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Site 4005[B]: Avon #2, Rock County, Township 1N, Range 10E, Section 28. 1960-08-15

[s.l.]: [s.n.], 1960-08-15

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STAND HISTORY DATA FORM

Plant Ecology Lab.
Univ. of Wisconsin

Stand No. 4005

Name: Avon #2

T: 1N

R: 10E

Sec. 28

Locality

County: Rock

Observers: Swan

Date:

15 August 1960

Size of stand:

10A.

Name(s) of person(s) questioned:

(State whether owner or not) None

1. Burned in the last 5 years No

Burned in last 10 years

Burned more than 10 years ago

Information on severity of the fire:

2. Grazing within the last 5 years No

Grazing within the last 10 years

Grazing more than 10 years ago

Information on grazing intensity

3. Cutting Very little in easternmost part.

Selective ✓ about 8 or 12
years ago.

Tree species selected

For lumber

For fence posts

For fire wood

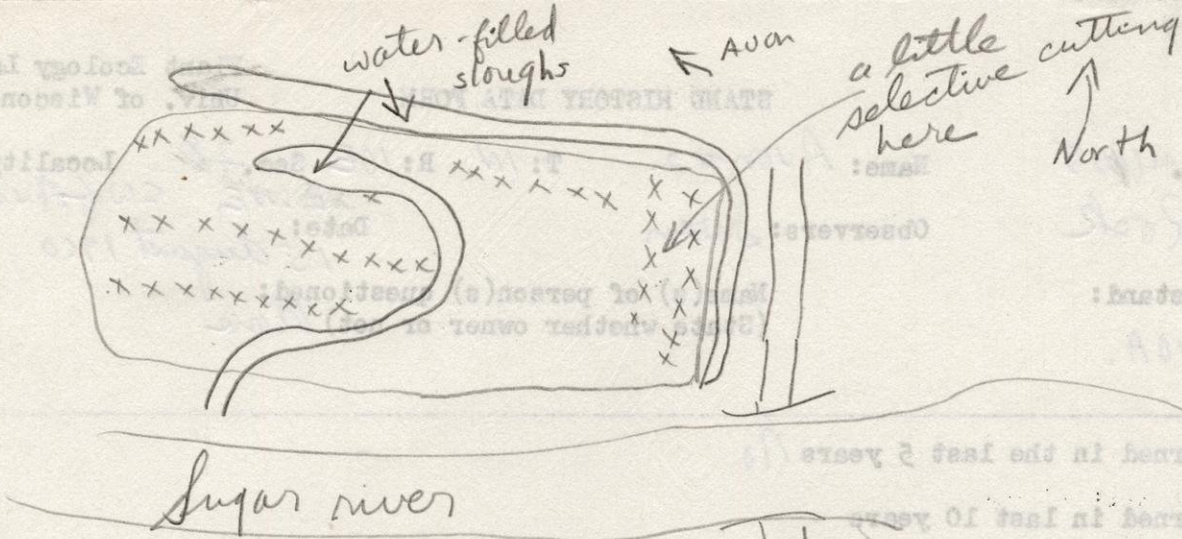
Clear

General comments on condition of stand:

The stand is in very good condition.

see map over)

It would have been better to have sampled
further upstream and nearer to the river.



x = sample line

avon #2
Rock Co.

15 August 1960

Ref. _____
Circum. _____

Rel. Rel. Rel.

: F.% : D.% : Dom.% : : : Trees: :
: Tr. : Tr. : Trees : I.V. : C.I. : acre : :

Species	5	5	93	89.6	1.4	5.1	3.1	0.3	8.5	8.5		
<i>Crataegus</i>												
<i>Acer rubrum</i>	20	41	10,693	2034.4	30.9	20.4	25.6	36.0	82.0	328.0		
<i>Carya cord.</i>	2	2	114	53.3	0.8	2.0	1.3	0.4	3.7	25.9		
<i>C. ovata</i>	9	12	1402	421.8	6.4	9.2	7.5	4.7	21.4	128.4		
<i>Celtis occidentalis</i>	2	2	59	38.0	0.6	2.0	1.3	0.2	3.5	28.0		
<i>Cornus alba</i>												
<i>Fagus grand.</i>												
<i>Fraxinus amer.</i>												
<i>F. lanceolata</i>												
<i>F. pennsylvani</i>	14	18	2030	602.7	9.1	14.3	11.3	6.8	32.4	162.0		
<i>Juglans cinere</i>												
<i>J. nigra</i>												
<i>Ostrya virgin.</i>												
<i>Populus grand.</i>												
<i>P. tremuloides</i>												
<i>Prunus serotin</i>												
<i>Quercus alba</i>	11	21	5298	1024.8	15.6	11.2	13.1	17.8	42.1	168.4		
<i>Q. ellipsoidalis</i>												
<i>Q. macrocarpa</i>												
<i>Q. rubra</i>												
<i>Q. velutina</i>												
<i>Tilia american</i>	9	15	1561	485.5	7.4	9.2	9.4	5.3	23.9	167.3		
<i>Ulmus american</i>	26	44	8484	1839.7	27.9	26.5	27.5	28.5	82.5	495.0		
<i>U. rubra</i>												
	98	160	29,734	6589.8	100.1	99.9	100.1	100.0	300.0	1511.5		

FREQUENCY OF LIANA GROUND FORMS*

Stand No. 4005

Name: Avon #2

T: 1N R: 10E sec. 28

Locality

County: Rock

Observers: Swan

Date:

SW of Avon

Size of area sampled:

10A.

