



Teichner Preserve

Floristic Quality Assessment Results

A *partial* Floristic Quality Assessment of Teichner Preserve was conducted by Liana May during the summer of 2012.

Floristic quality assessments (FQAs) are a useful tool to measure a plant community's conservation value. To perform an FQA, all vascular plant species in a community are quantified and an index representing the rarity of these species is summed to give a ranking that can be compared across different ecosystem types. This information can then be used to identify high-quality species and groupings of species in order to prioritize conservation and management efforts. At Teichner Preserve the total number of species and native species are:

Native Species	Total Species
70	86

The coefficient of conservation (C) is a value between 0 and 10 assigned to each species, representing the species likelihood to occur in an unaltered, pre-European settlement landscape in the state of Michigan (Herman et al 2001). A C-value of 0 is assigned to species with low fidelity to their natural habitat and the ability to persist in numerous habitat conditions. A C-value of 0 is assigned to invasive species, also called adventives. At Teichner Preserve the mean C-values are:

Native Mean C	Mean C w/ Adventives
4.2	3.5

The coefficient of wetness (W) is assigned to each species depending on their probability to occur in wetlands, where species with a W-value of -5 are obligatory wetland species, and those with a W-value of +5 are upland species. At Teichner Preserve the mean coefficients of wetness are:

Native Mean W	Mean W w/ Adventives
-1.5	-0.7

FQIs less than 20 have minimal significance, while FQIs greater than 35 represent areas of conservation importance and are floristically significant on a statewide level. Areas with FQIs greater than 50 are extremely rare and represent areas of significant native biodiversity (Herman et al 2001). At Teichner Preserve the FQI's are:

Native FQI	FQI w/ Adventives
35.5	32

May, L. 2012. Floristic Quality Assessment and Habitat Mapping of Belanger Creek Preserve

Herman, K. D., L. A. Masters, M. R. Penskar, A. A. Reznicek, G. S. Wilhelm, W. W. Brodovich, and K. P. Gardiner. 2001. Floristic Quality Assessment with Wetland Categories and Examples of Computer Applications for the State of Michigan – Revised, 2nd Edition. Michigan Department of Natural Resources, Wildlife, Natural Heritage Program. Lansing, MI. 19 pp. + Appendices.



Teichner Preserve

High Quality Plant Species

This list represents the most ecologically significant and high quality plants found at the Teichner Preserve during a 2012 *partial* Floristic Quality Assessment conducted by Liana May. These plants are the highest quality species found on the property and therefore may be rare, difficult to find, or not be blooming depending on the season.

Please remember to practice Leave No Trace techniques; picking flowers may not seem like a big deal, but it means others won't have a chance to enjoy them. With thousands of people visiting Conservancy properties, the less impact we each make, the longer we will enjoy what we have. If you are interested in conducting a scientific study on the property please contact the Conservancy for written permission.

C	Scientific Name	Common Name
6	<i>Adiantum pedatum</i>	MAIDENHAIR FERN
6	<i>Fraxinus nigra</i>	BLACK ASH
7	<i>Betula alleghaniensis</i>	YELLOW BIRCH
7	<i>Decodon verticillatus</i>	WHORLED or SWAMP LOOSESTRIFE
7	<i>Lathyrus palustris</i>	MARSH PEA
7	<i>Lobelia cardinalis</i>	CARDINAL FLOWER
7	<i>Polygala paucifolia</i>	GAY WINGS
8	<i>Aralia racemosa</i>	SPIKENARD
8	<i>Cornus florida</i>	FLOWERING DOGWOOD
8	<i>Juncus brevicaudatus</i>	RUSH
8	<i>Oenothera oakesiana</i>	EVENING PRIMROSE
8	<i>Parnassia glauca</i>	GRASS OF PARNASSUS
9	<i>Cypripedium reginae</i>	SHOWY or QUEEN'S LADY SLIPPER
10	<i>Cladium mariscoides</i>	TWIG RUSH
10	<i>Eleocharis quinqueflora</i>	SPIKE RUSH
10	<i>Lobelia kalmii</i>	BOG LOBELIA

To see pictures or learn more about the plants listed above please visit the Michigan Natural Features Inventory website at <http://mnfi.anr.msu.edu/data/specialplants.cfm> or consult Newcomb's Wildflower Guide by Lawrence Newcomb.

