

# Summary Review of existing rail alignment wetlands Prepared by Albert Dugal

## WOODLAND AND BEAVER POND SITUATED BETWEEN OLD CPR TRACKS AND AIRPORT PARKWAY SOUTH OF HUNT CLUB ROAD

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### Background

The beaver pond is a dammed portion of the Cahill tributary (part of the Sawmill Creek system), located in a gently sloping valley which was formed by an ancient Ottawa River channel (see Surficial Geology Map 1506A, 1982). The 1923 31 G/5 topographic map shows the stream traversing a band of woodland in the area between the Airport Parkway and the old CPR tracks. The 1945 aerial photos, A9556-25 & -26, clearly indicates the presence of this woodland, which measured roughly about 225 metres by 166 metres. These photos showed that wooded area was more extensive south of the waterway, and appeared to consist of three parts - two zones of older growth separated by a roadway, and an area of young growth, indicative of lumbering. To the north and south of the woodland were cultivated fields. According to Surficial Geology Map 1506A, the woodland is situated on: "Fine-to medium-grained sand, calcareous and commonly fossiliferous; nearshore sand generally occurs as a sheet or as bars or spits associated with glaciofluvial materials". The surficial geology map also showed organic soil in the southwest corner of the woodland.

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### Field Observations

The August 17, & 23, and September 1, 2006 excursions determined that the woodland contained trees of all ages, ranging from seedlings to specimens about 150 years old. Many of the oldest trees were located near the stream. The diverse age structure indicates that lumbering occurred in the past. The absence of cut stumps suggests that this practice ceased over 50 years ago.

Some of the features observed in the 1945 aerial photos were located during the September 1, excursion. The roadway, which cut diagonally across the southern section of the woodland (from southeast to northwest) is still quite visible as it is raised above the forest floor. In the northwest, this old road connected to another farmer's lane which ran in a southerly direction and formed the western boundary of the woodland. Both roadways are being reclaimed by nature. In the southwest corner of the woodland, the terrain dipped noticeably to the north, indicating the bank of an old Ottawa River channel. The area of young growth in 1945 was now dominated by moderate aged trees.

The woodland is predominantly deciduous in nature. Coniferous trees are represented by Cedars (a small population near the eastern edge, south of the stream and two north of the stream), a couple of White Pines and two Hemlocks (south of the stream). In the original (1945) part of the woodland, the dominant tree is Sugar Maple, with lesser amounts of Basswood, Red Ash, Yellow Birch, Black Cherry, Red Maple and White Birch. (Old specimens of each of these species can be found in the woodland). There is a large Cottonwood, about 2 feet across, not far from the Airport Parkway, north of the stream. A youngish Black Ash and a Crack Willow were also observed. Most of the old field areas adjacent to the north, south and west of the original woodland have

regenerated into young woodland. (Refer to aerial photo A28465 201). Along the southern edge of the original woodland, there is an approximately 45 metre wide area where there is little or no encroachment of the woodland into the adjacent old field. A new (regenerated) stand of Trembling Aspen and Pin Cherry, adjacent to the south eastern section of the original (1945) woodland, experienced a brush fire several years ago, which killed many trees and opened up the area allowing many old field plants to thrive.

The dominant shrub is the Black Buckthorn, a very invasive, alien species that prefers moist, calcareous soils. The Common Buckthorn, another invasive, introduced species, is the second most common shrubby plant. In the southern section of the woodland, Alternate-leaved Dogwood is fairly abundant. Among the other shrubs noted were European Barberry, Chokecherry, Wild Gooseberry, Tartarian Honeysuckle, Common Raspberry, Blackberry, Purple-flowered Raspberry, Black Currant and Beaked Hazel.

Vines are not particularly abundant in the woodland. There are several nice specimens of Virgin's-bower along the eastern edge of the woodland. Virginia Creeper and River Grape are scattered about the woodland, frequently in areas with dappled light during the day. The annual Hog-peanut appears to be restricted to the burnt over area in the south eastern part of the woodland.

