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Site 1507: Dane County, Township 6N, Range 7E, Section 26, NW 1/4. 1956-07

[s.l.]: [s.n.], 1956-07

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Data Form No. 20

Plant Ecology Research

Univ. of Wisconsin

STAND RECORD

FORESTS

Stand No. 1507

Name:

County: Dane

Date: July 1956

Size of Stand: 20 acres

Forest Type: Q. alba - Q. velut.

Topography: Rolling

Locality: Mt. Vernon

T: 6N

R: 7E

Sec: NW 26

Observers:

Size of Area Sampled: 10 acres

Soil Type:

Slope: 10° Directions: E

Condition of Stand:

Clear cut c. 60 yrs ago (maybe 70)
before 1900.

Open Grown Trees:

Q. alba (not sampled)
450 B.A.

% Canopy: 80

Stumps:

1.	4.	7.	10.
2.	5.	8.	11.
3.	6.	9.	12.

Soil Data:

	pH	N	P	K	Ca	Mg	Org. Mat.	Colloids	W.H.C.
A ₀									
A ₁	5.9								126.9
A ₂									
B									

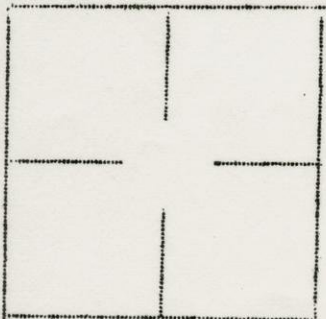
DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

A ₀	3/4"	
A ₁	1"	silt loam
A ₂		
B		

Parent Material:

Map:



1507 stand #

Clean

stand #

1507

1043 +	TREE	<u>STAND CHARACTERISTICS</u> CI	<u>Soils</u> W.R.C.	126.9
1656	SAP	CI	pH	5.9
+ 613	CI	DIFFERENCE	lbs/acre CA Mg P K NO ₃ NH ₃	8000 100 60 260 7 25
121	SAPS	/ACRE		
225	TREES	/ACRE	Soil profile	A ₀ $\frac{3}{4}$ A ₁ 1" silt loam
79	AVE. B.A.	STEM		
98	AVE BA	TREE	SLOPE	10° E
22167	Dom.	/ACRE		Isolated 10ac. of 20ac. wood
400	fls + stems	/acre	<u>CUTTING</u> Stumps/acre	
279	stems	/acre	Spp. cut	
1, 24	STEMS	/TREE		
			AVE. size cut	
74	CANOPY	%	AVE. TIME since cut	

POINT RECORD TREES

SOUTHERN HARDWOODS

Stand No. 1507

STATION NO.	1	2	3	4	5	6	7	8	9	10
Acer rubrum										
A. saccharum										
Betula papy.										
Carpinus car										
Carya cord										
C. ovata		1								170
Celtis occ										
Crataegus sp.				L						
Fagus grand										
Fraxinus am										
F. nigra										
Juglans cin.										
J. nigra										
Ostrya virg										
Populus gran										
P. tremul										
Prunus serot	100 90 80 65 65			L			260	170		
Quercus alba	110 65 30 80	26 75 26 120	35 28 90 75 130 110	35 25 110 90 100 100	110 19	22 50	65 40 35 22	160 120 16	80 28 65	20 85
Q. ellipsoid		95								
Q. macrocarpa									50 29	
Q. rubra										
Q. velutina	170	35			95 130	120 130	95			170
Tilia amer										
Ulmus amer										
Ulmus fulva	2	3	4	1	2			1		2
Acer negundo	2			L				35	1	2
Saps	4 10 21 26	11 20 9 40	19 13 20 12	2 5 11 19	20 11	36	25	23	17	15 15 17 8
Distance	11 8 12 11	3 14 14 14	8 8 12 20	9 14 12 17	9 25 18 21	7 11 11 23	8 16 20 29	6 25 15 8	3 8 8 14	12 9 6 21

