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Site 6006 (Boreal Stand 6): Mud Bay Point, Door County, Township 30N, Range 28E, Section 14. 1954-10-15/1954-10-16

[s.l.]: [s.n.], 1954-10-15/1954-10-16

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LICHENS OF GREAT LAKES SPRUCE-FIR COMMUNITIES
WISCONSIN
Door County



Mud Bay Point, 15 miles SE of Bailey's
Harbour. T30N R28E SEC 14.
Spruce, balsam and cedar. Mature, flat,
moist situation, rich black soils on
limestone outcrop.

October 15, 1954. Coll. Paul F. Maycock

Stand #6 - On Mud Bay Point, near Old Holst Homestead -
Door County, Barly's Harbor Wisc.

Area - bounded on N. by Road to Lana's Island, S. by Mud or
moonlight Bay, West by Old Homestead, East by Maple - cedar
swamp land. Size - from photos.

Area is on shallow soil - very stony - limestone - slab rock,
crevices. It appears to have been windblown + then dead trees
have been blown over - some time ago. There is considerable
regeneration of *Abies balsamea* + some *Juniper* w regen + cedar.
Area does not appear to have been logged. Few large Ws appear
to have died + been blown over.

Remarks

Rather damp area - thick mosses underfoot.

Spruces fairly large + mature.

Considerable amount of cedar swamp - more in some
places than others.

Many trees blown over - either whole tree or broken off
at trunk. - Balsams most susceptible

THE UNIVERSITY OF WISCONSIN
MADISON 6, WISCONSIN, U. S. A.

DEPARTMENT OF BOTANY
BIRGE HALL

Test of Homogeneity - *Picea glauca*
40 pts yielded - 42 trees
Expected for each 10 pts - 10

EXPECTED	OBSERVED	DEVIATION	(DEVIATION) ²	$\frac{(DEV.)^2}{EXPECTED}$
10	10	0	0	0.0
10	6	-4	16	1.6
10	12 (13-1)	+3	9	0.3
10	12 (13-1)	+3	9	0.3
	<u>42</u>	<u>+2</u>		<u>2.2</u>

$$\chi^2 = 2.2 \quad 3^\circ$$

PROBABILITY:

0.70 - 0.50

Test of Homogeneity - *Thuja Occ.*
40 pts yielded - 57 trees
Expected for each 10 pts. - 14 trees

EXPECTED	OBSERVED	DEVIATION	(DEVIATION) ²	$\frac{(DEV.)^2}{EXPECTED}$
14	16	+2	4	0.2
14	19	+5	25	1.7
14	15	+1	1	0.0
14	7	-7	49	3.1
	<u>57</u>	<u>+1</u>		<u>5.0</u>

$$\chi^2 = 5.0 \quad 3^\circ$$

PROBABILITY:

0.50 - 0.30

Total distances for trees - 1845'
Av. distance (160 trees) - 11.53'

Total distances for saplings - 1816'
Av. distance (160 saplings) - 11.35'

Plant Ecology Research
TREE DATA SUMMARY SHEET

University of Wisconsin

277.6

Spruce - fir
~~Northern Pine-Hardwoods~~

Station Number: 6 - 1916

N. Limit
Index

TREE	# PTS	# TRS	DOM. CLASSES			TOT. DOM.	# SAP	D. % SAP	F. % SDL.	F. % TRS.	% SUM F. TR.	D. % TRS.	DOM% TRS.	DFD INDEX	(NEW LOWLAND INDEX C. I.)
			-80	-320	321										
Abies bals	26	44				1130	92	57.5	85	65.0	26.5	27.5	9.8	63.8	(287.1) 446.6
Acer rubru							1	0.6							
A. sacchar															
A. spicatu							28	17.5	55						1.0
Betula lut															
B. papyrif	7	7				410	3	1.9	10	17.5	7.2	4.4	3.6	15.2	(76.0) 76.0
Carpinus c															
Fagus gran															
Ostrya vir															
Picea glau	30	42				5387	2	1.3	30	75.0	30.6	26.3	46.8	103.7	(414.2) 622.2
Pinus Bank															
P. resinosa															
P. Strobus	3	5				552				7.5	3.1	3.1	4.8	11.0	(44.0) 55.0
Populus ba	2	3				378				5.0	2.0	1.9	3.3	7.2	(36.0) 14.4
P. grandid															
P. tremulo															
Prunus ^{serot.} pen							3	1.9							
Quercus el															
Q. rubra															
Tilia amer															
Tsuga cana	2	2				336				5.0	2.0	1.3	2.9	6.2	(52.7) 49.6
Thuja occi	28	57				3304	31	19.4	10	70.0	28.6	35.6	28.7	92.9	(371.6) 650.3
Ulmus amer															
U. fulva															
Pyrus amer															1.0
TOTALS		160				11497	160	100.0			100.0	100.0	100.0	300.0	(1284) 1916

AVE. DIST. BTW'N TREES:

