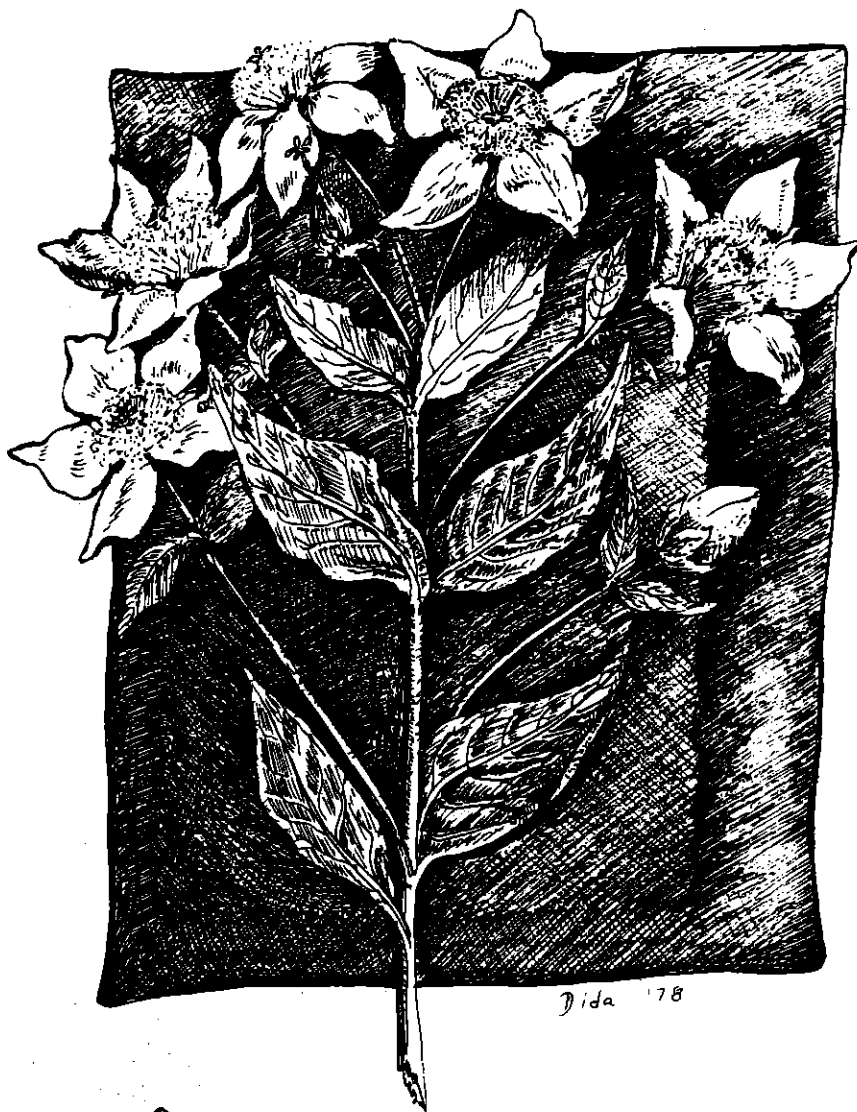


Toronto Field Naturalists' Ravine Survey

Study Number Eight

West Don River Valley 1974-1978

by Diana Banville and Linda Cardini



TORONTO FIELD NATURALISTS

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COVER ILLUSTRATION

Great St. Johnswort (*Hypericum pyramidatum*)
... drawing by Diana Banville

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FOREWORD

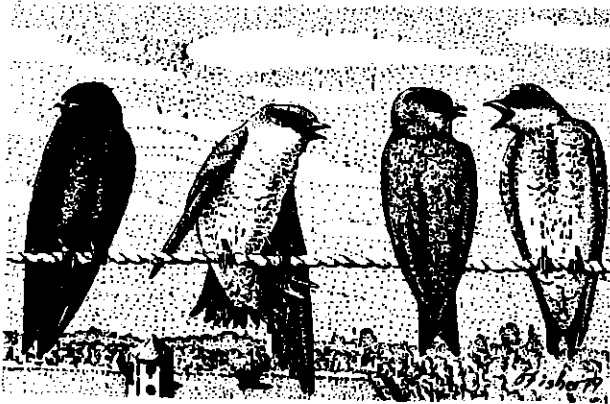
Urban natural history is becoming an important study. Any natural areas remaining within urban areas desperately need protection and often restoration. This is a task in which the informed amateur field naturalist can play an important role.

In 1973 the Toronto Field Naturalists' Club published its first ravine survey. A small semi-natural ravine known as Chatsworth Park Ravine was examined by three members of the club who prepared a report in which they described the history, the current human uses, and the natural habitats of the area; they listed the plants and animals present; and they made recommendations about the restoration of the valuable natural features of the area. The report was well received by the nearby residents and the City of Toronto Department of Parks and Recreation which was responsible for the management of part of the area.

By 1976 four more ravine surveys had been published and several mini-reports existed; and in June of that year the Toronto Field Naturalists' Club published "Toronto the Green". Although this report describes Toronto's natural features, the values of natural areas in the urban environment, and makes recommendations about their conservation and management, individual surveys of specific areas continue to be needed in order to provide a record of the plants and animals present, and the condition of the natural features of these areas at a specific time. By comparing these records we can learn how plants and animals adapt (or do not adapt) to the various pressures of urbanization. Also, once a survey for a particular ravine has been compiled, the information contained in it can be updated from time to time, and thus the condition of that ravine can be monitored on a continuing basis.

Members involved in the preparation of surveys become better naturalists as they observe nature in the city, and better citizens as they explore ways to protect and conserve Metropolitan Toronto's valuable natural heritage.

Helen Juhola
Editor



ACKNOWLEDGEMENTS

The authors and editor want to thank the other contributors to this report — Molly Campbell for her extensive field work and continuing interest from the outset; Mary Smith whose expertise as a landscape architect provided us with measurements of trees and slopes; and Emily Hamilton our botany consultant in the field.

We were glad to use the records of plants, birds, and other observations obtained through regular club outings to the area as well as a plant list compiled by Verna Higgins, Nancy Dengler, Les Nyman, and David Marchand. To Jim Woodford we owe our basic list of birds prepared from his extensive life-list for the area.

Thanks must also go to John Monahan, Patrick Temple, and Mark Walker for their careful reading of the text and constructive suggestions.

The maps were prepared for publication by Paul McConnell; and the plant list typed by Lois Andrews. Svarna Mahadeo typed the rest of the report.

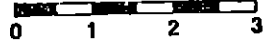
We also owe a special thanks to Jack Cranmer-Byng, Chairman of the Ravine Group, who suggested this area for study.

D.B.
L.C.
H.J.

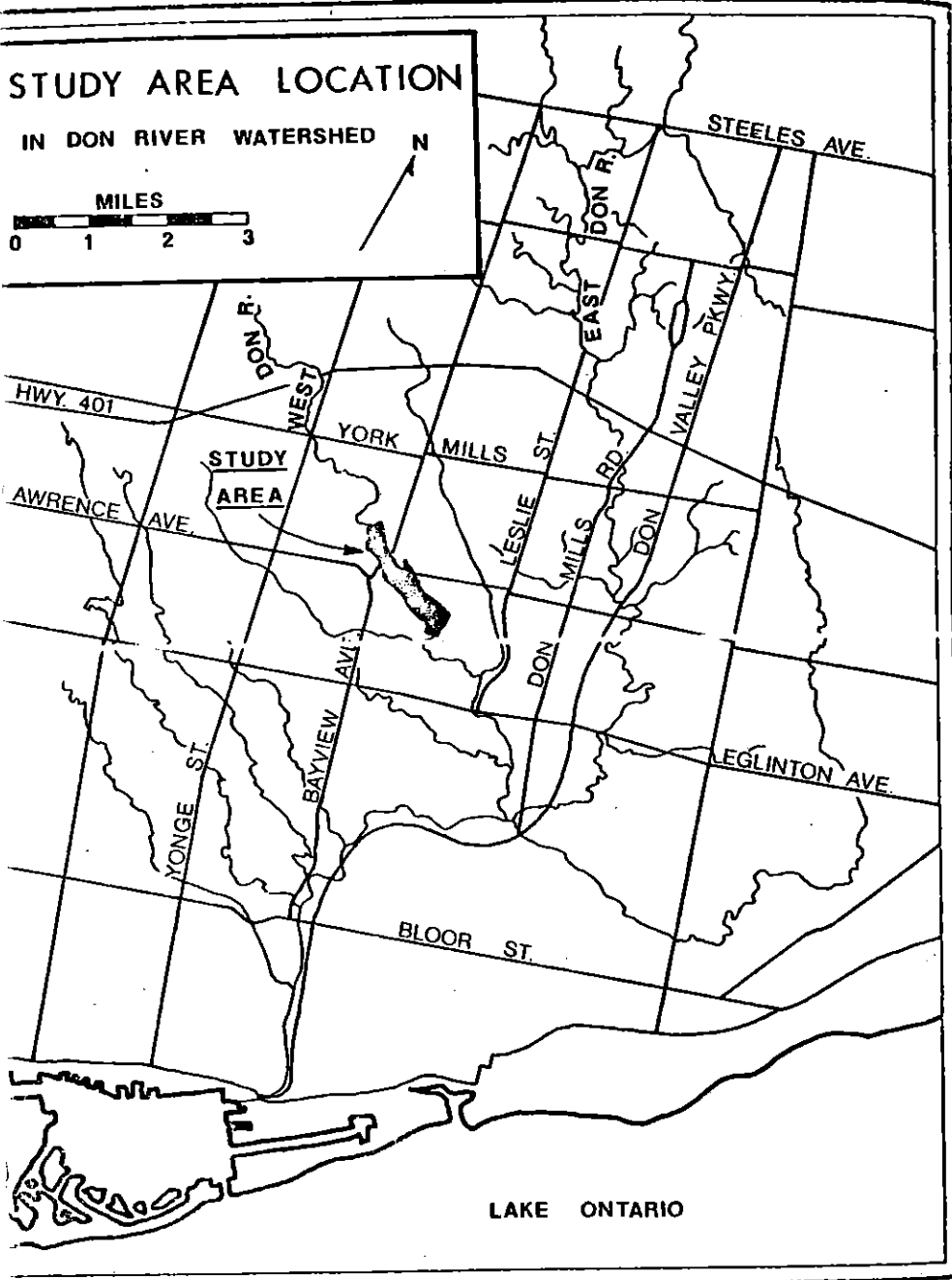
STUDY AREA LOCATION

IN DON RIVER WATERSHED

MILES



N



LAKE ONTARIO

INTRODUCTION

This study is about the natural history of part of the West Don River valley. The area chosen is one of the largest remaining natural areas in central Metropolitan Toronto. As such it provides an important reservoir for wild-life within a large, intensively urbanized region.

Continuous corridors of natural and semi-natural areas are important for the movement of wildlife over large areas. Thus this part of the valley provides an important link between two highly managed semi-natural areas — Sunnybrook Park with its many locations set aside for active recreation, and Rosedale Golf and Country Club with its mown lawns.

The original area chosen for study included only the Wood Estate (Glendon College Campus); however, when the effects of a proposed extension to Lawrence Avenue East were realized, the limits of the study area were extended.

The information presented here on past and present uses and natural features should serve as an historical record of how the area has changed and its condition in 1978.

It is our hope that future inventories will show the same complexity of topography and diversity of plant and animal life as we have documented. That will depend, however, on Toronto's willingness to conserve its remaining natural areas rather than allow them to be destroyed by incompatible uses.

LOCATION

The study area includes the valley floor, slopes, and adjacent tablelands of the West Don Valley between the footbridge at the northern boundary of Sunnybrook Park and the southern boundary of the Rosedale Golf and Country Club.

ACCESS

The area may be entered from the west off Bayview Avenue at Lawrence Avenue through the entrance gate to the Glendon Campus. A road through the grounds of Glendon College may be followed down the slope to a parking lot on the floor of the valley.

Access from the east is via Lawrence Avenue East where the road ends under and to the east of the Bayview Viaduct.

The study area may also be entered via an orienteering trail leading north from Sunnybrook Park along the west side of the river.

Although the area contains no maintained paths, many trails exist on both sides of the river both upstream and downstream from the Bayview Viaduct. Upstream from the Viaduct a stairway ends at a gate to the French School property on the tableland west of the valley.



HISTORY AND OWNERSHIP

As early as 1820 a sawmill was being powered by the West Don River in the West Don Valley north of the present Lawrence Avenue, and the present Bayview and Lawrence district had been settled for farming.

In spite of periodic serious flooding (especially in 1850 and in 1878), mixed farming was the major occupation in the valley and on the adjacent tablelands of the district until about 1920 when E.R. Wood, first president of Dominion Securities, bought property in the area and established a country estate. A 1930 newspaper clipping shows the ownership of some of the "new" country estates in the district.