POINT RECORD TREES

SOUTHERN HARDWOODS

Stand No. 1507

STATION NO.	1	2	3	4	5	6	7	8	9	10
<i>Acer rubrum</i>										
<i>A. saccharum</i>										
<i>Betula papy.</i>										
<i>Carpinus car</i>										
<i>Carya cord</i>										
<i>C. ovata</i>	1		1	1						
<i>Celtis occ</i>										
<i>Crataegus sp.</i>										
<i>Fagus grand</i>										
<i>Fraxinus am</i>										
<i>F. nigra</i>										
<i>Juglans cin.</i>										
<i>J. nigra</i>										
<i>Ostrya virg</i>										
<i>Populus gran</i>										
<i>P. tremul</i>										
<i>Prunus serot</i>			60			29		35	140	
<i>Quercus alba</i>	40 35	1 90 190 21 40	100	15 80	65 65 13 27 + 1	90 65 120 65	100 85 110	90 50 120	120 110 45	1 45 45 25
<i>Q. ellipsoid</i>										
<i>Q. macrocarpa</i>				L						
<i>Q. rubra</i>										
<i>Q. velutina</i>	70 55	80 110 120	95 70 110	130	95			40		
<i>Tilia amer</i>										
<i>Ulmus amer</i>										
<i>Ulmus fulva</i>	110 120	1	2	15	1	2	1	13	4	9 2 12 2
<i>Acer negundo</i>	1	1		1						1
<i>Seps</i>	9 9 11	18 25	9 32 16 16	33 34 26 38	19 30	32	15 24 25 22	20 9 20 8	30 6 8 17	7 30 23
Distance	5 8 12 18	6 32 13 15	6 12 7 19	10 12 12 15	15 27 11 22	3 17 12 25	16 24 29 19	15 9 16 28	5 25 9 16	4 22 5 22

POINT RECORD TREES

SOUTHERN HARDWOODS

Stand No. 1507

STATION NO.	21	2	3	4	5	6	7	8	9	30
Acer rubrum										
A. saccharum										
Betula papy.										
Carpinus car										
Carya cord										
C. ovata			16				13	1	1	29
Celtis occ										
Crataegus sp.										
Fagus grand										
Fraxinus am										
F. nigra										
Juglans cin.										
J. nigra										
Ostrya virg										
Populus gran										
P. tremul										
Prunus serot		170	200	200	50	75		120	140	
Quercus alba	17 23 40 140	16 22 70	26 55	85 40 45 70 (65 180)	75 29	90 (120 160)	170	80	80 (55 75)	60 65 15
Q. ellipsoid										
Q. macrocarpa										
Q. rubra										
Q. velutina					80	230	230 100	75 80	80	
Tilia amer										
Ulmus amer										
Ulmus fulva		1	2	1	3	4	4		3	2
Acer negund		2		1				1		3
Sops	7 8 16	7 20	14 27	8 17 30	10 20 21 25	8 9 11 13	7 15 15	8 12 15 22	8 21 22 33	9 18 18 20
Distance	3 7 5 27	3 13 11 11	11 14 13 16	8 18 14 27	3 17 19 23	12 19 14 27	8 12 9 14	9 4 16 15	4 16 15 16	4 12 12 17

POINT RECORD TREES

SOUTHERN HARDWOODS

Stand No. 1507

STATION NO.	31	2	3	4	5	6	7	8	9	40
Acer rubrum										
A. saccharum										
Betula papy.										
Carpinus car										
Carya cord										
C. ovata										
Celtis occ										
Crataegus sp.										
Fagus grand										
Fraxinus am										
F. nigra										
Juglans cin.										
J. nigra										
Ostrya virg										
Populus gran										
P. tremul	170	120	120	95				60		
Prunus serot	170	120	120	95				60		
Quercus alba	80 (110 40)	50 40 (75 75) 40	130 19	55 65	45 40 24	100 (95 19)	80	85 (70)	35 90 65 (130 110)	(130 27) 35 100
Q. ellipsoid										
Q. macrocarpa										
Q. rubra										
Q. velutina	90		80	35	80	100 70	75 140	(70 110) 95		(95 50)
Tilia amer										
Ulmus amer										
Ulmus fulva	1	1	1	3	3	3	15	1	2	1
Acer negundo	1		1	1		1				
Leaf	7 15 13	8	9 17 23	3 6 8 12	13 13 14	9 8 11 15	10	7 14	6 11	20 12
Distance	18 17 23 15	17 15 14 15	12 17 9 14	17 21 14 18	13 16 10 24	11 19 12 19	5 17 9 16	8 8 9 23	5 16 23 15	9 7 10 24

Open grown Q. alba 450 B.A. (6' 3" circumference)

CI.

AVE. B.A.