11.53

AVE B. A.:

71.95g

TREES/ACRE:

328

DOM./ACRE:

23,583

510.4

1.0

136.8

1037.0

66.0

64.8

12.4

650.3

1.0

2479.7

Mid range
Index

574.2

9.0

152.0

1037.0

77.0

64.8

43.4

743.2

9.0

2710

STAND #6

Tree	No. Pts.	No. Tr.	Size Class Sq. In. 12-80:81-320:321-		Dom.	No. Sap.	Seed	F.% Seed	F.% Tr.	D.% Tr.	Dom.% Trees	D F D Index	Station No.
ABIES BALSMIFERA	26	⁴⁴ 49	⁴⁴ 44		1130	92	17	85	^{65.0} (26.5)	27.5	9.83	63.83	Total Length of Transect 3600'
ACER PENSYLVANICUM													Total Length of Transect
ACER RUBRUM						1							Ave. Dist. Btw'n Trees 11.53'
ACER SACCAHARUM													
ACER SPICATUM						28	11	55					
BETULA LUTEA													
BETULA PAPYRIFERA	7	8 7	6	1	410	3	2	10	17.5 (7.2)	4.4	3.57	15.17	Saplings/unit area 338
FAGUS GRANDIFOLIA													Ave. BA (Total BA = 160) 71.86 sq. m.
FRAXINUS AMERICANA													No. Trees/acre 328
FRAXINUS NIGRA													Dom./acre 23,570
LARIX LARICINA													
OSTRYA VIRGINIANA													
PICEA GLAUCA	30	42	11	30	1	5387	2	6	30	75.0 (30.6)	26.25	46.86	103.71
PICEA MARIANA													
PINUS RESINOSA													
PINUS STROBUS	3	5		5		552			7.5 (3.1)	3.1	4.80	11.00	
POPULUS BALSAMIFERA	2	3	2	1		378			5.0 (2.0)	1.9	3.29	7.19	
POPULUS GRANDIDENTATA													
POPULUS TREMULOIDES													
PRUNUS SEROTINA							3						
PRUNUS PENSYLVANICUM													
PYRUS AMERICANA													
THUJA OCCIDENTALIS	28	⁵⁷ 51	⁴⁴ 49	13	3304	31	2	10	70.0 (28.6)	35.6	28.74	92.94	
TILIA AMERICANA													
TSUGA CANADENSIS	2	2	1	1	336				5.0 (2.0)	1.3	2.92	6.22	
ULMUS AMERICANA													
ULMUS RUBRA													
TOTALS	98	160			11,497	160			(100.0)	100.0	100.0	300.0	

Preliminary Survey - Homogeneity
 Compass direction NE. Weedan + Ws counted along trees
 12' transect - 100 pace segments. Trees 3" or more
 saplings - below 3"

① We

Ws

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②

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③

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④

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Survey Point 1

Stand 6

Oct 16/54.

- (a) *Thuja occid.* - 12' distant, size 86 sq. "
Abies bals. - 7' " " " 27
- (b) *Thuja occid.* - 3' " " " 150
Abies bals. - 12' " " " 12
- (c) *Thuja occid.* - 18' " " " 92
Thuja occid. - 16' " " " 7
- (d) *Picea glauca* - 20' " " " 161
Thuja occid. - 17' " " " 12

Survey Point 2

- (a) *Abies bals.* - 14' , 57 sq "
Abies bals. - 7' , 10
- (b) *Thuja occid.* - 22' , 142
Abies bals. - 3' , 6
- (c) *Picea glauca* - 18' , 145
Thuja occid. - 11' , 9
- (d) *Thuja occid.* - 12' , 80
Thuja occid. - 16' , 9

Survey Point 3

- (a) *Thuja occid.* - 6' , 130 " sq.
Acer spic. - 27' , 9 "
- (b) *Thuja can.* - 10' , 55 "
Abies bals. - 7' , 4 "
- (c) *Thuja occid.* - 9' , 60 "
Abies bals. - 7' , 6 "
- (d) *Picea gl.* - 5' , 200 "
Thuja - 3' , 12 "

Survey Point 4		
(a) Picea gl.	6'	115" sq.
Abies bals.	18'	6"
(b) Thuja occidentalis	6'	55"
Thuja occidentalis	1'	7"
(c) Thuja occidentalis	20'	35"
Thuja occidentalis	18'	9"
(d) Thuja occidentalis	5'	45"
Abies bals.	16'	5"

Survey Point 5

Balsam heavy

(a) Abies bals.	6'	-	16" sq.
Abies bals.	1'	-	6"
(b) Abies bals.	7'	-	21"
Abies bals.	4'	-	6"
(c) Thuja occidentalis	6'	-	21"
Abies bals.	1'	-	5"
(d) Abies bals.	18'	-	27"
Abies bals.	2'	-	9"

Survey Pt. 6.

