

Burke Ravine

1974-1976

*by Jack Cranmer-Byng
Robin Cunningham
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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.

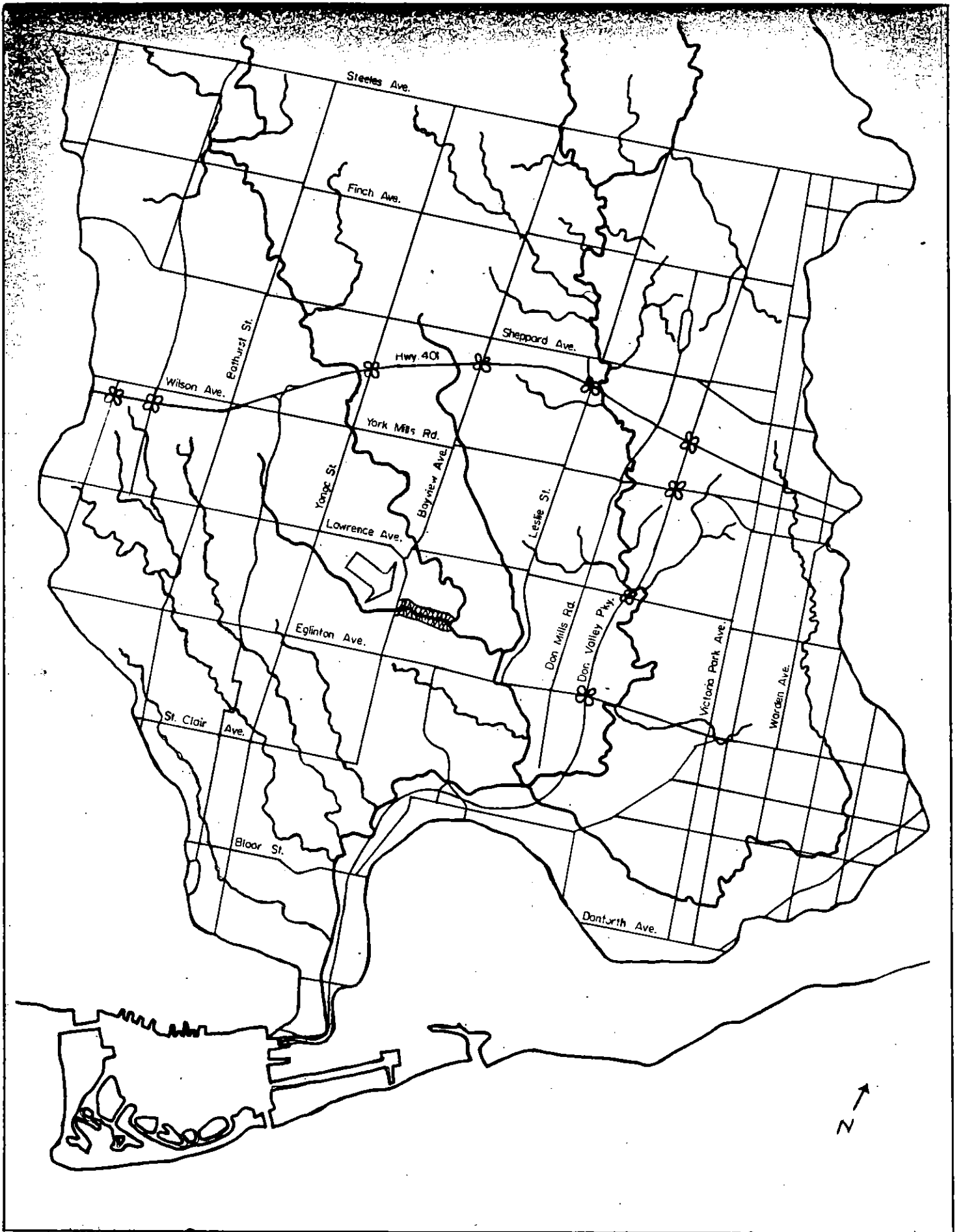
Helen Juhola
Editor

ACKNOWLEDGEMENTS

The authors of this report wish to thank the following for kindly reading it in first draft: Professors W.A. Andrews; J.F. Bendell; J.B. Falls; R. Hansell; Mr. J. ten Bruggenkate, and Mr. S. Hilts. As a result of their comments and corrections we have made extensive revisions in the final version.

We take this opportunity to thank Mr. Mark Sawyer who specially took about fifty colour slides to illustrate various aspects and views of Burke Ravine at different seasons. We also thank Miss Hattie Beeton for kindly typing the first draft of this report from our handwritten original.

A special word of thanks is due to Mrs. Helen Juhola both for her helpful comments on the first draft, and for her careful collating and editing of the final version.



BURKE RAVINE

INTRODUCTION

Burke Ravine is unique in that although it is located just outside the City of Toronto limits, it remains in a relatively natural state. Compared to other ravines within Metropolitan Toronto, it has suffered little from human interference. In fact, Burke Ravine remains much as it was fifty years ago.

Location and Size

The ravine is located between Bayview Avenue on the west and the West Don River on the east - a distance of about two thirds of a mile "as the crow flies" - and is approximately 35 acres in extent. Sunnybrook Hospital is located on the tableland to the north while the Canadian National Institute for the Blind, the Ontario Society for Crippled Children, the Toronto Rehabilitation Centre, and the Lyndhurst Hospital for Paraplegics are located on the tableland to the south.

Access

Until the end of 1976 this ravine formed part of Sunnybrook Hospital grounds, and was not accessible to the public, though a faint trail had been worn through it by the men responsible for inspecting the manholes of the sanitary sub-trunk sewer that runs underground the length of the ravine.

No access from Bayview Avenue exists as the road embankment is high and steep, and the land immediately on each side is fenced off.

The only access now is via Sunnybrook Park from a road running along the west side of the Don River. The ravine can be entered at the point where Burke Brook flows under this road at a small bridge.

In fact, this lack of easy access is the major reason this ravine remains in a relatively natural state today.

HISTORY

The name Burke has been given to the ravine because Edward and Jonas Burke are shown as owning land on either side of the ravine in the 1860's and 1870. (See the *Illustrated Historical Atlas of the County of York*, Miles and Company, 1878, page 15.) Also the stream flowing through this area is shown as Burke Brook on the map on page 27 of the *Don Valley Conservation Report* prepared by the Department of Planning and Development in 1950.

The ravine land formed part of Joseph Kilgour's estate "Sunnybrook Farm" which was probably acquired at the end of the nineteenth century. After Joseph Kilgour's death, Mrs. Alice Kilgour (his widow) deeded 175

acres of the farm to the City of Toronto to become a public park for the benefit of the citizens of Toronto "for all time". A plaque on a stone pillar near the entrance to the park states that the park was dedicated in 1928 by Alice M. Kilgour in memory of her late husband, "a great lover of nature".

The news of this gift was carried on the front pages of the *Globe* and the *Star* on May 10, 1928; and on May 12 the *Star Weekly* contained several photographs pertaining to this story. The City of Toronto Council Minute No. 467 of May 14, 1928 contains an official expression of appreciation for Mrs. Kilgour's gift and a short eulogy of Joseph Kilgour. The gift of land was formally accepted by the Mayor of Toronto on behalf of the City Council at a ceremony at Sunnybrook Farm on September 13, 1928. The *Star* of September 13 carried a number of photographs; and the *Globe* of September 14 also published photographs, one of which is described as "a view of one of the small streams which form one of the many attractive features of the park". The scene in the photograph could be Burke Brook near the point where it flows into the West Don River. The report in the *Globe* of September 14 described the scenic beauties of the area lyrically as follows:

"Cut by ravines, and with wooded slopes so treated as to preserve their natural beauty, Sunnybrook Farm has long held an enviable position in the ranks of the city's country homes. The Don River, free from the impurities received lower in its course, and lesser streams, wind their way through the park, and add immeasurably to its scenic beauty."

We have been unable to find any specific references to Burke Ravine during the time it was owned by the Kilgour family, but from the number of alien trees and shrubs growing in it, we conjecture that some of these may have been deliberately planted, and that some kind of footpath may have been laid out in the ravine.

During the Second World War Sunnybrook Park was used as a transit camp for troops, and at the end of the War Sunnybrook Hospital was built for the treatment of veterans. A memorial pillar near the entrance to the hospital records the transference in 1947 of the grounds in which the hospital stands (which included Burke Ravine) by the City of Toronto to the Dominion Government.

