

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 36 Date October 10, 1929
 Area of plot 0.1 A. Location Top of East ridge overlooking Round Pond
 Type Hardwoods Forest form Selective
 Aspect North Slope S Relative elevation Top of ridge
 Remarks (Evidence of fire, culling, etc.) All trees of upper story & some lower story fire scarred although fire occurred about 100 years ago

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Chest	W.B.
-10												
10-15			0.82 70		0.24 75	0.22						0.164
15-20			0.73 75		0.18 80							
20-25												
25-30												
30-35												
35 up												
Hgts.												
Dead												
Down												

Distribution Uniform
 Crown density 0.5 Approx. age — Vigor Birch deciduous
 Remarks Beech will outlast birch, & you will be composed of beech & oak birch, but only a few will be same as maple

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.
- 4			0.21							
4- 6			0.45							
6-10			0.55							
10-15						0.60				
15 up										
Hgts.										

Distribution Uniform
 Approx. age — Vigor Good maple & oak birch
 Remarks All trees noted were hollow

200001 TRAVIS GRAYSON
1958 10/20/58

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	SM	Shrub
- 1'	✓	✓	☒	☒	✓			☒	✓	✓	✓	✓
1'-15'			☒								☒	

55
27

No. Mil Acres... 1.0 Distribution... Unif. Form
 Approx. age... H. map. Pl. up to 10, R. map. mostly seedlings, B. up to 25
 Vigor... Good all species
 Remarks

GROUND COVER.

General distribution and amount

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>Gaultheria</i>	✓										
<i>V. coccinea</i>	✓										
<i>Viburnum a.</i>	✓										
<i>Podostem.</i>	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.8	.5	1.0	0.77
Duff	1.0	.5	.7	0.73
Humus	.3	.3	.3	0.30
Total	2.1	1.3	2.0	1.80
Leached	.3	.6	.8	0.57
Dark brown	1.8	1.5	1.2	1.33

Remarks... few large boulders in plot. No outcrop

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 37 Date October 21, 1929
 Area of plot Mt. A. Slope Location Slope about 30° approximately 1/2 mile west of Grand Point and near old growth sample plot of 1927.
 Type Pine giving way to hemlock Forest form
 Aspect West Slope 30° Relative elevation 1/2 way to ridge top
 Remarks (Evidence of fire, culling, etc.) Charcoal and burned stumps found. Stand fully exposed to winds from the west. Steep slope. Trees can be clearly seen from this spot.

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.		
-10	Occasional very pine, but it is gradually giving way											
10-15	to hemlock which almost exclusively											
15-20	formed the understory, has passed into positions											
20-25	of dominance. Many of the old pines are dead											
25-30	or down, others are dead & still standing, the											
30-35	rest are breaking up in the tops.											
35 up	Hemlocks in overtop range from 14" to 26" - 50' - 70'											
Hgts.	Pines range from 16" - 30" Pines rather scattered.											
Dead	14" hemlock											
Down	2400 no. growth but not a star type, also some other											

Distribution Old pines fairly evenly distributed
 Crown density Approx. age 300 ± Vigor Very poor
 Remarks Stand is rapidly going to hemlock, & will remain a hemlock stand for 200 years or more.

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.		
- 4	Hemlocks 95%, peach 5% Hemlock shows some both											
4-6	rapid and also starts to give up hemlock and spruce											
6-10	rate of growth is very slow and spruce is common											
10-15	death by the pines.											
15 up												
Hgts.	Hemlocks vary in size from 15' to 18' - 15' - 55'											

Distribution Fairly uniform
 Approx. age 130 Vigor Hemlock shows no indication of survival.
 Remarks Remnant of hemlock forest, but indicates a fire exposed site. To be kept for further study.

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'		90%	5%			5%							Scanty
1'-15'		100%											Fairly abundant

No. Mil Acres..... Distribution *More or less gapwise.*

Approx. age.....

Vigor..... *Suppressed, but capable of surviving and ultimately forming*

Remarks..... *main stand.*

GROUND COVER.

General distribution and amount..... *Uniformly scanty.*

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>Red fern</i>	✓										
<i>Blackberry</i>	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter				<i>.7</i>
Duff				<i>2.0</i>
Humus				
Total				
Leached				<i>1.0</i>
Dark brown				

Remarks..... *Very rough and rocky. Outcroppings ledges. Shallow soil. Good drainage. Impossible to get good profiles of soil due to rocks. Appears to be an extremely unfavorable site.*

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 38 Date Oct 23, 1929

Area of plot 1 A. Location Near top of ridge above shortly east of
300 ft. plot

Type Hardwood Oak & Pine Forest form Open

Aspect South & West Slope 15° Relative elevation Ridge top

Remarks (Evidence of fire, culling, etc.)

Recent regeneration large white pines and hardwoods mostly
old oak and chestnut. Only a few of the old pines remaining
now on plot. Much windfall in evidence. Old mastings completely gone
on plot.

OVERSTORY: Charcoal present.

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10	431									131			
10-15		328								246			
15-20	168	168								168			
20-25	276												
25-30													
30-35													
35 up													
Hgts.													
Dead													
Down													

Distribution Irregular 15' 10' 15' 10' 15' 10' 15' 10' 15' 10' 15' 10' 15' 10'

Crown density high Approx. age 110 125 135 145 155 165 175 185 195 205 215 225 235 245 255 265 275 285 295 305 315 325 335 345 355 365 375 385 395 405 415 425 435 445 455 465 475 485 495 505 515 525 535 545 555 565 575 585 595 605 615 625 635 645 655 665 675 685 695 705 715 725 735 745 755 765 775 785 795 805 815 825 835 845 855 865 875 885 895 905 915 925 935 945 955 965 975 985 995 1005 1015 1025 1035 1045 1055 1065 1075 1085 1095 1105 1115 1125 1135 1145 1155 1165 1175 1185 1195 1205 1215 1225 1235 1245 1255 1265 1275 1285 1295 1305 1315 1325 1335 1345 1355 1365 1375 1385 1395 1405 1415 1425 1435 1445 1455 1465 1475 1485 1495 1505 1515 1525 1535 1545 1555 1565 1575 1585 1595 1605 1615 1625 1635 1645 1655 1665 1675 1685 1695 1705 1715 1725 1735 1745 1755 1765 1775 1785 1795 1805 1815 1825 1835 1845 1855 1865 1875 1885 1895 1905 1915 1925 1935 1945 1955 1965 1975 1985 1995 2005 2015 2025 2035 2045 2055 2065 2075 2085 2095 2105 2115 2125 2135 2145 2155 2165 2175 2185 2195 2205 2215 2225 2235 2245 2255 2265 2275 2285 2295 2305 2315 2325 2335 2345 2355 2365 2375 2385 2395 2405 2415 2425 2435 2445 2455 2465 2475 2485 2495 2505 2515 2525 2535 2545 2555 2565 2575 2585 2595 2605 2615 2625 2635 2645 2655 2665 2675 2685 2695 2705 2715 2725 2735 2745 2755 2765 2775 2785 2795 2805 2815 2825 2835 2845 2855 2865 2875 2885 2895 2905 2915 2925 2935 2945 2955 2965 2975 2985 2995 3005 3015 3025 3035 3045 3055 3065 3075 3085 3095 3105 3115 3125 3135 3145 3155 3165 3175 3185 3195 3205 3215 3225 3235 3245 3255 3265 3275 3285 3295 3305 3315 3325 3335 3345 3355 3365 3375 3385 3395 3405 3415 3425 3435 3445 3455 3465 3475 3485 3495 3505 3515 3525 3535 3545 3555 3565 3575 3585 3595 3605 3615 3625 3635 3645 3655 3665 3675 3685 3695 3705 3715 3725 3735 3745 3755 3765 3775 3785 3795 3805 3815 3825 3835 3845 3855 3865 3875 3885 3895 3905 3915 3925 3935 3945 3955 3965 3975 3985 3995 4005 4015 4025 4035 4045 4055 4065 4075 4085 4095 4105 4115 4125 4135 4145 4155 4165 4175 4185 4195 4205 4215 4225 4235 4245 4255 4265 4275 4285 4295 4305 4315 4325 4335 4345 4355 4365 4375 4385 4395 4405 4415 4425 4435 4445 4455 4465 4475 4485 4495 4505 4515 4525 4535 4545 4555 4565 4575 4585 4595 4605 4615 4625 4635 4645 4655 4665 4675 4685 4695 4705 4715 4725 4735 4745 4755 4765 4775 4785 4795 4805 4815 4825 4835 4845 4855 4865 4875 4885 4895 4905 4915 4925 4935 4945 4955 4965 4975 4985 4995 5005 5015 5025 5035 5045 5055 5065 5075 5085 5095 5105 5115 5125 5135 5145 5155 5165 5175 5185 5195 5205 5215 5225 5235 5245 5255 5265 5275 5285 5295 5305 5315 5325 5335 5345 5355 5365 5375 5385 5395 5405 5415 5425 5435 5445 5455 5465 5475 5485 5495 5505 5515 5525 5535 5545 5555 5565 5575 5585 5595 5605 5615 5625 5635 5645 5655 5665 5675 5685 5695 5705 5715 5725 5735 5745 5755 5765 5775 5785 5795 5805 5815 5825 5835 5845 5855 5865 5875 5885 5895 5905 5915 5925 5935 5945 5955 5965 5975 5985 5995 6005 6015 6025 6035 6045 6055 6065 6075 6085 6095 6105 6115 6125 6135 6145 6155 6165 6175 6185 6195 6205 6215 6225 6235 6245 6255 6265 6275 6285 6295 6305 6315 6325 6335 6345 6355 6365 6375 6385 6395 6405 6415 6425 6435 6445 6455 6465 6475 6485 6495 6505 6515 6525 6535 6545 6555 6565 6575 6585 6595 6605 6615 6625 6635 6645 6655 6665 6675 6685 6695 6705 6715 6725 6735 6745 6755 6765 6775 6785 6795 6805 6815 6825 6835 6845 6855 6865 6875 6885 6895 6905 6915 6925 6935 6945 6955 6965 6975 6985 6995 7005 7015 7025 7035 7045 7055 7065 7075 7085 7095 7105 7115 7125 7135 7145 7155 7165 7175 7185 7195 7205 7215 7225 7235 7245 7255 7265 7275 7285 7295 7305 7315 7325 7335 7345 7355 7365 7375 7385 7395 7405 7415 7425 7435 7445 7455 7465 7475 7485 7495 7505 7515 7525 7535 7545 7555 7565 7575 7585 7595 7605 7615 7625 7635 7645 7655 7665 7675 7685 7695 7705 7715 7725 7735 7745 7755 7765 7775 7785 7795 7805 7815 7825 7835 7845 7855 7865 7875 7885 7895 7905 7915 7925 7935 7945 7955 7965 7975 7985 7995 8005 8015 8025 8035 8045 8055 8065 8075 8085 8095 8105 8115 8125 8135 8145 8155 8165 8175 8185 8195 8205 8215 8225 8235 8245 8255 8265 8275 8285 8295 8305 8315 8325 8335 8345 8355 8365 8375 8385 8395 8405 8415 8425 8435 8445 8455 8465 8475 8485 8495 8505 8515 8525 8535 8545 8555 8565 8575 8585 8595 8605 8615 8625 8635 8645 8655 8665 8675 8685 8695 8705 8715 8725 8735 8745 8755 8765 8775 8785 8795 8805 8815 8825 8835 8845 8855 8865 8875 8885 8895 8905 8915 8925 8935 8945 8955 8965 8975 8985 8995 9005 9015 9025 9035 9045 9055 9065 9075 9085 9095 9105 9115 9125 9135 9145 9155 9165 9175 9185 9195 9205 9215 9225 9235 9245 9255 9265 9275 9285 9295 9305 9315 9325 9335 9345 9355 9365 9375 9385 9395 9405 9415 9425 9435 9445 9455 9465 9475 9485 9495 9505 9515 9525 9535 9545 9555 9565 9575 9585 9595 9605 9615 9625 9635 9645 9655 9665 9675 9685 9695 9705 9715 9725 9735 9745 9755 9765 9775 9785 9795 9805 9815 9825 9835 9845 9855 9865 9875 9885 9895 9905 9915 9925 9935 9945 9955 9965 9975 9985 9995 10005 10015 10025 10035 10045 10055 10065 10075 10085 10095 10105 10115 10125 10135 10145 10155 10165 10175 10185 10195 10205 10215 10225 10235 10245 10255 10265 10275 10285 10295 10305 10315 10325 10335 10345 10355 10365 10375 10385 10395 10405 10415 10425 10435 10445 10455 10465 10475 10485 10495 10505 10515 10525 10535 10545 10555 10565 10575 10585 10595 10605 10615 10625 10635 10645 10655 10665 10675

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	5 ft. H.		
- 1'		∴											
1'-15'		∴											

No. Mil Acres... 1.0 Distribution... Uniformly scanty

Approx. age... X

Vigor... Harsh - good

Remarks... Scanty forest due to dryness of soil & trees with rotten & rotten spots.

GROUND COVER.

General distribution and amount... Uniformly scanty

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<u>Quercus</u>	✓										
<u>Castanea</u>	✓										
<u>Alnus</u>	✓										
<u>Vib. Acer.</u>	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.7	.6	.4	0.57
Duff	1.5	1.2	1.2	1.30
Humus	Trace	.3	.2	0.20
Total	2.3	2.1	1.8	2.07
Leached	.7	.7	.7	0.70
Dark brown	1.0	1.1	.8	0.97

Remarks... Underlying rocks - white - red - fine blue - surface large angular chunks of rock on surface

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 39 Date Oct. 23, 1929
 Area of plot 1 A. Location Same as 38, edge of stream, northern tip of ridge
Top + more exposed
 Type Pine-Hemlock-Oak Forest form Even aged
 Aspect Southern Slope 15° Relative elevation End of high ridge
 Remarks (Evidence of fire, culling, etc.) Dead forest in humus layer on the ground
No cutting on plot. Abundant evidence of wind fall. No sign
of trees over having entered large (20-30") size

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	W.O.		
-10	0.31			0.31									
10-15	1.64	0.328											
15-20	1.86										1.68		
20-25													
25-30													
30-35													
35 up													
Hgts.	80+	62	70								70		
Dead													
Down													

Distribution Uniform with exception of 30' hole in canopy
 Crown density 5 Approx. age 110 (P. 110) Vigor Fair for all species. Hgt. short for ages.
 Remarks Canopy mostly oak as evidenced by dead stems and
stems. Present overstory quite good allowing considerable light to pass.

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 4		2%											
4- 6													
6-10	2%												
10-15										2%			
15 up													
Hgts.													

Distribution BT D. Fairly even
 Approx. age 130 (Hem 140) (Be 110) (P.B. 110) Vigor Poor with many dead, badly exposed
 Remarks Two main age classes with many trees dropping
out.

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	St.M.		
- 1'	✓	✓											
1'-15'													

17
1

No. Mil Acres *1.0* Distribution *Pine mostly in opening; hardwood evenly distributed.*
 Approx. age
 Vigor *Pine apparently suitable to maintain description opening.*
 Remarks

GROUND COVER.

General distribution and amount *See below.*

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>Rock fern</i>	✓			<i>Wintergreen</i>	✓						
<i>Blueberry (in opening)</i>		✓									
<i>Vine grass (in opening)</i>		✓									
<i>Blueberry</i>	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.6	.8	.5	0.6
Duff	1.0	1.8	1.5	1.5
Humus	1.0	.8	.8	0.9
Total	2.6	3.6	2.5	3.0
Leached	.1	.5	Trace	0.2
Dark brown	.6	.3	Gradual	0.3

Remarks *Outcropping ledges + underlying rock not far below surface.*

HARVARD FOREST RECORDS

Pisgah Old Growth Study.

Plot No. 40 Date 7/25/29

Area of plot 1 A. Location S. of N. Round Pond 1000'

Type Hd. Ch. B + A overstory Forest form Selection

Aspect N. Slope 5% Relative elevation 1000' below ridge top

Remarks (Evidence of fire, culling, etc.) Just outside (uphill) old H.M. Hd. stand 200 yrs old chestnuts rotted

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.		
-10											Ch (Dead)	
10-15												
15-20					70			16			37	
20-25									90		30	
25-30											90	
30-35												
35 up												
Hgts.												
Dead												
Down												

Distribution Present

Crown density 30% Approx. age 130 ± Vigor Birches + Ash + Ph. dominant

Remarks Stand 100 yrs ago mostly Chestnut will be mixture of B.B. H.M. + Be. in 2039

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.		
- 4			20					20			chest	
4- 6												
6-10			30									
10-15			60			60		60				
15 up												
Hgts.												

Distribution Down in Park

Approx. age 130 ± Vigor Good

Remarks Secondary has taken over dominant position since Ch died

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	St.M		
- 1'	✓	✓	7✓	1✓		✓		12✓					
1'-15'			12					25			31		

No. Mil Acres... 1.0 Distribution H.M. + Be. Uni. Form

Approx. age Be. 5-25 H.M. 5-20

Vigor... Good

Remarks Way didn't seem come in from so big seed. Fr. 1.50 diam.

GROUND COVER.

General distribution and amount... W.h. in patches in holes

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Vib. Ac		✓									
W. Nettle	✓	✓									
Aster sp	✓										
Ind. cas	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.6	.5	.5	.53
Duff	1.0	.5	1.0	.83
Humus	.8	1.8	1.5	1.33
Total	2.4	2.8	3.0	2.73
Leached	—	—	.4	.20
Dark brown	1.5	1.0	1.5	1.33

Remarks Soil deep (machete length)

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 41 Date 10/11/79

Area of plot A. Location

Type Hardwood Forest form various Br/Upst

Aspect Slope Relative elevation 1000

Remarks (Evidence of fire, culling, etc.) Small charcoal flakes in samples

Other trees indicate light fire

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15					1.04								
15-20				1.08	2.04								
20-25					1.76								
25-30													
30-35													
35 up													
Hgts.													
Dead													
Down													

Distribution uniform

Crown density Approx. age 120 Vigor adequate

Remarks Redwood dominant plant: Full on ground

100% are Br & Y.B. 100% are Hd & Y.B.

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 4													
4- 6													
6-10													
10-15													
15 up													
Hgts.													

Distribution uniform

Approx. age 120-130 Vigor good

Remarks 100% are Br & Y.B. 100% are Hd & Y.B.

100% are Br & Y.B. 100% are Hd & Y.B.

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'	✓	✓	✓			✓		✓		3	✓		
1'-15'						1		8			10		

No. Mil Acres..... 10..... Distribution..... Uniform.....
 Approx. age..... 20-25-30-40-50-60.....
 Vigor.....
 Remarks.....

GROUND COVER.

General distribution and amount..... heaviest in holes.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
W. Tobbie		✓		Monoc. Oak	✓						
Sassa.	✓			Part. berry	✓						
Y.D. Ao.	✓			Asp. sp. n.	✓						
Ind. oak	✓			Rhodod.	✓						

SOIL.

DEPTHS.

	1	2	3	Average
Litter	0.6	1.6	1.6	0.60
Duff	0.8	1.6	1.5	0.63
Humus	0.7	1.3	1.3	0.43
Total	2.1	1.5	1.4	1.67
Leached	—	—	—	0.20
Dark brown	1.0	1.0	1.5	0.83

Remarks..... Leaves all fallen excepting Part. berry.....
 charcoal unit under humus.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 42 Date MAY 25, 1929
 Area of plot 1 A. Location 1000' S.E. of North Raved Road

Type Chestnut oak beach Forest form selection
 Aspect North West Slope 10° Relative elevation 600' from high ridge
 Remarks (Evidence of fire, culling, etc.) Fire scars on old chestnuts stand quite near in upper story due to death of chestnut. Paper birch ^{100 yrs} beach replacing chestnut. ^{100 yrs} maple & poplar was mainly chestnut - 100 yrs beach mainly beach.

