

## PLOT 87

LOCATION: 86 m from western edge of Grid Square #: 87  
DATE SAMPLED: 8/1/84

## SITE VARIABLES:

SLOPE: 15° ASPECT: 90° POSITION: midslope  
SURFACE WATER: none  
LITTER DEPTH: 1.63 cm EXPOSED BEDROCK: no  
SOIL SERIES (mapped):  
SOIL pH:

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

AGES OF DOMINANT TREES: 44.3 cm Quercus rubra : years

CANOPY HEIGHT: 25.8 m % SKY VISIBLE: 3.0

## COMMENTS:

HYDROLOGY:

Plot is well drained. Low spot and ephemeral stream are just off the plot to the east. Drainage of the slopes is into this low spot, especially in times of high water (spring thaw).

SOILS:

The litter layer is well developed with no fermentation layer. Soils are deep, moderately stony and well drained.

HISTORY:

Juniperus virginiana and Pinus strobus suggest pasturing. Stone wall nearby.

STAND CONDITION:

Most canopy trees are in good condition. Some are multiple stemmed.

ADDITIONAL COMMENTS ON THE SITE:

Largest tree (QUAL 49.7) was not cored because it was multi-stemmed. There is a dense understory except under the pines. There is an even-aged stand of Pinus strobus in a pasture enclosed by a stone wall to the west of the plot.

## 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
Quercus rubra	20	3.083	40	2.154	20	0.234	80	5.470
Quercus velutina	0	0.000	80	3.809	20	0.270	100	4.078
Quercus alba	20	3.880	120	4.929	40	0.480	180	9.289
Ulmus sp.	0	0.000	20	0.579	0	0.000	20	0.579
Betula lenta	20	1.619	80	2.687	20	0.183	120	4.489
Pinus strobus	0	0.000	20	0.303	120	2.472	140	2.776
Acer rubrum	0	0.000	20	0.982	0	0.000	20	0.982
Sassafras albidum	0	0.000	0	0.000	20	0.208	20	0.208
Carya glabra	20	1.559	20	1.223	0	0.000	40	2.781
TOTALS:	DENSITY / HA	80	400	240	720			
	BASAL AREA (M2) / HA	10.1399	16.6653	3.8472	30.6523			

**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	%
Quercus rubra	25	30	10	13	8	6	11	18	14.48
Quercus velutina	0	0	20	23	8	7	14	13	13.60
Quercus alba	25	38	30	30	17	12	25	30	27.65
Ulmus sp.	0	0	5	3	0	0	3	2	2.33
Betula lenta	25	16	20	16	8	5	17	15	15.66
Pinus strobus	0	0	5	2	50	64	19	9	14.25
Acer rubrum	0	0	5	6	0	0	3	3	2.99
Sassafras albidum	0	0	0	0	8	5	3	1	1.73
Carya glabra	25	15	5	7	0	0	6	9	7.31

**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
Quercus rubra	1	0	1	1	0	0	1	0	
Quercus velutina	2	1	0	1	1	0	0	0	
Quercus alba	2	3	2	0	1	0	0	1	
Ulmus sp.	0	1	0	0	0	0	0	0	
Betula lenta	1	3	0	1	1	0	0	0	
Pinus strobus	4	2	0	1	0	0	0	0	
Acer rubrum	0	0	0	1	0	0	0	0	
Sassafras albidum	1	0	0	0	0	0	0	0	
Carya glabra	0	0	0	1	1	0	0	0	
TOTALS	11	10	3	6	4	0	1	1	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
Quercus rubra	0.0	0.00	0.0	0.00
Quercus velutina	0.0	0.00	80.0	80.00
Quercus alba	20.0	11.11	20.0	11.11
Ulmus sp.	0.0	0.00	0.0	0.00
Betula lenta	0.0	0.00	0.0	0.00
Pinus strobus	0.0	0.00	0.0	0.00
Acer rubrum	0.0	0.00	0.0	0.00
Sassafras albidum	0.0	0.00	0.0	0.00
Carya glabra	0.0	0.00	0.0	0.00
TOTALS:	20.0	2.78	100.0	13.89

**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	
Hammamelis virginiana	1720	160	0	0	0	1880
Acer saccharum	80	80	0	0	0	160
Acer rubrum	0	0	40	40	0	80
Betula lenta	80	0	0	80	0	160
Fagus grandifolia	120	40	0	0	0	160
Ostrya virginiana	400	80	0	0	0	480
Pinus strobus	0	40	80	40	40	200
Rhamnus cathartica	0	0	40	0	0	40
Quercus rubra	0	40	0	0	0	40
Carpinus caroliniana	280	40	0	0	0	320
Fraxinus americana	0	0	40	0	0	40
Cornus florida	80	40	0	0	0	120
TOTALS:	2760	520	200	160	40	3680

**SEEDLINGS:** Densities (per m<sup>2</sup>) of stems < 1 m tall.

SPECIES	DENSITY (#/m <sup>2</sup> )
Fraxinus americana	0.250
Fagus grandifolia	0.500
Carya glabra	0.500
Acer rubrum	0.250
Hammamelis virginiana	1.250
Acer saccharum	0.250
TOTAL:	3.000

SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
<i>Viburnum acerifolium</i>	0.991
<i>Parthenocissus quinquefolia</i>	0.159
<i>Toxicodendron radicans</i>	0.119
TOTAL:	1.268

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

	% COVER
Litter layer	76.500
Exposed soil	9.872
Exposed rock	1.996
Bryophytes	1.121
Lichens	+
Dead wood	11.375
Unknown seedlings	+
Tree boles	+
<i>Potentilla simplex</i>	+
<i>Solidago caesia</i>	+
Mint sp.	+
Fungus	+
Tree root	+
<i>Aster acuminatus</i>	+
<i>Amphicarpa bracteata</i>	+