Habitat Assessment – LOD and Lower Canopy

FIELD EXERCISE 5 – ESRM 368 – Due We 9 Mar 2016

Objectives:

1. Practice measurements for the Point Relascope Sampling (PRS) and Line Intersect Sampling techniques for Large Organic Detritus (LOD);
2. Practice measurements using the Line Intercept and Point Transect methods for lower canopy vegetation.

FIELD WORK

Equipment: Jake staff, compass, 100-ft cloth tape, Rite-In-Rain notebook, pencil, rain gear, sturdy boots (shoes), D-tape, clinometer.

1. Each crew records measurements at one point in a suitable forested area. Record measurements legibly, data will be shared with other teams.
2. At the sample point, use the PRS technique to measure and record those fallen coarse woody pieces that are greater than 1.5 inches in diameter at some point along their length. At the same point, choose a random azimuth to set up a 50-ft transect and implement the Line *Intersect* technique for sampling LOD.
3. Starting again at the same sample point, choose a different random azimuth to set up a 50-ft transect and implement the Line *Intercept* technique for lower canopy vegetation, keeping track of major life forms. Using the same transect (line), implement the Point Transect Technique, placing points every two feet along the transect.

OFFICE WORK

One written report per crew will include the following information.

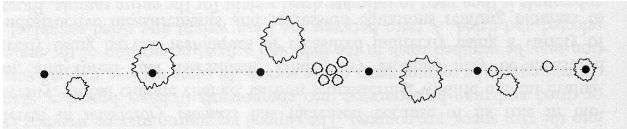
1. Summarize the LOD data collected using the PRS method to obtain mean volume per acre and its standard error, mean number of pieces per acre and its standard error, mean length per acre and mean length per piece.
2. Summarize the LOD data collected using the Line Intersect method to obtain mean volume per acre and its standard error, mean number of pieces per acre and its standard error, mean length per acre and mean length per piece. Compare and contrast results obtained using each method for LOD assessment.
3. Summarize the point transect data for total cover and relative cover for the most abundant life form. Compute the standard error for each.
4. Summarize the line intercept data for total cover and relative cover for the most abundant life form. Compute the standard error for each. Compare and contrast results obtained using each method for lower canopy cover assessment.

Report should include an executive summary, a brief narrative describing weather, procedures followed, difficulties encountered and how solutions developed. An appendix should include a worked example of each type of calculation, a copy of your group's field notes, and any other pertinent information.

FIELD WORK ADDENDUM.

Point Transect Method for estimating cover

Each point is assessed to determine if it is covered or not covered:

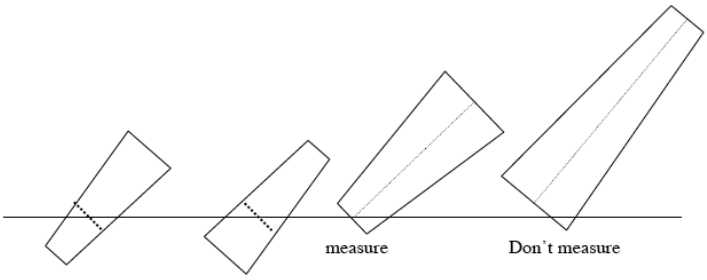


Record species for every intersection or ground description for non-veg points.

Line-Intercept Method for estimating cover

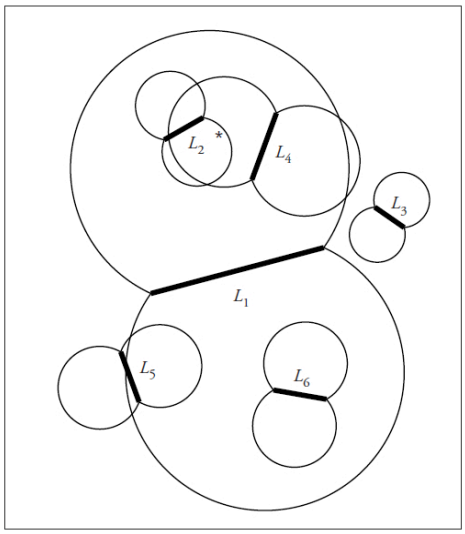
Record species, D1 (starting distance), D2 (ending distance), and height or length of plant

Line-Intersect Method for LOD attributes



Measure and record the diameter at the point of crossing, perpendicular to central axis of piece. Measure and record the length of the piece, also.

PRS Method for LOD attributes



Point Relaskop Enumeration Card Page_____ of _____

Date _____ Team _____ Forest_____

Compartment _____ Stand_____ Plot_____

Aspect _____ Slope _____ Elevation _____

Species/Log Number (*i*)	Diameter (d*i* & Di)	Length (*li*)	Distance a & b	*li**	Comment(s) (firm, soft, etc.)

Line Intersect (LOD) Card Page_____ of _____

Date_____ Team_____ Forest _____

Comp. _____ Stand_____ Transect ___length (ft) _____

Aspect _____ Slope _____ Elevation _____

Piece #	Diam (in.)	length (ft.)	Stump?	Comment(s)

NOTES:

Vegetation Point Transect Card Page_______ of _________

Date______________ Team___________________ Forest __________________

Comp. ____________ Stand_____________ Transect # ____, length (ft) _______

Aspect ____________ Slope ____________ Elevation _______________

Point #	Spp. 1	Spp. 2	Other spp.	Comment(s)

NOTES:

Line Intercept Enumeration Card Page_____ of _____

Forest _____ Compartment _____ Date_____

Stand_____ Plot _____ Team_____

Aspect _____ Slope _____ Elevation _____

Species	D1	D2	Avg. Fol. Height	Comment(s)

Notes: