

PLOT 504

LOCATION: 32 m from western edge of Grid Square #: 504
DATE SAMPLED: 6/8/84

SITE VARIABLES:

SLOPE: 2° ASPECT: 337° POSITION: midslope and local depression
SURFACE WATER: none
LITTER DEPTH: 3.50 cm EXPOSED BEDROCK: yes
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: 39.7 cm Betula lenta : years

CANOPY HEIGHT: 18.2 m % SKY VISIBLE: 5.0

COMMENTS:

HYDROLOGY:

Portion of plot flooded in spring - affects canopy. Site has well drained slopes and a poorly drained valley bottom (east-west).

SOILS:

Soils are rocky. Where bedrock is close to surface, there is little soil and litter.

HISTORY:

Flooding was a disturbance factor.

STAND CONDITION:

Stand not even-aged. Trees on slopes are doing well, but valley trees are sparsely foliated and stunted. Valley also have fewer trees.

ADDITIONAL COMMENTS ON THE SITE:

Canopy along transect is very dense, but canopy along north-south transect is open (gap due to flooding).

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
Betula lenta	80	3.802	0	0.000	0	0.000	80	3.802
Fraxinus americana	80	1.260	0	0.000	0	0.000	80	1.260
Acer rubrum	180	7.943	20	0.428	0	0.000	200	8.371
Quercus prinus	0	0.000	0	0.000	20	0.208	20	0.208
Quercus rubra	20	1.659	0	0.000	0	0.000	20	1.659
Quercus alba	20	0.157	20	0.245	0	0.000	40	0.403
TOTALS:	DENSITY / HA	380	40		20		440	
	BASAL AREA (M2) / HA	14.8209	0.6731		0.2077		15.7017	

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
	%D	%BA	%D	%BA	%D	%BA	%D	%BA	VALUE
Betula lenta	21	26	0	0	0	0	18	24	21.20
Fraxinus americana	21	9	0	0	0	0	18	8	13.10
Acer rubrum	47	54	50	64	0	0	45	53	49.38
Quercus prinus	0	0	0	0	100	100	5	1	2.93
Quercus rubra	5	11	0	0	0	0	5	11	7.56
Quercus alba	5	1	50	36	0	0	9	3	5.83

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	
Betula lenta	0	3	0	0	0	1	0	0	
Fraxinus americana	3	1	0	0	0	0	0	0	
Acer rubrum	2	1	4	2	0	1	0	0	
Quercus prinus	1	0	0	0	0	0	0	0	
Quercus rubra	0	0	0	0	1	0	0	0	
Quercus alba	2	0	0	0	0	0	0	0	
TOTALS	8	5	4	2	1	2	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
Betula lenta	0.0	0.00	0.0	0.00
Fraxinus americana	0.0	0.00	0.0	0.00
Acer rubrum	0.0	0.00	0.0	0.00
Quercus prinus	0.0	0.00	0.0	0.00
Quercus rubra	0.0	0.00	0.0	0.00
Quercus alba	0.0	0.00	0.0	0.00
TOTALS:	0.0	0.00	0.0	0.00

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	
Fraxinus americana	160	400	240	40	40	880
Betula lenta	0	0	0	40	0	40
Quercus alba	120	40	120	0	40	320
Amelanchier sp.	120	0	0	0	0	120
Fagus grandifolia	40	0	0	80	0	120
Acer rubrum	0	0	40	120	40	200
Carya ovata	40	80	0	0	40	160
Prunus serotina	40	0	0	0	0	40
Quercus velutina	40	0	0	0	0	40
TOTALS:	560	520	400	280	160	1920

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

SPECIES	DENSITY ($\#/m^2$)
Quercus alba	2.250
Acer rubrum	3.500
Fraxinus americana	2.000
Acer saccharum	0.250
Quercus rubra	0.250
Amelanchier sp.	0.750
TOTAL:	9.000

SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
Viburnum acerifolium	2.735
Viburnum prunifolium	0.159
Galussacia baccata	1.268
TOTAL:	4.162

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

	% COVER
Litter layer	81.500
Exposed soil	4.749
Exposed rock	6.375
Bryophytes	3.750
Lichens	+
Dead wood	6.249
Unknown seedlings	+
Tree boles	5.000
Carex sp.	7.250
Solidago caesia	+
Potentilla simplex	+
Hieracium sp.	+
Fragaria virginiana	+
Lysimachia quadrifolia	+