The larger portion of the original farm remained as parkland and is known as Sunnybrook Park and administered by the Metropolitan Toronto Parks Department.

In 1965 Sunnybrook Hospital together with its grounds was transferred to the University of Toronto as a teaching hospital (City Council Minute, Oct. 27, 1965). Negotiations are taking place at the time of publication (April 1977) for the transfer of the ownership of the ravine land to the Metropolitan Toronto and Region Conservation Authority. When this has been completed and ravine will be administered by the Metropolitan Toronto Parks Department.

PHYSICAL DESCRIPTION

The Topography

The ravine floor, that part lying between the slopes, is typically less than 200 feet wide, but broadens where the brook enters the valley of the West Don River.

The slopes are predominantly wooded and rise up some 80 feet above the brook and vary in steepness from 25° to 50° and more.

A short spur ravine is located on the south side of the ravine toward the west end.

The Stream

Burke Brook itself originates in the area just west of Avenue Road and north of Lawrence Avenue West. In Burke Ravine the brook descends 55 feet and normally has a clear, cool, moderate flow of water even in the driest months. It winds through the floor of the ravine; a few small semi-dry meanders show where it has modified its course in the past. It varies in width and depth, but is typically 15 to 20 feet wide.

After heavy rainstorms or sudden spring thaws, the brook carries a great torrent of water. The urban landscape tends to create rapid runoff of water and overloading of drainage systems. Water enters the brook from seepage, runoff, and at least three man-made drains. (The brook functions as a major north Toronto storm channel to the West Don River.)

Our records show that Burke Brook overflows its banks frequently and carries much silt at these times. Large boulders are moved by the force of the water, and the banks are eroded in many places. This erratic flow probably flushes out some forms of life which might otherwise live in the brook.

Pollution of the water in the brook occurs from time to time and can be severe. This may also help to explain why there appears to be little life in it. The entire length of Burke Brook suffers periodic pollution because of effluent emptied into it from storm sewers at various points along its course starting at its source and continuing into Burke Ravine.

The Soils

Burke Brook has cut its way through layers of glacial deposits exposing a variety of soils from clays and loam to sands.

The hemlock/white pine trees on the north-facing slope seem to be on sandier soil than the hardwood trees. At the base of the spur ravine is a bluff (capped with pine and hemlock) where stream erosion and a landslide have exposed a face of sand with some gravel over a layer of soft shale.

On the lower slopes, springs are quite abundant. These springs are the result of an impermeable layer of clay that blocks the downward per-

colation of water in the soil so that it seeps out into the ravine. The result of this seepage is that the lower slopes and the floor of the ravine are very wet in places. Soil slippage and erosion cause trees to lean and fall; and sediments carried by seeping water and normal runoff accumulate on the ravine floor.

The brook itself deposits some soil. At bends in the stream there are sand and gravel bars. These are kept clear of vegetation by heavy stream flows after storms and spring thaws.

Some shale shows in the stream bed; and a local resident has been collecting crinoids (tiny fossils) from Burke Brook. Some boulders are scattered throughout the ravine.

Other soils in the ravine include the landfill materials (gravels, bricks, and concrete slabs) of the embankment for Bayview Avenue where it crosses the valley of Burke Brook, and the gravels used in the construction of the road at the eastern end of the ravine.

PLANT HABITATS

The ravine can be divided conveniently and approximately into four habitats or "site types": a south-facing slope consisting of mixed, northern, hardwood forest; a north-facing slope having softwood (white pine/hemlock) stands as well as the hardwood forest; the ravine floor which actually has a variety of habitats but is not enclosed by the forest canopy for the most part; and the slope clearings - the clearings at the east end of the north facing slope and the landfill area where Bayview Avenue forms the western boundary of the ravine. (Both these areas support mostly field vegetation.)

Toronto is situated in a transition zone between the southern hardwood region (Carolinian Zone) and the Great Lakes Forest Region. Because Burke Ravine has a cooler microclimate than the surrounding tableland, it does not contain as many Carolinian Zone trees and plants as does, for instance, High Park.

South-facing Slope Hardwoods

The north side of the ravine is predominantly a south-facing slope. Such a slope receives greater exposure to the sun than other slopes or level land. The result is a warmer and, therefore, a drier microclimate with greater extremes in day and night temperatures than found on other slopes. Plants respond to this, and the difference between the woodland communities of the north and south facing slopes of Burke Ravine is readily apparent.

While sugar maple is the most abundant overstory tree in the mixed woods of the south-facing slope, red oak is far more abundant on the south-facing slope than on the north-facing slope; and the few white and bur oak trees in the ravine are found only on the south-facing slope. Other trees present are beech, white ash, basswood, white birch, white pine, hemlock, black cherry, red maple, yellow birch, and ironwood (hop

hornbeam). Some of the red oaks are larger than two feet in diameter measured at breast height.

Sugar maple, white ash, beech, and some hemlock are the most abundant trees regenerating.

Characteristic understory shrubs are choke cherry, alternate-leaf dogwood, various viburnums, fly-honeysuckle, invading Tartarian honeysuckle, and European highbush cranberry (Guelder-rose).

Some of the more abundant understory herbs are trout-lily, white trillium, white baneberry, and blue-stem and zig-zag goldenrods.

Some pines (red, Scots, and ponderosa) had been planted about 45 years ago at the eastern end of the ravine.

A patch of young hardwoods and planted black locust indicate where a clearing was made many years ago during construction of a concrete drain behind Sunnybrook Hospital.

North-facing Slope Hardwoods and Softwoods

North-facing slopes receive less exposure to the sun and thus have cooler microclimates and relatively greater soil moisture than south-facing slopes. Anyone visiting Burke Ravine on a warm, sunny day will immediately notice how much cooler the north-facing slope is than the south-facing slope especially in the shade of the evergreens.

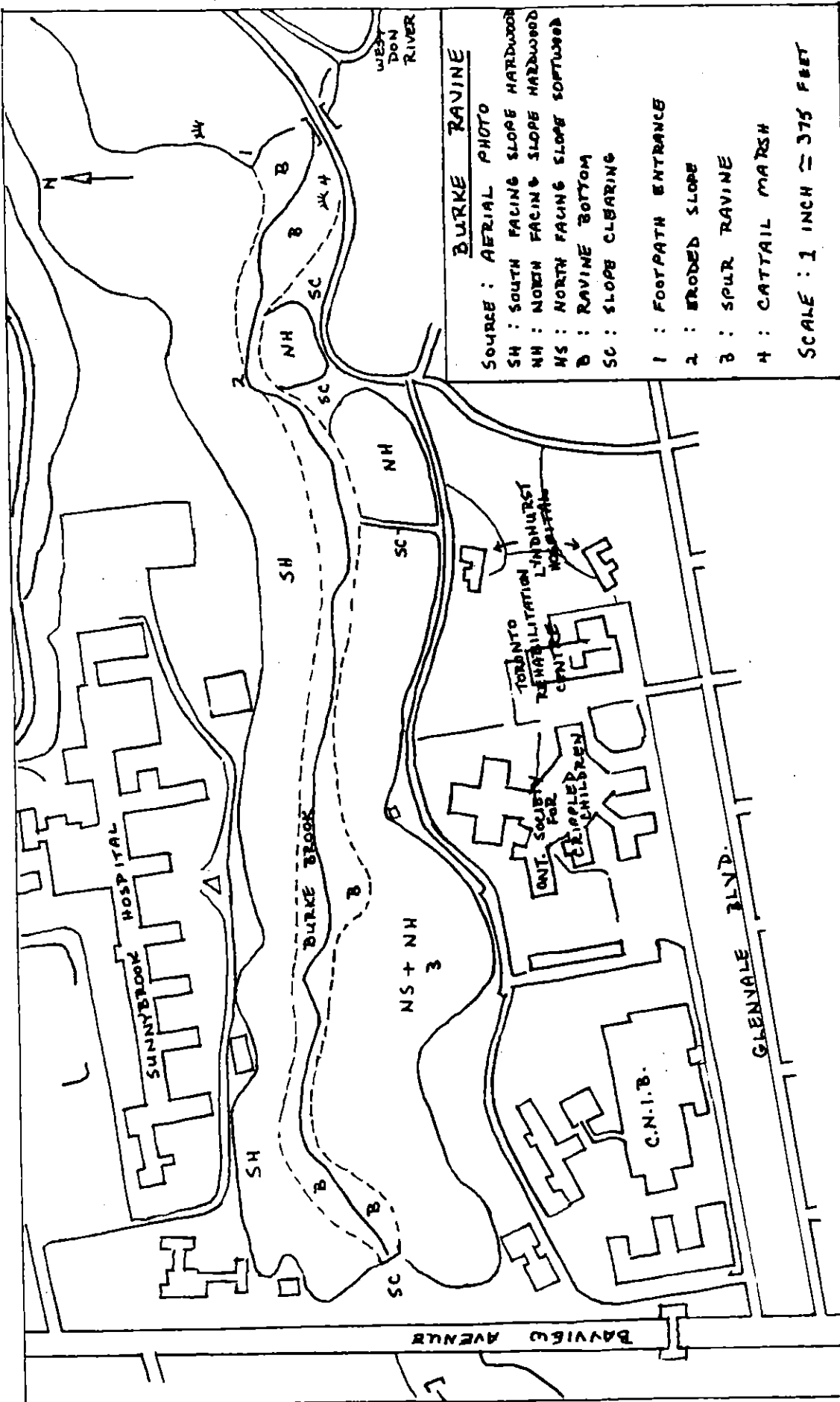
White pine and hemlock are relatively abundant on the north-facing slope of Burke Ravine. White pines are the largest trees in the ravine. Many of these are dead or dying. The accumulating effects of natural decline and air pollution may be the cause since the trees appear to be affected by a gradual loss of vigor rather than by the cankering and girdling effects of white pine blister rust (a fungus disease). Trees close to Bayview Avenue which are gradually dying may have been affected by "salt drift" from the road. Little regeneration of white pine is taking place in the ravine as undisturbed natural succession and lack of fire do not favour it. The dense shade under the pines and hemlocks has limited the amount of understory vegetation.

