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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.

1943-3



MEMORANDUM BOOK

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16

R-210 Open Side
R-211 Open End

32 SHEETS

E. LUCY BRAUN
2702 MAY ST.
CINCINNATI
OHIO

1943 - 3

July 20. Miners Falls,
nr Munising.

July 21. Munising
Huron Mt Club

July 22. Trout Lakes Mt Lake

July 23. A.M. - east to Cambrian
D.S. outcrop on lake shore

P.M. to Conway Bay

July 24. Rush Lake

July 20

Miners Falls.

trail: -

Beech-maple woods

- | | |
|-------------------------------------|-------------------|
| Taxus | Viola can |
| Cornus alb | Osmorhiza - hairy |
| Acer spic | Galium |
| Sambucus rac | Dreptopus sm |
| Corylus rostr | Asp. spic |
| Lonicera | Smilacina |
| chokecherry | Jullien corn |
| Ribes sp. cyan | Lyc. luc |
| red rasp. ^(with open fl) | Adiantum |
| Ostrya | Polygonatum bl |
| Aster ^{sp. alba} | Albium tree |
| Impatiens bill | Caulophyllum |
| Ran. abort | grass sp |
| Arsacenta ^(gl) tript | Sanguinaria |
| Rubus amei | Clintonia |
| Aralia nud | Botrych. virg |

Squirrel corn
Hutchman's beeches

No nest of hummers here
but thoroughly intermixed
soil dark for about
3 inches, gradually
changing to brown.
Some fine sands, but quite earthly
hex. appearance is more
like M/M than any other
forest we've been in

Cercas alpina
Agrimonia sp

(*Ribes*, cut leaf, + *Ribes cyn*)
gemma, big yellow
Ran. recedeb. ? perhaps main

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Protaerio *Eup. urtica*
Clematis vry
lille mitella

Coming around onto
bluff overlooking gorge and
falls -

Sherrill *Fragaria vesca*
Celastrus bluff
Cystopteris bulb - many on P
Ribes - black currant
Ostrya

Gorge at Falls - walls -
Thuja
Ostrya } all about = size
Sorbus }
Y. birch } *Opuntia*
some larger *Y. birch*

Cyst. bulb. *Trentalis*
Aralia rac more *Clentonia*

add to gen. wood list;
these in woods beyond
falls

Cercaria list

Eup. purp

not only is veg. richer &
more varied, but greater
variety of insects, also

Melchella in a Tapus patch
masses of coming, and
into woods in some
hemlock

Slopes toward creek, above
falls. Woods is

S maple ⁽¹⁰⁾, beech ⁽¹⁴⁾, birch ⁽¹⁾
Thuja ⁽²⁾, fir ⁽¹⁾, hemlock ⁽⁴⁾

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Polystichum

Amelanchier

A number of smaller ferns
hemlock

Spruce on flats down
below, & a little like

Another spot on bluffs -
Thuja - y. birch

Impatiens biflora are plain
orange without the spots

	Canopy	2nd layer
134	####	####
	#####	#####
	S. maple	#####
	#####	#####
	#####	#####
	y. birch	#####
	beech	
	Tilia	
	elm	#####
	wh. birch	
	<u>3rd layer</u> Ostrya	
	Sm	#####
	y. birch	#####
	beech	#####
	elm	#####
	Ostrya	#####

Some 3-4 ft

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- Acer sp. 1
- Sorbus 1
- Tilia 1

Shrubby layer - maple dom,
fir, y. birch, elm

Miner's Castle

Maple woods, with Tilia
near edge of bluff.
Fringing cliffs - wh birch
Sorbus, Tilia frax on
edge
A few red pine.
Wh pine in a concavity w.
hemlock & y birch

On return trip to M94,
after passing Miner's Falls
road, road bordered by
strips (100 ft) of forest -

about 600 ft x 100

(a) Strip of woods, along rd. Flat eye. for hundreds

S maple				
bee ch				
y birch				
elm				
Ostrya				

3rd layer

S.M						
Beech						
Birch - 1						Tilia
fir - 1						Ostrya

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Ribes, currant	Canada violet
Corylus rostr	Smilacina
Taxus	Lycium
Aster spec	Demorhy spec
Sambucus rac	2 grasses
Ranuncula	Helleb, breeches
Tilia	sq. corn
elm	Viola (bland) on log
maple	Arisaema tripart
bee ch	Trollius
	bloodroot
Lots of beech about 10 ft high	Aralia nudicaulis
	Allium tree
	Monarda purpurea
Antennaria	Ran. recurv?
Adiantum	Carulophyllum
Arabis mac	Impatiens bifl
Botrych virg	Adiantum
Streptopus (hairy)	Phegopt dryop