From a detailed history of the Wood Estate (Glendon), we know that general farming and cattle-raising continued on the floor of the valley almost until 1950 when Glendon was bequeathed to the University of Toronto. We know too that extensive ornamental gardens containing many introduced species of trees and shrubs as well as a rock garden that extended almost to the river had been developed on the property. After 1950 the Botany and Forestry Departments of the University of Toronto continued introducing new plant species to the property as part of their experimental programs,

Prior to 1929 travel north on Bayview Avenue meant descending the west side of the valley, crossing a small bridge over the river, and ascending the east slope of the valley; however, in 1930 the Bayview Avenue Viaduct was opened for traffic. (In the early 1970's the viaduct was enlarged to carry four lanes of traffic.)

approximate scale
1 INCH = 1 MILE

MAP 2

HISTORIC OWNERSHIP

UPPER CANADA COLLEGE

A. GOODERHAM

ST. ANDREWS GOLF CLUB

J. F. ADAMS
FRANK MCCARTHY
L. M. MCCARTHY

J. P. WATSON

MERCER

R. LILICO

DON RIVER

ALFRED ROGERS BAYVIEW HEIGHTS LTD. COL. N. D. PERR

BAYVIEW GLEN MAWR GOLF AND COUNTRY CLUB
E. S. DUGGAN

ROSEDALE GOLF CLUB
CITY LIMITS

NEW BAYVIEW BRIDGE

G. T. PEPALL
G. C. HEINTZMAN
R. M. SHEPPARD
H. L. PLUMMER
FRANK P. WOOD

J. S. MCLEAN
DR. W. A. SCOTT
A. M. RAMSAY
LAWRENCE J. HYDE

SIFTON GROUP

MURRAY FLEMING

E. R. WOOD

H. A. BRUCE
J. J. VAUGHAN
J. S. MCLEAN

J. E. McALLISTER

SUNNYBROOK PARK

J. KILGOUR ESTATE

FRANK PROCTOR

E. H. WATT

J. H. GUNDY

EGLINTON

N

CITY LIMITS

R. FLEM ESTA

R. B. N.

C. N.

YONGE

BAYVIEW AVE.

AVE.

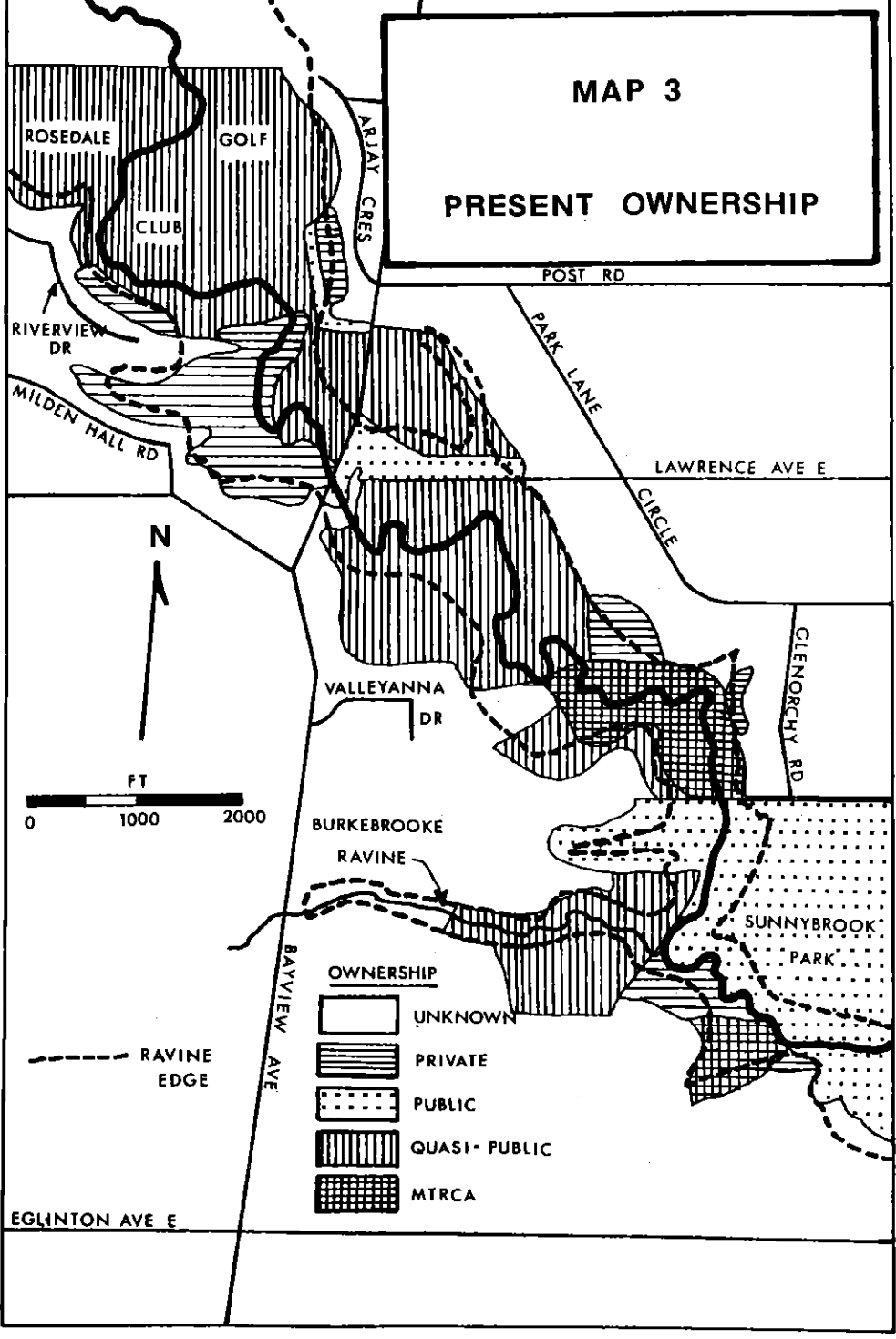
GO FLEMING

DONLANDS

C. N.

MAP 3

PRESENT OWNERSHIP



ROSEDALE GOLF CLUB

ARJAY CRES

POST RD

RIVERVIEW DR

PARK LANE

MILDEN HALL RD

LAWRENCE AVE E



CIRCLE

VALLEYANNA DR






CLEONORCHY RD



BURKEBROOKE RAVINE

SUNNYBROOK PARK

OWNERSHIP

-  UNKNOWN
-  PRIVATE
-  PUBLIC
-  QUASI-PUBLIC
-  MTRCA

--- RAVINE EDGE

BAYVIEW AVE

EGLINTON AVE E

Following serious damage to the valley floor as a result of flooding caused by Hurricane Hazel in 1954, the G. Ross Lord Dam was built near Finch and Dufferin. It was completed in 1972. As a result several structures have been built in the floodplain in spite of Metropolitan Toronto and Region Conservation Authority policies discouraging such activities. Development has included the buildings of Bayview Glen Junior School, a field house and skating rink built by York University, a playing field, and a paved parking lot.

Present ownership of the land in the study area is shown on the map on page 5.

In the study area the publicly owned lands are used for public utilities and right-of-ways; the land owned by MTRCA has been acquired as part of its flood control program; and the quasi-public land includes Bayview Glen Junior School and the Glendon College campus — both areas of restricted use.



"Below Glendon Hall"
by Joyce Cave

TOPOGRAPHY AND SOILS

The natural landforms of the study area include the river and its banks, its floodplain which is almost 500 ft. wide in several locations, the slopes of the valley which are generally very steep and rise about 100 ft. from the river to the tableland, the many small feeder ravines, and the adjacent tablelands.

The river which meanders considerably in this section of the valley rarely exceeds 30 feet in width and is usually no more than a few feet deep — except at one bend in the river where a pond about 8 ft. deep has formed. The water, though brown with sediment after a rainstorm, is often clear, showing a sandy, pebbly, or rocky river bottom.

Most of the small feeder ravines contain spring-fed creeks which drain into the river throughout the year.

The West Don River, like the other rivers in Toronto, arises from springs in the Oak Ridges moraine — hills formed from debris left by retreating glaciers during the last ice age. Beneath the riverbed is a still older (preglacial) river valley eroded into bedrock. Though the valley is deep in the study area, bedrock was not observed. The valley walls are composed mainly of till soils inter-layered with various thicknesses of sand, silt, and clay. The texture of the tills varies from silty and clayey in the lower parts to somewhat sandier above.

According to the York County Soils Map (which has information only for the east bank of the river), there are two types

of clay in the study area and a Fox Sand formation north of the golf course. Sand has washed downstream from the original deposit and can be seen lining the riverbanks within the study area. Fox Sand is a calcareous gray loam with good drainage. The clay soils throughout the area have provided moist conditions for the growth of vegetation; however, these soils are easily damaged by compaction, fill, excavation, and exploration as evidenced by scars from recent and past landslides.



HABITATS

The topography of the study area lends itself to a considerable variety of habitats including forested tableland, slopes, bottomland, dry meadow, wetlands, and typical riverine habitat.

Much of the wetland is caused by seepage from the slopes at the clay strata.

The dry meadow habitat exists where land has been cleared in the past for farming and pasture and is now steadily returning to the wild state with shrubs beginning to appear.

Forested Slopes

The valley slopes face mainly northeast and southwest. To some degree different microclimates result from the amount of exposure to the sun which, in turn, affects evaporation rates and temperatures. Both the northeast and southwest-facing slopes are, however, moist and shady in the growing season. Both support a stable habitat of luxuriant, advanced hardwood forest growth ranging from the classic climax forest for the region of mature sugar maple, American beech, and eastern hemlock in the more upland locations to forest still undergoing succession at slightly lower levels where these three species are interspersed with white pine, red oak, white ash, blue beech, and ironwood. Stands of white cedar are also found at these lower levels.

Understory shrubs include choke cherry and cranberry viburnum. On the lower slopes a few white birch, a species usually found in the earlier stages of succession, are to be found among the red osier dogwood and other lowland, understory shrubs.

Spring herbs that flower before the canopy appears are more prevalent among the hardwoods of the southwest-facing slopes than elsewhere. These include bloodroot, trillium, hepatica, spring beauty and wild ginger. Carpets of yellow trout lily cover many acres of hillside but bloom best on the southwest-facing slopes. Toothwort, a food of one of Ontario's endangered species (the Virginia White butterfly), also favours the southwest-facing slopes. Wild columbine and May apple bloom a little later on the same hillsides. Early-flowering sedge and early meadow rue are also abundant. Later in the summer zig-zag and wreath goldenrods bloom along with calico aster on the lower slopes, and beechdrops appear at the foot of the beech trees. Among the many species of fungi to be found are at least two kinds of bracket fungi. A native understory plant that favours the slightly cooler northeast and northwest-facing slopes is mountain maple. The showy purple-flowering raspberry, a shrub of the woodland borders, prefers the slope alongside the driveway leading to the lower Glendon parking lot.

Some of the more unusual ferns for Toronto such as the crested, lady, oak and interrupted ferns which are lovers of rich, organic soils are to be found on the northeast-facing slopes. More usual are the Christmas fern, marginal woodfern, and the various forms of the spinulose woodfern. These species are found on all the forested slopes.

Animal life is evident during all seasons on the well-sheltered slopes. The handsome Rose-breasted Grosbeak lingers in numbers from spring to fall among the tangle of fruit-bearing understory shrubs and vines -- a typical

habitat for this songbird which is known to have nested in the study area. This bird flourishes on potato beetles thus performing a service to gardeners. Red squirrels, raccoons, and garter snakes have been observed in this habitat. Wood frogs have been found in a hill-side spring, and empty snail shells have often been noticed in the area, a sure indication that thrushes have been feeding in the area.

Forested Tableland

Most of the tableland has been developed for housing surrounded by lawns and recently planted trees; however, one small forest remains and consists of mixed hardwood species with an understory of shrubs including red-berried elder. This area is located just south of the main entrance to Glendon Campus. Enough shade is provided for a few ground-cover plants such as herb Robert, Virginia waterleaf, and Jack-in-the-pulpit.

Wetlands

Through much of the study area seepage from the slopes creates ponds and generally wet areas; some are perched on the slopes, others in the bottomlands. Cattail marshes contain both the common and narrow-leaved cattails. Water plantain and broad-leaved arrowhead grow where the water is shallower along with purple loosestrife, an introduced Lythrum, which blooms in summer, as well as the native species: Joe-Pye-weed, boneset, and two kinds of touch-me-not. The cattail marshes are the favourite habitat of nesting Red-winged Blackbirds, who consume vast amounts of weed seeds and insect pests. Great Blue Herons, American Bitterns, and Mallards find both food and shelter in the cattail marshes.

