

BONE ISLAND

UTM Ref. 17TNV905765

Gibson Township, Georgian Bay
Status: Recommend Heritage Area

Area: 573 ha

Site Characteristics

Bone Island is a large island in southeastern Georgian Bay, in a protected area south and east of Musquash Channel. Its irregular shape results in a long shoreline perimeter and numerous protected bays and inlets. Pink feldspar and black hornblende outcrops are common in the interior as well as along the rocky shorelines.

The dominant vegetation community is dry open rock barrens with a savanna-like appearance characterized by Common Juniper, grasses, lichens and sparse tree cover. This habitat and the associated wet pockets support several rare species of birds, reptiles and plants.

Deeper soils supporting climax deciduous forests can be found in depressions where glacial till was deposited. Two large areas support mixed Pine-Oak forest and White Pine coniferous forest. The dry-mesic moisture regime and low nutrient status of these forest types create low species diversity and a sparse understory.

Two large beaver ponds are present on the island as well as numerous seasonal ponds. These wetlands provide important breeding habitat for many amphibians and reptiles. Some of the more protected bays have accumulated a deep layer of fine silts supporting coastal plain flora and other significant shoreline flora and fauna.

Flora and Fauna

Total numbers of species recorded were:

Vascular Plants	219 native ; 12 introduced
	4 A.C.P.F. with a score of 18 (Low)
Birds	35 observed during breeding season
Mammals	3
Herpetofauna	21 including 13 species from National Parks Survey

Significant Natural Values and Selection Criteria Met

1. **Diversity - (B2)** The area has a very high herpetofaunal species richness, with twenty-one species occurring. Southeastern Georgian Bay is considered one of the richest areas in the province for reptiles and amphibians. Some of these species, such as the Eastern Fox Snake and the Mudpuppy, have a Muskoka distribution restricted to the Georgian Bay coastline.

2. **Rare Species - (B4)** Bone Island provides habitat for the following rare species:

Wildlife

<i>Necturus maculosus</i>	Mudpuppy [RR]
<i>Sternotherus odoratus</i>	Stinkpot [RR]

Clemmys guttata Spotted Turtle [NR PR RR]
Heterodon platirhinos Eastern Hognose Snake [PR]
Elaphe vulpina gloydi Eastern Fox Snake [PR RR]
Sistrurus c. catenatus Eastern Massasauga Rattlesnake [NR PR]
Dendroica discolor Prairie Warbler [NR PR]

Vascular Plants

Carex buxbaumii Brown Sedge [RR]
Carex interior Inland Sedge [RR]
Panicum ovale American Panic Grass [RR]
Physocarpus opulifolius Ninebark [RR]
Sagittaria graminea var cristata Grass-leaved Arrowhead [NR PR]
Sphenopholis intermedia Slender Wedge Grass [RR]
Xyris difformis Slender Yellow-eyed Grass [PR]

In addition, the regionally uncommon amphibians were found.

Ownership and Disturbance

The majority of Bone Island is privately owned, consisting of large lots (4-10 ha) beginning at the shoreline and running inland to the middle of the island. Dumping of household and inorganic debris was noted at the back of many cottage lots. Some of the rare species are located on shorelines. As cottagers develop beach fronts for recreational use, there will be increasing disturbance to the shoreline features.

Georgian Bay Islands National Park owns two centrally located lots, totalling about 14 hectares. The concentration of rare species and heavy visitor use on this area is cause for concern. Recommendations have been made to designate the southwestern portion of the National Park area as an Environmentally Sensitive Site.

Recently a large (approx. 60 ha) section of Bone Island was donated to the Georgian Bay Trust Foundation.

Sensitivity

The sensitivity of Bone Island relates primarily to the important breeding habitats for herpetofauna and Prairie Warblers. The shoreline ecology which supports numerous rare flora and fauna and some Atlantic Coastal Plain Flora is also vulnerable to increased density of cottage development.

Major Sources of Information

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