(b) Strip - a little farther
 along (to get Tilia).
 canopy | mid size

S. maple		
beech		
y. birch		
elm		
Ostrya		
Tilia		
fir		

Really a part of same
~~not~~ forest at least; only
 about 1/2 mi. farther along.
 Some of the birch - 3 ft diam

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July 20
Munising

Stills which rise
 steeply out of Munising
 are covered by B-M.
 Here beech trees are
 more numerous than
 maple. Can be seen
 plainly from below.
 Lowest slopes secondary
 about half way up
 looks like all beech in
 some places.

July 21

Truising - Marquette
- Huron mts.

Deer Lake (west of Aultrain)
has hills rising from its
west to hardwood w.
hemlock & wh. pine

Along road just west of
Deer Lake, rock outcrops.
Hardwood with hemlock
(for a long ways east,
has been sandy pine
land, ^{and some red oak})

For per. miles from Deer
Lake, excellent forest -
hemlock, y. birch, beech,
red maple, s. maple.
appears to be quite level
(ends at 675; then cont;
as strip forest) becoming

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more dominantly hard-
wood, with more maple.

* Just before rd. to Deerton,
maple-beech forest
goes just about to lake
shore. (at 677) ^{Notes of July 28}

* This is western limit of beech; see
Then sandy plains
again, with red pine
& some wh. pine
Jack pine in badly burnt
or areas.

Rd in one part on lake
shore. Red pine.

Dominant spruce,
Thuja & Larix & in
places, mixture w.
hemlock

Sandy plains & dunes
cont. to Jet 41 (at 693-)

In Marquette (or just N)
on Co. rd 550. —

A red pine woods, as
wh all the ~~rest~~ big
trees are red pine &
but with a "middle
size" class wh gives
var. to aspect; made
up of

3. red maple
 2. wh larch - some large
 1. red pine
- Pops, grand. (few)

**

The most beautiful pine woods
we have seen.

Large red pines are about
30 in dbh

Occupies a flat a few 100
ft back from lake shore

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Smaller trees & shrubs

1. red maple
- red oak
- Corylus rostr.
- Rubus parvif. (much)
3. wh pine
- Acerella
- Sambucus etc
- wh birch.
- red pine
- fir
- Amelanchier

- Aster macro. ~~fr.~~
Gaultheria Apocynum junk
Onoclea Trillium (few)
Clintonia Coralroot
bacc. Grass - A.
Pteris found gone
Aralis nud. (dark)
Osm. smooth Infl. stem 1 ft
Lige. annul. lvs 1 ft

July 22

Huron Mts

Trail around Pine Lake
N slope, mixed, hemlock
& S maple, y birch
basement

Acer penn

Asp. spec

Phyopt. Dry

S. m. clay

Ryca. obs

" luc

^{decipiens}
Epipactis ~~offic~~
(but not quite
as venous)

Cornus can

Aralia nud

Trental

Maranth

Mitchella

Understory of
y birch & hemlock
Acer penn
fir

hemlock

Thuja

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Steep hills & rocks from
above, moss covered &

with ferns etc. Abnormal
am't of S.M. instead of Tapes
Areas of nearly pure hemlock
w. a few y birch & S.M. &
with less undergrowth

Also, some areas all hard woods
Comp w. heads of vch high flowers
& Arnica-like lvs = Adenocaulon

Mixed hemlock hardwood
comp. on next page.

Lowest layers badly
overgrazed by deer.

Tree trunks heavily moss
& lichen covered all the
way up

① mixed forest on slopes on S. side of Pine Lake

hemlock ⁴³						
y. birch						
S. maple ³⁷						
Tilia						
Thuja						1
red maple						
wh birch						
elm						1
Ostrya						

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② Hardwoods area, near previous count.

