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Parking/Access outsid Field journals complet		1 6	Comment required if item answer is NO
Field journals complet		YN	If yes, write details in Comments section below
		YN	
Site sketch made on 1:		YN	10 200
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	GPS coords. Recorded	Y N	
	North direction recorded	TX N	
	Photographs taken?	N	
	Relocated Pins Mapped	N	
Plot No., Date agreem	ent on all pages?	YN	
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Cover classes recorder	in all Intensive modules	(Y)N	
Browse Level By Spec	ies	N	
Woody stem quality co	ontrol check	Ø N	Check every line and cross check with the Tree Cover Sheet
Invasive plant quality	control check	YN	NA
Ash trees mapped		Y N	
Completed Forest Pest	/Pathogen Datasheet	N O	
Cover by Strata? (conf	firm cover type)	₩ N	
Soil samples collected	with matching plot #.	Y N	NA .
Cross check 2010 info	onnation	(V)N	Highlight any changes from 2010 information
Vouchers labeled on d	latasheet with initials and number	(Y) N	
Vouchers labeled on c	ollection bag	(Y) N	N N
Pink flags removed		N CV	
Data sheet QA before	leaving site?	YN	- BEI - B
Common equipment re	eturned to tub.	Y N	
Data sheets scanned?			Enter date to left
Final data sheets scam	ned?		Enter date to left
Buffer Widths measur	ed?	Y N	
Web Soil Survey		Y N	
Voucher Location	Refrigerator	Y N	
(# vouchers collected)	Press (#)		Enter number to left
CKM 034-650	Drier	Y N	
Clours	Identified	Y N	
	Mounted	Y N	
	Thrown away	Y N	

Africe

CLEVELAND METROPARAS Plant Community A	S Plant Community Assessment	Seessment Frogram - Dathyroung Date Circle	02 HJ	2.2015		lot No.:	Plot No.: 60 5	Page 2 of 2
				SECTION A NOTE				:
MODIFIED NATURESERVE CLASS*		<u></u>	01210	KDAINCES				
CODE (on separate form):	Fit=Conf=	2	type*	severity**	yrs ago %	% of plot	description	:
4			Human		\dashv			
o			Natura	1	D D	52	Flood ing from	om range
COMMUNITY NAME:			Fire				Y	
			Cut			100%	3年十二5	
Mixed forest			Animal	JW	0	RI	Dec brows	9)
			Other					
HOMOGENEITY		100	**L=low,	ML=med lov	v. M=med. 1	MH=med I	**L=low, ML=med low. M=med, MH=med high, H=high, VH=very high	ry high
1 Homogeneous D Compo	Compositional trend across the plot	•	Current	Current Land Use: Park	ark			
nclusions	o Irregular/pattern mosaic		Former	Former Land Use:				ì
	HYDROLOGIC REGIME*	GIME*						
Đội.	□ Upland (seldom flooded)		intermittently flooded	oded				
SALINITY*	Intermittently/seasonally saturated		□ Semipermanently flooded	y flooded				
o Saltwater	(seldom flooded)	_	n Permanently flooded	oded				
n Brackish	D Permanently/Semipermanent. saturated		□ Tidal/Seiche flooded daily	oded daily				
o Fresh	(dry <1/yr, seldom flooded)		/Seiche flo	n Tidal/Seiche flooded monthly			,	
Vpland (n/a)	☐ Occasionally flooded (<1/yr)	* * trans	/Seiche flo	n Tidal/Seiche flooded irregular				
	□ Temporarily flooded	(c.g	(e.g. wind, storms)	ms)				
(by default unless plot is a wetland)		D Unkr	nwo					
Additional notes & diagrams: (Representativeness of plot to the stand, successional status, maturity, etc.)	entativeness of plot to the stand, succe	essional status, maturity, et	3,19	chechy	9	A TSON	41 Apodina	<u>, n</u>
The Mot is packed	areas of the mod	s have displa	ad b	are so	1. The	mater	moved wit	A some
force because no ve	getation are leven	seedlings) a	ا يو	asent.	10 He	Wes	+ thare is	ه ا
skunk cabbage seep that turns into a swamp, inche is a criminal of mix western edge. Overall a nice plot with minimal nonnature proceduce and a good ontx	eep that turns into all a nice plot with	minimal non	matter matter	proces	וכפ מ	nd	good mi	
of natives								

CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet 2a

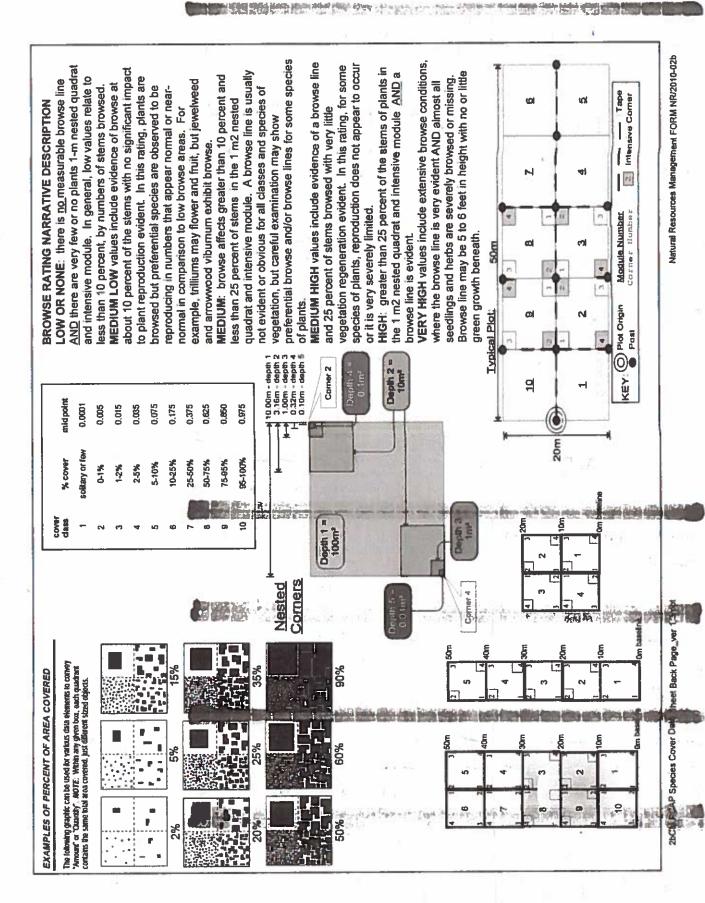
Project Label: PCAP Project name: 02 11 2015 Strata - Cov. entire plot Cleveland Metroparks Total modules: ഗ H (F)(A) Br To Ranson Ranuncialus hispodus G 5 7. Impatiens cp. Frazinus sp. MANAEL Prenanthes sp Carpinus caroliniana Cardamine Callum Sp. Caryo sp. Aremanella Yanun Culus paceae #1 - was on Astraceae describe amount of browse per species over Mullin TOTALINAN MIDCULATION 0 lemedenden radvans idiaz iz abi BIS138 ledophy llium peltatum VLCU60 Br = Browse Level. Use cover classes to JAN COO CYNE MILE O'MYCO DI JUST Species entire plot Renilpass) seedling MIJana Mahctraides 150cd 17 to nuclin 30 n Intensive modules: funveg, ground (bare soil) %unvegetated open water intensive module: Estimate for each %unveg. litter (bare litter EKMO34 CH 264-265 SRE Voucher # 3-1-15 %open water 0 1 F 4 4 N N 7 0 N 7 mod Plot configuration: 2×5 W W S CH N 1 4 6 W 4 Plot no.: \005 ğ ٥ Ê 7 7 W 8 S S Natural Resource Management FORM NR/2010-02a 6 13 4 N h U 7 7 7 Pog C Plot area (ha): 200 Page 2 I 1 14 9 b ą depth Bott 8 collec + PINT Sylvand Mentucial e

2aCM PCAP Species Cover Data sheet Page 1 of x_ver 3.xls last revised 5/29/2012 ceh

Natural Resources Management FORM NR/2010-02b

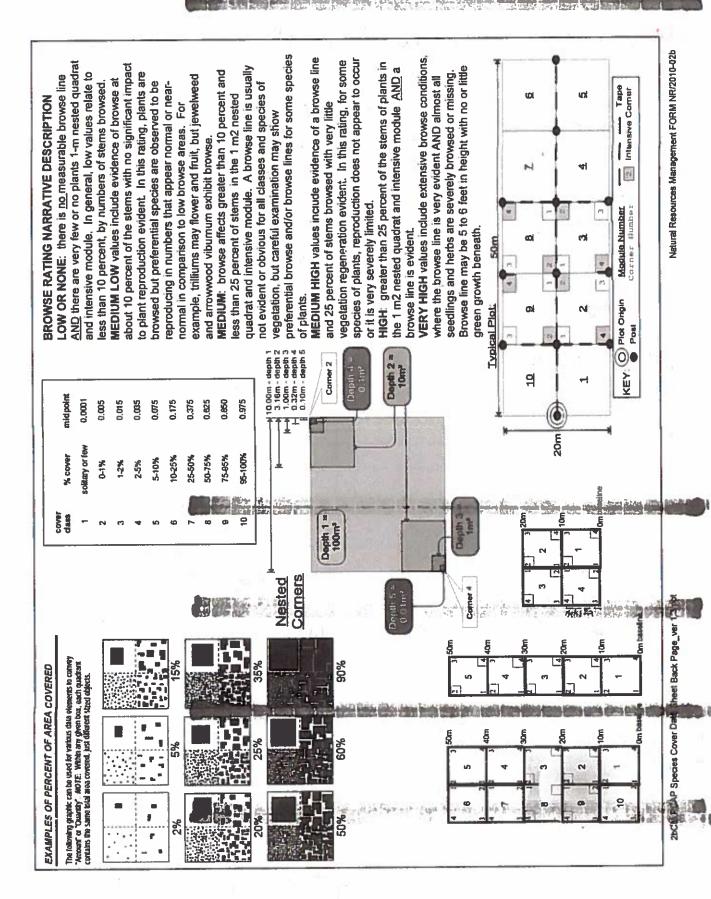
2bCM PCAP Species Cover Data Sheet Back Page_ver 1.3.ppt

