

## **BOWESVILLE ROAD WOODS LRT SITE**

The Bowesville Road Woods consists of three parts - two young sections (originating from abandoned fields) dominated by Gray Birch, *Betula populifolia*, on the north and south side of a much older section. Since the older section of the woodland is the part that will be most impacted by the LRT system, this study was confined to that area.

### **OLDER PART OF WOODLAND**

#### **Comments**

This is clearly a lowland woodland. Prior to settlement by Europeans in the 19th century, it was part of an extensive treed wetland. The flora indicates that much of the woods would be classified as wetland. Ferns, such as Sensitive Fern, *Onoclea sensibilis* and Interrupted Fern, *Osmunda claytoniana*, are very abundant and cover a significant portion of the forest floor, indicating a high moisture content in the soil. The 1989 aerial photo No. A27398 shows a high soil moisture regime in the area, an indication of the past wetland nature of the low-lying and fairly flat terrain. Another indication of wetland is the fact that in parts of the woodland water lies on the ground from late fall to late spring, very evident in the south western part. Adjacent to this south western part, the firm of Marshall, Macklin and Monaghan have indicated a wetland area. Based on my observations of wetland regeneration, I would suggest that the newer sections of woodland (to the north and south) are in the process of reverting back to treed wetland.

The woodland is dominated by Trembling Aspen, *Populus tremuloides*, and Red Maple, *Acer rubrum*. Other tree species noted include Balsam Poplar, *Populus balsamifera*, Red Ash, *Fraxinus pennsylvanica*, White Spruce, *Picea glauca*, White Pine, *Pinus strobus*, Cedar, *Thuja occidentalis*, White Birch, *Betula papyrifera*, Yellow Birch, *Betula alleghaniensis*, Service berry, *Amelanchier laevis*, Black Cherry, *Prunus serotina*, Silver Maple, *Acer saccharinum*, Bur Oak, *Quercus macrocarpa*, Beech, *Fagus grandifolia*, Basswood, *Tilia americana*, (1) and Sugar maple, *Acer saccharum* (1).

Throughout much of the woodland are impressive specimens of mature Trembling Aspen (probably in the 60 to 80 year range). Along the fence row at the southern edge of the woodland were a number of ancient, Red Maples, probably over 150 years old, with branching near the base of the trunk indicating that these trees were once surrounded by cleared land either due to land cultivation (to the south) or lumbering (to the north). An elderly Red Ash, perhaps as old as 150 years, and a large Serviceberry (about 25 feet high with a 10 inch diameter) were also noted along the southern fence line. North of the southern limit of the old woodland there were a number of trees in the 80 to 100 year range including many Red Maple, 2 Yellow Birch, a couple of Silver Maple, a couple of White Pine, 2 White Birch and a Black Cherry that was about 18 inches across (about 3 feet above the ground). Scattered throughout the woodland were a few Red Maple trees more than 100 years old - one appeared to be about 150 years old.

Black Buckthorn, *Rhamnus frangula*, is the dominant under story shrub.

Most of the woodland is not densely shaded (fairly open), probably due to a long history of grazing by cattle. (The woods were full of trails and there is a scarcity of young hardwood trees, a common feature of grazed woodlots). Consequently, there is an abundance of herbaceous plants.

The woodland contains a large population of *Carex debilis*, a Regionally Significant vascular Plant species, as well as 13 species of Regionally Uncommon vascular plants. I must admit that, on first glance, I did not expect to find so many plants with some degree of significance.

The fact that the 1923 topographic map did not show the woodland puzzled me, as there were, as indicated by their age, trees present in the woodland area at the time. The diverse flora also suggests the ongoing presence of a woodland. (Based on the distances to the closest woodlots circa 1923, it would have taken many decades, due to the various methods of seed dispersal, to re-establish such a flora). Viewing the 1945 aerial photo stereo pairs (A9557-24

& -25 and A9609-88 & -89), was most helpful. The stereo pairs showed a woodland that had been lumbered over time, with patches of trees and areas with shrubs and/or herbaceous plants. One set of aerials showed 5 older trees scattered throughout the northern 2/3 of the woodland. Obviously, this woodland was in existence in 1923. A list of the vascular plants observed to date is appended below.

