

PLOT 98

LOCATION: 65 m from western edge of Grid Square #: 98
DATE SAMPLED: 7/26/94

SITE VARIABLES:

SLOPE: 9° ASPECT: 269° POSITION: ridgetop
SURFACE WATER: none
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: no

AGES OF DOMINANT TREES: 25.3 cm Quercus prinus : 57 years

CANOPY HEIGHT: 16.5 m % SKY VISIBLE: 26.0

COMMENTS:

HYDROLOGY:

Very dry site. Water stressed.

SOILS:

Soils are shallow, slightly stony, well drained and fine textured.

HISTORY:

Water is a major factor influencing the canopy individuals. Some death of trees and minor windthrow.

STAND CONDITION:

Much dieback of canopy individuals due to extreme water stress and shallow soil.

ADDITIONAL COMMENTS ON THE SITE:

Topography determined by underlying bedrock. Bedrock near surface. A very dry site. Not many saplings, seedlings or shrubs. Lichens pave the shallow soil in many spots.

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 alba	0	0.000	20	0.373	0	0.000	20	0.373
Quercus prinus	20	0.817	260	6.436	60	0.788	340	8.041
Quercus rubra	80	2.618	40	0.485	0	0.000	120	3.103
Carya glabra	0	0.000	40	0.568	20	0.291	60	0.859
Quercus velutina	20	0.897	20	0.481	0	0.000	40	1.378
TOTALS:	DENSITY / HA	120		380		80		580
	BASAL AREA (M2) / HA		4.3323		8.3422		1.0789	13.7534

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 alba	0	0	5	4	0	0	3	3	3.08
Quercus prinus	17	19	68	77	75	73	59	58	58.54
Quercus rubra	67	60	11	6	0	0	21	23	21.63
Carya glabra	0	0	11	7	25	27	10	6	8.29
Quercus velutina	17	21	5	6	0	0	7	10	8.46

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 alba	0	1	0	0	0	0	0	0	
Quercus prinus	5	10	1	1	0	0	0	0	
Quercus rubra	2	2	2	0	0	0	0	0	
Carya glabra	2	1	0	0	0	0	0	0	
Quercus velutina	0	1	1	0	0	0	0	0	
TOTALS	9	15	4	1	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 alba	40.0	200.00	0.0	0.00
Quercus prinus	100.0	29.41	120.0	35.29
Quercus rubra	20.0	16.67	100.0	83.33
Carya glabra	0.0	0.00	20.0	33.33
Quercus velutina	20.0	50.00	40.0	100.00
TOTALS:	180.0	31.03	280.0	48.28

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	
Hammamelis virginiana	1200	80	0	0	0	1280
Amelanchier sp.	160	40	0	0	0	200
Carya glabra	0	160	120	80	0	360
Quercus rubra	40	0	80	0	40	160
Cornus florida	80	40	0	0	0	120
TOTALS:	1480	320	200	80	40	2120

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

SPECIES	DENSITY ($\#/m^2$)
Hammamelis virginiana	0.250
Prunus serotina	0.250
Carya glabra	1.000
Amelanchier sp.	0.250
Quercus rubra	1.000
TOTAL:	2.750

SHRUBS: Percent cover of shrub species within the stand.

SPECIES	% COVER
Vaccinium angustifolium	0.991
Rhododendron nudiflorum	1.348
Galussacia baccata	2.061
TOTAL:	4.400

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

	% COVER
Litter layer	91.000
Exposed soil	3.999
Exposed rock	3.250
Bryophytes	1.999
Lichens	8.622
Dead wood	1.749
Unknown seedlings	+
Tree boles	+
Uvularia perfoliata	+
Carex sp.	1.374
Dead wood over	+
Potentilla simplex	+
Hieracium venosum	+
Solidago sp.	+
Hieracium pratense	+
Grass sp.	+
Solidago caesia	+
Uvularia sessilifolia	+