Due to the abundance of ferns and Jack-in-the-pulpit, much of the woodland could be described as moist-mesic. In the eastern section, south of the stream, exposed roots of old Cedars indicate peat wastage, probably resulting from enhanced drainage of the area for agricultural purposes. (All the peat has long since disappeared). Most of the organic soil mapped in the 1970's in the southwestern part of the woodland has also disappeared. (The presence of organic soils in parts of the woodland indicate a greater moisture regime in the past, prior to agricultural drainage.

Much of the forest floor, especially south of the stream, is covered with branches. The ice storm of 1998 is probably responsible for most of this debris, which makes walking difficult. Another interesting feature of the forest floor is the predominant lack of leaf litter - bare soil is very evident. This is probably due to a high earthworm population which devours the fallen leaves from the previous season. This commonly happens on my property. In spring there is an abundance of autumn leaves. As the summer progresses, they become less numerous, and by August, have disappeared entirely.

The most noticeable and abundant plants around the beaver pond are grasses, especially Reed Canary Grass and Rice Cut-grass. This thick growth undoubtedly hid some plant species.

Below is the list of vascular plants observed during the forays. I also noted a patch of liverworts on the south side of the stream, some mosses in the moister areas and some dried up coral fungi on a log.

Albert W. Dugal  
September 3, 2006

## VASCULAR PLANTS

### In and on Water

#### **TYPHACEAE**

*Typha latifolia*

#### **SPARGANIACEAE**

*Sparganium eurycarpum*

#### **POTAMOGETONACEAE**

*Potamogeton* sp. ( very narrow, linear leaved

#### **HYDROCHARITACEAE**

*Elodea canadensis*

#### **LEMNACEAE**

*Lemna minor*

#### **CALLITRICHACEAE**

*Callitriche verna* **Uc.**

#### **ONAGRACEAE**

*Ludwigia palustris*

#### **COMPOSITAE (ASTERACEAE)**

*Bidens cernua*

NOTE: Algal scum on pond quite noticeable in eastern part)

### Along Banks of and Low Lying Areas Adjacent to the Beaver Pond

#### **EQUISETACEAE**

*Equisetum arvense*

#### **POLYPODIACEAE**

*Athyrium filix- femina*

*Dryopteris spinulosa*

*Matteuccia struthiopteris*

*Onoclea sensibilis*

#### **TYPHACEAE**

*Typha latifolia*

#### **SPARGANIACEAE**

*Sparganium eurycarpum*

#### **ALISMACEAE**

*Alisma triviale*

#### **POACEAE**

*Agrostis* sp.

*Echinochloa* sp.

*Festuca* sp.

*Glyceria grandis*

*Glyceria striata*

Leersia oryzoides  
Phalaris arundinacea  
Poa palustris

**CYPERACEAE**

Carex bebbii  
Carex crinita  
Carex cristatella  
Carex hystericina  
Carex projecta **Uc.**  
Carex retrorsa  
Carex stipata  
Carex vulpinoidea  
Scirpus atrovirens

**ARACEAE**

Arisaema triphyllum

**JUNCACEAE**

Juncus effusus

**SALICACEAE**

Salix bebbiana  
Salix x rubens (young trees, 3-4 feet tall)

**URTICACEAE**

Pilea pumila **Uc.**  
Urtica dioica

**POLYGONACEAE**

Polygonum hydropiper  
Polygonum lapathifolium  
Polygonum sagittatum **Uc.**  
Rumex sp.

**RANUNCULACEAE**

Anemone canadensis  
Ranunculus acris  
Ranunculus pensylvanicus **R.S.**  
Ranunculus scleratus Uncommon, introduced

**CRASSULACEAE**

Penthorum sedoides **Uc.**

**SAXIFRAGACEAE**

Ribes americanum

**ROSACEAE**

Geum aleppicum  
Potentilla norvegica

**LEGUMINOSAE (FABACEAE)**

Trifolium repens  
Vicia cracca

**ANACARDIACEAE**

Rhus radicans

**ACERACEAE**

Acer negundo (a couple trees drowned )