Some regeneration of hemlocks and the more shade-tolerant hardwoods is taking place on the north-facing slope.

Sugar maple is the most abundant of the hardwoods on the north-facing slope. Other trees are white ash, basswood, white birch, red maple, and some yellow birch and red oak. On the lower slopes of the spur ravine is a grove of butternut trees. Since butternuts belong to the Carolinian forest zone, it would be interesting to know whether these were planted or grew as a result of natural distribution.

Characteristic understory shrubs on the north-facing slope are choke cherry, mountain maple, and honeysuckle. The alien shrubs, Tartarian honeysuckle and European highbush cranberry, are invading the less vegetated areas and edges.

The most notable feature of the understory on the north-facing slope



BURKE RAVINE

SOURCE : AERIAL PHOTO
 SH : SOUTH FACING SLOPE HARDWOOD
 NH : NORTH FACING SLOPE HARDWOOD
 NS : NORTH FACING SLOPE SOFTWOOD
 B : RAVINE BOTTOM
 SC : SLOPE CLEARING

- 1 : FOOTPATH ENTRANCE
- 2 : ERODED SLOPE
- 3 : SPUR RAVINE
- 4 : CATTAIL MARSH

SCALE : 1 INCH = 375 FEET

is the prevalence of ferns. The ferns (and mosses as well) thrive on the cool, moist, shady slopes, and in places several species can be seen growing side by side. There is one colony of oak ferns and a fair number of Christmas ferns growing on the slope. Other ferns present are listed in Appendix A.

Several species of planted trees and shrubs are growing at the edge of the forest behind the institutions on the south side of the ravine.

Ravine Floor

Ravine floors, in general, have cooler microclimates than the surrounding tablelands; the floors tend to experience earlier fall and later spring frosts. Cool air draining through the valleys causes slightly shorter growing seasons.

The floor of Burke Ravine has a variety of habitats and plant species. Plants receive much moisture as a result of the high water table, and considerable sunlight because of the open nature of the ravine floor.

The plant communities on the floor of Burke Ravine have been greatly affected by man. A twelve-inch sanitary sewer pipe was laid through the ravine in 1963. Heavy equipment used disturbed the ground and probably eliminated many of the large trees. When the work was completed, the ground was ready for invasion by plants. The floor of the ravine is well-vegetated once more, although many of the plants which became established, such as Japanese knotweed, are alien species.

Some alien species may have been planted by the Kilgours. Such trees as Norway and silver maples may have seeded themselves from trees planted outside the ravine.

Crack willows, Manitoba maple, balsam poplar, and young white elm are some of the characteristic trees of the ravine floor. Dutch elm disease eliminated most large elms throughout the ravine. In the early 1970's dead elms were cut and left in the ravine; a few dead elms which died since the clean-up project are still standing. (These and other dead trees standing in the ravine are well used by woodpeckers.) A few pine, hemlock, and hardwoods are growing on the higher parts of the floor of the ravine, and many species such as white ash, basswood, and sugar maple are regenerating throughout the area.

Raspberries, shrub willows, and Tartarian honeysuckle are perhaps the most abundant of the many shrubs on the ravine floor.

Some of the more interesting plants are ostrich fern (found throughout), spotted touch-me-not (in saturated soil and often associated with seepage from the slopes), great lobelia, broad-leaved arrowhead (in one marshy location), duckweed (covering tiny ponds), and cattails and bulrushes (in a marsh near the eastern end of the ravine). Such plants as stinging nettle, bamboo-like Japanese knotweed, and poison ivy make walking through the ravine somewhat hazardous.

Slope Clearings

Disturbed or unwooded slopes make up the final "site type" in Burke Ravine. The western end of the ravine (the Bayview Avenue embankment) is made up of various landfill materials such as gravels, bricks, and concrete slabs. The poor dry soils of the slope support a community of roadside weeds and grasses.

The other large slope clearings are on the north-facing slope near the eastern end of the ravine. A road forms the top edge of these clearings, and gravels used in the road construction underlie the surface of the clearings and support roadside weeds. One of these clearings has suffered landslides in the past, and trees planted on the slope since then include Scots pine, white spruce, Carolina poplar, and black locust. As well, some natural regeneration of trees such as white birch, white ash, and sugar maple is taking place; and a heavy growth of shrubs such as Tartarian honeysuckle is occurring in places. The slopes are recovering and the early successional stage provides another habitat for wildlife.

In 1972 a sanitary sewer connecting with the 12-inch sub-trunk sewer pipe in the ravine and a storm drain emptying into the ravine were laid under the slope behind Lyndhurst Hospital. Trees were removed in a strip, heavy equipment was used, and later the slope was stabilized with short wooden retaining walls and grass.

ANIMALS

Birds

The bird population of Burke Ravine varies according to the time of year. Our list is not based on regular weekly visits but on observations recorded during visits made at irregular intervals throughout 1974, 1975, and 1976. During much of the year the ravine apparently provides only a limited variety of habitat. This controls the variety of birds attracted to the area. The steep wooded hillsides of maple, beech, hemlock, and oak do not provide the conditions required by a great variety of birds; they are better suited to those species with specialized habits such as woodpeckers.

During the summer the narrow ravine floor contains much dense undergrowth and is fairly shaded by the canopy of the slopes. As a result, the amount of sunlight is less than in more open ravines; this in turn affects the diversity of habitat. However, the ravine is clearly used as a major migration corridor during the spring and fall - especially in the spring by warblers, vireos, and flycatchers. Also a number of birds tend to linger in the ravine late into the fall in search of food and shelter. Some even linger into early winter as records of robins, thrashers, and White-throated Sparrows show. A Solitary Vireo seen in the western end of the ravine in November was an especially late lingerer.

The eastern end of the ravine adjacent to Sunnybrook Park supports

a good number of warblers, vireos, and flycatchers during May and early June. A male Blue-winged Warbler heard and seen singing from a bush in the small cattail marsh (point 4 on the map) in late May is a rare bird to find so near the centre of Toronto even during migration. Also the Northern Waterthrush seen singing (sub-song only) in mid-April in about the middle of the ravine was another interesting observation. Not many waterthrushes are heard singing so close to the city centre; and the fact that a Blue-winged Warbler and a Northern Waterthrush have both been heard singing here attests to the relative wildness and seclusion of Burke Ravine.

