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About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

1943-1



MEMORANDUM BOOK

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14

R-210 Open Side
R-211 Open End

32 SHEETS

E. LUCY BRAUN
2702 MAY ST.
CINCINNATI

1943 - N.B.I. OHIO

- July 8. Cin. - Bluffton
9 Bluffton - Hills
Barkey Woods
Woods Dr. of Goshen
10. Hills - Oshkemo
Warren's Woods
Fred Russ Forest
11. Oshkemo - Kalamazoo
- Cadillac -
Kalkaska - Grayling
12. Grayling -
Hartwich Pines

July 8

3 mi. S. of Liberty, Ind.
beech on flat
north of Liberty, much
beech white other spf
(Tulch, D. m., wh. lnc.,
hickory, walnut, wh. ash,
cherry) all rolling
land.

Occasional patches of
dark soil.

Enter Wayne Co.

Ravine slopes: wh. oak,
D. m., beech.

1 mi n. of Chester
Beech, D. m., hickory
Q. mich. wh. oak, cherry,

Soil of very wet as it had
been, gets very clay

Between Fountain City & Sycamore

Enter Randolph Co.

N. of Sycamore -

Beech, p. m. elm,
Q. macrocarpa, Hick. ^{white} oak,
wh. oak, h. t. oak
Shallow specimens here
p. wh. oak, elm
(met again)

Enter Jay Co.

a grove of oak trees
Q. macrocarpa, wh. oak
In another grove, some
hickories also. ^{with Podocarpus}

Another oak grove -

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tall bur oak

a few elm

wh. oak

a small e. m.

hick

small ash

small cherry

on Rt. 26 nr. J. wh. D

Beech in a valley flat
but not flood plain. oak
replaced only about 15 ft.
higher

n. of Pennville, a very
black soil with white
red maple, elm

July 9.

Dr. Bluffton via rt. 116

Before

Black oak - wh. oak very low ridge broad ridge, sugar maple, hickory, walnut.

higher ridge, with soil over rock (plains in general) Querc. mult. D. m. C. ovata not as usual black oak on next ridges.

White oak ^{flat} ridge type - sleam oak (cross bet. D. alba & D. mult.)

More maple in slightly dissected area.

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Just N of pt of 114, on 9, N. of Huntington

Land in general quite flat with low ridges & very shallow broad depress. deep - soil dark, plowd field Low broad general upland.

- Q. tinctoria (smaller) ###
- beech ###
- s. m + bl. ###
- Carya cordif. 1
- walnut (smaller) 1
- Qu. macro 1
- elm (rac.) ###
- Syc. 11
- Kip Coffee (smaller) 1
- wh. ash (") 1

These two have been only

Small Tilia covering up outside fence, about

several yrs. old,
is noted mesophytic
as southern Tilia

On a more pronounced
moraine place, more
wh. oak

On US 30 w. of Col. City

A slip to pine -
looks quite diff

Sm. + bl. maple

beech

Tilia

with undergr.

Aesc. glabra mollis

Crataegus punct

Ostrya

Xanthox

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beech repr Smil. rac

maple " Cyst frag

~~Sm~~ blue violets

Celtis Carex sp

Y. violet

Balun cone

Phlox divar

Berkey Woods nr
Warsaw

Phryma

Imp. pallida

Smil. rac

Hydroph. can, app

Y. violet

Rodoph

Arisar, glaucus

Phlox

Prudera

Merca

beech, tree
s. + bl maple
magnolia, yew
Cauloph...
A. or...
Asplenium

Underg:

Asimina
Asculus
Prunus serot
Acer
Celtis
Kyllof...
Wet, & mosquito

In no way, aspect...
Sambucus

Parny:
beech
elm
s. m.
oc...
Asarum
Trillium
sq. corn
Palm. hispida
Campana
Circaea

menispermum
P. w
Lap...
Pilos cyn
Xanthox

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Larger - (not so wet) IIII
beech IIII IIII IIII IIII IIII IIII
s. maple IIII IIII IIII IIII IIII IIII
s. pl. maple IIII IIII IIII IIII IIII IIII (4)
elm IIII IIII IIII IIII IIII IIII 20
tulip II 2

