

2021 Covenant Park Botanical Inventory Results

City of Kentwood, Kent County, State of Michigan

Practitioners: Haley Weesies, Garrett Crow, Dave Warners

Community Type: Floodplain Forest

Conservatism-Based Metrics

Total Mean C:	2.9
Native Mean C:	3.8
Total FQI:	38.3
Native FQI:	43.3
Adjusted FQI:	32.8
% C value 0:	29.3
% C value 1-3:	25.3
% C value 4-6:	36.8
% C value 7-10:	8.6
Native Tree Mean C:	4.7
Native Shrub Mean C:	2.7
Native Herbaceous Mean C:	3.7

Species Wetness (-5 to +5)

Mean Wetness:	0.3
Native Mean Wetness:	-0.4

Species Richness

Total Species:	174	
Native Species:	130	74.70%
Non-native Species:	44	25.30%

Physiognomy Metrics

Tree:	31	17.80%
Shrub:	18	10.30%
Vine:	7	4%
Forb:	89	51.10%
Grass:	8	4.60%
Sedge:	18	10.30%
Rush:	1	0.60%
Fern:	2	1.10%

Duration Metrics

Annual:	8	4.60%
Perennial:	155	89.10%
Biennial:	11	6.30%
Native Annual:	5	2.90%
Native Perennial:	121	69.50%
Native Biennial:	4	2.30%

Complete Species List

Scientific Name	Family	Native?	C-value	Wetness	Physiognomy	Duration	Common Name
<i>Acer negundo</i>	Sapindaceae	native	0		0 tree	perennial	box-elder
<i>Acer rubrum</i>	Sapindaceae	native	1		0 tree	perennial	red maple
<i>Acer saccharinum</i>	Sapindaceae	native	2		-3 tree	perennial	silver maple

<i>Acer saccharum</i>	Sapindaceae	native	5	3 tree	perennial	sugar maple
<i>Adiantum pedatum</i>	Pteridaceae	native	6	3 fern	perennial	maidenhair fern
<i>Agrimonia gryposepala</i>	Rosaceae	native	2	3 forb	perennial	tall agrimony
<i>Agrimonia pubescens</i>	Rosaceae	native	5	5 forb	perennial	soft agrimony
<i>Ajuga reptans</i>	Lamiaceae	non-native	0	5 forb	perennial	carpet bugle
<i>Alisma subcordatum</i>	Alismataceae	native	1	-5 forb	perennial	southern water-plantain
<i>Alisma triviale</i>	Alismataceae	native	1	-5 forb	perennial	northern water-plantain
<i>Alliaria petiolata</i>	Brassicaceae	non-native	0	3 forb	biennial	garlic mustard
<i>Allium vineale</i>	Alliaceae	non-native	0	3 forb	perennial	field garlic
<i>Anemone canadensis</i>	Ranunculaceae	native	4	-3 forb	perennial	canada anemone
<i>Apocynum androsaemifolium</i>	Apocynaceae	native	3	5 forb	perennial	spreading dogbane
<i>Arctium minus</i>	Asteraceae	non-native	0	3 forb	biennial	common burdock
<i>Arisaema dracontium</i>	Araceae	native	8	-3 forb	perennial	green dragon
<i>Asclepias incarnata</i>	Apocynaceae	native	6	-5 forb	perennial	swamp milkweed
<i>Asclepias syriaca</i>	Apocynaceae	native	1	5 forb	perennial	common milkweed
<i>Asimina triloba</i>	Annonaceae	native	9	0 tree	perennial	pawpaw
<i>Barbarea vulgaris</i>	Brassicaceae	non-native	0	0 forb	biennial	yellow rocket
<i>Berberis thunbergii</i>	Berberidaceae	non-native	0	3 shrub	perennial	japanese barberry
<i>Boehmeria cylindrica</i>	Urticaceae	native	5	-5 forb	perennial	false nettle
<i>Cardamine bulbosa</i>	Brassicaceae	native	4	-5 forb	perennial	spring cress
<i>Cardamine concatenata</i>	Brassicaceae	native	5	3 forb	perennial	cut-leaved toothwort
<i>Cardamine hirsuta</i>	Brassicaceae	non-native	0	3 forb	annual	hoary bitter cress
<i>Carex albursina</i>	Cyperaceae	native	5	5 sedge	perennial	sedge
<i>Carex bebbii</i>	Cyperaceae	native	4	-5 sedge	perennial	sedge
<i>Carex blanda</i>	Cyperaceae	native	1	0 sedge	perennial	sedge
<i>Carex emoryi</i>	Cyperaceae	native	7	-5 sedge	perennial	sedge
<i>Carex gracillima</i>	Cyperaceae	native	4	3 sedge	perennial	sedge
<i>Carex granularis</i>	Cyperaceae	native	2	-3 sedge	perennial	sedge
<i>Carex grayi</i>	Cyperaceae	native	6	-3 sedge	perennial	sedge
<i>Carex grisea</i>	Cyperaceae	native	3	0 sedge	perennial	sedge
<i>Carex jamesii</i>	Cyperaceae	native	8	5 sedge	perennial	james sedge
<i>Carex lupulina</i>	Cyperaceae	native	4	-5 sedge	perennial	sedge
<i>Carex ormostachya</i>	Cyperaceae	native	5	5 sedge	perennial	sedge
<i>Carex pensylvanica</i>	Cyperaceae	native	4	5 sedge	perennial	sedge
<i>Carex radiata; c. rosea</i>	Cyperaceae	native	2	0 sedge	perennial	straight-styled wood sedge
<i>Carex stipata</i>	Cyperaceae	native	1	-5 sedge	perennial	sedge