15 August 1960

	1	2	3	4	5	6	7	8	9	10
<u>Celastrus scandens</u>	20	19	18	17	16	15	14	13	12	11
	21	22	23	24	25	26	27	28	29	30
	40	39	38	37	36	35	34	33	32	31

	1	2	3	4	5	6	7	8	9	10
<u>Parthenocissus</u>	20	19	18	17	16	15	14	13	12	11
	21	22	23	24	25	26	27	28	29	30
	40	39	38	37	36	35	34	33	32	31

	1	2	3	4	5	6	7	8	9	10
<u>Rhus radicans</u>	20	19	18	17	16	15	14	13	12	11
	21	22	23	24	25	26	27	28	29	30
	40	39	38	37	36	35	34	33	32	31

	1	2	3	4	5	6	7	8	9	10
<u>Vitis aestivalis</u>	20	19	18	17	16	15	14	13	12	11
	21	22	23	24	25	26	27	28	29	30
	40	39	38	37	36	35	34	33	32	31

	1	2	3	4	5	6	7	8	9	10
<u>Vitis riparia</u>	20	19	18	17	16	15	14	13	12	11
	21	22	23	24	25	26	27	28	29	30
	40	39	38	37	36	35	34	33	32	31

* ✓ indicates the presence of a species in a square meter quadrat.

Locality

Section

Date

Observer

Stand No.

County

Size of area sampled

+transit
+tripod

1 Abney level
9 rod with numbers (3 sect.)
2 range poles (in sections)

10	9	8	7	6	5	4	3	2	1
11	12	13	14	15	16	17	18	19	20
30	29	28	27	26	25	24	23	22	21
31	32	33	34	35	36	37	38	39	40

10	9	8	7	6	5	4	3	2	1
11	12	13	14	15	16	17	18	19	20
30	29	28	27	26	25	24	23	22	21
31	32	33	34	35	36	37	38	39	40

10	9	8	7	6	5	4	3	2	1
11	12	13	14	15	16	17	18	19	20
30	29	28	27	26	25	24	23	22	21
31	32	33	34	35	36	37	38	39	40

10	9	8	7	6	5	4	3	2	1
11	12	13	14	15	16	17	18	19	20
30	29	28	27	26	25	24	23	22	21
31	32	33	34	35	36	37	38	39	40

10	9	8	7	6	5	4	3	2	1
11	12	13	14	15	16	17	18	19	20
30	29	28	27	26	25	24	23	22	21
31	32	33	34	35	36	37	38	39	40

Terrestrialis

Rhus radicans

Vitis rotundifolia

Vitis rotundifolia

Avon #2 - Host specificity: CI = 1511.5 $\text{HH} = 5$

Ulmus americana: Parth. HHH (8)
 Rhus HHHHHHHHHHHHHHHH (29)
 new Rhus (2)

Dead Rhus HHHH (10)
 new P: (1)

Vitis

Acer saccharinum: Parth. HHH (4)
 Rhus HHHHHHHHHHHHHHHH (28)

Dead Rhus

Vitis HHH (6)

new *Vitis* HH (2)

Quercus bicolor: Parth.
 Rhus HHH (7)

Dead Rhus HHH (3)

Vitis (1)

Fraxinus pennsylvanica: Parth. 0
 Rhus HHH (6)

Dead Rhus HH (2)

Vitis HHH (3)

Tilia americana Parth. 0
 Rhus 0

new P: 1

Vitis 0

Carya ovata Parth. HHH (6)
 Rhus (1)

Crataegus sp.

Vitis (1)

Celtis occidentalis 0

Carya cordiformis 0

	Trees	Parth.	Parth.	Rhus	Rhus	<i>Vitis</i>	Rel.
	Rel. Density	Dens.	Rel. Dens.	Density	Rel. Dens.	Dens.	Circum.
<i>Ulmus amer.</i>	27.5	8	44.4	29	40.8	0	27.8
<i>acer sacch.</i>	25.6	4	22.2	28	39.4	6	31.0
<i>Q. bicolor</i>	13.1	0		7	9.9	1	15.5
<i>Frax. pennsyl.</i>	11.3	0		6	8.5	3	9.5
<i>Tilia amer.</i>	9.4	0		0		0	7.3
<i>Carya ovata</i>	7.5	6	33.3	1	1.4	0	6.4
<i>Crataegus</i> sp.	3.1	0		0		1	1.2
<i>Celtis occid.</i>	1.3	0		0		0	0.6
<i>Carya cordif.</i>	1.3	0		0		0	0.8
	100.1	18	99.9	71	100.0	11	

4005 - Relative circumferences:
Avon #2

(1)

(2)

Ulmus amer.

63.5
102.0
102.0
75.0
86.5
86.5
46.0
73.5
46.0
49.0
58.0
21.0
29.5
19.0
39.5
21.0
67.0
59.0
26.5
67.0
67.0
16.5
26.5
30.5
64.5
21.8
22.5
12.5
17.8
48.0
20.5
19.5

1839.7
(44)
41
21
18
15
5
2
2
12
160

Acer
sacch.