Tilia IIII Carya cord. 1 5
Celtis (big) Ulmus fulva 1

big walnut stump 1
Asculus glabra 1
about 10 in D

Ash (wt) IIII
BT oak (see for map) 1
Qu. macro 1

(the largest bur oak tree in
the U.S. ht 124 ft
circ. 23 1/2 ft
diam 7 1/2
ht to first limb 61 ft
est age 600 yrs

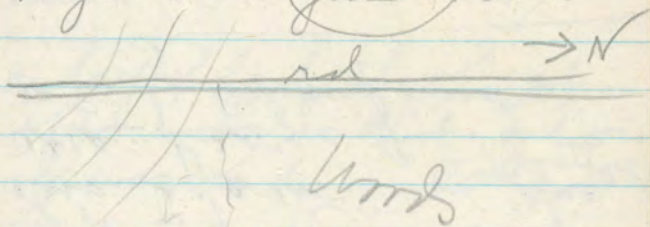
White ash a little better
refr in middle size class
occasional quite small
lily trees
Lots of small sm. ?
consider sm beech
Consider small Tilia
Small buckeye pretty
well scattered

More little lily along
edge of woods
Evening aster
Ox-eye

Topography: -
flat to very slightly
rolling, no drainage
lines, D. quite wet

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in some places. Is at
ft. of slight descent from
higher land just to Birch



Southwest part of woods
somewhat wetter & not
so good. Part counted
is more northern &
slightly higher part -
the part more or less
along the roadway &
path from sign "Berkey
woods" to big Ox eye

Appearance is something
like Hueston's woods
except no drainage
lines, & more elm,

esp. in wetter places
Fls. are white, pink
& occ. red

Also, similar to our
upland woods except
for the s. m.

Looks like a B-M that
has progressed slightly
beyond B-M stage except
in deep. where must
be

Some more (a lot) of
this type in ^{the} general
area, some of it to the
n.e. of Berkeley woods

On 15 NW of Leesburg
deep gravelly deep

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(a gravel pit at L.)
then a mile or so n.,

a dry black oak-white oak
open woods - dist., only
grass under; *C. ovata*

Some prairie plants just
S. of Leesburg - incl
Sulph. ter., *Ratibida*

n. of Melford on #15 -
lots of *Lilium medicinale*
wh. have short anthers.
Fls. vary from ^{deep} orange to
red. (spn)

✓

West of Goshen -

SM - ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~
Beech - ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ Ash - 1
Slightly lower & flatter
~~ash~~

SM - ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~
Beech (smaller than SM) - 11
Then a slight down-slope
again, has more beech again
& a walnut; then flatter
again, ~~SM~~ SM

Aesculus Arisaema
Benzoin Lycopodium
Cornus flor Hydrophyllum
Xanthox Amphicarpum
Sambucus rac.

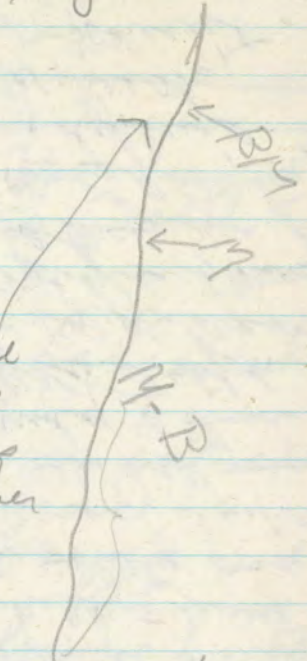
" canad. Onoclea
mulberry Solidago latif
~~...~~