Site:	Tiechner Preserve Forested Wetland (partial survey)
Locale:	Leelanau Co, MI
By:	Liana May

FLORISTIC QUALITY DATA		Native	70	81.40%	Adventive	16	18.
70 NATIVE SPECIES		Tree	16	18.60%	Tree	0	0.
86 Total Species		Shrub	4	4.70%	Shrub	2	2.
4.2 NATIVE MEAN C		W-Vine	3	3.50%	W-Vine	0	0.
3.5 W/Adventives		H-Vine	0	0.00%	H-Vine	0	0.
35.5 NATIVE FQI		P-Forb	26	30.20%	P-Forb	9	10.
32 W/Adventives		B-Forb	1	1.20%	B-Forb	3	3.
-1.5 NATIVE MEAN W		A-Forb	2	2.30%	A-Forb	0	0.
-0.7 W/Adventives		P-Grass	3	3.50%	P-Grass	2	2.
AVG:	Faculative (+)	A-Grass	0	0.00%	A-Grass	0	0.
		P-Sedge	9	10.50%	P-Sedge	0	0.
		A-Sedge	0	0.00%	A-Sedge	0	0.
		Fern	6	7.00%			

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
ABIBAL		3 Abies balsamea	-3	FACW	Nt Tree	BALSAM FIR
ACEPEN		5 Acer pensylvanicum	3	FACU	Nt Tree	STRIPED MAPLE
ACERUB		1 Acer rubrum	0	FAC	Nt Tree	RED MAPLE
ACESAU		5 Acer saccharum	3	FACU	Nt Tree	SUGAR MAPLE
ADIPED		6 Adiantum pedatum	1	FAC-	Nt Fern	MAIDENHAIR FERN
AGRGIG		0 AGROSTIS GIGANTEA	0	FAC	Ad P-Grass	REDTOP
AQUCAN		5 Aquilegia canadensis	1	FAC-	Nt P-Forb	WILD COLUMBINE
ARANUD		5 Aralia nudicaulis	3	FACU	Nt P-Forb	WILD SARSAPARILLA
ARARAC		8 Aralia racemosa	5	UPL	Nt P-Forb	SPIKENARD
ASCSYR		1 Asclepias syriaca	5	UPL	Nt P-Forb	COMMON MILKWEED
ASTLAN		2 Aster lanceolatus	-3	FACW	Nt P-Forb	EASTERN LINED ASTER
ATHFIL		4 Athyrium filix-femina	0	FAC	Nt Fern	LADY FERN
BETALL		7 Betula alleghaniensis	0	FAC	Nt Tree	YELLOW BIRCH
BETPAP		2 Betula papyrifera	2	FACU+	Nt Tree	PAPER BIRCH
CXCOMO		5 Carex comosa	-5	OBL	Nt P-Sedge	SEDGE
CXLEPA		5 Carex leptalea	-5	OBL	Nt P-Sedge	SEDGE

CXVIRI	4 Carex viridula	-5 OBL	Nt P-Sedge	SEDGE
CXVULP	1 Carex vulpinoidea	-5 OBL	Nt P-Sedge	SEDGE
CENMAU	0 CENTAUREA MACULOSA	5 UPL	Ad B-Forb	SPOTTED BLUET
CERFON	0 CERASTIUM FONTANUM	3 FACU	Ad P-Forb	MOUSE EAR CHICKWEED
CHRLEU	0 CHRYSANTHEMUM LEUCANTHEML	5 UPL	Ad P-Forb	OX EYE DAISY
CLAMAR	10 Cladium mariscoides	-5 OBL	Nt P-Sedge	TWIG RUSH
CONARV	0 CONVOLVULUS ARVENSIS	5 UPL	Ad P-Forb	FIELD BINDWEED
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	HORSEWEED
CORFLO	8 Cornus florida	4 FACU-	Nt Tree	FLOWERING DOGWOOD
CORSTO	2 Cornus stolonifera	-3 FACW	Nt Shrub	RED OSIER DOGWOOD
CYPREG	9 Cypripedium reginae	-4 FACW+	Nt P-Forb	SHOWY or QUEEN'S LADY
CYSBUL	5 Cystopteris bulbifera	-2 FACW-	Nt Fern	BULBLET FERN
DAUCAR	0 DAUCUS CAROTA	5 UPL	Ad B-Forb	QUEEN ANNE'S LACE
DECVER	7 Decodon verticillatus	-5 OBL	Nt Shrub	WHORLED or SWAMP LOO:
ELAUMB	0 ELAEAGNUS UMBELLATA	3 FACU	Ad Shrub	AUTUMN OLIVE
ELEQUI	10 Eleocharis quinqueflora	-5 OBL	Nt P-Sedge	SPIKE RUSH
EIPAR	0 EPILOBIUM PARVIFLORUM	3 FACU	Ad P-Forb	WILLOW HERB
EQUHYE	2 Equisetum hyemale	-2 FACW-	Nt Fern Ally	SCOURING RUSH
EUPMAM	4 Eupatorium maculatum	-5 OBL	Nt P-Forb	JOE PYE WEED
EUPPER	4 Eupatorium perfoliatum	-4 FACW+	Nt P-Forb	COMMON BONESET
FRAVIR	2 Fragaria virginiana	1 FAC-	Nt P-Forb	WILD STRAWBERRY
FRAAME	5 Fraxinus americana	3 FACU	Nt Tree	WHITE ASH
FRANIG	6 Fraxinus nigra	-4 FACW+	Nt Tree	BLACK ASH
GERMAC	4 Geranium maculatum	3 FACU	Nt P-Forb	WILD GERANIUM
GLYSTR	4 Glyceria striata	-5 OBL	Nt P-Grass	FOWL MANNA GRASS
HYPPER	0 HYPERICUM PERFORATUM	5 UPL	Ad P-Forb	COMMON ST. JOHN'S WOF
IRIVER	5 Iris versicolor	-5 OBL	Nt P-Forb	WILD BLUE FLAG
JUNBRE	8 Juncus brevicaudatus	-5 OBL	Nt P-Forb	RUSH
JUNDUD	1 Juncus dudleyi	0 FAC	Nt P-Forb	DUDLEY'S RUSH
JUNEFF	3 Juncus effusus	-5 OBL	Nt P-Forb	SOFT STEMMED RUSH
LARLAR	5 Larix laricina	-3 FACW	Nt Tree	TAMARACK
LATPAL	7 Lathyrus palustris	-3 FACW	Nt P-Forb	MARSH PEA
LEMMIN	5 Lemna minor	-5 OBL	Nt A-Forb	SMALL DUCKWEED
LOBCAR	7 Lobelia cardinalis	-5 OBL	Nt P-Forb	CARDINAL FLOWER
LOBKAL	10 Lobelia kalmii	-5 OBL	Nt P-Forb	BOG LOBELIA
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	WHITE SWEET CLOVER
MENPIP	0 MENTHA PIPERITA	-5 OBL	Ad P-Forb	PEPPERMINT
MONPUN	4 Monarda punctata	5 UPL	Nt P-Forb	HORSEMINT