<i>Carex stricta</i>	Cyperaceae	native	4	-5 sedge	perennial	sedge
<i>Carex swanii</i>	Cyperaceae	native	4	3 sedge	perennial	sedge
<i>Carex trichocarpa</i>	Cyperaceae	native	8	-5 sedge	perennial	hairy-fruited sedge
<i>Carex vulpinoidea</i>	Cyperaceae	native	1	-5 sedge	perennial	sedge
<i>Carya laciniosa</i>	Juglandaceae	native	9	-3 tree	perennial	shellbark hickory
<i>Catalpa speciosa</i>	Bignoniaceae	non-native	0	3 tree	perennial	northern catalpa
<i>Celastrus orbiculatus</i>	Celastraceae	non-native	0	5 vine	perennial	oriental bittersweet
<i>Celtis occidentalis</i>	Cannabaceae	native	5	0 tree	perennial	hackberry
<i>Centaurea stoebe</i>	Asteraceae	non-native	0	5 forb	biennial	spotted knapweed
<i>Cephalanthus occidentalis</i>	Rubiaceae	native	7	-5 shrub	perennial	buttonbush
<i>Cicuta maculata</i>	Apiaceae	native	4	-5 forb	biennial	water hemlock
<i>Circaea canadensis</i>	Onagraceae	native	2	3 forb	perennial	enchanters-nightsshade
<i>Cirsium arvense</i>	Asteraceae	non-native	0	3 forb	perennial	canada thistle
<i>Cirsium vulgare</i>	Asteraceae	non-native	0	3 forb	biennial	bull thistle
<i>Claytonia virginica</i>	Montiaceae	native	4	3 forb	perennial	spring-beauty
<i>Clematis virginiana</i>	Ranunculaceae	native	4	0 vine	perennial	virgins bower
<i>Cornus amomum</i>	Cornaceae	native	2	-3 shrub	perennial	silky dogwood
<i>Cornus florida</i>	Cornaceae	native	8	3 tree	perennial	flowering dogwood
<i>Cornus sericea</i>	Cornaceae	native	2	-3 shrub	perennial	red-osier
<i>Daucus carota</i>	Apiaceae	non-native	0	5 forb	biennial	queen-annes-lace
<i>Dipsacus fullonum</i>	Dipsacaceae	non-native	0	3 forb	perennial	wild teasel
<i>Elaeagnus umbellata</i>	Elaeagnaceae	non-native	0	3 shrub	perennial	autumn-olive
<i>Elymus virginicus</i>	Poaceae	native	4	-3 grass	perennial	virginia wild-rye
<i>Enemion biternatum</i>	Ranunculaceae	native	8	0 forb	perennial	false rue-anemone
<i>Equisetum arvense</i>	Equisetaceae	native	0	0 fern	perennial	common horsetail
<i>Erigeron annuus</i>	Asteraceae	native	0	3 forb	biennial	daisy fleabane
<i>Erythronium albidum</i>	Liliaceae	native	7	3 forb	perennial	white trout lily
<i>Erythronium americanum</i>	Liliaceae	native	5	5 forb	perennial	yellow trout lily
<i>Euonymus alatus</i>	Celastraceae	non-native	0	5 shrub	perennial	winged euonymus
<i>Eutrochium maculatum</i>	Asteraceae	native	4	-5 forb	perennial	joe-pye-weed
<i>Fagus grandifolia</i>	Fagaceae	native	6	3 tree	perennial	american beech
<i>Fallopia convolvulus</i>	Polygonaceae	non-native	0	3 vine	annual	false buckwheat
<i>Fragaria virginiana</i>	Rosaceae	native	2	3 forb	perennial	wild strawberry
<i>Fraxinus americana</i>	Oleaceae	native	5	3 tree	perennial	white ash
<i>Fraxinus nigra</i>	Oleaceae	native	6	-3 tree	perennial	black ash
<i>Fraxinus pennsylvanica</i>	Oleaceae	native	2	-3 tree	perennial	red ash