From time to time hawks have been seen hunting below the level of the densely wooded ravine slopes along the line of the stream where the habitat is slightly more open. A Red-tailed Hawk was seen carrying a black squirrel in its claws onto a branch of a tree; a Goshawk once passed within thirty feet of an observer's head; and on another occasion a Goshawk was seen several times being mobbed by the crows; and a Barred Owl was seen by Dr. R.M. Saunders in December 1976.

The total number of species observed over the three-year period, 1974-1976, either in the ravine or flying immediately over it, stands at 95. However, had it been possible to make observations on a regular weekly basis from early spring to late fall, the list would certainly have been longer. For instance, the following birds were observed regularly during the past ten years in the Sunnybrook Park/Glendon Hall area but were not recorded on casual visits to Burke Ravine: Screech Owl, Warbling Vireo, Fox Sparrow. Winter finches and grosbeaks certainly feed in the many hemlocks and white pine trees, but are extremely difficult to identify because the ravine is narrow and the slopes steep. (The tops of the trees generally can not be seen clearly from the ravine floor, while from the top edges of the ravine these birds tend to be obscured by the massed branches of the tree tops.) Presumably Purple Finches, Pine Grosbeaks, and Common Redpolls all feed in the tree tops in the ravine although they were not positively identified by the compilers of this report.

The following birds were seen to nest in the ravine: Eastern Phoebe, Blue Jay, Northern Oriole, Red-winged Blackbird, Song Sparrow.

The following birds are presumed to have nested because they have been observed mating, carrying nesting materials or food in their beaks, or a pair of birds has shown continual alarm when approached in one particular part of the ravine during the nesting season: Common Flicker, Downy Woodpecker, Great-crested Flycatcher, Scarlet Tanager, Indigo Bunting.

Other birds seen regularly in the ravine during the summer months were: House Wren, Winter Wren, American Robin, Brown Thrasher, Gray Catbird, Red-eyed Vireo, and Cardinal.

In conclusion, Burke Ravine, with its absence of human activity, is a secluded and relatively wild area in which birds can find shelter and food during migration and in which some species are able to nest undisturbed during the summer. In this way it serves a useful purpose as a wildlife reservoir.

Mammals

We have relatively little definite information on the distribution of mammals in the ravine - either resident or using it irregularly. However, some information was obtained by Patricia Carey, Michael MacInally, George Renfrey, and Edward Simmons, a team of four students who worked under the supervision of Professor R.I.C. Hansell of the Department of Zoology, University of Toronto. They carried out a short field survey on animal distribution in November 1976. Small and medium sized live traps were used. The animals caught were identified and then released. The number of mammals captured was small and the variety limited, but some positive information was obtained. An analysis of this data shows that white-footed mice are fairly abundantly distributed in the floor of the ravine. (No white-footed mice were trapped on the slopes of the ravine.) The eastern gray squirrel (with its melanistic form, the black squirrel) was found to be well distributed throughout the ravine. In a nine-day period in November, four gray and seven black squirrels were trapped while one red squirrel was caught. Squirrels were found to be distributed both on the slopes and on the floor of the ravine. More squirrels were found at the western end of the ravine than at the eastern end, perhaps because of the greater number of conifers at that end of the ravine.

For more information on the mammals of this ravine, it was necessary to rely on visual evidence. Observers included the students in the Zoology Department, the compilers of this report, and other members of the Toronto Field Naturalists' Club who visited the ravine during the three-year period from 1974 to 1976.

A red fox was seen on the north-facing slope in January 1975; and each winter fox tracks have been observed in the snow in the ravine.

A few red squirrels have been seen during the three-year period, but were much less abundant than the gray (and black) squirrels. However, red squirrels appear to be well distributed on the wooded slopes of the West Don Valley to the north of the ravine.

Chipmunks have been seen in the ravine only twice during the three years.

Raccoons have been seen regularly; and two families with young were observed in different parts of the ravine during one visit. They were seen sleeping between the trunks and branches of large trees about fifty feet above the ground. On several visits a single raccoon was observed watching one of the compilers of this report from a hole in a hollow tree. Clearly the habitat of Burke Ravine with its stream provides sufficient food for a number of raccoons. Their paw marks can be seen widely distributed in the mud; and in winter, in the snow. We suspect from summer observations that three families of raccoons probably inhabit the ravine. Population density for raccoons may be about one per fifteen acres; whereas three pairs (not to mention their offspring) would give a density of five per acre in the Burke Ravine - although these animals may forage in neighbouring areas.

Woodchucks, or groundhogs, have been seen near the small cattail marsh at the eastern end of the ravine. In the spring, summer, and fall a definite trail can be seen between a burrow in the thick vegetation of the ravine and

the mown grass of the meadow forming part of Sunnybrook Park. Signs indicate another active burrow near the western end of the ravine; a trail can be seen between this area and the grassed area on the tableland beside Sunnybrook Hospital.

The tracks of cottontail rabbits have been noticed in winter on both the northern and southern edges of the ravine. The trails lead from the open areas to the top of the ravine slopes and then a little way into the wooded areas.

Two muskrats were seen swimming in the brook from near its junction with the West Don River in early May.

Reptiles and Amphibians

In July 1974 Mark Sawyer and Jack Cranmer-Byng came upon a large snapping turtle on the path at the eastern end of the ravine near the junction of Burke Brook and the West Don River. It would be interesting to know if this was a resident of the ravine and if so if more than one turtle lives in the ravine. We have no other records of turtles.

A black snake with pale lemon strips (about $1\frac{1}{2}$ feet long) was seen near the cattail marsh and was identified as an eastern garter snake. We do not know whether this species is distributed in any other part of the ravine.

Several sightings of green frogs (*Rana clamitans*) have occurred in the eastern end of the ravine.

Invertebrates

In November 1976 soil sampling was carried out at six locations in the ravine by the team of four students mentioned earlier in this report. The majority of the invertebrates in the soil samples were found to be mites.

The writers of this report are not competent to identify butterflies and moths; however, several species of butterflies and moths were noticed in the open areas at the eastern end of the ravine. Regular visits by someone qualified to recognize insects might produce interesting observations; for example, eight different species of butterflies were reported in Park Drive Ravine in Rosedale by Paul Scrivener and Dale Taylor in 1975 (TFNC Ravine Survey Study Number 5). It would be interesting to find out the number of species inhabiting Burke Ravine.

PRESENT HUMAN USES AND IMPACT

The ravine is not used extensively. A few walkers and naturalists wander into the area, some boys play in the ravines, and two orienteering station posts are located at its eastern end.

A faint trail exists along the floor of the ravine; however, this has been destroyed where the brook has eroded the south-facing bank at a major

S-bend at the eastern end of the ravine. Walkers find it necessary to cross and re-cross the brook to avoid the wet eroding slope. As a result, the trail west of this bend is rather overgrown during the summer.

Young boys playing in the ravine have brought in old lumber to build tree houses and cabins, and they have cut trees and built bonfires.

Various kinds of garbage have been dumped in the ravine. The brook contains boards, tires, and even metal barrels which spoil its otherwise natural appearance. Garbage has been thrown down the slopes from its edges; the south-facing slope is littered with various objects from a dump behind Sunnybrook Hospital; grass cuttings and brush have been left on the top edge of the north-facing slope by maintenance workers for the institutions bordering the ravine.

Although fallen trees caused by seepage and erosion on the lower slopes may appear to litter the ravine, they should be viewed as quite natural.

People walking on the slopes disturb plant communities and start a process of deterioration. Trampling destroys small herbs, shrubs, and young trees. Trampled soil becomes compacted so that the regrowth of plants and the incorporation of leaves and other organic materials into the soil are prevented. Soon root growth of overstory trees is retarded. Bare soil surfaces, especially clays on slopes, are subject to erosion from runoff. More trampling further aggravates the erosion problem. The wooded slopes of Burke Ravine are particularly fragile and sensitive to this kind of abuse. Already they show some signs of trampling damage and erosion due to the wet conditions of the lower slopes and the ravine floor.

The Bayview Avenue end of the ravine is the most disturbed part. A series of gabion baskets near the culvert have become undermined and, as a result, are collapsing. Debris from the brook tends to collect in this area rendering it unsightly. The soil of the embankment of Bayview Avenue has eroded in places, exposing bricks and concrete, and eliminating even the hardiest of weeds.