Tree	No.	No.	No.	No.	No.	F. %	D. %	I. %	F. %	F. %	D. %	Dom. %					
	Pts.	Tr.	Dom.	Sap.	Sap.	Sap.	Sap.	Seed	Seed	Tr.	Tr.	Trees	I. I.	C. I.	Tree	Stem	
Acerrubrum																	
A. saccharum																	
Carya cord.																	Ave. Dist.
C. ovata	4	4	228	10	10	13.7	8.7	33.6	151.2	4.2	2.5	1.5	8.2	36.9	57	57	Btw'n Trees
Celtis occiden.																	13.9 19
Fagus grand.																	
Fraxinus amer.																	Ave. BA
F. lanceolata																	(Total
F. pennsylvani																	PA = 80)
Juglans cinere																	TREE STEM
J. nigra																	98.3 79
Ostrya virgin.																	No. Trees
Populus grand.																	Per acre
P. tremuloides																	225.5/120
Prunus serotin	19	19	(23) 2614	3	3	4.1	2.6	10	36	20	11.9	16.6	48.5	174.6	137.6	113.7	Dom. per
Quercus alba	40	96	(124) 8595	5	5	6.8	4.3	16.6	59.8	42.1	60	54.7	156.8	564.5	89.5	69.3	acre
Q. ellipsoidalis																	22,166.6
Q. macrocarpa	1	2	79	1	1	1.4	.9	3.4	3.4	1.1	1.2	.5	2.8	2.8	39.5	39.5	
Q. rubra																	
Q. velutina	25	33	(39) 3885							26.3	20.6	24.7	71.6	179	117.7	99.6	
Tilia american																	
Ulmus american																	
U. rubra	5	5	(6) 285	34	71	46.6	61.7	162.4	1331.7	5.3	3.1	1.8	10.2	83.6	57	47.5	
ACER NEGUNDO	1	1	35	19	24	26	20.9	70.3	70.3	1.1	.6	.2	1.9	1.9	35	35	
CRATAEGUS sp.			(199)	1	1	1.4	.9	3.4	3.4								
	95	160	15721	73	115	100	100	299.7	1655.8	100.1	99.9	100		1043.3			

Ave. Dist.
Btw'n Trees

13.9 19

Ave. BA
(Total
BA + 80)
TREE STEM
98.3 79No. Trees
Per acre
225.5 / 120.7Dom. per
acre

22, 166.6

1.24 stem/tree

+ 612.5

SIZE CLASSES

69.8%

139

30.2%

60

Tree height 36 31 1.16 6
P. ar. 36 31 1.16 6

	12-22	23-33	34-44	45-55	56-66	67-77	78-88	89-99	100-124	125-149	150-174	175-199	200-249	250-299
CAR. OVAT.	2	1									1			
PR. SEROT.		1	1	1	4	1	1	2	4	2	3		2	1
Q. ALBA	14	14	14	11	12	9	11	9	20	5	3	2		
Q. MAC		1		1										
Q. VELUT.			3	2		6	6	7	7	4	2		2	
ULM. FULV.	4				2				2					
ACER NEG.			1											
	20	17	19	15	16	16	18	18	33	11	9	2	4	1

STEMS

	1	2	3	4	5									
CAR. OVAT.	4													
PR. SEROT.	18					1	singles	mult.	trees	stems	% mult.	stem tree		
Q. ALBA	72	20	4				72	124	96	124	25	1.29		
Q. MAC	2						2	0	2	2	0	1		
Q. VELUT.	28	4	1				28	15	33	39	15.2	1.18		
ULM. FULV.	4	1					Total	102	29	13	165	22.1	1.26	
AC. NEG.	1						No Q. mac.	29	129	163	22.5	1.26		

	mult	stem	stem	tree	#	%	%
	24	52	2.17	24	25	100	
	5	11	2.2	5	15.2	100	
	29	63	2.17				

shot origin

% shot % mult

C15073

CI = 1043

ACER
negundo

Sap.

12-
1920-
2829-
3839-
5051-
6364-
7879-
9596-
113114-
132133-
153154-
176177-
201202-
254255-
314315-
380381-
452

Pop. trem.

Quercus ellip. 25 24

Q. macrocarp. 1 1

Q. velut. 2 1

CRATAEGUS 1 1

Prun. serot. 3 3

Querc. alba 5 5

Pop. grand. 11 10

Carya ovata 11 10

Querc. rubra

Juglans nig.

Frax. amer.

Acer rubrum

Tilia amer.

Jug. cinerea

Ulmus amer.

Celtis occ.

Ulm. rubra 75 71 4

Carya cord.

Ostrya virg.

Acer sacc.

115

Sap CI = 1656

#/acre

121

50.8

53.6

93.1

24

4.2

225

160 (39)

54

Presence or Frequency
(Common species only)

SOUTHERN UPLAND HARDWOODS

Stand No. 7B
Quadrat No.

