Plaster Creek Floodplain at Stanaback Park
2021 Botanical Inventory Results
Calvin University Herbarium

Metrics of Natural Quality	
Total Mean C value	3.3
Native Mean C value	4
Total FQI	48.4
Native FQI	52.8
% C value 0	21.9
% C value 1-3	26
% C value 4-6	43.7
% C value 7-10	8.4

Species Wetness	
Mean Wetness	-0.4
Native Mean Wetness	-0.9

Species Richness		
Total Species	215	
Native Species	174	81%
Non-native Species	41	19%

Physiognomy Metrics		
Tree	28	13.0%
Shrub	8	3.7%
Vine	9	4.2%
Forb	114	53.0%
Grass	20	9.3%
Sedge	23	10.7%
Rush	3	1.4%
Fern	10	4.6%

Duration Metrics		
Annual	13	6.0%
Perennial	189	87.4%
Biennial	14	6.5%
Native Annual	7	3.3%
Native Perennial	163	75.3%
Native Biennial	5	2.3%

Species List							
Scientific Name	Family	Native?	C value	Wetness	Physiognomy	Duration	Common Name
Acer negundo	Sapindaceae	native	0	0	tree	perennial	box-elder
Acer nigrum	Sapindaceae	native	4	3	tree	perennial	black maple
Acer saccharinum	Sapindaceae	native	2	-3	tree	perennial	silver maple
Acer saccharum	Sapindaceae	native	5	3	tree	perennial	sugar maple

Ageratina altissima	Asteraceae	native	4	3	forb	perennial	white snakeroot
Agrimonia gryposepala	Rosaceae	native	2	3	forb	perennial	tall agrimony
Agrimonia parviflora	Rosaceae	native	4	0	forb	perennial	swamp agrimony
Agrostis stolonifera	Poaceae	non-native	0	-3	grass	perennial	creeping bent
Alisma triviale	Alismataceae	native	1	-5	forb	perennial	northern water-plantain
Alliaria petiolata	Brassicaceae	non-native	0	3	forb	biennial	garlic mustard
Allium canadense	Alliaceae	native	4	3	forb	perennial	wild garlic
Allium vineale	Alliaceae	non-native	0	3	forb	perennial	field garlic
Amphicarpaea bracteata	Fabaceae	native	5	0	vine	annual	hog-peanut
Anemone canadensis	Ranunculaceae	native	4	-3	forb	perennial	canada anemone
Apocynum androsaemifolium	Apocynaceae	native	3	5	forb	perennial	spreading dogbane
Arabis pycnocarpa	Brassicaceae	native	6	3	forb	biennial	hairy rock cress
Arctium minus	Asteraceae	non-native	0	3	forb	biennial	common burdock
Arisaema dracontium	Araceae	native	8	-3	forb	perennial	green dragon
Arisaema triphyllum	Araceae	native	5	0	forb	perennial	jack-in-the-pulpit
Asclepias incarnata	Apocynaceae	native	6	-5	forb	perennial	swamp milkweed
Asclepias syriaca	Apocynaceae	native	1	5	forb	perennial	common milkweed
Asimina triloba	Annonaceae	native	9	0	tree	perennial	pawpaw
Asplenium platyneuron	Aspleniaceae	native	2	3	fern	perennial	ebony spleenwort
Barbarea vulgaris	Brassicaceae	non-native	0	0	forb	biennial	yellow rocket
Boechera canadensis	Brassicaceae	native	7	5	forb	biennial	sickle-pod
Boechera laevigata	Brassicaceae	native	5	5	forb	biennial	smooth bank cress
Boehmeria cylindrica	Urticaceae	native	5	-5	forb	perennial	false nettle
Bromus nottowayanus	Poaceae	native	7	0	grass	perennial	satin brome
Bromus pubescens	Poaceae	native	5	3	grass	perennial	canada brome
Cardamine bulbosa	Brassicaceae	native	4	-5	forb	perennial	spring cress
Cardamine impatiens	Brassicaceae	non-native	0	3	forb	annual	bitter cress
Carex aquatilis	Cyperaceae	native	7	-5	sedge	perennial	sedge
Carex bebbii	Cyperaceae	native	4	-5	sedge	perennial	sedge
Carex blanda	Cyperaceae	native	1	0	sedge	perennial	sedge
Carex cristatella	Cyperaceae	native	3	-3	sedge	perennial	sedge
Carex disperma	Cyperaceae	native	10	-5	sedge	perennial	sedge
Carex echinodes	Cyperaceae	native	5	-3	sedge	perennial	sedge
Carex gracillima	Cyperaceae	native	4	3	sedge	perennial	sedge
Carex granularis	Cyperaceae	native	2	-3	sedge	perennial	sedge