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	chest	Wh B.
-10						031						
10-15			082			182						** 164
15-20												
20-25												
25-30												
30-35												
35 up												
Hgts.												
Dead												
Down												

Distribution Chestnut & beach in form. Birch scattered
 Crown density 7 Approx. age 140 Vigor Beach fair, Paper beach poor.
 Remarks Old secondary at chestnut. - Completely gone with beach taking place in it.

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	stall
- 4			10								
4- 6			5								
6-10			5								
10-15											
15 up											
Hgts.											

Distribution Uniform
 Approx. age Beach up to 100 yrs Vigor Beach - good. Map good.
 Remarks Handbook 100 yrs old - is the same st. beach 100 yrs.

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	st. M	chest
- 1'		✓	9					1✓		1✓	6✓	1
1'-15'			13					1			2	

No. Mil Acres... *10* Distribution... *Uniform*
 Approx. age... *Beech 5-20 yrs. R.O. seedling H.M. 5-15*
 Vigor... *Beech & H.M. good*
 Remarks... *good uniform understory of beech*

GROUND COVER.

General distribution and amount... *Vary sparse*

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>composites</i>	✓										
<i>W. white oak</i>	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	<i>1.8</i>	<i>.8</i>	<i>1.0</i>	<i>.9</i>
Duff	<i>1.4</i>	<i>.8</i>	<i>1.0</i>	<i>1.06</i>
Humus	<i>.5</i>	<i>.2</i>	<i>.3</i>	<i>.33</i>
Total	<i>2.7</i>	<i>1.8</i>	<i>2.3</i>	<i>2.27</i>
Leached	<i>1.0</i>	<i>.1</i>	<i>.2</i>	<i>0.43</i>
Dark brown	<i>.5</i>	<i>1.2</i>	<i>1.2</i>	<i>0.97</i>

Remarks... *chestnut charcoal found in humus. Also charcoal found in leached layer. Large rocks scattered about soil fairly deep.*

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 43 Date Oct. 25, 1929
 Area of plot 0.1 A. Location 1/4 mile S.E. N. Round Pond
 Type Oak - F. Birch - R. Maple Forest form Two-storied
 Aspect North Slope 15° Relative elevation 200' from ridge top
 Remarks (Evidence of fire, culling, etc.) Fire scars on beech & chestnut
Stand 100 yrs. ago - Chestnut & Oak 100 yrs. ago - Beech &
Oak with scattered Hemlock & 1 or 2 W. Pines (?)

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Ches.		
-10													
10-15			0.2	0.82	0.82								
15-20										1.6			
20-25										2.6			
25-30													
30-35										5.6			
35 up													
Hgts.			60'		65'					60-80			
Dead													
Down													

Distribution Uniform
 Crown density 4 Approx. age 100 yrs Vigor Oak fair - Birch poor
 Remarks Wood sample (Poplar?) taken

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Ches.		
- 4			1										
4- 6			2										
6-10			1										
10-15			1										
15 up													
Hgts.													

Distribution seed Uniform
 Approx. age 40-100 yrs Vigor Beech poor, decadent
 Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	STY.		
- 1'	✓	✓	✓	✓		✓		✓	✓	✓			
1'-15'			✓								☑		

13
70

No. Mil Acres..... Distribution..... *Uniformly scattered*
 Approx. age..... *Branch 5-20* *Oak seedlings* *Str. M. 5-15*
 Vigor..... *Branch fair*
 Remarks..... *Hem + W.P. seedlings found (3 or 4)*

GROUND COVER.

General distribution and amount..... *Scarce*

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>Anthracis</i>	X			<i>Arctia</i>	X						
<i>Inter</i>	X										
<i>Loc.</i>	X										
<i>Loukara</i>	X										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	0.3	0.5	0.5	0.43
Duff	0.3	0.8	1.0	0.70
Humus	1.5	0.5	1.0	1.00
Total	1.1	1.8	2.5	1.80
Leached	1.3	0.4	0.5	0.73
Dark brown	0.1	1.5	0.5	0.83

Remarks..... *Charcoal found in leached layer*
Soil thin. Few small burkers evident.
Underlying ledge thin at edge.

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 44 Date 10/23/89
 Area of plot 1 A. Location Ridge top Yemi S. N. Round Pond
 Type Oak ridge Forest form Two-storied PO/Be
 Aspect Level Slope Relative elevation Ridge Top
 Remarks (Evidence of fire, culling, etc.) Charred stumps

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	ch
-10											
10-15										3.28	
15-20				50 ^{1.6}						6.07	
20-25										2.76	
25-30											
30-35											
35 up											
Hgts.										50-60	
Dead											
Down											

Distribution Unif. Form
 Crown density 1 Approx. age 105 Vigor Oak Fair (poor site)
 Remarks Old WP log down 100 yrs in center of plot. Be stumps all rotted. PO stump well rotted.

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	ch
- 4			33								
4- 6			35								
6-10			40								
10-15											
15 up											
Hgts.											

Distribution Down Unif. Form
 Approx. age 50-70 Vigor Beech poor shown by flat tops & dead trees
 Remarks

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 45 Date 10/13/1989
 Area of plot 1 A. Location Ridge km S.W. of NE corner of Pond
200' x 44'
 Type Oak ridge Forest form Two storied RO/HM+RM
 Aspect SE Slope 9% Relative elevation 150' below ridge top
 Remarks (Evidence of fire, culling, etc.) Charcoal in humus & leafed
layer in stumps

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15										2/6			
15-20										10.08			
20-25										8.28			
25-30													
30-35													
35 up													
Hgts.										32			
Dead													
Down													

Distribution U. form
 Crown density 9 Approx. age 125+ Vigor Fair
 Remarks 100% oak, RO
HM+RM+J

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	J.M.	Basal	St.M.
- 4		25						15	10		16		11
4- 6								20					
6-10													
10-15													
15 up													
Hgts.													

Distribution Dead + down U. form
 Approx. age WA 2-30, HM 7-30, J.M. 10-50 Vigor HM+J and J good, hem dead
 Remarks J.M. middle story result of seed canopy fall
SE under canopy. Post-fire forest with middle story

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	St.M	Iron	Ch
- 1'	1					1				7	3		
1'-15'			1			1		13	1		10	9	1

No. Mil Acres... 10 Distribution... Un. Even

Approx. age... 20-30 yrs; H.M.S-20; St.M+I: 5-20; W.P. seedlings

Vigor... All good extent; W.P. which was Fair

Remarks

GROUND COVER.

General distribution and amount... 2-3 cm

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Viburnum		✓		Mosses	✓						
Asteraceae	✓			Chr. Fern	✓						
Grass	✓										
Other	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.8	.8	.8	.8
Duff	.8	.6	.6	.8
Humus	.5	.6	.4	.5
Total	2.1	2.4	1.8	2.1
Leached	.6	—	—	.6
Dark brown	2.0	1.6	1.0	1.5

Remarks... Deep

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 46 Date 10/11/79

Area of plot 15 A. Location Harvard Tract N.W. Cor.

Type 10m Ringelplan Forest form Two-staned Hm/Ulm

Aspect level Slope --- Relative elevation Narrow N.S. Ridge top

Remarks (Evidence of fire, culling, etc.) Hole on exposed ridge what

2 tall trees just outside plot & all hemlocks are

blown over. Plot takes in all of opening

100 yrs ago HM + P.
100 " " hence HM

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15		164											
15-20		187											
20-25		276											
25-30													
30-35													
35 up													
Hgts.													
Dead													
Down													

Distribution around outer edge

Crown density 3 Approx. age 250 ± Vigor Hem Fair

Remarks ---

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 4													
4- 6													
6-10				30									
10-15													
15 up													
Hgts.													

Distribution Almost lacking

Approx. age 300 Vigor Fair

Remarks ---

ADVANCE GROWTH: (Trees under 15 ft. in height)

~~76~~

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
1'	12	12		4			17						
1'-15'		13		10			2						

76
25

No. Mil Acres... 10 Distribution.....

Approx. age... 2.5-10 H.M. 2.75 Y.B. 5-10 R.M. 5-10

Vigor... WP poor (Chermos present)

Remarks... ^W... slings in Y.B. in opening where sun gets in. Can't survive because limit db will overtop it. Plenty of pine seed.

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Gaultheria		✓		Mitchella	✓			Grass	✓		
Rackm. sp.	✓			Goldthread	✓						
Vaccinium	✓			W. Lily of the valley	✓						
Pipsissewa	✓			W. Hobble	✓						

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.4	.3	.5	0.40
Duff	2.0	2.0	1.8	1.93
Humus	1.0	.4	.6	0.67
Total	3.4	2.7	2.9	3.00
Leached	.2	.1	1.6	0.63
Dark brown	.1	Rock		0.06

Remarks... Soil very shallow over ledge - some places only organic layer. Charcoal found in humus (in places).

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 47 Date 10/25/79
 Area of plot 4.1 A. Location Harvard Forest - N center
 Type Pine - Hemlock Forest form
 Aspect North Slope 5° Relative elevation Top low ridge
 Remarks (Evidence of fire, culling, etc.) Large opening (W.A.) caused by wind fall & lightning
lightning killed some 2 or more 2 inch dbh

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15													
15-20		¹⁵³											
20-25		⁶⁰											
25-30	⁴¹³												
30-35													
35 up													
Hgts.	<u>70</u>												
Dead													
Down													

Distribution
 Crown density 2 Approx. age Vigor Poor
 Remarks Large opening Pine-Hem. 100% W.A. here. Hemlock
Beach

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 4													
4- 6													
6-10													
10-15													
15 up													
Hgts.													

Distribution
 Approx. age 10-25 Vigor Good
 Remarks Beach, canted Hemlock has cullid tags

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	RS		
- 1'	4	3											
1'-15'	3	73	1				12				1		

No. Mil Acres.....10..... Distribution..... Grouped, abundant, in openings
 Approx. age..... Birch 20 Hem 5-50 W.P. 1-5
 Vigor..... Hem good Birch good
 Remarks..... Abundant Birch 20-30 in. short leaf
 ph

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Gaultheria	X										
Blackberry	X										
Spring	X										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	0.8	0.9	0.4	1.63
Duff	1.0	1.0	0.7	1.07
Humus	0.5	0.7	0.3	0.50
Total	2.7	2.5	1.4	2.20
Leached	0.7	0.4	0.5	1.53
Dark brown	1.4	1.0	2.0	1.47

Remarks..... Soil rocky. Shallow root systems evident.
 the soil is thicker than on previous plots

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 48 Date 10/28/29

Area of plot 1 A. Location Harvard Tract, SE corner

Type Pine Forest form Selection

Aspect S Slope 10% Relative elevation Ridge Top

Remarks (Evidence of fire, culling, etc.) Shallow soil on N.S. Ridge. Poor site. Sold pine just before 2007 (just after silver wood) fire. Plot same age.

