

Black cherry - Red maple / Rough goldenrod -Jack-in-the-pulpit

Prunus serotina – Acer rubrum / Solidago rugosa – Arisaema triphyllum

n=12

Reynolds Bridge, Upper Stewiacke, Colchester County

Concept: This relatively uncommon deciduous forest is found on floodplains and river terraces across mainland Nova Scotia. The Black cherry - Red maple / Rough goldenrod - Jack-in-thepulpit Vegetation Type (VT) is an early to mid-successional forest characterized by prominent black cherry and by a moderately broad group of floodplain and upland understory species. This is a relatively temperate forest.

Vegetation: Canopy layers are well developed in most FP5 sites, but younger or poorly-developed stands have lower, more widely-spaced, trees. Black cherry is prominent but may co-dominate with red maple or, less often, with white spruce. Other tree species are less common and may be restricted to the understory. The shrub layer is very well developed with the highest mean cover of any flooded forest in Nova Scotia. Black cherry, choke cherry and beaked hazelnut are characteristic of the woody understory. Herbaceous cover is high but composed of a somewhat variable mix of upland and floodplain species. Many associated plants are tolerant of disturbance and may be found on fresh to moist upland soils (e.g. rough goldenrod, dwarf raspberry, red raspberry, tall white aster). Bryophyte development is usually reduced except in less actively flooded sites, where shaggy moss cover may be high.

Environmental Setting: FP5 is mainly associated with fresh to moist, nutrient rich to very rich alluvium soils. Soil depth, texture, and coarse fragment content is somewhat variable, but moderately deep loams, with few coarse fragments and reduced humus accumulation, are typical. The majority of sites are flooded annually or biannually, but some stands occur on infrequently flooded terraces. Most occurrences are in central and northern areas but some are in the Annapolis Valley ecodistrict. Black cherry has been found scattered on floodplains of southern Cape Breton, but because of the small percentage of black cherry on these site, they are not listed as FP5. Canadian occurrences are limited to Nova Scotia and parts of southern New Brunswick.

Successional Dynamics: The Black cherry - Red maple / Rough goldenrod - Jack-in-the-pulpit forest is expressed at early to mid-successional stages. It may persist, as described, for long durations but most occurrences are expected to succeed to FP1 (Sugar maple – White ash / Ostrich fern – Wood goldenrod) or possibly FP2a (Red maple – Red oak / Bellwort – Nodding trillium variant Sugar maple). The majority of stands are found near agriculture or other disturbed areas. Disturbance agents include flooding, tree harvest, cottage development, domestic animal grazing, ice scour and disease (especially black knot fungus).

Ecological Features

The Black Cherry - Red Maple / Rough Goldenrod – Jack-in-the-pulpit forest is a relatively uncommon temperate pioneer ecosystem. It occurs as a small patch often in, or adjacent to, areas strongly shaped by past land-use activity. The

closed canopy stand and its dense woody understory may provide important forage and nesting habitat for riparian wildlife. Beaked hazelnut, an important mast species, is especially common in this forest, but few rare plants are

documented (e.g. early leaf brome grass, Philadelphia panic grass, black ash and Canada wood nettle). Larger intact tracts of this forest contribute to riparian connectivity, stream channel stability and aquatic health.

Characteristic	FP5	
Plants	Freq. (%)	Cover (%)
Black cherry	100	38.2
Red maple	75	9.6
White ash	42	11.6
White spruce	33	10.3
Red oak	25	6.7
Balsam fir	25	5.0
Ironwood	25	2.3
Trembling aspen	17	9.0
Serviceberry	17	5.0
Elm Tree Layer (Mean % Cover)	17	3.5 64
Black cherry	83	26.9
Red raspberry	75	4.6
Beaked hazelnut	67	14.1
Choke cherry	58	35.7
Red maple	58	8.9
Speckled alder	58	4.5
Hawthorns	58	1.0
Wild raisin	58	0.9
Alternate-leaved dogwood	50	1.0
Common blackberry	50	0.8
White spruce	42	2.4
White ash Meadow-sweet	42 42	1.6 0.2
Balsam fir	33	5.5
Virgins bower	33	4.6
Highbush cranberry	33	2.4
Shrub Layer (Mean % Cover)		72
Sensitive fern	100	11.4
Meadow-rue	92	2.4
Rough goldenrod	83	14.7
Dwarf raspberry	75	11.2
Bladder sedge	67	1.1
Jack-in-the-pulpit	67	0.4
Late goldenrod	58	5.7
Tall white aster	58	5.3
Graceful sedge Nodding trillium	58 58	3.4 2.4
Brome-like sedge	58	1.2
Live-forever	58	0.3
Lady fern	50	1.5
Violets	50	0.5
Wild lily-of-the-valley	50	0.3
Cut-leaved avens	50	0.1
Ostrich fern	42	4.4
Calico aster	42	1.2
Rough bedstraw	42	1.2
Evergreen wood fern	42	0.3
Canada goldenrod White avens	33 33	9.6 1.3
Small enchanter's nightshade	33	1.1
Spinulose wood fern	33	0.9
Jewelweed	33	0.6
Strawberry	33	0.4
Wild rye grass	33	0.3
Herb Layer (Mean % Cover)		68
Atrichum moss	58	2.9
Shaggy moss	42	11.8
Bryo-Lichen Layer (Mean % Cover) 7		

Distinguishing Features

Black cherry is required to confirm this vegetation type found on floodplains and river terraces. Asters, goldenrods and sedges are extensive. Sites may not always be flooded annually. Sensitive fern and meadow rue is usually present.



Jack-in-the-pulpit

Site Characteristics

Slope Position: Level10

Surface Stoniness: (Non - Slightly)9 nd1 (Non-rocky)10 Bedrock Outcrop: 12 - 49m Elevation Range: Level¹⁰ Slope Gradient: South¹ None⁹ Aspect:

Mod. sheltered3 Moderate2 Sheltered1 nd4 Exposure:

Microtopography: Level⁷ Slightly² nd¹ Well⁸ Imperfect¹ nd¹ Drainage:

Soil Characteristics

ST87 ST121 nd2 Soil Type: Parent Material: Alluvium¹⁰ $(30-45)^1 (>45)^7 nd^2$ Rooting Depth (cm): Duff Thickness (cm): $(0-5)^5 (6-10)^1 (11-20)^1 \text{ nd}^3$