Carex grayi	Cyperaceae	native	6	-3	sedge	perennial	sedge
Carex grisea	Cyperaceae	native	3	0	sedge	perennial	sedge
Carex lupulina	Cyperaceae	native	4	-5	sedge	perennial	sedge
Carex molesta	Cyperaceae	native	2	0	sedge	perennial	sedge
Carex normalis	Cyperaceae	native	5	-3	sedge	perennial	sedge
Carex radiata	Cyperaceae	native	2	0	sedge	perennial	straight-styled wood sedge
Carex scoparia	Cyperaceae	native	4	-3	sedge	perennial	sedge
Carex sparganioides	Cyperaceae	native	5	3	sedge	perennial	sedge
Carex sprengelii	Cyperaceae	native	5	0	sedge	perennial	sedge
Carex stipata	Cyperaceae	native	1	-5	sedge	perennial	sedge
Carex swanii	Cyperaceae	native	4	3	sedge	perennial	sedge
Carex trichocarpa	Cyperaceae	native	8	-5	sedge	perennial	hairy-fruited sedge
Carex vulpinoidea	Cyperaceae	native	1	-5	sedge	perennial	sedge
Carpinus caroliniana	Betulaceae	native	6	0	tree	perennial	blue-beech
Carya cordiformis	Juglandaceae	native	5	0	tree	perennial	bitternut hickory
Catalpa speciosa	Bignoniaceae	non-native	0	3	tree	perennial	northern catalpa
Celtis occidentalis	Cannabaceae	native	5	0	tree	perennial	hackberry
Cephalanthus occidentalis	Rubiaceae	native	7	-5	shrub	perennial	buttonbush
Cerastium fontanum	Caryophyllaceae	non-native	0	3	forb	perennial	mouse-ear chickweed
Cerastium nutans	Caryophyllaceae	native	4	3	forb	annual	nodding chickweed
Cercis canadensis	Fabaceae	native	8	3	tree	perennial	redbud
Chrysosplenium americanum	Saxifragaceae	native	6	-5	forb	perennial	golden saxifrage
Cinna arundinacea	Poaceae	native	7	-3	grass	perennial	wood reedgrass
Circaea canadensis	Onagraceae	native	2	3	forb	perennial	enchanters-nightshade
Cirsium arvense	Asteraceae	non-native	0	3	forb	perennial	canada thistle
Cirsium vulgare	Asteraceae	non-native	0	3	forb	biennial	bull thistle
Claytonia virginica	Montiaceae	native	4	3	forb	perennial	spring-beauty
Clematis virginiana	Ranunculaceae	native	4	0	vine	perennial	virgins bower
Clinopodium vulgare	Lamiaceae	native	3	5	forb	perennial	wild-basil
Crataegus punctata	Rosaceae	native	1	3	tree	perennial	dotted hawthorn
Crataegus succulenta	Rosaceae	native	5	5	tree	perennial	hawthorn
Cryptotaenia canadensis	Apiaceae	native	2	0	forb	perennial	honewort
Cuscuta gronovii	Convolvulaceae	native	3	-3	vine	annual	common dodder
Cystopteris bulbifera	Cystopteridaceae	native	5	-3	fern	perennial	bulblet fern
Cystopteris protrusa	Cystopteridaceae	native	5	3	fern	perennial	fragile fern

