



# Krumweide Forest Reserve Floristic Quality Assessment Results

A Floristic Quality Assessment of Krumweide Forest Reserve was conducted by Liana May during the summer of 2012, with an addendum in 2015 (reflected below).

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 Krumweide Forest Reserve the total number of species and native species are:

Native Species	Total Species
110	145

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 10 is assigned to invasive species, also called adventives. At Krumweide Forest Reserve the mean C-values are:

Native Mean C	Mean C w/ Adventives
3.9	3

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 Krumweide Forest Reserve the mean coefficients of wetness are:

Native Mean W	Mean W w/ Adventives
1.7	1.3

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 Krumweide Forest Reserve the FQI's are:

Native FQI	FQI w/ Adventives
40.9	34

May, L. 2015. Floristic Quality Assessment and Habitat Mapping of Krumweide Forest Reserve.

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.

Table 2. Summary of non-native species. Aggressive invasives include *Cirsium arvense* and *C. vulgare*.

SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
AEGOPodium PODAGRARIA	0	FAC	Ad P-Forb	GOUTWEED
AGROSTIS GIGANTEA	0	FAC	Ad P-Grass	REDTOP
ALLIUM VINEALE	3	FACU	Ad P-Forb	FIELD GARLIC
BERTEROA INCANA	5	UPL	Ad A-Forb	HOARY ALYSSUM
CERASTIUM FONTANUM	3	FACU	Ad P-Forb	MOUSE EAR CHICKWEED
CHRYSANTHEMUM LEUCANTHEMUM	5	UPL	Ad P-Forb	OX EYE DAISY
CIRSIUM ARVENSE	3	FACU	Ad P-Forb	CANADIAN THISTLE
CIRSIUM VULGARE	4	FACU-	Ad B-Forb	BULL THISTLE
EPILOBIUM PARVIFLORUM	3	FACU	Ad P-Forb	WILLOW HERB
EPIPACTIS HELLEBORINE	5	UPL	Ad P-Forb	HELLEBORINE
FESTUCA ARUNDINACEA	2	FACU+	Ad P-Grass	TALL FESCUE
GALIUM ODORATUM	5	UPL	Ad P-Forb	SWEET WOODRUFF
HIERACIUM AURANTIACUM	5	UPL	Ad P-Forb	ORANGE HAWKWEED
HIERACIUM PILOSELLOIDES	5	UPL	Ad P-Forb	GLAUCOUS KING DEVIL
HYPERICUM PERFORATUM	5	UPL	Ad P-Forb	COMMON ST. JOHN'S WORT
LEONURUS CARDIACA	5	UPL	Ad P-Forb	MOTHERWORT
LOLIUM PERENNE	3	FACU	Ad P-Grass	PERENNIAL RYE GRASS
LONICERA MORROWII	5	UPL	Ad Shrub	MORROW HONEYSUCKLE
LYCHNIS CORONARIA	5	UPL	Ad P-Forb	MULLEIN PINK
MALUS PUMILA	5	UPL	Ad Tree	APPLE
MALVA MOSCHATA	5	UPL	Ad P-Forb	MUSK MALLOW
PHLEUM PRATENSE	3	FACU	Ad P-Grass	TIMOTHY
PLANTAGO LANCEOLATA	0	FAC	Ad P-Forb	ENGLISH PLANTAIN
POA COMPRESSA	2	FACU+	Ad P-Grass	CANADA BLUEGRASS
ROBINIA PSEUDOACACIA	4	FACU-	Ad Tree	BLACK LOCUST
RUMEX ACETOSELLA	0	FAC	Ad P-Forb	SHEEP SORREL
RUMEX CRISPUS	-1	FAC+	Ad P-Forb	CURLY DOCK
SILENE VULGARIS	5	UPL	Ad P-Forb	BLADDER CAMPION
SORBARIA SORBIFOLIA	5	UPL	Ad Shrub	FALSE SPIRAEA
TARAXACUM OFFICINALE	3	FACU	Ad P-Forb	COMMON DANDELION
TRIFOLIUM HYBRIDUM	1	FAC-	Ad P-Forb	ALSIKE CLOVER
VERBASCUM THAPSUS	5	UPL	Ad B-Forb	COMMON MULLEIN
VERONICA OFFICINALIS	5	UPL	Ad P-Forb	COMMON SPEEDWELL
VICIA VILLOSA	5	UPL	Ad A-Forb	HAIRY VETCH