<i>Galium aparine</i>	Rubiaceae	native	0	3 forb	annual	annual bedstraw
<i>Galium obtusum</i>	Rubiaceae	native	5	-3 forb	perennial	wild madder
<i>Geum canadense</i>	Rosaceae	native	1	0 forb	perennial	white avens
<i>Geum vernum</i>	Rosaceae	native	4	3 forb	perennial	spring avens
<i>Glechoma hederacea</i>	Lamiaceae	non-native	0	3 forb	perennial	ground-ivy
<i>Glyceria striata</i>	Poaceae	native	4	-5 grass	perennial	fowl manna grass
<i>Hackelia virginiana</i>	Boraginaceae	native	1	3 forb	biennial	beggars lice
<i>Hesperis matronalis</i>	Brassicaceae	non-native	0	3 forb	perennial	dames rocket
<i>Hypericum punctatum</i>	Hypericaceae	native	4	0 forb	perennial	spotted st. johns-wort
<i>Impatiens capensis</i>	Balsaminaceae	native	2	-3 forb	annual	spotted touch-me-not
<i>Iris virginica</i>	Iridaceae	native	5	-5 forb	perennial	southern blue flag
<i>Juglans nigra</i>	Juglandaceae	native	5	3 tree	perennial	black walnut
<i>Juncus tenuis</i>	Juncaceae	native	1	0 rush	perennial	path rush
<i>Laportea canadensis</i>	Urticaceae	native	4	-3 forb	perennial	wood nettle
<i>Leersia oryzoides</i>	Poaceae	native	3	-5 grass	perennial	cut grass
<i>Leersia virginica</i>	Poaceae	native	5	-3 grass	perennial	white grass
<i>Leonurus cardiaca</i>	Lamiaceae	non-native	0	5 forb	perennial	motherwort
<i>Leucanthemum vulgare</i>	Asteraceae	non-native	0	5 forb	perennial	ox-eye daisy
<i>Lobelia cardinalis</i>	Campanulaceae	native	7	-5 forb	perennial	cardinal-flower
<i>Lonicera morrowii</i>	Caprifoliaceae	non-native	0	3 shrub	perennial	morrow honeysuckle
<i>Lonicera vóbella</i>	Caprifoliaceae	non-native	0	3 shrub	perennial	hybrid honeysuckle
<i>Lycopus americanus</i>	Lamiaceae	native	2	-5 forb	perennial	common water horehound
<i>Lysimachia ciliata</i>	Myrsinaceae	native	4	-3 forb	perennial	fringed loosestrife
<i>Lysimachia nummularia</i>	Myrsinaceae	non-native	0	-3 forb	perennial	moneywort
<i>Lythrum salicaria</i>	Lythraceae	non-native	0	-5 forb	perennial	purple loosestrife
<i>Malus pumila</i>	Rosaceae	non-native	0	5 tree	perennial	apple
<i>Mentha canadensis</i>	Lamiaceae	native	3	-3 forb	perennial	wild mint
<i>Mimulus ringens</i>	Phrymaceae	native	5	-5 forb	perennial	monkey-flower
<i>Moehringia lateriflora</i>	Caryophyllaceae	native	5	3 forb	perennial	wood sandwort
<i>Monarda fistulosa</i>	Lamiaceae	native	2	3 forb	perennial	wild-bergamot
<i>Morus alba</i>	Moraceae	non-native	0	3 tree	perennial	white mulberry
<i>Ostrya virginiana</i>	Betulaceae	native	5	3 tree	perennial	ironwood; hop-hornbeam
<i>Oxalis stricta; o. fontana</i>	Oxalidaceae	native	0	3 forb	perennial	yellow wood-sorrel
<i>Parthenocissus quinquefolia</i>	Vitaceae	native	5	3 vine	perennial	virginia creeper
<i>Persicaria hydropiperoides</i>	Polygonaceae	native	5	-5 forb	perennial	mild water-pepper
<i>Persicaria maculosa</i>	Polygonaceae	non-native	0	0 forb	annual	lady's-thumb