During the three-year period of this study, major pollution of the brook by chemical effluent as evidenced by changed colour and smell of the water was observed on nine occasions. Had a regular check been kept, the number of pollution incidents recorded would certainly have been greater. For example, in June 1976 it was noticed that a manhole cover near the culvert under Bayview Avenue had become unbolted and that raw sewage was escaping into the brook. The situation was corrected when manhole covers throughout the ravine were re-bolted.

In October 1976 the brook became dark brown for its entire length, a slimy substance was observed on the rocks and debris along the whole water-course in Burke Ravine. Upon further investigation, evidence of pollution was found along the entire length of Burke Brook - in Sherwood Park, Lawrence Park, Alexander Muir Park, and in Chatsworth Park Ravine - to the culvert where the brook first emerges from under the playground of Glenview Senior Public School. The source of this particular pollution incident must have been in the Lawrence Avenue and Avenue Road area, but it affected Burke Brook for its entire length.

In November 1976 students from the University of Toronto Zoology

Department, who were carrying out a field study of the distribution of mammals in the ravine during a three-week period, noted in their report: "We often saw completely different colours of water on different days, sometimes dark and cloudy, sometimes foamy".

On December 24, 1976 strong evidence of pollution was recognized at the eastern end of the brook; a creamy-coloured scum was forming on the surface at obstructions. The source of this particular incident was traced to a sewer outfall running into the brook from the southern slope of the ravine at a point just to the west of the chain-link fence between the Toronto Rehabilitation Centre property and the Ontario Society for Crippled Children property. The water when inspected was found to be slightly warm, a pale, yellowish-brown colour, and smelled strongly of paint. This is not to say that the sewer serves these properties only, but the question should be asked, "Why is it necessary for this sewer to discharge its effluent directly into Burke Brook?"

RECOMMENDATIONS

Establishment as a Protected Site

1. *The Toronto Field Naturalists' Club recommends that Burke Ravine be designated a protected site to be kept in as natural a state as possible.*

In the club's publication "Toronto the Green" (1976), recommendations were made about the kinds of areas that should be designated as open space areas and their use limited to natural area parks. Burke Ravine falls into several of the categories considered necessary for this designation. Its steep slopes and ravine floor which is subject to flooding make it a hazard land; its wooded slopes, marshy areas, ponds, and stream make it a sensitive area subject to damage by any human interference; and its unique position as one of the last undeveloped ravines containing a dynamic community of plants and animals living in a reasonably stable state near the heart of Toronto make it a remnant area.

Management Guidelines

2. *The Toronto Field Naturalists' Club recommends that Burke Ravine be maintained in its present natural state and that the following management guidelines be considered.*
 - a. *A footpath should not be constructed in the ravine.*
 - b. *No entrance to the ravine should be provided - other than the present one at its eastern end in Sunnybrook Park.*
 - c. *The brook should not be straightened or channelled; that is, it should be maintained in its present natural state.*
 - d. *Local citizens and members of the club should be encouraged to watch for obvious signs of pollution when walking in the ravine*

*and report the information to the proper authorities immediately.
(Ontario Government Pollution Complaints, call 424-3000)*

- e. Notices should be erected prohibiting the dumping of refuse in the ravine, and notices should be sent to the institutions bordering the ravine informing them that they should stop dumping garbage into the ravine.*
- f. Dead trees and underbrush should be left in the ravine, but accumulated garbage such as tires and plastics should be removed.*
- g. White pines should be planted on the sewer easement behind Lyndhurst Hospital.*
- h. Signs should be posted prohibiting the riding of motor cycles, trail bikes, mopeds, snowmobiles, or motorized vehicles of any other kind in the ravine.*
- i. An obstacle should be placed at the entrance to the ravine to prevent vehicles from entering the area.*

Public Participation

- 3. The Toronto Field Naturalists' Club recommends that the Metropolitan Toronto Parks Department maintain a close liason with the Board of Directors of the club.*

In the past the club has not always been aware when changes in the management of natural area parkland has been contemplated; for example, when a rare plant community in the Wildlife Sanctuary on Toronto Island was destroyed by the dumping of sand on it. Although most of the members of the club are amateur naturalists, the membership also includes scientists, educators, and planners. Their accumulated knowledge about various natural areas in Metropolitan Toronto should be used to protect our unique natural heritage.

CONCLUSION

We are well aware that this survey is by no means complete and would suggest that further studies, perhaps of a more specialized nature, should be carried out in order to provide a full evaluation of the function of Burke Ravine in the wider environment of the Sunnybrook area. For example, other studies of the ravine might look at its geomorphology, insects, fungi, mosses, and stream life.

We hope that one day such studies will be undertaken and, as a result, add to our knowledge of the rich and diverse reservoir of natural life that is the valuable heritage of Burke Ravine. As one of the most natural ravines left in Toronto, Burke Ravine is a very special part of the natural heritage of Toronto.

CHECK-LIST OF ANIMALS FOUND IN BURKE RAVINE 1974-76

Birds

This bird list is arranged according to the order given in the Federation of Ontario Naturalists' "Check-list of Birds for the Province of Ontario (1974)".

| | |
|------------------------------------|------------------------------|
| Great Blue Heron | Red-breasted Nuthatch |
| Green Heron | Brown Creeper |
| Mallard | House Wren |
| | Winter Wren |
| Goshawk | Gray Catbird |
| Sharp-shinned Hawk | Brown Thrasher |
| Red-tailed Hawk | American Robin |
| American Kestrel | Wood Thrush |
| Ring-necked Pheasant | Hermit Thrush |
| Killdeer | Swainson's Thrush |
| American Woodcock | Veery |
| Spotted Sandpiper | Golden-crowned Kinglet |
| | Ruby-crowned Kinglet |
| Mourning Dove | |
| Great Horned Owl | Cedar Waxwing |
| Barred Owl | Northern Shrike |
| | Starling |
| Common Nighthawk | Solitary Vireo |
| Chimney Swift | Red-eyed Vireo |
| Ruby-throated Hummingbird | Black-and-white Warbler |
| Belted Kingfisher | Blue-winged Warbler |
| Common Flicker | Tennessee Warbler |
| Pileated Woodpecker | Nashville Warbler |
| Yellow-bellied Sapsucker | Yellow Warbler |
| Hairy Woodpecker | Magnolia Warbler |
| Downy Woodpecker | Cape May Warbler |
| Black-backed Three-toed Woodpecker | Black-throated Blue Warbler |
| | Yellow-rumped Warbler |
| Eastern Kingbird | Black-throated Green Warbler |
| Great Crested Flycatcher | Blackburnian Warbler |
| Eastern Phoebe | Chestnut-sided Warbler |
| Yellow-bellied Flycatcher | Bay-breasted Warbler |
| Least Flycatcher | Blackpoll Warbler |
| Eastern Wood Pewee | Pine Warbler |
| Olive-sided Flycatcher | Palm Warbler |
| Tree Swallow | Ovenbird |
| Rough-winged Swallow | Northern Waterthrush |
| Blue Jay | Common Yellowthroat |
| Common Crow | Wilson's Warbler |
| | Canada Warbler |
| Black-capped Chickadee | American Redstart |
| White-breasted Nuthatch | |

House Sparrow
Red-winged Blackbird
Northern Oriole
Common Grackle
Brown-headed Cowbird
Scarlet Tanager
Cardinal
Rose-breasted Grosbeak

Indigo Bunting
Evening Grosbeak
Pine Siskin
American Goldfinch
Red Crossbill
Dark-eyed Junco
Tree Sparrow
White-throated Sparrow
Swamp Sparrow
Song Sparrow

Mammals

Vulpes vulpes
Procyon lotor
Mephitis mephitis
Sylvilagus floridanus
Sciurus carolinensis
Tamiasciurus hudsonicus
Marmota monax
Tamias striatus
Ondatra zibethicus
Peromyscus leucopus

Red Fox
Raccoon
Striped Skunk
Cottontail
Eastern Gray Squirrel
Red Squirrel
Woodchuck
Eastern Chipmunk
Common Muskrat
White-footed Mouse

Reptiles

Chelydra serpentina
Thamnophis sirtalis

Snapping Turtle
Eastern Garter Snake

Amphibians

Rana clamitans

Green Frog

Fishes

none

Insects

Dragonfly
Mourning Cloak (*Nymphalis antiopa*)

