Plot Data: CVS Levels 1 & 2

General Information

Project Label:

Project Name:

Team:

Plot:

□ Level 1 (planted stems only)
□ Level 2 (planted and natural stems)

Start Date: / /
dd/mmm/yyyy e.g. 15 / JAN / 2007

End Date (if different): / /

Party	Role**
	Plot Leader

**Roles: Co-leader, Assistant, Guide, Land owner, Taxonomist, Other

Soil Drainage*

□ Excessively drained
□ Somewhat excessively drained
□ Well drained
□ Moderately well drained
□ Somewhat poorly drained
□ Poorly drained
□ Very poorly drained

Water

Percent of Plot Submerged: _____ %

Mean Water Depth: _____ cm

Location

General:

State: County:

Quadrangle:

Place Names: 1)

2) 3)

EEP Reach:

Land Owner:

GPS Receiver Location (m):
x= y=

Coordinate System:
□ Lat/Long □ UTM □ State Plane
□ Other (*specify*): _____

Coord. Units:
□ deg. □ deg. min.
□ deg. min. sec.
□ m □ ft □ _____

Datum:
□ NAD83/WGS84 □ NAD27

Zone:
(if applicable)

Lat: **(or Northing)**

Long: **(or Easting)**

Coordinate Accuracy (m radius):
e.g. 30

GPS File Name:

Site Characteristics

Elevation: ± □m □ft.

Slope (degrees):

Aspect (degrees):

Compass Type: □ magnetic □ true

Plot Placement

(check 1 or more)

□ Representative
□ Random
□ Stratified
□ Transect component
□ Systematic (grid)
□ Capture specific feature

Further details of placement can be recorded in Plot Rationale.

Taxonomic Standard Used for Plant Identification

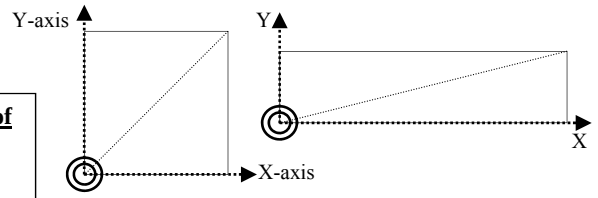
Authority: _____, **Publ. Date:** _____

Plot Diagram

Fill in ***ONE*** of the templates below, using the key to draw GPS location, photos and posts. Edit shape if plot doesn't match one of the templates. Draw any landmarks, such as streams, banks, fences, etc.

Standard 10m x 10m (14.142m diagonal):

Non-standard 5m x 20m (20.616m diagonal):



Bearing of Plot X-Axis: _____ °

Posts (x,y) (meters)
(,)
(,)
(,)
(,)
(,)
(,)

Key

- Plot origin (0,0) point
- GPS location point
- photo taken, with direction
- posts

Plot Size (ares, default=1):
(An "are" is 100 m²)

Photo Identifier(s):

Notes

If more space is needed, check the box and use back of datasheets.

Layout: (anything unusual about plot layout and shape)

□ more...

Plot Location: (directions to plot, landscape content)

□ more...

Plot Rationale**:** (why location was chosen for the plot)

□ more...

Other Notes: (invasive species, erosion, disturbances, etc.)

□ more...

Plot Data: CVS Level 3

GENERAL INFORMATION

Project Label:

Project Name:

Team:

Plot:

Date (dd/mmm/yyyy): / /

End Date (if > 1 day): / /

Party	Role**
	Plot Leader

**Roles: Co-leader, Assistant, Guide, Land owner, Taxonomist, Other

Soil Drainage*

- □ Excessively drained
- □ Somewhat excessively
- □ Well drained
- □ Moderately well d.
- □ Somewhat poorly d.
- □ Poorly drained
- □ Very poorly drained

Salinity*

- □ Saltwater
- □ Brackish
- □ Fresh
- □ Upland (n/a)

Soil Series / Type:

Soil Series Source:

Soil Texture*:

Rock Type*:

Surficial Deposits*:

Soil Descr.:

LOCATION

General:

State: County:

Quadrangle:

Place Names: 1)

2) 3)

EEP Reach:

Land Owner:

Source of coordinates (map, GPS):

⊗ GPS location in plot (meters):
x= y=

Coordinate System:
□ Lat/Long □ UTM □ State Plane
□ Other (*specify*): _____

Coord. Units:
□ deg. □ deg. min.
□ m □ ft □ _____

Datum:
□ NAD83/WGS84 □ NAD27

Zone: (if applicable)

Lat: **(or Northing)**

Long: **(or Easting)**

Coordinate Accuracy (m radius):

GPS File Name:

SITE CHARACTERISTICS

Elevation: ± □m □ft.

Slope (degrees):

Aspect (degrees):

Compass Type: □ magnetic □ true

PLOT DIAGRAM:

Draw plot boundaries and show location of any landmarks and objects in the key below. Also indicate X and Y dimensions of plot, in meters.

Key: ◎ Plot origin (0,0) point ⊗ GPS location point ○→ Photo taken, with direction ● Location of posts

Plot Size (ares):

○→ Photo Identifier(s):

Topographic Position*

- □ Interfluve (crest, summit, ridge)
- □ High slope (shoulder, upper, convex)
- □ High level
- □ Midslope
- □ Backslope (cliff)
- □ Step in slope
- □ Lowslope (lower, foot, colluvial)
- □ Toeslope
- □ Low level (terrace)
- □ Channel wall (bank)
- □ Channel bed (valley bottom)
- □ Basin floor (depression)
- □ *Other:* _____

COVER BY STRATA

Canopy Height (m):

Strata	Height Range (m)	Total Cover (%)
Tree	-	
Shrub	-	
Herb	-	
(**F**loating)	-	
(**A**quatic Submerged)	-	

Strata in parentheses often not present, but should be filled in if they exist.

Hydrologic Regime*

- □ Upland (seldom flooded)
- □ Intermittently/seasonally saturated (seldom flooded)
- □ Permanently/ semipermanently saturated (dry < 1 / yr, seldom flooded)
- □ Occasionally flooded (<1 / yr)
- □ Temporarily flooded
- □ Intermittently flooded
- □ Semipermanently flooded
- □ Permanently flooded
- □ Tidally flooded - daily
- □ Tidally flooded - monthly
- □ Tidally flooded - irregular (wind, storms)
- □ Unknown

WATER

Percent of Plot Submerged: ____ %
Mean Water Depth: ____cm
Closest Dist. to Shore: _____ m

Landform Type*:

NOTES

If more space is needed, check the box and use back of datasheets

Layout: (anything unusual about plot layout and shape)

□ more...

Plot Location: (directions to plot, landscape content)

□ more...

Plot Rationale: (why location was chosen for the plot)

□ more...

Vegetation: (characterization of community, dominants, and principle strata)

□ more...

Classification* Fit:excellent,good, fair, poor; Conf: high, med, low
Provisional comm._____
Comm.(1)_____Fit=__Conf=__
Comm.(2)_____Fit=__Conf=__
Classifier _____ Date ___/___/___

TAXONOMIC STANDARD USED FOR PLANTS

Authority: _____, **Publ. Date:** _____

Plot Placement:

(check 1 or more)

- □ Representative
- □ Random
- □ Stratified
- □ Transect component
- □ Systematic (grid)
- □ Capture specific feature

Plot Data: CVS Levels 4 & 5

General Information

Project Label:

Project Name:

Team:

Plot:

□ Level 4 (no nested corners sampled)
□ Level 5 (nested corners sampled)

Date (dd/mmm/yyy): / /

End Date (if > 1 day): / /

Party	Role**
	Plot Leader

**Roles: Co-leader, Assistant, Guide, Land owner, Taxonomist, Other

Sampling Quality*

Effort Level:
□ Very thorough
□ Accurate
□ Hurried

Taxonomic Accuracy: (for each category)

Category	High	Mod-erate	Low	Not sampled
Vascular:				n/a
Bryophyte:				
Lichen:				

Location

General:

State: County:

Quadrangle:

Place Names: 1)

2) 3)

Land Owner:

Data Confidentiality:
Check one: □ Public Data □ Private Data
□ Fuzz 1 km □ Fuzz 10 km □ Fuzz 100 km

Reason:
If data not public, why?