100 yrs ago PYRO
" " hence Hm + W.P.

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10	0.3160			0.31									
10-15	0.2160												
15-20	0.5075												
20-25													
25-30													
30-35													
35 up													
Hgts.													
Dead													
Down													

Distribution 1/4 ft

Crown density 8 Approx. age 125+ Vigor good

Remarks Pine started Fast

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 4		0.30											
4- 6		0.40											
6-10		0.50											
10-15		0.50											
15 up													
Hgts:													

Distribution Dead

Approx. age W.P. 120+ Vigor Good

Remarks Both W.P. + Hm started fast

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'	2	4		1		6				few			
1'-15'		1	2	2									

No. Mil Acres... 1.0... Distribution... Scattered

Approx. age.....

Vigor... ^{in good} fair... ^{Be fair} B.B. Good

Remarks... Few W.P. + R.O. Seedlings

GROUND COVER.

General distribution and amount... ^{very} sparse

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Rock baly.		✓									
Gaul.	✓										
Mitchella	✓										
Vaccinium	✓										

Few W.P. + R.O. Seedlings

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.5	.3	.5	0.43
Duff	.4	.2	.9	0.50
Humus	.1	.3	.3	0.23
Total	1.0	.8	1.7	1.17
Leached	.2	.4	.7	0.43
Dark brown	.8	1.0	.8	0.89

Remarks... Soil Thin & Facky ledge thru center of

plot. Charcoal in humus

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 49 Date 7/12/99

Area of plot 1 A. Location NE. of upper end of Lake Lobe; strip

left of cutting

Type Hemlock Forest form 25 stands down Hm/Bb+Hm

Aspect NW Slope 10% Relative elevation 200' from ridge top

Remarks (Evidence of fire, culling, etc.) Area of stand 1/4 A. Exposed to wind on

N.W., S.W. & N.E. Windfall on W. corner taken over by 20 hem.

OVERSTORY: 100 yrs ago Hm+Bb
" " hence Hm+be

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	R.SP
-10											
10-15		164				124					222
15-20		75									
20-25		67									
25-30		80									
30-35		53									
35 up											
Hgts.											
Dead											
Down											

Distribution Unif. even

Crown density 1 Approx. age 250+ Vigor Hm good B.B. Fair

Remarks

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.
- 4			7							
4- 6										
6-10			50							
10-15										
15 up										
Hgts.										

Distribution Down

Approx. age Vigor

Remarks

Lightning killed 1 big WP & 3 hem in 1 strike (see 4)

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Rsp		
- 1'		✓		✓									
1'-15'		✓											

No. Mil Acres... 10 Distribution... Uniform

Approx. age... 50 ±

Vigor... Good

Remarks... Hemlock ready to take over stand

GROUND COVER.

General distribution and amount... Sparse + scattered

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Whobble	✓										
Mitchella	✓										
Gaultheria	✓										
Vaccinium	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.5	.5	.4	0.47
Duff	1.0	1.2	1.0	1.07
Humus	.4	.3	.3	0.33
Total	1.9	2.0	1.7	1.87
Leached	.5	.4	1.5	0.80
Dark brown	1.5	1.4	1.0	1.30

Remarks... charcoal in leached layer soil fairly deep

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 50 Date 10/29/29

Area of plot 1/4 A. Location 6 miles SE of Plot 49

Type hardwood Forest form Transition

Aspect NW Slope 2° Relative elevation 500-550

Remarks (Evidence of fire, culling, etc.) Cutting on the site (5x10)

10-15 ft. Hemlock

15-20 ft. Hemlock

20-25 ft. Hemlock

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15						0.82							
15-20		0.72											
20-25		1.04											
25-30		4.13											
30-35													
35 up													
Hgts.		21-30											
Dead													
Down													

Distribution Uniform

Crown density 1 Approx. age 200 Vigor Apparently good

Remarks

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 4			0.8										
4- 6													
6-10													
10-15													
15 up													
Hgts.		3-4	21										

Distribution Evenly scattered

Approx. age Vigor Poor

Remarks Beach, soaked

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'		70											
1'-15'													

No. Mil Acres..... Distribution.....

Approx. age.....

Vigor.....

Remarks.....

Some young spruce still in the

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.

SOIL.

DEPTHS.

	1	2	3	Average
Litter	1.3	0.3	2.5	0.30
Duff	0.6	0.4	0.2	0.40
Humus	1.4	2.0	0.7	1.37
Total	3.3	2.7	1.2	2.07
Leached	0.5	0.5	0.3	0.43
Dark brown	0.4	0.5	0.4	0.43

Remarks.....

Soil fairly deep

Note - Approx 1/4 area (10-15' mature Hemlock) NW of SE of plot = area filled by *Amphicarpus mollis*

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 51 Date 10/29/29

Area of plot 1 A. Location 1/4 mi. E. No. 50

Type Bb-Be-Hm Forest form Selection

Aspect N Slope 8% Relative elevation 1/4 mi. below ridge top

Remarks (Evidence of fire, culling, etc.) Charcoal in humus. Hole in Hm stand in 509

100 yrs. ago Be-Hm-Bb
hence Hm-Be

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15			5.82										
15-20		1.68	1.68			5.04							
20-25		2.76											
25-30													
30-35		2.07											
35 up													
Hgts.													
Dead													
Down													

Distribution eds. in center - hm on edges

Crown density 7 Approx. age 250+ Vigor 2 hm dead from Armillaria

Remarks

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	S.M.	RSP
- 4		2.5									20	20
4- 6		50										
6-10												
10-15		50										
15 up												
Hgts.												

Distribution Down

Approx. age 30-100 Vigor Very good

Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'											5/11	15/1	
1'-15'		12	3	2							8	9	

No. Mil Acres.....10..... Distribution.....thin clumps.....

Approx. age.....H.M.S. 50.....S.M. 2-25; P.S. 75; B.S. 10-30; R.M.S. 15.....

Vigor.....good.....

Remarks.....

GROUND COVER.

General distribution and amount.....Eyc. in holes of understorey.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Eyc. loc.		✓		Caultheria	✓						
Coptis tr.	✓			Mitchella	✓						
Adiantum	✓			Lonicera	✓						
Oxalis	✓			Coptis tr.	✓						

SOIL.

DEPTHS.

	1	2	3	Average
Litter	1.3	1.6	1.6	0.67
Duff	1.0	1.2	1.5	0.90
Humus	1.0	1.0	1.1	0.80
Total	2.8	2.8	1.5	2.03
Leached	0	0	1	0.03
Dark brown	2.0	1.6	1.2	1.60

Remarks.....charcoal chunks in humus.....

.....Boulders few.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 52 Date October 29, 1929

Area of plot 1/4 A. Location 1/4 mile East of Plot # 51

Type Pine-Hemlock (P.H.) Forest form Substratum

Aspect North Slope 5° Relative elevation middle ridge top

Remarks (Evidence of fire, culling, etc.) White pine culled at least 100 yrs ago - only one was taken - large old hemlock growing on top at white pine stem

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15		20											
15-20		160		160									
20-25		50											
25-30													
30-35	1700	576											
35 up													
Hgts.	100-110	75'		80'									
Dead	100-50												
Down													

Distribution Uniform

Crown density st. Approx. age 250+ Vigor Pine-Hemlock decadent

Remarks no pine, no oak, some spruce, fir, fir at present some fir & few scattered beeches - 100 yrs hence - Hemlock & a few beech

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	R.S.	chest
- 4												
4- 6												
6-10												
10-15												
15 up												
Hgts.		18-60	20-60	40'		70'					60'	

Distribution Timberline

Approx. age beech 20-30 yrs Vigor Hemlock good, Beech poor

Remarks beech dying out, no middle story trees, no advanced growth under old trees - all in openings

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'	3	7	1	1		2					7.5		
1'-15'		9									1		

No. Mil Acres.....10..... Distribution.....hemlock grouped in openings.....
 Approx. age.....from 2 to 50 years.....
 Vigor.....from good.....the pine fair.....
 Remarks.....

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Cyperus			✓	Swainson	✓			Arbutus	✓		
Euthamia	✓			Nitich Nettle	✓						
Linum canad	✓			Bark Fern	✓						
Prunella	✓			Murphy	✓						

SOIL.

DEPTHS.

	1	2	3	Average
Litter	1.0	1.0	1.2	0.90
Duff	0.5	1.0	1.0	0.83
Humus	1.5	2.5	2.2	2.07
Total	3.0	4.5	3.9	2.80
Leached	1.4	1.3	1.3	0.67
Dark brown	1.0	1.0	1.2	0.73

Remarks.....Plenty of charcoal found in humus layer.....
 some large boulders on surface.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 53 Date Oct. 29, 1929

Area of plot 0.1 A. Location 100 yds. N. of Plot 52

Type P.O. Forest form Sekotian

Aspect — Slope a Relative elevation Low flat ridge

Remarks (Evidence of fire, culling, etc.)

