



Hunt Institute for Botanical Documentation
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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.

March
1944

Memorandum



N.Y.
P.A.
N. Eng.

25

E. LUCY BRAUN
2702 MAY ST
CINCINNATI
OHIO

1944

- March 20. Jockey Hollow,
Morristown, N. J.
" 22. Leonia, N. J.
" 24. Gladwyne, Pa.
" 25. West Town,
Pa., School woods - South
woods & North woods
" 26. West Chester, Pa.
serpentine barrens
" 27. West Chester, Pa. ^{Philadelph. - N. J.}
Academy of Natural Sciences
Center woods, Greenwich,
Conn. & Bartlett Tree
Research Lab. woods,
Stamford, Conn.
Apr. 1. Petersham, Mass.
Harvard Forest.
Notes, en route

Jockey Hollow National
Historic Park - Morristown,
N.J. March 20, 1944
Jockey Hollow Hill

Larger -

Black oak (largest in park)
tulip ✓
black oak ✓ ✓ larger
red maple Carya alla
Betula lenta
Prunus serot.
red maple ✓

Under - Wh ash

Cornus flor) Ostrya
Vit. prunif / Wh Oak
" acerif
elm
Benign

Slopes -

beech or epifagus,
wh oak
Carya glabra
bl oak
tulip
red maple

dogwood - abundant

Small beech

A little more -

more beech (small)
so as to be conspicuous
w. lots of dogwood

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Y. bl oak

But lenta

wh oak - sm & mod.

Carya ovata

tulip

y. birch in parine

Benzoin

Calist

Hammamelis

rac vac

Old field cedar - wh birch
or walnut, pass. forest

Old some growth wh birch
Populus, sassa
wh pine, red maple, wh oak
Syringa (glabra & cop) by
the cave in old field

Reservoir grounds

(Bureau)

beech dogwood
red oak beech
maple wh oak
Carya alba Carpinus
red maple red maple
Bet. lutea y bark
Bl ^{wh ash} oak sw bark
acer saccul
chestnut spirit
y bark
J. I. montana
Azalea - nudif
Bet. acerif
Hamamelis
Alnus in valley

Higher slopes & ridges,

mostly black oak, w. tulip,
red maple, etc (first
list) - rocky - no real
soil profile.

about middle slopes,
more wh. oak, & then
wh. oak - beech with things
listed. Beech more
abundant. low

In Morristown, where
some of the old trees, beech
beech on the gentle slope,
w. wh. oak. Morris Plains
a flat is all large
wh oak. Other flats,
which are valley & wet
are wh elm, red maple &

Leonia, N.J. - Mch 22, 1944

Secondary thickets of bayberry,
Pyrus melanocarpa, sumac,
Smilax - - - Andropogon

Along a seepage zone, much
Liquidambar, & pin oak

Woods - apparently occupy
area never entirely cleared
Largeish white oak (15-20 in),
tulip, red oak, beech
pinus (occ), red maple (occ.)
(All the beech very white)

More understory beech than
large

This "white oak" ^{red oak} beech
comm occupies rather
gentle west slope near
top of inner slope of

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2nd ridge

Triassic land

in section

Triassic

Basalt - Pat. one

Hollands

rolling

Campbell
Hammock
about 300 ft

top of Highlands just. Schooley P
these "back" back of
monoculture -

March 24

gladiolus - Mrs Henry
nat. woods -

tulip.

red oak - low may

Carya cord

Juglans nigra (few)

Today among

beech (smaller)

Cornus florida

wh oak

Carya glabra

Chestnut

large stump

Under: -

Carya cord

tulip

Cornus

wh prunus

red oak

Benzoin

wh ash

Hamamel

beech

Carya glabra

more & larger beech
down same

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Ravine floor SSE

A secondary area

tulip

ash

cherry

buttercup in str

red maple

red oak

hackberry

A N.W. slope:-

red oak

tulip

lots of smaller beech

vit. acrif

Kalmia

Syl. calcei
dogwood
small red maple
vit. prunus

one large black oak near
Top
also large tulip
beech, red oak, red maple
C. glabra, chestnut stump
smaller - wh oak
oak red
ash
C. flv
Carp.
red maple
C. glabra

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A high ridge - across
rd & up hill thru
Andr.

large beech
red oak

& a ravine (high)
facing west

Much large beech (white)
& red oak & tulip

lots of small beech

Rhodo. nudif
Polypodium

Fields -

Andr. prof
" Elliot

Rd. down N. flaring
ravine - lot of
water seeping out in
road + bank

Large

hemlock
red oak
bl. oak
tulip
ash

occ. large
white oak
occ. *Tilia americana*

Large eye near stream

some buried nearly 4 ft
going up ridge -

Carya alba
corn

red oak
tulip
ash

red elm

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wh + bl oak 3-4 ft

March 25

Weston - (23 ft up)

Section, 30 ft from

ground, 1st rising 1728

tulip tree - Feb 1938

tree about 4 ft dia -

d.b.h. - 5 ft.

Woods w. very large
trees - gentle slope to
south

Aspect is tulip-oak
where is the hemlock?

" " " Chestnut

Plot about 200 x 340

4-581
 Cargot M 3rd

trif			
wh oak			
beech	/	/	
bl oak	/		
Carya gl. +			
Paula			
" cord			
Nyssa		/	
S. maple	/		
ash		/	
ch. pines			
walnut		/	
red maple	/		
dogwood			
Q. boreal			
Ulmus fulva		/	
Carya ovata	/	/	

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Acer penn
 Benzoin Cornus alb

Celtis occ
 Cornus flor
 Ulmus fulva

(The C. ovata on a low flat)

Acer rubr Staphylea
 Prunus pleu C. penns
 S. maple Rubus occ
 trif Alnus
 redbud (not native here)
 wh ash
 red elm
 Sambucus

Claytonia virginica Liliaceae
 Osmorhiza bloodroot
 Polemonium pulchellus
 Geum sp
 Podophyllum

The North Woods -

on very gentle northward
slope

red oak - tulip

or. wh. oak

sh. hick' 1/2 oak

hick (gl & cord)

occ. walnut

lots of most pine beech

Cornus

Cornus fl.