S. maple						
Tilia						
y. birch						
hemlock						
Ostrya						1

This is the whole area - & opens into mixed forest on all sides

Essentially a mixed forest

(Mt. Stream - Trout Lake trail)
To east of

Little valley flat at bend
up rd. at boat landing
to maple - Tilia

with

Asperpen

Adiantum
Aspl. across
Brachyotum

Going up into
hemlock - ybrush th

Near Mountain Stream,
a fallen Thuja cut off
is 17 in. dbh. The outer
3 inches have 100 rings ^{2-300 yrs}
(a standing tree 6ft 4 in circum.)

A Thuja area, w. occ.
s. maple, Tilia & y brush
& small hemlock & fir,
+ sup of big.

Rubus rotundifolius

Lonicera can

Ostr. ferns
no creek

Phegopt dry

Rubus amplexifolius

Pyrola, big white

Batrachium virginicum

(Fisher Creek trail)

Start up hill, & get thru
hemlock into hardwood patch

③

Maple		
Tilia		
y brush		
hemlock		
Ostrya		

On 1st Fisher
at line

Taken about the largest tree
A few dead hemlocks
Sclerophus

6

Ravine flattens, and
 Thuja ### ##V
 Tilia ### ||
 Y birch ### ## |
 S maple ### ||
 Wh spruce ||
 red maple ||
 hemlock ###
 Pyrola alba
 Phegopt dry
 Cornus can

Then hardwoods again
 of the SM. Tilia sort

A rocky knoll rises on
 left - with large wh. pine
 & hemlock
 Some ^{large} Thuja on lower part

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 on rocks

Adj. to the hemlock + hardwood
 just over gap -
 a secondary area, domi-
 nantly wh. Birch with
 some Pop. grand

Underneath are small
 red maple, Acer pens,
 S. maple, fir + some
 hemlock (1894 burn)

This may have been a
 wh. pine area, for there
 is a big white pine +
 lots of ^{white} pine on
 adj. rock knoll

A white pine above Trout
 Lake - 110 ft tall -
 20 in diam at 20 ft up. is
 110 yrs.

An area (over knob from
front lake on railway
trail toward Mt Lake)
is similar to the 2nd day
wh. birch but much
older.

Have large dead
wh. birch 5^{ft} Pop. gr.
lfr. circ. tall red maple
D.S. maple about 10
in dbh, lots of
hemlock. Tilia
few fir & not large in
prop to other things

4 grades into surrounding
hemlock - sm - Tilia

Cont. w. big poplar
big dead wh. birch,
lots of small hemlock
red maple (large), y. tree
& maple (larger) Tilia
i.e. - going back to
hemlock - hardwoods
& nothing much underneath
The Lye. (claratum + one
similar to luc. but
nearly all over like clar.
are not fruiting - too
shady.)
One big red oak about
size of poplars

July 23

Trail east along beach

Areas of red pine, then
pure Jack pine, + Jack of
w. red pine

Arctostaphylos

Lyc. trist. *Maianth.*

Gayl.

Vacc.

Melampyrum

Pteris

Linnaea

Gaultheria

Mats of cushions of
Cladonia spp

A series of low beach

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ridges.

Ammophila on lake
face of fore ridge
between, are occ. grassy
spots of a low *Carex*,
grasses (the fine leaf,
diffuse panicle)

Fore ridge, *Arcto.*, *Vacc.*

Rosaceae, white, like
Potentilla, w. 3 lfls,
each 3-toothed, shiny &
fleshy) *Hudsonia*
Lothyris

Eryngium in the pine-*Arcto*-*Gayl.*

Suddenly come into woods
of - red oak (large trees
about 2 ft dbh,

Large
red oak
wh. pine
hemlock
Pop. sp.
wh. Birch, dead

Smaller
red maple
fir
acer penn
wh spruce
wh pine
bac. puberulent
Pteris
Maianth
Linnæa
Rubus trifl
Pyrola
Cornus can

The brush (white pine strip) +
contains so much living material
(S)

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Then hemlock - 5 m
woods

lots of small fir,
hemlock, acer penn

Red Cambrian ss. under-
lies this area ^{along shore} _{outcroppings}
Overlain by about 1 ft ±
of weathered ss. w. e
fragment in sand;
then, more sand and
smaller fragments; +
an A horizon of 3-6 in
of darkened sandy
soil with many roots
+ underwood lying
about 3 ft - in all
(cont in PM)

Almost pure stand of hemlock
w. not much underneath

occ. large (not as large as
hemlock) y. birch &
red maple (a few are as
large)
Lots of unusually large
acer penn.