Cleveland Metroparks CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet 2a Strata - Cov. entire plot Project Label: Total modules: 2aCM PCAP Species Cover Data sheet Page 1 of x_ver 3.xls last revised 5/29/2012 cah တ | H |(F)|(A)|Br וט 8 Querrys for themo rissus quind intolia Sambucus KNO NZ ROSA MULTIFICALA byceria smala RHAMNUS FRANGULA Phylys scrotting Ostry a prainiana arcx Amelanch with teteraceae Querrous 50. describe amount of browse per species over pipactis d Snowhlauf JANUS ! Br = Browse Level. Use cover classes to Motor Indera a\56de5 Jan grau amen can a grand folis Mora Species 72 entire plot CN2010 helleborine the Transla Con Seed ino 1744 le seurs ST. n Intensive modules: Kunveg. ground (bare soil) %unvegetated open water intensive module: Estimate for each CKMO36 Kunveg, litter (bare litter 19 918 WYD CKM038 C4716-270 でよっている CH 271-272 CKM 037 RE 12-10-15 Project name: 02 HI 2015 in Voucher# %open water N N N N 13 N 9 N 11 3 7 depth 7² 7 Plot configuration: 2 x 5 6 N VQQ ş N 1 2 W N M 7 Plot no.: 1005 ş COV | depth mod ᄶᄛ Natural Resource W N 1 14 Gegal) depth 2 N **∞** 3 3 Plot area (ha): hagement FORM NR/2 6 Page B 7 2 12 1 12 N ş cov | depth 7 4 SOW 6 VOO 0-028 depth DOE D **V** 3 B glubbune sound like glassures tont heak Schichyum Tiarella THE TENT



CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet 2a

Project Label: PCAP Project name: 02 H 12015 Strata - Cov. entire plot T S H (F)(A) Br 2aCM PCAP Species Cover Data sheet Page 1 of x_ver 3.xts last revised 5/29/2012 ceh Cleveland Metroparks Total modules: Solidago Synny Loud Snarker bolium apering Cratacaus sp Schw cana THEREIN TUNNOUS ODOUGH Epilopium a coloratum Scute laria & Piled pumila Liquestrum dentatu arnus alternitalia describe amount of browse per species over 1 me ocarpus Br = Browse Level. Use cover classes to 0 harman americana Micalmond Hexicaylis Cadiat bucha CM Species entire plot dentatum carthusiana abortinus 9 Supplyon's -Num acrostic Flymus, وع O Intensive modules: %unveg. ground (bare soil) %unvegetated open water intensive module: Estimate for each %unveg. litter (bare litter CKMO42 KMO39 CKM OHO LKWOH! Voucher # %open water 900 8 depth 2 Plot configuration: AGO 7 7 Plot no .: 1005 cov | dapth 2 灵 2×2 ş 900 depth <u>s</u> Natural Resource gov | depth 8 9 죑 Plot area (ha): 80 ş ragement FORM NRV2 depth 4 7 2 212 4 9 å depth 3 8 0-02B depth Bott 20 Ą 23 mostly dead Mad dog Callon S write 1 4 a



CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet Project Label:

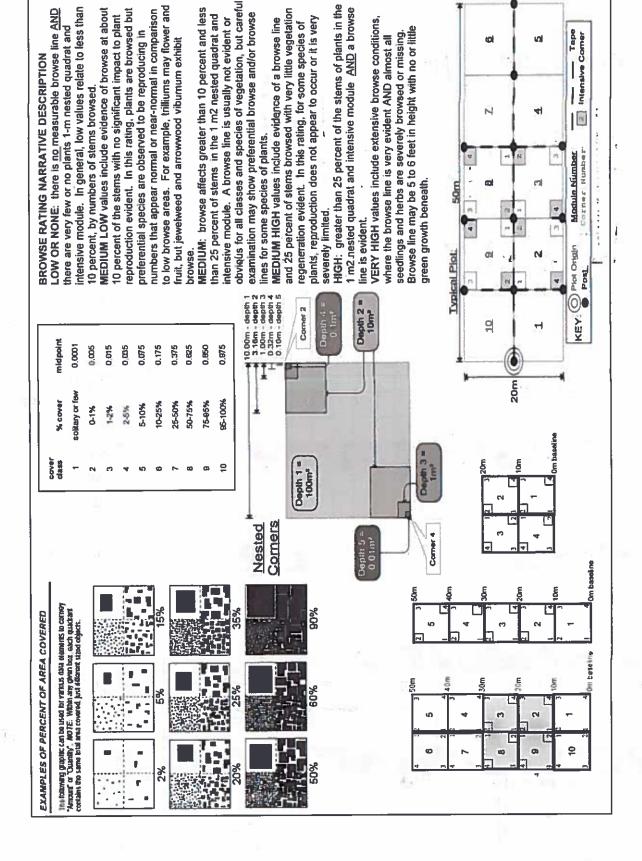
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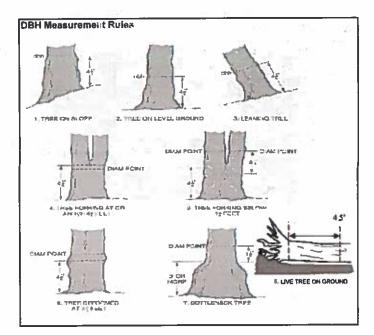


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Woody Stem Deer Browse

Record the number of stems/plants between 0.5-1.0 meters tall that exhibit evidence of this years deer browse.