25.7
123.7
15.5
88.0
65.0
77.5
71.0
75.5
77.0
48.0
71.5
73.5
70.0
75.6
31.0
19.5
23.3
23.5
19.3
23.3
23.5
28.0
75.0
58.0
44.0
18.5
52.0
53.0
42.5
42.5
32.0
20.5

58.3
2049.4
- 15.0
2034.4

Tilia
amer.
16.3
36.6
16.3
62.0
56.0
17.7
56.0
31.5

Q. bicolor

65.6
23.0
51.5
21.0
47.0
84.8
69.0
82.6
99.5
38.0
82.8
104.0
27.5
38.0
24.3
17.7
24.3
18.8
23.8
23.8
59.0
1028.0

Frax. penn.

36.0
59.5
59.5
21.0
14.5
38.5
26.0
26.4
32.5
25.8
31.0
24.5
33.5
32.0
36.0
64.5
16.5
51.0
628.7
- 26.0
602.7

Crataegus

18.7
12.8
47.0
37.0
20.3
20.3
37.0
485.5

Carya
ovata

25.5
13.3
39.5
56.0
24.5
65.0
48.5
48.0
29.5
21.5
21.5
29.0
421.8

Celtis
occid.

16.5
21.5
38.0

Q. bicolor

1028.0
21.0
-
1007.0
+ 17.8
1024.8

Carya
cord.
23.8
+ 29.5
53.3

UNIVERSITY OF WISCONSIN LABORATORY

INDEX SEMINUM QUAE PRO MUTUA COMPUTATIONE OFFERT

January 1961

Tota semina e plantis Wisconsinensibus spontaneis in loco natali lecta.

All but two of the seeds were collected from native populations in Wisconsin and may be expected to show the normal variation typical of the area. None of the seeds was obtained from gardens. The nomenclature is that of Gleason in Britton and Brown, 2nd edition.

Acer spicatum Lam.
Agave virginica L.
(from So. Illinois)
Amorpha canescens Pursh.
Amorpha fruticosa L.
Anemone cylindrica Gray.
Anemone patens L.
Aster laevis L.
Aster linariifolius L.
Aster ptarmicoides (Nees) T.&G.
Aster sericeus Vent.
Aster umbellatus Mill.
Bouteloua curtipendula (Michx.) Torr.
Bouteloua hirsuta Lag.
Cakile edentula (Bigel.) Hook.
Ceanothus americanus L.
Chimaphila umbellata L.
Cornus canadensis L.
Delphinium tricornes Michx.
(from So. Illinois)
Desmodium canadense (L.) DC.
Desmodium illinoense Gray.
Dodecatheon amethystinum Fassett.
Dodecatheon meadia L.
Draba reptans (Lam.) Bern.
Drosera intermedia Hayne.
Echinacea purpurea (L.) Moench.
Epilobium angustifolium L.
Euphorbia polygonifolia L.
Gentiana quinquefolia L.
Gentiana rubricaulis Schw.

Goodyera tessellata Lodd.
Habenaria hookeri Torr.
Ilex verticillata (L.) Gray.
Iris versicolor L.
Kuhnia eupatorioides L.
Lechea stricta Leggett.
Lespedeza capitata Michx.
Liatris cylindracea Michx.
Liatris squarrosa (L.) Michx.
Lithospermum canescens (Michx.) Lehm.
Lithospermum carolinense (Walt.) MacMill.
Lobelia cardinalis L.
Moneses uniflora (L.) Gray.
Myrica asplenifolia L.
Penstemon gracilis Nutt.
Petalostemum candidum (Willd.) Michx.
Petalostemum purpureum (Vent.) Rydb.
Potentilla arguta Pursh.
Prunus serotina Ehrh.
Sarracenia purpurea L.
Silphium integrifolium Michx.
Silphium terebinthinaceum Jacq.
Smilacina racemosa (L.) Desf.
Solidago nemoralis Ait.
Solidago missouriensis Nutt.
Solidago rigida L.
Uvularia sessilifolia L.
Verbena stricta Vent.
Viola adunca Sm.
Viola pedata L.

Indicem seminum desideratorum
regamus, ita inscriptum:

Please send one copy of your
desiderata to:

Prof. J.P. Curtis
Botany Department, Birge Hall
University of Wisconsin
Madison 6, Wisconsin
U.S.A.

Avon #2: 4005 - Host specificity of lianas occupying more than the lower 1/4 of the host tree. ### = 5

Acer saccharinum: Parth. ①

Rhus: ### || ⑥

Ulmus americana: Parth.: ### | ⑥

|| ⑦

Rhus: ##### || ①⑦

|| ①⑦

Quercus bicolor: Parth. 0

Rhus: ||| ③

||| ③

Inaximus pennsylv. Parth. 0

Rhus: |||| ④

|||| ④

Jilia americana: Parth.: 0

Rhus: 0

Carya ovata: Parth.: || ②

Rhus: 0

Crataegus: Parth. 0

Rhus: 0

Carya cordiformis: Parth. 0

Rhus: 0

Celtis occidentalis: Parth. 0

Rhus: 0

	Rhus
1	7
6	17
2	3
9	4
	31

Parthenocissus: Avon #2, #4005, Liana stem size classes present on each tree species, excluding lianas reaching only the lower 1/4 of the host trees.