**BALSAMINACEAE**

Impatiens capensis

**RHAMNACEAE**

Rhamnus frangula

**VITACEAE**

Vitis riparia

**HYPERICACEAE**

Hypericum perforatum

**VIOLACEAE**

Viola sp

**LYTHRACEAE**

Lythrum salicaria

**ONAGRACEAE**

Circaea lutetiana

Epilobium ciliatum

Epilobium coloratum **Uc.**

**UMBELLIFERAE APIACEAE)**

Daucus carota

**PRIMULACEAE**

Lysimachia ciliata

**OLEACEAE**

Fraxinus pennsylvanica

**ASCLEPIADACEAE**

Asclepias syriaca

**BORAGINACEAE**

Myosotis sp. Rare, introduced

**VERBENACEAE**

Verbena hastata

**LABIATAE (LAMIACEAE)**

Lycopus americanus

Lycopus uniflorus

Mentha arvensis

Prunella vulgaris

Scutellaria lateriflora

**SOLANACEAE**

Solanum dulcamara

**SCROPHULARIACEAE**

Mimulus ringens

**RUBIACEAE**

Galium palustre

**CAPRIFOLIACEAE**

Sambucus canadensis **Uc.**

**CUCURBITACEAE**

Echinocystis lobata

**COMPOSITAE (ASTERACEAE)**

Arctium minus  
Aster ciliolatus  
Aster lanceolatus  
Aster puniceus  
Bidens cernua  
Cirsium arvense  
Cirsium vulgare  
Erechtites hieracifolia **Uc.**  
Erigeron philadelphicus  
Erigeron strigosus  
Eupatorium maculatum  
Eupatorium perfoliatum  
Eupatorium rugosum  
Solidago altissima  
Solidago canadensis  
Solidago rugosa  
Sonchus arvensis  
Taraxacum officinale  
Tussilago farfara

#### **Woodland North of Beaver Pond**

##### **EQUISETACEAE**

Equisetum arvense

##### **POLYPODIACEAE**

Athyrium filix-femina

Onoclea sensibilis

Matteuccia struthiopteris

Thelypteris palustris

##### **CUPRESSACEAE**

Thuja occidentalis

##### **POACEAE**

Dactylis glomerata

Digitaria sanguinalis (in open, sunny spot)

Elymus virginicus

Hystrix patula **Uc.**

Glyceria striata

Poa palustris

##### **CYPERACEAE**

Carex cristatella

Carex gracillima

Carex rosea

Carex spp.

##### **ARACEAE**

Arisaema triphyllum

**LILIACEAE**

Maianthemum canadense

Trillium erectum

**ORCHIDACEAE**

Epipactis helleborine

**SALICACEAE**

Populus deltoides

**BETULACEAE**

Betula alleghaniensis

**ULMACEAE**

Ulmus americana (young)

**ARISTOLOCHIACEAE**

Asarum canadense

**RANUNCULACEAE**

Actaea rubra

Anemone riparia

**BERBERIDACEAE**

Caulophyllum thalictroides

**SAXIFRAGACEAE**

Ribes americanus

Ribes cynosbati

**ROSACEAE**

Agrimonia gryposepala

Fragaria virginiana

Geum canadense

Potentilla norvegica

Prunus serotina

Prunus virginiana

Rubus alleghaniensis (in open, sunny spot)

Rubus pubescens

Rubus odoratus

Rubus strigosus

**OXALIDACEAE**

Oxalis sp.

**ACERACEAE**

Acer saccharum

Acer negundo

**BALSAMINACEAE**

Impatiens capensis

**RHAMNACEAE**

Rhamnus cathartica

Rhamnus frangula

**VITACEAE**

Parthenocissus vitacea

Vitis riparia

**TILIACEAE**

*Tilia americana*

**HYPERICACEAE**

*Hypericum perforatum*

*Hypericum punctatum* **Uc.**

**VIOLACEAE**

*Viola sororia*

*Viola* sp.