Record using the tally system from 1 to













ASH CANOPY CONDITION

- 1. Healthy, full canopy: A healthy ash canopy is normally thinner than many other trees such as maple.
- 2. Thinning canopy: There aren't as many leaves as there ought to be, but all top branches exposed to sunlight have leaves.
- Dieback: Canopy is thinning and some top branches exposed to sunlight are dead (have no leaves). Lower branches, not exposed to sunlight, die naturally and are not considered.
- 4. >50% Dieback: The canopy has less than half of the leaves that should be there and/or half of the top branches are dead.
- Dead canopy: No leaves remain in the canopy portion of the tree. It still counts as a 5 even if there are epicormic sprouts below the canopy (lowest branch) on the trunk.



B

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D

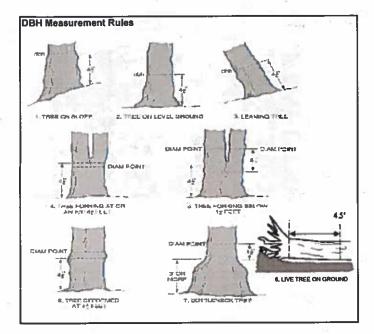
E

ASH CANOPY BREAKUP CONDITION (for dead trees):

(if an ash receives a score of 5 (dead) under canopy condition it must also receive a breakup condition rank as described below)

- A: All main branches contain fine twigs (newly dead).
- B: Over 50% of main branches have fine twigs.
- C: Less than 50% of main branches have fine twigs.
- D: Stem still standing and tertiary main branches present.
- E: Central stem still standing.

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet Showing shows 1/1thenaissus ling with Transay seed in Vitis (ipacio Standing bas Aces sourding Parthenacissus einqueton Explain subsample (additional room on back): Hai Stahadum Ostnya virajniama From nus pennsy wanted Linder berzoin-Ostmyo virginiano-Rose multifloor Standing back Caya ovato Fram Mus Go. seedling Rose multiflera DALOGENSION LOGICAND Tillo americano heer succession Post multishor Aus Sauharm Cratacous x. Tilir americano Project Label: PCAP # sterns 0-1.4m Ø 2 2 or super % sub Project Name: 024; 2015 5.5 shrub size class (cm) woody stems >1.4m :: 1-<25 N I 2.5-<5 Plot No.: 1005 5~10 15 - <20 20-<25 Page: 1 25-<30 30 - <35 Gieveland Metroparks 35 - <40 ŏ 64 >40 (record each tree) =



Woody Stem Deer Browse

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10













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C

D

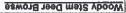
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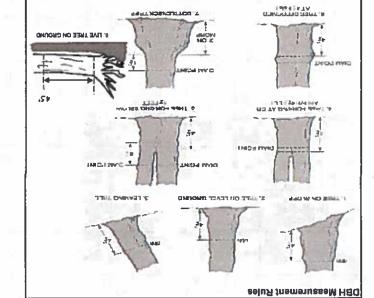
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Record using the tally system from t to

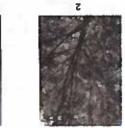








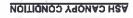












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- 4. >50% Dieback: The canopy has less than half of the leaves that should be there and/or half of the top branches are dead. sunlight, die naturally and are not considered.

(lowest branch) on the trunk. 2° Desq cauobà: No lesses usurain in the canoby portion of the tree. It still counts as a 5 even it there are epicormic sprouts below the canopy

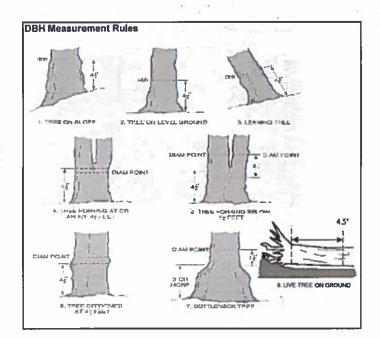


(it an ash receives a score of 5 (dead) under canopy condition it must also receive a breakup condition ASH CANOPY BREAKUP CONDITION (for dead trees):

- A: All main branches contain fine twigs (newly dead).
- C: Less then 50% of main branches have fine twigs. B: Over 50% of main branches have fine twigs.
- D: Stem still standing and tertiary main branches present.
- E: Central stem still standing.

LSUK SE GESCLIPEG PEIOW)

0 5 CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet Explain subsample (additional room on back): Granzing deat Pathanocissis quinquetate Dotrya vicainiana Form grandiblia Linder- bunzain anulus libra OSHY VILL INDING thei southairm Caspinus cordiniono Formus St. seesing wings my Ulmus americana MONING A. SEGUE Frankinus pennsylvanica-11mus ameriano Project Label: 0-1.4m * starres M 12 or super % sub Project Name: DLH: 1015 size class (cm) woody stems >1.4m <u>م</u> 71 1-<2.5 2.5-<5 Plot No .: 1005 5-<10 10-<15 15 - <20 Page: 4 25 - < 30 30 - <35 잌 Gleveland Metroparks 35 - <40 2.142.5 >40 (record each tree)



Woody Stem Deer Browse

Record the number of stems/plants between 0.5-1.0 meters tall that exhibit evidence of this years deer browse.

