

PLOT 69

LOCATION: 44 m from western edge of Grid Square #: 69
 DATE SAMPLED: 7/26/84

SITE VARIABLES:

SLOPE: 7° ASPECT: 354° POSITION: midslope
 SURFACE WATER: none
 LITTER DEPTH: 3.38 cm EXPOSED BEDROCK: no
 SOIL SERIES (mapped):
 SOIL pH:

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

AGES OF DOMINANT TREES: 60.1 cm Quercus rubra : years

CANOPY HEIGHT: 26.5 m % SKY VISIBLE: 7.0

COMMENTS:

HYDROLOGY:

Site is well drained.

SOILS:

Soils are deep, moderately to slightly stony and very well drained.

HISTORY:

Juniperus virginiana seedlings and stone wall suggest that this plot was once pastured. Some windthrown trees in plot.

STAND CONDITION:

Cornus florida is showing high mortality and dieback. Other canopy trees are showing some dieback, but overall, the canopy is quite densely foliated.

ADDITIONAL COMMENTS ON THE SITE:

The shrub layer is dense. The site is sub-mesic.

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
Acer rubrum	20	1.358	60	2.447	60	0.638	140	4.443
Quercus velutina	20	2.705	20	0.470	20	0.261	60	3.437
Carya glabra	0	0.000	0	0.000	0	0.000	0	0.000
Quercus rubra	40	9.664	60	2.360	20	0.387	120	12.411
Pinus strobus	0	0.000	0	0.000	0	0.000	0	0.000
Quercus alba	0	0.000	20	1.559	40	1.070	60	2.629
Carya tomentosa	20	0.928	20	0.928	0	0.000	40	1.855
Fraxinus americana	20	0.905	20	0.667	0	0.000	40	1.571
TOTALS:	DENSITY / HA	120	200	140	460			
	BASAL AREA (M2) / HA	15.5591	8.4299	2.3574	26.3465			

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	
Acer rubrum	17	9	30	29	43	27	30	17	23.65
Quercus velutina	17	17	10	6	14	11	13	13	13.04
Carya glabra	0	0	0	0	0	0	0	0	0.00
Quercus rubra	33	62	30	28	14	16	26	47	36.60
Pinus strobus	0	0	0	0	0	0	0	0	0.00
Quercus alba	0	0	10	18	29	45	13	10	11.51
Carya tomentosa	17	6	10	11	0	0	9	7	7.87
Fraxinus americana	17	6	10	8	0	0	9	6	7.33

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
Acer rubrum	4	0	1	2	0	0	0	0	
Quercus velutina	1	1	0	0	0	0	1	0	
Carya glabra	0	0	0	0	0	0	0	0	
Quercus rubra	0	1	3	0	0	0	0	0	50 60
Pinus strobus	0	0	0	0	0	0	0	0	
Quercus alba	0	2	0	0	1	0	0	0	
Carya tomentosa	0	0	2	0	0	0	0	0	
Fraxinus americana	0	0	2	0	0	0	0	0	
TOTALS	5	4	8	2	1	0	1	0	2

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
Acer rubrum	0.0	0.00	80.0	57.14
Quercus velutina	20.0	33.33	60.0	100.00
Carya glabra	20.0	999.00	0.0	0.00
Quercus rubra	0.0	0.00	60.0	50.00
Pinus strobus	20.0	999.00	0.0	0.00
Quercus alba	20.0	33.33	20.0	33.33
Carya tomentosa	0.0	0.00	0.0	0.00
Fraxinus americana	20.0	50.00	20.0	50.00
TOTALS:	100.0	21.74	240.0	52.17

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	
Amelanchier sp. 1000	160	120	40	80	1400	
Acer rubrum 280	120	80	0	40	520	
Fagus grandifolia 40	40	0	0	0	80	
Hammamelis virginiana 1040	0	0	0	0	1040	
Pinus strobus 0	0	0	40	0	40	
Fraxinus americana 80	0	0	0	0	80	
Quercus alba 40	0	0	0	0	40	
Betula lenta 80	0	0	0	0	80	
Cornus florida 200	40	0	0	0	240	
TOTALS:	2760	360	200	80	120	3520

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

SPECIES	DENSITY ($\#/m^2$)
Fraxinus americana	0.250
Sassafras albidum	0.250
Acer rubrum	0.500
Carya glabra	0.500
Amelanchier sp.	1.250
Prunus serotina	0.750
Hammamelis virginiana	0.500
TOTAL:	4.000

SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
Vaccinium vacillans	10.820
Viburnum acerifolium	1.585
TOTAL:	12.406

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

	% COVER
Litter layer	93.875
Exposed soil	+
Exposed rock	+
Bryophytes	1.497
Lichens	+
Dead wood	5.622
Unknown seedlings	+
Tree boles	+
Pteridium aquilinum	5.125
Lycopodium complanatum	+
Chimaphila maculata	+
Fungus	+
Solidago caesia	+
dead wood over	+
Carex sp.	+
Uvularia sessilifolia	+