Areas of graminoid marsh, containing rice-cut grass provide favoured stopover habitat for migrating teal. Several species of Scirpus and Carex sedges are abundant in the wetlands.

As well as frogs, the ponds support dragonflies (the "hawks" of the mosquito world), and the interesting caddis-fly larvae with their portable casings of debris. A pond-life study is needed.

One of the marshes located on a terrace above the level of the watercourse is the favoured habitat of the marsh marigold and bulblet bladder fern.

Late-summer and fall-blooming purple-stemmed asters also favour marshy locations. Young willows have become established on the edges of the marshes and one area supports a dense thicket. These sheltered wetland locations contain the native smaller forget-me-not.

Swamp-like areas with dead and fallen trees and brush provide cover for migrating Swamp Sparrows and Winter Wrens, and House Wrens have been known to nest there. Standing, dead white elms provide habitat for at least five species of woodpeckers.

Water-filled ditches alongside Old Lawrence Avenue support much aquatic life. Pollywogs and snails may be seen among the Chara and Spyrogyra (two species of algae) as well as an aquatic crowfoot even though the water appears at times to be rather polluted.

Forested Bottomland

In a few locations where the valley is quite wide (a few hundred feet), eastern white cedar, white ash, sugar maple, and white pine grow between the river and the base of the

slopes. Manitoba maple and the introduced common buckthorn are abundant small trees of these wooded bottomland locations, and red maple thrives in one moist, terraced location.

An evergreen forest containing many mature white pines is located upstream from the Bayview Viaduct in the path of one of the proposed routes for the Lawrence Avenue extension. Representative measurements of some of the larger white pines are 27" and 28.5" dbh (diameter at breast height) with heights to 80 feet. Also forming part of this forest are a great many eastern hemlocks measuring up to 23" dbh with heights to 60 feet. Among the deciduous trees interspersed with evergreens are a black cherry (bifurcated) measuring 16" dbh and one measuring 14.5" dbh; a sugar maple measuring 36" dbh and 60 feet high; a white ash measuring 28" dbh and 70 feet high; and a red oak measuring 24" dbh. In the more open areas poison ivy is prevalent—particularly bordering trails where soils have been disturbed.

Sensitive fern and ostrich fern (the latter a silt-loving fern which, according to one observer, has become more abundant since Hurricane Hazel) favour moist bottomland woodland locations, and Eubrya mosses are abundant. Even thallus-type liverworts have been noted. Ground ivy, a low, creeping plant of the mint family, blooms in spring along with three species of native violets.

Although generally moist, some bottomland areas are dry enough to support such plants as clammy ground cherry.

The River Edge

Typical river edge vegetation lines the watercourse. The major trees are several species of native poplars and mature specimens of crack willow, an introduced species. Here the native black willow grows to fifteen feet. Prevalent vines are riverbank grape, Virginia creeper, and wild cucumber — often decorative in effect and appearing to cause no harm. However, the introduced black swallowwort which gains a foothold where soils have been disturbed has made great advances in some areas and chokes out more desirable vegetation. Vines are favoured nesting sites for the Cardinal, who devours a surprising number of park and garden insect pests as well as weed seeds.

Some of our colourful native summer-blooming flowers that prefer locations at the water's edge include blue vervain, pink smartweeds, and a very showy form of nodding bur-marigold. This is also the habitat of the first colourful flower of spring within the study area — coltsfoot — which blooms in March.

Mallard broods have been observed on the stream itself although there is no actual nesting record. Black Ducks have, however, been known to nest in the area. A large wood turtle (a rare species in Ontario) has been seen in the area as well as a few smaller turtles of unidentified species. Individuals and small schools of fish of varying sizes as well as muskrats have been seen swimming in the stream, perhaps indicating that the water is less polluted than formerly.

Bank Swallows nest in an eroded sandbank near the southern extremity of the study area. Other members of this insectivorous family

are visitors, although some have been known to nest in the area. Migrating sandpipers utilize the small sandbanks at the shoreline, and the Belted Kingfisher appears in spring and summer. The well-named Eastern Song Sparrow (*Melospiza melodia*) is resident in numbers most of the year and prefers the tangled vegetation along the shore to seek the insect component in its diet. This species is famous for devouring weed seeds in the thousands of tons in Canada each year while taking only negligible amounts of waste grain.

Meadow

Much of the area which is now dry meadow was formerly used for pasture. As a result, forage grasses such as timothy, green foxtail, smooth brome, wheatgrass, and *Poa* grasses are abundant. Red fescue, though a native grass, probably does not occur in the area naturally. Clovers are also abundant. Native legumes are hog peanut, which is widespread, and the attractive showy tick-trefoil which is found in more sheltered locations.

Many of the summer and fall-blooming perennial herbs which make an impressive show of colour each year are native composites such as Canada and grass-leaved goldenrods, and panicked, small-white, and heath asters.

At a location not far upstream from the Bayview Viaduct (in the path of one of the proposed routes for the Lawrence Avenue extension) a plant rare in Ontario — and perhaps unique in the Toronto area — is flourishing. *Hypericum pyramidatum*, or great St. Johnswort, is described in the manuals as a plant of rich river meadows. Unlike the common St. Johnswort, it is a native plant and, by the way, very handsome with its large yellow blooms in summer.

Nesting birds of the area that favour meadow habitat include the American Goldfinch, a songbird which is recognized as economically important for its part in controlling weeds and plant lice; and the Eastern Meadowlark, a mainly insectivorous ground-feeder. Here, too, attractive butterflies such as the monarch, buckeye, and white admiral are often seen, and many bees which are attracted to the great expanses of white sweet clover.

The meadows blend from dry through damp to wet, each area supporting a somewhat different flora ranging through heart-leaved and New England asters in the dry-to-damp locations to flat-topped white aster near the marshes. In the wetter locations checkerspot butterflies are found close to turtlehead, a plant of the snapdragon family. Square-stemmed monkeyflower is another snapdragon that prefers wet-meadow habitat.

Both the wet and dry meadows are undergoing succession. Hawthorns, staghorn sumac, poplars, and brambles are becoming established and forming thickets at the meadow edge.

Disturbed Areas

Under the Bayview Viaduct, plant growth is very limited. Birdrape, a too common weed of cultivated fields, manages to grow there as well as the lawn pest, couch grass; and the salt-loving plants, bracted aster and orache, are found close to the bridge where road salt has washed down into the valley. These hardy plants help to curb, in some measure, the extensive erosion on the bare slope above.

At roadsides the weeds of sterile and wastelands — common ragweed, native and introduced plantains, pineapple-weed, peppergrass, sow thistles, and knotweeds — are thriving.

Alongside the parking lot for the college the native spurge, three-seeded mercury, has been found; and two species of Solanum are present.

A small garden plot, sometimes unused, supports such tall herbs as horseweeds (on which Purple Finches feed), common mullein, and evening primrose.

Footpaths have created conditions favourable to ants which are particularly plentiful some years. Groundhogs have been observed in an open grassy area near the Bayview Glen School.

Close to buildings, a relatively few House Sparrows have been encountered, and one brown rat was seen during the course of the study.



FAUNA

An interesting diversity of wildlife exists in the study area in spite of its mid-city location. Although more is known about birds than other animals in the study area, up-to-date breeding-bird surveys are needed. No formal studies were undertaken, but all casual observations of mammals, reptiles, amphibians, fish and invertebrates were recorded.

Some damage to foliage by the eastern tent-caterpillar was observed but plants have not been seriously affected. Basswoods have been affected each year by moth larvae but no trees have been known to die from the effects. Bees and several species of beetles and grasshoppers provide food for the Great Crested Flycatcher and the mimic thrushes, or mimids (catbirds, thrashers, and mockingbirds), all of which come out on the credit side as economically desirable species. Two of the three species observed have been known to nest in the study area.

Appendix C which lists the species of animals observed in the study area includes an extensive classified check-list of birds. The area is attractive to nesting birds, provides a corridor for migrants, and shelter for some 24 wintering species. This year-round, if shifting, bird population undoubtedly helps to keep the insect population under control. Recent nesting records include the Pileated Woodpecker in 1967, the American Kestrel in 1969, and still more recently the Mourning Warbler. Of the seven species of thrushes observed, the American Robin and the Wood Thrush have been known to nest. Starlings have been observed in small flocks, but are not always in evidence. Notable among wintering species is the Evening Grosbeak which has been observed feeding on Manitoba maple seeds remaining on the trees.

Altogether thirty species of wood warblers have been observed, fourteen of them recently, and seven have been known to nest in the area. In 1952, Bristol Foster observed a Black-throated Gray Warbler in the area. (This is the first recorded observation for this species in Ontario.) The economic value of the colourful wood warblers is inestimable in protecting gardens, parks, roadsides, and woodlands because of their preference for minute insect pests; for example, warblers eat great numbers of spruce budworm larvae.

To date eleven species of mammals have been encountered in the area. The gray squirrel is less common than it is in public parks. The eastern chipmunk is seen occasionally. The red fox, which requires a fairly large healthy habitat, dens in the area. Also present in small numbers are the eastern cottontail and the European hare. No small field rodents have been observed; however, there was one observation of a hairytail mole.



Baltimore Checkerspot

FLORA

A great diversity of plant species is said to be generally indicative of a healthy environment. Of the almost 400 species of vascular plants identified to date for the study area (see Appendix D), more than 200 are native to the area. The others are plants which have become established here after being introduced from Europe or Asia, or from western or southern North America. Some of the trees and shrubs are part of the original plantings by the Wood family or by the University of Toronto or York University. Among these are redbud, an ornamental tree of the legume family, and such exotics as dawn redwood and ginkgo. Plants from the flower gardens and hybrid roses of the Glendon Campus gardens have not been recorded; however, escaped or introduced garden plants which are becoming established in the valley are included in the check-list.

With respect to trees (over 20 feet tall), 58 species have been recorded for the study area. The 26 native species among these are generally typical of the Great Lakes/St. Lawrence and Deciduous Forest Zones. White pine, not common in cities, is one of our most valuable trees. It is an indicator of a relatively unpolluted atmosphere. Hitherto the policy in Toronto has been to replace the native pines as they die off with pollution-resistant, introduced trees such as Scots Pine. Yet to preserve the "barometer" is to fight pollution. A healthy stand and many individual specimens are present as well as a number of young trees which have reached five to eight years' growth — varying in size according to the available light. Red pine, a forest tree of dry soils, is not present.

Some measurements of trees were taken in the study area. One basswood measured 24 inches dbh; a black cherry, 18" dbh; a yellow birch, 21" dbh; and a beech, 22" dbh. The beech trees, for example, could last for centuries if undisturbed.

Of 49 species of shrubs and woody vines present, 28 are native. Thus it can be seen that much of the area has been successful in remaining natural (or in returning to its natural state in the case of pastureland). One of the most abundant native shrubs is cranberry viburnum, a shrub of cool woods; however, very few maple-leaf viburnums are to be found as these are partial to dry woods. In adjacent Burke Ravine with its south-facing slopes, the reverse is true,

In the Toronto region fourteen species of ferns are to be found. Of these, ten are present in the study area as well as two species of horsetails. However, bracken, a fern of dry, sterile woods and clearings, has not been recorded.

Of the 241 herbaceous species, 92 are alien or introduced plants such as the garden escape, dame's rocket (resembling garden phlox, though of the mustard family) and lesser celandine, a yellow wood-poppy. Both of these species create much colour throughout the valley in late spring and early summer. Many attractive and desirable plants are among the 149 species of native herbs. Included are 13 species of aster and six species of goldenrod which bloom in late summer and fall. Of the introduced herbs, fewer woodland than meadow species occur but of the former, helleborine is the only orchid in the study area.

Plants indicating rich soils in the study area include white baneberry, (doll's-eyes), foamflower, Virginia wild rye, May apple, wild leek, spring beauty, enchanter's nightshade, spikenard, honewort, white vervain, downy yellow violet, lopseed, wild cucumber, great lobelia, white snakeroot, large-flowered trillium, and many others representing a number of different families.

The considerable alluvial deposits account for the presence of such attractive plants as early meadowrue, swamp buttercup, and starry false Solomon's-seal. Some of the plants of the study area prefer a calcareous situation, an example being the pale touch-me-not. Species preferring an alluvial, calcareous, or combination, include black maple and the showy Canada anemone. A vine rare in the Toronto area is bristly greenbrier which grows upstream from the Bayview Viaduct on the site of one of the proposed routes of the Lawrence Avenue extension. Its presence also indicates rich soils and it prefers a calcareous situation.