CHECK-LIST OF THE PLANTS FOUND IN BURKE RAVINE 1974-76

Site Locations

- SH - South-facing slope hardwoods
 NH - North-facing slope hardwoods
 NS - North-facing slope softwoods (stands with high content of White Pine and Hemlock)
 B - Bottomlands (the area between the ravine slopes)
 SC - Slope Clearings
 * - Alien species

References

- A Field Guide to Trees and Shrubs G.A. Petrides
 A Field Guide to the Ferns Boughton Cobb
 A Field Guide to Wildflowers R.T. Peterson & M. McKenny

Trees, Shrubs, Woody Vines

PINACEAE (PINE FAMILY)

| | | |
|-------------------------|------------------|---------------|
| <i>Pinus banksiana</i> | Jack Pine | SC |
| <i>P. ponderosa</i> | *Ponderosa Pine | SH |
| <i>P. resinosa</i> | Red Pine | SH |
| <i>P. strobus</i> | White Pine | SH NH NS B SC |
| <i>P. sylvestris</i> | *Scots Pine | SC |
| <i>Larix decidua</i> | *European Larch | B |
| <i>Picea glauca</i> | White Spruce | SC |
| <i>Tsuga canadensis</i> | *Eastern Hemlock | SH NH NS B |

CUPRESSACEAE (CEDAR FAMILY)

| | | |
|---------------------------|----------------------|---------|
| <i>Thuja occidentalis</i> | Northern White Cedar | NS B SC |
| <i>Juniperus</i> sp. | Juniper | SC |

SALICACEAE (WILLOW FAMILY)

| | | |
|-----------------------|-------------------|------|
| <i>Salix alba</i> | *White Willow | SC |
| <i>S. bebbiana</i> | Bebb's Willow | B |
| <i>S. fragilis</i> | *Crack Willow | B |
| <i>S. matsudana</i> | *Corkscrew Willow | B |
| <i>S. nigra</i> | Black Willow | B |
| <i>Populus alba</i> | *White Poplar | B |
| <i>P. balsamifera</i> | Balsam Poplar | B SC |
| <i>P. canadensis</i> | *Carolina Poplar | B SC |

SALICACEAE (cont'd)

| | | |
|-------------------------|--------------------|---|
| <i>P. deltoides</i> | Eastern Cottonwood | B |
| <i>P. grandidentata</i> | Large-tooth Aspen | B |
| <i>P. tremuloides</i> | Trembling Aspen | B |

JUGLANDACEAE (WALNUT FAMILY)

| | | |
|--------------------------|-------------------|---------|
| <i>Juglans cinerea</i> | Butternut | SH NS B |
| <i>J. nigra</i> | Black Walnut | B |
| <i>Carya cordiformis</i> | Bitternut Hickory | SH NS |

BETULACEAE (BIRCH FAMILY)

| | | |
|------------------------------|-----------------------|---------------|
| <i>Betula alleghaniensis</i> | Yellow Birch | SH NH NS B |
| <i>B. papyrifera</i> | White or Paper Birch | SH NH NS B SC |
| <i>B. pendula</i> | *European White Birch | B |
| <i>Ostrya virginiana</i> | Ironwood | SH NH B |
| <i>Carpinus caroliniana</i> | Blue Beech | SH |

FAGACEAE (BEECH FAMILY)

| | | |
|--------------------------|-----------|----------|
| <i>Fagus grandifolia</i> | Beech | SH NH NS |
| <i>Quercus alba</i> | White Oak | SH |
| <i>Q. rubra</i> | Red Oak | SH NH NS |
| <i>Q. macrocarpa</i> | Bur Oak | SH |

ULMACEAE (ELM FAMILY)

| | | |
|------------------------|---------------|------------|
| <i>Ulmus americana</i> | White Elm | SH NH B SC |
| <i>U. rubra</i> | Slippery Elm | B |
| <i>U. pumila</i> | *Siberian Elm | SC |

BERBERIDACEAE (BARBERRY FAMILY)

| | | |
|----------------------------|--------------------|---|
| <i>Berberis thunbergii</i> | *Japanese Barberry | B |
|----------------------------|--------------------|---|

SAXIFRAGACEAE (SAXIFRAGE FAMILY)

| | | |
|--------------------------------|--------------------|----|
| <i>Ribes sativum</i> | *Red Currant | SH |
| <i>R. cynosbati</i> | Pasture Gooseberry | NS |
| <i>Philadelphus coronarius</i> | *Garden Mockorange | B |

HAMMILIDACEAE (WITCH-HAZEL FAMILY)

| | | |
|-----------------------------|-------------|----|
| <i>Hamamelis virginiana</i> | Witch-hazel | SH |
|-----------------------------|-------------|----|

ROSACEAE (ROSE FAMILY)

| | | |
|---------------------------|----------------------------|----------|
| <i>Prunus serotina</i> | Black Cherry | SH NH NS |
| <i>P. pensylvanica</i> | Pin Cherry | B |
| <i>P. virginiana</i> | Choke Cherry | SH NH B |
| <i>Malus</i> sp. | *Domestic Apple | B |
| * <i>Sorbus aucuparia</i> | *European Mountain Ash | NS B |
| <i>Crataegus</i> sp. | Hawthorn | B |
| <i>Rosa multiflora</i> | *Multiflora Rose | B |
| <i>Rubus odoratus</i> | Purple-flowering Raspberry | B |

ROSACEAE (cont'd)

| | | |
|--------------------------------|---------------|------|
| <i>R. idaeus</i> | Red Raspberry | SH B |
| <i>R. sp.</i> | Blackberry | B |
| <i>Physocarpus opulifolius</i> | Ninebark | SC |

LEGUMINOSAE (LEGUME FAMILY)

| | | |
|------------------------------|---------------|---------|
| <i>Robinia pseudo-acacia</i> | *Black Locust | SH B SC |
| <i>Gleditsia triacanthos</i> | Honey Locust | B |

ANACARDIACEAE (CASHEW FAMILY)

| | | |
|----------------------|-----------------|------|
| <i>Rhus radicans</i> | Poison Ivy | B |
| <i>R. typhina</i> | Staghorn Sumach | B SC |

CELASTRACEAE (STAFF-TREE FAMILY)

| | | |
|-------------------------|---------------|----|
| <i>Euonymus europea</i> | *Spindle-tree | NS |
|-------------------------|---------------|----|

ACERACEAE (MAPLE FAMILY)

| | | |
|-----------------------|----------------|---------------|
| <i>Acer saccharum</i> | Sugar Maple | SH NH NS B SC |
| <i>A. saccharinum</i> | Silver Maple | B |
| <i>A. rubrum</i> | Red Maple | SH NH B |
| <i>A. spicatum</i> | Mountain Maple | NH NS B |
| <i>A. negundo</i> | Manitoba Maple | B SC |
| <i>A. platanoides</i> | *Norway Maple | SH B |

HIPPOCASTANACEAE (BUCKEYE FAMILY)

| | | |
|-------------------------------|-----------------|---|
| <i>Aesculus hippocastanum</i> | *Horse-chestnut | B |
|-------------------------------|-----------------|---|

RHAMNACEAE (BUCKTHORN FAMILY)

| | | |
|---------------------------|-------------------|------|
| <i>Rhamnus cathartica</i> | *Common Buckthorn | SH B |
|---------------------------|-------------------|------|

VITACEAE (VINE FAMILY)

| | | |
|------------------------------------|------------------|------|
| <i>Parthenocissus quinquefolia</i> | Virginia Creeper | B SC |
| <i>Vitis riparia</i> | Riverbank Grape | B SC |

TILIACEAE (LINDEN FAMILY)

| | | |
|------------------------|----------|------------|
| <i>Tilia americana</i> | Basswood | SH NH NS B |
|------------------------|----------|------------|

CORNACEAE (DOGWOOD FAMILY)

| | | |
|----------------------------|--------------------------|------|
| <i>Cornus alternifolia</i> | Alternate-leaved Dogwood | SH B |
| <i>C. rugosa</i> | Round-leaved Dogwood | NH B |
| <i>C. stolonifera</i> | Red-osier Dogwood | B |