<i>Persicaria punctata</i>	Polygonaceae	native	5	-5 forb	annual	smartweed
<i>Persicaria sagittata</i>	Polygonaceae	native	5	-5 forb	annual	arrow-leaved tear-thumb
<i>Persicaria virginiana</i>	Polygonaceae	native	4	0 forb	perennial	jumpseed
<i>Phalaris arundinacea</i>	Poaceae	native	0	-3 grass	perennial	reed canary grass
<i>Phytolacca americana</i>	Phytolaccaceae	native	2	3 forb	perennial	pokeweed
<i>Plantago major</i>	Plantaginaceae	non-native	0	3 forb	perennial	common plantain
<i>Platanus occidentalis</i>	Platanaceae	native	7	-3 tree	perennial	sycamore
<i>Poa languida</i>	Poaceae	native	6	5 grass	perennial	bluegrass
<i>Poa pratensis</i>	Poaceae	non-native	0	3 grass	perennial	kentucky bluegrass
<i>Poa saltuensis</i>	Poaceae	native	5	5 grass	perennial	bluegrass
<i>Podophyllum peltatum</i>	Berberidaceae	native	3	3 forb	perennial	may-apple
<i>Populus deltoides</i>	Salicaceae	native	1	0 tree	perennial	cottonwood
<i>Potentilla recta</i>	Rosaceae	non-native	0	5 forb	perennial	rough-fruited cinquefoil
<i>Prunella vulgaris</i>	Lamiaceae	native	0	0 forb	perennial	self-heal
<i>Prunus serotina</i>	Rosaceae	native	2	3 tree	perennial	wild black cherry
<i>Pyrus calleryana</i>	Rosaceae	non-native	0	5 tree	perennial	callery pear
<i>Quercus bicolor</i>	Fagaceae	native	8	-3 tree	perennial	swamp white oak
<i>Quercus macrocarpa</i>	Fagaceae	native	5	3 tree	perennial	bur oak
<i>Quercus muehlenbergii</i>	Fagaceae	native	5	3 tree	perennial	chinquapin oak
<i>Quercus rubra</i>	Fagaceae	native	5	3 tree	perennial	red oak
<i>Ranunculus hispidus</i>	Ranunculaceae	native	5	0 forb	perennial	swamp buttercup
<i>Rhamnus cathartica</i>	Rhamnaceae	non-native	0	0 tree	perennial	common buckthorn
<i>Rhus typhina</i>	Anacardiaceae	native	2	3 shrub	perennial	staghorn sumac
<i>Ribes cynosbati</i>	Grossulariaceae	native	4	3 shrub	perennial	prickly or wild gooseberry
<i>Rorippa palustris</i>	Brassicaceae	native	1	-5 forb	annual	yellow cress
<i>Rosa multiflora</i>	Rosaceae	non-native	0	3 shrub	perennial	multiflora rose
<i>Rubus allegheniensis</i>	Rosaceae	native	1	3 shrub	perennial	common blackberry
<i>Rubus occidentalis</i>	Rosaceae	native	1	5 shrub	perennial	black raspberry
<i>Rudbeckia laciniata</i>	Asteraceae	native	6	-3 forb	perennial	cut-leaf coneflower
<i>Rumex crispus</i>	Polygonaceae	non-native	0	0 forb	perennial	curly dock
<i>Rumex obtusifolius</i>	Polygonaceae	non-native	0	0 forb	perennial	bitter dock
<i>Rumex verticillatus</i>	Polygonaceae	native	7	-5 forb	perennial	water dock
<i>Salix discolor</i>	Salicaceae	native	1	-3 shrub	perennial	pussy willow
<i>Salix exigua</i>	Salicaceae	native	1	-3 shrub	perennial	sandbar willow
<i>Salix nigra</i>	Salicaceae	native	5	-5 tree	perennial	black willow
<i>Sambucus canadensis</i>	Adoxaceae	native	3	-3 shrub	perennial	elderberry