Uppermost layer - a few
seedling maples
Manna ash - scattered
Hypopitys
Phegop. dry
Brachyotum
Green alga
Lyc. anoth

Trail goes up steeply
onto Lake Neppawing
beach.

Soil on slope sandy

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+ well mixed w. humus

⑦ This, too is hemlock
forest with same underlay.

hemlock		
y birch		
Thuja		
red maple		
S maple		
wh pine		

Lyc obs

Luc & sim. me
lots of acer penn
Oxalis mont
Cornus can
Phegopt - narrow leaf + dry
Asp. spin
Manna ash

very hemlock forest
floor - wind falls
from S. Sup.

Some of hemlock
Cecid. w. 3 Lycop. + 2
Pheg. & Orally, Asp. sp. in
Curt. sea alp

Occ. open wet spots
w. grass & sedge, Sphagnum
9 big leaf mosses
Coptis w. red maple repl
Brachydactylus + Acer penn
Viola pallens

Badly overgr. by deer

This comm. cont. for
a long way, then
sides rocky to

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⑧

S. maple ⁴³	
Y birch	
Hemlock	

wh pine ||
red maple |
small fir

Then back to hemlock-
y. birch.

To S. Sup. shore

Return trail along bluff
wh pine } largest
hemlock }
fir } birch } red maple
hot spruce }
Thuja }
Sorbis }
Acer penn. }
Spiraea }

also mod. size wh. birch
some spruce pretty large
Dense fir layer of
trees up to 50 ft
& occ. larger
w. a few spruce

In general a hemlock-wh.
fir comm. w. scatter
y. birch, red maple &
wh. birch - the whole
mostly open due
to wind fall, & coming
to edge of bluffs wh.
are red s. s.
Lots of *Demissa*

Up to higher level,
bluff 40 ft above lake

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fringed w. large wh. birch
Pop. gr., *Sorbus* (1 ft dbh)
& fir layer

Then hardwood
forest of maple-y. birch
type comes to edge
of bluff - with
fir layer

Perhaps was
cut back.

July 24

(9)

Flats adj to Rush Lake

S m									
Tilia									
elm									
hemlock									
y birch									

Continues as a narrow strip bet. lake shore + hill - mostly Tilia, hemlock, a big ash s m., with Thuja + Tilia on shore

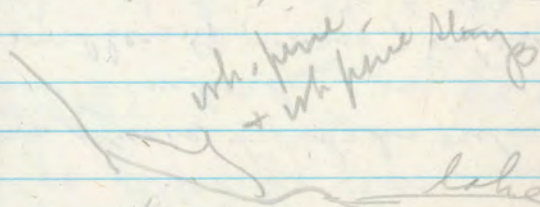
Then Thuja + black spruce

Rush Lake has a hard sand beach

(Back on trail) (not shore)
 Wet place
 Thuja (very large), wh. spruce (larger than elsewhere)
 y. birch + smaller red map
 Then hemlock-y birch
 w an occ. spruce + Thuja