Record using the tally system from 1 to

10













ASH CANOPY CONDITION

- 1. Healthy, full canopy: A healthy ash canopy is normally thinner than many other trees such as maple.
- 2. Thinning canopy: There aren't as many leaves as there ought to be, but all top branches exposed to sunlight have leaves.
- Dieback: Canopy is thinning and some top branches exposed to sunlight are dead (have no leaves). Lower branches, not exposed to sunlight, die naturally and are not considered.
- 4. >50% Dieback: The canopy has less than half of the leaves that should be there and/or half of the top branches are dead.
- 5. Dead canopy: No leaves remain in the canopy portion of the tree. It still counts as a 5 even if there are epicormic sprouts below the canopy (lowest branch) on the trunk.



В

C

D

E

ASH CANOPY BREAKUP CONDITION (for dead trees):

(if an ash receives a score of 5 (dead) under canopy condition it must also receive a breakup condition rank as described below)

- A: All main branches contain fine twigs (newly dead).
- B: Over 50% of main branches have fine twigs.
- C: Less than 50% of main branches have fine twigs.
- D: Stem still standing and tertiary main branches present.
- E: Central stem still standing.

CLEVELAND METROPARKS Plant Community Assessment Program: Invasive Species Survey



Ties 4. Penks detection	/ Panid records		Dec	sence		GPS	1
Tier 1: Early detection,	rapid response	NE	_	SW	NW	GP3	Presence
A	Itananan etilaanan	NE	SE	244	IAAA	WINDS AND THE REAL PROPERTY.	
Microstegium vimineum	Japanese stiltgrass	-		+	-	· · ·	X: yes
Ranunculus ficaria	Lesser Celandine	\vdash	+	+-	+	<u> </u>	-
	Black Swallow-wort	-	+	┼	 		-
	Flowering Rush	├	-	-	-		-
Heracleum mantegazzianum	Giant Hogweed	-		-1-45			-
Tier 2: Assess a	s Needed	100		Plants	_	comments	W Columbia
		NE	SE	SW	NW		# of Plants
Acer platanoides	Norway Maple	-	-	├	\vdash		1: 1-10
Ailanthus altissima	Tree of Heaven	₩	╄	 		·	2: 11-50.
Lonicera japonica (vine)	Japanese Honeysuckle	₩	-	╀		***	3: 51-100
Lythrum salicaria (wetland)		—	-	₩	 		4: 101-1,00
	Bishop's Goutweed		-	╄	\perp		5: >1,000
Celastrus orbiculatus (vine)	Asian Bittersweet	<u> </u>			\sqcup	<u> </u>	_
Torilis sp.	Hedgeparsley		$oldsymbol{oldsymbol{\perp}}$			<u> </u>	4
Conium maculatum	Poison Hemlock	_	\perp		\sqcup		4
Rhamnus cathartica	Common Buckthorn (shrub)				\sqcup		_
Berberis thunbergii	Japanese Barberry (shrub)						_
Alnus glutinosa	European Alder						_
Dipsacus laciniatus	Cut-leaf Teasel						_
Elaeagnus umbellata	Autumn Olive (shrub)						_
Lonicera maackii	Amur Honeysuckle (shrub)			\top			
Euonymus fortunei	Wintercreeper						
Tier 3: Presence i	s of interest		# of	Plants	20.3	comments	
		NE	SE	SW	NW		# of Plants
Convailaria majalis (G-cover)	Lily of the Valley						1: 1-10
· · · · · · · · · · · · · · · · · · ·	Crown Vetch			1			2: 11-50.
Eleutherococcus pentaphyllus	Five-leaf Aralia (shrub)		1		П		3: 51-100
	Japanese Pachysandra				П	·	4: 101-1,00
Philadelphus coronarius	Mock Orange (shrub)					···-	5: >1,000
Pulmonaria officinalis (G-cover)					1	·	
Rubus phoenicolasius	Wineberry						7
Iris pseudacorus (wetland)	 	1					7
Ornithogalum umbellatum	Star of Bethlehem	\top	1	1	1 1		7
Viburnum opulus var. opulus	European Cranberry (shrub)	1			\vdash		1
Viburnum plicatum	Doublefile Viburnum (shrub)	-				·	1
Tier 4: Widespread			Pre	sence		comments	0
		NE	SE	sw	NW		# of Plants
Alliaria petiolata	Garlic Mustard						1: 1-10
Ligustrum vulgare	Common Privet (shrub)		1	_	 		2: 11-50.
L. morrowii, L. tatarica	Bush Honeysuckles (shrub)	_	+	 	† †		3: 51-100
Phalaris arundinacea	Reed Canarygrass	1	+	+	+		4: 101-1,00
Phragmites australis (wetland)	Phragmites Phragmites	-	+	+	+		5: >1,000
Polygonum cuspidatum	Japanese Knotweed	+-	+	+	1		1 5 2,500
	Glossy Buckthorn (shrub)	+	+	+	1		1
Frangula alnus		+	+	-	+	·	┪
Rosa multiflora	Multiflora Rose (shrub)	+	+	+-	╫		-
Typha angustifolia, T. x.glauca	Cattails (wetland)	+	+	+	╬		┨
Cirsium arvense	Canada thistle	+	+		┼─┤		┨
Dipsacus fullonum	Common Teasel	+	+	+	1		-
Hesperis matronalis	Dame's Rocket	\vdash	-	+	1 1		-
Vinca minor (G-cover)	Periwinkle				لبا	1 . 1	_