✓ 1 ck.	<i>Acer saccharinum</i>	.5 ✓ .25 1.0
✓ 6 ck.	<i>Ulmus americana</i>	.5 // (2) ✓ .25 // (2) ✓ 1.0 // (2) ✓
✓ 1 ck.	<i>Quercus bicolor</i>	.5 .25 1.0
✓ 1 ck.	<i>Fraxinus pennsylvanica</i>	.5 .25 1.0
✓ 1 ck.	<i>Jilia americana</i>	.5 .25 1.0
✓ 2 ck.	<i>Carya ovata</i>	.5 .25 // (2) ✓ 1.0
✓ 1 ck.	<i>Crataegus</i>	.5 .25 1.0
✓ 1 ck.	<i>Carya cordiformis</i>	.5 .25 1.0
✓ 1 ck.	<i>Celtis occidentalis</i>	.5 .25 1.0

100% of the trees in the study were found to have lianas on them.

100% of the trees in the study were found to have lianas on them.

100% of the trees in the study were found to have lianas on them.

100% of the trees in the study were found to have lianas on them.

Phus radicans: ⁴⁰⁰⁵ ~~Spring~~ ~~Green Bridge~~, 4/11; Liana stemclasses present at $4\frac{1}{2}$ feet on each tree species excluding lianas reaching only the lower $\frac{1}{4}$ of the host tree at 0.25" diam.

7 c.k.	<i>Acer saccharinum</i>	1.0	2.0	3.0+
.25	.5 III (5)✓	1.5	2.5 II (2)✓	
11 c.k.	<i>Ulmus americana</i>	1.0 III (6)✓	2.0 II (2)✓	3.0*
.25	.5 III III (8)✓	1.5 (1)✓	2.5	3.5 II (2)✓
4 c.k.	<i>Quercus bicolor</i>	1.0	2.0	3.0+
.25	.5 II (2)✓	1.5/✓	2.5/✓	
6 c.k.	<i>Fraxinus pennsylv.</i>	1.0	2.0	3.0+
.25	.5 II (2)✓	1.5 III (4)✓	2.5	
0 c.k.	<i>Tilia americana</i>	1.0	2.0	3.0+
.25	.5	1.5	2.5	
0 c.k.	<i>Carya ovata</i>	1.0	2.0	3.0+
.25	.5	1.5	2.5	
↓ 0 c.k.	<i>Crataegus</i>	1.0	2.0	3.0+
.25	.5	1.5	2.5	
0 c.k.	<i>Carya cordiformis</i>	1.0	2.0	3.0+
.25	.5	1.5	2.5	
0 c.k.	<i>Celtis occidentalis</i>	1.0	2.0	3.0+
.25	.5	1.5	2.5	

Ulmus amer.

Dom.
320✓
815✓
815✓
444✓
595✓
595✓
169✓
430✓
169✓
189✓
270✓
35✓
70✓
29✓
124✓
35✓
360✓
280✓
55✓
358✓
358✓
22✓
55✓
74✓
330✓
38✓
40✓
12✓

Crataegus	Dam.
Trees	
1	12✓
1	20✓
1	25✓
1	19✓
1	17✓
5	93

Acer sacch.

Dom.	At.
17✓	143✓
618✓	81✓
339✓	33✓
475✓	53✓
400✓	1225✓
459✓	235✓
470✓	28✓
185✓	23✓
406✓	275✓
431✓	750✓
390✓	56✓
453✓	1000✓
77✓	32✓
30✓	270✓
43✓	10693
44✓	
30✓	
43✓	
44✓	
62✓	
445✓	
265✓	
152✓	
27✓	
215✓	
224✓	
143✓	

Q. bicolor

Pls.	Trees	Dom.
✓ 1	1	342✓
✓ 1	3	42✓
✓ 1	1	210✓
✓ 1	3	36✓
✓ 1	1	175✓
5✓ 1	1	570✓
8✓ 1	1	380✓
3✓ 1	4	545✓
5✓ 1	3	788✓
0✓ 1	2	112✓
6✓ 11	21	545✓
0✓		858✓
2✓		61✓
0✓		115✓
693		47✓
		31✓

<i>Carya cordiformis</i>		
Pls.	Trees	Dom.
1	1	45
1	1	69
2	2	114

Tilia armer.

Tilia armer.			
Pls.	Trees	Dom.	
1	2	21✓	110✓
1	2	108✓	33✓
1	3	21✓	33✓
1	1	305✓	110✓
1	1	251✓	
1	1	25✓	1561
1	1	249✓	
1	1	78✓	
1	2	28✓	
1	2	13✓	
9	15	176✓	

Frax penn.

Pls.	Trees	Dom.
47✓	1	105✓
28✓	1	102✓
44✓	1	329✓
44✓	1	22✓
78✓	2	204✓
298	1	2030
	3	36✓
	1	17✓
	1	118✓
	1	54✓
	1	55✓
	1	83✓
	2	53✓
	1	75✓
	1	47✓
	1	89✓
14	18	81✓

Carya ovata

Carya ovata

Pts.	Trees	Dom.
1	1	51✓
1	1	14✓
1	1	124✓
1	2	249✓
1	1	47✓
1	1	336✓
1	2	188✓
1	2	185✓
1		69✓
9	12	37✓
		37✓
		66✓
		1402

Celtis occident

Celtis occident.