(a) Abies bals.	- 7'	- 71" sq.
Abies bals.	- 12'	- 6"
(b) Picea gl.	- 27'	- 195"
Abies bals.	- 3'	- 5" sq.
(c) Abies bals.	- 8'	- 16"
Thuja occidentalis	- 13'	- 7"
(d) Abies bals.	- 14'	- 62"
Abies bals.	- 8'	- 6"

Survey Pt 7

- (a) Abies bals - 4' - 27" sq.
 Thuja - 5' - 5"
 (b) Thuja occid - 9' - 130"
 Abies bals. - 3' - 7"
 (c) Thuja occid - 18' - 25"
 Abies bals - 3' - 8"
 (d) Pinus strobus - 2' - 119"
 Abies bals. - 4' - 7"

Survey Pt 8

- (a) Betula pop - 21' - 28 sq"
 Abies bals - 18' - 5"
 (b) Abies bals - 8' - 18"
 Abies bals - 5' - 6"
 (c) Picea gl. - 9' - 120"
 Abies bals - 9' - 7"
 (d) Picea gl. - 18' - 130"
 Abies bals - 4' - 6"

Survey Pt 9a.

- (a) Picea glauca - 9' - 118 sq"
 Pinus ~~strobus~~ - 6' - 6"
 (b) Abies bals. - 7' - 15"
 Abies bals. - 6' - 8"
 (c) Betula pop. - 8' - 21"
 Abies bals. - 6' - 9"
 (d) Picea gl. - 13' - 29"
 Abies bals - 12' - 9"

Soil Pit Dug

- 1" - litter
 1" - fermentation
 6" - black granular humus with
 some coarse rock particles
 1" - brown - A layer - coarse
 sandy rock particles
 - bedrock

Survey point 10

- (a) Thuja occidentalis 2' - 23 sq"
 Acer spic. 16' - 6"
 (b) Thuja occidentalis 12' - 52"
 Abies bals. 15' - 5"
 (c) Thuja occidentalis 4' - 35"
 Picea gl. 13' - 10"
 (d) Picea gl. 7' - 80 sq"
 Abies bals. 17' - 9 1/2"

Survey Pt. 11.

- (a) Picea gl. 9' - 140 sq"
 Thuja 2' - 10"
 (b) Thuja - 6' - 28"
 Abies - 15' - 5"
 (c) Thuja - 6' - 24"
 Abies 4' - 7"
 (d) Picea gl. 10' - 131"
 Thuja occ. 5' - 12"

Survey Pt 12

- (a) Thuja occidentalis - 12' - 39 sq"
 Thuja occidentalis - 15' - 8"
 (b) Thuja - 16' - 30"
 Acer spic. - 14' - 9"
 (c) Betula pop. - 10' - 53"
 Thuja - 17' - 9"
 (d) Picea canadensis - 17' - 100"
 Thuja occidentalis - 11' - 10"

Survey Pt #13

- (a) Abies bal. - 6' - 26" sq
 acer spic - 20' - 7"
 (b) Pinus strobus - 7' - 110"
 Thuja occid - 13' - 6"
 (c) Pinus strobus - 13' - 105"
 Thuja occid - 7' - 10"
 (d) Thuja - 12' - 50"
 Abies bal - 18' - 7"

Survey Pt #14

- (a) Picea gl - 26' - 100 sq"
 Abies bal - 8' - 8"
 (b) Thuja occid - 25' - 31"
 Abies bal - 7' - 7"
 (c) Thuja occid - 12' - 119"
 Abies bal - 2' - 5"
 (d) Picea glauca - 6' - 210"
 Abies bal. - 27' - 6"

Survey Pt #15

- (a) Abies bal - 15' - 38 sq" Abundant lichen + moss cover
 Betula pap. - 10' - 11"
 (b) Abies bal. - 7' - 50"
 Acer spic - 18' - 7"
 (c) Abies bal - 25' - 27"
 Thuja occid - 18' - 11"
 (d) Picea gl - 27' 460 sq" - 27" diameter
 Abies bal - 24' - 7"

Survey Pt 16

- (a) Thuja - 10' - 180 sq"
 Thuja - 11' - 9"
 (b) Thuja - 6' - 62"
 Abies - 25' - 5"
 (c) Abies - 4' - 50"
 Abies - 18' - 6"
 (d) Thuja - 8' - 75"
 Abies - 13' - 10"

Survey Pt 17

- (a) Thuja - 11' - 63 sq"
 Abies - 6' - 10"
 (b) Abies - 12' - 12"
 Abies - 14' - 5"
 (c) Thuja - 10' - 49"
 Acer sp - 10' - 5"
 (d) Betula ~~pap~~ 9' - 50"
 Abies - 15' - 4"

Survey Point 18.