<i>Sanicula canadensis</i>	Apiaceae	native	8	3 forb	biennial	black snakeroot
<i>Sassafras albidum</i>	Lauraceae	native	5	3 tree	perennial	sassafras
<i>Solanum carolinense</i>	Solanaceae	non-native	0	3 forb	perennial	horse-nettle
<i>Solanum dulcamara</i>	Solanaceae	non-native	0	0 vine	perennial	bittersweet nightshade
<i>Solidago canadensis</i>	Asteraceae	native	1	3 forb	perennial	canada goldenrod
<i>Stachys hispida</i>	Lamiaceae	native	5	-3 forb	perennial	hedge-nettle
<i>Symplocarpus foetidus</i>	Araceae	native	6	-5 forb	perennial	skunk-cabbage
<i>Taraxacum officinale</i>	Asteraceae	non-native	0	3 forb	perennial	common dandelion
<i>Thalictrum dasycarpum</i>	Ranunculaceae	native	3	-3 forb	perennial	purple meadow-rue
<i>Thalictrum dioicum</i>	Ranunculaceae	native	6	3 forb	perennial	early meadow-rue
<i>Thuja occidentalis</i>	Cupressaceae	native	4	-3 tree	perennial	arbor vitae
<i>Tilia americana</i>	Malvaceae	native	5	3 tree	perennial	basswood
<i>Toxicodendron radicans</i>	Anacardiaceae	native	2	0 vine	perennial	poison-ivy
<i>Trifolium repens</i>	Fabaceae	non-native	0	3 forb	perennial	white clover
<i>Typha angustifolia</i>	Typhaceae	non-native	0	-5 forb	perennial	narrow-leaved cat-tail
<i>Ulmus americana</i>	Ulmaceae	native	1	-3 tree	perennial	american elm
<i>Urtica dioica</i>	Urticaceae	native	1	0 forb	perennial	stinging nettle
<i>Verbascum thapsus</i>	Scrophulariaceae	non-native	0	5 forb	biennial	common mullein
<i>Verbena urticifolia</i>	Verbenaceae	native	4	0 forb	perennial	white vervain
<i>Vernonia missurica</i>	Asteraceae	native	4	0 forb	perennial	missouri ironweed
<i>Veronica serpyllifolia</i>	Plantaginaceae	non-native	0	0 forb	perennial	thyme-leaved speedwell
<i>Viburnum acerifolium</i>	Adoxaceae	native	6	5 shrub	perennial	maple-leaved viburnum
<i>Viburnum opulus</i>	Adoxaceae	non-native	0	-3 shrub	perennial	european highbush-cranberry
<i>Viola pubescens</i>	Violaceae	native	4	3 forb	perennial	yellow violet
<i>Viola sororia</i>	Violaceae	native	1	0 forb	perennial	common blue violet
<i>Viola striata</i>	Violaceae	native	5	-3 forb	perennial	cream violet
<i>Vitis riparia</i>	Vitaceae	native	3	0 vine	perennial	river-bank grape