OENOA	8 Oenothera oakesiana	5 UPL	Nt B-Forb	EVENING PRIMROSE
ONOSN	2 Onoclea sensibilis	-3 FACW	Nt Fern	SENSITIVE FERN
PANIMP	3 Panicum implicatum	0 FAC	Nt P-Grass	PANIC GRASS
PARGLA	8 Parnassia glauca	-5 OBL	Nt P-Forb	GRASS OF PARNASSUS
PARQUI	5 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	VIRGINIA CREEPER
PHAARU	0 Phalaris arundinacea	-4 FACW+	Nt P-Grass	REED CANARY GRASS
PHLPRA	0 PHLEUM PRATENSE	3 FACU	Ad P-Grass	TIMOTHY
PICGLA	3 Picea glauca	3 FACU	Nt Tree	WHITE SPRUCE
PINSTR	3 Pinus strobus	3 FACU	Nt Tree	WHITE PINE
POLPAU	7 Polygala paucifolia	3 FACU	Nt P-Forb	GAY WINGS
POPBAL	2 Populus balsamifera	-3 FACW	Nt Tree	BALSAM POPLAR
POPTRE	1 Populus tremuloides	0 FAC	Nt Tree	QUAKING ASPEN
POTANS	5 Potentilla anserina	-4 FACW+	Nt P-Forb	SILVERWEED
PRUVUL	0 PRUNELLA VULGARIS	0 FAC	Nt P-Forb	LAWN PRUNELLA
ROSMUL	0 ROSA MULTIFLORA	3 FACU	Ad Shrub	MULTIFLORA ROSE
ROSPAL	5 Rosa palustris	-5 OBL	Nt Shrub	SWAMP ROSE
RUMOBT	0 RUMEX OBTUSIFOLIUS	-3 FACW	Ad P-Forb	BITTER DOCK
SALDIS	1 Salix discolor	-3 FACW	Nt Shrub	PUSSY WILLOW
SCHACU	5 Schoenoplectus acutus	-5 OBL	Nt P-Sedge	HARDSTEM BULRUSH
SCHTAB	4 Schoenoplectus tabernaemontani	-5 OBL	Nt P-Sedge	SOFTSTEM BULRUSH
SCIATR	3 Scirpus atrovirens	-5 OBL	Nt P-Sedge	BULRUSH
SMISTE	5 Smilacina stellata	1 FAC-	Nt P-Forb	STARRY FALSE SOLOMON
SOLDUL	0 SOLANUM DULCAMARA	0 FAC	Ad P-Forb	BITTERSWEET NIGHTSHADE
SOLALT	1 Solidago altissima	3 FACU	Nt P-Forb	TALL GOLDENROD
SOLRUG	3 Solidago rugosa	-1 FAC+	Nt P-Forb	ROUGH GOLDENROD
THEPAL	2 Thelypteris palustris	-4 FACW+	Nt Fern	MARSH FERN
THUOCC	4 Thuja occidentalis	-3 FACW	Nt Tree	ARBOR VITAE
TOXRAR	2 Toxicodendron radicans	-1 FAC+	Nt W-Vine	POISON IVY
TSUCAN	5 Tsuga canadensis	3 FACU	Nt Tree	HEMLOCK
TYPLAT	1 Typha latifolia	-5 OBL	Nt P-Forb	BROAD LEAVED CATTAIL
VERLON	0 VERONICA LONGIFOLIA	5 UPL	Ad P-Forb	LONG LEAVED SPEEDWELL
VITRIP	3 Vitis riparia	-2 FACW-	Nt W-Vine	RIVERBANK GRAPE