- (a) Abies bal - 13' - 12 sq"
 Acer spic - 6' - 6"
 (b) Thuja occident - 18' - 55"
 Acer spic - 9' - 6"
 (c) Populus balsam - 18' - 290"
 Thuja - 21' - 43"
 (d) Thuja - 12' - 40"
 Acer sp - 15' - 7"

Point 19

(a) Abies bal 6' - 16"

Betula pap 2' - 5"

(b) Abies bal. 18' - 13"

Abies bal. 21' - 6"

(c) Thuja 9' - 39"

Acer - 24' - 8"

(d) Thuja - 5' - 42"

Abies - 12' - 7"

Point #20.

(a) Thuja - 10' - 40"

Thuja - 12' - 9"

(b) Abies - 10' - 78"

Acer rubrum? 24' - 6"

(c) Thuja - 12' - 70"

Thuja - 32' - 10"

(d) Thuja - 12' - 66"

Thuja - 14' - 6"

21

(a) Abies - 18' - 15"

Acer - 9' - 6"

(b) Thuja - 18' - 47"

Acer - 12' - 5"

(c) Thuja - 12' - 18"

Acer - 15' - 7"

(d) Abies - 18' - 16"

Acer - 8' - 7"

Pt. 22

(a) Picea gl. - 18' - 145"
Abies - 13' -

(b) Abies - 18' - 16"
Abies - 7' - 6"

(c) Thuja - 18' - 65"
Abies - 8' - 6"

(d) Picea - 23' - 77"
Acer - 4' - 6"

Pt 23.

(a) Thuja - 18' - 80"
Acer - 6' - 5"

(b) Picea gl. - 9' - 140"
Abies - 8' - 5"

(c) Picea - 24' - 90"
Thuja - 14' - 8"

(d) Thuja - 6' - 25"
Abies - 16' - 5"

Pt 24

(a) Picea gl. - 7' - 97"
Abies Hal. - 11' - 4"

(b) Picea gl. - 3' - 38"
Abies Hal. - 10' - 5"

(c) Thuja - 6' - 48"
Thuja - 18' - 6"

(d) Thuja - 18' - 19"
Thuja - 20' - 6"

Soil Pit -

Litter 1"

Fement. 3'

Humus - granular layer with
grit + large sandstone pebbles
10"

Then either bedrock or
mass of large stones

Pt 25

- (a) Thuja - 6' - 16"
Abies - 18' - 6"
(b) Abies bal 11' - 76"
Thuja - 21' - 8"
(c) Picea strob. 6' - 110"
Acer - 13' - 8"
(d) Picea strob. 6' - 108"
Acer - 22' - 4"
-

Pt 26

- (a) Picea - 8' - 180"
Abies - 10' - 7"
(b) Picea - 22' - 182"
Acer - 14' - 8"
(c) Thuja - 6' - 40"
Abies - 11' - 5"
(d) Picea sp. - 15' - 109"
Thuja - 16' - 9"
-

Pt 27

- (a) Picea - 18' - 290"
Abies - 6' - 6"
(b) Abies - 9' - 16"
Abies - 4' - 5"
(c) Thuja - 2' - 30"
Thuja - 8' - 7"
(d) Abies - 8' - 20"
Abies - 8' - 8"

Pt 28

(a) Abies - 10' - 14"

Abies - 7' - 7"

(b) Betula pop 12' - 21"

Abies - 9' - 6"

(c) Picea gl. 10' - 150"

Abies - 8' - 6"

(d) Abies - 9' - 48"

Abies - 8' - 6"

Pt 29

(a) Thuja - 9' - 25"

Acer - 3' - 5"

(b) Thuja - 10' - 80"

Acer - 11' - 6"

(c) Thuja - 12' - 84"

Abies - 25' - 6"

(d) Picea gl. - 12' - 132"

Abies - 8' - 6"

Pt 30

(a) Thuja - 19' - 35"

Thuja - 9' - 10"

(b) Picea gl. - 7' - 170"

Acer - 8' - 5"

(c) Abies - 14' - 15"

Abies - 22' - 7"

(d) Thuja - 4' - 32"

Abies - 25' - 5"

Pt. 31

(a) Thuja - 8' - 34"
Abies - 16' - 10"

(b) Thuja - 21' - 31"
Abies - 17' - 4"

(c) Thuja - 9' - 62"
Abies - 8' - 6"

(d) Picea gl - 21' - 30"
Thuja - 20' - 7"

Pt 32 (a) Picea gl - 8' - 128 5/8"
Abies - 15' - 6"

(b) Abies - 22' - 14"
Abies - 19' - 7"

(c) Betula pp - 2' - 161"
Abies - 3' - 6"

(d) Picea gl - 33' - 40"
Prunus sp. 8' - 8"

Pt 33 (a) Abies - 5' - 21"
Abies - 6' - 8"

(b) Picea gl - 15' - 35"
Abies - 12' - 7"

(c) Abies - 6' - 20"
Abies - 4' - 4"

(d) Abies - 7' - 23"
Abies - 5' - 5"

Pt 34.

