

PLOT 170

LOCATION: 55 m from western edge of Grid Square #: 170
DATE SAMPLED: 8/2/84

SITE VARIABLES:

SLOPE: 12° ASPECT: 30° POSITION: midslope
SURFACE WATER: none
LITTER DEPTH: 2.38 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: no

AGES OF DOMINANT TREES: 29.1 cm Quercus rubra : years

CANOPY HEIGHT: 17.7 m % SKY VISIBLE: 8.0

COMMENTS:

HYDROLOGY:

Site is well drained.

SOILS:

Soils on the ridge are rocky and shallow while on the slope they are deep. Litter layer is poorly developed and humus layer is well developed.

HISTORY:

Some windthrow evident, but not recent.

STAND CONDITION:

Quercus rubra shows much dieback. The canopy is open where trees have dead branches.

ADDITIONAL COMMENTS ON THE SITE:

There is a lot of exposed bedrock in plot and the topography was determined by the underlying bedrock. Dense shrub layer in plot. Plot is northwest of the quarry at the intersection of Routes 82 and 44. It occupies a rock knob.

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 rubra	60	3.465	320	11.565	100	1.333	480	16.363
Quercus prinus	0	0.000	80	2.595	20	0.257	100	2.852
Acer rubrum	0	0.000	0	0.000	20	0.208	20	0.208
Carya ovata	0	0.000	0	0.000	20	0.215	20	0.215
TOTALS:	DENSITY / HA	60	400	160	620			
	BASAL AREA (M2) / HA	3.4646	14.1598	2.0135	19.6379			

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 rubra	100	100	80	82	63	66	77	83	80.37
Quercus prinus	0	0	20	18	13	13	16	15	15.33
Acer rubrum	0	0	0	0	13	10	3	1	2.14
Carya ovata	0	0	0	0	13	11	3	1	2.16

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 rubra	5	7	6	6	0	0	0	0	
Quercus prinus	1	3	1	0	0	0	0	0	
Acer rubrum	1	0	0	0	0	0	0	0	
Carya ovata	1	0	0	0	0	0	0	0	
TOTALS	8	10	7	6	0	0	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
Quercus rubra	60.0	12.50	200.0	41.67
Quercus prinus	20.0	20.00	20.0	20.00
Acer rubrum	0.0	0.00	0.0	0.00
Carya ovata	0.0	0.00	0.0	0.00
TOTALS:	80.0	12.90	220.0	35.48

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>Ostrya virginiana</i>	960	0	120	0	0	1080
<i>Acer rubrum</i>	80	120	80	40	0	320
<i>Fraxinus americana</i>	120	0	40	0	0	160
<i>Acer saccharum</i>	0	240	0	40	0	280
<i>Amelanchier</i> sp.	120	0	160	0	0	280
<i>Cornus florida</i>	120	40	40	0	0	200
TOTALS:	1400	400	440	80	0	2320

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

SPECIES	DENSITY (#/m ²)
<i>Acer rubrum</i>	1.000
<i>Ostrya virginiana</i>	0.250
<i>Fraxinus americana</i>	0.500
<i>Amelanchier</i> sp.	1.250
TOTAL:	3.000

SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
Viburnum acerifolium	14.546
Galussacia baccata	0.476
TOTAL:	15.022

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

	% COVER
Litter layer	92.750
Exposed soil	1.747
Exposed rock	2.499
Bryophytes	+
Lichens	1.246
Dead wood	3.125
Unknown seedlings	+
Tree boles	+
Juncus sp.	+
Carex sp.	2.375
Dead wood over	+
Dryopteris marginalis	+
Prenanthes sp.	+
Smilacina racemosa	+