

## PLOT 75

LOCATION: 51 m from western edge of Grid Square #: 75

DATE SAMPLED: 7/25/84

## SITE VARIABLES:

SLOPE: 11° ASPECT: 100° POSITION: midslope

SURFACE WATER: none

LITTER DEPTH: 2.00 cm EXPOSED BEDROCK: no

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: 48.5 cm Quercus velutina : years

CANOPY HEIGHT: 21.0 m % SKY VISIBLE: 11.0

## COMMENTS:

HYDROLOGY:

Site is well drained.

SOILS:

Soils are deep and moderately to slightly stony. Lack of well developed litter layer suggests high earthworm/decomposer activity.

HISTORY:

Stone wall not very far from plot. Juniperus virginiana in plot suggests pasturing at one time.

STAND CONDITION:

Canopy is quite dense but some dieback of major trees is evident. Cornus florida also showing heavy mortality and much dieback.

ADDITIONAL COMMENTS ON THE SITE:

Stone wall and exposed bedrock just off plot. Very dense shrub and sapling layer. Some recent windthrow. Huge Quercus rubra just off plot (79 cm DBH, with some dieback). Plot is on midslope of N-S running ridge.

## 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	60	8.081	40	0.726	0	0.000	100	8.807
Acer rubrum	0	0.000	120	4.257	20	0.326	140	4.582
Carya glabra	0	0.000	60	1.623	0	0.000	60	1.623
Quercus alba	20	1.321	0	0.000	0	0.000	20	1.321
Pinus strobus	0	0.000	0	0.000	0	0.000	0	0.000
Juniperus virginiana	0	0.000	0	0.000	0	0.000	0	0.000
TOTALS:	DENSITY / HA	80		220		20		320
	BASAL AREA (M2) / HA		9.4024		6.6055		0.3257	16.3337

**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 velutina	75	86	18	11	0	0	31	54	42.59
Acer rubrum	0	0	55	64	100	100	44	28	35.90
Carya glabra	0	0	27	25	0	0	19	10	14.34
Quercus alba	25	14	0	0	0	0	6	8	7.17
Pinus strobus	0	0	0	0	0	0	0	0	0.00
Juniperus virginiana	0	0	0	0	0	0	0	0	0.00

**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 velutina	0	2	0	0	1	0	1	1	
Acer rubrum	2	1	4	0	0	0	0	0	
Carya glabra	1	1	1	0	0	0	0	0	
Quercus alba	0	0	0	1	0	0	0	0	
Pinus strobus	0	0	0	0	0	0	0	0	
Juniperus virginiana	0	0	0	0	0	0	0	0	
TOTALS	3	4	5	1	1	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 velutina	0.0	0.00	60.0	60.00
Acer rubrum	40.0	28.57	40.0	28.57
Carya glabra	0.0	0.00	0.0	0.00
Quercus alba	20.0	100.00	0.0	0.00
Pinus strobus	40.0	999.00	0.0	0.00
Juniperus virginiana	20.0	999.00	0.0	0.00
TOTALS:	120.0	37.50	100.0	31.25

**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	
Acer rubrum	80	40	40	0	0	160
Ulmus americana	40	0	0	0	0	40
Amelanchier sp.	720	0	0	0	0	720
Acer saccharum	360	0	0	0	0	360
Carpinus caroliniana	40	0	0	0	0	40
Ostrya virginiana	40	0	0	0	0	40
Quercus rubra	0	0	40	0	0	40
Hammamelis virginiana	1400	200	0	0	0	1600
Carya glabra	0	0	0	40	0	40
Fagus grandifolia	80	0	0	0	0	80
Quercus alba	40	0	0	0	0	40
Quercus velutina	40	40	0	0	40	120
Cornus florida	360	40	40	0	0	440
TOTALS:	3200	320	120	40	40	3720

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

SPECIES	DENSITY ( $\#/m^2$ )
Acer saccharum	3.000
Quercus rubra	1.000
Acer rubrum	1.000
Amelanchier sp.	0.750
Cornus florida	0.250
Fraxinus americana	0.500
Hammamelis virginiana	0.500
Quercus velutina	0.500
TOTAL:	7.500

SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
Parthenocissus quinquefolia	0.198
Galussacia baccata	0.912
Viburnum acerifolium	2.180
TOTAL:	3.290

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

	% COVER
Litter layer	93.625
Exposed soil	1.622
Exposed rock	1.121
Bryophytes	+
Lichens	+
Dead wood	3.999
Unknown seedlings	+
Tree boles	+
Carex sp.	+
Uvularia sessilifolia	+
Solidago caesia	+
Galium circaezans	+
Lysimachia quadrifolia	+