Source of coordinates (map, GPS):

⊗ GPS location in plot (meters):
x= y=

Coordinate System:
□ Lat/Long □ UTM □ State Plane
□ Other (*specify*): _____

Coord. Units:
□ deg. □ deg. min.
□ m □ ft □ _____

Datum:
□ NAD83/WGS84 □ NAD27

Zone: (if applicable)

Lat: **(or Northing)**

Long: **(or Easting)**

Coord. Accuracy (m radius):

GPS File Name:

Site Characteristics

Elevation: ± □m □ft.

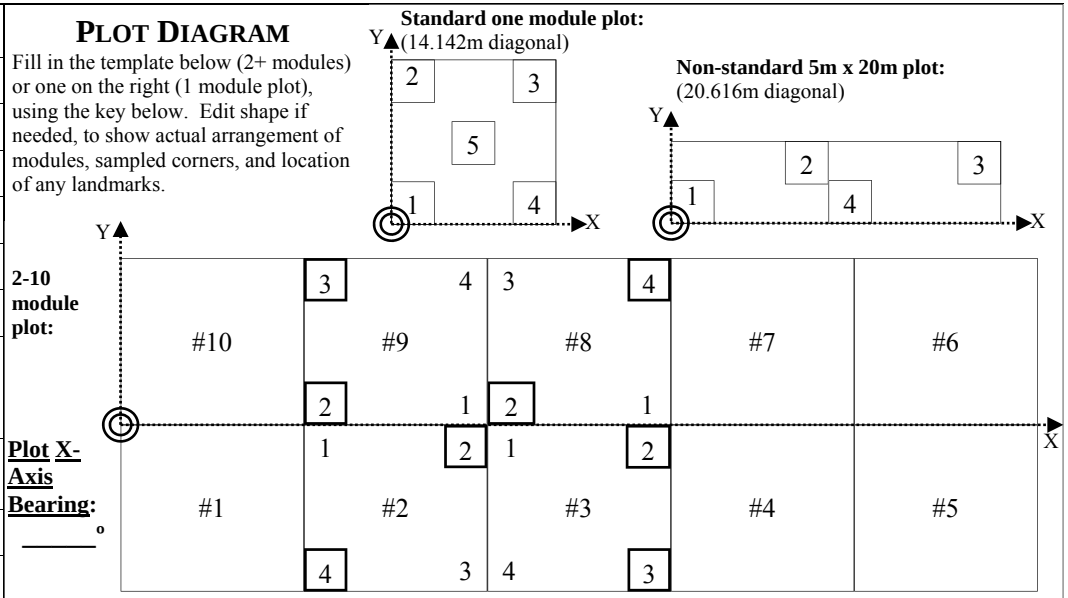
Slope (degrees):

Aspect (degrees):

Compass Type: □ magnetic □ true

Plot Diagram

Fill in the template below (2+ modules) or one on the right (1 module plot), using the key below. Edit shape if needed, to show actual arrangement of modules, sampled corners, and location of any landmarks.



Plot Size for Cover Data (ares): __

□ Stems not sampled on this plot
□ Stems present □ Stems absent
Plot Size, Stems (ares): ____

Depth (1-5): (Level 5 Only)

Intensive Modules: , , ,

Photo Identifier(s):

Cover by Strata

Canopy Height (m):

Strata	Height Range (m)	Total Cover (%)
Tree	-	
Shrub	-	
Herb	-	
(**F**loating)	-	
(**A**quatic Submerged)	-	

Strata in parentheses often not present, but should be filled in if they exist.

Notes

If more space is needed, check the box and use back of datasheets.

Layout: (anything unusual about plot layout and shape) □ more...

Plot Location: (directions to plot, landscape content) □ more...