- (a) Abies bals. - 9' - 12"
Acer sp - 6' - 7"
(b) Picea gl. - 10' - 190"
Abies - 14' - 7"
(c) Abies - 4' - 34"
Abies - 10' - 4"
(d) Abies - 12' - 12"
Betula papyr. - 10' - 8"
-

- H 35 (a) Abies - 5' - 25"
Abies - 8' - 9"
(b) Abies 8' - 16"
Abies 7' - 5"
(c) Picea gl 9' - 160"
Abies 7½' - 8"
(d) Abies b. - 3' - 18"
Abies b. - 7' - 4"
-

- Pt 36. (a) Pop bals. - 7' - 45"
Abies bals. - 8' - 9"
(b) Pop. bals. - 10' - 43"
Abies bals. - 6' - 7"
(c) Picea gl - 24' - 178"
Abies bals. 9' - 8"
(d) Picea gl. 10' - 45"
Picea gl 15 - 5"

Pt 37 (a) Picea gl. - 13' - 60 8/9"
Thuja - 14' - 6"

(b) Betula pop - 2' - 76"
Abies bals - 9' - 5"

(c) Abies bals - 18' - 20"
Abies bals - 12' - 5"

(d) Picea gl. 16' - 26"
Abies - 7' - 6"

Pt 38 (a) Thuja - 13' - 65"
Acer - 12' - 4"

(b) Thuja - 7' - 110"
Abies - 16' - 4"

(c) Abies - 14' - 25"
Abies - 8' - 4"

(d) Picea - 4' - 75"
Abies - 14' - 6"

Pt 39 (a) Abies - 7' - 25"
Abies - 14' - 8"

(b) Abies - 3' - 13"
Acer - 9' - 7"

(c) Abies - 13' - 14"
Prunus - 12' - 8"

(d) Picea - 14' - 76"
Acer - 17' - 5"

all trees + saplings = $\frac{3661}{1845} = \text{sum of all distances}$

trees = 1845 $av = 11.53$

Saplings = 1816 $av = 11.35$

$\sqrt{M/A}$

11.53

$$\begin{array}{r} 160 \overline{) 1845} \\ \underline{160} \\ 245 \\ \underline{160} \\ 850 \\ \underline{800} \\ 500 \end{array}$$

11.35

$$\begin{array}{r} 160 \overline{) 1816} \\ \underline{160} \\ 216 \\ \underline{160} \\ 560 \\ \underline{480} \\ 800 \end{array}$$

Pt 40.

(a) Muya 13' - 18"
Abres 9' - 4"

(b) Picea gl. 10' - 160"
Acer 4' - 6"

(c) Muya - 18' - 77"
Abres - 13' - 5"

(d) Suga - 4' - 281"
Acer - 10' - 9"

Soil pit.

Litter 1"

Fernment 2"

Humus - few small stones deeper.
10"

160 $\overline{) 1836}$ 11.4
160
236
160
760

Data Form No. 84a
TABULATION FORM

Plant Ecology Research
SPRUCE - FIR, SPRUCE - FIR MIXED HARDWOODS

University of Wisconsin
STAND NO. 6

[illegible]

University of Wisconsin
STAND NO. 6

[illegible]

University of Wisconsin
STAND NO. 6

	/0	20
<u>Desmodium glutinosum</u>		
<u>Dicentra canadensis</u>		
<u>Dicentra cucullaria</u>		
<u>Diervilla lonicera</u>	✓	1
<u>Dirca palustris</u>		
<u>Dryopteris bootii</u>		
<u>Dryopteris cristata</u>		
<u>Dryopteris disjuncta</u>		
<u>Dryopteris goldiana</u>		
<u>Dryopteris marginalis</u>		
<u>Dryopteris noveboracensis</u>		
<u>Dryopteris phegopteris</u>		
<u>Dryopteris spinulosa</u>	✓	7 35
<u>Empetrum nigrum</u>		
<u>Epifagus virginiana</u>		
<u>Epigaea repens</u>		
<u>Epilobium angustifolium</u>		
<u>Epilobium glandulosum</u>		
<u>Epilobium strictum</u>		
<u>Equisetum arvense</u>		
<u>Equisetum pratense</u>		
<u>Equisetum scirpoides</u>		
<u>Equisetum sylvaticum</u>		
<u>Erigeron annuus</u>		
<u>Erigeron philadelphicus</u>		
<u>Erigeron strigosus</u>		
<u>Erythronium albidum</u>		
<u>Erythronium americanum</u>		
<u>Eupatorium maculatum</u>		
<u>Eupatorium perfoliatum</u>		
<u>Eupatorium purpureum</u>		
<u>Fagopyrum sagittatum</u>		
<u>Festuca obtusa</u>		
<u>Fragaria vesca</u>	↙ ✓	18 90
<u>Fragaria virginiana</u>		
<u>Galium aparine</u>		
<u>Galium asprellum</u>		
<u>Galium boreale</u>		
<u>Galium concinnum</u>		
<u>Galium lanceolatum</u>		
<u>Galium triflorum</u>	✓	16 80
<u>Gaultheria hispidula</u>		
<u>Gaultheria procumbens</u>		
<u>Gaylussacia baccata</u>		
<u>Gentiana andrewsii</u>		
<u>Gentiana crinata</u>		
<u>Gentiana linearis</u>		
<u>Gentiana quinquefolia</u>		
<u>Geocaulon lividum</u>		
<u>Geranium bicknelli</u>		
<u>Geranium maculatum</u>		
<u>Geranium robertianum</u>		