Note: For Ground-cover plants record "stem #" but in comment field describe # of colonies and patch size (S,M, L)

CLEVELAND METROPARKS Plant Community Assessment Program Forest Pest and Pathogens Data Sheet Project I abel: PCAP Project Name: 024:2015 Plot No. 1005		
mity Assessment Program For	Project Label	CLEVELAND METROPARKS PIA
mity Assessment Program For	•	2
Assessment Program Forest Pest and Pathogens Data Sheet	PCAP	Community
	Project Name: 024:2015 Plot No: 1005	Assessment Program Forest Pest and Pathogens Data Sheet

	10	ဖ	æ	7.	6	5	4	ω	N	_	mod #
			ethickens, en							Done	
	8			-						1 Nove occupant	species
				ų.							voucher#
											% sub or super sample
	. /2									40	shrub clumps
				. 1							size class (cm) woody stems > 1m 1 2 3 0-<1 1-<2.5 2.5-<5 5-
		L) }		4		i	(cm) woo 2 1-<2.5
						Ì					ay stems 3 3 2.5-<5
											*im 4 5-<10
											5 10 - <15
											e 15 - <20
											7 20 - <25
											a 25 - <30
											9 30 - <35
				·		,					10 35 - <40
r				,	8118						5 8 7 8 9 10 11 10 - <15 15 - <20 20 - <25 25 - <30 30 - <35 35 - <40 >40 (record each tree

Strata	Total %
Tree	
Shrub	
Herbacous	

* Write None Present if no evidence: -Beech (Fungus) -Hemlock (HWA) -Wainut (Thousand Canker) -Other Forest Pest or Pathogen -Asian Longhomed Beetle

CLEVELAND METROPARKS Plant Community Assessment Program - Plant Cover and Earth Surface Project Label: PCAP Project Name: 024, 2015 STANDING BIOMASS (required for emergent wetlands) collected in 0. Im clip plots (32x32 cm) from corners 1 and 3 in each intensive module. Required for VIBI-E score calculation. C7-check when SeCM PCAP Plant Cover_Earth Burthoe Data sheet Page 1_ver 1_sis last revised \$292012 cah 4 . / S 10 feeture is present in moderate or greater amounts and of highest quality MICROTOPOGRAPHIC FEATURE COUNTS - Intensive modules only with for microhabitat features. Select one or select two and everage the score.NOTE: If mod falls on a slope automatically gets ranked based on steephess (1-3) to begin + any features present XII octod feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality testure is present in the wetland in very small emounts or if more common, of low quality »p» 1 = sight elevational grade across module (hill) feature is absent or functionally absent from the wetland octube # W 2 T-0,0 Comment but counts are appropriate.

7-0,0 Comment but counts are appropriate.

7-12,70 tussocks depth 3 no. of E 0 Ş O 90 uplands (Tip-Ups) 3.16x3.16a depth 2 hummocks 0 100. Of 0 0 O Slope 2 = falls on slope ~20* depressions NO. PLACED Olimo 10x10m depth t CLASSIFICATION o COASTAL (specify subclass) o FRINGING o Reservoir o Natural Lake o IMPOUNDMENT o Beaver o Human Obje EPA VIBI Plani Community Class (WETLANDS ONLY): o RIVERINE o Headwater o Mainstein o Chennel DEPRESSION SHRUB a shrub swamp a tall sh. bog a tall sh fen EMERGENT a marsh a wet mendow a open bog FOREST is aware forest is bog forest in forest seep SLOPE (ground water by drology or on a physical stop) Entracementhic class CVETLANDS ONLY: FIT = excellent, g Fit and Confidence 3OG (strongly, moderately, weekly ombrotrophic) (mulos) (3-12 cm) depth 1 10x10m C.W.d = 6 Slope 3 = maximum steepness that can be safely sampled -45" (12-40cm) Commo) 10x10m depth 1 0.17.0 1-1-C >40 cm depth 1 0 10100 O Car d 0.00 0 C 7 7 Till I Him File 7 1 interspers microhab 10x10m depih I 4 (Tan) Mot No.: 1005 Conf= Conf* Conf. Confi Conf* Confa | microhab SLOPE 10x 10m (mark) FILLED OUT USING GIS PROGRAM - DO NOT FILL OUT IN FIELD) McNAB INDICES (degrees) + for up - for down Landform Index (position within landscape) Terrain Shape Index (alle microtopographic shape) CHOWN COVER (DENSIOMETER). Make 4 readings per module facing N. S. E. W. Place dot count corresonding space. (4 dots per grid square) +135 degrees +270 degrees 1225 degrees 180 degree +90 degree +45 degrees At aspect ₩N KE. ٤ WS S * 00 8 NO 1,3