Pts.	Trees	Dom.
1	1	22✓
$\frac{1}{2}$	$\frac{1}{2}$	37✓
		59

Avon #2 - 4005
Rhus radicans

New Lianas
 $\frac{1}{2}$

Old Lianas

1	2	1
3	3	1
3	2	1
1	1	6
5	2	2
2	2	76
5	5	
2	1	
2	3	
1	7	
1	5	
2		

N
 S 11 ②

10
 1
 2 = 13
 13

40
 5
 45

21
 22
 43
 45

12.5 { 1/4 ##### 40
 2/4

.5 { 1/4 ### ⑤
 2/4 ##### ⑩
 3/4 || ②

1.0 { 2/4 ①
 3/4 ### ⑤
 4/4

1.5 { 3/4 ||| ④
 4/4 || ②

2.0 { 2/4 || ②
 3/4
 4/4

2.5 { 4/4 ||| ③

3.0+ { 4/4 || ②

1/4 { N ##### ②1
 S ##### ②2

2/4 { N ||| ④
 S ##### ⑨

3/4 { N ||| ④
 S ##### ⑦

4/4 { N ||| ④
 S || ②
 W ①

1.5 ##### ④ ⑤

2.0 ①

3.0

1.0 ### ⑤

3.5 ①

22

2 omitted

Dead Lianas

3 1
 4
 4
 4
 1
 1
 22

Stand No. 4005

Plant Ecology Laboratory
University of Wisconsin

Name:

Rock - Avon No. II

LIANA DATA FORM

T: 1N

R: 10E

sec. 28

SE: NE

No. of points:

40

Date:

15 August 1960

Observers:

Swan

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
1. Q. bicolor	342					
Frax. penn.	102	Rhus	1.5	4/4	SE	
Ulmus amer.	320					
Ulmus amer.	815	Rhus	2.0	2/4	SSE	
		Rhus	3.5	4/4	NE	
		Rhus	.25	1/4 3'	NW	
2. Ulmus amer.	815	Rhus	2.0	2/4	SSE	
		Rhus	3.5	4/4	NE	
		Rhus	.25	1/4 3'	NW	
Ulmus amer.	444	Rhus	1.0	3/4 43'	SW	
Ulmus amer.	595	Rhus	.25	1/4	SE	
		2 Rhus	1.0	3/4	2 SE	
		2 Rhus	.5	2/4	SE NW	
		Rhus			SE	
Frax. penn.	280	Vitis rip.	2.5	4/4	loose	
		Rhus	.5	1/4 16'	NNE	
		Rhus	1.5	3/4	NW	

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Name:

LIANA DATA FORM

T: R: sec.

No. of points:

Date:

Observers:

Swan

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
3. Frax. penn.	280✓	Vitis rip.✓	2.5✓	4/4 ✓	None	
		Rhus✓	.5 ✓	1/4 ✓ 16'	NNE✓	
		Rhus✓	1.5 ✓	3/4 ✓	NW✓	
Ulmus amer.	595✓	Rhus✓	.25 ✓	1/4 ✓	SE✓	
		2Rhus✓	1.0 ✓	3/4 ✓	2SE✓	
		2Rhus✓	.5 ✓	2/4 ✓	SE NW✓	
		Rhus✓			SE✓	
Cotinus occid.	22✓					
Acer sacch.	19✓					
4. Tilia	21✓					
Ulmus amer.	169✓	Rhus✓	.25 ✓	1/4 ✓ 8'	SE✓	
		Rhus✓	.5 ✓	2/4 ✓ 25'	SW✓	
Tilia	108✓					
Ulmus amer.	430✓	P✓	.25 ✓	1/4 ✓	SE	
		P✓	.25 ✓	2/4 ✓	SE✓	
		P✓	1.0 ✓	4/4 ✓	WNW	

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Date:

Observers: Swan

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
5. <i>Tilia</i>	21 ✓					
<i>Ulmus</i> <i>amer.</i>	169 ✓	<i>Rhus</i> ✓	.25 ✓	1/4 ✓ 8'	SE ✓	
		<i>Rhus</i> ✓	.5 ✓	2/4 / 25'	SW ✓	
<i>Ulmus</i> <i>amer.</i>	189 ✓	<i>Rhus</i> ✓	.25 ✓	1/4 ✓ 3'	SE ✓	
<i>Tilia</i>	305 ✓					
6. <i>Tilia</i>	251 ✓					
<i>Tilia</i>	25 ✓					
<i>Crataegus</i>	12 ✓					
<i>Tilia</i>	249 ✓					
7. <i>Acer</i> <i>sacch.</i>	618 ✓					
<i>Acer</i> <i>sacch.</i>	339 ✓	<i>Rhus</i> ✓	2/4 ✓	.5 ✓ 30'	ESE ✓	
		P ✓	3/4 ✓	.5 ✓	SE ✓	
<i>Ulmus</i> <i>amer.</i>	270 ✓					
<i>Acer</i> <i>sacch.</i>	475 ✓					
8. <i>Q. bicolor</i>	42 ✓					
<i>Q. bicolor</i>	210 ✓					

Soil bare of duff,
very moist, *Laportea* 3-5 ft. high

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Date:

Observers: Swan

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
8. #3 Crataegus	14 dead	/				
Q. bicolor	36✓	/				
Crataegus	20✓	Vitis rip.✓	1.5✓	4/4✓	loose	
9. Acer large sacch. opening in canopy	400✓	Vitis rip.✓	2.5✓	4/4✓	"	
		Rhus✓	.25✓	4/4✓	SE✓	
		P✓	.25✓	1/4✓	SE✓	
		Rhus✓	2.5✓	4/4✓	due west ✓	
Frax. penn.	36✓	/				
Frax. penn.	17✓	/				
Crataegus	25✓	/				
10. Ulmus amer.	35✓	/				
Crataegus	19✓	/				
Ulmus amer.	70✓	/				
Ulmus amer.	29✓	/				
11. Ulmus amer.	124✓	/				
Frax. penn.	118✓	Vitis rip.✓	2.5✓	3/4✓	loose	

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T: R: sec.