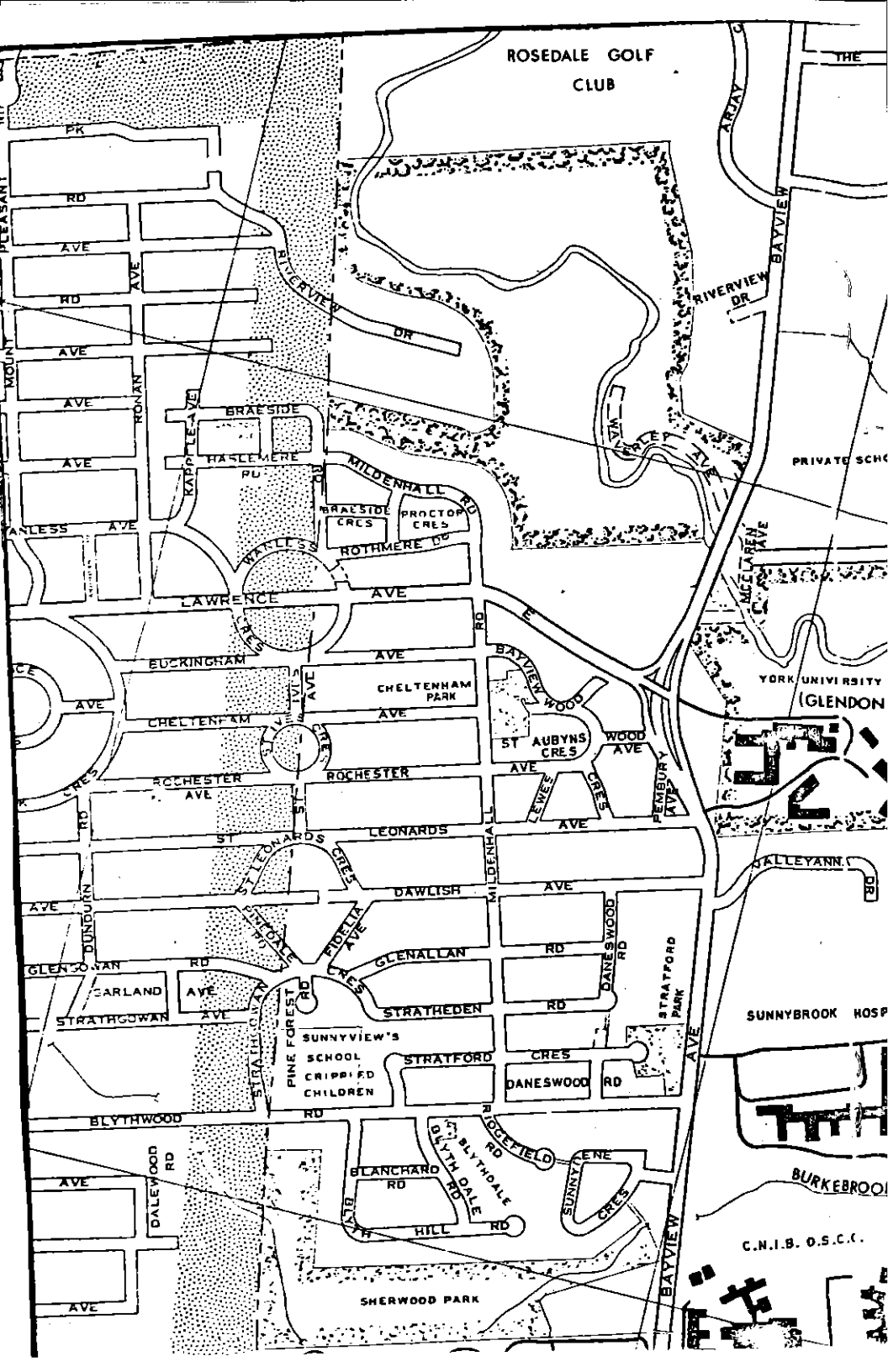
HUMAN USES AND ABUSES

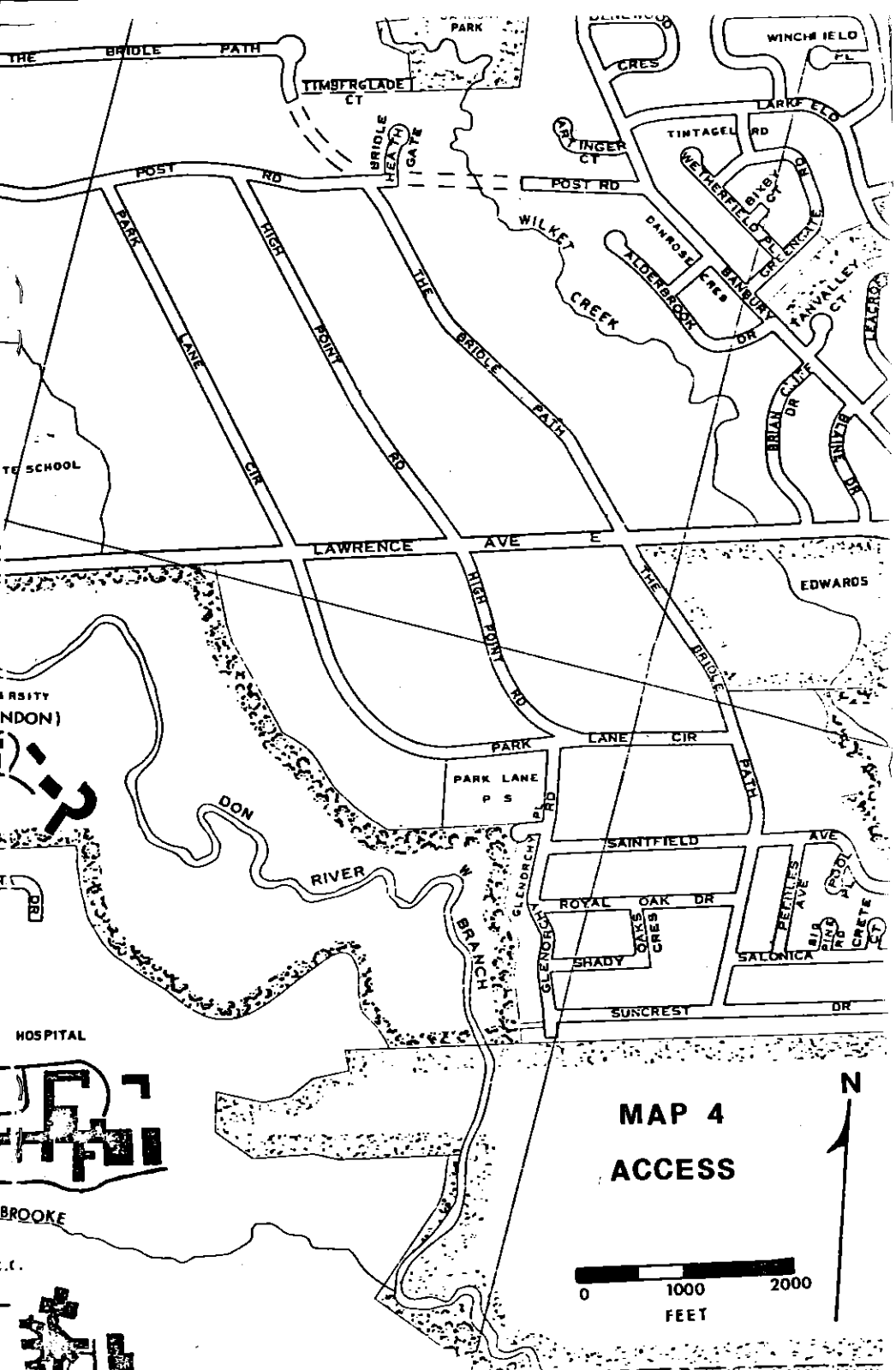
Most of the valley in the study area has reverted to a natural state since the days when it was farmed.

The area is now used for a variety of recreation activities including walking, jogging, picnicking, bird-watching, cross-country skiing, skating, exploring, swimming, sun-bathing, horseback riding, sitting around, listening, botanizing, art, photography, orienteering.

Field trips from the University of Toronto are often held in the area for students in Botany, Zoology, Forestry, Geography, and Landscape Architecture. The Toronto Field Naturalists conduct several outings every year to the area. The children from the Bayview Glen Junior School use the area for camping, nature study, an obstacle course, and archery; the children from the French school have a playing field in the area north of the Bayview Viaduct. York University uses the area for parking, playing fields, a field house, and skating.

Among the man-made structures in the valley are traces of foundations, and a buried sanitary sewer pipe which runs the length of the valley and is evidenced by a series of man-hole covers. In several locations unsightly and malodourous storm sewers discharge directly into the river causing washouts along the banks and increasing pollution of the river. Also the Metropolitan Toronto and Region Conservation Authority has channelled part of the river banks with gabions and other rather unsightly flood control devices.





THE BRIDLE PATH
TIMBERGLADE CT
BRIDLE HEATH GATE
POST RD
PARK LANE
HIGH POINT RD
WILKET CREEK
CRES
CRYNINER CT
TINTAGEL RD
WETHERFIELD DR
DANNOZ DR
ALDENBROOK DR
BANKS DR
KAWALLEY CT
LARKFIELD
WINCHFIELD PL
BRIAN CT
SKINE DR
LEASDALE

THE BRIDLE PATH
LAWRENCE AVE
HIGH POINT RD
PARK LANE
PARK LANE PS
SAINTFIELD
ROYAL OAK DR
SHADY OAKS CRES
SUNCREST DR
PARK LANE CIR
THE BRIDLE PATH
EDWARDS
DON RIVER
GLENDENY RD
W BRANCH RD
PEPPER'S AVE
SALONICA
OLD BRIDGE RD
CRETE

UNIVERSITY (LONDON)
HOSPITAL
BROOKE

MAP 4 ACCESS

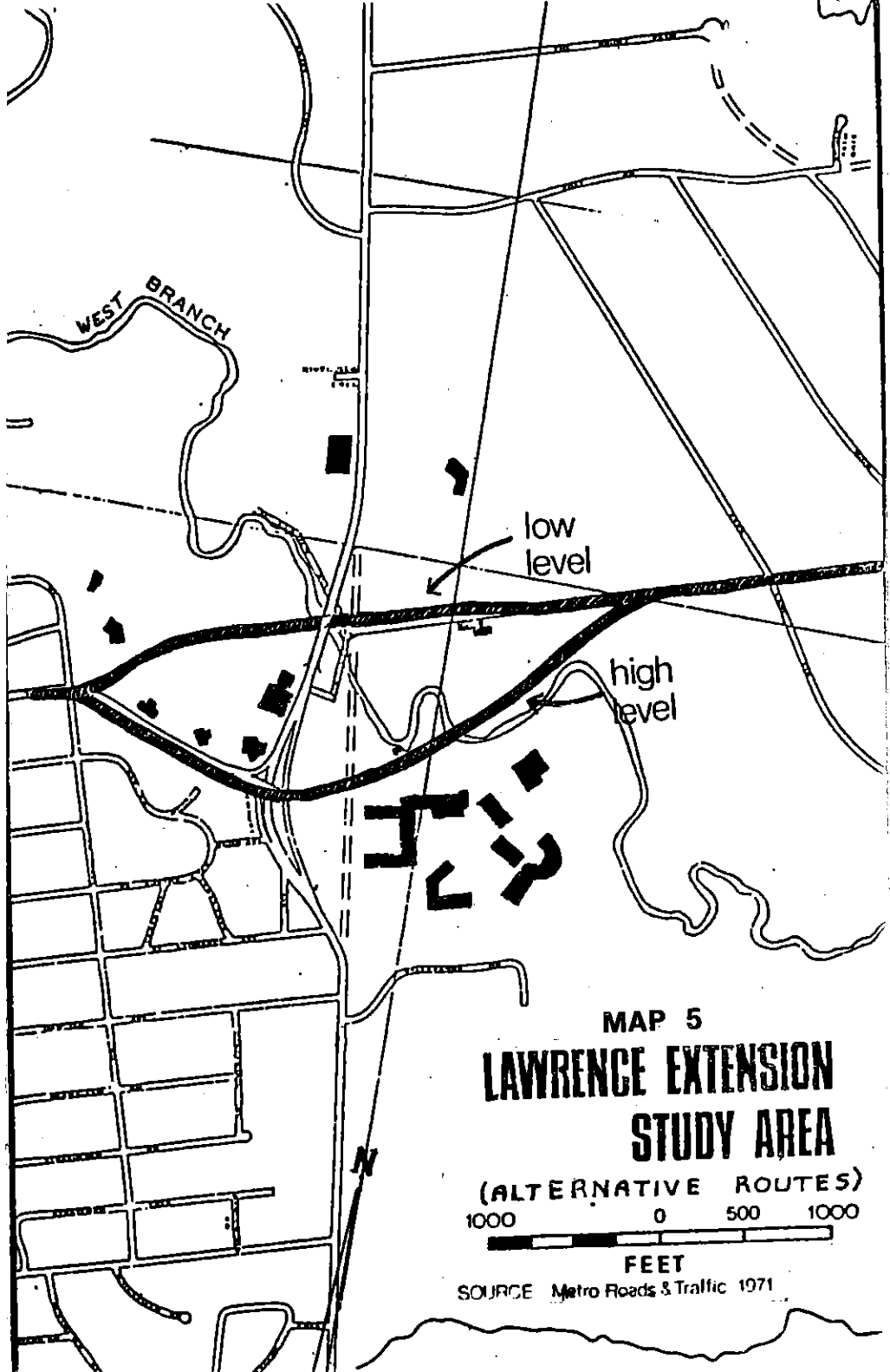


Other man-made structures are the end of Lawrence Avenue East, the paved parking lot and field house of Glendon College, and the Bayview Glen Junior School Buildings. These all act as water proof surfaces which prevent both rainwater and floodwater from being absorbed into the ground. As such they increase the runoff and the flood levels for areas downstream. (The absorption of surface waters into the ground and the gradual release of these filtered waters is one of the essential functions of the floodplain which is disrupted or destroyed when waterproof structures are allowed in floodplains.)