@ Glaveland Metraparts

Page: 1 of 1

LFI is angle of plot to the horizon. TSI is

TSI measure argle from

local slopes. For

angles formed l

e) e of person

standing - 10 m recorders eye to

01 - 0

N

12 5

ところう 5: 1,1

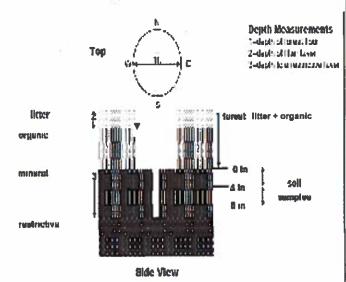
COVER BY STRATA

STRATUM	GENERAL FORM
Tree (generally >5 m)	Tree (overstory), very tall shrubs*, liana, epiphyte)
Shrub (generally 0.5 to 5 m)	Tree (sapling), shrub, liana, epiphyte)
Herb (Field)	Herb, dwarf-shrub**, tree (seedling***)
Floating	Floating
Aquatic (submerged)	Submerged

Very tall shrubs are sometimes included in the tree stratum

"Can also include seedlings of shrubs, i.e. all shrubs <0.5m

***Tree seedlings are often defined as up to 1.4 m height or as <2.5 cm DBH in which case they would span the herb and shrub layers.



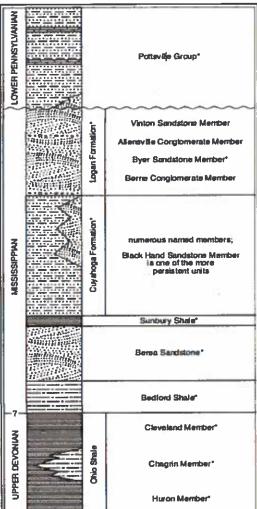


FIGURE 3-20.—Generalized section of Upper Devenan. Mississpins, and Lower Pennsylvanian formations in northeastern Ohio Asteriaks indicate units that are fossiliferous. This composite section represents about 400 meters of rock exposed across the sizes. The section is not to scale, but the thicknesses indicated are proportional. The trim "Wavesh" is used in the older literature in refer to Mississppian rocks in Ohio. Some geologists use the European term "Carboniferous," which encompasses the Mississpinian and Pennsylvanian Periods of the U.S. Many intern have been named within the Cuyahoga Formation, but most units are local and cannot be traced over great distances. The Black Hand Member 19 a speciatular massive sandstone that is fairly undespread but discontinuous. See Hyde (1253), Hoover (1960), and Collina (1979) for more information on Mississpinian rocks in Ohio. See figure 3-18 for explanation of rock types.

CLEVELAND METROPARKS Plant Community Assessment Program - Soils, Crown Cover, Standing Biomass Data Sheet 6a
Project label: PCAP Project Name: 621/6015
Plot No.: 1005

CitereSand Metroparks

Page: 1 of 1

SOIL PIT DESCRIPTION: Excavate 20 cm plug with shovel. Describe using Munsell chart, visual exam, texture, and odor.

Soil plt module # ____ (one per entire plot)

						20 cm							5 cm
X	redox features**	texture*	exad roots	%mottle	mottle color	matrix color	hydr. cand ***	redox features**	texture*	oxid roots	%mottle	mottle color	matrix color
	~		4		L		- s	4		4			
	z		z				Z D	z		z	*		
					l i	be			ı.	S.			

refer to texture classes on reverse side

hydro. cond ***

I S M D

Circle one: e.g. hydrogen sulfide odor, gleying, etc.

istinga, middena) indundated S-saturated M-moist D-dry otes: include evidence of earthworms (worms,

9 - lastings present 8 - Ni castings present 2- Coustings pursent

st lesiduals

SOIL SAMPLES Standard procedure: collect a soil sample of the top 10 cm of soil from center of each intensive module and composite the sample

Landform type: Depth to rest. Layer. Parent Material: Data Commentation of Somewhat excessively dr. or Somewhat excessively or Well drained or Moderately well dr. or Somewhat poorly dr. or Very poorly dr. or Impermeable surface	Soil Series Source: Ohio Soil Survey	Soil Series/Type:	Web Soil Survey Informations	2,3.8,9 composited A	Soil Collection Modul Herizon (A. B. C)
--	--------------------------------------	-------------------	------------------------------	----------------------	---

0.1 cm in center of intensive modules, 1f >30.5 cm, SOIL DEPTH MEASUREMENT: Measure to the neares

record as >30	35 >30			
model	I litter+ organic depth (cm)	2 litter depth (cm)	water depth (cm)	depth sat soil (cm)
2	o babe	O'sas	0	0
W	٦.٢	h,t	0	0
00	3,0	3,0	0	0
9	1.5	1.5	0	0

EARTH SURFACE & GROUND COVER	CE & GROU	ND COVER	
Underlying Earth Surface	Surface*	Ground Cover	
(Sian - 100%)	percent	(Each ≤ 100%)	percent
Histosol	١	Coarse Woody Debris***	8
Mineral Soil	g¢.	Fine Woody Debris****	ران ال
Gravel-Cobble*	2	Litter	0.8
Boulder**	1	Duff (Ferm.+ Humus)	0
Bedrock	1	Bryophyte Lichen	3
• Gravel-Cobble = 1/16-10•	1/16-10°	Waler	0
••Boulder => 10 in	S	Bere Soil	10
*** >5 cm in diameter	neter	Road/Trail	0
esee <5 cm in diameter	meter	Other	0

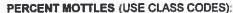
(Aquatic)*	(Floating)*	#	Shrub 0.5	Tree 5.0	Strate Hek	
•		-0,5	- 5.0	0. 1	Heleht Range (m)	
0	0	73	53	43	Total Cover (%)	

o Deer	o Gravel	Bootley unsanctioned	Hiking sanctioned	o Bridle	o All Purpose	Туре	record type and cover for each	Non-
T						%Caver	- each	ff.