Table 3. Summary of high conservation-value species (MNF= mesic northern forest, NWM= northern wet meadow, DNF=dry-mesic northern forest)

C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME	Location
7	Actaea pachypoda	5	UPL	Nt P-Forb	DOLL'S EYES	MNF
7	Dicentra canadensis	5	UPL	Nt P-Forb	SQUIRREL CORN	MNF
7	Dicentra cucullaria	5	UPL	Nt P-Forb	DUTCHMAN'S BREECHES	MNF
7	Melica smithii	5	UPL	Nt P-Grass	MELIC GRASS	MNF
7	Oxalis acetosella	3	FACU	Nt P-Forb	NORTHERN WOOD SORREL	NWM
7	Panicum meridionale	5	UPL	Nt P-Grass	MAT PANIC GRASS	NWM
7	Potentilla palustris	-5	OBL	Nt P-Forb	MARSH CINQUEFOIL	NWM
7	Solidago caesia	3	FACU	Nt P-Forb	BLUE STEMMED GOLDENROD	NWM, MNF
8	Chamaedaphne calyculata	-5	OBL	Nt Shrub	LEATHERLEAF	NWM
8	Corallorhiza odontorhiza	5	UPL	Nt P-Forb	FALL CORAL ROOT	MNF
8	Dulichium arundinaceum	-5	OBL	Nt P-Sedge	THREE WAY SEDGE	NWM
8	Oenothera oakesiana	5	UPL	Nt B-Forb	EVENING PRIMROSE	NWM
8	Oryzopsis racemosa	5	UPL	Nt P-Grass	RICE GRASS	DNF
10	Conopholis americana	5	UPL	Nt P-Forb	SQUAWROOT	DNF, NWM
10	Epifagus virginiana	5	UPL	Nt P-Forb	BEECH DROPS	DNF, MNF

Krumweide Forest Reserve  
 Addendum 2/9/2015  
 Krumweide Forest Reserv  
 Maple City  
 Leelanau  
 MI  
 USA

FQA DB Region: Michigan  
 FQA DB Publication Year: 2014  
 FQA DB Description: Reznicek, A.A., M.R. Penskar, B.S. Walters, and B.S. Slaughter. 2014. Michigan Floristic Quality Assessment Database. Herbarium, University of Michigan, Ann Arbor, MI and Michigan Natural Features

Practitioner: Liana May  
 Latitude:  
 Longitude:  
 Weather Notes:  
 Duration Notes: Growing season 2012  
 Community Type Notes: Upland mesic and dry-mesic northern forest; emergent marsh in swale. Logged.  
 Other Notes:  
 Private/Public: Public

Conservatism-Based Metrics:

Total Mean C: 3  
 Native Mean C: 3.9  
 Total FQI: 36.1  
 Native FQI: 40.9  
 Adjusted FQI: 34  
 % C value 0: 29  
 % C value 1-3: 27.6  
 % C value 4-6: 33.1  
 % C value 7-10: 10.3  
 Native Tree Mean C: 3.8  
 Native Shrub Mean C: 2.8  
 Native Herbaceous Mean C: 4.1

Species Richness:

Total Species: 145  
 Native Species: 110 75.90%  
 Non-native Species: 35 24.10%

Species Wetness:

Mean Wetness: 1.7  
 Native Mean Wetness: 1.3

Physiognomy Metrics:

Tree: 18 12.40%  
 Shrub: 11 7.60%  
 Vine: 3 2.10%  
 Forb: 83 57.20%  
 Grass: 13 9%  
 Sedge: 10 6.90%  
 Rush: 0 0%  
 Fern: 7 4.80%  
 Bryophyte: 0 0%

Duration Metrics:

Annual: 9 6.20%  
 Perennial: 132 91%  
 Biennial: 4 2.80%  
 Native Annual: 7 4.80%  
 Native Perennial: 101 69.70%  
 Native Biennial: 2 1.40%

Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Acer pensylvanicum	Sapindaceae	ACEPEN	native	5	3	tree	perennial	striped maple
Acer rubrum	Sapindaceae	ACERUB	native	1	0	tree	perennial	red maple
Acer saccharum	Sapindaceae	ACESAU	native	5	3	tree	perennial	sugar maple
Achillea millefolium	Asteraceae	ACHMIL	native	1	3	forb	perennial	yarrow
Acorus calamus	Acoraceae	ACOCAL	non-native	0	-5	forb	perennial	calamus
Actaea pachypoda	Ranunculaceae	ACTPAC	native	7	5	forb	perennial	dolls-eyes
Aegopodium podagraria	Apiaceae	AEGPOD	non-native	0	0	forb	perennial	goutweed
Agrimonia gryposepala	Rosaceae	AGRGRY	native	2	3	forb	perennial	tall agrimony
Agrostis gigantea	Poaceae	AGRGI	non-native	0	-3	grass	perennial	redtop
Allium tricoccum	Alliaceae	ALLTRI	native	5	3	forb	perennial	wild leek
Allium vineale	Alliaceae	ALLVIN	non-native	0	3	forb	perennial	field garlic
Ambrosia artemisiifolia	Asteraceae	AMBART	native	0	3	forb	annual	common ragweed
Amelanchier arborea	Rosaceae	AMEARB	native	4	3	tree	perennial	juneberry
Anaphalis margaritacea	Asteraceae	ANAMAR	native	3	5	forb	perennial	pearly everlasting
Aralia nudicaulis	Araliaceae	ARANUD	native	5	3	forb	perennial	wild sarsaparilla
Asclepias incarnata	Apocynaceae	ASCINC	native	6	-5	forb	perennial	swamp milkweed
Asclepias syriaca	Apocynaceae	ASCSYR	native	1	5	forb	perennial	common milkweed
Athyrium filix-femina	Athyriaceae	ATHFIL	native	4	0	fern	perennial	lady fern
Berteroa incana	Brassicaceae	BERINC	non-native	0	5	forb	annual	hoary alyssum
Betula papyrifera	Betulaceae	BETPAP	native	2	3	tree	perennial	paper birch