Extensive, illegal use of motorbikes has destroyed vegetation, caused erosion and disturbed wildlife in the valley.

The area contains a considerable amount of litter — both on the slopes where various sorts of garbage have been thrown over the crest of the valley, and under the Bayview Viaduct from which both students and passing motorists have been observed throwing objects.

The Bayview Viaduct, as well as being a source of litter, has an obvious disrupting visual impact and is the source of noise from traffic which destroys the peace of this otherwise restful area. Improperly directed storm water from the Viaduct (which in winter contains large amounts of salt) causes erosion and changes in the chemistry of the soils under the bridge as well as polluting the river. The result is that almost no desirable vegetation grows under the viaduct and the river's pollution is increased at this point.



MAP 5
**LAWRENCE EXTENSION
STUDY AREA**
(ALTERNATIVE ROUTES)



SOURCE Metro Roads & Traffic 1971

Since the early 1970's the natural beauty of the area has also been threatened by a proposed extension of Lawrence Avenue to link the six-lane section west of Bayview Avenue with a similar section to be constructed east of Bayview Avenue. Feasibility studies have suggested the two alternative routes shown on the accompanying map. The southern alternative would be a high-level bridge; the northern alternative, a low-level ramp. So far (to Oct. 1978) local opposition has succeeded in halting the plan.



RECOMMENDATIONS

1. Establishment as a Protected Site

The Toronto Field Naturalists recommend that the Borough of North York, the Metro Corporation, and the Metropolitan Toronto and Region Conservation Authority recognize the West Don River Valley north of Sunnybrook Park and south of the Rosedale Golf and Country Club as a valuable natural and education resource for the people of Toronto. The area should be designated as open space and its use limited to a natural area park.

In the TFN publication "Toronto the Green", recommendations were made about the kinds of areas that should have their use limited. The area described in this study falls into several of the categories considered necessary for this designation. The steep slopes throughout this section of the watershed are hazard lands; the wooded areas, wetlands, spring-fed creeks and river are sensitive areas; and the stand of white pines located in the northwest part of the study area, the well-wooded mixed forest on the slopes of the valley, and the spring-fed wetlands are remnant areas.

The area should be retained in as natural a state as possible and no further development or redevelopment of the lands permitted within the Valley Land Impact Zone (VIZ) according to the criteria recommended in the Metropolitan Toronto Valley Land Study (August 1978) prepared by the Metropolitan Toronto Planning Department.

The proposed connection of the two parts of Lawrence Avenue across the Don Valley should be deleted from all Official Plans.

2. Management Guidelines

In order to maintain the study area in as natural a state as possible, the Toronto Field Naturalists recommend that the following management guidelines be considered:

- a. Notices should be posted and garbage containers provided at all access points to encourage users of the area to respect the natural values of valley lands and to help maintain the site in a natural and uncluttered condition.
- b. Barriers should be erected at each access point to the area to prevent motorized vehicles leaving the existing roads.
- c. Drainage from the Bayview Viaduct should be redirected in such a way that runoff from the bridge does not continue to erode bare soils thus increasing sedimentation of the river.

3. Public Participation

The Toronto Field Naturalists request notice of any proposed rehabilitation measures and changes to land use in or near the study area.

CONCLUSION

We hope that this study has demonstrated to the reader some of the values of retaining natural areas in the urban environment. As one of the largest remaining such areas near the centre of Toronto, the West Don River Valley between Sunnybrook Park and the Rosedale Golf and Country Club is able to support a diversity of habitats and wildlife; it provides a corridor through which birds, for example, can migrate; and it offers special education and recreation opportunities for adults and children alike — not only from the neighbouring institutions, but from all of Metropolitan Toronto.

As a quiet, aesthetically pleasing environment becomes an increasingly rare amenity in the urban environment, it becomes more valuable to society. Thus we would emphasize to anyone using the area, or to anyone responsible for making decisions that would affect the area, that the diversity of vegetation and wildlife displayed has developed through a complex interaction of factors over a long period of time and can never be replaced by human ingenuity.



Pale touch-me-not.



Appendix A

STUDY METHODS AND ACTIVITIES

Beginning in 1974 the study area was explored frequently during all seasons of the year — particularly the area downstream from the viaduct; however, in 1976 studies upstream from the viaduct began when it was realized that this was the location of one of the alternative routes for the proposed extension of Lawrence Avenue East across the valley.

The tableland, slopes, and bottomland were explored thoroughly on foot. Notes were taken on uses, conditions, and changes encountered from time to time. People habitually walking in the area were interviewed. Observations on plants and animals were listed during every season of the year. Trees and slopes were measured. The general topography was studied.

Photographs were taken, and slides are available through the TFN archivist who can be reached through the TFN secretary.

Herbarium samples were taken of many plants for careful identification, though all of the rarer and protected plants were avoided in this endeavour. These are also available through the TFN secretary. A collection made by Mark Walker during the summer of 1977 is located in the Herbarium of the Royal Ontario Museum.

Field guides and technical volumes were consulted in identifying plants and animals. Historical information was culled from existing reports and sought on a door-to-door basis in the area.

Appendix B

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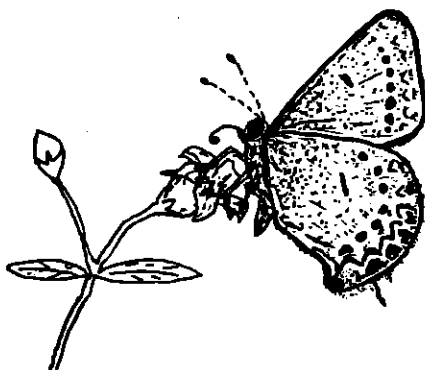
Appendix C

CHECKLIST OF ANIMALS IN THE WEST DON RIVER VALLEY (STUDY AREA NO.8)

(1974-1978)

INVERTEBRATES OBSERVED

Odonota	Damselflies (blue-green and red) Dragonflies
Orthoptera	Grasshoppers and Ground Crickets Carolina Locust
Plecoptera	Stoneflies
Hemiptera	Milkweed Bug (<i>Lygaeus kalmii</i>) Water-striders
Homoptera	Frog-hoppers (Spittlebugs) Aphids
Coleoptera	Leaf-mining Leaf-beetles Beetle Species
Trichoptera	Caddisflies
Lepidoptera	Alfalfa Butterfly (<i>Colias eurytheme</i>) Sulphurs and Whites Copper (<i>Lycaena</i> sp) Hairstreaks Baltimore Checkerspot (<i>Euphydryas</i> sp.) Angle-wing (<i>Polygonia</i> sp) Mourning-cloak (<i>Numphalis antiopa</i>) White Admiral (<i>Limenitis arthemis</i>) Buckeye (<i>Junonia coenia</i>) Satyrs Monarch (<i>Danaus plexippus</i>) Silver-spotted Skipper (<i>Epargyreus</i> sp.) Isabella Moth/Woolly-bear (<i>Isia isabella</i>) Eastern Tent-caterpillar (<i>Malacosma americana</i>)
Diptera	Mosquitoes Midges
Hymenoptera	Bees Stinging Ants Mound-building Ants
Phalangida	Harvestmen (Daddy-Long-Legs)
Araneae	Spiders
Gastropoda	Pulmonata Snail species



W.P.M.E.

Acadian Hairstreak

VERTEBRATES OBSERVED

REPTILES AND AMPHIBIANS

Snakes

Eastern Garter Snake (*Thamnophis sirtalis sirtalis*)

Turtles

Wood Turtle (*Clemmys insculpta*)

Pond Turtle sp

Frogs

Green Frog (*Rana clamitans*)

Wood Frog (*Rana sylvatica*)

Common Tree Frog (*Hyla versicolor*)

FISHES

Stickleback

Bony Fish spp

MAMMALS

Hairytail Mole (*Parascalops breweri*)

Raccoon (*Procyon lotor*)

Red Fox (*Vulpes fulva*)

Eastern Gray Squirrel (*Sciurus carolinensis*)

Red Squirrel (*Tamasciurus hudsonicus*)

Eastern Chipmunk (*Tamias striatus*)

Groundhog or Woodchuck (*Marmota monax*)

Muskrat (*Ondatra zibethica*)

Brown Rat (*Rattus norvegicus*)

Eastern Cottontail (*Sylvilagus floridanus*)

European Hare (*Lepus europaeus*)

BIRDS

The following list is arranged according to the order given in the Federation of Ontario Naturalists' "Check-list of Birds of Ontario (1974)".

Symbols

* nesting record

R resident (ie. habitual year-round resident of Toronto region)

M migrant or passage migrant

- not observed in this period



Wood Frog
Glendon valley

CHECK-LIST OF BIRDS OF THE WEST DON RIVER VALLEY (STUDY AREA NO.8)

<u>Species</u>	<u>1943-1973</u>	<u>1974-1978</u>
Common Loon	M	-
Great Blue Heron	M	M
Green Heron	M	M
American Bittern	M	M
Canada Goose	R	R
Mallard	R	R
Black Duck	*	M
Blue-winged Teal	M	M
Wood Duck	-	M
Hooded Merganser	M	-
Turkey Vulture	M	M
Goshawk	M	M
Sharp-shinned Hawk	*	M
Cooper's Hawk	M	-
Red-tailed Hawk	R*	R
Red-shouldered Hawk	M	-
Broad-winged Hawk	M	-
Rough-legged Hawk	M	-
Bald Eagle	M	-
Marsh Hawk	M	-
Merlin	M	-
Kestrel, American	"	::
Ruffed Grouse	R	R
Ring-necked Pheasant	R*	R
Virginia Rail	M	-
Sora Rail	M	-
Killdeer	M	M
American Woodcock	*	-
Common Snipe	M	-
Spotted Sandpiper	*	M
Solitary Sandpiper	M	M
Lesser Yellowlegs	M	-
Semipalmated Sandpiper	M	-
Herring Gull	R	R
Ring-billed Gull	R	R
Common Tern	M	-
Rock Dove	R	R
Mourning Dove	R	R
Black-billed Cuckoo	-	M
Yellow-billed Cuckoo	M	-
Screech Owl	*	R
Great Horned Owl	*	R
Snowy Owl	M	-
Long-eared Owl	M	-
Short-eared Owl	M	-
Saw-whet Owl	M	-

<u>Species</u>	<u>1943-1973</u>	<u>1974-1978</u>
Whip-poor-will	M	-
Common Nighthawk	M	M
Chimney Swift	M	M
Ruby-throated Hummingbird	M	M
Belted Kingfisher	M	M
Common Flicker	*	M
Pileated Woodpecker	*	M
Red-bellied Woodpecker	M	-
Red-headed Woodpecker	M	M
Yellow-bellied Sapsucker	*	M
Hairy Woodpecker	R	R
Downy Woodpecker	R	R
Black-backed Three-toed Woodpecker	M	M
Northern Three-toed Woodpecker	M	-
Eastern Kingbird	*	M
Great Crested Flycatcher	M	M
Eastern Phoebe	*	M
Yellow-bellied Flycatcher	M	-
Trall's Flycatcher	M	-
Least Flycatcher	*	M
Eastern Pewee	*	-
Olive-sided Flycatcher	M	M
Horned Lark	M	-
Tree Swallow	*	M
Bank Swallow	*	*
Rough-winged Swallow	M	M
Barn Swallow	*	M
Purple Martin	M	-
Blue Jay	R*	R
Common Crow	R*	R*
Black-capped Chickadee	R*	R
White-breasted Nuthatch	R*	R
Red-breasted Nuthatch	M	M
Brown Creeper	M	M
House Wren	*	M
Winter Wren	M	M
Long-billed Marsh Wren	M	-
Short-billed Marsh Wren	M	-
Northern Mockingbird	M	-
Gray Catbird	*	M
Brown Thrasher	*	M
American Robin	*	M
Wood Thrush	*	M
Hermit Thrush	M	M
Swainson's Thrush	M	M
Gray-checked Thrush	M	-
Veery	M	M
Eastern Bluebird	M	M