[illegible]

[illegible]

Data Form No. 84f
TABULATION FORM

Plant Ecology Research
SPRUCE - FIR, SPRUCE - FIR MIXED HARDWOODS

University of Wisconsin
STAND NO. 6

[illegible]

[illegible]

[illegible]

no tree seedlings recorded on big sheets
+ no mosses, or lichens

Spruce - Fir.

Herb + Shrub Frequency
All species listed were present.

Stand #6.
Mud Bay Point - Door County.

ACTUAL
FREQUENCY

FREQUENCY
20

Arctostaphylos uva-ursi			
Cornus racemosa			
Cornus stolonifera	///	3	15
Diervilla lonicera			
Lonicera canadensis	✓✓	2	10
Lonicera dioica			
Prunus virginiana	////////	6	30
Ribes lacustre	//////////	10	50
Rosa sp.			
Rubus idaeus	////	4	20
Rubus odoratus parviflorus	//////////	9	45
Rubus pubescens	////	5	25
Shepherdia canadensis	✓✓	2	10
Symphoricarpos racemosa (albus?)	✓✓	2	10
Achillea millefolium			
Actaea rubra			
Agmonia grypsocephala			
Anaphalis margaritacea			
Anemone cylindrica			
Anemone virginiana	✓	1	5
Aquilegia canadensis	////	5	25
Asarum nudicaulis			
Arctium minus			
Aster macrophyllus	//////////	14	70
Aster paniculatus			
Athyrium filix-femina			
Botrychium virginiana	////	7	35
Campanula rotundifolia			
Carex arctata	//////////	11	55
Carex eburnea	//////////	16	80
Cerastium vulgatum	✓	1	5
Chrysanthemum leucanthemum	////	6	30
Cirsium arvense			
Cirsium vulgare	✓	1	5
Clintonia borealis	////	4	20
Thuja occidentalis - seedlings	✓✓	2	10

Plant Name	Count	Percentage
<i>Sotula papyræa</i> seedlings	✓✓	2 10
<i>Præa glauca</i> - seedlings	✓✓✓✓✓	6 30
<i>Acer spicatum</i> - seedlings	✓✓✓✓✓✓✓✓	11 55
<i>Abies balsamea</i> - seedlings	✓✓✓✓✓✓✓✓✓✓✓✓	17 85
<i>Coptis groenlandica</i>		
<i>Cornus canadensis</i>	✓✓✓✓✓✓✓	9 45
<i>Cynoglossum officinale</i>		
<i>Dryopteris opmuloa</i>	✓✓✓✓✓✓	7 35
<i>Fraxinea vesca</i>	✓✓✓✓✓✓✓✓✓✓✓✓✓✓	18 90
<i>Galium triflorum</i>	✓✓✓✓✓✓✓✓✓✓✓✓✓✓	16 80
<i>Geum canadense</i>	✓✓	2 10
<i>Goodyera repens</i>	✓	1 5
<i>Helecia deflexa</i>	✓✓✓✓	6 30
<i>Oxylacustris</i>	✓✓	2 10
<i>Sinnala borealis</i>	✓✓✓✓✓✓✓✓✓✓✓✓	15 75
<i>Lycopodium clavatum</i>		
<i>Lycopodium lucidulum</i>		
<i>Maianthemum canadense</i>	✓✓✓✓✓✓✓	9 45
<i>Melampyrum lineare</i>	✓	1 5
<i>Mitella nuda</i>	✓✓✓✓✓✓✓✓✓✓✓✓✓✓	16 80
<i>Osmorhiza claytoni</i>		
<i>Plantago major</i>	✓	1 5
<i>Poa compressa</i>		
<i>Polygala paucifolia</i>	✓✓✓✓	5 25
<i>Polypodium virginiana</i>		
<i>Prunella vulgaris</i>	✓	1 5
<i>Pteridium aquilinum</i>		
<i>Pyrola secunda</i>	✓✓✓✓	4 20
<i>Satureja vulgaris</i>	✓✓✓✓✓✓✓	9 45
<i>Smilacina stellata</i>		
<i>Solidago perotina</i>	✓✓✓	3 15
<i>Tharaxacum officinale</i>	✓✓✓✓✓	6 30
<i>Trientalis borealis</i>	✓✓✓✓✓✓✓✓	11 55
<i>Trifolium repens</i>	✓✓	2 10
<i>Viola pallens</i> <i>incognita</i>	✓✓✓✓✓✓✓✓	11 55
<i>Viola pubescens</i>	✓	1 5
<i>Viola</i> spp.	✓✓✓✓✓✓✓✓✓✓✓✓	17 85
<i>Calogon schreberi</i>	✓✓✓✓✓✓✓✓✓✓✓✓✓✓	18 90
<i>Cladonia cornuta cristatella</i>	✓✓	2 10
<i>Cladonia gracilis</i>	✓✓✓✓✓✓✓✓✓✓✓✓	15 75
<i>Cladonia rangiferina</i>	✓	1 5
<i>Lichens</i> spp.		
<i>Mnium</i> spp.	✓✓✓✓✓✓✓	8 40
<i>Mosses</i> spp.	✓✓✓✓✓✓✓✓✓✓✓✓	13 65
<i>Polytrichum commune</i>	✓	1 5
<i>Pteris</i> spp.	✓✓✓✓✓	7 35
<i>Ferns</i> spp.	✓✓	2 10

