

# OW1

## Jack Pine / Huckleberry / Black crowberry / Reindeer lichen

*Pinus banksiana* / *Gaylussacia baccata* /  
*Empetrum nigrum* / *Cladina* spp.

n=8



Blandford,  
Lunenburg County

**Concept:** This open coniferous woodland is characterized by jack pine canopy dominance, thin acidic soils and prominent reindeer lichen, black crowberry and huckleberry cover. It is found on exposed rock ridges or thin glacial till, where it may co-occur with SP1 (Jack pine / Bracken – Teaberry forest). OW1 is typically on very-dry to dry sites, but occasionally occurs on moister soil, usually with thicker organic layers.

**Vegetation:** The canopy has low to moderate crown closure and is usually dominated by jack pine or co-dominated by jack pine and black spruce. Few other tree species are represented. The very well-developed woody understory features high huckleberry cover, with lesser but frequent rhodora, lambkill and low bush blueberry. Herb cover and species richness is reduced, although dwarf heaths like black crowberry and less often, broom crowberry, are characteristic, especially in coastal areas. The dense lichen layer is characterized by grey, green, lesser green and star-tipped reindeer lichen species.

**Environmental Setting:** This low elevation ecosystem is found in areas where thin acidic soils, exposed bedrock and cool climatic conditions limit plant productivity and species richness. It occurs on upper slopes and crests of rocky hill

### Ecological Features

This nationally unique, range-limited ecosystem is one of the least common VTs, largely isolated to cool dry ridges and hill tops. These sites are somewhat prone to lightning strikes that may help maintain jack pine dominance. The rocky woodland's most remarkable features include its rarity, restricted distribution, and relatively specific environmental requirements.

These collectively contribute to OW1's high vulnerability, presenting unique conservation challenges. The Jack pine / Huckleberry / Black crowberry / Reindeer lichen woodland supports uncommon habitat conditions, but associated animal and lichen species are undocumented. This small patch ecosystem may provide plant habitat for mountain sandwort,

crests and ridges, and on flatter, usually thin, glacial deposit. Soils are usually dry, nutrient very poor, coarse textured and stony. Microtopography is reduced, while site exposure is very high. The ecosystem occurs in the Atlantic Coastal and Eastern ecoregions, with outliers on the coastal fringe of the Cape Breton Highlands. This relatively uncommon Vegetation Type (VT) is also rare in New Brunswick. It isn't known from anywhere else in Canada.

**Successional Dynamics:** The Jack pine / Huckleberry / Black crowberry / Reindeer lichen woodland is expressed as an early successional stage, but is not expected to advance to later successional stages. Shallow, nutrient very poor soils and exposure generally prevent the transition to other pine or black spruce vegetation types. The VT persists as an edaphic climax but is also strongly shaped by harsh climatic factors (e.g. strong desiccating (drying) winds, cool temperatures and sometimes salt spray). Fire is a component of stand history in some stands but is not required for ecosystem persistence, because serotinous (refers to cones which remain closed until opened by excessive heat, usually from fires) jack pine cones often open and release seed without fire in these woodlands. Other disturbances include windthrow and breakage.

red crowberry and a small group of flora with Atlantic Coastal Plain affinities (e.g. inkberry, broom crowberry and pine barren goldenheather). It supports an open, sometimes stunted, canopy with abundant shrub and lichen cover. Productivity, tree age, canopy height and old growth potential are all low.

## Characteristic Plants

OW1

	Freq. (%)	Cover (%)
Jack pine	88	21.9
Black spruce	88	3.7
Red maple	38	6.0
Tamarack	25	1.5
Hemlock	13	3.0
White pine	13	0.1
<b>Tree Layer (Mean % Cover)</b>		<b>25</b>
Huckleberry	100	36.9
Lambkill	100	8.5
False holly	88	4.0
Lowbush blueberry	75	5.5
Wild raisin	75	1.5
Serviceberry	75	0.4
Rhodora	63	9.3
Jack pine	63	4.4
Red maple	63	0.4
Black spruce	50	5.9
Chokeberries	50	1.1
White pine	38	1.3
Downy alder	38	1.2
Common blackberry	25	2.5
Velvet-leaf blueberry	25	0.8
Sweet gale	25	0.3
Ground juniper	25	0.1
<b>Shrub Layer (Mean % Cover)</b>		<b>70</b>
Teaberry	100	4.1
Bracken	88	12.7
Black crowberry	88	10.4
Mayflower	63	0.8
Bunchberry	50	3.9
Wild lily-of-the-valley	50	0.8
Starflower	50	0.1
Three-toothed cinquefoil	38	1.7
Poverty grass	38	1.0
Pink lady's slipper	38	0.1
Mountain sandwort	25	0.1
Ground pine	25	0.1
Cow-wheat	25	0.1
White-haired panic grass	25	0.1
<b>Herb Layer (Mean % Cover)</b>		<b>29</b>
Grey reindeer lichen	88	24.3
Schreber's moss	75	20.0
Star-tipped reindeer lichen	63	3.0
Wavy dicranum	63	1.4
Broom moss	50	0.4
Ladies tresses	50	0.3
Dicranums	38	0.5
Cup lichens	25	1.5
Hair-cap moss	25	0.5
Sphagnum tenellum	25	0.1
Bazzania	25	0.1
<b>Bryo-Lichen Layer (Mean % Cover)</b>		<b>43</b>

## Distinguishing Features

A woodland characterized by scattered jack pine, exposed bedrock and prominent reindeer lichen, black crowberry and huckleberry cover.



Black crowberry

## Site Characteristics

Slope Position:	Crest <sup>3</sup> Level <sup>3</sup> Upper <sup>3</sup> Middle <sup>1</sup>
Surface Stoniness:	(Non - Slightly) <sup>6</sup> (Very - Excessively) <sup>3</sup> nd <sup>1</sup>
Bedrock Outcrop:	(Very - Excessively) <sup>6</sup> (Slightly - Moderately) <sup>3</sup> nd <sup>1</sup>
Elevation Range:	22 - 108m
Slope Gradient:	Level <sup>4</sup> Gentle <sup>3</sup> nd <sup>3</sup>
Aspect:	South <sup>1</sup> West <sup>3</sup> None <sup>6</sup>
Exposure:	Exposed <sup>7</sup> Other <sup>2</sup> nd <sup>1</sup>
Microtopography:	Level <sup>8</sup> Slightly <sup>1</sup> nd <sup>1</sup>
Drainage:	Rapid <sup>5</sup> Imperfect <sup>3</sup> Moderately well <sup>1</sup> nd <sup>1</sup>

## Soil Characteristics

Soil Type:	ST15 <sup>6</sup> ST2 <sup>1</sup> ST6 <sup>1</sup> ST15-G <sup>1</sup> ST16 <sup>1</sup>
Parent Material:	Bedrock <sup>5</sup> Glacial till <sup>3</sup> Organic/Bedrock <sup>1</sup> Till/Bedrock <sup>1</sup>
Rooting Depth (cm):	(<30) <sup>5</sup> (30-45) <sup>3</sup> nd <sup>2</sup>
Duff Thickness (cm):	(6-10) <sup>4</sup> (11-20) <sup>2</sup> nd <sup>4</sup>