<u>Species</u>	<u>1943-1973</u>	<u>1974-1978</u>
Golden-crowned Kinglet	M	M
Ruby-crowned Kinglet	M	M
Cedar Waxwing	*	M
Northern Shrike	M	M
Loggerhead Shrike	M	-
Common Starling	*R	R
Yellow-throated Vireo	M	-
Solitary Vireo	M	M
Red-eyed Vireo	*	M
Philadelphia Vireo	M	-
Warbling Vireo	M	M
Black-and-white Warbler	*	M
Golden-winged Warbler	M	M
Tennessee Warbler	M	-
Orange-crowned Warbler	M	-
Nashville Warbler	M	M
Parula Warbler, Northern	M	-
Yellow Warbler	*	M
Magnolia Warbler	M	M
Cape May Warbler	M	M
Black-throated Blue Warbler	M	M
Yellow-rumped Warbler	M	M
Black-throated Gray Warbler	M	-
Black-throated Green Warbler	M	M
Cerulean Warbler	M	-
Blackburnian Warbler	*	M
Chestnut-sided Warbler	*	M
Bay-breasted Warbler	M	M
Blackpoll	M	M
Pine Warbler	M	M
Prairie Warbler	M	-
Palm Warbler	M	-
Ovenbird	M	M
Northern Waterthrush	M	M
Connecticut Warbler	M	-
Mourning Warbler	*	*
Common Yellowthroat	*	M
Yellow-breasted Chat	M	-
Wilson's Warbler	M	M
Canada Warbler	M	M
American Redstart	*	M
House Sparrow	R*	R
Bobolink	M	-
Eastern Meadowlark	*	M
Red-winged Blackbird	*	*
Northern Oriole	*	*
Rusty Blackbird	M	M
Common Grackle	*	*
Brown-headed Cowbird	M	M

<u>Species</u>	<u>1943-1973</u>	<u>1974-1978</u>
Scarlet Tanager	*	M
Cardinal	R*	R
Rose-breasted Grosbeak	*	M
Indigo Bunting	*	M
Evening Grosbeak	M	M
Purple Finch	M	M
Pine Grosbeak	M	M
Common Redpoll	M	M
Pine Siskin	M	M
American Goldfinch	*	M
Red Crossbill	M	-
White-winged Crossbill	M	M
Rufous-sided Towhee	*	M
Savannah Sparrow	M	M
Grasshopper Sparrow	M	-
Vesper Sparrow	M	-
Dark-eyed Junco	M	M
American Tree Sparrow	M	M
Chipping Sparrow	*	M
Field Sparrow	*	M
White-crowned Sparrow	M	M
White-throated Sparrow	M	M
Fox Sparrow	M	M
Lincoln's Sparrow	M	-
Swamp Sparrow	M	M
Song Sparrow	*	M
Snow Bunting	M	-

Total Species Observed: 170

Nesting Species: 52

Appendix D

CHECK-LIST OF PLANTS IN THE WEST DON RIVER VALLEY (STUDY AREA NO. 8)
(1974-1978)

The plants are listed in the order given in the TFN pocket "Field Check-list of Plants of Southern Ontario".

Annotations: Where frequency of occurrence is not mentioned, the plant is fairly common but localized as indicated.
The terms "upstream" and "downstream" indicate the location in relationship to the Bayview Viaduct.

* planted, introduced, alien, or escaped.

- | | |
|------------------------------------|---------------------------------|
| | ALGAE |
| <i>Spyrogyra</i> | Pond Silk |
| <i>Chara</i> | Stonewort |
| | FUNGI |
| <i>Polyporus squamosus</i> | Bracket Fungus |
| <i>Polyporus resinus</i> | Resinous Bracket Fungus |
| <i>Coprinus atramentarius</i> | Ink Cap |
| <i>Coprinus comatus</i> | Shaggy Mane |
| <i>Morchella esculenta</i> | Common Morel |
| <i>Lycoperdon gemmatum</i> | Crested Puffball |
| <i>Lycoperdon pyriforme</i> | Clustered Puffball |
| <i>Agaricus campestris</i> | Common Mushroom |
| <i>Hygrophorus</i> sp. | Hygrophorus Mushroom |
| <i>Hydnum</i> sp. | Hedgehog Fungus |
| | LICHENS |
| | Crustose Lichens spp. |
| | Fruticose Lichens spp. |
| | MOSESSES |
| Series <i>Eubrya</i> (spp.) | Moss |
| | LIVERWORTS |
| Family <i>Marchantiaceae</i> (sp.) | Thallose Liverwort |
| | VASCULAR PLANTS - NON-FLOWERING |
| EQUISETACEAE (HORSETAIL FAMILY) | |
| <i>Equisetum arvense</i> | Field Horsetail |
| <i>Equisetum hyemale</i> | Scouring Rush |



Equisetum
arvense

(Field
Horsetail)

POLYPODIACEAE (FERN FAMILY)

<i>Osmunda claytoniana</i>	Interrupted Fern
<i>Athyrium filix-femina</i>	Lady Fern
<i>Cystopteris bulbifera</i>	Bulblet Bladder Fern
<i>Polystichum acrostichoides</i>	Christmas Fern
<i>Dryopteris cristata</i>	Crested Fern
<i>Dryopteris marginalis</i>	Marginal Woodfern
<i>Dryopteris spinulosa</i>	Spinulose Woodfern
(var. <i>intermedia</i>)	
(var. <i>fructosa</i>)	
(and typical)	
<i>Gymnocarpium dryopteris</i>	Oak Fern
<i>Matteuccia struthiopteris</i>	Ostrich Fern
<i>Onoclea sensibilis</i>	Sensitive Fern

VASCULAR PLANTS - FLOWERING

GINKGOACEAE (GINKGO FAMILY)

Ginkgo biloba (*Ginkgo). Planted on campus.

TAXODIACEAE (BALD CYPRESS FAMILY)

Metasequoia glyptostroboides (*Dawn Redwood). Planted on campus.

PINACEAE (PINE FAMILY)

Pinus strobus (White Pine). Mature trees common.
Pinus sylvestris (*Scots Pine). A few planted.
Pinus nigra (*Austrian Pine). A few planted.
Larix laricina (Tamarack). Current U of T project in bottomland.
Picea glauca (*White Spruce). Planted, campus.
Picea pungens (*Blue Spruce). Planted, campus.
Picea abies (*Norway Spruce). Widely planted on campus.
Tsuga canadensis (Eastern Hemlock). Mature trees common.
Abies balsamea (Balsam Fir). Planted, bottomland.
Abies concolor (*White Fir). Planted, campus.
Pseudotsuga menziesii (*Douglas-Fir). Planted, campus.

CUPRESSACEAE (CYPRESS FAMILY)

Thuja occidentalis (Eastern White cedar). Mature trees common.
Juniperus communis (*Common Juniper). Planted, campus.
Juniperus virginiana (*Eastern Red cedar). Planted, campus.

TYPHACEAE (CATTAIL FAMILY)

Typha latifolia (Common Cattail). Abundant, typical marsh at south end study area.
Typha angustifolia (Narrow-leaved Cattail). Abundant, typical marsh near viaduct (upstream).

ALISMATACEAE (ARROWHEAD FAMILY)

Alisma triviale (Water-plantain). Marshes, ditches.

ALISMATACEAE (cont'd)

Sagittaria latifolia (Broad-leaved Arrowhead). Marshes, ditches.

BUTOMACEAE (FLOWERING RUSH FAMILY)

Butomus umbellatus (*Flowering Rush). Eurasian - introduced, one wet area west bank, unusual in Metro.

GRAMINEAE (GRASS FAMILY)

Echinochloa crus-galli (*Barnyard Grass). Naturalized.
Agrostis alba (*Redtop Grass). Abundant, naturalized European grass.
Bromus inermis (*Smooth Brome). Common, escaped forage grass.
Festuca elatior (*Meadow Fescue). Introduced, European forage grass.
Festuca rubra (*Red Fescue). Native, but likely lawn escape.
Setaria viridis (*Green Foxtail). Common, introduced European grass.
Poa compressa (*Canada Bluegrass or Flat-Stemmed Meadowgrass). Common, introduced European grass.
Poa nemoralis (*Forest Speargrass). Common, introduced Eurasian grass.
Glyceria grandis (Tall Managrass). Graminoid marshes.
Glyceria striata (Nerved Managrass). Graminoid marshes.
Dactylis glomerata (*Orchard Grass). Introduced, European grass.
Panicum philadelphicum (Wood Witchgrass). Not very common.
Leersia oryzoides (Rice Cut-grass). Abundant, graminoid marshes.
Koeleria jubatum (*Squirrel-tail Grass). Beneath viaduct.
Phleum pratense (*Timothy). Common, introduced grass.
Elymus virginicus (Virginia Wild Rye). Fairly common.
Agropyron repens (*Couch Grass). Abundant beneath viaduct, introduced.
Agropyron trachycalum (*pauciflorum*) (wheatgrass). Common.
Phalaris arundinacea (Reed Canary-grass). Moist terraced area at viaduct.

CYPERACEAE (SEDGE FAMILY)

Scirpus americanus (Chairmaker's Rush). Marshes.
Scirpus atrovirens (Dark-green Bulrush). Downstream west bank marsh.
Carex pedunculata (Early-flowering Sedge). By upland trail.
Carex platyphylla (Broad-leaved Sedge). By upland trail.
Carex rosea (Stellate Sedge). Uncommon, slopes.
Carex spp. (Sedges). At least 4 species, besides above.

JUNCACEAE (RUSH FAMILY)

Juncus effusus (Common, Soft or Path-Rush). Upland trails.
Juncus bufonius (Toad-Rush). Wetland areas.
Juncus torreyi (Torrey's Rush). Not common.

ARACEAE (ARUM FAMILY)

Arisaema triphyllum (Jack-in-the-pulpit). Tableland wood and east-facing slope.

LEMNACEAE (DUCKWEED FAMILY)

Lemna minor (Lesser Duckweed). Abundant in ditches, ponds.

LILIACEAE (LILY FAMILY)

Smilax herbacea (Carrionflower). Bottomland, downstream, herbaceous.

LILIACEAE (cont'd)

- Smilax tarnoides* var. *hispida* (Bristly Greenbrier). Bottomland, up and downstream, woody.
- Maianthemum canadense* (Canada Mayflower). Fairly common, woods.
- Polygonatum* sp. (Solomon's Seal). Uncommon.
- Smilacina stellata* (Starry False Solomon's-Seal). Large mass upstream, bottomland.
- Smilacina racemosa* (Racemose False Solomon's-Seal). Woods.
- Trillium grandiflorum* (Large-flowered or White Trillium). Common, especially west-facing slope.
- Erythronium americanum* (Trout Lily, Yellow). Abundant, slopes.
- Allium tricoccum* (Wild Leek). Large masses (leaves), east-facing slopes downstream.

IRIDACEAE (IRIS FAMILY)

- Iris pseudocorus* (*Yellow Iris). Introduced, established, marshes downstream.

ORCHIDACEAE (ORCHID FAMILY)

- Epipactis helleborine* (*Helleborine Orchid). Introduced, established, bottoms and north-facing slopes, woods.

SALICACEAE (WILLOW FAMILY)

- Salix bebbiana* (Bebb Willow). Specimen bottomland, upstream.
- Salix nigra* (Black Willow). Small specimens.
- Salix fragilis* (*Crack Willow). Very common, large trees.
- Salix interior* (Sandbar Willow). Mostly upstream.
- Populus balsamifera* (Balsam Poplar). Common.
- Populus deltoides* (Eastern Cottonwood). Common, riverside, large trees.
- Populus tremuloides* (Trembling Aspen). Common (adventive), large trees.
- Populus grandidentata* (Largetooth Aspen). Riverside, large trees.
- Populus* sp. (*European Poplar hybrid). Planted, bottom road near college.
- Populus alba* (*White Poplar). Introduced, riverside.
- Populus gileadensis* (*Balm-of-Gilead hybrid). Planted, bottomland.

JUGLANDACEAE (WALNUT FAMILY)

- Juglans cinerea* (Butternut). A few large and small trees.

BETULACEAE (BIRCH FAMILY)

- Corylus cornuta* (Beaked Hazel). Several upstream.
- Ostrya virginiana* (Hop-hornbeam or Ironwood). In hardwood forest, mature trees - 20 to 50 ft.
- Carpinus caroliniana* (American Hornbeam or Blue beech). In hardwood forest, mature trees.
- Betula papyrifera* (Paper Birch or White Birch). Becoming uncommon, mature trees.
- Betula pendula* (*European White Birch). A few planted, campus.
- Betula lutea* (Yellow Birch). Moist slopes, large trees.

