

PLOT 101

LOCATION: 37 m from western edge of Grid Square #: 101  
DATE SAMPLED: 7/30/84

SITE VARIABLES:

SLOPE: 6° ASPECT: 196° POSITION: local depression  
SURFACE WATER: ephemeral pond  
LITTER DEPTH: 0.75 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: 36.0 cm Quercus rubra : 52 years

CANOPY HEIGHT: 23.3 m % SKY VISIBLE: 10.0

COMMENTS:

HYDROLOGY:

The southern corner of the plot has a depression which is ponded (ephemeral) and swampy.

SOILS:

Soils are shallow and rocky.

HISTORY:

Some windthrow. Juniperus virginiana suggest pasturing.

STAND CONDITION:

Cornus florida showing dieback or mortality. Some oaks have dieback, but overall, canopy is in good condition.

ADDITIONAL COMMENTS ON THE SITE:

Plot center offset 40.62m to the east (to 37) due to scrub oak open area. Quercus bicolora just off the plot. Slopes of plot are dry while the depression is wet and swampy.

## 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>Quercus rubra</i>	20	2.036	140	9.534	0	0.000	160	11.569
<i>Quercus alba</i>	20	1.214	20	1.103	0	0.000	40	2.317
<i>Carya glabra</i>	0	0.000	20	1.021	0	0.000	20	1.021
<i>Quercus prinus</i>	0	0.000	0	0.000	60	1.005	60	1.005
<i>Quercus velutina</i>	0	0.000	20	1.037	0	0.000	20	1.037
<i>Acer saccharum</i>	0	0.000	20	0.487	20	0.208	40	0.694
<i>Fraxinus americana</i>	20	0.733	0	0.000	20	0.173	40	0.906
TOTALS:	DENSITY / HA		220		100		380	
	BASAL AREA (M2) / HA		13.1822		1.3859		18.5507	

**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	
<i>Quercus rubra</i>	33	51	64	72	0	0	42	62	52.24
<i>Quercus alba</i>	33	30	9	8	0	0	11	12	11.51
<i>Carya glabra</i>	0	0	9	8	0	0	5	6	5.38
<i>Quercus prinus</i>	0	0	0	0	60	73	16	5	10.60
<i>Quercus velutina</i>	0	0	9	8	0	0	5	6	5.43
<i>Acer saccharum</i>	0	0	9	4	20	15	11	4	7.13
<i>Fraxinus americana</i>	33	18	0	0	20	12	11	5	7.71

**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	
<i>Quercus rubra</i>	0	1	1	1	4	1	0	0	
<i>Quercus alba</i>	0	0	0	2	0	0	0	0	
<i>Carya glabra</i>	0	0	0	1	0	0	0	0	
<i>Quercus prinus</i>	2	0	1	0	0	0	0	0	
<i>Quercus velutina</i>	0	0	0	1	0	0	0	0	
<i>Acer saccharum</i>	1	1	0	0	0	0	0	0	
<i>Fraxinus americana</i>	1	0	1	0	0	0	0	0	
TOTALS	4	2	3	5	4	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>Quercus rubra</i>	0.0	0.00	100.0	62.50
<i>Quercus alba</i>	20.0	50.00	20.0	50.00
<i>Carya glabra</i>	0.0	0.00	20.0	100.00
<i>Quercus prinus</i>	0.0	0.00	0.0	0.00
<i>Quercus velutina</i>	0.0	0.00	0.0	0.00
<i>Acer saccharum</i>	0.0	0.00	0.0	0.00
<i>Fraxinus americana</i>	0.0	0.00	0.0	0.00
TOTALS:	20.0	5.26	140.0	36.84

**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>Hammamelis virginiana</i>	2160	0	0	0	0	2160
<i>Amelanchier</i> sp.	560	80	80	40	0	760
<i>Carya glabra</i>	0	0	0	40	0	40
<i>Populus grandidentata</i>	0	0	0	0	40	40
<i>Fraxinus americana</i>	40	160	0	0	40	240
<i>Quercus prinus</i>	120	80	0	80	0	280
<i>Acer saccharum</i>	40	0	0	0	0	40
<i>Quercus alba</i>	40	0	0	0	0	40
<i>Ulmus americana</i>	40	0	0	0	40	80
<i>Acer rubrum</i>	0	40	0	0	0	40
<i>Cornus florida</i>	120	0	0	0	0	120
TOTALS:	3120	360	80	160	120	3840

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

SPECIES	DENSITY (#/m <sup>2</sup> )
<i>Fraxinus americana</i>	4.250
<i>Amelanchier</i> sp.	1.000
<i>Quercus alba</i>	0.500
<i>Prunus serotina</i>	0.500
<i>Acer rubrum</i>	0.500
<i>Carya glabra</i>	0.250
TOTAL:	7.000

SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
Vaccinium angustifolium	2.616
Cornus racemosa	0.277
Viburnum acerifolium	4.677
TOTAL:	7.570

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

	% COVER
Litter layer	84.875
Exposed soil	2.122
Exposed rock	4.500
Bryophytes	+
Lichens	1.495
Dead wood	4.625
Unknown seedlings	+
Tree boles	+
Carex sp.	+
Smilacina racemosa	+
Uvularia sessilifolia	+
Dead wood over	+
Potentilla simplex	1.750
Solidago caesia	+
Veronica officinalis	+
Galium circaeazans	+
Aster divaricatus	+
Oxalis stricta	+
Fragaria virginiana	+
Geranium maculatum	+
Amphicarpa bracteata	+
Grass sp.	1.875
Prenanthes sp.	+