Stand 100 yrs. ago. Pine-Hem-Spruce. 100 yrs. hence
Beech-Hem-Spruce

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	R.S.	Ches
-10												
10-15												
15-20												
20-25	² 2-5											
25-30	² 4-8											
30-35	² 23-4											
35 up												
Hgts.	100'	70'										
Dead												
Down												

Distribution Uniform

Crown density 6 ^{exposed} hills Approx. age 200+ Vigor Pines decadent

Remarks Large hole in canopy caused by wind fall
Scattered spruce + hem. adv. growth causing an

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	R.S.
- 4											
4- 6											
6-10											
10-15											
15 up											
Hgts.		40'	15'-40'	60'							70'

Distribution Uniformly scattered

Approx. age 50-150 Vigor Poor

Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	PS		
- 1'	5	16	2	18		90					7		
1'-15'		11		4		11							

No. Mil Acres.....11..... Distribution.....Hem. + PS grouped around edge of opening
 Approx. age.....Pine, maple & Birch 1-5 yrs. Hem 1-56
 Vigor.....
 Remarks.....Birch + Maple + small Hem. coming up in opening
 Hem. reprod. mostly under old canopy

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Gaultheria		X		Mitella	X						
Carex tritoba		X		Paspalum	X						
W. Helleborus	X			Arbutus	X						
Ground Helleborus	X										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	0.5	0.5	0.5	0.83
Duff	0.7	0.5	0.3	0.83
Humus	1.0	1.7	0.7	1.13
Total	2.2	2.7	1.5	2.80
Leached	0.7	0.8	0.2	0.57
Dark brown	0.8	2.3	0.9	1.33

Remarks.....Bauldwin under growth surface
 Charcoal in leached layer

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 54 Date Oct. 30, 1929.
 Area of plot 0.1 A. Location 3/4 mile N.W. of Mend. Pisgah Res.
near trail leading from old shack & stable.
 Type Hemlock Forest form Two-storied
 Aspect West Slope 15° Relative elevation 300' from ridge top.
 Remarks (Evidence of fire, culling, etc.) Clearcut in diff.
Stand 100 yrs. ago Pine-Hemlock. 100 yrs. hence Hem-
Beech.

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Ches.		
-10													
10-15		228											
15-20		1512											
20-25													
25-30													
30-35													
35 up													
Hgts.		75'											
Dead													
Down													

Distribution Uniform
 Crown density 8 Approx. age 250 Vigor Fair
 Remarks

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	St. M	Ches.
- 4		1	3									
4-6												
6-10												
10-15												
15 up		40	all species									
Hgts.												

Distribution Uniformly scattered
 Approx. age Vigor
 Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	ST.M.		
- 1'													
1'-15'		U	1:										

No. Mil Acres.....10..... Distribution.....Irregularly compact.....
 Approx. age.....1-50..... 8' Hem. suppressed.....80 yrs.....
 Vigor.....Fairly high.....
 Remarks.....

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Spiny Shield	X			W. Hobble	X			Wild Raisin	X		
Cornus Can.	X			Arbutus	X			Sheep laurel	X		
Gaultheria	X			Lyc. obsc.	X						
Thick fern	X			Aralia	X						

SOIL.

DEPTHS.

	1	2	3	Average
Litter	0.3	0.3	0.2	0.27
Duff	2.5	0.8	0.6	0.63
Humus	1.0	0.7	1.0	0.90
Total	1.8	1.8	1.8	1.8
Leached	0.7	1.0	0.5	0.73
Dark brown	0.2	-	-	0.10

Remarks.....Blockers plentiful.....
 Charcoal in duff..... Soil fairly deep.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 55 Date 10/30/29
 Area of plot A Location Ridge top 1/2 mi. N. trail. Shanties toward
Road P. 1
 Type Pine Forest form Two storied PbtBb/Hm
 Aspect Slight W. Slope 5% Relative elevation Ridge top
 Remarks (Evidence of fire, culling, etc.) Old windfall - plot in hole 70' N.S.
by 200 Ft W. at west end of opening - site exposed
to strong winds - trees fell to East - looks like edge of
100 yrs ago P-Hm butt-rot followed by windthrow

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15													
15-20													
20-25	27												
25-30	413												
30-35													
35 up													
Hgts.	90	80											
Dead													
Down													

Distribution quantity of all trees was uncertain. Now almost completely dead
 Crown density 2 Approx. age 2 Vigor White pine very decadent
 Remarks Overstory appears to have been mid-thrown
shrub layer with pine & hardwood - trees have a trunk butt
rotch, paper birch

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	chest	five	
- 4													
4- 6													
6-10													
10-15													
15 up													
Hgts.													

Distribution Dr. Fern
 Approx. age Handwood Vigor Good
 Remarks Stand appears to have been a
low forest

ADVANCE GROWTH: (Trees under 15 ft. in height)

THH THH

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	chest		
- 1'													
1'-15'													

7
147

No. Mil Acres... 1.0... Distribution... *Handwritten: very heavy, not ant. to plot*

Approx. age... *Handwritten: 7-8' in height*

Vigor... *Handwritten: chestnut poor*

Remarks... *Handwritten: started under the old canopy at present above hemlocks*

GROUND COVER.

General distribution and amount... *Handwritten: very sparse - Handwritten: ground cover*

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>Handwritten: young shrub fern</i>											

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.6	.8	1.0	0.80
Duff	1.0	.6	.8	0.80
Humus	1.0	.5	.6	0.70
Total	2.6	1.9	2.4	2.30
Leached	.5	.2	.3	0.27
Dark brown	1.5	1.4	.8	1.23

Remarks... *Handwritten: charcoal in leached layer - also some charcoal in duff. Soil damp - not many cracks.*

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 55 Date July 1929

Area of plot 1/4 A. Location 1/2 mi. North of plot #55

Type White pine, red oak, hemlock Forest form Transition

Aspect Ridge top Slope — Relative elevation Top of high ridge

Remarks (Evidence of fire, culling, etc.) No evidence of culling or culling. Almost completely gone. Large pine left and side tangent of trees same place toward E. (Gladesville). Few old hemlocks have been girdled. - Not more than 1 yrs. ago. - Did not affect the present composition of the stand. Down trees are practically all windfalls (fruits are returned). Charcoal in duff.

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Chst.
-10											
10-15	32									104	
15-20										108	
20-25											
25-30											
30-35											
35 up											
Hgts.	55-65										
Dead											
Down											

Distribution Uniform

Crown density 20-30% Approx. age 100 yrs. Vigor White pine good, hemlock good

Remarks No evidence of trees over 18" dbh having been removed. This forest 100 yrs. ago - Hemlock, pine & red oak. 100 yrs. hemlock, white pine, hemlock, black birch & paper birch.

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.
- 4	2	2		2	2					
4- 6										
6-10										
10-15										
15 up										
Hgts.	15-20	15-20			20'					

Distribution Uniform

Approx. age 100 yrs. Vigor Pine, hemlock & paper birch good, R.M. poor

Remarks White pine is an average a few years younger than hemlock. The same pines now about to p.p.ing. the hemlock and will probably come thru to form next overstory 100 yrs hence.

ADVANCE GROWTH: (Trees under 15 ft. in height)

111 1111

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Chest		
- 1'													
1'-15'	22	22											

73

No. Mil Acres... 10 Distribution... *Extremely thick with a few old*

Approx. age... *14 to 15 years* *in last hemlock 22 years*

Vigor... *Healthy to good* *Red maple fair*

Remarks... *Fairly uniform in size at 14 to 15 ft. hemlock*

GROUND COVER.

General distribution and amount... *Very sparse except in small holes*

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>St. Laurel</i>	✓			<i>Gaultheria</i>	✓						
<i>Vaccinium</i>	✓			<i>Arbutus</i>	✓						
<i>Menyanthes</i>	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.8	.7	.8	0.77
Duff	.7	1.0	.8	0.83
Humus	.8	1.3	.8	0.90
Total	2.1	3.0	2.4	2.50
Leached	.6	.2	.3	0.37
Dark brown	.6	.4	.4	0.47

Remarks... *Charcoal found in duff & in leached layer*
Poor soil - Very light yellow humus - Reddish brown at
point where dark brown layer should be. Probably due to
rotter used.

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Pine

Plot No. *57* Date *11/17/90*
 Area of plot *1/4* A. Location *Ridge top 1/2 mile E. of Slantys - Ridge top*
 Type *Pine (windfall)* Forest form *Even aged*
 Aspect *NE* Slope *SE* Relative elevation *P. 400 ft*
 Remarks (Evidence of fire, culling, etc.) *old stand (P-Hm-PB) with the windfall exposed on NE-SW ridge. Hem left in area. 100 yrs ago P-Hm-PB. Charcoal in soil.*

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15													
15-20													
20-25													
25-30													
30-35													
35 up													
Hgts.													
Dead													
Down													

Distribution *Pine - even*
 Crown density *20%* Approx. age *200+* Vigor *good*
 Remarks *Pine up to 24" dbh.*

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Pd	FCh	
- 4	<i>10</i>			<i>31</i>	<i>33</i>						<i>2</i>	<i>20</i>	
4- 6													
6-10	<i>35</i>												
10-15													
15 up													
Hgts.													

Distribution *Down* *Uniform + very dense. P. 10-12' taller than P-Hm.*
 Approx. age *30* Hm *30+ P-Hm* Vigor *good P growing 1/yr*
 Remarks *P. growing up then hem but shows slow growth for 20 yrs.*

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'		**								**			
1'-15'	1/2	1/2		1/2	1/2					**			

No. Mil Acres... 1.0 Distribution... Uniform... *very dense... R.O. only in openings...
 Approx. age... W.P. 30... H.M. 30... H.A. 30
 Vigor... P... H.M. good... H.A. fair
 Remarks... remaining... thru H.M.

GROUND COVER.

General distribution and amount... Sparse... except in openings

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Gaultheria	✓			Vib. alnifolia	✓			Asp. marginal	✓		
Vaccinium	✓			Lyc. lucid.	✓			Arbutus	✓		
Asp. Spin	✓			Aster acumin.	✓			Kalmia latif.	✓		
Mitchella	✓			Cornus sp.	✓			Modiola virg.	✓		
Pteris aquil	✓			Lyc. clavatum	✓			Polypodium	✓		
				Mabanthemum	✓			Rubus plast.	✓		

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.8	.8	.7	0.8
Duff	.8	.7	.6	0.7
Humus	1.2	1.0	.6	0.9
Total	2.8	2.5	1.9	2.4
Leached	.5	.4	.4	0.4
Dark brown	.6	.5	.4	0.5

Remarks... Soil... shallow... over... around rocks

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 58

Date 11/7/91

Area of plot 2.1 A. Location Directly adjoining plot No. 57. on North side

Type Pine-Hemlock (old growth) Forest form Even aged second growth

Aspect North Slope 10° Relative elevation the edge of ridge top

Remarks (Evidence of fire, culling, etc.) Old secondary at white pine site. Saw 100 wind thrown due to extreme exposure and shallow soil. Abundant ground litter. Old secondary must have been composed of few scattered trees. Hemlocks girdled.