Ribes cyn Galium conc
Rubus occ. Eup. urtic
" frond? Carex

Lots of beech reproduction

wh ash
red elm
SM
walnut

Only place where
beech is really
big (+ as big as
SM) is on higher
slopes



on N-S rd, at edge of
Pawnee woods of a
small hill of 9 m. Tulea
(this N-S rd to Doolan for 33)

July 10. on M60

Just west, outside of hills
go down on a hill - west
slope is all white oak
woods

a little hill all oak -
gravelly & sandy & some
clay - more like drift
white oak - oak oak
on hills, maple & many
swamps & lakes

Belmont (vicinity of Dayton)
at road rolling upland
area has P. O. Birch,
ash, Tilia, Walnut,
tulip

then midwest area
apparently recent

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Change - all oak - hickory
with Walnut

B-M. again

Warren's Woods
Berrien Co. Mich
July 10.

Entrance on Lakeside Rd

Still above river, soil sandy
Urtica grand
Botrychium
Osmorhiza - hairy
swamp above
Brodiaea, wet
Sol. coesia

This is B-M woods
 (Flora of general upper level)

Vib. aceriflora	Psedera (1)
Cornus fls.	Sol. leaf
	Benzoin
Small trees	Ran. leaf
beech	Ascl. phytol
2 maple	Ran. pedunc
dogwood	Sambucus
tulip	Y. " " "
wh ash	Carex sp
Ostrya	P. mel. bract
Carpinus	Poa sp
Ferns very	Polyp. var
red oak	Geranium mac
Asimina	Pilea
Tilia, middle size	Blephar. hirs
7 small	Geum can
	Ribes cyn
	Arisaema trif
	(9)
	sq corn

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Humus layer is poor
 duff over a dark
 sandy soil changing
 at 4-5 in to yellow-
 brown sand

	Asplang
Epifagus	Aspl. acrost
Ran. sept. in	Ginger
a wet spot	Sonchens rec
	Asp. spec
	Polystich
	Ribes tox

Canopy -
 beech, B.M., tulip, elm
 red oak, etc

amphicarp	Adiantum
holc can	Impatiens pall
Phlox div?	Cercaria
Caulophyll	Lupinus
	Hydrante
	actaea alba

Count along faint
west path - on upper level

= 81

beech ### ### ### ### ### ### ### ### ###

SM ### ### ### ### ### = 25

sycamore 1

Tilia 11

elm ### 11

red oak 1

tulip 1

Carya foata 1

Elms generally localized
in better spots

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middle size sample

beech ### ### ### ### ###

maple ### 1

Ostrya 1

elm 1

Tilia 11

ash 11

Carpinus 1

tulip 1

Small stuff

SM not as from as
in many places, much
beech

Sanicula sp Epipogon
Phytolacca

Steep bank to swampy ^{bottom of}
river:

Woods same, but
with red bud

Thal. dioica

Hepatic. acut

Fritill. grand

Hamm. helis

Podophyll

more Gerard

" Sol. caere

Ulex acun

Mitella (in spring)

② Lower level, but still
above river, woods

same, but with:

(This is "Mitchella level")

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Mitchella

Diederich

Aster macro

Polygonum

Buff with more fine
roots

Bloodroot

Hierac

Spizula

Smilax rot.

Thal. grand

Asp. n. b

③ Still lower, woods same,
Comm. alt. etc. perhaps

Bromus sp. more Filip

Lonicera sp

Gast. circ

Celastrus

④ Lowest level:

Campanula americana

Staph

Aris. dra

Scroph

Sm. sp. cicut

Bignoni

Prunus fl. melans

Asterina

Psidera

cherry

Polygonum

hack

Aspl. adn

maple

Thal. sp

whack

Menisf

Smilacina

Smilax herb

Eup. int

Ger. mac

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⑤ Snitchella level: -

Beech ||| ||| ||| ||| ||| ||| ||| ||| ||| \

||| ||| |||

= 50

S. M ||| ||| ||| ||| ||| ||| ||| |||

36

red oak |||

3

Small trees

beech ||| |||

maple |||

red oak |||

Still smaller, more maple
maple gets ad. when wood
Hornamelle

(4) Lowest level, sometimes reached by highest water

11 elm ~~||||~~ ~~||||~~ |
 4 syc ||||
 5 ash ||||
 butternut |
 silver maple (|)
 walnut |
 hickb ||
 2 Julia ~~||||~~ ||||
 2 maple # |

elm
 syc
 maple
 hickb
 walnut

(3) Slightly higher, but not so high as Mitchell's

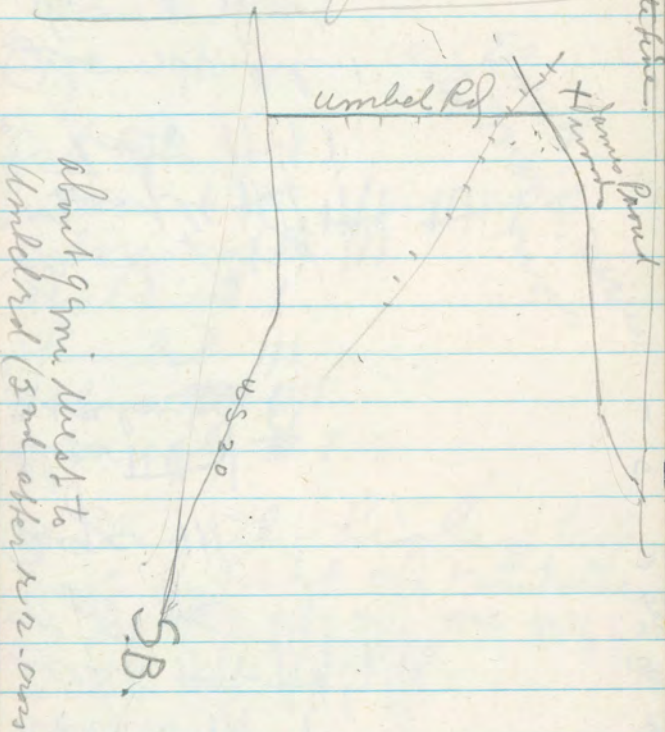
SM |||| |||| |||| |||| |||| 26
 Julia |||| |||| || 18
 cherry || 2
 red oak || 2
 hickb |||| | 6
 beech |||| |||| |||| 15
 ash |||| 5
 syc |||| 3
 elm |||| | 6
 walnut | 1

Mod. size
 maple |||| |||| |||| |
 Julia |||| |
 Qu. scrub |
 hickb ||
 beech |

See 3 ft ahead
 green vials

Proud's Woods
St. Joseph Co.

did not visit this area,
mentioned by Dean



Notes of locations -
White oak woods - from Dean
Orlan - (in N.E. corner of
state just W. of 27)

west on 120 about $\frac{3}{4}$ mi.
then little rd goes off to
right to Wall Lake &
around lake to first
crossed, then S

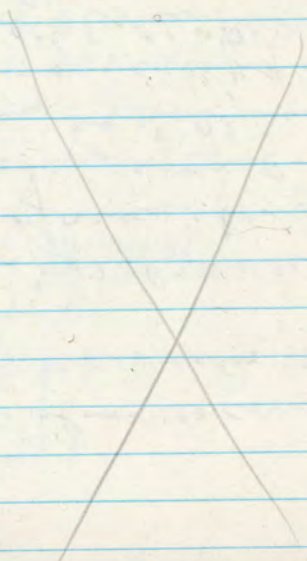
(sand + Hill's oak)
to prairie & on S to
woods on left. Woods
goes back $\frac{3}{4}$ mi.

