

Oak Woodland Field Worksheet

11/29/2023

Site Name: _____ Management Unit Name/# _____ AA Name/# _____ Date _____

AA Description _____ AA acres _____

GPS coords start _____ GPS coords end _____ Surveyors _____

Instructions: For each metric, write the corresponding measurement for your assessment area in "Your Obs" column, then enter a letter rank for that metric in the "Letter Rank" column following the ranking guidance. Convert the letter rank into a numerical score using a grade-point-average style conversion (A=4, B=3, C=2, C=1.5, D=1), and enter this number in the "Score" column.

		Ranking Guidance for each metric				YOUR OBS	LETTER RANK	SCORE (1-4)	Weighted Avg for final score
		A (Excellent)	B (Good)	C (Fair)	D (Poor)				
Oak Woodland Comp.	Total % cover of native graminoids	11-65%	6-10% or 66-80%	1-5% or 81-95%	<1% or >95%				Multiply subtotal of Woodland comp by 0.6 ↓
	Number of native indicator species (<i>see checklist</i>)	20+	14-19	6-13	0-5				
	Total % cover of native degradation indicators (<i>see checklist</i>)	0-20%	21-30%	31-60%	>60%				
	Number of parasitic or myco-heterotrophic plant species	3+	2	1	0				
Subtotal of Oak Woodland Comp: Avg of scores above.						NA			
General composition	Total % cover of non-native species	<1%	1-5%	C: 6-15% C-:16-30%	>30%				Multiply subtotal of General comp by 0.2 ↓
	Abundance of white oak group oak seedlings and saplings up to 20 ft. tall	Common-Occasional	Uncommon-Rare (score as B)		Absent				
	The ratio of the percent cover of white oak group (white, bur, chinkapin, swamp white) to red oak group (black, red, Hill's) and shagbark hickory > 20 ft. tall	>1:1	1:1 to 1:3	<1:3 to 1:9	<1:9				
	The ratio of oak and shagbark hickory percent cover to that of all other trees > 20 ft. tall	>9:1	4:1 to 9:1	2:1 to <4:1	<2:1				
Subtotal of General Comp: Avg of scores above.						NA			
Structure	Total % cover of native herbaceous plants above 2 ft. high	0-10%	11-20%	21-40%	>40%				Multiply subtotal of Structure by 0.2 ↓
	Total % cover of all low/medium height woody plants (<6 ft tall, including small trees, shrubs, vines)	0-15%	16-25%	26-35%	>35%				
	Total % cover of all small trees and tall shrubs (6-20' tall)	1-10%	<1% or 11-20%	21-30%	>30%				
	Total % canopy closure of all trees (>20' tall)	41-65%	31-40%; 66-80% (score as B)		<31% or >80%				
	Leaf litter accumulation, expressed as impedance of low-statured plants (see below for additional guidance)	Low	Low to moderate	Moderate to high	High OR Site heavily wormed				
Subtotal of Structure: Avg of scores above.						NA			
<i>Sum of weighted scores:</i>									
<i>Composite letter rank:</i>									

Explanation of leaf litter accumulation

- A** = Leaf litter discontinuous OR low depth (1-3 year's-worth of litter accumulation); not highly compacted, low-statured vegetation unimpeded. Not low due to heavy earthworm activity.
- B** = Leaf litter moderately discontinuous, closer to A than D
- C** = Patches of deep, smothering leaf litter, closer to D than A
- D** = Leaf litter continuous and deep (>3 year's-worth of accumulation), highly compacted, impeding low-statured vegetation OR ground is mostly bare mineral soil due to earthworm activity.

Composite Letter Rank Guide

A	3.8 - 4.0
A-	3.5 - 3.79
B	3.0 - 3.49
B-	2.5 - 2.99
C	2.0 - 2.49
C-	1.5 - 1.99
D	<1.49

Guide to Percent Cover:



Oak Woodland Indicator Species. Check off species, then enter total on main form. If uncertain of species, but confident of genus, you can count one on the form; just cross out specific epithet and write "sp." (e.g., *Agastache nepetoides*-sp.).

