

## BRITANNIA ESKER

UTM Ref. 17TPA484174

Brunel Township, Huntsville  
Status: Recommend Heritage Area

Area: 130 ha

### *Site Characteristics*

This esker feature consists of a series of north-trending, criss-crossing ridges composed primarily of sand and gravel. These ridges, which vary from 3 to 10 metres in height, support a sub-mature closed canopy forest of Sugar Maple, Eastern Hemlock and Balsam Fir. The ridges are bounded by small ice block depressions or kettles (ponds) 100 to 200 metres in diameter. The esker terminates in a flat-topped, fan shaped deposit of sand and gravel approximately 300m long and 200m wide, fringed by a wetland which has developed on deep organic soils under restricted drainage conditions. The wetland is largely a graminoid mat with a shrub component of Leatherleaf and Sweet Gale. At either end of this association, on slightly drier ground, is a mixed swamp forest dominated by Eastern White Cedar, Red Maple, Balsam Fir and Black Ash. The wetland is flanked on the outer edges by rich deciduous Sugar Maple - Beech - Black Cherry - Yellow Birch woodland on deep sandy soils.

The hydrology of the site is linked to its glacial origin. Disappearing streams and dry pond beds within the site are evidence of the permeable nature of the soils, and suggest a highly active groundwater system. Several beaver dams are present in the site in association with the two stream systems draining to the southeast.

### *Flora and Fauna*

Total numbers of species recorded were:

Vascular plants	129 native; 4 introduced
Birds	33 observed during breeding season
Mammals	5
Herpetofauna	6
Butterflies	3
Mushrooms	14

### *Significant Natural Values and Selection Criteria Met*

1. **Distinctive Landform** - (A1) The geomorphic expression of esker complexes are infrequently seen within Muskoka District (Bajc & Henry, 1991). Britannia Esker is situated well above the limits of glacial Lake Algonquin (380 m ASL) and is therefore unmodified and easily recognizable. This site also provides a good example of an esker terminating in a subaquatic fan, marking the position of the glacial face.

2. **Representative Landform** - (A2) The Britannia Esker Complex was identified by Bajc (1992) as the best representation in the District of Muskoka of glaciofluvial ice-contact stratified drift deposits in the form of an esker.

3. **Quality and Disturbance** - (B3) The quality of the esker within the Heritage Area is for the most part pristine, and it supports undisturbed representative successional forests and wetlands. The quality of this site is related in part to the diversity of environments from both a geological and a biological perspective. While the flora and fauna was largely typical of this part of Muskoka, one regionally rare and one regionally uncommon plant was found.

#### *Ownership and Disturbance*

The area is all in private ownership and current landowners are aware of the significance of the esker on their properties. The entire esker ridge is not included in the recommended area due to disturbances on the northern section, including a few small gravel pits and clear-cutting of timber. The recommended southern portion of the esker feature displays the best representation and diversity of geological and biological features in a pristine surrounding.

#### *Sensitivity*

The sensitivity of this site is related to the geological feature of interest and biological values which it supports. Policies for protection should include restriction of development (logging, roads) in the areas adjacent to the esker and no development (especially mineral aggregate extraction) allowed on the esker, the outwash fan and the wetland fringe.

#### *Major Sources of Information*

Bajc & Henry, 1991; Bajc, 1992; Reid, et al., 1992.