Low flat woods -
white elm, sw. wh.
oak, green ash.
Red top no back end
with some beech.
(loyd Carpenter woods)
4 mi. SE of Mayo

60 acres

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4-5 mi. west of Home
on rt 120. Turn right
at cemetery (n. $\frac{1}{2}$, W. $\frac{1}{4}$)
turn right & cross river
woods (Olney, owner)
continue n., then left
(west) to Scott, S. of mi.,
will be back on rt 120
bl. oak, wh oak.



general - in connection
with Warren's woods:

Soil is sand; an undercut
bank of river shows all sand
woods on several "levels":

- ① Upper is rolling, no
drainage, except very
locally (where Phlox etc.);
where there are little wet spots,
generally elm.
- ② A lower level, perhaps 10 ft
down, called here "Mitchella
level".
- ③ Another slightly lower,
not level but above various
cut-offs, etc.
- ④ Lowest, reached in part
by highest water

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General upper level ①
along main path,
near edge of river
bluff + 100' 200' back

Beech ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~
 ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ = 62

S Maple ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~
 ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ = 47

Tilia |
elm |
Tulip |
Smaller: -

Beech ~~|||||~~ ~~|||||~~ ~~|||||~~
S Maple ~~|||||~~ ~~|||||~~
cherry |
Walnut |

Warren's woods - Bridgman
- Eacclane - Donagiac -

to



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Fred Russ Frost =
Newtons woods

Beech - Maple woods

beech yall pize
maple

Tilia	Evony obor
wh oak	Hydroph. aff
Trill. grand	Phlox dis
Carex	h. pro curly
Collinsonia	Psedera
Bloodroot	Galium com
Sassafras	vb. acery
Brachyellera	Ural. grand
Hydrastis	Laportea
Plephilia pers	Y. violet
Aster cord?	can. "
Smilacina	blue "
Hemodes	amphicarpa
	Pilea

Small

Carpinus Infat. fall
 elm sq. corn
 wh oak Apteris
 dogwood Adiantum
 Asimina Carex
 Arisaema
 Aspl. ang.
 " acrost.
 Polygon. var.
 Helianthus alba

wh oak-part
 Maianthem.
 Indian pipe
 Semmunda clay
 Polygon life
 Mithella
 Aster mar.
 Psoralea ^{elliptica} white

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Beech IIII
 Sm
 Sm IIII
 elm I
 wh oak IIII
 Walnut IIII I
 red oak I
 group
 discarded
 drift
 ↓

49
 wh oak IIII IIII IIII IIII IIII IIII IIII
 red oak IIII II 7
 Walnut IIII II 7
 Sm IIII IIII I 10
 beech II 2
 ash I 1
 tulip IIII 4
 hickory IIII 4
 yucca I 1

A lot of ^S maple not quite big enough to count & considered beech / still smaller maple about 10-12 in beech - 3

Ostrya Samb. rare
 bet vas Ermyr olor
 dogwood

nyssa black + S M
 2 maple
 beech

Carya and
 Sassa

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cherry

Deer road
 aspect is more B-M

Trans is sudden
 In a few hundred ft
 from very small
 through the large bed
 of ferns which work

Beech ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~

wh oak 1

ash 1

red oak 1

Julia 11

S Maple ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ |||

elm ~~||||~~ ||| cherry 11

triple ~~||||~~ |||

walnut ~~||||~~ |||

River forest may on
a local level, because
we come down a
long grade because
we came to Deedar

Fred Russ Forest -
prof. of Mich State College
East Lansing

Near highway - is
B-M types similar
to Warren's woods,
with elm, etc. (see
last count on previous
page) Not far by
woods changes -
much white oak.

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In the white oak part,
sugar maple is not as
large as in the B-M part,
and any beech is in
the 2-3 in. class. In
some places, no beech.
In the narrow trans
zone, beech 6-8 in.
No app. reason for
change in forest char.
Some of the oak forest
lies lower - some
extends to edge of swamp
(skunk cabbage, *Panic-*
ularis, *Menyanthes*)
This swamp a cut off
from connecting with
big creek. Banks
sufficiently steep
that no elm - syc
as in Warren's

Woods.

