

PLOT 657

LOCATION: 64 m from western edge of Grid Square #: 657
DATE SAMPLED: 7/24/84

SITE VARIABLES:

SLOPE: 14° ASPECT: 340° POSITION: local depression
SURFACE WATER: ephemeral stream
LITTER DEPTH: 1.63 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: yes

AGES OF DOMINANT TREES: 41.6 cm Quercus alba : years

CANOPY HEIGHT: 16.0 m % SKY VISIBLE: 1.0

COMMENTS:

HYDROLOGY:

A stream runs through the site. The slopes are well drained but the site is very wet.

SOILS:

The soils are stony and well drained.

HISTORY:

There is some windthrow, but none of it recent.

STAND CONDITION:

There are no major canopy trees in the stream bed leaving the canopy open there, but most of the remaining canopy is dense

ADDITIONAL COMMENTS ON THE SITE:

The shrub and sapling layers are dense. Anomadon on dead Fraxinus americana trunk. The site is very rich.

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 saccharum	0	0.000	40	1.865	20	0.242	60	2.107
Quercus prinus	20	0.788	0	0.000	20	0.265	40	1.054
Fraxinus americana	0	0.000	20	0.882	40	0.408	60	1.291
Betula lenta	0	0.000	20	1.991	20	0.170	40	2.161
Quercus alba	20	2.718	0	0.000	0	0.000	20	2.718
Carya glabra	60	3.744	20	0.733	0	0.000	80	4.476
Acer rubrum	0	0.000	0	0.000	40	0.500	40	0.500
Quercus velutina	0	0.000	0	0.000	20	0.335	20	0.335
Cornus florida	0	0.000	0	0.000	20	0.274	20	0.274
TOTALS:	DENSITY / HA	100	100		180		380	
	BASAL AREA (M2) / HA		7.2501	5.4713		2.1941		14.9155

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
Acer saccharum	0	0	40	34	11	11	16	14	14.96
Quercus prinus	20	11	0	0	11	12	11	7	8.80
Fraxinus americana	0	0	20	16	22	19	16	9	12.22
Betula lenta	0	0	20	36	11	8	11	14	12.51
Quercus alba	20	37	0	0	0	0	5	18	11.74
Carya glabra	60	52	20	13	0	0	21	30	25.53
Acer rubrum	0	0	0	0	22	23	11	3	6.94
Quercus velutina	0	0	0	0	11	15	5	2	3.75
Cornus florida	0	0	0	0	11	12	5	2	3.55

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 saccharum	1	0	1	1	0	0	0	0	
Quercus prinus	1	0	1	0	0	0	0	0	
Fraxinus americana	2	0	1	0	0	0	0	0	
Betula lenta	1	0	0	0	0	1	0	0	
Quercus alba	0	0	0	0	0	0	1	0	
Carya glabra	0	0	1	3	0	0	0	0	
Acer rubrum	2	0	0	0	0	0	0	0	
Quercus velutina	1	0	0	0	0	0	0	0	
Cornus florida	1	0	0	0	0	0	0	0	
TOTALS	9	0	4	4	0	1	1	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
Acer saccharum	0.0	0.00	0.0	0.00
Quercus prinus	0.0	0.00	0.0	0.00
Fraxinus americana	40.0	66.67	40.0	66.67
Betula lenta	0.0	0.00	20.0	50.00
Quercus alba	0.0	0.00	0.0	0.00
Carya glabra	20.0	25.00	0.0	0.00
Acer rubrum	0.0	0.00	40.0	100.00
Quercus velutina	0.0	0.00	0.0	0.00
Cornus florida	0.0	0.00	0.0	0.00
TOTALS:	60.0	15.79	100.0	26.32

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	
Castanea dentata	80	80	0	0	0	160
Carpinus caroliniana	2760	120	40	40	0	2960
Quercus rubra	80	0	40	0	0	120
Cornus florida	680	200	0	0	0	880
Acer saccharum	1400	80	160	80	0	1720
Pinus strobus	0	0	0	40	0	40
Quercus prinus	280	120	0	0	0	400
Fraxinus americana	40	0	0	0	0	40
Ostrya virginiana	40	0	0	0	0	40
Amelanchier sp.	80	0	0	0	0	80
Acer rubrum	80	0	0	0	0	80
TOTALS:	5520	600	240	160	0	6520

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

SPECIES	DENSITY (#/m ²)
Acer saccharum	1.500
Quercus rubra	0.250
Prunus serotina	1.250
Carya glabra	0.250
Carpinus caroliniana	1.000
Cornus florida	3.500
Acer rubrum	0.250
TOTAL:	8.000

SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
Viburnum acerifolium	11.058
Parthenocissus quinquefolia	0.357
TOTAL:	11.415

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

	% COVER
Litter layer	81.875
Exposed soil	9.746
Exposed rock	4.996
Bryophytes	1.624
Lichens	+
Dead wood	3.500
Unknown seedlings	+
Tree boles	1.999
Grass sp.	1.625
Arisaema triphyllum	1.250
Pilea pumila	+
Viola sp.	+
Mitchella repens	+
Solidago caesia	+
Oxalis stricta	+
Carex sp.	+
Fungus	+
Arailia nudicaulis	+
Solidago sp.	+
Galium sp.	+
Potentilla simplex	+