Cystopteris tenuis	Cystopteridaceae	native	5	5	fern	perennial	fragile fern
Dactylis glomerata	Poaceae	non-native	0	3	grass	perennial	orchard grass
Danthonia spicata	Poaceae	native	4	5	grass	perennial	poverty grass; oatgrass
Diarrhena obovata	Poaceae	native	9	-3	grass	perennial	beak grass
Dichanthelium lindheimeri	Poaceae	native	8	-5	grass	perennial	panic grass
Dioscorea villosa	Dioscoreaceae	native	4	0	forb	perennial	wild yam
Dryopteris carthusiana	Dryopteridaceae	native	5	-3	fern	perennial	spinulose woodfern
Echinochloa crusgalli	Poaceae	non-native	0	0	grass	annual	barnyard grass
Elaeagnus umbellata	Elaeagnaceae	non-native	0	3	shrub	perennial	autumn-olive
Elymus hystrix	Poaceae	native	5	3	grass	perennial	bottlebrush grass
Elymus riparius	Poaceae	native	8	-3	grass	perennial	riverbank wild-rye
Elymus villosus	Poaceae	native	5	3	grass	perennial	silky wild-rye
Elymus virginicus	Poaceae	native	4	-3	grass	perennial	virginia wild-rye
Epipactis helleborine	Orchidaceae	non-native	0	0	forb	perennial	helleborine
Equisetum arvense	Equisetaceae	native	0	0	fern	perennial	common horsetail
Equisetum hyemale	Equisetaceae	native	2	0	fern	perennial	scouring rush
Erigeron annuus	Asteraceae	native	0	3	forb	biennial	daisy fleabane
Erigeron strigosus	Asteraceae	native	4	3	forb	perennial	daisy fleabane
Eutrochium maculatum	Asteraceae	native	4	-5	forb	perennial	joe-pye-weed
Fagus grandifolia	Fagaceae	native	6	3	tree	perennial	american beech
Fragaria virginiana	Rosaceae	native	2	3	forb	perennial	wild strawberry
Fraxinus nigra	Oleaceae	native	6	-3	tree	perennial	black ash
Fraxinus pennsylvanica	Oleaceae	native	2	-3	tree	perennial	red ash
Galium obtusum	Rubiaceae	native	5	-3	forb	perennial	wild madder
Galium palustre	Rubiaceae	native	3	-5	forb	perennial	marsh bedstraw
Geranium maculatum	Geraniaceae	native	4	3	forb	perennial	wild geranium
Geum canadense	Rosaceae	native	1	0	forb	perennial	white avens
Glechoma hederacea	Lamiaceae	non-native	0	3	forb	perennial	ground-ivy
Glyceria striata	Poaceae	native	4	-5	grass	perennial	fowl manna grass
Hackelia virginiana	Boraginaceae	native	1	3	forb	biennial	beggars lice
Hesperis matronalis	Brassicaceae	non-native	0	3	forb	perennial	dames rocket
Hieracium caespitosum	Asteraceae	non-native	0	5	forb	perennial	king devil
Hypericum perforatum	Hypericaceae	non-native	0	5	forb	perennial	common st. johns-wort
Hypericum punctatum	Hypericaceae	native	4	0	forb	perennial	spotted st. johns-wort
Impatiens capensis	Balsaminaceae	native	2	-3	forb	annual	spotted touch-me-not