Succession here
seems to be

wh. oak → mix w/
maple → B-M

The whole forest on upland
level, high above the
low (& swampy) plain
we descend to on way
to Decatur.

Overnight at Ostrum

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July 11

Small tulip tree n. of
Moline on Rt 131
lots of wh. oak, etc.
To somewhere between
Kalamazoo & Waukegan
& topography becomes
less abnormal, more
broad flat areas.
This continues into
Gr. Rapids, then up hill
into higher part.
Oak again.

Hills of sand & gravel
wh. oak - beech
with a little hick
rough moraine topog.
5 mi.
n. of Rockford, wh. pine

with oak on rounded
hills

Stiel Passiflora

Sassafras still at Howard Co

Land flattish to
rolling, soil sandy
except for swampy
places.

Manistee N.F. - adj.
Scrubby & neglected
(young) White oaks
(b. to oak that looks
like red oak.
Lots of Pteris

an isolated beech tree

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North of Morley, a
poor beech maple
with a white pine
& some good farm
land.

Just before Paris,
some beech sprout

Just inside Osceola
Co. a maple sprout
woods (looks like it)

Lots of maple-sprout
woods nr. Cadillac

Most rolling country
that is good farmland
was B-M with a little
Tilia

across from Kalkaska
to Grayling - mostly
flat, some bays, +
oak + pine, etc. pines
near the Kalkaska end

One Jack Pine flat with
Kalmia layer (spn)

much Helian phil. and.
along rd 131 nr Kalk. +
along 27 (detour) just
N. of Grayling.

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July 12

Hartwick Pines.

Shrub layer

Hamamelis	Mitchella
sm maple	Aralia nudica
Corylus	Tricentales
Lonicera can	Polygala pauciflora
vit acerif	Gaultheria
bush	Chamaelirium
w. cherry	Clintonia
wh pine	Lycopodium ann
red maple	Woodsia
Pulsatilla	Aster macro
Ostrya	Anemone quinque
red spruce	Asplenium
	bac. fern
	Stems - esp in
	red pine
area 3	Asp. spm
	Artemisia
	Volva blanda

Map
area 1
area 2

Undergrowth trees class
6-8-106

- red maple
- s. maple
- beech
- hemlock
- wh pine - only in open parts
of brush

Top of hill, does not have this mixture of decid. sp. but seems to be all red pine - wh pine with both in mod. size repr.

In some parts of flat (lower) areas - 1-ft high 8m about covers ground

Largest white pine (on flat west of hill) is diam. 50 in (circ 13 ft) ht 150 ft

Highest flat - (like low Area 3)
Ground cover with
Spiraea, Asp. spin, Arceuthobium,
red rasp, s. maple

Large	Middle
Hemlock - ###	###
###	###
red maple - ##	##
y brush - ##	###
beech - ##	###
s maple - ##	###
Osage	1
red oak - 1	
wh pine - 1	

Lower slope: Area 3a

LARGE	Middle
Hemlock - 	
Wh Pine -	
Y birch -	
Beech -	

Flat Area 4

LARGE	Middle
25 Hemlock - 	
43 Wh pine -	
Y birch -	
3 maple -	
red maple -	
beech	
red pine -	

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1 Haben. rot. green flowers
 not fruaged
 Botrych., little, & sim to all
 Cornus can.
 Mulinella Coptis
 Macaugh

Cont on Flat, but red pine enters Area 5

LARGE	Middle
75 	
red pine -	
red pine -	
red maple	
hemlock	
beech	
red maple	

the dec. is much larger than

(on this count the middle size red pine & hemlock was

A boggy pond interrupts
 the community - 70
 with *Sypha*,
Iris versicolor
Carex
 R - like rocky det
 but makes no diff in
 comp. of surrounding
 forest