OLEACEAE (OLIVE FAMILY)

| | | |
|---------------------------|---------------|------------|
| <i>Syringa vulgaris</i> | *Common Lilac | B |
| <i>Fraxinus americana</i> | White Ash | SH NH B SC |

SOLANACEAE (NIGHTSHADE FAMILY)

Solanum dulcamara *Bittersweet Nightshade SH NS B SC

CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)

Diervilla lonicera Bush-honeysuckle SH
Lonicera tatarica *Tartarian Honeysuckle SH NH B SC
L. canadensis Fly-honeysuckle SH NS
Sambucus pubens Red-berried Elder B
S. canadensis Common Elder B
Viburnum opulus *Guelder-rose SH NH B SC
V. lentago Nannyberry SH
V. lantana *Wayfaring-tree B
V. acerifolia Mapleleaf Viburnum SH
Symphoricarpus albus Snowberry B

Ferns and Allies

EQUISETACEAE (HORSETAIL FAMILY)

Equisetum arvense Field Horsetail B
E. hiemale Common Scouring-rush B

POLYPODIACEAE (FERN FAMILY)

Athyrium filix-femina Lady Fern SH NS
Cystopteris bulbifera Bulblet Fern B
Dryopteris marginalis Marginal Woodfern SH NH NS
D. spinulosa Spinulose Woodfern SH NH NS
Gymnocarpium dryopteris Oak Fern NS
Matteuccia struthiopteris Ostrich Fern B
Onoclea sensibilis Sensitive Fern B
Polystichum acrostichoides Christmas Fern SH NH

Herbaceous Plants

TYPHACEAE (CATTAIL FAMILY)

Typha latifolia Common Cattail B
T. angustifolia Narrow-leaved Cattail B

ALISMATACEAE (ARROWHEAD FAMILY)

Alisma triviale Water-plantain B
Sagittaria latifolia Broad-leaved Arrowhead B

GRAMINAE (GRASS FAMILY)

Bromus inermis *Smooth Brome Grass B
Poa nemoralis Woodland Bluegrass SH
P. compressa *Flat-stalk Bluegrass B
P. sp. glauca Glaucous Bluegrass B
Glyceria striata Mannagrass B

GRAMINAE (cont'd)

| | | |
|-------------------------------|-------------------|---|
| <i>G. grandis</i> | Tall Mannagrass | B |
| <i>Phalaris arundinacea</i> | Reed Canary Grass | B |
| <i>Leersia oryzoides</i> | Rice Cut-grass | B |
| <i>Elymus canadensis</i> | Nodding Rye Grass | B |
| <i>Phleum pratense</i> | *Timothy | B |
| <i>Dactylis glomerata</i> | *Orchard Grass | B |
| <i>Echinochloa crus-galli</i> | *Barnyard Grass | B |

CYPERACEAE (SEDE FAMILY)

| | | |
|------------------------|---------------|---|
| <i>Scirpus validus</i> | Great Bulrush | B |
| <i>Carex</i> spp. | Sedges | B |

ARACEAE (ARUM FAMILY)

| | | |
|----------------------------|--------------------|------|
| <i>Arisaema atrorubens</i> | Jack-in-the-Pulpit | SH B |
|----------------------------|--------------------|------|

LEMNACEAE (DUCKWEED FAMILY)

| | | |
|--------------------|----------|---|
| <i>Lemna minor</i> | Duckweed | B |
|--------------------|----------|---|

JUNCACEAE (RUSH FAMILY)

| | | |
|-----------------------|-------------------|---|
| <i>Juncus effusus</i> | Path or Soft Rush | B |
| <i>Luzula</i> sp. | Woodrush | B |

LILIACEAE (LILY FAMILY)

| | | |
|-------------------------------|----------------------|----|
| <i>Erythronium americanum</i> | Trout-lily | SH |
| <i>Maianthemum canadense</i> | Canada Mayflower | SH |
| <i>Smilacina racemosa</i> | False Solomon's-Seal | SH |
| <i>Trillium grandiflorum</i> | White Trillium | SH |
| <i>T. erectum</i> | Red Trillium | NS |

IRIDACEAE (IRIS FAMILY)

| | | |
|-------------------------|--------------|---|
| <i>Iris Pseudacorus</i> | *Yellow Iris | B |
|-------------------------|--------------|---|

ORCHIDACEAE (ORCHID FAMILY)

| | | |
|------------------------------|--------------|---|
| <i>Epipactus helleborine</i> | *Helleborine | B |
|------------------------------|--------------|---|

ARISTOLOCHIACEAE (BIRTHWORT FAMILY)

| | | |
|-------------------------|-------------|----|
| <i>Asarum canadense</i> | Wild Ginger | SH |
|-------------------------|-------------|----|

POLYGONACEAE (BUCKWHEAT FAMILY)

| | | |
|-----------------------------|--------------------|------|
| <i>Rumex crispus</i> | *Curled Dock | B SC |
| <i>R. obtusifolius</i> | *Broad Dock | B |
| <i>Polygonum hydropiper</i> | Water-pepper | B |
| <i>P. cuspidatum</i> | *Japanese Knotweed | B |
| <i>P. lapathifolium</i> | Pale Smartweed | B |
| <i>P. persicaria</i> | *Lady's-thumb | B |

URTICACEAE (NETTLE FAMILY)

| | | |
|-----------------------------|------------------|---|
| <i>Urtica dioica</i> | *Stinging Nettle | B |
| <i>U. gracilis</i> | Slender Nettle | B |
| <i>Boehmeria cylindrica</i> | False Nettle | B |

PORTULACACEAE (PURSLANE FAMILY)

| | | |
|----------------------------|---------------|----|
| <i>Claytonia virginica</i> | Spring Beauty | NS |
|----------------------------|---------------|----|

CARYOPHYLLACEAE (PINK FAMILY)

| | | |
|------------------------------|-------------------|----|
| <i>Silene cucubalus</i> | *Bladder Champion | SC |
| <i>S. sp.</i> | *Catchfly | SC |
| <i>Saponaria officinalis</i> | *Bouncing Bet | B |

RANUNCULACEAE (CROWFOOT FAMILY)

| | | |
|----------------------------|-----------------------|------|
| <i>Anemone canadensis</i> | Canada Anemone | B |
| <i>A. virginiana</i> | Thimbleweed | B SC |
| <i>Actaea pachypoda</i> | White Baneberry | SH |
| <i>A. rubra</i> | Red Baneberry | SH |
| <i>Ranunculus acris</i> | *Tall Buttercup | B SC |
| <i>R. repens</i> | *Creeping Buttercup | B |
| <i>R. abortivus</i> | Kidney-leaf Buttercup | SH |
| <i>Thalictrum dioicum</i> | Early Meadow-rue | SH B |
| <i>T. polygamum</i> | Tall Meadow-rue | B |
| <i>Clematis virginiana</i> | Virgin's-bower | B |

BERBERIDACEAE (BARBERRY FAMILY)

| | | |
|-----------------------------------|-------------|------|
| <i>Podophyllum peltatum</i> | May-apple | SH B |
| <i>Caulophyllum thalictroides</i> | Blue Cohosh | NH |

PAPAVERACEAE (POPPY FAMILY)

| | | |
|-------------------------------|------------|----|
| <i>Chelidonium majus</i> | *Celandine | SC |
| <i>Sanguinaria canadensis</i> | Bloodroot | SH |

CRUCIFERAE (MUSTARD FAMILY)

| | | |
|--------------------------------|-------------------|----|
| <i>Barbarea vulgaris</i> | *Winter Cress | B |
| <i>Alliaria officinalis</i> | *Garlic Mustard | B |
| <i>Hesperis matronalis</i> | *Dame's Rocket | B |
| <i>Capsella bursa-pastoris</i> | *Shepherd's Purse | SC |
| <i>Dentaria diphylla</i> | Toothwort | SH |

SAXIFRAGACEAE (SAXIFRAGE FAMILY)

| | | |
|----------------------------|------------|----|
| <i>Tiarella cordifolia</i> | Foamflower | SH |
|----------------------------|------------|----|

ROSACEAE (ROSE FAMILY)

| | | |
|------------------------------|---------------------------|------|
| <i>Agrimonia gryposepala</i> | Agrimony | B |
| <i>Geum aleppicum</i> | Yellow Avens | B |
| <i>G. canadense</i> | White Avens | SH B |
| <i>Potentilla recta</i> | *Rough-fruited Cinquefoil | SC |
| <i>Fragaria virginiana</i> | Wild Strawberry | SH B |