Actaea pachypoda
Adiantum pedatum
✓ Agrimonia gryposepala
Allium tricoccum
Amphicarpa braceata
Anemone quinquefolia
A. virginiana
Anemonella thalictroides
Antennaria sp.
Aplectrum hiemale
Apocynum androsaemifolium 45
Aquilegia canadensis
Aralia nudicaulis 12 4 6 8 9 12 16 17 18
A. racemosa
Arenaria lateriflora
✓ Arisaema atrorubens
Asarum canadensis
Aster macrophyllus
A. sagittifolius 35 7
A. shortii
Athyrium filix-femina
Botrychium virginianum 6 9 11 15 16
Brachyelytrum erectum 1 16
Campanula americana
Carex albursina
C. pensylvanica 12 9 12 13 15
Caulophyllum thalictroides
Celastrus scandens
Circaea quadrisulcata 12 3 4 6 7 8 9 10 11 12
Claytonia virginiana 13 14 15 16 17 19 20
Cornus alternifolia
C. femina 13 4 9 12 17
C. rugosa
Corylus americana 2 10 12 14 15 16 18
Cryptotaenia canadensis
Cypripedium pubescens
Cystopteris fragilis
Dentaria laciniata
Desmodium glutinosum 12 3 6 12 15
D. nudiflorum
Dicentra cucullaria
Dodecatheon meadia
Dryopteris spinulosa
Erigeron pulchellus
Erythronium albidum
Eupatorium purpureum

Eupatorium rugosum
Festuca obtusa 16
Fragaria virginiana
Galium aparine
G. circaeazans
G. concinnum 16 9 15 19
G. lanceolatum
G. triflorum
Geranium maculatum 35 6 7 11 12 14 15
Gerardia grandiflora 16
Geum canadense 47
Goodyera pubescens
Habenaria bracteata
Hackelia virginica
Hamamelis virginiana
Helianthus strumosus 5 7 9
Hepatica acutiloba
Heuchera richardsonii
Hydrastis canadensis
Hydrophyllum virginianum
Hystrix patula
Impatiens capensis
I. pallida
Isopyrum biternatum
Lactuca biennis
Laportea canadensis
Lathyrus ochroleucus
Lonicera prolifera 18
Lysimachia quadrifolia
Maianthemum canadensis
Menispermum canadensis
Mitella diphylla
Monarda fistulosa
Orchis spectabilis
Oryzopsis racemosa
Osmorhiza claytoni 12 3 4 6 7 8 9 10 11 12
O. longistylis 13 14 15 16 17 18 19 20
Osmunda claytoni
Panax quinquefolia
Panicum latifolium
Parietaria pennsylvanica 13 5 9 10 20
Parthenocissus inserta 23 4 5 6 7 8 9 10
Phlox divaricata 11 12 13 14 15 16 17
Phryma leptostachya 13 9
Podophyllum peltatum 11 16
Polemonium reptans

✓ Polygonatum canaliculatum 89 14 15 16
Polygonatum pubescens 19 20
Potentilla simplex
Prenanthes alba
Pteridium aquilinum
Pyrola elliptica
Ranunculus abortivus 11 15
R. recurvatus
R. septentrionalis
Rhus radicans 12 5 6 7 9 10 11 20
Ribes americanum
R. cynosbati 78
R. missouriense
Rosa sp.
Rubus allegheniensis 79
R. occidentalis
R. strigosus 23 19
Sambucus canadensis 13
Sanguinaria canadensis
Sanicula gregaria
S. marilandica 19
Smilacina racemosa 12 3 5 6 10 11 12 15
S. stellata 35 7
Smilax ecirrhata
S. herbacea 19
S. tamnoides
Solidago altissima
S. flexicaulis
S. ulmifolia
Thalictrum dioicum
Tovara virginiana
Trillium cernuum
T. flexipes
T. grandiflorum
T. recurvatum
Triosteum perfoliatum
Uvularia grandiflora
Veronicastrum virginicum
Viburnum acerifolium
V. rafinesquianum
Viola cucullata
V. pubescens
Vitis aestivalis
V. riparia 2 4 6 7 8 15 16
Xanthoxylum americ.
Zizia aurea

Additional species:

Q. velut. 12 14
P. alba 9 18
P. virginica 13 15 19
P. pens. 2 4 5 10
Vitis f. 2 10 11 13 16 17 20

• Clematis album 45 9
- Carya ovata 9 14
- Crataegus 19

SOUTHERN UPLAND HARDWOODS

Presence or Frequency
(Common species only)

1506

clear cut 1-2 years ago
(1957 - planted to cane)

1507

clear cut 50-60 years ago

Light intensity 6000 f.c. - 7700 f.c.