No. of points:

Date:

Observers:

Jwan

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
#3 11. <i>Ulmus amer.</i>	35✓	/				
<i>Acer sacch.</i>	459✓	/				
12. <i>Acer sacch.</i>	470✓	<i>Rhus</i>	.5✓	2/4✓ 20'	NW✓	
		<i>Rhus</i>	.25✓	1/4✓	NW✓	
<i>Acer sacch.</i>	185✓	3 <i>Rhus</i>	.25✓	1/4✓	ENE✓ SE	WSW
<i>Acer sacch.</i>	406✓	/	.5	1/4	SE	
<i>Acer sacch.</i>	431✓	/	.25	1/4		
13. <i>Crataegus</i>	17✓	/				
<i>Ulmus amer.</i>	360✓	/				
<i>Celtis</i>	371✓	/				
<i>Q. bicolor</i>	175✓	<i>Rhus</i>	1.5✓	3/4✓ 45'	SE✓	
		<i>Rhus</i>	.5✓	1/4✓	SE✓	
14. <i>Q. bicolor</i>	570✓	/	3 dead <i>Rhus</i> 1.5✓ 1.0			
<i>Q. bicolor</i>	380✓	<i>Rhus</i>	2.5✓	4/4✓ 55'	NW✓	
<i>Ulmus amer.</i>	280✓	4 <i>Rhus</i> dead	2.0✓ 3(1.0)✓			
<i>Q. bicolor</i>	545✓	<i>Rhus</i>	.5✓	2/4✓ 30'	SW✓	

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Observers:

Swan

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
15. <i>Acer sacch.</i>	390✓	<i>Rhus</i> ✓	2.5✓	4/4✓	sw✓	
		<i>Rhus</i> ✓	.5✓	3/4✓	nnw✓	
<i>Acer sacch.</i>	453✓	/				
<i>Acer sacch.</i>	77✓	<i>Vitis rip.</i> ✓	2.0✓	4/4✓	lope	
<i>Ulmus amer.</i>	55✓	/				
16. <i>Acer sacch.</i>	30✓	/				
<i>Ulmus amer.</i>	358✓	/	4 large <i>Rhus</i> ✓ dead			
<i>Acer sacch.</i>	43✓	<i>Vitis rip.</i> ✓	1.0✓	4/4✓	"	
<i>Acer sacch.</i>	44✓	<i>Vitis rip.</i> ✓	2.0✓	4/4✓		
		<i>Vitis rip.</i> ✓				
17. <i>Acer sacch.</i>	30	/				
repeat #16 <i>Ulmus amer.</i>	358	/	4 large <i>Rhus</i> ✓ dead			
<i>Acer sacch.</i>	43	<i>Vitis rip.</i> ✓	1.0✓	4/4✓		
<i>Acer sacch.</i>	44	<i>Vitis rip.</i> ✓	2.0✓	4/4✓		
		<i>Vitis rip.</i> ✓				

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No. of points:

Date:

Observers:

Swan

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
18. <i>Ulmus</i> <i>amer.</i>	22 ✓	/				
<i>Carya</i> <i>ovata</i>	5 ✓	/				
<i>Acer</i> <i>sacch.</i>	62 ✓	/				
<i>Ulmus</i> <i>amer.</i>	55 ✓	/				
19. <i>Q. bicolor</i>	788 ✓	/				
<i>Ulmus</i> <i>amer.</i>	74 ✓	/				
<i>Carya</i> <i>ovata</i>	14 ✓	/				
<i>Acer</i> <i>sacch.</i>	445 ✓	/				
20. <i>Ulmus</i> <i>amer.</i>	330 ✓	/				
{ <i>Q. bicolor</i> dead	25	/				
{ <i>Frax.</i> <i>penn.</i>	54 ✓	/				
<i>Acer</i> <i>sacch.</i>	265 ✓	/				
<i>Acer</i> <i>sacch.</i>	152 ✓	/				
21. <i>Frax</i> <i>penn.</i>	55 ✓	/				
<i>Ulmus</i> <i>amer.</i>	38 ✓	/				
<i>Frax.</i> <i>penn.</i>	83 ✓	/				

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T: R: sec.

No. of points:

Date:

Observers:

Swan

80% canopy

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
21. #4 Frax. penn.	53✓	/				
22. Acer sacch.	27✓	/				
Q. bicolor	112✓	2 Rhys	.25✓	1/4✓	NW✓ SW✓	
Frax. penn.	75✓	/				
Acer dead sacch.	109	5 Rhys	.25✓	1/4✓	SSW ZNE	ZNW
Acer sacch.	215✓	/				
23. Frax. penn.	47✓	/				
Acer sacch.	224✓	Rhys	.25✓	1/4✓ 7'	SSW✓	
Acer sacch.	143✓	/				
Carya cordif.	45✓	/				
24. Acer sacch.	143✓	/				
Carya cordif.	69✓	/				
Frax. penn.	89✓	/				
Acer sacch.	81✓	/				
25. Acer sacch.	33✓	/				
Acer sacch.	53✓	3 Rhys	.25✓	1/4✓	NW✓ ZNE	

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Name:

LIANA DATA FORM

T: R: sec.