OXALIDACEAE (WOOD-SORREL FAMILY)

Oxalis europaea *Yellow Wood-sorrel B SC

LEGUMINOSAE (LEGUME FAMILY)

Amphicarpa bracteata Hog-peanut B SC
Melilotus alba *White Sweet Clover SC
M. officinalis *Yellow Sweet Clover B
Trifolium pratense *Red Clover B SC
T. repens *White Clover B SC
Medicago lupulina *Black Medick B SC
Vicia cracca *Cow Vetch B SC
Desmodium glutinosum Pointed-leaved Tick-trefoil SH

GERANIACEAE (GERANIUM FAMILY)

Geranium robertianum Herb. Robert NS B SC

EUPHORBIACEAE (SPURGE FAMILY)

Acalypha virginica Three-seeded Mercury SC

BALSAMINACEAE (TOUCH-ME-NOT FAMILY)

Impatiens pallida Pale Touch-me-not B
I. capensis Spotted Touch-me-not B

GUTTIFERAE (ST. JOHNSWORT FAMILY)

Hypericum perforatum *Common St. Johnswort B SC

VIOLACEAE (VIOLET FAMILY)

Viola papilionacea Common Blue Violet B
V. pubescens Downy Yellow Violet B

ONAGRACEAE (EVENING-PRIMROSE FAMILY)

Circaea quadrisulcata Enchanter's Nightshade SH B
Oenothera biennis Evening Primrose B SC
Epilobium hirsutum *Hairy Willow-herb B
E. glandulosum Northern Willow-herb B

ARALIACEAE (GINSENG FAMILY)

Aralia nudicalis Wild Sarsaparilla SH
A. racemosa Spikenard B

UMBELLIFERAE (PARSLEY FAMILY)

Daucus carota Queen-Anne's-lace B SC

PRIMULACEAE (PRIMROSE FAMILY)

Lysimachia ciliata Fringed Loosestrife B
L. nummularia *Moneywort B
Trientalis borealis Starflower NS

ASCLEPIADACEAE (MILKWEED FAMILY)

| | | |
|--------------------------|--------------------|---|
| <i>Asclepias syriaca</i> | Common Milkweed | B |
| <i>Cynanchum nigrum</i> | *Black Swallowwort | B |

BORGAGINACEAE (FORGET-ME-NOT FAMILY)

| | | |
|-----------------------------|---------------------|----|
| <i>Myosotis scorpioides</i> | *True Forget-me-not | B |
| <i>Echium vulgare</i> | *Viper's Bugloss | SC |

VERBENACEAE (VERVAIN FAMILY)

| | | |
|------------------------|---------------|------|
| <i>Verbena hastata</i> | Blue Vervain | B |
| <i>V. urticifolia</i> | White Vervain | B SC |

LABIATAE (MINT FAMILY)

| | | |
|---------------------------|-------------|------|
| <i>Nepeta cataria</i> | *Catnip | B SC |
| <i>Glechoma hederacea</i> | *Ground-ivy | B |
| <i>Prunella vulgaris</i> | *Heal-all | B |
| <i>Leonurus cardiaca</i> | *Motherwort | B |
| <i>Lycopus virginicus</i> | Bugleweed | B |
| <i>Mentha piperita</i> | *Peppermint | B |

SCROPHULARIACEAE (SNAPDRAGON FAMILY)

| | | |
|-----------------------------|-------------------|----|
| <i>Verbascum thapsus</i> | *Common Mullein | SC |
| <i>Veronica officinalis</i> | *Common Speedwell | B |
| <i>Linaria vulgaris</i> | *Butter-and-eggs | SC |
| <i>Chelone glabra</i> | Turtlehead | B |

OROBANCHACEAE (BROOMRAPE FAMILY)

| | | |
|----------------------------|------------|----|
| <i>Epifagus virginiana</i> | Beechdrops | SH |
|----------------------------|------------|----|

PLANTAGINACEAE (PLANTAIN FAMILY)

| | | |
|-----------------------|------------------|------|
| <i>Plantago major</i> | *Common Plantain | B SC |
| <i>P. rugelii</i> | Rugel's Plantain | B SC |

RUBIACEAE (MADDER FAMILY)

| | | |
|--------------------------|----------------|---|
| <i>Galium asperellum</i> | Rough Bedstraw | B |
|--------------------------|----------------|---|

VALERIANACEAE (VALERIAN FAMILY)

| | | |
|-----------------------------|-----------|---|
| <i>Valerian officinalis</i> | *Valerian | B |
|-----------------------------|-----------|---|

DIPSACACEAE (TEASEL FAMILY)

| | | |
|----------------------------|---------|---|
| <i>Dipsacus sylvestris</i> | *Teasel | B |
|----------------------------|---------|---|

CUCURBITACEAE (GOURD FAMILY)

| | | |
|----------------------------|---------------|---|
| <i>Echinocystis lobata</i> | Wild Cucumber | B |
|----------------------------|---------------|---|

LOBELIOIDEAE (LOBELIA SUB-FAMILY)

| | | |
|----------------------------|---------------|---|
| <i>Lobelia siphilitica</i> | Great Lobelia | B |
|----------------------------|---------------|---|

COMPOSITAE (COMPOSITE FAMILY)

| | | |
|-----------------------------------|-----------------------|---------|
| <i>Eupatorium maculatum</i> | Joe-Pye-weed | B |
| <i>E. perfoliatum</i> | Boneset | B |
| <i>E. rugosum</i> | White Snakeroot | B |
| <i>Solidago caesia</i> | Blue-stem Goldenrod | SH NH |
| <i>S. flexicaulis</i> | Zig-zag Goldenrod | SH NH B |
| <i>S. canadensis</i> | Canada Goldenrod | B SC |
| <i>S. gigantea</i> | Late Goldenrod | B |
| <i>Aster macrophyllus</i> | Large-leaved Aster | SH |
| <i>A. cordifolius</i> | Heart-leaved Aster | SH B |
| <i>A. novae-angliae</i> | New England Aster | B |
| <i>A. puniceus</i> | Purple-stemmed Aster | B |
| <i>A. ericoides</i> | Heath Aster | SC |
| <i>A. lateriflorus</i> | Calico Aster | SH B |
| <i>Erigeron annuus</i> | Annual Fleabane | B |
| <i>E. philadelphicus</i> | Philadelphia Fleabane | B |
| <i>E. canadensis</i> | Horseweed | SC |
| <i>Inula helenium</i> | *Elecampane | B |
| <i>Ambrosia trifida</i> | Great Ragweed | B |
| <i>A. artemisiifolia</i> | Ragweed | B SC |
| <i>Xanthium strumarium</i> | Cocklebur | B |
| <i>Rudbeckia hirta</i> | Black-eyed Susan | B |
| <i>Bidens cernua</i> | Nodding Bur-marigold | B |
| <i>B. frondosa</i> | Beggar-ticks | B |
| <i>Achillea millefolium</i> | *Common Yarrow | SC |
| <i>Chrysanthemum leucanthemum</i> | *Ox-eye Daisy | SC |
| <i>Tanacetum vulgare</i> | *Tansy | B |
| <i>Artemisia biennis</i> | *Biennial Wormwood | SC |
| <i>Tussilago farfara</i> | *Coltsfoot | B SC |
| <i>Arctium minus</i> | *Burdock | B SC |
| <i>Cirsium vulgare</i> | *Bull Thistle | B SC |
| <i>C. arvense</i> | *Field Thistle | B SC |
| <i>Cichorium intybus</i> | *Chicory | B SC |
| <i>Taraxacum officinale</i> | *Dandelion | B SC |
| <i>Sonchus oleraceus</i> | *Common Sow-thistle | B SC |
| <i>S. arvensis</i> | *Field Sow-thistle | B SC |
| <i>Prenanthes altissima</i> | Tall White Lettuce | SH NS |

SLIDES AND PHOTOGRAPHS OF BURKE RAVINE

The Toronto Field Naturalists' Club owns about 50 colour slides of various aspects and views of Burke Ravine at different seasons of the year. The club also owns a number of black and white photographs suitable for display. For enquiries about these slides and photographs, please contact the club's Photographic Archivist through the club's Secretary.