Boehmeria cylindrica	Urticaceae	BOEICYL	native	5	-5	forb	perennial	false nettle
Carex arctata	Cyperaceae	CXARTT	native	3	5	sedge	perennial	sedge
Carex crinita	Cyperaceae	CXCRIN	native	4	-5	sedge	perennial	sedge
Carex foenea; c. aenea	Cyperaceae	CXFOEN	native	3	5	sedge	perennial	sedge
Carex gracillima	Cyperaceae	CXGRAA	native	4	3	sedge	perennial	sedge
Carex ormostachya	Cyperaceae	CXORMO	native	5	5	sedge	perennial	sedge
Carex pedunculata	Cyperaceae	CXPEDU	native	5	3	sedge	perennial	sedge
Carex scoparia	Cyperaceae	CXCSCP	native	4	-3	sedge	perennial	sedge
Carex utriculata; c. rostrata	Cyperaceae	CXUTRI	native	5	-5	sedge	perennial	sedge
Cerastium fontanum	Caryophyllaceae	CERFON	non-native	0	3	forb	perennial	mouse-ear chickweed
Chamaedaphne calyculata	Ericaceae	CHACAL	native	8	-5	shrub	perennial	leatherleaf
Cirsium arvense	Asteraceae	CIRARV	non-native	0	3	forb	perennial	canada thistle
Cirsium vulgare	Asteraceae	CIRVUL	non-native	0	3	forb	biennial	bull thistle
Claytonia virginica	Montiaceae	CLAVIR	native	4	3	forb	perennial	spring-beauty
Clinopodium vulgare	Lamiaceae	CLIVUL	native	3	5	forb	perennial	wild-basil
Comarum palustre; potentilla p.	Rosaceae	COMPAL	native	7	-5	forb	perennial	marsh cinquefoil
Conopholis americana	Orobanchaceae	CONAME	native	10	5	forb	perennial	squaw-root
Conyza canadensis	Asteraceae	CONCAN	native	0	3	forb	annual	horseweed
Corallorhiza odontorhiza	Orchidaceae	CORODO	native	8	5	forb	perennial	fall coral-root
Cornus sericea; c. stolonifera	Cornaceae	CORSER	native	2	-3	shrub	perennial	red-osier
Danthonia spicata	Poaceae	DANSPI	native	4	5	grass	perennial	poverty grass; oatgrass
Dendrolycopodium obscurum; lycopodium o.	Lycopodiaceae	DENOBS	native	5	3	fern	perennial	ground-pine
Dicentra canadensis	Papaveraceae	DICCAN	native	7	5	forb	perennial	squirrel-corn
Dicentra cucullaria	Papaveraceae	DICCUC	native	7	5	forb	perennial	dutchmans-breeches
Dichanthelium implicatum; panicum i.	Poaceae	DICIMP	native	3	0	grass	perennial	panic grass
Dichanthelium meridionale; panicum m.	Poaceae	DICMER	native	7	5	grass	perennial	mat panic grass
Dryopteris intermedia	Dryopteridaceae	DRYINT	native	5	0	fern	perennial	evergreen woodfern
Dulichium arundinaceum	Cyperaceae	DULARU	native	8	-5	sedge	perennial	three-way sedge
Epifagus virginiana	Orobanchaceae	EPIVIR	native	10	5	forb	annual	beech-drops
Epilobium parviflorum	Onagraceae	EPIPAR	non-native	0	-5	forb	perennial	willow-herb
Epipactis helleborine	Orchidaceae	EPIHEL	non-native	0	0	forb	perennial	helleborine
Erechtites hieraciifolius	Asteraceae	EREHIE	native	2	3	forb	annual	fireweed
Erigeron strigosus	Asteraceae	ERISTR	native	4	3	forb	perennial	daisy fleabane
Erythronium americanum	Liliaceae	ERYAME	native	5	5	forb	perennial	yellow trout lily
Eupatorium perfoliatum	Asteraceae	EUPPER	native	4	-3	forb	perennial	boneset
Euphorbia maculata	Euphorbiaceae	EUPMAC	native	0	3	forb	annual	spotted spurge
Eurybia macrophylla; aster m.	Asteraceae	EURMAC	native	4	5	forb	perennial	big-leaved aster
Euthamia graminifolia	Asteraceae	EUTGRA	native	3	0	forb	perennial	grass-leaved goldenrod
Eutrochium maculatum; eupatorium m.	Asteraceae	EUTMAC	native	4	-5	forb	perennial	joe-pye-weed
Fagus grandifolia	Fagaceae	FAGGRA	native	6	3	tree	perennial	american beech
Fallopia cilinodis; polygonum c.	Polygonaceae	FALCIL	native	3	5	vine	perennial	fringed false buckwheat
Festuca saximontana	Poaceae	FESSAX	native	6	5	grass	perennial	fescue