FAGACEAE (BEECH FAMILY)

- Quercus alba* (White Oak). Less common than red oak, mature trees.
- Quercus rubra* (Red Oak). Single specimens, mature and young trees.
- Fagus grandifolia* (American Beech). Large stands mature and young trees, upland.

ULMACEAE (ELM FAMILY)

Ulmus americana (American or White Elm). Still some living, mature trees in study area.

Ulmus pumila (*Siberian Elm). Planted or escaped, campus and bottomland.

MORACEAE (MULBERRY FAMILY)

Morus alba (*White Mulberry). A few, escaped Asiatic (shrub-size).

Maclura pomifera (*Osage-orange). A few planted on campus, shrub.

CANNABINACEAE (HEMP FAMILY)

Humulus japonicus (*Japanese Hop). Introduced Asiatic trailing plant.

URTICACEAE (NETTLE FAMILY)

Urtica gracilis (Slender Nettle). Common.

Laportea canadensis (Wood Nettle). Common, low woods.

Boehneria cylindrica (False Nettle or Bog Hemp). East bank, marsh.

ARISTOLOCHIACEAE (BIRTHWORT FAMILY)

Asarum canadense (Wild Ginger). West-facing slope, downstream.

POLYGONACEAE (BUCKWHEAT FAMILY)

Rumex crispus (*Curled Dock). Alien, trails.

Rumex obtusifolius (*Broad Dock). Alien, wetter areas.

Polygonum erectum (Erect Knotweed). Common, trails.

Polygonum cuspidatum (*Japanese Knotweed). Alien, a pest, but not too well established.

Polygonum persicaria (*Lady's-Thumb). Common alien weed.

Polygonum aviculare (*Prostrate Knotweed). Alien, trails.

Polygonum sp. (Smartweed). Large plants, riverside.

Polygonum scandens (Climbing False Buckwheat). Not common.

CHENOPODIACEAE (GOOSEFOOT FAMILY)

Chenopodium hybridum (Maple-leaved Goosefoot). Not common.

Chenopodium album (*Lamb's-quarters). Alien, trails.

Atriplex patula (Orache). Under viaduct.

Salsola kali var. *tenuifolia* (*Russian Thistle). Uncommon weed.

Kochia scoparia (*Summer Cypress). Not common.

AMARANTHACEAE (AMARANTH FAMILY)

Amaranthus retroflexus (*Green Amaranth or Redroot Pigweed). Neglected garden plot, bottomland.

NYCTAGINACEAE (FOUR-O'CLOCK FAMILY)

Mirabilis nyctaginea (Umbrellawort or Four-o'clock). Meadow near Glendon playing field.

PORTULACACEAE (PURSLANE FAMILY)

Claytonia virginica (Spring Beauty). Common, spring, southwest-facing slope.

CAROPHYLLACEAE (PINK FAMILY)

- Saponaria officinalis* (*Bouncing Bet). Common, early summer-flowering.
Silene noctiflora (*Night-flowering Catchfly). Not common.
Silene cucubalus (*Bladder Campion). Not common, wayside, bottomland.
Dianthus armeria (*Deptford Pink). Upstream, attractive alien, bottomland.
Stellaria graminea (*Lesser Stitchwort). Common, meadows.

RANUNCULACEAE (CROWFOOT FAMILY)

- Anemone canadensis* (Canada Anemone). Attractive groupings, late-spring blooming, bottomland.
Anemone virginiana (Thimbleweed). Not as common as above, bottomland.
Actaea rubra (Red Baneberry). Woods.
Actaea pachypoda (White Baneberry or Doll's-eyes). Woods.
Ranunculus acris (*Common or Tall Buttercup). Common.
Ranunculus scleratus (Celery-leaved Buttercup). Ditch and downstream marsh.
Ranunculus recurvatus (Hooked Buttercup). Wet areas, downstream, east bank.
Ranunculus abortivus (Kidneyleaf Buttercup). Not very common.
Ranunculus septentrionalis (Swamp Buttercup). Swampy areas.
Aquilegia canadensis (Columbine). Attractive in spring, west-facing slope.
Hepatica acutiloba (Sharp-lobed Hepatica). Common, southwest-facing slope, attractive in early spring.
Caltha palustris (Marsh-marigold). Showy masses in spring, marshes.
Thalictrum dioicum (Early Meadow-rue). Upland by trails.
Thalictrum polygamum (Tall Meadow-rue). Not very common, downstream, bottomland.
Clematis virginiana (Virgin's Bower). A few large woody climbers south end of area, bottomland.

BERBERIDACEAE (BARBERRY FAMILY)

- Podophyllum peltatum* (May-apple). Common, spring-blooming.
Caulophyllum thalictroides (Blue Cohosh). Woods.
Berberis vulgaris (*European Barberry). Established introduced shrub.
Berberis thunbergii (*Japanese Barberry). Established introduced shrub.

PAPAVERACEAE (POPPY FAMILY)

- Sanguinaria canadensis* (Bloodroot). Abundant west-facing slopes, showy in spring.
Chelidonium majus (*Greater Celandine). Woodland trails.

CRUCIFERAE (MUSTARD FAMILY)

- Nasturtium officinalis* (*Watercress). Ditch.
Barbarea vulgaris (*Winter Cress or Yellow Rocket). Showy alien plant.
Alliaria officinalis (*Garlic Mustard). Common, masses, delicate effect late spring.
Brassica campestris (*Bird's Rape). Under viaduct.
Brassica juncea (*Chinese Mustard). Not very common.
Lepidium sp. (*Peppergrass). Wayside.
Hesperis matronalis (*Dame's Rocket). Well-established garden escape.
Dentaria diphylla (Two-leaved Toothwort). Attractive masses, spring.
Dentaria laciniata (Cut-leaved Toothwort). Attractive masses, spring.
Dentaria x maxima (Hybrid Toothwort). Attractive masses, spring.

SAXIFRAGACEAE (SAXIFRAGE FAMILY)

Penthorum sedoides (Ditch-stonecrop). Not very common, upstream.
Ribes glandulosum (Skunk Currant). Occurs singly, not uncommon.
Ribes sativum (*Garden Red Currant). Some found upstream, escape.
Ribes triete (Swamp Red Currant). Not common.
Ribes cynosbati (Prickly or Pasture Gooseberry). Not common.
Philadelphus sp. (*Mock-orange). Not common, planted or escape.
Tiarella cordifolia (Foamflower). Numerous in a few thickly-wooded areas.
Mitella diphylla (Mitrewort). Woods, up and downstream.

PLATANACEAE (PLANE TREE FAMILY)

Platanus acerifolia (*London Plane tree.) Hybrid - planted on campus.

ROSACEAE (ROSE FAMILY)

Agrimonia sp. (Agrimony). Fairly common.
Geum canadense (White Avens). Fairly common.
Geum aleppicum (Yellow Avens). Upstream.
Prunus virginiana (Chokecherry). Common, shrub size.
Prunus serotina (Black Cherry). Large and small trees growing singly.
Malus sp. (*Crab Apple). Planted, campus.
Sorbus aucuparia (*European Mountain-ash or Rowan). A few upstream to 7 ft.
Potentilla argentea (Silvery Cinquefoil).
Potentilla recta (Rough-fruited or Sulphur Cinquefoil).
Crataegus monogyna (English Hawthorn). Shrubs and small trees.
Crataegus spp. (Hawthorns, native). Shrubs and small trees.
Rosa multiflora (*Rose). Not well-established, escape.
Rubus occidentalis (Black Raspberry). Common.
Rubus idaeus (Red Raspberry). Very common.
Rubus sp. (Blackberry). Not common.
Rubus odoratus (Purple Flowering Raspberry). Very common, attractive in bloom.
Fragaria virginiana (Common Strawberry). Fairly common.
Rhodotypos scandens (*Jetbead). Uncommon, escape.

LEGUMINOSAE (PEA FAMILY)

Medicago sativa (*Alfalfa). Not very common, a forage plant.
Medicago lupulina (*Black Medick). Common, meadows.
Trifolium pratense (*Red Clover). Common, meadows.
Trifolium repens (*White Clover). Not very common.
Trifolium hybridum (*Alsike Clover). Common, meadows.
Galega officinalis (*Goats-rue). Marshy area opposite Glendon playing field, planted or escape.
Apios americana (Ground-nut). Up and downstream, not found in fruit.
Amphicarpa bracteata (Hog-peanut). Abundant.
Robinia pseudoacacia (*Black Locust). A few tree-size, introduced from south.
Cercis canadensis (*Redbud). Planted on campus.
Caragana arborea (*Pea Shrub). Planted on campus.
Medicago alba (*White Sweet-clover). Abundant, meadows.
Medicago officinalis (*Yellow Sweet-clover). Uncommon, wayside, riverside trails.
Desmodium canadense (Showy Tick-trefoil). Common, meadows.
Vicia cracca (*Cow Vetch). Very common, meadows.

OXALIDACEAE (WOOD-SORREL FAMILY)

Oxalis europaea (Yellow Wood-sorrel). Fairly common.

GERANIACEAE (GERANIUM FAMILY)

Geranium robertianum (Herb-Robert). Common, attractive in June, some bloom in fall.

RUTACEAE (RUE FAMILY)

Ptelea trifoliata (Common Hoptree or Wafer-ash). Not common, introduced.
Phellodendron sp. (*Corktree). Planted, campus.

SIMAROUBACEAE (QUASSIA FAMILY)

Ailanthus altissima (*Tree of Heaven).

EUPHORBIACEAE (SPURGE FAMILY)

Acalypha virginica (Three-seeded Mercury). Waste area at parking lot.
Euphorbia marginata (Snow-on-the Mountain). Uncommon western species, escape.
Euphorbia peplus (*Petty Spurge). Uncommon.

ANACARDIACEAE (CASHEW FAMILY)

Rhus radicans (Poison Ivy). Fairly common downstream, a pest upstream, non-climbing.
Rhus typhina (Staghorn Sumac). Abundant, bottomland.

CELASTRACEAE (STAFF-TREE FAMILY)

Celastrus scandens (Climbing Bittersweet). A few upstream.
Euonymus sp. (*Winged Euonymus). Single specimen, riverside, introduced.

ACERACEAE (MAPLE FAMILY)

Acer rubrum (Red Maple). Small group, wetter areas.
Acer nigrum (Black Maple). A few specimens, bottomland.
Acer saccharum (Sugar Maple). Large stands, slopes, bottomland.
Acer negundo (Manitoba Maple). Common, all sizes.
Acer spicatum (Mountain Maple). Common, small, medium.
Acer saccharinum (Silver Maple). A few, downstream, west bank.
Acer platanoides (*Norway Maple). Many planted, escaped, campus and vicinity.

HIPPOCASTANACEAE (BUCKEYE FAMILY)

Aesculus hippocastanum (*Horsechestnut). Planted, campus.

BALSAMINACEAE (TOUCH-ME-NOT FAMILY)

Impatiens pallida (Pale Touch-me-not). Attractive masses, summer.
Impatiens capensis (Spotted Touch-me-not). Attractive masses, summer (more common than *I. pallida*).

RIANACEAE (BUCKTHORN FAMILY)

Rhamnus cathartica (*European Buckthorn). Well established introduced tree, fairly large, small.

RHAMNACEAE (cont'd)

Ceanothus americanus (New Jersey Tea). Not common.

SAPINDACEAE (SOAPBERRY FAMILY)

Koelreuteria paniculata (*Golden Rain Tree). Planted on campus.

VITACEAE (VINE FAMILY)

Parthenocissus vitacea (*inserta*) (Virginia or Thicket Creeper). Common.

Vitis riparia (Riverbank Grape). Common.

TILIACEAE (LINDEN FAMILY)

Tilia americana (Basswood). Large and small trees, up and down stream.

Tilia cordata (*Little-leaf Linden). Planted on campus.

Tilia vulgaris (*Dutch Linden). Planted on campus.

GUTTIFERAE (ST. JOHN'S-WORT FAMILY)

Hypericum pyramidatum (Great St. John's-wort). Meadow, upstream.

Hypericum perforatum (*Common St. John's-wort). Common, summer-blooming.

VIOLACEAE (VIOLET FAMILY)

Viola papilionacea (Common Blue Violet). Common, bottomland, attractive in bloom.

Viola conspersa (Dog Violet). East bank, south end, low.

Viola pubescens (Downy Yellow Violet). Not common.

Viola pennsylvanica (Smooth Yellow Violet). Attractive summer, bottomland.

ELAEAGNACEAE (OLEASTER FAMILY)

Elaeagnus angustifolia (*Russian-olive). Planted on campus.