Plot Rationale: (why location was chosen for the plot) □ more...

Vegetation: (characterization of community, dominants, and principle strata) □ more...

OVER

Classification*

Fit:excellent,good, fair, poor; Conf: high, med, low

Provisional comm._____

Comm.(1)_____Fit=__Conf=__

Comm.(2)_____Fit=__Conf=__

Classifier _____ Date ___/___/___

Taxonomic Standard Used for Plants

Authority: _____, **Publ. Date:** _____

Plot Placement:

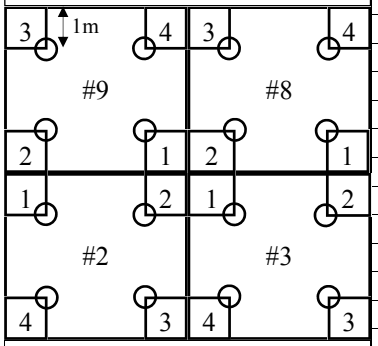
(check 1 or more)
□ Representative
□ Random
□ Stratified
□ Transect component
□ Systematic (grid)
□ Capture specific feature

Project: _____ Team:_____ Plot:_____

Plot Data: CVS Levels 4 & 5 (page 2)

Soil Instructions

Depths (right): After measuring a corner (at the circle) cross it out on the diagram below.
Samples (below): Mark location of soil samples with a triangle and horizon, e.g.: B
Other soil data: enter below.



Soil Samples

Module* (1-10, S (plot deep sample))	Horizon (A,B,C)

Soil Series / Type:

Soil Series Source:

Soil Texture*:

Rock Type*:

Surficial Deposits*:

Soil Description:

Soil Depths

Length of soil probe: _____cm
standard corners given below, correct if needed

Module	Corner	Soil Depth (cm)
2	1	
2	2	
2	3	
2	4	
3	1	
3	2	
3	3	
3	4	
8	1	
8	2	
8	3	
8	4	
9	1	
9	2	
9	3	
9	4	

Organic layer depth: _____cm

Homogeneity

- □ Homogeneous
- □ Compositional trend across plot
- □ Conspicuous inclusions
- □ Irregular / pattern mosaic

Stand Size

- □ >1,000 × plot size
- □ > 100 × plot size
- □ 10-100 × plot size
- □ 3-10 × plot size
- □ 1-3 × plot size
- □ < plot size

Landform Type*:

Topographic Position*

- □ Interfluve (crest, summit, ridge)
- □ High slope (shoulder, upper, convex)
- □ High level
- □ Midslope
- □ Backslope (cliff)
- □ Step in slope
- □ Lowslope (lower, foot, colluvial)
- □ Toeslope
- □ Low level (terrace)
- □ Channel wall (bank)
- □ Channel bed (valley bottom)
- □ Basin floor (depression)
- □ *Other:* _____

Earth Surface & Ground Cover

Underlying Earth Surface: (sum =100%)	percent	Ground Cover: (each ≤100%)	percent
Histosol		Coarse Woody Debris >5cm	
Mineral Soil / Sediment		Fine Woody Debris <5cm	
		Litter	
Gravel / Cobble		Duff (F+H)	
		Bryo / Lichen	
Boulder		Water	
Bedrock		*Other (name):* _____	

McNab Indices

(degrees) + for upslope - for downslope

LFI: Landform Index

(position within landscape)

TSI: Terrain Shape Index

(site micro-topographic shape)

	McNab Indices	LFI: Landform Index	TSI: Terrain Shape Index
at aspect			
+45 degrees			
+90 degrees			
+135 degrees			
+180 degrees			
+225 degrees			
+270 degrees			
+315 degrees			

Water

Hydrologic Regime*

- □ Upland (seldom flooded)
- □ Intermittently / seasonally saturated (seldom flooded)
- □ Permanently / semipermanently saturated (dry < 1 / yr, seldom flooded)
- □ Occasionally flooded (<1 / yr)
- □ Temporarily flooded
- □ Intermittently flooded
- □ Semipermanently flooded
- □ Permanently flooded
- □ Tidally flooded - daily
- □ Tidally flooded - monthly
- □ Tidally flooded - irregular (wind, storms)
- □ Unknown

Salinity*

□ Saltwater □ Fresh
□ Brackish □ Upland (n/a)

Aquatic Vegetation

Mean water depth:___cm
Closest distance to shore:
_____ m

Soil Drainage*

- □ Excessively drained
- □ Somewhat excessively
- □ Well drained
- □ Moderately well dr.
- □ Somewhat poorly dr.
- □ Poorly drained
- □ Very poorly drained

Disturbances

Type	Severity (none, L,M,H)	Yrs ago	% of plot	Description
human				
natural				
fire				
clear-cut				
animal				
other				

Current Land Use:

Former Land Use:

Season of Plot Sampling

- □ Typical growing season
- □ Vernal
- □ Aestival
- □ Autumnal
- □ Winter
- □ Temporarily flooded
- □ Temporarily dry

Physiognomy*

- □ I Forest
- □ II Woodland
- □ III Shrubland
- □ IV Dwarf Shrubland
- □ V Herbaceous
- □ VI Nonvascular
- □ VII Sparsely Vegetated
- □ VIII Barren

Additional Notes:

(Representativeness of the plot to the stand, Successional Status, Stand Maturity, etc.)

□ more...

Planted Woody Stem Data: CVS Level 1

Leader: ________________ **Project**: ________ **Team**: _______ **Plot**: ________ **Date**: ______/_____/_______ Page __ of _____

Species Name	**Source**	**Coordinates** X (0.1 m)	Y (0.1 m)	ddh (1 mm)	**Height** (1* cm)	DBH (1 cm)	**Vigor**	Damage

Source: **Tr**ansplant, **L**ive stake, **B**all and burlap, **P**ot, **Tu**bling, Bare **R**oot, **M**echanically planted, **U**nknown

Vigor: **4**=excellent, **3**=good, **2**=fair, **1**=unlikely to survive year, **0**=Dead, **M**issing. ↓

Damage: **Rem**oval, **Cut**, **Mow**ing, **Beav**er, **Deer**, **Rod**ents, **Ins**ects, **Game**, **Livest**ock, Other/Unknown **Anim**al, Human **Tram**pled, Site Too **Wet**, Site Too **Dry**, **Flood**, **Drou**ght, **Storm**, **Hurr**icane, **Dis**eased, **Vine** Strangulation, **Unkn**own, specify other.

*Height precision drops to 10cm if >2.5m and 50cm if >4m.

Woody Stem Data: CVS Level 2

Planted Woody Stems - individual stems measured

Leader: _____ **Project:** _____ **Team:** _____ **Plot:** _____ **Date:** _____/_____/_____

Species Name	**Source**	**Coordinates** X (0.1 m)	Y (0.1 m)	ddh (1 mm)	**Height** (1* cm)	DBH (1 cm)	**Vigor**	Damage

Source: **Tr**ansplant, **L**ive stake, **B**all and burlap, **P**ot, **Tu**bling, Bare **R**oot, **M**echanically planted, **U**nknown

Vigor: **4**=excellent, **3**=good, **2**=fair, **1**=unlikely to survive year, **0**=Dead, **M**issing.

↓

*Height precision drops to 10cm if >2.5m and 50cm if >4m.

Damage: Removal, Cut, Mowing, Beaver, Deer, Rodents, Insects, Game, Livestock, Other/Unknown Animal, Human Trampled, Site Too Wet, Site Too Dry, Flood, Drought, Storm, Hurricane, Diseased, Vine Strangulation, Unknown, specify other.