Iris pseudacorus	Iridaceae	non-native	0	-5	forb	perennial	yellow flag
Iris virginica	Iridaceae	native	5	-5	forb	perennial	southern blue flag
Juglans nigra	Juglandaceae	native	5	3	tree	perennial	black walnut
Juncus dudleyi	Juncaceae	native	1	-3	rush	perennial	dudleys rush
Juncus effusus	Juncaceae	native	3	-5	rush	perennial	soft-stemmed rush
Juncus tenuis	Juncaceae	native	1	0	rush	perennial	path rush
Laportea canadensis	Urticaceae	native	4	-3	forb	perennial	wood nettle
Leersia oryzoides	Poaceae	native	3	-5	grass	perennial	cut grass
Leersia virginica	Poaceae	native	5	-3	grass	perennial	white grass
Lindera benzoin	Lauraceae	native	7	-3	shrub	perennial	spicebush
Lobelia cardinalis	Campanulaceae	native	7	-5	forb	perennial	cardinal-flower
Ludwigia palustris	Onagraceae	native	4	-5	forb	perennial	water-purslane
Lycopus americanus	Lamiaceae	native	2	-5	forb	perennial	common water horehound
Lycopus uniflorus	Lamiaceae	native	2	-5	forb	perennial	northern bugle weed
Lysimachia ciliata	Myrsinaceae	native	4	-3	forb	perennial	fringed loosestrife
Lysimachia nummularia	Myrsinaceae	non-native	0	-3	forb	perennial	moneywort
Lysimachia thyrsiflora	Myrsinaceae	native	6	-5	forb	perennial	tufted loosestrife
Lythrum salicaria	Lythraceae	non-native	0	-5	forb	perennial	purple loosestrife
Maianthemum canadense	Convallariaceae	native	4	3	forb	perennial	canada mayflower
Maianthemum stellatum	Convallariaceae	native	5	0	forb	perennial	starry false solomon-seal
Malus pumila	Rosaceae	non-native	0	5	tree	perennial	apple
Medicago lupulina	Fabaceae	non-native	0	3	forb	annual	black medick
Melilotus albus	Fabaceae	non-native	0	3	forb	biennial	white sweet-clover
Mentha canadensis	Lamiaceae	native	3	-3	forb	perennial	wild mint
Mertensia virginica	Boraginaceae	native	10	0	forb	perennial	virginia bluebells
Mimulus ringens	Phrymaceae	native	5	-5	forb	perennial	monkey-flower
Monarda fistulosa	Lamiaceae	native	2	3	forb	perennial	wild-bergamot
Onoclea sensibilis	Onocleaceae	native	2	-3	fern	perennial	sensitive fern
Osmunda regalis	Osmundaceae	native	5	-5	fern	perennial	royal fern
Ostrya virginiana	Betulaceae	native	5	3	tree	perennial	ironwood; hop-hornbeam
Oxalis stricta; o. fontana	Oxalidaceae	native	0	3	forb	perennial	yellow wood-sorrel
Packera aurea; senecio a.	Asteraceae	native	5	-3	forb	perennial	golden ragwort
Parthenocissus quinquefolia	Vitaceae	native	5	3	vine	perennial	virginia creeper
Penthorum sedoides	Penthoraceae	native	3	-5	forb	perennial	ditch stonecrop
Persicaria hydropiperoides	Polygonaceae	native	5	-5	forb	perennial	mild water-pepper

Persicaria maculosa	Polygonaceae	non-native	0	0	forb	annual	ladys-thumb
Persicaria sagittata	Polygonaceae	native	5	-5	forb	annual	arrow-leaved tear-thumb
Persicaria virginiana	Polygonaceae	native	4	0	forb	perennial	jumpseed
Phalaris arundinacea	Poaceae	native	0	-3	grass	perennial	reed canary grass
Phlox divaricata	Polemoniaceae	native	5	3	forb	perennial	wild blue phlox
Physalis heterophylla	Solanaceae	native	3	5	forb	perennial	clammy ground-cherry
Plantago major	Plantaginaceae	non-native	0	3	forb	perennial	common plantain
Platanus occidentalis	Platanaceae	native	7	-3	tree	perennial	sycamore
Poa palustris	Poaceae	native	3	-3	grass	perennial	fowl meadow grass
Poa trivialis	Poaceae	non-native	0	-3	grass	perennial	bluegrass
Podophyllum peltatum	Berberidaceae	native	3	3	forb	perennial	may-apple
Populus deltoides	Salicaceae	native	1	0	tree	perennial	cottonwood
Potamogeton pusillus	Potamogetonaceae	native	4	-5	forb	perennial	small pondweed
Proserpinaca palustris	Haloragaceae	native	6	-5	forb	perennial	mermaid-weed
Prunella vulgaris	Lamiaceae	native	0	0	forb	perennial	self-heal
Prunus serotina	Rosaceae	native	2	3	tree	perennial	wild black cherry
Quercus bicolor	Fagaceae	native	8	-3	tree	perennial	swamp white oak
Quercus macrocarpa	Fagaceae	native	5	3	tree	perennial	bur oak
Quercus muehlenbergii	Fagaceae	native	5	3	tree	perennial	chinquapin oak
Ranunculus hispidus	Ranunculaceae	native	5	0	forb	perennial	swamp buttercup
Ranunculus sceleratus	Ranunculaceae	native	1	-5	forb	annual	cursed crowfoot
Rhamnus cathartica	Rhamnaceae	non-native	0	0	tree	perennial	common buckthorn
Ribes americanum	Grossulariaceae	native	6	-3	shrub	perennial	wild black currant
Rorippa palustris	Brassicaceae	native	1	-5	forb	annual	yellow cress
Rorippa sylvestris	Brassicaceae	non-native	0	-5	forb	perennial	creeping yellow cress
Rosa multiflora	Rosaceae	non-native	0	3	shrub	perennial	multiflora rose
Rubus allegheniensis	Rosaceae	native	1	3	shrub	perennial	common blackberry
Rubus occidentalis	Rosaceae	native	1	5	shrub	perennial	black raspberry
Rubus pensilvanicus	Rosaceae	native	2	3	shrub	perennial	dewberry
Rumex crispus	Polygonaceae	non-native	0	0	forb	perennial	curly dock
Rumex obtusifolius	Polygonaceae	non-native	0	0	forb	perennial	bitter dock
Rumex verticillatus	Polygonaceae	native	7	-5	forb	perennial	water dock
Sagittaria cuneata	Alismataceae	native	6	-5	forb	perennial	arum-leaved arrowhead
Samolus parviflorus	Theophrastaceae	native	5	-5	forb	perennial	water-pimpernel
Sanicula odorata	Apiaceae	native	2	0	forb	perennial	black snakeroot

