

PLOT 456

LOCATION: 53 m from western edge of Grid Square #: 456

DATE SAMPLED: 8/7/84

SITE VARIABLES:

SLOPE: 10° ASPECT: 168° POSITION: crest of slope

SURFACE WATER: none

LITTER DEPTH: 3.38 cm EXPOSED BEDROCK: yes

SOIL SERIES (mapped):

SOIL pH:

VISUAL EVIDENCE OF: LOGGING: no
 GRAZING: yes
 STONE WALLS: no
 FIRE: no
 RECENT WINDTHROW: yes
 MOUNDS & PITS: yes

AGES OF DOMINANT TREES: 36.7 cm Acer saccharum : 106 years

CANOPY HEIGHT: 19.5 m % SKY VISIBLE: 1.0

COMMENTS:

HYDROLOGY:

Site is well drained. Ephemeral stream to the east of plot.

SOILS:

Where bedrock does not underlay the surface, soils are deep and moderately stony.

HISTORY:

Some windthrown trees in plot.

STAND CONDITION:

Canopy is dense. Most trees are in good condition.

ADDITIONAL COMMENTS ON THE SITE:

Center stake was offset 2m south of plot center because of bedrock at surface. Topography was determined by underlying bedrock that was close to surface.

VEGETATION STRUCTURE AND COMPOSITION:

TREES: Absolute density and basal area of stems > 10 cm DBH, by canopy position.

SPECIES	CANOPY		SUB-CANOPY		UNDER-STORY		ALL STEMS	
	DENS	BA	DENS	BA	DENS	BA	DENS	BA
Acer saccharum	40	3.889	80	1.941	100	1.378	220	7.209
Quercus prinus	40	2.896	0	0.000	20	0.543	60	3.439
Carya glabra	40	2.163	120	2.246	120	1.604	280	6.013
Quercus alba	0	0.000	20	0.928	0	0.000	20	0.928
Carya tomentosa	60	2.017	120	2.694	60	0.742	240	5.453
TOTALS:	DENSITY / HA	180		340		300		820
	BASAL AREA (M2) / HA	10.9653		7.8092		4.2675		23.0419

TREES: Relative density and basal area of stems > 10 cm DBH, by canopy position; and overall species importance values (mean of overall %D and %BA).

SPECIES	CANOPY		SUB-CANOPY		UNDER-STORY		ALL STEMS		IMPORTANCE VALUE
	%D	%BA	%D	%BA	%D	%BA	%D	%BA	%
Acer saccharum	22	35	24	25	33	32	27	31	29.06
Quercus prinus	22	26	0	0	7	13	7	15	11.12
Carya glabra	22	20	35	29	40	38	34	26	30.12
Quercus alba	0	0	6	12	0	0	2	4	3.23
Carya tomentosa	33	18	35	35	20	17	29	24	26.47

TREES: Size class distribution of trees tallied in the 1/20 ha plot.

SPECIES	SIZE CLASS (cm)								
	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	> 50
Acer saccharum	4	4	1	0	1	1	0	0	
Quercus prinus	0	1	0	1	1	0	0	0	
Carya glabra	7	5	1	0	1	0	0	0	
Quercus alba	0	0	1	0	0	0	0	0	
Carya tomentosa	3	7	2	0	0	0	0	0	
TOTALS	14	17	5	1	3	1	0	0	0

TREES: Absolute density (per ha) and relative density (as % of density of live trees) of standing dead trees and trees with upper branch dieback

(NOTE: "% OF LIVE" = 999 indicates no live trees of that species in the plot).

SPECIES	STANDING DEAD		BRANCH DIEBACK	
	DENSITY	% OF LIVE	DENSITY	% OF LIVE
<i>Acer saccharum</i>	20.0	9.09	0.0	0.00
<i>Quercus prinus</i>	0.0	0.00	20.0	33.33
<i>Carya glabra</i>	40.0	14.29	20.0	7.14
<i>Quercus alba</i>	0.0	0.00	0.0	0.00
<i>Carya tomentosa</i>	0.0	0.00	0.0	0.00
TOTALS:	60.0	7.32	40.0	4.88

SAPLINGS: Densities per hectare of all stems > 1 m height and < 10 cm DBH.

SPECIES	SIZE CLASSES (cm)					TOTAL
	0 - 2	2 - 4	4 - 6	6 - 8	8 - 10	
<i>Acer saccharum</i>	920	840	240	160	40	2200
<i>Ostrya virginiana</i>	80	40	0	0	0	120
<i>Amelanchier</i> sp.	80	0	0	0	0	80
<i>Fraxinus americana</i>	80	40	40	0	0	160
TOTALS:	1160	920	280	160	40	2560

SEEDLINGS: Densities (per m^2) of stems < 1 m tall.

SPECIES	DENSITY ($\#/m^2$)
<i>Acer saccharum</i>	4.500
<i>Fraxinus americana</i>	0.750
<i>Amelanchier</i> sp.	0.250
<i>Crataegus</i> sp.	0.250
<i>Prunus serotina</i>	0.250
TOTAL:	6.000

SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
Parthenocissus quinquefolia	1.268
Corylus cornuta	1.982
Galussacia baccata	0.317
Rubus sp.	0.159
TOTAL:	3.726

HERBACEOUS SPECIES AND THE FOREST FLOOR: Percent cover (note: + means < 1 %).

	% COVER
Litter layer	86.250
Exposed soil	+
Exposed rock	4.125
Bryophytes	4.749
Lichens	3.121
Dead wood	5.124
Unknown seedlings	+
Tree boles	1.250
Asplenium platyneuron	+
Alliaria officinalis	2.249
Hepatica americana	1.247
Galium circaezans	+
Tree root	3.875
Solidago sp.	+
Solidago sp.	+
Smilacina racemosa	+
Carex sp.	+
Solidago caesia	+
Dead wood over	1.500
Eupatorium rugosum	+
Viola palmata	+