

## SHARPE'S CREEK VALLEY

UTM Ref. 17TPV340870

Draper Township, Bracebridge  
Status: Recommend Heritage Area

Area: 60 ha

### *Site Characteristics*

This site is set within the steep-walled, clay-based ravine of Sharpe's Creek near its outflow into the South Muskoka River near Bracebridge. While limited in area, this clay deposit has been described as "at least 15 metres (in depth) of rhythmically laminated silts and clays" (Bajc, 1990). The layering, or varves, of this deposit probably originate with annual fluctuations in sediment depositions in a glacial lake.

The creek floodplain, which is bedrock controlled in parts, incorporate former stream channels in the form of oxbows, oxbow ponds and seasonally-flooded meander scars. These wetlands support rich riparian vegetation communities, from mature late successional Red Maple-Silver Maple-American Elm swamp forest and early successional Crack Willow-Balsam Poplar swamp, to Speckled Alder-Willow-Dogwood thicket swamps and grassy wet meadow marshes.

Small areas of mature, late successional Sugar Maple-Beech forest occur on rich alluvial deposits along the base of the southern slope of the creek, supporting a corresponding rich herbaceous flora including Maidenhair Fern, Silvery Spleenwort, Ostrich Fern, Wild Leek, Rose-like Sedge, Long-awned Woodgrass, White Grass, Tall Millet Grass, and the provincially rare New England Sedge.

Most of the steep ravine slopes are covered by an Eastern Hemlock-Sugar Maple-Beech-Yellow Birch mixed, mesic forest type. Disturbed, successional woodland and thickets occupy much of the northern slopes of the area, with Trembling Aspen, White Elm, White Pine, White Birch and Balsam Poplar. The disturbances are associated with a gravel and sand pit in an area of coarser water-lain outwash deposits west of Highway 11. The creek east of the highway runs through pasture land and old fields which are in early successional stages filling in with Meadowsweet and Pin Cherry. Several raised, dry-mesic sandy knolls on the floodplain of Sharpe's Creek are dominated by Poverty Grass.

### *Flora and Fauna*

Total numbers of species recorded were:

Vascular Plants	349 native ; 65 introduced
Birds	71 observed during breeding season
Mammals	12 (2 from small mammal trapping)
Herpetofauna	11
Butterflies	7
Dragonflies	2

*Significant Natural Values and Selection Criteria Met*

1. **Distinctive Landform** - (A1) The varved silts and clays exposed at several locations along Sharpe's Creek Valley contain a record of glacial lake sedimentation which spans well over 500 years of Lake Algonquin history (Jamieson, 1979), a record that is not matched elsewhere in Muskoka. Many of the rhythmites contain remnant trace fossils (burrows and tracks) attributed to burrowing and bottom-dwelling organisms which flourished 11,000 years ago in Lake Algonquin (Bajc, 1990).
2. **Representation** - (B1) Vegetation communities on clay-based soils are uncommon in Muskoka. The Crack Willow-Balsam Poplar broadleaf forest swamp (normal/organic(clay)/wet-mesic) is not represented in other Heritage Areas, thus it adds to the full range of biotic representation in Muskoka.
3. **Diversity** - (B2) The total number of native plant species related to the size of the area is higher than expected for Muskoka as shown in Figure 1. The area also supported a high diversity of birds.
4. **Rare Species** - (B4) The Sharpe's Creek Valley area provides habitat for the following rare species:

**Wildlife**

*Agrion aequabile* Black-banded Band Wing (dragonfly) [RR]

*Empidonax traillii* Willow Flycatcher [RR]

**Vascular Plants**

*Carex aurea* Golden Fruited Sedge [RR]

*Carex blanda* Woodland Sedge [RR]

*Carex cephaloidea* Thin-leaved Sedge [RR]

*Carex novae-angliae* New England Sedge [PR]

*Carex pallescens* Pale Sedge [RR]

*Poa alsodes* Blue Grass [RR]

*Ribes triste* Swamp Red Current [RR]

*Solidago gigantea* Late Goldenrod [RR]

*Teucrium canadense* Germander [RR]

In addition, two snake species, one bird and seventeen species of vascular plants were recorded as regionally uncommon.

5. **Biogeographic Significance** - (B7) The underlying clays and alluvial deposits of the ravine support a rich herbaceous flora, uncharacteristic of areas within the Precambrian Shield. Notable in this flora is the presence two southern woodland species; the sedge *Carex cephaloidea*, and the grass *Poa alsodes*, both of which were discovered in mesic mixed forest. The latter species constitutes a considerable northward range extension in Ontario (Dore & McNeill, 1980). Sharpe's Creek also harbours large populations of the provincially rare New England Sedge, a species primarily of eastern distribution.

The occurrence of Willow Flycatcher in hawthorn thickets northwest of Muskoka Road 37 is of regional significance. This species is rare on the Precambrian Shield and is approaching its northern distributional limit in Muskoka (Prescott, 1987 a).

6. **Scenic Landscapes** - (C7) The view of the Sharpe's Creek Valley in both directions from Muskoka Road 37 has been identified as having high scenic value.

#### *Ownership and Disturbance*

The area is privately owned and surrounded by a variety of urban, industrial, transportation and rural developments. These disturbances have broken the site into islands of habitats with limited linkages, thus preventing the movement of larger animals. Largest of these disturbances is the site of ongoing aggregate extraction. Disused pits and the associated network of roads supports vegetation dominated primarily by aggressive alien species. Over 15% non-native species were recorded from the area, one of the highest percentages in Muskoka. Other disturbances include a portion of the area northwest of Muskoka Road 37 which was apparently used as a landfill site for the Town of Bracebridge some time ago. This area now supports disturbed woodland and thicket communities. Fenced agricultural land adjoining the banks of Sharpe's Creek, along the southeastern boundary of the area, is currently used for horse pasture.

#### *Sensitivity*

The sensitivity of this site is related to the presence of the clay varves and clay-based vegetation which are of limited distribution and occurrence in Muskoka. Policies related to protection of the valley floor, sides and tributary ravines, including a buffer designed to prevent future erosion or slumping problems will be necessary. Rehabilitation of the abandoned landfill site and the worked-out parts of the gravel pit should provide long-term protection of the water quality in Sharpe's Creek and enhancement of the ecological connections for wildlife and plant life along the valley corridor.

#### *Major Sources of Information*

Bajc, 1990; Bajc & Henry, 1991; Berney, & Reid, 1993; Dore, & McNeill, 1980; Jamieson, 1979; Prescott, 1987 a; Reid, et al., 1991; Spek, 1979 a.