160 70
420 50
230 100
230 180
150 120
1190 520

171
6850 = 2.50%

soil

A₀ 4-11" 3/4
A₁ 1-1 1/2" 1"

Texture
silt (silt loam)

Temp.

soil 17°C 18°C
air 22°C 22°C

79.5%
17.5
22

Soil water permeability

50 cc 50 cc sample
10 sec. 25 sec.

17.5 sec

Additional species:

SOUTHERN UPLAND HARDWOODS

Presence
1507

- | | | |
|--------------------------------|--------------------------------|---------------------------|
| Actaea pachypoda | ✓ Galium aparine | ✓ Pteridium aquilinum |
| Adiantum pedatum | G. circaeazans | Pyrola elliptica |
| ✓ Agrimonia gryposepala | ✓ G. concinnum 25 | ✓ Ranunculus abortivus 10 |
| Amelanchier spp. | G. lanceolatum | R. recurvatus |
| ✓ Amphicarpa bracteata | G. triflorum | R. septentrionalis |
| Anemonella thalictroides | ✓ Geranium maculatum 45 | ✓ Rhus radicans 45 |
| ✓ Apocynum androsaemifolium 10 | ✓ Geum canadense 10 | ✓ R. cynosbati 10 |
| ✓ Aralia nudicaulis 50 | Hackelia virginiana | R. missouriense |
| A. racemosa | ✓ Helianthus strumosus 15 | ✓ Rosa sp. |
| Arenaria lateriflora | Hepatica acutiloba | ✓ Rubus allegheniensis 15 |
| ✓ Arisaema atrorubens | Hydrophyllum virginianum | ✓ R. occidentalis |
| Aster macrophyllus | Hystrix patula | ✓ R. strigosus 15 |
| ✓ A. sagittifolius 15 | Impatiens biflora | ✓ Sambucus canadensis 5 |
| A. shortii | ✓ Lactuca biennis | Sanguinaria canadensis |
| Athyrium filix-femina | Laportea canadensis | ✓ Sanicula gregaria |
| ✓ Botrychium virginianum 25 | Lathyrus ochroleucus | S. marilandica |
| ✓ Brachyelytrum erectum 10 | ✓ Lonicera prolifera 5 | ✓ Smilacina racemosa 50 |
| Carex albursina | Lysimachia quadrifolia | ✓ S. stellata 15 |
| C. convoluta | Monarda fistulosa | Smilax ecirrhata |
| ✓ C. pennsylvanica 30 | ✓ Osmorhiza claytoni 95 | ✓ S. herbacea 5 |
| Caulophyllum thalictroides | ✓ O. longistylis | Solidago canadensis |
| Celastrus scandens | Oxalis violacea | S. flexicaulis |
| ✓ Circaea quadrisulcata 90 | Panicum latifolium | ✓ S. ulmifolia |
| Cornus alternifolia | ✓ Parietaria pennsylvanica 30 | Thalictrum dioicum |
| ✓ C. femina 30 | ✓ Parthenocissus vitacea 95 | Triosteum perfoliatum |
| C. rugosa | Phlox divaricata | Uvularia grandiflora |
| ✓ Corylus americana 35 | ✓ Phryma leptostachya 15 | Veronicastrum virginicum |
| Cryptotaenia canadensis | ✓ Podophyllum peltatum 10 | Viburnum acerifolium |
| ✓ Desmodium glutinosum 30 | Polemonium reptans | V. lentago |
| D. nudiflorum | ✓ Polygonatum canaliculatum 35 | ✓ V. rafinesquianum |
| Dioscorea villosa | P. pubescens | ✓ Viola cucullata 5 |
| Eupatorium purpureum | Polygonum virginianum | V. pubescens |
| E. rugosum | Potentilla simplex | Vitris aestivalis |
| Festuca obtusa | Prenanthes alba | ✓ V. riparia 35 |
| Fragaria virginiana | ✓ Prunus virginiana 25 | Zanthoxylum americanum |

Additional species:

- | | |
|------------------------|------------------|
| - Cirsium | - Canavata 10 |
| - Pilea pumila | - Crataegus 5 |
| - Aster latiflorus | - Prun. serot 20 |
| - Poa pratensis | - Oallra 10 |
| - Cypripedium calceol. | - Orelut 15 |
| - Chenopodium alb. 15 | - Ulmus rub. 35 |

ave 74%

Canopy 60-80-75-70-80-60-80-85-80-70-75-75

1507

CJ = 1043

Sap - 1656 + 2

H - 260 + 1

750

550

350

250

150

100

50

25

1

4

7

10

13

16

19

22

α