Fragaria virginiana	Rosaceae	FRAVIR	native	2	3	forb	perennial	wild strawberry
Fraxinus americana	Oleaceae	FRAAME	native	5	3	tree	perennial	white ash
Galium lanceolatum	Rubiaceae	GALLAN	native	4	5	forb	perennial	yellow wild licorice
Galium odoratum	Rubiaceae	GALODO	non-native	0	5	forb	perennial	sweet woodruff
Galium trifidum	Rubiaceae	GALTRD	native	6	-3	forb	perennial	small bedstraw
Geum aleppicum	Rosaceae	GEUALE	native	3	0	forb	perennial	yellow avens
Goodyera oblongifolia	Orchidaceae	GOOBL	native	8	3	forb	perennial	menzies rattlesnake plantain
Hackelia virginiana	Boraginaceae	HACVIR	native	1	3	forb	biennial	beggars lice
Hieracium aurantiacum	Asteraceae	HIEAUR	non-native	0	5	forb	perennial	orange hawkweed
Hieracium piloselloides	Asteraceae	HIEPIS	non-native	0	5	forb	perennial	king devil
Hypericum perforatum	Hypericaceae	HYPPER	non-native	0	5	forb	perennial	common st. johns-wort
Juncus effusus	Juncaceae	JUNEFF	native	3	-5	forb	perennial	soft-stemmed rush
Juncus tenuis	Juncaceae	JUNTEN	native	1	0	forb	perennial	path rush
Juniperus communis	Cupressaceae	JUNCOI	native	4	3	shrub	perennial	common or ground juniper
Lemna minor	Araceae	LEMMIN	native	5	-5	forb	perennial	common duckweed
Leonurus cardiaca	Lamiaceae	LEOCAR	non-native	0	5	forb	perennial	motherwort
Leucanthemum vulgare; chrysanthemum leucanthemum	Asteraceae	LEUVUL	non-native	0	5	forb	perennial	ox-eye daisy
Lolium perenne	Poaceae	LOLPER	non-native	0	3	grass	perennial	ryegrass
Lonicera morrowii	Caprifoliaceae	LONMOR	non-native	0	3	shrub	perennial	morrow honeysuckle
Lycopus americanus	Lamiaceae	LYCAME	native	2	-5	forb	perennial	common water horehound
Maianthemum canadense	Convallariaceae	MAICAN	native	4	3	forb	perennial	canada mayflower
Malus pumila	Rosaceae	MALPUM	non-native	0	5	tree	perennial	apple
Malva moschata	Malvaceae	MALMOS	non-native	0	5	forb	perennial	musk mallow
Melica smithii	Poaceae	MELSMI	native	7	5	grass	perennial	melic grass
Oenothera oakesiana	Onagraceae	OENOAK	native	7	5	forb	biennial	evening-primrose
Onoclea sensibilis	Onocleaceae	ONOSEN	native	2	-3	fern	perennial	sensitive fern
Oryzopsis asperifolia	Poaceae	ORYASP	native	6	5	grass	perennial	rough-leaved rice-grass
Osmorhiza longistylis	Apiaceae	OSMLON	native	3	3	forb	perennial	smooth sweet-cicely
Osmunda regalis	Osmundaceae	OSMREG	native	5	-5	fern	perennial	royal fern
Ostrya virginiana	Betulaceae	OSTVIR	native	5	3	tree	perennial	ironwood; hop-hornbeam
Oxalis acetosella	Oxalidaceae	OXAACE	native	7	3	forb	perennial	northern wood-sorrel
Phalaris arundinacea	Poaceae	PHARAR	native	0	-3	grass	perennial	reed canary grass
Phleum pratense	Poaceae	PHLPRA	non-native	0	3	grass	perennial	timothy
Phytolacca americana	Phytolaccaceae	PHYAME	native	2	3	forb	perennial	pokeweed
Pilea fontana	Urticaceae	PILFON	native	5	-3	forb	annual	bog clearweed
Pinus strobus	Pinaceae	PINSTR	native	3	3	tree	perennial	white pine
Piptatherum racemosum; oryzopsis r.	Poaceae	PIPRAC	native	8	5	grass	perennial	rice-grass
Plantago lanceolata	Plantaginaceae	PLALAN	non-native	0	3	forb	perennial	english plantain
Plantago rugelii	Plantaginaceae	PLARUG	native	0	0	forb	perennial	red-stalked plantain
Poa compressa	Poaceae	POACOM	non-native	0	3	grass	perennial	canada bluegrass
Polygonatum pubescens	Convallariaceae	POLPUB	native	5	5	forb	perennial	downy solomon seal
Populus grandidentata	Salicaceae	POPGRA	native	4	3	tree	perennial	big-tooth aspen