& almost pure hemlock

A beach ridge (ice formed type) has red pine, wh. pine, hemlock



with a narrow hemlock

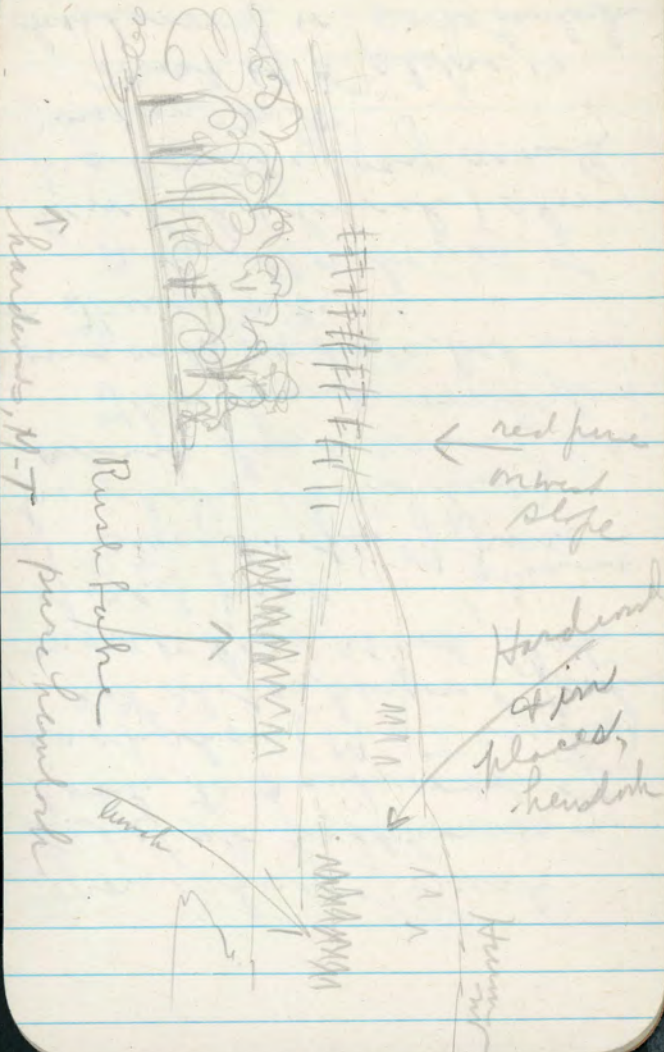
"Around Hermit Mt. trail"

(10) Slopes of Hermit Mt
 rise steeply from
 lake shore - rocks outcrop
 of pure hemlock or red
 fir. Smaller of birch, + Acer
 penn. below. Hermit sh. paper
 Dec. Thuja: -

big with pine
 Hemlock ||||| ||||| ||||| ||||| |||||
 |||||
 W. pine ||
 Y. birch |
 Thuja | ||
 Tilia |

Then hardwoods
 " a hemlock stand
 on bench as we start
 around on slopes of
 Hermit Mt

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From shores of Rush
Lake at bathhouse -
look to hardwoods of
east shore (M - T counted)
mt. slopes beyond feature
more or less west lots
of red pine

Steep slope of ^{almost} pure
hemlock (counted)
along east arm of lake

Then hardwoods extend-
ing into saddle bet. —
+ Huron Mt.

A knoll or bench of
hemlock (counted) along
trail on the way around
Huron Mt.

Most of N. slope is
hardwood, w. some hemlock

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picture

5. Deer Lake - W. of
Aurora. white pine
on point, wh. pines in
water. Hardwood &
wh. pine on hills.

Contr. to the Botany of Mich.,
II, Univ. of Mich., Mus. of
Zool., Misc. Publ. no 5.
by C. K. Dodge.
ann. art. July 13, 1915.

U.S. Forest Service, 1940
in coop. w. Huron Mt Club.
Prep. by: Div of State
& Private Forestry,
U.S. Forest Service,
Milwaukee, Wis: 1940
"Possibilities of coordinated
forest land managements
for the Huron Mt Club."

Larix canadensis -
formerly plentiful in
many places where
now gone - because
deer browse it &
have almost extermin-
ated it

Rubus parviflorus -
white flowering raspberry
Rubus triflorus - dwarf
red raspberry (is one
I've called Amer.?)

- Cover types - Huron
Mts Club - Richard Mammille
- A. Northern Hardwoods -
upland forest of hard maple,
yellow birch, basswood, elm,
hemlock, in pure or
mixed stands 11,600 acres
- B. Mixed hardwoods +
softwoods - wh. spruce
balsam fir, white cedar,
hemlock, aspen + white
birch on uplands with
mixture of elm, soft
maple, yellow birch,
balm of Gilead and
black ash on lowlands;
scattered hemlocks 9,300
- C. Mixed conifers - predom-
inantly hemlock, some
white pine or Norway
pine, scattered hard
maple; white spruce,
balsam fir and white
cedar along shores;
upland + lowland 6,980
- D. Pioneer hardwoods -
aspen, wh. birch, pin
cherry, red oak; lands
deforested by fire or
cutting, covered with
brush, ferns, grass, hard
maple saplings, striped
maple; upland + lowland 4,700
- E. Pine - Jack pine, Norway
pine, white pine, in
pure or mixed stands
in various stages of
succession; upland + lowland 14,500
- G. Swamps + marshes - low-
land areas of willow, leather
leaf, sweet gale, alder, beaver
flower, muskeys, boys.
1,500
- H. Rocky outcrops
- J. Cleared Land