**ONAGRACEAE**

*Circaea alpina* **Uc.**

*Circaea lutetiana*

*Epilobium coloratum* **Uc.**

**ARALIACEAE**

*Aralia nudicaulis*

*Aralia racemosa* (growing in old rotting wooden beam) **Uc.**

**CORNACEAE**

*Cornus alternifolia* (several young shrubs)

**PRIMULACEAE**

*Lysimachia ciliata*

**OLEACEAE**

*Fraxinus nigra*

*Fraxinus pennsylvanica*

**ASCLEPIADACEAE**

*Asclepias syriaca*

**SOLANACEAE**

*Solanum dulcamara*

**SCROPHULARIACEAE**

*Verbascum thapsus* (in open sunny area)

**RUBIACEAE**

*Galium triflorum*

**CAPRIFOLIACEAE**

*Lonicera tatarica*

*Triosteum aurantiacum* **Uc.**

*Viburnum trilobum* **Uc.**

**CUCURBITACEAE**

*Echinocystis lobata*

**LOBELIACEAE**

*Lobelia inflata*

**COMPOSITAE (ASTERACEAE)**

*Arctium minus*

*Aster lanceolatus*

*Aster lateriflorus*

*Aster novae-angliae*

*Erechtites hieracifolia* **Uc.**

*Erigeron annuus*

*Erigeron philadelphicus*

*Erigeron strigosus*



Eupatorium rugosum  
Hieracium sp.  
Lactuca canadensis  
Lactuca scariola (in open, sunny spot)  
Prenanthes altissima  
Solidago canadensis  
Sonchus oleraceus Uncommon, introduced  
Taraxacum officinale

### **Woodland South of Beaver Pond**

#### **EQUISETACEAE**

Equisetum arvense  
Equisetum hyemale  
Equisetum variegatum **Uc.**

#### **OPHIOGLOSSACEAE**

Botrychium dissectum **Uc.**

#### **POLYPODIACEAE**

Athyrium filix-femina  
Dryopteris intermedia  
Dryopteris spinulosa  
Gymnocarpium dryopteris  
Matteuccia stuthiopteris  
Onoclea sensibilis  
Phegopteris connectilis (large patch, on slope south of beaver pond)

#### **PINACEAE**

Pinus strobus  
Tsuga canadensis (one, 200 year old, dead tree and a beaver damaged, 80 year old tree)

#### **CUPRESSACEAE**

Thuja occidentalis

#### **POACEAE**

Glyceria striata  
Panicum sp.

#### **CYPERACEAE**

Carex arctata  
Carex gracillima  
Carex deweyana  
Carex intumescens  
Carex retrorsa  
Carex rosea  
Carex spp.

#### **ARACEAE**

Arisaema triphyllum

#### **LILIACEAE**

Maianthemum canadense  
Smilacina racemosa

**ORCHIDACEAE**

*Epipactis helleborine*

**SALICACEAE**

*Salix x rubens* (1)

**BETULACEAE**

*Betula alleghaniensis*

*Betula papyrifera*

*Corylus cornuta*

**FAGACEAE**

*Quercus macrocarpa*

**ULMACEAE**

*Ulmus americana*

**URTICACEAE**

*Urtica dioica*

**ARISTOLOCHIACEAE**

*Asarum canadense*

**CARYOPHYLLACEAE**

*Silene vulgaris*

**RANUNCULACEAE**

*Actaea rubra*

*Clematis virginiana*

*Ranunculus acris*

**BERBERIDACEAE**

*Caulophyllum thalictroides*

*Berberis thunbergii* Rare, introduced

*Berberis vulgaris* Uncommon, introduced (a sizeable population)

**SAXIFRAGACEAE**

*Ribes americanum*

*Ribes cynosbati*

*Ribes triste* **Uc.**

*Tiarella cordifolia* (large patch, south east section of woodland)

**ROSACEAE**

*Crataegus* sp. (very young tree)

*Potentilla norvegica*

*Prunus pensylvanica*

*Prunus serotina*

*Prunus virginiana*

*Rubus alleghaniensis*

*Rubus pubescens*

*Rubus odoratus*

*Rubus strigosus*

**LEGUMINOSAE (FABACEAE)**

*Amphicarpaea bracteata*

*Trifolium pratense*

*Vicia cracca*

**OXALIDACEAE**

Oxalis sp.