Sassafras albidum	Lauraceae	native	5	3	tree	perennial	sassafras
Schoenoplectus tabernaemontani	Cyperaceae	native	4	-5	sedge	perennial	softstem bulrush
Scirpus atrovirens	Cyperaceae	native	3	-5	sedge	perennial	bulrush
Scirpus hattorianus	Cyperaceae	native	3	-5	sedge	perennial	mosquito bulrush
Scrophularia marilandica	Scrophulariaceae	native	5	3	forb	perennial	late figwort
Scutellaria lateriflora	Lamiaceae	native	5	-5	forb	perennial	mad-dog skullcap
Silene latifolia	Caryophyllaceae	non-native	0	5	forb	annual	white campion
Sisyrinchium angustifolium	Iridaceae	native	4	0	forb	perennial	stout blue-eyed-grass
Sium suave	Apiaceae	native	5	-5	forb	perennial	water-parsnip
Smilax hispida	Smilacaceae	native	5	0	vine	perennial	bristly greenbrier
Solanum dulcamara	Solanaceae	non-native	0	0	vine	perennial	bittersweet nightshade
Solidago gigantea	Asteraceae	native	3	-3	forb	perennial	late goldenrod
Sparganium eurycarpum	Typhaceae	native	5	-5	forb	perennial	common bur-reed
Sphenopholis intermedia	Poaceae	native	4	0	grass	perennial	slender wedgegrass
Stachys hispida	Lamiaceae	native	5	-3	forb	perennial	hedge-nettle
Symplocarpus foetidus	Araceae	native	6	-5	forb	perennial	skunk-cabbage
Taraxacum officinale	Asteraceae	non-native	0	3	forb	perennial	common dandelion
Thalictrum dasycarpum	Ranunculaceae	native	3	-3	forb	perennial	purple meadow-rue
Thelypteris noveboracensis	Thelypteridaceae	native	5	0	fern	perennial	new york fern
Tilia americana	Malvaceae	native	5	3	tree	perennial	basswood
Torilis japonica	Apiaceae	non-native	0	3	forb	annual	hedge-parsley
Toxicodendron radicans	Anacardiaceae	native	2	0	vine	perennial	poison-ivy
Tragopogon pratensis	Asteraceae	non-native	0	5	forb	biennial	common goats beard
Trifolium repens	Fabaceae	non-native	0	3	forb	perennial	white clover
Ulmus americana	Ulmaceae	native	1	-3	tree	perennial	american elm
Urtica dioica	Urticaceae	native	1	0	forb	perennial	stinging nettle
Verbascum blattaria	Scrophulariaceae	non-native	0	3	forb	biennial	moth mullein
Verbascum densiflorum	Scrophulariaceae	non-native	0	5	forb	biennial	mullein
Verbascum thapsus	Scrophulariaceae	non-native	0	5	forb	biennial	common mullein
Verbena urticifolia	Verbenaceae	native	4	0	forb	perennial	white vervain
Vernonia missurica	Asteraceae	native	4	0	forb	perennial	missouri ironweed
Viola cucullata	Violaceae	native	5	-5	forb	perennial	marsh violet
Viola pubescens	Violaceae	native	4	3	forb	perennial	yellow violet
Viola sororia	Violaceae	native	1	0	forb	perennial	common blue violet
Viola striata	Violaceae	native	5	-3	forb	perennial	cream violet

| Vitis aestivalis | Vitaceae | native | 6 | 3 | vine | perennial | summer grape |
| Vitis riparia | Vitaceae | native | 3 | 0 | vine | perennial | river-bank grape |