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15	95												
15-20													
20-25													
25-30													
30-35													
35 up													
Hgts.													
Dead													
Down		2'											

Distribution Uniform

Crown density 95 Approx. age 200 Vigor Poor

Remarks Blowdown and killing of trees by (fire?) has been complete. Saw few and large white pines - Max. in poor condition 100 yrs ago - pine, Hem - 20 100 yrs hence - Pine, Hem, no B.B.

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 4	20												
4-6													
6-10	50												
10-15													
15 up													
Hgts.		40'		15'	15'	20'				25'			

Distribution Uniform Birches six to ten feet taller than pine in the undergrowth but are sufficiently widely spaced to allow better 40 come thru.

Approx. age All about 20 yrs Vigor All vigorous

Remarks In a grassy clearing but nothing ahead of them. Not growing faster than hem down would now be alive but for girdling

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'		7											
1'-15'	4	42		5	12	5							

7
61

No. Mil Acres..... 10..... Distribution..... Very thick.....

Approx. age..... 10.....

Vigor..... Full.....

Remarks..... No. small trees..... adv. growth.....

GROUND COVER.

General distribution and amount..... Scattered..... small openings.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Vaccinium	✓			Juniperus	✓						
Cornus canad.	✓			Schizocarpus	✓						
Andromeda	✓			Gratiola	✓						
Smilax	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.4	.4	.8	0.5
Duff	.5	.5	.5	0.5
Humus	.4	.4	.6	0.5
Total	1.3	1.3	1.9	1.3
Leached	.8	.8	.3	0.6
Dark brown	rock none	rock none	.2	0.1

Remarks..... Soil..... extremely thin.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 59 Date 11/7/21

Area of plot 1.11 A. Location 100 yds south of Plot # 58

Low flat ridge

Type Red oak ridge Forest form Even-aged overstory

Aspect Slope Relative elevation Ridge top

Remarks (Evidence of fire, culling, etc.) Few hemlocks on plot girdled

Existence of culling at old pine at least 20 yrs ago

Fine channel Stk nearby w. Birch saplings dead at foot

15-25 yrs ago

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15										082			
15-20		168								504			
20-25													
25-30													
30-35													
35 up													
Hgts.		20-40								60'			
Dead													
Down													

Distribution quite uniformly scattered

Crown density 2 Approx. age 150+ Vigor Fair

Remarks Stand 100 yrs ago - Oak - hemlock - Pine

100 yrs hence Pine - hemlock - oak - Birch

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	RS		
- 4	11	11			11	11							
4-6	11												
6-10													
10-15													
15 up													
Hgts.	15-30	15-20				30'							

Distribution Fairly dense - uniform

Approx. age WP 25-30, RM 25-30, PB 20-25 Vigor Good

Remarks Pines well covered

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
1'													
1'-15'	☐☐	☐☐		☐☐	☐☐								

No. Mil Acres.....10..... Distribution.....^{20' high} Uni. Farm.....
 Approx. age..... Same as middle story approx.....
 Vigor..... Good.....
 Remarks.....

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Arbutus	x			Nelumbet	x						
Mitchell	x			Bottle tree	x						
Paulownia	x			W. Rose	x						
Vaccinium	x										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	0.6	0.5	0.6	0.6
Duff	2.0	0.5	1.0	1.2
Humus	1.2	0.6	1.0	0.9
Total	3.8	1.6	2.6	2.7
Leached	0.5	1.0	0.5	0.7
Dark brown	—	0.1	—	—

Remarks..... Soil fairly thick for a ridge top. Boulders abundant.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 6.D Date November 8, 1929
 Area of plot 0.1 A. Location 1/2 mile up slope from point where Board Road branches off from main road at Pisgah Reservoir
 Type Pine Forest form Selective on higher ridge to west
 Aspect high ridge top Slope None Relative elevation Slightly higher ridge to west
 Remarks (Evidence of fire, culling, etc.) Transect site for annual loggers to log at wh. Pines are about 200 yrs old. Those from 1-14" diam. 140 yrs old. Charred stumps on plot. 100 yrs ago - Wh. pine chest 100 yrs hence - Hem, pine R.M.

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	chest		
-10													
10-15													
15-20													
20-25													
25-30													
30-35													
35 up													
Hgts.	75-80'												
Dead													
Down													

Distribution Uniformly scattered
 Crown density 4-5 Approx. age 200 yrs Vigor Good
 Remarks Understory together with overstory makes crown density at least 10

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	chest	W.O.	
- 4													
4-6													
6-10													
10-15													
15 up													
Hgts.	40-60'	15-40'	40'	40-55'						50-60'		50'	

Distribution Uniform Wh. Pine coming up into holes in canopy
 Approx. age 120-130 yrs Vigor Good
 Remarks Pine & Hem good oak fair R.M. good

ADVANCE GROWTH: (Trees under 15 ft. in height)

1774 1

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'													
1'-15'													

No. Mil Acres.....1.0.....Distribution.....Uniformly.....very.....sparse.....
 Approx. age.....Hemlock.....seedlings.....to.....50 yrs.....Wh. pine.....seedling.....
 Vigor.....Wh.....P.....very.....poor.....Hem.....good.....
 Remarks.....Advanced.....practically.....lacking.....

GROUND COVER.

General distribution and amount.....Very.....sparse.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Vaccinium	✓			Gaylussacia	✓						
Rubus	✓			Wild rose	✓						
Monticola	✓										
.....	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.5	.6	.6	.56
Duff	.5	.5	.8	.6
Humus	.7	.5	.8	.67
Total	1.7	1.6	2.4	2.0
Leached	.2	.2	.4	.3
Dark brown	.2	.2	.1	.2

Remarks.....Large.....boulders.....on.....plat.....White.....ridge.....appears.....to.....be.....
 rock.....ledge.....Small.....forest.....trees.....between.....rocks.....Beds.....
 covered.....by.....litter.....to.....duff.....No.....stratified.....formation.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 61 Date 11/8/29

Area of plot 1 A. Location 1/4 mile N. from middle of lake

Type P-Hm-Hdn Forest form 2 storied P-Hm/Hm

Aspect S.E. Slope 10% Relative elevation 500' below ridge top

Remarks (Evidence of fire, culling, etc.) Charcoal in leached layer. Side part - trees short + short lived. Largest down tree 24". Was well cleaned. aff. 130 yrs ago.

100 yrs ago Hm-P-RO

OVERSTORY: 100 m hence Hm

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10		60%								50'			
10-15	60%	60%								50'			
15-20		60%								60'			
20-25										60'			
25-30													
30-35													
35 up													
Hgts.													
Dead													
Down													

Distribution Unif. form

Crown density 5 Approx. age 100 yrs Vigor Hm. + P. WP. + RO. for

Remarks Small pines with larger hem. P. come in with stand well broken up

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	WO		
- 4		25%											
4- 6		30%											
6-10		40%											
10-15		40%											
15 up													
Hgts.													

Distribution Dead + Down

Approx. age P. 120 Hm. 70-100 Vigor RO. very poor. R.M. poor. Hm. good

Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'		24											
1'-15'		5											

No. Mil Acres 1.0..... Distribution Uniform + sparse.....

Approx. age 110 - 70.....

Vigor Ground P. weak.....

Remarks.....

GROUND COVER.

General distribution and amount Very sparse.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Vaccinium sp.	✓			Arbutus	✓						
Grass	✓			Poly. vulgare	✓						
Gaultheria	✓										
Mitchella	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.3	1.0	.5	0.8
Duff	.3	1.0	.5	0.8
Humus	.6	1.2	.6	0.8
Total	2.2	3.2	1.6	2.3
Leached	1.0	.8	.1	0.6
Dark brown	—	—	.2	0.1

Remarks Soil very thin & rocky. Channel in leached layer.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 62 Date Nov 9 1929

Area of plot 2.1 A. Location 50 yds South of Plot 61

Type Hemlock - Oak Forest form Selection

Aspect East Slope 3° Relative elevation 200 yds from ridge to

Remarks (Evidence of fire, culling, etc.) Mature W.P. overstory cut probably

50 years ago. Plot now represents following stage

of succession. Charcoal found in leafed layers.

Plot 62

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15													
15-20													
20-25													
25-30													
30-35													
35 up													
Hgts.													
Dead													
Down													

Distribution Uniform

Crown density 5 Approx. age 150+ Vigor Hem good but made fire

Remarks Stand 100 yrs Pine over Hemlock

100 yrs Hemlock predominant

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	ches		
- 4													
4- 6													
6-10													
10-15													
15 up													
Hgts.													

Distribution Uniformly scattered

Approx. age 50 Hem 110 Vigor Fair

Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'													
1'-15'													

No. Mil Acres.....10..... Distribution..... Sparse but uniform..... Rest seedlings.
 Approx. age..... Hem..... 5-50 yrs. up to 2' hgt. 75 yrs. up to 15' hgt.
 Vigor..... Fair.....
 Remarks.....

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Gaultheria	X			Grass	X			Arabis	X		
W. Hobble	X			Mitchella	X			Vacc.	X		
Rubus. proc.	X			Aster. acut.	X			Arbutus	X		
Poly. vulg.	X			Quercus. can.	X			Witch Hazel	X		

SOIL.

DEPTHS.

	1	2	3	Average
Litter	0.8	0.9	1.2	0.90
Duff	1.2	0.6	0.8	0.87
Humus	1.0	0.6	1.0	0.87
Total	3.0	1.9	3.0	2.63
Leached	3.4	2.8	3.0	3.07
Dark brown	—	—	—	—

Remarks..... Soil thin. Rock usually in place of mineral soil.....

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	5.76		
- 1'													
1'-15'													

No. Mil Acres.....10..... Distribution.....Uniform.....

Approx. age.....

Vigor.....

Remarks.....