**ANACARDIACEAE**

Rhus radicans

**ACERACEAE**

Acer ginnala (an old specimen, 40 years at least, southern edge of woodland)

Acer negundo

Acer rubrum

Acer saccharum

**BALSAMINACEAE**

Impatiens capensis

**RHAMNACEAE**

Rhamnus cathartica

Rhamnus frangula

Rhamnus frangula var. angustifolia

**VITACEAE**

Parthenocissus vitacea

Vitis riparia

**TILIACEAE**

Tilia americana

**HYPERICACEAE**

Hypericum perforatum

**VIOLACEAE**

Viola conspersa

**ONAGRACEAE**

Circaea lutetiana

Oenothera biennis (edge of woods)

**CORNACEAE**

Cornus alternifolia

**PYROLACEAE**

Pyrola elliptica

**PRIMULACEAE**

Lysimachia ciliata

**OLEACEAE**

Fraxinus pennsylvanica

**APOCYNACEAE**

Apocynum androsaemifolium

**ASCLEPIADACEAE**

Asclepias syriaca

**BORAGINACEAE**

Myosotis sp. Rare, introduced

Hackelia virginiana **Uc.**

Lithospermum officinale (in fairly open area)

**LABIATAE (LAMIACEAE)**

Galeopsis tetrahit

Nepeta cataria

Prunella vulgaris

**SOLANACEAE**

*Solanum dulcamara*

**SCROPHULARIACEAE**

*Chelone glabra* **Uc.**

*Linaria vulgaris*

*Penstemon digitalis*

*Verbascum thapsus*

*Veronica officinalis*

**PLANTAGINACEAE**

*Plantago major*

**RUBIACEAE**

*Galium triflorum*

*Mitchella repens*

**CAPRIFOLIACEAE**

*Lonicera tatarica*

*Sambucus pubens*

*Viburnum trilobum* **Uc.**

**CUCURBITACEAE**

*Echinocystis lobata*

**LOBELIACEAE**

*Lobelia inflata*

**COMPOSITAE (ASTERACEAE)**

*Ambrosia artemisiifolia*

*Arctium minus*

*Aster cordifolius*

*Aster lateriflorus*

*Aster umbellatus*

*Chrysanthemum leucanthemum*

*Cirsium arvense*

*Cirsium vulgare*

*Conyza canadensis*

*Erechtites hieracifolia* **Uc.**

*Erigeron annuus*

*Eupatorium rugosum*

*Gnaphalium macounii* (*viscosum*) **R.S.**

*Lactuca biennis* **Uc.**

*Lactuca canadensis*

*Prenanthes altissima*

*Rudbeckia hirta*

*Solidago canadensis*

*Solidago rugosa*

*Taraxacum officinale*

*Tussilago farfara*

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

### **APPENDIX A -IMPORTANT NATIVE VASCULAR PLANTS**

#### **Regionally Significant (R.S.)**

Ranunculus pensylvanicus Hairy Buttercup  
Gnaphalium macounii Macoun's Everlasting

#### **Regionally Uncommon (Uc.)**

Equisetum variegatum Variegated Horsetail  
Botrychium dissectum Cut-leaved Grapefern  
Hystrix patula Bottlebrush Grass  
Carex projecta Spreading Sedge  
Pilea pumila Clearweed  
Polygonum sagittatum Arrow-vine  
Penthorum sedoides Ditch Stonecrop  
Ribes triste Wild Currant  
Callitriche verna Common Water-starwort  
Hypericum punctatum Spotted St. John's-wort  
Circaea alpina Lesser Enchanter's-nightshade  
Epilobium coloratum Purple-leaved Willow-herb  
Aralia racemosa Spikenard  
Hackelia virginiana Virginia Stickseed  
Chelone glabra Turtlehead  
Sambucus canadensis Canada Elderberry  
Triosteum aurantiacum Horse-gentian  
Viburnum trilobum Highbush-cranberry  
Erechtites hieracifolia Pilewort  
Lactuca biennis Blue-lettuce

One of the uncommon species, the Cut-leaved Grapefern, was an exciting find as I had never seen such a dissected specimen in my life. I made a specimen of its lacey leaf and left the rest in the ground so the plant would grow again next year.

Albert