LYTHRACEAE (LOOSESTRIFE FAMILY)

Lythrum salicaria (*Purple Loosestrife). Showy masses, to 6 ft, wet places.

ONAGRACEAE (EVENING-PRINROSE FAMILY)

Oenothera biennis (Common Evening-primrose). Common, dryer areas.

Epilobium coloratum (Purple-leaved Willow-herb). Uncommon, west bank, downstream.

Epilobium hirsutum (*Hairy Willow-herb). Common, riverside.

Epilobium glandulosum (var. *adenocaulon*) (Northern Willow-herb). Uncommon.

Circaea quadrisulcata (Enchanter's Nightshade). Common, especially northeast-facing slopes.

ARALIACEAE (GINSENG FAMILY)

Aralia racemosa (Spikenard). Uncommon, southwest-facing slope, downstream.

Aralia nudicaulis (Wild Sarsaparilla). Uncommon, bottomland, downstream.

UMBELLIFERAE (PARSLEY FAMILY)

Heracleum maximum (*lanatum*) (Cow-parsnip). By trails, downstream.

Cicuta maculata (Water-hemlock). Uncommon, marshes, downstream.

Cryptotaenia canadensis (Honewort). Downstream, bottomland.

UMBELLIFERAE (cont'd)

- Daucus carota* (*Wild Carrot or Queen Anne's Lace). Common, meadows.
Osmorhiza claytoni (Sweet Cicely). Not very common, downstream.
Sanicula marilandica (Black Snakeroot or Maryland Sanicle). Open area, upstream.

CORNACEAE (DOGWOOD FAMILY)

- Cornus stolonifera* (Red Osier Dogwood). Very common shrub.
Cornus rugosa (Roundleaf Dogwood). A few upstream by viaduct.
Cornus alternifolia (Alternate-leaved Dogwood). Common shrub.

PRIMULACEAE (PRIMROSE FAMILY)

- Lysimachia ciliata* (Fringed Loosestripe). Mostly upstream, wet meadow.

OLEACEAE (OLIVE FAMILY)

- Fraxinus pennsylvanica* (Green Ash). One full-grown specimen, downstream, river-side.
Fraxinus americana (White Ash). Scattered large and small trees.
Fraxinus sp. (*European Ash). Planted on campus.
Syringa sp. (*Lilac). A few upstream, planted or escape.
Forsythia (*Forsythia). Planted, campus.

APOCYNACEAE (DOGBANE FAMILY)

- Apocynum androsaemifolium* (Spreading Dogbane). Mostly upstream.
Apocynum cannabinum (Indian Hemp Dogbane). Common, up and downstream

ASCLEPIADACEAE (MILKWEED FAMILY)

- Asclepias syriaca* (Common Milkweed). Common in meadows.
Vincetoxicum medium (*Black Swallowwort). Abundant introduced, pest.

CONVOLVULACEAE (MORNING GLORY FAMILY)

- Cuscuta gronovii* (Dodder).

HYDROPHYLLACEAE (WATERLEAF FAMILY)

- Hydrophyllum virginianum* (Virginia Waterleaf). Common, both blue and white.

BORAGINACEAE (BORAGE FAMILY)

- Myosotis scorpioides* (*True Forget-me-not). East bank, introduced.
Myosotis laxa (Smaller Forget-me-not). West bank marshes, downstream.
Echium vulgare (*Viper's Bugloss). Dryer meadows.

VERBENACEAE (VERVAIN FAMILY)

- Verbena hastata* (Blue Vervain). Riverbanks.
Verbena urticifolia (White Vervain). Woodland trails, bottomland.

LABIATAE (MINT FAMILY)

- Monarda fistulosa* (Wild Bergamot). Common, especially upstream.
Lycopus virginicus (Bugleweed). Not common, meadows.
Nepeta cataria (*Catnip). Wayside.

LABIATAE (cont'd)

- Glechoma hederacea* (*Ground-ivy or Gill-o'-er-the-ground). Common, open woods, alien.
- Prunella vulgaris* (*Heal-all). Common alien, meadows.
- Lycopus americanus* (Cut-leaved Water Horehound). Not very common, upstream.
- Leonurus cardiaca* (*Motherwort). Wayside.
- Mentha arvensis* (Wild Mint or Field Mint). Not very common.

SOLANACEAE (NIGHTSHADE FAMILY)

- Solanum dulcanara* (*Climbing Nightshade). Common.
- Solanum nigrum* (*Black Nightshade). Not very common, alien, wayside.
- Physalis heterophylla* (Clammy Ground-cherry). East bank, downstream.

SCROPHULARIACEAE (FIGWORT FAMILY)

- Mimulus ringens* (Square-stemmed Monkey-flower). A few, fields, wet meadows, downstream.
- Verbascum thapsus* (*Common Mullein). Fields.
- Itinaria vulgaris* (*Butter-and-Eggs or Toadflax). Common attractive.
- Chelone glabra* (Turtlehead). Upstream and down, bottomland.

OROBANCHIACEAE (BROOM-RAPE FAMILY)

- Epifagus virginiana* (Beechdrops). Under beeches, hardwood forest.

PHRYMACEAE (LOPSEED FAMILY)

- Phryma leptostachya* (Lopseed). East bank, downstream.

PLANTAGINACEAE (PLANTAIN FAMILY)

- Plantago major* (*Common Plantain). Common alien, trails.
- Plantago rugelii* (Rugel's or Pale Plantain). Common native, trails.
- Plantago lanceolata* (*Lance-leaved Plantain). East bank opposite Glendon playing-field.

RUBIACEAE (MADDER FAMILY)

- Galium asprellum* (Rough Bedstraw). Common, bottomland.
- Galium* sp. (Bedstraw). Common, moist areas, bottomland.
- Mitchella repens* (Partridgeberry). Uncommon, wooded terrace, downstream.

CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)

- Diervilla lonicera* (Northern Bush-honeysuckle). A few downstream.
- Lonicera canadensis* (Canada Honeysuckle). Not common.
- Lonicera tatarica* (*Tartarian Honeysuckle - various forms). Well established introduced shrub.
- Lonicera xylostemum* (*European Honeysuckle). Established introduced shrub.
- Sambucus canadensis* (Common or Black-berried Elder). Not very common, upstream.
- Sambucus pubens* (Red-berried or Early Elder). Common attractive shrub.
- Symphoricarpos albus* (Snowberry). A native shrub but probably planted.
- Viburnum trilobum* (Cranberry Viburnum). Very common, attractive shrub.
- Viburnum lantana* (*Wayfaring-tree). One specimen noted - escape.
- Viburnum acerifolium* (Maple-leaf Viburnum). A few, up and downstream.
- Viburnum lentago* (Nannyberry). Uncommon, upstream.

CAPRIFOLIACEAE (cont'd)

Viburnum opulus (*Cuedler-rose). Planted or escape.

CUCURBITACEAE (GOURD FAMILY)

Echinocystis lobata (Wild Cucumber). Abundant, bottomland.
Sicyos angulatus (Bur-cucumber). A few, up and downstream.

CAMPANULACEAE (BLUEBELL FAMILY)

Campanula rapunculoides (*Creeping Bellflower). Not well established, escape.
Campanula sp. (*Bluebell). Not common, garden escape.
Lobelia siphilitica (Great Lobelia). Uncommon, upland, wet area downstream.

COMPOSITAE (COMPOSITE FAMILY)

Tribe 2

Eupatorium perfoliatum (Boneset). Common, marshes.
Eupatorium maculatum (Spotted Joe-Pye-weed). Common, marshes.
Eupatorium rugosum (White Snakeroot). Common, woodland trails.
Solidago caesia (Wreath or Blue-stem Goldenrod). Common, wood borders.
Solidago canadensis (Canada Goldenrod). Abundant, meadows.
Solidago graminifolia (Grass-leaved Goldenrod). Meadows.
Solidago nemoralis (Gray Goldenrod). Upstream meadow trail.
Solidago patula (Rough-leaved Goldenrod). Downstream, marsh, east bank.
Solidago flexicaulis (Zigzag Goldenrod). Common in woods.
Solidago juncea (Early Goldenrod). Upstream meadow trail.

Tribe 3

Aster dumosus (Bushy Aster). Considered rare in Ontario, large masses, downstream, west bank.
Aster lateriflorus (Calico Aster). Woods.
Aster umbellatus (Flat-topped White Aster). Common near marshes.
Aster cordifolius (Heart-leaved Aster). Common, meadows, fields.
Aster ericoides (Heath Aster). Very common, meadows.
Aster macrophyllus (Large-leaved Aster). Woods, a few areas.
Aster novae-angliae (New England Aster). Common in various habitat situations.
Aster simplex (& hybrids) (Panicked Aster). Up and downstream, open areas.
Aster puniceus (Purple-stemmed Aster). Common, marshy areas.
Aster azureus (Azure or Sky-blue Aster). Upstream from French school, open area.
Aster vimineus (Small White Aster). Considered rare in Ontario, moist meadow downstream.
Aster x amethystinus (Amethyst Aster). Hybrid of *A. ericoides* and *A. novae-angliae*.
Aster brachyactis (Short-rayed Aster). Saline soil below viaduct.
Erigeron annuus (Daisy Fleabane). Fields, wayside.
Erigeron philadelphicus (Philadelphia Fleabane). Riverbank.
Erigeron canadensis (Horseweed). Abandoned garden plot.
Erigeron strigosus (Strigose Daisy Fleabane). Open areas.

Tribe 4

Antennaria neglecta (Field Pussytoes). Meadow, upstream.
Inula helcnium (*Elecampane). Downstream meadow, west bank.

COMPOSITAE (cont'd)

Tribe 5

Ambrosia artemisiifolia (Common Ragweed). Common, wayside.
Xanthium chinense (Clotbur or Cocklebur). Common, near river.
Rudbeckia serotina (Black-eyed Susan). Spread from the west.
Helianthus decapetalus (Thin-leaved Sunflower). Open woodland.
Helianthus tuberosus (Jerusalem Artichoke). Showy, downstream wood-opening.
Bidens frondosa (Beggars-ticks). Common, damp areas.
Bidens cernua (Nodding Bur-marigold). Common, wet areas (a showy variety).
Galinsoga ciliata (*Hairy Galinsoga). Waste areas.
Coreopsis lanceolata (Lance-leaved Coreopsis). A native plant, but probably garden escape.

Tribe 7

Matricaria matricarioides (*Pineapple-weed). Common, trails.
Anthemis cotula (*Mayweed). Uncommon this area.
Chrysanthemum leucanthemum (*Ox-eye Daisy). Common, showy in summer, meadows.
Tanacetum vulgare (*Tansy). Not common, wayside.
Artemisia biennis (*Biennial Wormwood). By parking lot.
Achillea millefolium (*Yarrow). Common, dryer areas.

Tribe 8

Tussilago farfara (*Coltsfoot). Early spring, riverbank.
Senecio vulgaris (*Common Groundsel). Cracks in paving, etc.

Tribe 9

Atractium minus (*Common Burdock). Common, waste areas.
Cirsium vulgare (*Bull Thistle). Common, dryer meadows.
Cirsium arvense (*Canada or Field Thistle). Abundant, especially upstream dry meadows.

Tribe 10

Cichorium intybus (*Chicory). Common alien, meadows.
Taraxacum officinale (*Common Dandelion). Common, open grassland.
Tragopogon pratensis (*Yellow Goatsbeard). Not very common, fields.
Tragopogon dubius (*Lemon-yellow Goatsbeard). Common, wayside.
Lactuca biennis (Blue Lettuce). Openings.
Lactuca scariola (*Prickly Lettuce). Wayside, downstream, east bank.
Lactuca canadensis (Canada Lettuce). Borders of woods
Sonchus oleraceus (*Common Sow-thistle). Roadside, Glendon.
Sonchus arvensis (*Field Sow-thistle). Roadside, Glendon.
Prenanthes alba (Smooth White-lettuce). Not very common.
Prenanthes altissima (Tall White-lettuce). Uncommon.
Hieracium gronovii (Hairy Hawkweed). Uncommon, fields.
Hieracium floribundum (*Smoothish Hawkweed). Uncommon, fields.
Hieracium pratense (*King Devil). Uncommon, downstream.



TORONTO FIELD NATURALISTS' RAVINE SURVEYS

1. Chatsworth Ravine - City of Toronto - 1973
2. Brookbanks Ravine - North York - 1974
3. Chapman Creek Ravine - Etobicoke - 1975
4. Wigmore Park Ravine - North York - 1975
5. Park Drive Ravine - City of Toronto - 1976
6. Burke Ravine - North York - 1977
7. Taylor Creek - Woodbine Bridge Ravines
- East York 1977
8. West Don River Valley - North York - 1978

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