Populus tremuloides	Salicaceae	POPTRE	native	1	0	tree	perennial	quaking aspen
Potentilla norvegica	Rosaceae	POTNOR	native	0	0	forb	annual	rough cinquefoil
Prunus pensylvanica	Rosaceae	PRUPEN	native	3	3	tree	perennial	pin cherry
Prunus serotina	Rosaceae	PRUSER	native	2	3	tree	perennial	wild black cherry
Pteridium aquilinum	Dennstaedtiaceae	PTEAQU	native	0	3	fern	perennial	bracken fern
Quercus rubra	Fagaceae	QUERUB	native	5	3	tree	perennial	red oak
Robinia pseudoacacia	Fabaceae	ROBPSE	non-native	0	3	tree	perennial	black locust
Rubus allegheniensis	Rosaceae	RUBALL	native	1	3	shrub	perennial	common blackberry
Rubus occidentalis	Rosaceae	RUBOCC	native	1	5	shrub	perennial	black raspberry
Rubus strigosus	Rosaceae	RUBSTR	native	2	0	shrub	perennial	wild red raspberry
Rudbeckia hirta	Asteraceae	RUDHIR	native	1	3	forb	perennial	black-eyed susan
Rumex acetosella	Polygonaceae	RUMACL	non-native	0	3	forb	perennial	sheep sorrel
Rumex crispus	Polygonaceae	RUMCRI	non-native	0	0	forb	perennial	curly dock
Salix lucida	Salicaceae	SALLUC	native	3	-3	shrub	perennial	shining willow
Salix petiolaris	Salicaceae	SALPET	native	1	-3	shrub	perennial	slender willow
Sambucus racemosa	Adoxaceae	SAMRAC	native	3	3	shrub	perennial	red-berried elder
Schedonorus arundinaceus; festuca a.	Poaceae	SCHARU	non-native	0	3	grass	perennial	tall fescue
Scirpus cyperinus	Cyperaceae	SCICYP	native	5	-5	sedge	perennial	wool-grass
Scrophularia lanceolata	Scrophulariaceae	SCRLAN	native	5	3	forb	perennial	early figwort
Silene coronaria; lychnis c.	Caryophyllaceae	SILCOR	non-native	0	5	forb	perennial	mullein pink
Silene vulgaris	Caryophyllaceae	SILVUL	non-native	0	5	forb	perennial	bladder campion
Solidago altissima	Asteraceae	SOLALT	native	1	3	forb	perennial	tall goldenrod
Solidago caesia	Asteraceae	SOLCAE	native	6	3	forb	perennial	bluestem goldenrod
Solidago gigantea	Asteraceae	SOLGIG	native	3	-3	forb	perennial	late goldenrod
Solidago rugosa	Asteraceae	SOLRUG	native	3	0	forb	perennial	rough-leaved goldenrod
Sorbaria sorbifolia	Rosaceae	SORSOR	non-native	0	5	shrub	perennial	false spiraea
Taraxacum officinale	Asteraceae	TAROFF	non-native	0	3	forb	perennial	common dandelion
Thelypteris palustris	Thelypteridaceae	THEPAL	native	2	-3	fern	perennial	marsh fern
Tilia americana	Malvaceae	TILAME	native	5	3	tree	perennial	basswood
Triadenum fraseri	Hypericaceae	TRIFRA	native	6	-5	forb	perennial	marsh st. johns-wort
Trientalis borealis	Myrsinaceae	TRIBOR	native	5	0	forb	perennial	star-flower
Trifolium hybridum	Fabaceae	TRIHYP	non-native	0	3	forb	perennial	alsike clover
Tsuga canadensis	Pinaceae	TSUCAN	native	5	3	tree	perennial	hemlock
Typha latifolia	Typhaceae	TYPLAT	native	1	-5	forb	perennial	broad-leaved cat-tail
Verbascum thapsus	Scrophulariaceae	VERTHA	non-native	0	5	forb	biennial	common mullein
Verbena hastata	Verbenaceae	VERHAS	native	4	-3	forb	perennial	blue vervain
Veronica officinalis	Plantaginaceae	VEROOF	non-native	0	3	forb	perennial	common speedwell
Vicia villosa	Fabaceae	VICVIL	non-native	0	5	vine	annual	hairy vetch
Viola canadensis	Violaceae	VIOCAN	native	5	3	forb	perennial	canada violet
Viola pubescens	Violaceae	VIOPUB	native	4	3	forb	perennial	yellow violet
Vitis riparia	Vitaceae	VITRIP	native	3	0	vine	perennial	river-bank grape