

PLOT 53

LOCATION: 78 m from western edge of Grid Square #: 53
DATE SAMPLED: 7/31/84

SITE VARIABLES:

SLOPE: 40 ASPECT: 186° POSITION: midslope and local depression
SURFACE WATER: none
LITTER DEPTH: 1.00 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: 27.9 cm *Quercus bicolor* : years

CANOPY HEIGHT: 18.9 m % SKY VISIBLE: 12.0

COMMENTS:

HYDROLOGY:

There is a wetland about 30m to the south. The southern edge of the plot is wetter.

SOILS:

The soils are deep, slightly stony and poorly to moderately drained.

HISTORY:

There is a stone wall about 30m to the north. *Juniperus virginiana* suggests pasturing.

STAND CONDITION:

The largest *Quercus velutina* is mostly rotten and has a lot of dieback. The *Juniperus virginiana* is being shaded out by the dense canopy of the hardwoods. *Fraxinus americana* mortality is evident.

ADDITIONAL COMMENTS ON THE SITE:

The shrub and sapling layers are dense. Stone wall nearby. There are no stumps in 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
<i>Quercus velutina</i>	80	10.952	100	1.578	0	0.000	180	12.530
<i>Juniperus virginiana</i>	20	1.179	80	1.577	40	0.478	140	3.234
<i>Acer rubrum</i>	0	0.000	20	0.295	0	0.000	20	0.295
<i>Carya glabra</i>	0	0.000	20	0.308	20	0.498	40	0.806
<i>Fraxinus americana</i>	0	0.000	0	0.000	0	0.000	0	0.000
<i>Quercus bicolor</i>	20	1.223	0	0.000	0	0.000	20	1.223
<i>Acer saccharum</i>	0	0.000	20	0.344	0	0.000	20	0.344
<i>Ulmus americana</i>	0	0.000	20	0.226	0	0.000	20	0.226
TOTALS:	DENSITY / HA	120		260		60		440
	BASAL AREA (M2) / HA	13.3541		4.3279		0.9755		18.6575

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 velutina</i>	67	82	38	36	0	0	41	67	54.03
<i>Juniperus virginiana</i>	17	9	31	36	67	49	32	17	24.58
<i>Acer rubrum</i>	0	0	8	7	0	0	5	2	3.06
<i>Carya glabra</i>	0	0	8	7	33	51	9	4	6.70
<i>Fraxinus americana</i>	0	0	0	0	0	0	0	0	0.00
<i>Quercus bicolor</i>	17	9	0	0	0	0	5	7	5.55
<i>Acer saccharum</i>	0	0	8	8	0	0	5	2	3.19
<i>Ulmus americana</i>	0	0	8	5	0	0	5	1	2.88

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
<i>Quercus velutina</i>	5	1	0	2	0	0	0	0	73
<i>Juniperus virginiana</i>	4	2	0	1	0	0	0	0	
<i>Acer rubrum</i>	1	0	0	0	0	0	0	0	
<i>Carya glabra</i>	1	1	0	0	0	0	0	0	
<i>Fraxinus americana</i>	0	0	0	0	0	0	0	0	
<i>Quercus bicolor</i>	0	0	0	1	0	0	0	0	
<i>Acer saccharum</i>	1	0	0	0	0	0	0	0	
<i>Ulmus americana</i>	1	0	0	0	0	0	0	0	
TOTALS	13	4	0	4	0	0	0	0	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
<i>Quercus velutina</i>	0.0	0.00	40.0	22.22
<i>Juniperus virginiana</i>	0.0	0.00	0.0	0.00
<i>Acer rubrum</i>	0.0	0.00	0.0	0.00
<i>Carya glabra</i>	0.0	0.00	0.0	0.00
<i>Fraxinus americana</i>	20.0	999.00	0.0	0.00
<i>Quercus bicolor</i>	0.0	0.00	0.0	0.00
<i>Acer saccharum</i>	0.0	0.00	0.0	0.00
<i>Ulmus americana</i>	0.0	0.00	0.0	0.00
TOTALS:	20.0	4.55	40.0	9.09

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>	400	40	0	0	0	440
<i>Acer rubrum</i>	200	80	40	40	0	360
<i>Quercus velutina</i>	0	120	160	200	80	560
<i>Ulmus americana</i>	0	80	120	0	0	200
<i>Fraxinus americana</i>	200	0	40	0	0	240
<i>Fagus grandifolia</i>	40	0	0	0	0	40
<i>Carya glabra</i>	0	40	0	40	0	80
<i>Quercus rubra</i>	0	0	40	0	0	40
<i>Amelanchier</i> sp.	40	0	0	0	0	40
<i>Acer saccharum</i>	0	40	0	40	0	80
<i>Juniperus virginiana</i>	40	80	0	0	40	160
<i>Carpinus caroliniana</i>	40	0	0	0	0	40
<i>Carya ovata</i>	160	120	0	0	0	280
TOTALS:	1120	600	400	320	120	2560

SEEDLINGS: Densities (per m²) of stems < 1 m tall.

SPECIES	DENSITY (#/m ²)
<i>Fraxinus americana</i>	2.750
<i>Acer rubrum</i>	0.500
TOTAL:	3.250

SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
Cornus racemosa	23.800
Parthenocissus quinquefolia	1.550
Rosa multiflora	0.400
TOTAL:	31.750

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

	% COVER
Litter layer	97.875
Exposed rock	+
Bryophytes	+
Lichens	+
Dead wood	1.249
Unknown seedlings	+
Tree boles	+
dead wood over	1.875
Arisaema triphyllum	+
Fragaria virginiana	+
Juncus sp.	+
Veronica officinalis	+