

PLOT 100

LOCATION: 67 m from western edge of Grid Square #: 100  
DATE SAMPLED: 7/30/84

SITE VARIABLES:

SLOPE: 8° ASPECT: 130° POSITION: midslope  
SURFACE WATER: none  
LITTER DEPTH: 3.50 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: 31.8 cm Quercus velutina : years

CANOPY HEIGHT: 24.8 m % SKY VISIBLE: 8.0

COMMENTS:

HYDROLOGY:

A very dry site.

SOILS:

Soils are shallow, rocky, with a well developed litter layer and poorly developed humus layers.

HISTORY:

The few very big trees and Juniperus virginiana suggests that this area was pastured.

STAND CONDITION:

The big Quercus bicolora have dieback. Dense sapling layer evident.

ADDITIONAL COMMENTS ON THE SITE:

Neither of the two largest trees were cored because they were not considered to be representative of the stand (left-over from pasturing).

## 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 velutina	80	11.498	80	4.404	0	0.000	160	15.902
Carya glabra	20	0.680	40	0.720	60	0.825	120	2.224
Quercus alba	0	0.000	0	0.000	20	0.157	20	0.157
Acer rubrum	0	0.000	0	0.000	0	0.000	0	0.000
Ulmus americana	0	0.000	20	0.344	0	0.000	20	0.344
Cornus florida	0	0.000	0	0.000	20	0.270	20	0.270
Carya ovata	0	0.000	80	2.479	0	0.000	80	2.479
TOTALS:	DENSITY / HA							
	100		220		100		420	
	BASAL AREA (M2) / HA		12.1776		7.9478		1.2512	
							21.3766	

**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
Quercus velutina	80	94	36	55	0	0	38	74	56.24
Carya glabra	20	6	18	9	60	66	29	10	19.49
Quercus alba	0	0	0	0	20	13	5	1	2.75
Acer rubrum	0	0	0	0	0	0	0	0	0.00
Ulmus americana	0	0	9	4	0	0	5	2	3.19
Cornus florida	0	0	0	0	20	22	5	1	3.01
Carya ovata	0	0	36	31	0	0	19	12	15.32

**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
	15	20	25	30	35	40	45	50	
Quercus velutina	0	0	2	1	3	0	0	1	56
Carya glabra	4	1	1	0	0	0	0	0	
Quercus alba	1	0	0	0	0	0	0	0	
Acer rubrum	0	0	0	0	0	0	0	0	
Ulmus americana	1	0	0	0	0	0	0	0	
Cornus florida	1	0	0	0	0	0	0	0	
Carya ovata	0	2	2	0	0	0	0	0	
TOTALS	7	3	5	1	3	0	0	1	1



**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 velutina	0.0	0.00	120.0	75.00
Carya glabra	0.0	0.00	0.0	0.00
Quercus alba	0.0	0.00	0.0	0.00
Acer rubrum	20.0	999.00	0.0	0.00
Ulmus americana	0.0	0.00	0.0	0.00
Cornus florida	0.0	0.00	0.0	0.00
Carya ovata	0.0	0.00	0.0	0.00
TOTALS:	20.0	4.76	120.0	28.57

**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	
Quercus rubra	280	0	0	0	0	280
Carya glabra	200	120	80	40	40	480
Hammamelis virginiana	1440	200	0	0	0	1640
Quercus alba	0	40	40	0	0	80
Amelanchier sp.	440	120	0	40	0	600
Carya ovata	0	40	0	0	0	40
Fraxinus americana	40	0	0	0	0	40
Quercus velutina	0	0	0	0	40	40
Quercus illicifolia	160	0	0	0	0	160
Cornus florida	1000	160	40	0	0	1200
TOTALS:	3560	680	160	80	80	4560

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

SPECIES	DENSITY (#/m <sup>2</sup> )
Cornus florida	2.000
Acer saccharum	0.250
Amelanchier sp.	0.250
Quercus velutina	0.750
Quercus rubra	0.250
Quercus illicifolia	0.500
TOTAL:	4.000

**SHRUBS:** Percent cover of shrub species within the stand.

SPECIES	% COVER
Parthenocissus quinquefolia	0.515
TOTAL:	0.515

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

	% COVER
Litter layer	1.624
Exposed soil	1.497
Exposed rock	2.125
Bryophytes	1.500
Lichens	3.375
Dead wood	+
Unknown seedlings	91.750
Tree boles	+
Dead wood over	+
Chemophila maculata	+
Solidago sp.	1.125
Carex sp.	+
Potentilla simplex	+
Antennaria plantaginifolia	+
Grass sp.	+
Veronica officinalis	+