

L. Rohleder
Rutgers

How to read the data sheets

Plot names that end in 'o' refer to outside the deer exclosures and plot names that end in 'i' were sampled inside the deer exclosure.

Coordinates are often recorded at the center of the vertical plot but may only be recorded at a corner of the deer exclosure. They should not be taken as accurate points to locate the plot center but simply used to re-locate the specific deer exclosure. Accuracy may be ± 20 m.

Species identification was to species level where possible to the best of my ability at the time. Plant identifications should be confirmed with a botanist if they are questionable or unusual.

Vertical Plot (2m radius)

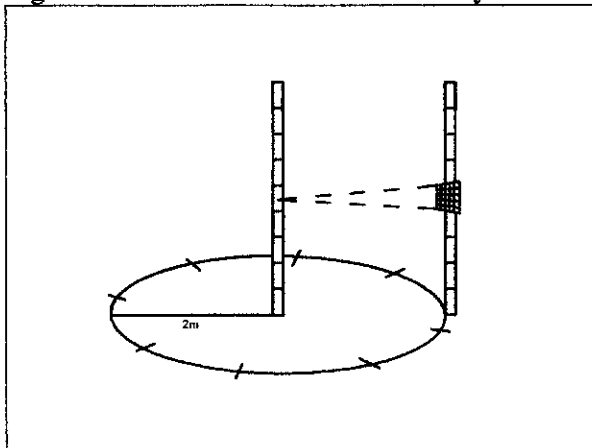
At each location, a 2 m radius circular plot (12.6 m^2) was established in the center of the sample area (either in the exclosure or outside in the control plot). These plot locations were not permanently marked. Diversity in the vertical dimension was measured as vascular plant species richness within the plot at each of ten height classes in 20 cm intervals from ground level up to 2 m.

Soil moisture reading was taken with a Hydrosense probe at the center of the plot. Canopy closure was computed using a photograph taken with a hemispherical lens and analyzed with GLA software.

The first table is the species richness by height class. The height classes are in 20 cm intervals from 0-20 for Class 1 up to 180-200 cm for Class 10, Class 11 is 2-3 m, Class 12 is 3-4m and Class 13 is greater than 4 m. A "1" means that the plant was present in that height, a "0" means it was not present at that height within the circular plot.

The second table at the bottom is the vegetation density at each height class. Productivity in the vertical dimension was measured as vegetation density within each 20 cm height class and was recorded by estimating percent coverage of a 20 x 20 cm card placed at the plot center and viewed horizontally at each of 8 equally spaced points around the margin of the plot [Figure 1].