Albert W. Dugal

### Vascular Plants of the Older Section of the Bowesville Woods

#### **EQUISETACEAE**

Equisetum arvense  
Equisetum sylvaticum

#### **OSMUNDACEAE**

Osmunda claytoniana **Uc.**  
Osmunda regalis

#### **POLYPODIACEAE**

Athyrium filix-femina  
Dryopteris cristata **Uc.**  
Dryopteris spinulosa  
Onoclea sensibilis  
Pteridium aquilinum  
Thelypteris palustris

#### **PINACEAE**

Picea glauca  
Pinus strobus

#### **CUPRESSACEAE**

Thuja occidentalis

#### **ALISMATACEAE**

Alisma triviale

#### **POACEAE**

Agrostis stolonifera  
Dactylis glomerata  
Echinochloa sp.  
Glyceria striata  
Phalaris arundinacea  
Phleum pratense  
Poa palustris  
Poa pratensis

#### **CYPERACEAE**

Carex bebbii  
Carex crinita  
Carex debilis **R.S.**  
Carex gracillima  
Carex intumescens

Carex lupulina  
Carex projecta **Uc.**  
Carex rosea  
Carex vulpinoidea  
Scirpus atrovirens  
Scirpus cyperinus

#### **ARACEAE**

Arisaema triphyllum

#### **JUNCACEAE**

Juncus bufonius  
Juncus effusus  
Juncus tenuis

#### **LILIACEAE**

Maianthemum canadense  
Trillium sp. (erectum or cernuum)

#### **ORCHIDACEAE**

Epipactis helleborine  
Platanthera lacera **Uc.**

#### **SALICACEAE**

Populus balsamifera  
Populus tremuloides  
Salix bebbiana

#### **BETULACEAE**

Alnus rugosa  
Betula alleghaniensis  
Betula papyrifera

#### **FAGACEAE**

Fagus grandifolia (a couple, oldest about 30 years)  
Quercus macrocarpa (several, the oldest about 30 years)

#### **ULMACEAE**

Ulmus americana

#### **CANNABACEAE**

Cannabis sativa (5 plants noted)

#### **URTICACEAE**

Pilea pumila  
Urtica dioica

#### **POLYGONACEAE**

Polygonum cilinode  
Polygonum hydropiper  
Polygonum pennsylvanicum

Rumex crispus

### **CARYOPHYLLACEAE**

Cerastium sp.

Silene vulgaris

Stellaria graminea

### **RANUNCULACEAE**

Actaea rubra

Anemone virginiana

Clematis virginiana

Ranunculus abortivus

Ranunculus acris

### **CRUCIFERAE (BRASSICACEAE)**

Alliaria officinalis

### **SAXIFRAGACEAE**

Ribes cynosbati

### **ROSACEAE**

Agrimonia gryposepala

Amelanchier laevis (tree, several impressive specimens)

Fragaria virginiana

Geum aleppicum

Geum canadense

Malus sylvestris

Potentilla simplex **Uc.**

Potentilla norvegica

Prunus virginiana

Rosa acicularis

Rubus alleghaniensis

Rubus pubescens

Rubus strigosus

Spiraea alba

Spiraea tomentosa

### **LEGUMINOSAE (FABACEAE)**

Lotus corniculatus

Trifolium hybridum

Trifolium pratense

Trifolium repens

Vicia cracca

### **OXALIDACEAE**

Oxalis sp. (yellow flowered)

### **EUPHORBIACEAE**

Acalypha rhomboidea

### **ANACARDIACEAE**

Rhus radicans

### **ACERACEAE**

Acer rubrum

Acer saccharinum

Acer saccharum (one tree on higher ground)