Presence list.

- Thuja occidentalis* ✓
- Picea glauca* ✓
- Abies balsamea* ✓
- Betula papyrifera* ✓
- Rubus parviflorus* ✓
- Fragaria vesca* ✓
- Aster macrophyllus* ✓
- Basil* sp. ^{*Satureja vulgaris*} ✓
- Gramineae* sp. ^{*Poa*} ✓
- Solidago* - species ^{*A. serotina*} ✓
- Anemone* sp. ^{*argemone*} ✓
- Cornus canadensis* ✓
- Dryopteris spinulosa* ✓
- Salix triflorum* ✓
- Shrub - species C. ✓
- Viola* sp. - 1 ✓
- Mnium* sp. ✓
- Calcegon* *Schreibneri* ✓
- Rubus idaeus* ✓
- Cornus odorifera* ✓
- Solidago* - red stem ✓
- Aquilegia canadensis* ✓
- Sam. allepo* *canadense* ✓
- Cherry sp. *virginiana* ✓
- Sedg. - red stem ^{*corolla*} ✓

- Junonia borealis* ✓
- Botrychium virginiana* ✓
- Sarg. canadensis* ✓
- Viola* sp. () ✓
- Acer spicatum* ✓
- ~~*Marella cordifolia*~~ ^{*Mitella nuda*} ✓
- Large leaved Sedge ✓
- Mercurialis louchea* ✓
- Rubus pubescens* ✓
- Oreocallis borealis* ✓
- Shrub ^{*Asplenium canadense*} ~~sp. D. like *tea*~~ ✓
- Viola* - kidney shaped ✓
- Polytrichum commune* ✓
- Dead ^{*Athyrium filix-ferm*} ✓
- Juncus canadensis* ✓
- Mistle* sp. ✓
- species ^{*Pyrola secunda*} ~~*like pyrola*~~ ✓
- Prunella vulgaris* ✓
- Polygala paucifolia* ✓
- Osmorhiza* ^{*claytonii*} ✓
- Clintonia borealis* ✓
- Symphoricarpos racemosa* ✓
- Arct. staphylos* ^{*non used*} ✓
- Achillea millefolium* ✓
- Long leaved species ✓

- Saxifraga oppositifolia* ✓
- Arctium* sp. ✓
- Oridium arvense* ✓
- Polypodium virginiana* ✓
- Lycopodium clavatum* ✓
- Sorbus americana* ✓
- Smilacina stellata* ✓
- ~~Red stem species~~ ✓
- Plantago sparg.* ✓
- Prunus strabus* ✓
- Liana - ? ✓
- ~~*Dryopteris*~~ ^{*Athyrium filix-ferm*} ✓
- Populus balsamifera* ✓
- Cynoglossum officinale* ✓
- Rosa* sp. ✓
- ~~*Sida*~~ ^{*Agrimonia*} ✓
- ~~*grasses*~~ ✓
- Dryopteris repens* ✓
- Cladonia rangiferina* ✓
- Pteridium aquilina* ✓
- Aralia nudicaulis* ✓
- Maianthemum* ✓
- Lycopodium lucidulum* ✓
- Viola pubescens* ✓
- Podocarpus repens* ✓
- Anaphalis margaritacea* ✓
- ? *Melanopyrum lineare* ✓
- Coptis groenlandica* ✓
- ~~*Urtica*~~ sp. ^{*major*} ✓
- Pyrola* ✓