No. of points:

Date:

Observers:

Swan

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
25. #3 Acer sacch.	1225✓	5 Rhys	.25✓	1/4 ✓	2SW, 2NW NE	
		Rhys	.5✓	2/4✓ 24'	NE✓	
		Rhys	.5✓	3/4✓	NW✓	
Acer sacch.	235✓	5 Rhys	.25✓	1/4✓	5SW ✓	
26. Ulmus amer.	40✓					
Carya ovata	124✓	P✓	.25✓	1/4 ✓ 9'	NW✓	
Q. bicolor	545✓					
Ulmus amer.	12✓					
27. Acer sacch.	28✓					
Acer sacch.	23✓					
Tilia	78✓					
Carya ovata	249✓					
28. Tilia	28✓	P✓ ✓			NW ✓	
Acer sacch.	275✓					
Carya ovata	47✓					
Carya ovata	335✓	Rhys	.25✓	1/4✓ 3'	NW ✓	

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No. of points:

Date:

Observers:

Swan

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
29. <i>Ulmus</i> <i>amer.</i>	25✓	/				
<i>Carya</i> <i>ovata</i>	188✓	/				
<i>Tilia</i>	13✓	/				
sp.?	38	/				
<i>Frax.</i> <i>penn.</i>	81✓	/				
30. <i>Q.</i> <i>bicolor</i>	858✓	<i>Rhus</i>	.25✓	1/4✓	SW✓	
<i>Carya</i> <i>ovata</i>	185✓	3P✓	.25✓	1/4✓	25W NW✓	
		2P✓	.25✓	2/4✓	SW 2NE	
<i>Tilia</i>	176✓	/				
<i>Ulmus</i> <i>amer.</i>	185✓	P✓			NE✓	
31. <i>Tilia</i>	110✓	/				
<i>Carya</i> <i>ovata</i>	69✓	/				
<i>Tilia</i>	33✓	/				
<i>Carya</i> <i>ovata</i>	37✓	/				
32. <i>Tilia</i>	33✓	/				
<i>Tilia</i>	110✓	/				

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No. of points:

Date:

Observers:

Swan

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
32. <i>Carya ovata</i>	37✓	/				
<i>Carya ovata</i>	66✓	/				
220 33. <i>Ulmus amer.</i>	33✓	<i>Rhus</i> ✓	1.5✓	3/4✓ 45'	SE✓	
<i>Ulmus amer.</i>	30✓	/				
<i>Ulmus amer.</i>	28✓	/				
<i>Ulmus amer.</i>	56✓	/				
34. <i>Ulmus amer.</i>	12✓	/				
<i>Ulmus amer.</i>	38✓	/				
<i>Frax. penn.</i>	105✓	dead <i>Rhus</i> ✓	1.5✓			
<i>Frax. penn.</i>	329✓	dead <i>Rhus</i> ✓	3.5✓			
35. <i>Q. bicolor</i>	61✓	/				
<i>Q. bicolor</i>	115✓	<i>Vitis rip.</i> ✓	1.0✓	4/4✓	Loose	
<i>Q. bicolor</i>	47✓	/				
<i>Q. bicolor</i>	31✓	/				
36. <i>Frax. penn.</i>	22✓	/				
<i>Q. bicolor</i>	47✓	/				

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Name:

LIANA DATA FORM

T: R: sec.

No. of points:

Date:

Observers:

Jwan

15 August 1960

(1) Tree sp.	(2) B.A.	(3) Liana sp. Indicate if new this yr.	(4) Diam. at 1 ft.	(5) Present on 1/4, 2/4, 3/4 or 4/4 of trunk	(6) Direction at base	(7) Slope
36. Q. bicolor	28✓	/				
Q. bicolor	44✓	/				
37. Q. bicolor	44✓	/				
Ulmus amer.	225✓	/				
Q. bicolor	278✓	/				
Ulmus amer.	14✓	/				
38. Frax. penn.	204✓	Rhus✓	1.5✓	4/4✓	✓ loose ENE	
Ulmus amer.	575✓	2 Rhus✓	.5✓	1/4✓	✓ NW NE	2SE
		3 Rhus✓	.25✓	1/4✓	NE✓	2SE
		Rhus✓	1.0✓	2/4✓	✓ SE	
Acer sacch.	750✓	/				
Acer sacch.	56✓	/				
39. Ulmus amer.	22✓	P✓	.5✓	2/4✓	NW✓	
Ulmus amer.	28✓	P✓	.25✓	2/4✓	NE✓	
1 dead Rhus✓		P✓	.5✓	3/4✓	NE✓	
	1.5	P✓	1.0✓	3/4✓	NE✓	

Stand No. 4003

Plant Ecology Laboratory
University of Wisconsin

Name :

LIANA DATA FORM

T: R: sec.

