

GIBSON RIVER CORRIDOR

UTM Ref. 17TNV935803

Gibson Township, Georgian Bay
Status: Recommend Heritage Area

Area: 495 ha

Site Characteristics

The Gibson River corridor flows west from Gibson Lake for some six kilometres, joins the larger Musquash River which enters from Go Home Lake to the north and continues for another three kilometres into the Musquash Channel on Georgian Bay. The overall drop in elevation is less than 10 metres, mostly occurring at four small falls and rapids.

The Gibson River sub-watershed has a natural flow regime unregulated by dams. The river is generally 10 to 20 metres wide with depths ranging from several metres during spring flooding to a few centimetres in mid-summer. This fluctuation permits a wide shoreline of sandy-peaty soils to support a rich assemblage of shoreline vegetation communities and Atlantic Coastal Plain Flora.

Uplands along the corridor have thin, discontinuous drift cover, and sections of exposed gneissic bedrock. Forests along the eastern four kilometres of the river are mainly coniferous and mixed with a strong component of White Pine, Red Pine and Red Oak. Eastern Hemlock forests are dominant on the cooler north-facing slopes. A few sections of Sugar Maple-Beech-Red Oak climax deciduous forest are also present where soils are deeper and richer. Rock barrens dominate the rest of the river corridor closer to Georgian Bay. Inland marshes and shrub thickets are present in backshore bays and low-lying areas.

Flora and Fauna

Total numbers of species recorded were:

| | |
|-----------------|--|
| Vascular Plants | 129 native ; 3 introduced 4 A.C.P.F. with a score of 21 (Low) |
| Birds | 20 observed during breeding season |
| Mammals | 6 |
| Herpetofauna | 7 |
| Butterflies | 2 |

Significant Natural Values and Selection Criteria Met

- 1. Hydrology** - (A3) The Gibson River is an undisturbed river system which acts as a floodplain for waters flowing out of Gibson Lake.
- 2. Quality and Disturbance** - (B3) Only 2.3% of the vascular plants species recorded from the study area are introduced. This reflects the integrity of the natural communities within this river corridor. The unregulated water levels of the Gibson River support natural assemblages of shoreline and coastal plain vegetation communities showing little recent disturbance.

3. **Rare Species** - (B4) The Gibson River Corridor provides habitat for the following rare species:

Wildlife

Mergus serrator Red-breasted Merganser [RR]

Sterna caspia Caspian Tern [NR PR]

Vascular Plants

Carex novae-angliae New England Sedge [PR]

Elatine minima Water Wort [PR]

Isoetes lacustris Lake Quillwort [RR]

Isoetes xharveyi Quillwort [RR]

Myriophyllum heterophyllum Various-leaved Water Milfoil [RR]

Panicum rigidulum Panic Grass [NR PR]

Petasites frigidus Sweet Coltsfoot [RR]

Rubus canadensis Thornless Blackberry [RR]

Sagittaria graminea var cristata Grass-leaved Arrowhead [NR PR]

In addition, one bird and eight plant species were recorded as Regionally Uncommon.

4. **Size and Linkage** - (B6) The Gibson River is a natural river corridor, providing a linkage of shoreline and valley slope from Gibson Lake to the Musquash Channel of Georgian Bay.

5. **Scenic Landscapes** - (C7) The waterfalls and rapids along the Musquash, particularly where the river begins to flow south into the channel, have been identified as having high scenic values.

Ownership and Disturbance

The area is approximately 50% Crown land, with most along the interior stretch of the Gibson River. A few private cottage lots are present just west of Highway 69. The rest of the privately owned land is located along the lower Musquash River portion of the corridor; however, a major part of this area was recently donated to the Nature Conservancy of Canada. Past logging has occurred in the area and influenced the present day landscape but recent disturbances are low. Increasing cottage development pressures plus unregulated use of campsites along the river (which is part of the Gibson River - McCrae Lake canoe route) is evident as trampling and vegetation removal in some areas.

Sensitivity

The sensitivity of this site is related to the hydrological functioning of the river corridor and shoreline ecology. The natural fluctuating water levels are critical to the maintenance of shoreline communities. As well, the continuity of undisturbed habitats along the floodplain and valley is a significant feature of this area which should not be disrupted. The adjacent forests provide habitat, shelter and buffer for the river corridor defined in part by slope and aspect. Disturbances in these valley areas would compromise the natural values present.

Major Sources of Information

Bajc, & Paterson, 1992 b; Berney, & Reid, 1993; Geomatics International, 1992; Keddy, & Sharp, 1989.