Reserve in Quadrats

- ✓ *Rubus odoratus* ✓✓✓✓✓✓✓✓
- ✓ *Fragaria vesca* ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Abies balsam.* - edg. ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Dryopteris* sp. ✓✓✓✓✓✓
- ✓ *Aster macrophyllus* ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Salix triflorum* ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Barexanthus* sp. ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Mnium* sp. ✓✓✓✓✓✓✓✓
- ✓ *Riccia* sp. ✓✓✓✓✓✓✓✓
- ✓ *Calcegon schreibleri* ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Viola* - kidney leaf ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Antitella purdiana* ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Rubus idaeus* ✓✓✓✓
- ✓ *Cornus stolonifera* ✓✓✓✓
- ✓ *Linnaea borealis* ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Acer spicatum* - seeds ✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Botrychium virginiana* ✓✓✓✓✓✓✓✓
- ✓ *Cladonia gracilis* ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Paratocum officinale* ✓✓✓✓✓✓
- ✓ *Ranex* sp. - tall sp. ✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Brunus virginiana* ✓✓✓✓✓✓✓✓
- ✓ *Cornus canadensis* ✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Fuentalis borealis* ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Ribes lacustre* ✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Cyrtol* ^{septa} ✓✓✓✓✓✓
- ✓ *Rhus occid* ✓✓✓✓
- ✓ *Carex* - sp. - drum head ✓✓✓✓✓✓
- ✓ *Puccia* sp. - seed ✓✓✓✓✓✓
- ✓ *Shepherdia canadensis* ✓✓✓✓✓✓
- ✓ *Aquilegia canadensis* ✓✓✓✓✓✓
- ✓ *Adiantum*

- ✓ *Cerastium vulgatum* ✓✓✓✓✓✓✓✓
- ✓ *Stellaria graminea* ✓✓✓✓✓✓✓✓
- ✓ *Redidago streptocarpa* ✓✓✓✓✓✓✓✓
- ✓ *Chrysanthemum leuc.* ✓✓✓✓✓✓✓✓
- ✓ *Basil* ^{strepia} *vulgari* ✓✓✓✓✓✓✓✓
- ✓ *Plantago major* ✓✓✓✓✓✓✓✓
- ✓ *Rubus pubescens* ✓✓✓✓✓✓✓✓
- ✓ *Salidago* ~~lilacina~~
- ✓ *Cirsium* sp. ✓✓✓✓✓✓✓✓
- ✓ *Polygala paucifolia* ✓✓✓✓✓✓✓✓
- ✓ *Mad* *Helenia deflexa* ^{leaves} ^{typical} ✓✓✓✓✓✓✓✓
- ✓ *Orus laevis* ^{leaved} ✓✓✓✓✓✓✓✓
- ✓ *Trifolium repens* ✓✓✓✓✓✓✓✓
- ✓ *Viola cordata* ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Prunella vulgaris* ✓✓✓✓✓✓✓✓
- ✓ *Mosses* sp. ✓✓✓✓✓✓✓✓✓✓✓✓✓✓
- ✓ *Macranthemum canadense* ✓✓✓✓✓✓✓✓
- ✓ *Clintonia borealis* ✓✓✓✓✓✓✓✓
- ✓ *Theracium aurant* ? ✓✓✓✓✓✓✓✓
- ✓ *Betula papy* - seed - ✓✓✓✓✓✓✓✓
- ✓ *linear* ^{leaved} ^{like} ^{myrica} ? ✓✓✓✓✓✓✓✓
- ✓ *Vacc.* ^{Frigit.} ✓✓✓✓✓✓✓✓
- ✓ *Symphoricarpos racemosa* ✓✓✓✓✓✓✓✓
- ✓ *Smilax canadensis* ✓✓✓✓✓✓✓✓
- ✓ *Podiceps repens* ✓✓✓✓✓✓✓✓
- ✓ *Viola pub.* ^{leaves} ✓✓✓✓✓✓✓✓
- ✓ *Cladonia cornuta* ✓✓✓✓✓✓✓✓
- ✓ *Cladonia rangiferina* ✓✓✓✓✓✓✓✓
- ✓ *Sorbus* ✓✓✓✓✓✓✓✓
- ✓ *Anemone virgin* ✓✓✓✓✓✓✓✓
- ✓ *Scilla canadensis* ✓✓✓✓✓✓✓✓
- ✓ *Malva sylvestris* ✓✓✓✓✓✓✓✓

TO	PG.	AB	TC	PS.	BP.	PB
			/	/		/
			2	3	7	2
		1				
/	/	/				
28	30	26				

TO	PG	AB	TC	PS	BP.	PB.
			/	/	/	/
			2	5	8	3
/	/	/				
56	43	43				

24
 11 6
 9
 2 x 22
 2 = 2.12

56
 43
 43
 18
 161



Species on Ridge:

Picea glauca

Thuja occidentalis

Juniperus communis

Arctostaphylos uva-ursi

Solidago - alternate flowers on axis

Pinus strobus

Larix laricina

Thyagana nica

Picea mariana

Betula papyrifera

Gentiana puberula

Rosa sp.

Saururus pro

N. T. Za.

Alnus bals.

Artemisia

Alnus

Ledum

Polygala

Epigaea

Oenothera biennis

Potentilla anserina

Junco

Linnaea borealis

Cornus ca

Clintonia

Polygonatum

Pole mona

Sorbus