No. of points:

Date:

Date: 15 August 1960

Observers: *Swan*

[illegible]

Rhus radicans:

$$\% \text{ frequency of ground form} = 3/40 = 7.5\%$$

$$\% \text{ frequency of liana} = 31/160 = 19.4\%$$

$$\text{Ratio of frequencies} = \frac{19.4}{7.5} = 2.57$$

$$\text{Density of ground form} = \frac{26}{40} = 0.65$$

$$\text{Density of liana} = \frac{76}{160} = 0.475$$

$$\text{Ratio of densities} = \frac{0.475}{0.65} = 0.731$$

$$\text{Abundance of ground form} = \frac{26}{3} = 8.67$$

$$\text{Abundance of liana} = \frac{76}{31} = 2.45$$

$$\text{Ratio of abundances} = \frac{2.45}{8.67} = 0.28$$

2 new lianas on 2 trees

Height distribution: % in each 1/4

$$1/4 - 45/76 = 59.2\%$$

$$3/4 - 11/76 = 14.5\%$$

$$2/4 - 13/76 = 17.1$$

$$4/4 - 7/76 = 9.2$$

Height-size distribution:

$$.25 \left\{ \begin{array}{l} 1/4 - 46/76 = 52.6\% \\ \end{array} \right.$$

$$1.0 \left\{ \begin{array}{l} 2/4 - 1/76 = 1.3 \\ \end{array} \right.$$

$$.5 \left\{ \begin{array}{l} 1/4 - 5/76 = 6.6 \\ \end{array} \right.$$

$$\left\{ \begin{array}{l} 3/4 - 5/76 = 6.6 \\ \end{array} \right.$$

$$\left\{ \begin{array}{l} 2/4 - 10/76 = 13.2 \\ \end{array} \right.$$

$$1.5 \left\{ \begin{array}{l} 3/4 - 4/76 = 5.3 \\ \end{array} \right.$$

$$\left\{ \begin{array}{l} 3/4 - 2/76 = 2.6 \\ \end{array} \right.$$

$$\left\{ \begin{array}{l} 4/4 - 2/76 = 2.6 \\ \end{array} \right.$$

$$2.0 \left\{ \begin{array}{l} 2/4 - 2/76 = 2.6 \\ \end{array} \right.$$

$$2.5 \left\{ \begin{array}{l} 4/4 = 3/76 = 4.0 \\ \end{array} \right.$$

$$3.0+ \left\{ \begin{array}{l} 4/4 = 2/76 = 2.6 \\ \end{array} \right.$$

Parthenocissus

% frequency of ground form = $\frac{2}{40} = 5\%$

% frequency of liana = $\frac{9}{160} = 5.62\%$

Ratio of frequencies = $\frac{5.62}{5.00} = 1.12$

Density of ground form = $\frac{2}{40} = 0.05$

Density of liana = $\frac{18}{160} = 0.112$

Ratio of densities = $\frac{0.112}{0.05} = 2.24$

Abundance of ground form = $\frac{2}{2} = 1.0$

Abundance of liana = $\frac{18}{9} = 2.0$

Ratio of abundances = $\frac{2.0}{1.0} = 2.0$

2 new lianas on 2 trees
 $\frac{2}{160} = 0.0125$

Height distribution - % in each 1/4

1/4 - $\frac{9}{18} = 50\%$

2/4 - $\frac{5}{18} = 27.8\%$

3/4 - $\frac{3}{18} = 16.7\%$

1/4 - $\frac{1}{18} = 5.6\%$

Height - size distribution

~~1/4~~ - .25 } 1/4 - $\frac{9}{18} = 50\%$

2/4 - $\frac{4}{18} = 22.2\%$

.50 } 2/4 - $\frac{1}{18} = 5.6$

3/4 - $\frac{2}{18} = 11.1$

1.0 } 3/4 - $\frac{1}{18} = 5.6$

4/4 - $\frac{1}{18} = 5.6$

Avon # 2 4005

CI = 1511.5

Rhus radicans =

Frequency of dead lianas = $\frac{8}{160} = 5\%$

Density of dead lianas = $\frac{22}{160} = 0.14$

Abundance of dead lianas = $\frac{22}{8} = 2.75$

Height-size distribution

1.0 - $\frac{5}{22} = 22.7\%$

1.5 - $\frac{15}{22} = 68.2\%$

2.0 - $\frac{1}{22} = 4.5$

3.5 - $\frac{1}{22} = 4.5$

Vitis riparia: No ground form.

Freq. of lianas = $\frac{11}{160} = 6.88\%$

Dens. of lianas = $\frac{11}{160} = 0.069$

Abund. of lianas = $\frac{11}{11} = 1.0$

2 new lianas on two trees.

Height distribution

1/4 - 0%

2/4 - 0%

3/4 - $\frac{1}{11} = 9.1\%$

4/4 - $\frac{10}{11} = 90.9\%$

Height-size distribution:

1.0 | $\frac{4}{4} - \frac{3}{11} = 27.3\%$

1.5 | $\frac{4}{4} - \frac{1}{11} = 9.1$

2.0 } $\frac{4}{4} - \frac{3}{11} = 27.3$

2.5 } $\frac{3}{4} = \frac{1}{11} = 9.1$
 $\frac{4}{4} = \frac{3}{11} = 27.3\%$

Avon #2: Linas $> \frac{1}{4}$

	1	2	3	4	5	6	7	8	9	10
Parthenocissus	1 3 4	2			1	# 2		# 2		
Number of trees in each size class.	 (63)	 (24)	 (19)	 (18)	 (15)	 (9)	 (5)	 (5)	①	① 1225 9
Rhus: 1	1	1 1 1 3	1 1 1 3	1 1 1 2 5	1 1 1 2 # 3	1 2 7 # 3	4 4 1 9	2 2 4		2
Recheck	①	 ③	 ③	 ⑤	 ③	 ③	 ⑨	 ④		 ②

$31 = 31$

$$1.5 \begin{cases} 3/4 \\ 4/4 \textcircled{1} \end{cases}$$