### **BALSAMINACEAE**

Impatiens capensis

### **RHAMNACEAE**

Rhamnus cathartica

Rhamnus frangula

### **VITACEAE**

Parthenocissus vitacea

Vitis riparia

### **TILIACEAE**

Tilia americana (one tree noted, 40-50 years old)

### **HYPERICACEAE**

Hypericum perforatum

### **VIOLACEAE**

Viola sororia

### **LYTHRACEAE**

Lythrum salicaria

### **ONAGRACEAE**

Circaea lutetiana

Epilobium ciliatum

Epilobium coloratum **Uc.**

### **ARALIACEAE**

Aralia nudicaulis

Aralia racemosa **Uc.**

### **UMBELLIFERAE (APIACEAE)**

Daucus carota

Osmorhiza claytonii

Pastinaca sativa

### **CORNACEAE**

Cornus alternifolia (small)

Cornus stolonifera

### **PYROLACEAE**

Pyrola elliptica

**OLEACEAE**

Fraxinus pennsylvanica

**GENTIANACEAE**

Gentiana andrewsii **Uc.**

**APOCYNACEAE**

Apocynum androsaemifolium

**VERBENACEAE**

Verbena hastata

**LABIATAE (LAMIACEAE)**

Galeopsis tetrahit

Lycopus americanus

Lycopus uniflorus

Prunella vulgaris

**SOLANACEAE**

Solanum dulcamara

**SCROPHULARIACEAE**

Agalinis tenuifolia **Uc.**

Veronica officinalis

**PLANTAGINACEAE**

Plantago sp.

**RUBIACEAE**

Galium mollugo

Galium palustre

Galium triflorum

**CAPRIFOLIACEAE**

Diervilla lonicera

Sambucus canadensis (young) **Uc.**

Viburnum trilobum **Uc.**

**LOBELIACEAE**

Lobelia inflata

**COMPOSITAE (ASTERACEAE)**

Achillea millefolium

Ambrosia artemisiifolia

Arctium minus

Aster cordifolius

Aster lanceolatus

Aster lateriflorus

Aster novae-angliae (western edge of woods)

Aster umbellatus

Bidens frondosa

Erigeron annuus  
 Erigeron philadelphicus  
 Eupatorium perfoliatum  
 Eupatorium maculatum  
 Gnaphalium uliginosum ( western edge of woods )  
 Hieracium sp.  
 Lactuca biennis **Uc.**  
 Lactuca canadensis  
 Rudbeckia hirta  
 Solidago canadensis  
 Solidago gigantea **Uc.**  
 Solidago graminifolia (western edge of woods)  
 Solidago nemoralis (western edge of woods)  
 Solidago rugosa

Top of Form

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## **APPENDIX A**

### **Important Vascular Plants of Bowesville Road Woods LRT Site**

#### **Regionally Significant**

Carex debilis                      Weak Sedge

#### **Regionally Uncommon**

Osmunda claytoniana	Interrupted Fern
Dryopteris cristata	Crested Woodfern
Carex projecta	Spreading Sedge
Platanthera lacera	Ragged-fringed Orchid
Potentilla simplex	Common Cinquefoil
Epilobium coloratum	Purple-leaved Willow-herb
Aralia racemosa	Spikenard
Gentiana andrewsii	Bottle Gentian
Agalinis tenuifolia	Slender Gerardia
Sambucus canadensis	Canada Elderberry
Viburnum trilobum	Highbush-cranberry
Lactuca biennis	Blue-lettuce
Solidago gigantea	Giant Goldenrod

**Note: Significance ratings for vascular plants derived from URBAN NATURAL AREAS ENVIRONMENTAL EVALUATION STUDY, APPENDIX A - Vascular Plants of the City of Ottawa, with Identification of Significant Species.**