very fragrant.

Geographic Range

Geographic element:

Western North American/mainly Cordilleran and less Pacific

Distribution in Western North America:

(central) in the Pacific region; **central** and south in the Cordilleran region

Ecological Amplitudes

Climatic amplitude:

montane boreal - **cool temperate** - **cool semiarid** - cool mesothermal

Orographic amplitude:

submontane - montane

Occurrence in biogeoclimatic zones:

(BWBS), (MS), (SBS), (SBPS), (BG), (PP), IDF, ICH, CDF, (southern CWH)

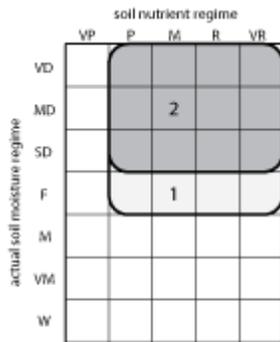
Edaphic Amplitude

Range of soil moisture regimes:

very dry - moderately dry - slightly dry - (fresh)

Range of soil nutrient regimes:

poor - medium - rich - very rich; calciphytic



generalized edaphic amplitude of Rocky Mountain juniper according to actual soil moisture and nutrient regimes

Tolerance and Damaging Agents

Root System Characteristics

Rocky Mountain juniper has a shallow but fairly extensive lateral root system. Roots are associated with vesicular-arbuscular mycorrhizae.

Tolerances

tolerance to	tolerance class	comments
Low light	L	rarely grows in closed-canopy stands
Frost	H	tolerates growing season frost
Heat	H	Frequent on insolated sites.
Water deficit	H	Frequent on excessively dry sites.
Water surplus	L	Probably low; absent on water-surplus sites.
Nutrient (mainly N) deficiency	H	Common on poor sites but absent in acid, very poor soils; tolerates alkaline soils.

Damaging Agents

damaging agent	resistance class	comments
Snow	L	uncommon in high snow fall areas
Wind	H	common on wind exposed sites
risk class		
Fire	H	not a fire resistant species
Insect	L	Not a serious concern.
Fungi	M	Not a serious concern; juniper blight.

Associated tree species and successional role

In British Columbia, Rocky Mountain juniper grows in isolated clumps of one or several trees, rarely in open-canopy stands. Occasionally, it associates with Pacific madrone, Subalpine larch, Whitebark pine, Western white pine,

Trembling aspen, and Common douglas.

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**Silvical
Characteristics**

characteristic	interpretive comments class	
Reproduction capacity	H	Seed produced at 10 years of age; heavy seed crops are frequent.
Seed dissemination capacity	H	Dispersal mainly by birds.
Potential for natural regeneration in low light	L	Practically nil; a shade-intolerant and exposure-requiring species.
Potential for natural regeneration in the open	H	an exposure-requiring species
potential initial growth rate (<5 years)	L	Height increment <5 cm/yr.
Response of advance regeneration to release	na	Advance regeneration does not develop in the absence of adequate light and seedbeds.
Self-pruning capacity in dense stands	na	Grows exclusively in open-canopy, park-like stands.
Crown spatial requirements	H	individuals are well spaced
Light conditions beneath closed-canopy, mature stands	na	Grows exclusively in open-canopy, park-like stands.
Potential productivity	na	Non-crop species; site index functions are not available; the species was recommended for 200 year rotation in southwestern US.
Longevity	M	Commonly >300 years; the maximum reported age 3,000 years (Logan, Utah).

Genetics and Notes

Genetics

Information on population variability of Rocky Mountain juniper is incomplete. Hybridization with other junipers is common and complex. No subspecies have been identified but several horticultural and ornamental varieties have been reported.

Notes

Noble, D.L. 1990. *Juniperus scopulorum*. Pp. 116-126 in R.M. Burns and B.H. Honkala (technical coordinators) *Silvics of North America*, Vol. 1. Agri. Handbook 654, USDA For. Serv., Washington, D.C.

In addition to Rocky Mountain juniper, there are two shrub junipers native to British Columbia: creeping savin juniper (*Juniperus horizontalis* Moench) and the wide-spread mountain juniper (*Juniperus sibirica* Burgds.); the former is restricted to the BWBS zone, the latter occurs throughout the province. More detailed silvics information is given by:

Rocky Mountain juniper is not grown for timber production anywhere in its range. It is used mainly in landscape, restoration, and reclamation planting.