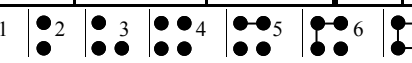
Natural Woody Stems - tallied by species

Explanation of cut-off & subsampling**:

Height Cut-Off (All stems shorter than this are ignored. If >10cm, explain why to the right.): ☐ 10cm ☐ 50cm ☐ 100cm ☐ 137cm

Species Name	☑ c	**SEEDLINGS — HEIGHT CLASSES** Sub-Seed	10 cm-50 cm	50 cm-100 cm	100 cm-137 cm	**SAPLINGS — DBH** Sub-Sapl	0-1 cm	1-2.5	**TREES — DBH** 2.5-	5-	≥10 (write DBH)
		___				___					
		___				___					
		___				___					
		___				___					
		___				___					
		___				___					
		___				___					

**Required if cut-off >10cm or subsample ≠100%.



Natural Woody Stem Data: CVS Levels 2 & 3

Page __ of ___

Leader: ______________ **Project**:_________ **Team**: ____ **Plot**: ______ **Date**: ____/____/_____ **Ares** (=100m²): ____▸

Height Cut-Off (All stems shorter than this are ignored. If >10cm, explain why to the right.): ☐ 10cm ☐ 50cm ☐ 100cm ☐ 137cm

Explanation of cut-off & subsampling*:

☐ more..

		SEEDLINGS — HEIGHT CLASSES				SAPLINGS — DBH			TREES — DBH								
Species Name	☑ c	Sub-Seed	10 cm-50 cm	50 cm-100 cm	100 cm-137 cm	Sub-Sapl	0-1 cm	1-2.5 cm	2.5-	5-	10-	15-	20-	25-	30-	35-	≥40 (write dbh)
		___				___											
		___				___											
		___				___											
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*Required if cut-off >10cm or any subsample ≠100%.

EntryTool2.2.6

cvs.bio.unc.edu

Natural Woody Stem Data: CVS Levels 4 & 5

Explanation of subsampling*:

☐ more...

Leader:_______ **Project:**_______ **Team:**___ **Plot:**________ **Date:**___/___/_____ **Ares:**___ **Plot Sapling Subsample %:**_____ **Plot Tree Subsample %:**____ Page__ of ___

Species Name	☑ c	**Mod**	Sub Sapl	SAPLINGS — DBH 0-1 cm	1-2.5 cm	Sub Tree	TREES — DBH 2.5-	5-	10-	15-	20-	25-	30-	35-	≥40 (write DBH)
			___			___									
			___			___									
			___			___									
			___			___									
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			___			___									

*Explain how & why subsampled. Required if subsample≠100%.

EntryTool2.2.6

Cover Data: CVS Levels 3 & 4

Leader: _____ **Project:** _____ **Team:** ____ **Plot:** _____ **Date:** ____/____/_____ **Ares:** ___ **Page** __ **of** ___

Strata

Column headers are module numbers (level 4 only), with cover codes below:

T	S	H	(F)	(A)	**Species Name**	c										
						1										
						2										
						3										
						4										
						5										
						6										
						7										
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						32										
						33										
						34										
						35										
						36										

Cover: trace=1; 0-1%=2; 1-2%=3; 2-5%=4; 5-10%=5; 10-25%=6; 25-50%=7; 50-75%=8; 75-95%=9; 95-100%=*

EntryTool2.2.7 Form COV34, v9.1

Cover Data: CVS Level 5

Leader:_____ **Project:**_____ **Team:**___ **Plot:**_____ **Date:**____/____/_____ **Depth** (1-5):___ **Ares:**___ **Page** __ **of** ___

Strata

Column headers are couplets of module and corner numbers, under which presence values and cover codes are entered (see lists at bottom of page)

T	S	H	(F)	(A)	**Species Name**	c																			
						1																			
						2																			
						3																			
						4																			
						5																			
						6																			
						7																			
						8																			
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						31																			
						32																			
						33																			
						34																			
						35																			
						36																			

Cover: trace=1; 0-1%=2; 1-2%=3; 2-5%=4; 5-10%=5; 10-25%=6; 25-50%=7; 50-75%=8; 75-95%=9; 95-100%=*

Presence: overhanging=0; 10 x 10m=1; 3.16 x 3.16m=2; 1 x 1m=3; 32 x 32cm=4; 10 x 10cm=5