

## OF2

### Tamarack / Speckled alder / Rough goldenrod / Shaggy moss

*Larix laricina* / *Alnus incana* / *Solidago rugosa* /  
*Rhynchospora alba*

n=7



Sugar Camp Brook  
Quarry, Inverness

**Concept:** This early successional Vegetation Site (VT) has abundant tamarack and white spruce, often with a minor component of black spruce or balsam fir. This VT is similar to OF1 (White spruce / Aster – Goldenrod / Shaggy moss), but is usually found on moister sites. OF2 stands usually have fully developed canopies resulting in needle carpet and/or moss-dominated forest floors with reduced shrub and herb cover. OF2 is found throughout the province on imperfectly drained old field sites.

**Vegetation:** Tamarack and white spruce are the dominant overstory trees. Black spruce, Balsam fir and red maple are common associates. The poorly to moderately developed shrub layer consists mainly of regenerating trees along with wild raisin and speckled alder. The herb layer is better developed, with species like hawkweeds, goldenrods, asters, strawberry, common speedwell, tall buttercup, bedstraws and grasses; most of which reflect previous agricultural land-use. Cinnamon fern, interrupted fern, sedges and sensitive fern can also be found on sites with higher relative soil moisture. Moss cover can be variable and interspersed with needle carpet. Where present, moss species include Schreber's moss, shaggy moss and stair-step moss. Sphagnum species can also be found on wetter microsites in the stand.

**Environmental Setting:** OF2 is mainly associated with moist to moist-wet, nutrient medium to rich soils of variable texture. This VT is scattered throughout Nova Scotia wherever

imperfectly drained old field sites are found. Sites that have been tilled or pastured have level microtopography and a distinct Ap (plough layer) soil horizon.

**Successional Dynamics:** OF2 is an even-aged, early successional VT dominated by tamarack and white spruce. The short life span of these species, and their inability to re-establish themselves under their own canopy cover, are factors which eventually lead to the collapse of this ecosystem. Natural disturbance agents include insects (e.g. larch sawfly, larch casebearer, bark beetles, tussock moth, spruce budworm) and windthrow. Subsequent successional stages usually include species indicative of original pre-agricultural forest cover, especially if suitable seed sources are nearby. Stands that slowly deteriorate are more likely to succeed to such forest conditions as shade-tolerant species start to regenerate on site. Clearcut harvesting may trigger an earlier successional stage dominated by grey birch, pin cherry, aspen, white birch and/or other woody shrubs. Depending in part on the level of advanced regeneration present at time of harvest, OF2 may also succeed to OF4 (Balsam fir – White spruce / Evergreen wood fern – Wood aster), OF5 (Trembling aspen – Grey birch / Rough goldenrod – Strawberry) or other VTs dominated by white birch and/or red maple. Other possible successional stages include MW4 (Balsam fir – Red maple / Wood sorrel – Goldthread) and eventually MW1 (Red spruce – Yellow birch / Evergreen wood fern).

### Ecological Features

Past cultivation across this patch forest has leveled most pre-disturbance micro topography, while rock walls and piles, old foundations and wells provide additional evidence of agricultural land use. Linear rock piles may provide dwellings for rodents, snakes, and insects like wasps and bees. Other unique aspects include

the forest's close proximity to open fields and active farms and the frequent presence of fruit trees. These features may attract deer, red fox, coyotes, red squirrels, small mammals, and several birds including ruffed grouse, thrushes, crows and blue jays. Alders provide habitat for woodcock. OF2 has excellent growing conditions

for mycorrhizal mushrooms including chanterelle and hollow foot suillus, which are respectively allied with spruce and larch. Although these forests add to landscape structure, they have a simplified ecological make-up, reflected by low tree diversity, structural complexity and deadwood volume.

## Characteristic Plants

OF2

	Freq. (%)	Cover (%)
Tamarack	100	36.1
White spruce	71	31.2
Black spruce	43	11.7
Balsam fir	43	4.3
Red maple	29	22.5
Grey birch	14	15.0
White birch	14	4.0
Red spruce	14	0.1
Wild apple	14	0.1
<b>Tree Layer (Mean % Cover)</b>		<b>74</b>
Balsam fir	86	1.8
Red maple	71	2.0
White spruce	57	1.3
Wild raisin	57	0.2
Speckled alder	43	2.0
Black spruce	43	1.5
Lambkill	43	0.2
Mountain-ash	43	0.1
Velvet-leaf blueberry	29	0.8
Bristly black currant	29	0.3
Lowbush blueberry	29	0.3
<b>Shrub Layer (Mean % Cover)</b>		<b>6</b>
Starflower	100	0.8
Wild lily-of-the-valley	86	6.8
Rough goldenrod	71	0.6
Dwarf raspberry	57	10.1
Bunchberry	57	3.5
Violets	57	0.6
Drooping wood sedge	57	0.3
Bladder sedge	57	0.1
Evergreen wood fern	57	0.1
Goldthread	57	0.1
Common speedwell	43	3.7
Tall buttercup	43	1.7
Three seeded sedge	43	1.5
Crested wood fern	43	0.8
Sarsaparilla	43	0.2
Common woodrush	43	0.1
Tall white aster	43	0.1
Lady fern	29	3.0
Spinulose wood fern	29	2.8
Cinnamon fern	29	1.5
Poverty grass	29	1.0
Sensitive fern	29	0.3
White panicle aster	29	0.3
Lions paw	29	0.2
Bluebead lily	29	0.1
<b>Herb Layer (Mean % Cover)</b>		<b>24</b>
Schreber's moss	86	33.3
Shaggy moss	86	12.5
Stair-step moss	71	10.7
Hair-cap moss	57	1.3
Wavy dicranum	57	0.4
Common green sphagnum	43	13.7
Broom moss	43	0.4
Ladies' tresses	29	10.0
Fern moss	29	0.6
Hypnum moss	29	0.3
<b>Bryo-Lichen Layer (Mean % Cover)</b>		<b>59</b>

## Distinguishing Features

This softwood forest on imperfectly drained soils is dominated by tamarack with white spruce. Level microtopography and a soil profile that shows a plough layer are good site indicators. Sphagnum moss is common in depressions.



Plough layer  
(Ap horizon)

## Site Characteristics

Slope Position:	Lower <sup>3</sup> Middle <sup>3</sup> Level <sup>3</sup> Upper <sup>1</sup>
Surface Stoniness:	(Non - Slightly) <sup>9</sup> (Moderately) <sup>1</sup>
Bedrock Outcrop:	(Non-rocky) <sup>10</sup>
Elevation Range:	4 - 152m
Slope Gradient:	Gentle <sup>6</sup> Level <sup>4</sup>
Aspect:	North <sup>3</sup> East <sup>4</sup> West <sup>1</sup> None <sup>2</sup>
Exposure:	Moderate <sup>8</sup> Mod. exposed <sup>1</sup> Mod. Sheltered <sup>1</sup>
Microtopography:	Slightly <sup>6</sup> Level <sup>4</sup>
Drainage:	Imperfect <sup>4</sup> Moderately well <sup>3</sup> Poor <sup>3</sup>

## Soil Characteristics

Soil Type:	ST12 <sup>5</sup> ST13 <sup>2</sup> ST3-L <sup>1</sup> ST7 <sup>1</sup> ST9 <sup>1</sup>
Parent Material:	Glacial till <sup>10</sup>
Rooting Depth (cm):	(<30) <sup>4</sup> (30-45) <sup>5</sup> (>45) <sup>1</sup>
Duff Thickness (cm):	(0-5) <sup>8</sup> (6-10) <sup>1</sup> (11-20) <sup>1</sup>