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>Quercus</i>	✓										
<i>White Oak</i>		✓									
<i>Mitchella</i>	✓										
<i>Saururus</i>	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	1.0	1.3	1.3	1.2
Duff	2.0	2.5	1.7	2.1
Humus	1.0	0	0	0.7
Total	3.0	3.8	2.0	3.0
Leached	1.2	1.4	.4	1.0
Dark brown	Substratum	Substratum	Substratum	

Remarks.....Very heavy layer of duff.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 64 Date Nov 10 1929 *Chas. S. Sargent*

Area of plot 1 A. Location East side of main road, 1/2 mile from

Type oak Forest form oak

Aspect S. (S. 1/2 E.) Slope 5-10° Relative elevation 300' up hill

Remarks (Evidence of fire, culling, etc.) from preceding plot No. 63

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15													
15-20													
20-25													
25-30													
30-35													
35 up													
Hgts.	<i>10-15</i>												
Dead													
Down													

Distribution High

Crown density 100% Approx. age 100 Vigor Very good

Remarks From preceding plot No. 63

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 4													
4- 6													
6-10													
10-15													
15 up													
Hgts.													

Distribution High

Approx. age 100 Vigor Very good

Remarks From preceding plot No. 63

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'	✓	✓	✓	✓		✓					✓		
1'-15'													

No. Mil Acres.....*10*..... Distribution.....*Forest*.....

Approx. age.....

Vigor.....

Remarks.....

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>W. White Pine</i>	✓	✓									
<i>W. Yellow Pine</i>	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	<i>1.0</i>	<i>.8</i>	<i>.8</i>	<i>0.9</i>
Duff	<i>3.0</i>	<i>1.4</i>	<i>1.0</i>	<i>1.8</i>
Humus	<i>1.</i>	<i>.6</i>	<i>.6</i>	<i>0.7</i>
Total	<i>5.0</i>	<i>2.8</i>	<i>2.4</i>	<i>3.1</i>
Leached	<i>1.3</i>	<i>.4</i>	<i>.2</i>	<i>0.6</i>
Dark brown	<i>Indeterminate</i>	<i>.4</i>	<i>1.2</i>	<i>0.2</i>

Remarks.....

.....

.....

.....

.....

.....

.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 65 Date Nov. 12, 1929
 Area of plot 1 A. Location 100' from preceding plot No. 64
H. hole in stand of which plots 63 & 64 are samples.
 Type Hole in P-Hm stand Forest form
 Aspect S.E. Slope 10° Relative elevation Same as Plot No. 64
 Remarks (Evidence of fire, culling, etc.) Large pieces of charcoal found.

Pine(?)

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Ches.		
-10			0.51										
10-15			1.64										
15-20				1.68									
20-25													
25-30	2.26												
30-35													
35 up													
Hgts.	100'-10'			65'									
Dead													
Down													

Distribution Pines on northern edge of opening, hardwoods over opening.
 Crown density Approx. age Vigor
 Remarks Canopy density - of hardwoods - over hole .7

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.		
- 4		2.26										
4-6												
6-10												
10-15												
15 up												
Hgts.												

Distribution Hemlocks concentrated in center of opening.
 Approx. age Hm. 40-50 Vigor Hm. - fair.
 Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	S.M.		
- 1'													
1'-15'		30									2		

No. Mil Acres..... *1.0* ... Distribution... *Dense thicket of hemlock in center of pile.*

Approx. age... *40-50 (H.M.)*

Vigor... *Good*

Remarks

GROUND COVER.

General distribution and amount... *No ground cover under hemlock saplings.*

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.

SOIL.

DEPTHS.

	1	2	3	4	Average
Litter	<i>1.0</i>	<i>1.0</i>	<i>.8</i>	<i>.3</i>	<i>1.0</i>
Duff	<i>1.0</i>	<i>1.2</i>	<i>.8</i>	<i>1.3</i>	<i>1.4</i>
Humus	<i>.3</i>	<i>.6</i>	<i>.3</i>	<i>.7</i>	<i>0.4</i>
Total	<i>2.3</i>	<i>2.8</i>	<i>1.9</i>	<i>1.7</i>	<i>2.8</i>
Leached	<i>.2</i>	<i>.2</i>	<i>.2</i>	<i>.5</i>	<i>0.4</i>
Dark brown		<i>.7</i>	<i>.2</i>	<i>.1</i>	<i>0.1</i>

Remarks

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 66 Date Nov 13, 1929 Cline
20/8
Baker

Area of plot.....A. Location North side and near end of trail leading W from old logging camp at head of stream

Type Hemlock - Hdwd (?) Forest form.....

Aspect N.W. (shaded) Slope 10° Relative elevation 500' below ridge top

Remarks (Evidence of fire, culling, etc.) No culling

Plants at present next to forest top

Old pine section broken up by hemlock & hardwoods, etc. dominant

Providence majority of hemlock trees

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Ches.		
-10													
10-15													
15-20													
20-25													
25-30													
30-35													
35 up													
Hgts.	<u>120</u>	<u>10</u>											
Dead													
Down													

Distribution Old pine scattered, first dead, through at top

Crown density 7+ Approx. age 200-250 Vigor Pine dead due to drought

Remarks Tree hemlock, but showing signs of age from top. Some other species

Old pine scattered, but Red maple in the understory

Old pine probably now gone

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.		
- 4		<u>2-3</u>	<u>1</u>	<u>X</u>			<u>X</u>					
4-6												
6-10												
10-15												
15 up												
Hgts.												

Distribution P.D.

Approx. age 100-150 Vigor Some - good

Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	S.M.	Sp.	
- 1'		☒ ☒										9	
1'-15'		☒ ☒ ☒	☒ ☒										

31
57

No. Mil Acres.....10..... Distribution.....Fairly uniform.....

Approx. age.....15' from age 50/.....

Vigor.....thinning good; breaks fair.....

Remarks.....

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>Cardinalis</i>	✓			<i>Indigo bird</i>	✓			<i>Junco parula</i>	✓		
<i>Chondestes</i>	✓			<i>White throated</i>	✓						
<i>Thryothorus</i>	✓			<i>Robin</i>	✓						
<i>Mitellia</i>	✓			<i>Heron</i>	✓						

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.5	.5	.8	0.6
Duff	2.0	1.0	1.5	1.2
Humus	.7	.3	.2	0.2
Total	2.5	1.8	1.5	1.9
Leached	.5	1.0	.5	0.7
Dark brown			.5	0.2

Remarks.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 6.7 Date Nov 13, 1929
 Area of plot 1 A. Location About 400' north from plot No. 58 and along ridge to
 Type Oak Ridge Forest form Two-story
 Aspect X Slope X Relative elevation Ridge top
 Remarks (Evidence of fire, culling, etc.) Charcoal in one hole next to marked log. Evidence of fire
about 35 years ago.

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Chc.	R.
-10												
10-15										::		
15-20										.		
20-25												
25-30												
30-35												
35 up												
Hgts.												
Dead										.		
Down										.		

Distribution Irregular
 Crown density 3 Approx. age R.O. = 1200 Vigor Med fair, R.O. = fair
 Remarks Many scattered trees down as result of windthrow. Some
by windfall of trees may have started by lightning.

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.
- 4	□□□	□□□□		□	□□	□				
4- 6										
6-10										
10-15										
15 up										
Hgts.	5-22	15-25			20-30	15-20				

Distribution D+D
 Distribution Uniformly dense in opening in canopy.
 Approx. age 16-22 yrs. R.O. = 25-32 yrs. Vigor Med fair, P.B., B.B. = partly med fair
 Remarks P. 16 - 48 yrs. R.M. P. 20 - 29 yrs.

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'				☒									
1'-15'	☒	☒											

16
12

No. Mil Acres.....10..... Distribution.....*Open in sparse forest*
 Approx. age.....*Small to medium*
 Vigor.....*Full to fair*
 Remarks.....

GROUND COVER.

General distribution and amount.....*In small patches*

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
<i>White Pine</i>				<i>White Pine</i>							
<i>Jack Pine</i>				<i>Jack Pine</i>							

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.4	.4	.5	0.4
Duff	.5	.5	.5	0.5
Humus	1.0	1.5	.2	0.9
Total	1.9	2.4	1.2	1.8
Leached	.5	.5	.1	0.7
Dark brown			.2	0.3

Remarks.....*See profile + only 1 sample taken*

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Rsp		
- 1'		XXXX											
1'-15'		X											

No. Mil Acres.....10..... Distribution.....24 ha. on old wharf where mineral soil exposed
 Approx. age H.M. 5 yrs. 1-15' 20-50 yrs.....
 Vigor.....H.M. good.....be. fair.....Rsp. good.....
 Remarks Das ist alles was ich hierher gesehen habe
 F.e.w. W.P. made

GROUND COVER.

General distribution and amount.....Sparse & scattered.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Saulthorn		✓		Mitchella	✓						
Kalmia lat.	✓			Vib. alnif.	✓						
Poly. vulgar	✓										
Asp. sp. 1	✓										

SOIL.

DEPTH.

	1	2	3	Average
Litter	.4	.5	.5	.5
Duff	1.5	.8	.8	1.0
Humus	1.0	1.0	.8	0.9
Total	2.9	2.3	2.1	2.4
Leached	.3	.4	.8	0.5
Dark brown	.2	.3	.5	0.3

Photo
 Am stand with
 pine stumps
 3/8 sec. 200#5

Remarks.....Soil.....Fairly deep - charcoal to humus.....

1971-1972
 3-2-1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 69 Date 11/14/29
 Area of plot 1 A. Location Top of ridge E. of 68 - (300' East)

Type Pine Forest form Selection
 Aspect — Slope — Relative elevation Ridge top

Remarks (Evidence of fire, culling, etc.) No culling
Charcoal found just above touched layer - old pine
stand is in process of breaking up

*100 yrs ago - Wh pine over Hem.
 100 " hence - Hem & hardwood*

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15													
15-20													
20-25													
25-30													
30-35													
35 up													
Hgts.	<i>110'</i>										<i>70'</i>		
Dead													
Down	<i>90'</i>												

Distribution Uniform

Crown density 7 Approx. age 250 yrs (1) Vigor Wh. Pine - Decadent

Remarks ~~Hemlock~~ much smaller (shorter) than Wh. pine.
Numerous white birch in mixture to East of plot.