<i>Agastache nepetoides</i>	yellow giant hyssop	<i>Polemonium reptans</i>	Jacob's ladder
<i>Agastache scrophulariifolia</i>	figwort giant hyssop	<i>Polygala senega</i>	Seneca snakeroot
<i>Allium burdickii</i>	wild leek	<i>Polygala verticillata</i>	whorled snakeroot
<i>Allium canadense</i>	wild garlic	<i>Primula meadia</i>	shooting star
<i>Asclepias exaltata</i>	poke milkweed	<i>Primula amethystinum</i>	amethyst shooting star
<i>Aureolaria grandiflora</i>	large-flowered false foxglove	<i>Silene stellata</i>	starry campion
<i>Aureolaria pedicularia</i>	clammy false foxglove	<i>Solidago speciosa</i>	showy goldenrod
<i>Carex siccata</i>	running savanna sedge	<i>Solidago ulmifolia</i>	elm-leaved goldenrod
<i>Ceanothus americanus</i>	New Jersey tea	<i>Symphyotrichum oolentangiense</i>	sky blue aster
<i>Cirsium altissimum</i>	wood thistle	<i>Symphyotrichum shortii</i>	Short's aster
<i>Comandra umbellata</i>	false toadflax	<i>Taenidia integerrima</i>	wild pimpernel
<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	large yellow lady's slipper	<i>Thalictrum thalictroides</i>	rue-anemone
<i>Dichanthelium latifolium</i>	broad-leaved panic grass	<i>Thaspium</i> spp.	meadow-parsnip
<i>Elymus hystrix</i>	bottlebrush grass	<i>Trillium recurvatum</i>	red trillium
<i>Elymus villosus</i>	silky wild rye	<i>Triosteum aurantiacum</i>	horse gentian
<i>Erigeron pulchellus</i>	Robin's plantain	<i>Triosteum perfoliatum</i>	tinker's-weed
<i>Eupatorium sessilifolium</i>	upland boneset	<i>Veronicastrum virginicum</i>	Culver's root
<i>Eutrochium purpureum</i>	purple Joe Pye weed	<i>Vicia caroliniana</i>	Carolina vetch
<i>Galium boreale</i>	northern bedstraw	<i>Zizia aurea</i>	golden Alexander
<i>Galium circaezans/lanceolatum</i>	wild licorice		
<i>Galium concinnum</i>	shining bedstraw		
<i>Heuchera richardsonii</i>	alumroot		
<i>Hieracium scabrum</i>	rough hawkweed		
<i>Hieracium umbellatum/kalmii/canadense</i>	northern hawkweed		
<i>Krigia biflora</i>	two-flowered Cynthia		
<i>Lathyrus ochroleucus</i>	pale vetchling		
<i>Lathyrus venosus</i>	veiny pea		
<i>Lithospermum latifolium</i>	American gromwell		
<i>Luzula multiflora</i>	common wood rush		
<i>Lysimachia quadrifolia</i>	whorled loosestrife		
<i>Moehringia lateriflora</i>	blunt-leaf sandwort		
<i>Patis racemosa</i>	black-seeded rice grass		
<i>Pedicularis canadensis</i>	lousewort		

Native Indicators of Degradation in Oak Woodland.

<i>Acalypha rhomboidea</i>	3-seeded mercury
<i>Acer negundo</i>	box elder
<i>Acer saccharinum</i>	silver maple
<i>Ageratina altissima</i>	white snakeroot
<i>Amphicarpaea bracteata</i>	hog peanut
<i>Bidens spp</i>	beggarticks
<i>Galium aparine</i>	cleavers
<i>Geum canadense</i>	white avens
<i>Hackelia virginiana</i>	stickseed
<i>Helianthus spp.</i>	woodland sunflower
<i>Hylodesmum glutinosum</i>	pointed tick-trefoil
<i>Impatiens spp</i>	touch-me-not
<i>Laportea canadensis</i>	wood-nettle
<i>Parthenocissus spp</i>	Virginia creeper
<i>Persicaria virginiana</i>	jumpseed
<i>Pilea spp</i>	clearweed
<i>Ribes cynosbati</i>	prickly gooseberry
<i>Ribes missouriense</i>	Missouri gooseberry
<i>Rubus spp (except R. hispidus)</i>	blackberry, raspberry
<i>Sanicula spp. (except S. marilandica)</i>	snakeroot
<i>Solidago (S. canadensis, S. altissima, S. gigantea)</i>	goldenrod
<i>Toxicodendron radicans, T. rydbergii</i>	poison-ivy
<i>Ulmus americana, U. rubra</i>	American/slippery elm
<i>Vitis spp</i>	wild grape

Partially parasitic, parasitic, and myco-heterotrophic species. In first column, put a 1 for each species observed (or number of species per genus observed), then enter total number on main form.

<i>Aureolaria spp.</i>	false foxglove
<i>Comandra umbellata</i>	false toadflax
<i>Conopholis americana</i>	American cancer-root
<i>Corallorhiza spp.</i>	coralroot
<i>Cuscuta spp.</i>	dodder
<i>Dasistoma macrophylla</i>	mullein-foxglove
<i>Melampyrum lineare</i>	cow-wheat
<i>Monotropa spp.</i>	ghost-pipe
<i>Orobancha spp.</i>	broom-rape
<i>Pedicularis spp.</i>	lousewort
Total	

Optional Worksheet for Interim Observations: For each metric below, write the corresponding measurement for each interim stop. Estimate the approximate proportion of the AA covered by each interim observation. Calculate a weighted average based on the proportional area of the AA each interim stop covers (or, if equal proportions, a straight average) . Write the weighted average for the entire Assessment Area in the "Your Obs" column on the other side of the worksheet. See the "Coarse-level monitoring protocol for assessing baseline condition and restoration progress in oak woodland" for further guidance.

		INTERIM STOP										Weighted Avg
Approximate proportion of AA		1	2	3	4	5	6	7	8	9	10	
METRIC												
Oak Woodland Composition	Total % cover of native graminoids											
	Number of native indicator species (see checklist)	No interim observations needed; enter single value for entire AA on main field worksheet.										
	Total % cover of native degradation indicators (see checklist)											
	Number of parasitic or myco-heterotrophic plant species	No interim observations needed; enter single value for entire AA on main field worksheet.										
General composition	Total % cover of non-native species											
	Abundance of white oak group oak seedlings and saplings up to 20 ft. tall											
	The ratio of the percent cover of white oak group (white, bur, chinkapin, swamp white) to red oak group (black, red, Hill's) and shagbark hickory > 20 ft. tall											
	The ratio oak and shagbark hickory percent cover to that of all other trees > 20 ft. tall											
Structure	Total % cover of native herbaceous plants above 2 ft. high											
	Total % cover of low/medium height woody plants (<6 ft tall, including small trees, shrubs, vines)											
	Total % cover of small trees and tall shrubs (6-20' tall)											
	Total % cover of trees (>20' tall)											
	Leaf litter characteristics, expressed as impedance of low-statured plants (see p. 1 for guidance)											