Area 5a

Wh pine	### ### ### ###VI
	######I
red pine	###I I

beech	
-------	--

hemlock	######I
red maple	

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Sandy Hill Area 2
Large middle

Wh pine	### ### ### ### ### ### ### ###
	#########II
red pine	###### ###II
	######I

hemlock	######
---------	--------

red maple	###I
-----------	------

beech	
-------	--

S maple	###
---------	-----

General - Hartwick Pine

Flat at entrance into forest. This lower slope & flat forest has large no. of middle sized dec. trees & a few fairly large ones. (Area 1) see count further along

Then a hill (sand) with red pine mixed with wh. (Area 2) In this the trees are not as large as in further part of woods, & the middle sized dec. trees wh. are scattered are smaller than the pine & hemlock.

Then down hill &

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across a flat (dist. & not counted, to "Monarch Pine")

Up slope to right from "M. pine" to higher flat-tish area (Area 3)

In this, middle size hemlock & dec. trees about same size

(Back to ~~Monarch Pine~~)

Three a trans. area 3a lower slopes, incl. ~~Monarch pine~~

Flat (Area 4) where it is hemlock - wh pine Here, the hemlock & dec. sp. ~~are~~ of middle size class are about same size incl. est. of n. haddwoods

(Area)

Area 5

Continuing on flat,
 forest changes to
 wh. pine - red pine
 but with no spruce,
 diff. In this, the
 middle class wh. pine
 counted is largest +
 hemlock next; dec.
 spp. mostly smaller,
 + lots (not counted)
 in small groups.
 Area 5 a subdivision
 with less red pine

General indications
 point to final replace-
 ment of pines by
 hemlock + n. hardwoods
 i. e. hemlock-beech-p. m.-
 y. birch

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Area 1. - of Hartwick Pines.

	<u>Big</u>	<u>Middle Size</u>
White pine	57	16
Hemlock	18	37
red maple	12	23
Sugar maple	8	27
red pine	7	6
beech	2	27
yellow birch	1	4
w. bl. cherry		2 (smaller than others)
	105	140

In area 1, white pines
 are the biggest + tallest
 trees, + a few red pines also;
 from outside of forest
 (at parking area) this all
 looks like pine forest.
 Other "canopy trees" of
 the count, although they
 are beginning to take a

place in the canopy,
are not as big, except
for a few hemlocks
& red pines.

Of the deciduous
species, red maples are
generally biggest,
equaled perhaps by an occa-
sional s. maple.

In the middle size
class, maples (red & sugar),
hemlock, & wh. pine are
generally, although not
always larger than
other spp. Beech branches
lower than any others;
∴ has not stretched up
toward a canopy position.
White pines usually taller more open.

In the next smaller

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group (not counted), a
higher proportion of
S. m. & fewer red maple.
A great many very
small sugar maples,
in some places covering
ground.

Beech present in all
size classes except large,
and in considerable nos.

One part of area 1,
(but not counted) where
white pine is gone (former
windfall?) the decidu-
ous spp. of 2nd layer
have filled space
so that place looks like
a piece of deciduous
woods with occ. hemlock.

In parts of State
 Forest adj. S to H, pines,
 level low wet land
 is growing up to spruce,
 lots of tamarack &
 arbutus; drier areas
 of jack pine & of aspen.

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Shortleaf pine	Area 1	105	140
	2	54	44
	3	37	58
	3a	12	4
	4	96	68
	5	102	60
	5a	43	26
		449	400
		849	

Report Short Leaf
 + Elm. com
 Pt. II, vol. 1, 5 numbers

Short Leaf
 Report
 from collection to B. De France
 H. De France
 Part X vol V. Short Leaf

Berkey woods -	146
Goshen	79
Warrens woods	333
Russ F.	186
Hartens place	<u>449</u>
	1193

4 lbs 86¢ at Porters Ave
 at Cambridge 2/2/85
 8 lbs 86¢