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Ches.	P.S.
- 4		<i>20'</i>	<i>20'</i>									
4- 6		<i>10'</i>										
6-10		<i>10'</i>	<i>10'</i>									
10-15		<i>10'</i>										
15 up		<i>10'</i>										
Hgts.		<i>40-70'</i>	<i>20-40'</i>	<i>40-60'</i>		<i>50'</i>				<i>60'</i>		

Distribution Uniform

Approx. age 8" Hem 135 yrs
100 yrs Vigor Hem good Be. B.B. P.O. Fair R.M. good

Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'													
1'-15'													

No. Mil Acres.....10.....Distribution.....Very sparse.....
 Approx. age Hem.....seedlings to 25 yrs B.B. Be - seedlings.....
 Vigor.....Hem ~~A~~ Be.....to B.B. grad.....Wb. P. Fair.....
 Remarks.....Adv. gl. abt. heavier under Wb. pines than under Hem.....

GROUND COVER.

General distribution and amount.....Sparse.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Gaultheria		✓		Vaccinium	✓						
Rock Fern	✓			Aralia	✓						
Mitchella	✓										
Viburnum sp	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.6	.6	.8	.7
Duff	.6	.8	1.4	.9
Humus	.6	.8	1.2	.9
Total	1.8	2.2	3.4	2.5
Leached	.3	.3	.3	.3
Dark brown	2.0	1.0	.5	1.2

Remarks.....Almost whole plot is on rock ledge.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 70? Date Nov 26 1929

Area of plot 1 A. Location Third Second ridge N. of pond

Type P.H.M. - Hd Forest form E.A.

Aspect level Slope — Relative elevation Ridge Top

Remarks (Evidence of fire, culling, etc.) Old windfall on very exposed, shallow
sailed ridge. Occasional old pine or hem. left
standing. Good

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15													
15-20													
20-25													
25-30													
30-35													
35 up													
Hgts.													
Dead													
Down													

Distribution.....

Crown density.....?..... Approx. age 70-120 Vigor Good

Remarks Pine shows fast start - 1/2" rings + big limbs. Many
pinos of pole size killed out by hem. Hardwoods mostly
on top with some pines

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	ch.		
- 4													
4- 6													
6-10													
10-15													
15 up													
Hgts.													

Distribution.....

Approx. age 120-130 Vigor Good

Remarks.....

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'													
1'-15'													

No. Mil Acres... 10... Distribution... Next to 0. Few but in plot
 Approx. age... 4-50
 Vigor... Good
 Remarks... Has not reached reproductive age

GROUND COVER.

General distribution and amount... Very sparse

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Gaultheria	✓										
wild l. of V.	✓										
Poly. vulg.	✓										
Pteris sp.	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.5	.8	.8	0.7
Duff	.5	.5	.6	0.5
Humus	1.5	1.5	1.6	1.5
Total	2.5	2.8	3.0	2.8
Leached	.5	.5	.4	0.5
Dark brown	.2	.2	2.0*	0.2

Remarks... Soil very shallow (1-)
 * May be old rotted wood
 Charcoal in humus

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 71 Date 11/26/29

Area of plot .1 A. Location On sec and ridge N.W. of Pisgah Reservoir.

Type Pine-Oak Forest form Two-story

Aspect West Slope 12° Relative elevation 2/3 way up slope

Remarks (Evidence of fire, culling, etc.) Fire windfall, and lightning damage evident, though time of each is uncertain.

Pine seems clear and straight; Oaks have widespread crowns.

OVERSTORY:

Age

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10	•• 093									• 031			
10-15	•• 246									•• 246			
15-20													
20-25													
25-30													
30-35													
35 up													
Hgts.	50'									50'			
Dead													
Down	u												

Distribution Uniform

Crown density 5 Approx. age 75 yrs. Vigor Pine and oak - fair

Remarks Stand 100 yrs. ago was Pine-Oak; 100 yrs. hence, hardwood - Pine (?) - Hemlock

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Stall.		
- 4		■		■	■ ■ ■ ■	■							
4- 6													
6-10													
10-15													
15 up													
Hgts.		25'		30'	30'	25'				20'			

Distribution Uniform

Approx. age 30-35 yrs. Vigor All fairly good.

Remarks

12
16
25
5
1
30

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
1'													
1'-15'	☒☒	☐		☐		☐				☐			

No. Mil Acres.....10..... Distribution.....Uniform.....fairly dense.....
 Approx. age.....25-30.....
 Vigor.....Good.....
 Remarks.....Pine slow in growth compared with other species in this plot.....

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Arbutus	☒	X		Aspid. marg.	X						
Gaultheria	X			Poly. Vulg.	X						
Brake Fern	X										
Vaccinium	☒	X									

SOIL.

DEPTHS.

	1	2	3	Average
Litter	0.2	0.3	0.3	0.3
Duff	1.2	0.3	0.3	0.6
Humus	0.2	0.2	0.2	0.2
Total	1.6	0.8	0.8	1.1
Leached	0.6	0.1	0.5	0.4
Dark brown	0.1	0.1	0.2	0.1

Remarks.....Fire 40-50 years ago burned.....no. to windfall.....
 completed breakup of stand.....
 Charcoal found throughout organic layer.....
 Soil fairly deep.....

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. Plot #12(a) Date Nov 26 1929
 Area of plot 0.05 A. Location 3rd ridge from lake Pisgah about 200 yards from base of ridge
 Type Pine-Hdw Forest form Two-story
 Aspect North Slope 5° Relative elevation 1/2 up ridge

Remarks (Evidence of fire, culling, etc.) Fire scars on trunks of hardwoods indicating that trees were killed or so weakened that they were easy victims of wind. Plot divided in two parts one side 100% overstory of Red Oak + 72(b) with overstory of WP

OVERSTORY: 100% 2000 - Pine-Hdw
100% 1800 - Pine-Hdw-Hem Fire 50 yrs ago

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
-10													
10-15													
15-20		60								50			
20-25													
25-30													
30-35													
35 up													
Hgts.													
Dead	⊙												
Down													

Distribution.....
 Crown density 0.1 Approx. age 100-110 Vigor Moderate
 Remarks Pine growing under overstory of Pine is slow growing & stunted while that under red oak is much faster growing & taller. This phenomenon was also noted on plot #11

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	S.M.	Red Pine
- 4	☒	☒	☒	☒	☒					☒		15
4-6		18	16		spls	20	20					
6-10												
10-15												
15 up												
Hgts.												

Distribution Uniform
 Approx. age 30-35 yrs Vigor Good
 Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	R. Pine		
- 1'													
1'-15'													

No. Mil Acres... *5* Distribution.....

Approx. age

Vigor.....

Remarks

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Vaccinium	✓										
Gaultheria	✓										
Mitchella	✓										

SOIL.

DEPTHS.

	1	2	3	Average
Litter	.8	.6		.7
Duff	1.2	1.0		1.1
Humus	1.0	.5		0.7
Total	3.0	2.1		2.8
Leached	0.5	.1		0.3
Dark brown	0.0	1.0		0.5

Remarks

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 72b Date Nov 26, 1949

Area of plot 0.05 A. Location

Type Pine-hem-Hwd Forest form Pine-hem-hdw

Aspect North Slope 50 Relative elevation 1/2 up slope 200 from top

Remarks (Evidence of fire, culling, etc.) Same as 7219

OVERSTORY: 100 yrs ago P
100 yrs hence RO-Hm-P.

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Chest
-10		50									
10-15	60	50									
15-20										50	
20-25											
25-30											
30-35											
35 up											
Hgts.											
Dead	30										
Down	10										

Distribution Fairly uniform

Crown density 0.3 Approx. age 110 WP Vigor Moderate

Remarks Was Pine-Hem-Hdw
Will be - " " "

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	SM Chest
-4	15	15		18	18					18	
4-6	16										
6-10											
10-15											
15 up											
Hgts.											

Distribution Uniform

Approx. age 30-35 Vigor Moderate to poor

Remarks

ADVANCE GROWTH: (Trees under 15 ft. in height)

COMPOSITION AND HEIGHT.

HGT	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.			
- 1'											RP	SYM	
1'-15'													

No. Mil Acres... 5 Distribution... U.O.I.F.O.M.

Approx. age.....

Vigor.....

Remarks.....

GROUND COVER.

General distribution and amount.....

COMPOSITION.

Species	F.	M.	P.	Species	F.	M.	P.	Species	F.	M.	P.
Arbutus	✓										
Pipsissewa	✓										
Vaccinium	✓										
Raspulq.	✓										

SOIL.

DEPTH.

	1	2	3	Average
Litter	.8	.6		0.7
Duff	.8	.6		0.7
Humus	.6	.4		0.5
Total	2.2	1.6		1.9
Leached	.2	.2		0.2
Dark brown	1.5	1.5		1.5

Remarks... Charcoal in organic layer

HARVARD FOREST RECORDS.

Pisgah Old Growth Study.

Plot No. 73 Date 5/9/30
 Area of plot (720) A. Location Ridge top S. of N. Round Pond
 Type Pine-Hwd - ~~Hard~~ Forest form _____
 Aspect _____ Slope 3/400 Relative elevation Fairly high ridge
 Remarks (Evidence of fire, culling, etc.) Chestnut fire scarred
Windfalls numerous in vicinity Soil thin Charcoal
in d.b.h. g.u.s. layer

OVERSTORY:

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.	Ches.		
-10	11			**		**							
10-15													
15-20													
20-25													
25-30													
30-35													
35 up													
Hgts.	45'			45'	50'	40'							
Dead													
Down					**					**			

Distribution Uniform
 Crown density 7 Approx. age Pine 65 Vigor All fair
 Remarks _____

MIDDLE STORY: (Subordinate stand down to height of 15 ft.)

COMPOSITION AND SIZE.

DBH	W.P.	Hem.	Be.	R.M.	P.B.	B.B.	Y.B.	H.M.	W.A.	R.O.		
- 4												
4- 6												
6-10												
10-15												
15 up												
Hgts.												

Distribution _____
 Approx. age _____ Vigor _____
 Remarks _____

Pine-Hwd - Hard