Figure 1 Illustration of vertical density measurement



Plot Name	Site Name	Date Sampled	N Coord	W Coord	Recorded by:
MNHP13o	Morristown National Historical Park	5/29/2008	40.77510	74.53056	Linda Rohleder
Quad	Code	Scientific Name	Percent Cover		
10					
	CALA19	<i>Carex laxiflora</i>	1		
	FRAM2	<i>Fraxinus americana</i>	1		
	LIGUS2	<i>Ligustrum sp.</i>	1		
	LOJA	<i>Lonicera japonica</i>	1		
	MIVI	<i>Microstegium vimineum</i>	6		
	POCO	<i>Poa compressa</i>	1		
27					
	CALA18	<i>Carex laxiculmis</i>	1		
	CALA19	<i>Carex laxiflora</i>	5		
	CEOR7	<i>Celastrus orbiculatus</i>	0.5		
	FRAM2	<i>Fraxinus americana</i>	0.5		
	LIGUS2	<i>Ligustrum sp.</i>	2		
	LOJA	<i>Lonicera japonica</i>	8		
	MIVI	<i>Microstegium vimineum</i>	35		
	PRSE2	<i>Prunus serotina</i>	0.5		
	RUPH	<i>Rubus phoenicolasius</i>	3		
40					
	AGAL5	<i>Ageratina altissima</i>	2		
	CALA18	<i>Carex laxiculmis</i>	15		
	FRAM2	<i>Fraxinus americana</i>	0.5		
	LOJA	<i>Lonicera japonica</i>	10		
	MIVI	<i>Microstegium vimineum</i>	10		
	PRSE2	<i>Prunus serotina</i>	0.5		
	RUPH	<i>Rubus phoenicolasius</i>	8		
	TORA2	<i>Toxicodendron radicans</i>	0.5		
46					
	CALA18	<i>Carex laxiculmis</i>	7		
	CALA19	<i>Carex laxiflora</i>	1		
	CEOR7	<i>Celastrus orbiculatus</i>	0.5		
	FRAM2	<i>Fraxinus americana</i>	0.5		
	LOJA	<i>Lonicera japonica</i>	20		
	MIVI	<i>Microstegium vimineum</i>	15		
	PRSE2	<i>Prunus serotina</i>	0.5		
	RUPH	<i>Rubus phoenicolasius</i>	20		
	TORA2	<i>Toxicodendron radicans</i>	0.5		
49					
	ALVI	<i>Allium vineale</i>	1		
	CAIM	<i>Cardamine impatiens</i>	0.5		
	CEOR7	<i>Celastrus orbiculatus</i>	0.5		
	FRAM2	<i>Fraxinus americana</i>	1		
	LIGUS2	<i>Ligustrum sp.</i>	1		
	LOJA	<i>Lonicera japonica</i>	2		
	MIVI	<i>Microstegium vimineum</i>	2		
	PAQU2	<i>Parthenocissus quinquefolia</i>	0.5		
	PRSE2	<i>Prunus serotina</i>	12		
	RUPH	<i>Rubus phoenicolasius</i>	12		
	TORA2	<i>Toxicodendron radicans</i>	0.5		
52					
	CALA18	<i>Carex laxiculmis</i>	2		
	CALA19	<i>Carex laxiflora</i>	7		
	CEOR7	<i>Celastrus orbiculatus</i>	0.5		
	FRAM2	<i>Fraxinus americana</i>	1		
	LOJA	<i>Lonicera japonica</i>	20		

Plot Name: MNHP130
Date Sampled: 5/29/2008

Site Name: Morristown National Historical Park
Soil Moisture: 24 % Canopy Closure: 51 %

Coordinates: N 40.7751 W 74.53056
Data Collected by: Linda Rohleder

Vertical Diversity

Code	ScientificName	Class1	Class2	Class3	Class4	Class5	Class6	Class7	Class8	Class9	Class10	Class11	Class12	Class13
AGAL5	<i>Ageratina altissima</i>	1	1	1	0	0	0	0	0	0	0	0	0	0
ARTR	<i>Arisaema triphyllum</i>	1	1	0	0	0	0	0	0	0	0	0	0	0
BETH	<i>Berberis thunbergii</i>	1	1	1	1	1	0	0	0	0	0	0	0	0
CALA18	<i>Carex laxiculmis</i>	1	0	0	0	0	0	0	0	0	0	0	0	0
CALA19	<i>Carex laxiflora</i>	1	1	0	0	0	0	0	0	0	0	0	0	0
CEOR7	<i>Celastrus orbiculatus</i>	1	1	0	0	0	0	0	0	0	0	0	0	0
FRAM2	<i>Fraxinus americana</i>	1	0	0	0	0	0	0	0	0	0	0	0	0
GATR3	<i>Galium triflorum</i>	1	0	0	0	0	0	0	0	0	0	0	0	0
GECA7	<i>Geum canadense</i>	1	0	0	0	0	0	0	0	0	0	0	0	0
LIGUS2	<i>Ligustrum sp.</i>	1	1	0	0	0	0	0	0	0	0	0	0	0
LOJA	<i>Lonicera japonica</i>	1	1	1	0	0	0	0	0	0	0	0	0	0
MIVI	<i>Microstegium vimineum</i>	1	0	0	0	0	0	0	0	0	0	0	0	0
PAQU2	<i>Parthenocissus quinquefolia</i>	1	0	0	0	0	0	0	0	0	0	0	0	0
POCO	<i>Poa compressa</i>	1	1	1	0	0	0	0	0	0	0	0	0	0
PRSE2	<i>Prunus serotina</i>	1	0	0	0	0	0	0	0	0	0	0	0	0
ROMU	<i>Rosa multiflora</i>	1	1	1	1	0	0	0	0	0	0	0	0	0
RUPH	<i>Rubus phoenicolasius</i>	1	1	1	1	1	0	0	0	0	0	0	0	0
TORAZ	<i>Toxicodendron radicans</i>	1	0	0	0	0	0	0	0	0	0	0	0	0

