North Mountain,
Kings County

OW6

White birch – Red oak – White ash / Marginal wood fern – Herb-Robert

Betula papyrifera – Quercus rubra – Fraxinus americana / Dryopteris marginalis – Geranium robertianum

n=5

Concept: The White birch - Red oak - White ash / Marginal wood fern - Herb-Robert woodland is found on stony colluvium deposits and relatively stable talus slopes. OW6 is similar to OW3 (Red spruce / Red-berried elder / Rock polypody), but is generally associated with richer site conditions. OW6 is a rare woodland Vegetation Type (VT) found only in areas where steep topography and nearby mafic bedrock outcropping has led to rich stony colluvium and talus deposits. Deciduous woodlands on more acidic deposits have not been surveyed.

Vegetation: Canopy composition is somewhat variable but usually includes white birch, red oak and/or white ash; any of these tree species may dominate. A less common variant of OW6 is characterized by high ironwood cover. Understory associates may include plants tolerant of disturbance (e.g. red raspberry, white goldenrod and poverty grass), droughty substrates (e.g. marginal wood fern, fibrous root sedge, hair-bell and hay-scented fern) and/or nutrient enrichment (e.g. herb-Robert , Solomon's seal and maidenhair spleenwort.

Environmental Setting: The ecosystem is supported by soils associated with stony colluvium or embedded in crevices among talus rock fragments. These fragments of broken and weathered rock are found on side slopes and bases and are usually angular and cobble to boulder sized. Woodland vegetation can sometimes grow on islands of stable talus found within a larger area of more active deposition. The ecosystem is found at moderate elevations on steeper slopes, particularly in areas with more rugged topography. Most stands are in the North Mountain ecodistrict, but outliers occur in parts of Cape Breton. This Vegetation Type is also scattered across New Brunswick.

Successional Dynamics: An early to mid-successional stage is described, but successional development is strongly limited by site constraints. On more stable talus, gaps between rock fragments may become in-filled with deeper mineral soil and humus providing a better medium for the development of upland tolerant hardwood forest. This could be marked by a full Vegetation Type change as site conditions improve.

Ecological Features

Hardwood talus woodlands are an uncommon small patch ecosystem that are both undersampled and poorly understood in Nova Scotia. Plots were established on nutrient rich talus, but OW6 has been observed on more acidic substrates. Acidic (low nutrient) sites do not support white ash or ironwood, and have higher relative levels of beech, yellow birch and red maple. Similarly, stands from cooler areas are less likely to feature red oak or white ash. White birch – Red oak – White ash / Marginal wood fern – Herb-Robert woodland supports particularly unique habitat conditions, but most associated animal, plant and lichen species are undocumented. Some exceptions include the rock vole, Gaspé and long tailed shrews, various land snails, shepherdia and anise-root. Canopy closure is variable but stand structures tend to be complex, supporting diverse microhabitats.

Characteristic Plants	OW6	
	Freq. (%)	Cover (%)
White birch	100	12.6
White ash	100	8.0
Red oak	80	22.5
Sugar maple	80	3.3
Ironwood	60	10.7
Beech	60	9.3
White spruce	20	14.0
Yellow birch	20	5.0
Balsam fir	20	2.0
Red maple	20	2.0
Red spruce	20	2.0
Tree Layer (Mean % Cover)		**58**
Beaked hazelnut	60	4.3
Red oak	60	2.3
Striped maple	60	1.7
Fly-honeysuckle	60	0.8
Western poison ivy	40	20.0
Red-berried elder	40	7.5
Beech	40	5.0
White birch	40	3.5
White ash	40	3.5
White spruce	40	1.0
Witch-hazel	20	10.0
Red raspberry	20	5.0
Balsam fir	20	2.0
Red maple	20	2.0
Sugar maple	20	1.0
Ironwood	20	1.0
Choke cherry	20	1.0
Hemlock	20	1.0
Shrub Layer (Mean % Cover)		**27**
Fibrous-root sedge	100	2.3
White goldenrod	80	3.5
Marginal wood fern	80	3.0
Poverty grass	80	1.7
Herb-Robert	60	8.3
Common hair grass	60	5.2
Wood goldenrod	60	1.3
Christmas fern	60	1.2
Rough hawkweed	60	0.5
Sarsaparilla	60	0.4
Wood aster	40	5.0
Calico aster	40	1.3
Canada bluegrass	40	0.5
Heart-leaved aster	40	0.3
Common speedwell	40	0.3
Maidenhair spleenwort	40	0.2
Drooping wood sedge	20	3.0
Fireweed	20	1.0
Meadow hawkweed	20	1.0
Fowl meadow grass	20	1.0
Bracken	20	1.0
Rusty woodsia	20	1.0
New York aster	20	0.5
Strawberry	20	0.5
Hemp-nettle	20	0.5
Red baneberry	20	0.3
Rock polypody	20	0.2
Herb Layer (Mean % Cover)		**25**

Distinguishing Features

This hardwood woodland of white birch, red oak and ironwood occurs on talus slopes. White goldenrod, marginal wood fern and herb-Robert are strong indicators.

Red oak

Site Characteristics

Slope Position:	Middle[4] Upper[4] Lower[2]
Surface Stoniness:	nd[10]
Bedrock Outcrop:	nd[10]
Elevation Range:	61 - 200m
Slope Gradient:	Moderate[8] Gentle[2]
Aspect:	East[2] South[8]
Exposure:	nd[10]
Microtopography:	nd[10]
Drainage:	nd[10]

Soil Characteristics

Soil Type:	nd[10]
Parent Material:	Colluvium[10]
Rooting Depth (cm):	nd[10]
Duff Thickness (cm):	nd[10]