

PLOT 659

LOCATION: 66 m from western edge of Grid Square #: 659  
 DATE SAMPLED: 7/9/84

SITE VARIABLES:

SLOPE: 11° ASPECT: 25° POSITION: ridgetop  
 SURFACE WATER: none  
 LITTER DEPTH: 4.75 cm EXPOSED BEDROCK: yes  
 SOIL SERIES (mapped):  
 SOIL pH:

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

AGES OF DOMINANT TREES: 37.9 cm Acer saccharum : 76 years

CANOPY HEIGHT: 25.7 m % SKY VISIBLE: 0.0

COMMENTS:

HYDROLOGY:

A well drained swale to the south funnels runoff in spring and during other high precipitation events. The drainage is poor enough for the site to support hydrophyllous vegetation where the gradient is low. There appears to be a spring in the shale at the foot of the slope.

SOILS:

The soil is shallow in places on the ridge and deep in places off the ridge. There is talus over much of the surface and the stonyous organic layer is variable.

HISTORY:

There is a stone wall intersection in the plot and a lot of windthrow.

STAND CONDITION:

Despite windthrow, the canopy is closed.

ADDITIONAL COMMENTS ON THE SITE:

There is a lot of exposed bedrock on the site. There are no stumps. The sapling layer is dense

## 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
<i>Carya glabra</i>	0	0.000	40	0.522	20	0.330	60	0.852
<i>Carya ovata</i>	0	0.000	20	0.242	20	0.215	40	0.457
<i>Quercus rubra</i>	60	4.131	20	0.555	0	0.000	80	4.686
<i>Fraxinus americana</i>	40	2.113	80	1.377	40	0.479	160	3.968
<i>Tsuga canadensis</i>	0	0.000	0	0.000	20	0.245	20	0.245
<i>Quercus prinus</i>	60	5.626	20	0.767	0	0.000	80	6.393
<i>Quercus velutina</i>	20	2.150	0	0.000	0	0.000	20	2.150
<i>Acer rubrum</i>	0	0.000	20	0.443	0	0.000	20	0.443
<i>Ostrya virginiana</i>	0	0.000	20	0.344	40	0.682	60	1.026
<i>Acer saccharum</i>	20	2.256	20	1.037	0	0.000	40	3.294
TOTALS:	DENSITY / HA	200	240	140	580			
	BASAL AREA (M2) / HA	16.2768	5.2873	1.9519	23.5160			

**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
	%D	%BA	%D	%BA	%D	%BA	%D	%BA	VALUE
<i>Carya glabra</i>	0	0	17	10	14	17	10	4	6.98
<i>Carya ovata</i>	0	0	8	5	14	11	7	2	4.42
<i>Quercus rubra</i>	30	25	8	11	0	0	14	20	16.86
<i>Fraxinus americana</i>	20	13	33	26	29	25	28	17	22.23
<i>Tsuga canadensis</i>	0	0	0	0	14	13	3	1	2.25
<i>Quercus prinus</i>	30	35	8	15	0	0	14	27	20.49
<i>Quercus velutina</i>	10	13	0	0	0	0	3	9	6.30
<i>Acer rubrum</i>	0	0	8	8	0	0	3	2	2.67
<i>Ostrya virginiana</i>	0	0	8	7	29	35	10	4	7.35
<i>Acer saccharum</i>	10	14	8	20	0	0	7	14	10.45

**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
Carya glabra	3	0	0	0	0	0	0	0	
Carya ovata	2	0	0	0	0	0	0	0	
Quercus rubra	0	1	1	1	0	1	0	0	
Fraxinus americana	4	3	0	0	1	0	0	0	
Tsuga canadensis	1	0	0	0	0	0	0	0	
Quercus prinus	0	0	1	1	0	2	0	0	
Quercus velutina	0	0	0	0	0	1	0	0	
Acer rubrum	0	1	0	0	0	0	0	0	
Ostrya virginiana	2	1	0	0	0	0	0	0	
Acer saccharum	0	0	0	1	0	1	0	0	
TOTALS	12	6	2	3	1	5	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
Carya glabra	40.0	66.67	0.0	0.00
Carya ovata	0.0	0.00	0.0	0.00
Quercus rubra	0.0	0.00	0.0	0.00
Fraxinus americana	0.0	0.00	20.0	12.50
Tsuga canadensis	0.0	0.00	0.0	0.00
Quercus prinus	0.0	0.00	0.0	0.00
Quercus velutina	40.0	200.00	20.0	100.00
Acer rubrum	20.0	100.00	0.0	0.00
Ostrya virginiana	0.0	0.00	0.0	0.00
Acer saccharum	0.0	0.00	0.0	0.00
TOTALS:	100.0	17.24	40.0	6.90

**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	
Cornus florida	80	40	80	0	0	200
Ostrya virginiana	2160	200	120	40	0	2520
Acer saccharum	1640	160	0	0	0	1800
Fraxinus americana	0	80	40	40	0	160
Amelanchier sp.	240	40	0	40	0	320
Rhamnus cathartica	40	0	0	0	0	40
TOTALS:	4160	520	240	120	0	5040

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

SPECIES	DENSITY ( $\#/m^2$ )
Acer rubrum	1.500
Acer saccharum	0.500
Ostrya virginiana	1.000
Hammamelis virginiana	0.250
Amelanchier sp.	0.250
Fraxinus americana	0.250
Carya glabra	0.250
TOTAL:	4.000



SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
Parthenocissus quinquefolia	0.436
Viburnum acerifolium	3.012
TOTAL:	3.448

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

	% COVER
Litter layer	87.875
Exposed soil	+
Exposed rock	1.122
Bryophytes	+
Lichens	+
Dead wood	10.375
Unknown seedlings	+
Tree boles	+
Solidago caesia	+
Chimaphila maculata	+
Uvularia perfoliata	+
Hepatica americana	+
Aster divaricatus	+
Carex sp.	+
Deadwood over	+