Vertical Density

Point	Class1	Class2	Class3	Class4	Class5	Class6	Class7	Class8	Class9
1	80	80	60	7	0	0	0	0	0
2	7	2	17	0	0	0	0	0	0
3	12	6	25	0	0	0	0	0	0
4	6	25	23	0	0	0	0	0	0
5	17	19	30	0	0	0	0	0	0
6	20	3	35	0	0	0	0	0	0
7	18	26	33	4	0	0	0	0	0
8	45	43	80	15	0	0	0	0	0

Plot Name	Site Name	Date Sampled	N Coord	W Coord
MNHP10i	Morristown National Historical Park	6/11/2008	40.76542	74.54163

Recorded by:
Linda Rohleder

Quad	Code	Scientific Name	Percent Cover
3			
	ALPE4	<i>Alliaria petiolata</i>	1
	CILU	<i>Circaea lutetiana</i>	6
	POVI2	<i>Polygonum virginianum</i>	1
	PRSE2	<i>Prunus serotina</i>	0.5
	ROMU	<i>Rosa multiflora</i>	35
	VISO	<i>Viola sororia</i>	1
6			
	ALPE4	<i>Alliaria petiolata</i>	1
	ARTR	<i>Arisaema triphyllum</i>	1
	CILU	<i>Circaea lutetiana</i>	25
	LIGUS2	<i>Ligustrum sp.</i>	0.5
	LOJA	<i>Lonicera japonica</i>	2

Plot Name	Site Name	Date Sampled	N Coord	W Coord
MNHP10o	Morristown National Historical Park	6/11/2008	40.76542	74.54163

Recorded by:
Linda Rohleder

Quad	Code	Scientific Name	Percent Cover
3			
	AGAL5	<i>Ageratina altissima</i>	0.5
	ARTR	<i>Arisaema triphyllum</i>	0.5
	CAIM	<i>Cardamine impatiens</i>	27
	MIVI	<i>Microstegium vimineum</i>	50
	PRSE2	<i>Prunus serotina</i>	0.5
6			
	ALPE4	<i>Alliaria petiolata</i>	5
	CAIM	<i>Cardamine impatiens</i>	8
	MIVI	<i>Microstegium vimineum</i>	60
	PRSE2	<i>Prunus serotina</i>	0.5

Plot Name	Site Name	Date Sampled	N Coord	W Coord
MNHP11i	Morristown National Historical Park	5/28/2008	40.76804	74.54597

Recorded by:
Linda Rohleder

Quad	Code	Scientific Name	Percent Cover
5			
	CAPE6	<i>Carex pensylvanica</i>	0.5
	MACA4	<i>Maianthemum canadense</i>	1
	MIRE	<i>Mitchella repens</i>	0.5
	QUPR2	<i>Quercus prinus</i>	1
8			
	MACA4	<i>Maianthemum canadense</i>	0.5
	MIRE	<i>Mitchella repens</i>	0.5
	PRSE2	<i>Prunus serotina</i>	0.5
	VAPA4	<i>Vaccinium pallidum</i>	0.5

Plot Name	Site Name	Date Sampled	N Coord	W Coord
MNHP11o	Morristown National Historical Park	5/28/2008	40.76804	74.54597

Recorded by:
Linda Rohleder

Quad	Code	Scientific Name	Percent Cover
5			
	CAPE6	<i>Carex pensylvanica</i>	11
	MIRE	<i>Mitchella repens</i>	1
8			
	ANQU	<i>Anemone quinquefolia</i>	2
	BELE	<i>Betula lenta</i>	25