

American Chestnut is State endangered and legally protected along with being globally vulnerable. While numerous specimens and stands are being planted across the state, including Beaver Island, most individuals succumb to Chestnut Blight that remains present in secondary hosts. This tree can be found in oak forests, distinguished by its elliptical leaves with sharp teeth, deep furrowed and brown bark and their bristly husked nuts. If a mature tree is found, report to the TIS Administrator.



Houghton's Goldenrod is Federally and State threatened, legally protected and globally vulnerable. Found primarily in the Straits region near shorelines in linear interdunal areas, this perennial can be distinguished from Ohio Goldenrod found in the same interdunal areas or the Canada Goldenrod found in fields and along roadways. Houghton's Goldenrod possesses narrow leaves that fold along the midrib, while the others have much wider leaves. Its showy, yellow flowers can be found August- September like the others but will be flat-topped and have large, elongated rays compared to the pyramidal shape of the Canada Goldenrod or the tiny rays of the flat-topped Ohio Goldenrod. Houghton's is very vulnerable to ORV damage, excessive foot traffic and any disturbance or development to its habitat. If found report to the TIS Administrator and do not disturb.



Seaside Crowfoot is State threatened, legally protected and presumed extirpated. Last recorded within the Beaver Island Archipelago in 1957, this threatened perennial is found on moist, sandy or muddy shores and marshes along Great Lakes shorelines. Forming in clumps with kidney-shaped leaves and spreading by stolons/runners, the small (1cm or less) yellow flowers with 5 petals can be observed from June to August. If found report to your TIS Administrator and do not disturb.



Limestone Oak Fern is State threatened, legally protected and State imperiled. A small fern that can grow in dense white cedar swamps and limestone outcroppings within the Northern Great Lakes area. Its triangular leaves are broad, twice-divided, reaching from 3-20in long and the undersides covered by short, glandular



hairs, which can distinguish it from the Common Oak Fern. Its leafstalks will also be covered in glandular hairs and can reach to about a foot in height once well-developed through the months of July and August. The greatest threat to this threatened species is the destruction of its habitat. If found do not disturb.

Threatened & Endangered Plant Species Management Plan

Problem Statement: Beaver Island's natural communities have been damaged as a result of climate, logging, recreation, development and introductions of invasive species. It is necessary for the integrity of our islands to identify threatened & endangered species along with invasive plant species to protect the former and control the latter.

Goal: To educate the community in awareness and engagement of protection for threatened & endangered native plants and to prevent, identify and eliminate specific invasive plant species to ensure that the Beaver Island Archipelago retains its environmental and economic integrity.

YOU can help: Locate, monitor, report & protect T&E species.

More information is available on the township webpages under "Invasive Species Watch" at www.stjamestown.org and www.peainetwp.org. Or contact your local TIS Administrator at invasivespadm.bi@gmail.com

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Beaver Island's Terrestrial Invasive Species Program

T&E Plant Species

The purpose of this brochure is to help inform you of some of the Threatened & Endangered Species (T&E) found here within the Beaver Island Archipelago. The Beaver Island Archipelago was ranked as containing some of the most biologically diverse islands in Lake Michigan and as one of the top 10 most threatened islands as a result of human impacts, deer herbivory and invasive species.

- The Beaver Island Archipelago is home to twelve known threatened & endangered species with several of these species listed as globally rare and some endemic to the Great Lakes.
- Native plant species help maintain the natural heritage and biodiversity of our wetlands, fields, forests, lakes, and shorelines as well as our native animal populations that utilize and rely on these habitats in their day-to-day lives or migratory paths.
- The longer we wait and commit to no action, the closer these species come to extinction and extinction is forever.
- The longer we wait, the more expensive it will be to control invasive plants.
- You can be a part of the solution by learning about Beaver Island's T&E species and what you can do to help protect them.



Beaver Island's Threatened & Endangered Species:

What is a Threatened or Endangered Species??

A species' status as "threatened" or "endangered" is provided by meeting Federal & State definitions based on the 1973 Endangered Species Act (ESA). A "threatened" status indicates the species is likely to become endangered within the foreseeable future. An "endangered" status indicates the species is in danger of extinction throughout all or a significant portion of its range.

Species Descriptions

Pitcher's Thistle is Federally and State threatened, legally protected and globally vulnerable. Endemic to Great Lakes open sand dunes and monocarpic, meaning that

once a plant produces a rosette and it matures, which can take 5-8 years or more, the Pitcher's Thistle will only flower once. The unique prickly, spine-tipped flower heads are relatively large and can be cream-colored or slightly pink growing numerous from multiple blue-green stems. The narrow,

deeply divided leaves are the same distinguishing blue-green color as the rest of the plant and densely covered with white-wooly hairs. The best time to observe this plant in flower on the island is from late-June to early September. Development of the Great Lakes shorelines is the biggest threat to this rare species and if found should not be disturbed.



Hill's Pondweed is State threatened, legally protected and globally vulnerable. Hill's Pondweed is an aquatic plant that can be found in cool, Northern Michigan ponds up to 3ft in depth or along alkaline streams on sandy, mucky substrates. It possesses stems that are slender and branched with alternate, narrow leaves that are submerged with three parallel veins. If found do not disturb.



Michigan Monkey Flower is Federally and State endangered with a critically imperiled global ranking. The only known plant entirely endemic to Michigan, this mat-forming, semi-aquatic, clonal plant can only be found in cold, calcareous springs, seeps and streams flowing through Northern white-cedar forests to bluffs near Great Lakes shorelines. The bright yellow, snapdragon-like, tubular flowers with a red-spotted lower lip of this endangered plant are needed to reliably identify the species, which can be observed from late June to the beginning of August. Its leaves are rounded, opposite with coarsely sharp-toothed margins and its stems are lax, rooting freely at their lower leaf nodes. If found do NOT disturb as this plant is highly susceptible to disruptions of its hydrology, oxygenation, turbidity and sun exposure.



Lake Huron Tansy is State threatened and legally protected. This perennial can be found along sandy or rocky shores of Northern dunes of the Great Lakes. One that can be confused with the invasive Common Tansy, the Lake Huron Tansy possesses large, daisy-like, yellow flowers that bloom on the islands from June to September on long-stalks but with 5-12 round flower heads per stalk and with dissected (repeated & deep partitions), hairy and compound leaves. The Common Tansy will have reddish-brown stems, button or flat-topped flower heads and alternate leaves. The Lake Huron Tansy can be found throughout the Archipelago but if found do not disturb



False Violet/Star Violet is State threatened and legally protected. This small perennial can be distinguished from the Common Blue Violet by possessing densely hairy leafstalks, radially symmetrical flowers and being found among moist coniferous uplands rather than open areas. Their leaves are circular and heart-shaped and the flowers consist of five white petals and can grow 1-3in tall, flowering throughout different periods of the summer depending on various factors. If found do not disturb.



Broomrape or Yellow Clustered/Sand Cancer-root is State threatened and legally protected. This small forb grows 1-6in tall along Lake Michigan open dunes, and is parasitic on the roots of Wormwood. Its stem is colorless, as the plant completely lacks chlorophyll, with tiny scale-like hairy leaves that are pale yellow-brown in color, bearing a terminal cluster of 3-10 pale symmetrical tubular flowers that are rose-purple when in bud, becoming pinkish to creamy white upon maturity. It is easiest to see after flowering when the plant becomes dark brown and forms erect fruiting capsules in late July or August. These plants are especially susceptible to ORV damage and excessive foot traffic. If found do not disturb.



Dwarf Lake Iris is Federally threatened, State threatened, legally protected, as well as globally vulnerable and endemic to Great Lakes shorelines. This small, perennial forb consists of sword-like

(short, flat and pointed) leaves growing 4-6in tall from an enlarged node and a single, showy iris flower with three petals of deep blue, only growing 1-2in tall. The Dwarf Lake Iris spreads mostly through rhizomes to form dense clumps along

calcareous shorelines of the northern Great Lakes near boreal forests, flowering on the island in May to early June. If found do not disturb.



Calypso/Fairy Slipper is State threatened and legally protected. It is a small perennial orchid that can grow from 3-6in tall with one oval leaf that flares over the ground, persisting through winter until a new flower blooms. The single to rarely two flowers are made up of fanning, narrow petals, similar in size and pink to purple in color, with a pouch below, crested by yellow hairs. This species can be seen blooming May to late June in moist coniferous and hardwood forests. If found do not disturb.