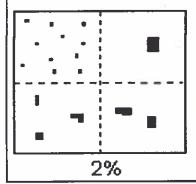
□ < plot size	O 1-3 x plot size	D 3-10 x plot suze	0 10-100 x plot size	> 100 x plot size	□ >600 x plot size	STAND SIZE	
---------------	-------------------	--------------------	----------------------	-------------------	--------------------	------------	--

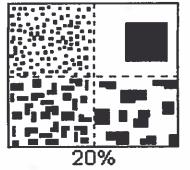
SEE BACK OF PAGE FOR "TYPICAL"STRATA
DESCRIPTIONS. STRATA CAN VARY BY COVER TYPE.

** submersed, most plant mass below surface



Class	1	code	Criteria: % of
	Conv.	NASIS	Surface Area Covered
Few	ſ	#	< 2
Common	С	#	2 to < 20
Many	m	#	≥ 20





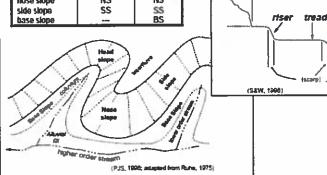
SOIL TEXTURE: Record the code for the soil texture of the 5 cm and 20 cm layers. To estimate texture, collect a soil sample from the appropriate layer and moisten it with water to the consistency of modeling clay/wet newspaper, the sample should be wet enough that all of the particles are saturated but excess water does not freely flow from the sample when squeezed. Attempt to roll the sample into a ball. If the soil will not stay in a ball and has a grainy texture, the texture is either sandy or coarse sandy. If the soil does form a ball, squeeze the sample between your fingers and attempt to form a self-supporting ribbon. Samples which form both a ball and a ribbon should be coded as clayey; samples which form a ball but not a ribbon should be coded as loamy.

- 0= Organic
- 1= Loamy
- 2= Clayey
- 3= Sandy
- 4= Coarse Sand
- 9= Not measured make plot note

Geomorphic Component - Three-dimensional descriptors of parts of landforms or microfeatures that are best applied to areas. Unique descriptors are available for Hills, Terraces, Mountains, and Flat Plains:

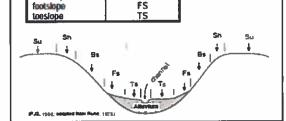
e.g., (for Hills) nose slope or NS.

Hills	Code			
	POP	NASIS		
Interfluve	İF	1F		
head slope	HS	HS		
nose slope	NS	NS		
side slope	SS	SS		
base slope		BS		



Hitislope - Profile Position (Hitislope Position in PDP) - Twodimensional descriptors of parts of line segments (i.e., slope position) along a transect that runs up and down the slope; e.g., backslope or Tetraces BS. This is best applied to transects or points, not areas. Position Code SU SUMME Uplands SH shoulder

backslope



BS

HYDROLOGIC REGIME Modified from Grossman et al 1998. (Frequency and duration of flooding.)

rise tread

UPLAND: Not a wetland. Very rarely flooded.

INTERMITTENTLY/SEASONALLY SATURATED: Dry at least once per year. Surface water is seldom present, but substrate is saturated to surface for extended periods during the growing season.

PERMANENTLY/SEMIPERMANENTLY SATURATED: Dry less than once per year. Surface water is seldom present, but substrate is saturated to surface for extended periods during the growing season. Equivalent to Cowardin's Saturated modifier.

OCCASIONALLY FLOODED: Surface water can be present for brief periods during growing season, but not in most years. Often characterizes flood-plain upper terraces.

TEMPORARILY FLOODED: Surface water present for brief periods during growing season, but water table usually lies well below soil surface. Often characterizes flood-plain levees and lower terraces, Equivalent to Cowardin's Temporary modifier.

INTERMITTENTLY FLOODED: Substrate is usually exposed, but surface water can be present for variable periods without detectable seasonal periodicity. Inundation is not predictable to a given season and is dependent upon highly localized rain storms. This modifier was developed for use in the arid West for water regimes of Playa lakes, intermittent streams, and dry washes but can be used in other parts of the U.S. where appropriate. This modifier can be applied to both wetland and non-wetland situations. Equivalent to Cowardin's Intermittently Flooded modifier.

SEMIPERMANENTLY FLOODED (exposed <1/year): Surface water persists throughout the growing season in most years. Land surface is normally saturated when water level drops below soil surface. Includes Cowardin's Intermittently Exposed and Semipermanently Flooded modifiers.

PERMANENTLY FLOODED: Water covers the land surface at all times of the year in all years. Equivalent to Cowardin's "permanently flooded".

UNKNOWN: The hydrologic regime cannot be determined from the available information.