Here the largest trees
are tulip & red oak

next, red oak, hick

wh. oak

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Then beech.

Apparently - a develop-
mental stage
dependent on a
(hurricane ?) 200 -
300 yrs ago

fr. acer

Acer rubr.

Alder (speckled) for hick

Cornus fl.

Azalea - nudif.

Eufag.

Aster sp.

Lots of big chestnut

stumps

Chestnut died about

1906-10.

Alnus incana
spotted brown
stems. catkins before
opening are red on sunny
side & green on shaded
while a *Prunosa* is
purplish everywhere

Did beech replace
chestnut?

It was a chestnut-
oak-tulip woods

now it is changing
to beech, red & oak
oak

did the lake
stimulate the growth
of beech?

Bloodroot

Eryth. amer.

Polystichum

Hepatica obtusa (rare)

mayapple (most)

hundreds of skunk
cabbage in the
swampy place

Higher -
beech about drops
out -
many chest stumps
& young tulip

Serpentine Barren
Westchester, Mich 26
Andr. Scop, Sorybites
Bout. curtip.
Saxif. virginicus -
but smoother & less
dentate
Cirsium axill. vill.
Senecio. smaller
Aster depauperatus
arab. lyrata

Soil is rendzina &
looks like Adams Co
prairie - but no Ca
it is a Mg rendzina
Polyg. lance (E)
Arenaria stricta
Aspl. (little) brown stem

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Woods beyond
slip - vol. local ch

Collinsonia
Cimicifuga

Weathered outcrops
in barren - Mg leaches
out, & on siliceous rock
residue, - many clastones

Ungrazed piece less
barren - but comp
is same
Scattered cedar
sacs

Solidly nemoral
or

Natural woods border

Junc. stellata

Jumping

occ. D. maril

Smilax rot.

11

glauca

occ. D. stellata (scattered in barrens)
in flatter wide part

Pyc. flex
anthracin sp

Another contact -

more bl. oak (small)

post oak

wh oak

a small chest
red maple

Scrubby small beech

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with roots out
about 10 ft. high
prob 100 yrs

Asplen. nud.
Glyst. baccata
base. stem
Post oak 30 yrs -
width

Quercus near
climber at edge
of slope in another
Open barrens are

Great acc. of lvs in
the Smilax thickets,
then no open ground
surface; where open,
much moss &
Cetraria +
Cladonia

Succession immense
slow -

barrens → post oak →
black oak - wh. oak →
occ. inv. of other sp.

On the S slope,
red cedar & sumac &
some post oak show
a cline way up making
an irregular boundary

On top, the post oak
occ. the flattest
areas, in some of which
water now stands

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West Chester to Phila.

March 27

Woods of types as seen
Serangeto Bottomlands.

Areas -

red maple, elm -
alder

& sycamore.

Ahund. repr. tulip on
some N slopes

Paulownia nat. in places

N. slope heavily bet
Waldenford & Serangeto
w. beech & tulip
any s. maple?

Phila - N.Y. March 27

just N of Bristol across
flat (at P?) & ext. wet
areas w. alder,
Bet. nigra

In old fields + 2nd yrs.
syc., sor. gum, red maple,
gray or wh. birch

pin oak - sor. gum - red maple

bayberry + + +

Spiraea

Cornus stol.

Cephalanthus

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Greenwich, Conn

P.M. March 27

Small

blech

red oak

C. glabra

C. coral

C. rostr.

red maple

s. maple

chestnut stump

Bupleurum

wh. ash

Nyssa

Ostrya

blech

2 maple

Tilia

ash

Viburnum

Azalea

Cornus

Tilia

Polygonum

Mecanophora

blue cohosh

Hepatica obtusa/ravine

~~Onoclea~~

Higher - on west slope
more oak - the
wh, red
cl. stumps O. florida
hickory

azalea
Witchella

app. of oak - cl
+ hick

A saddle - lots of
small buds

An east corner
more small buds

Audubon Nature Center
Nat. Aud. Soc
Greenwich

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The tops of steeper
+ rocky ridge were
chestnut & cl. oak
or mt laurel

In the woods walked
in ^{to} ^{not} ^{much}
oak ^{and}
hick

hick appears to be
taking place of chestnut

Old fields - red cedar
& Bet. populifolia
in and. comm.

Barrett's Tree lot

beech - ^{over} 200 yrs
wh oak " 25 in

allh
beech, all age classes

small Bet tent

oaks of same age but
very diff size

250 in + 17 in
wh oak, small, also
red maple

Azalea

Lycopodium obsc

Also 2 smaller ph trees
of same age as oaks

4 a Nyssa 14 in

Epiphyllum

Aster cord?

Large Tulip are
younger

wh oak 23 in. 216 yrs

wh oak 27 " 221 "

Tulip 20 " 125 "

Common fern
dogwood

Some s. maple but
not much

Chimaphila umb

Mitchella

Asp spin

Second growth here

wh. oak - red oak - some
bl. oak.

The wet areas bet
hills (wet due to glacial
blocking) red maple,
elm, pin oak, some-
times downy pin oak,
older areas downy red maple.

Pin oak is also on slopes,
but in fresh site is not
long lived.

pin oak or red cedar
on a slope (high up) in
Bartlett ground

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April 1.

Petersham, Mass

I Harvard Forest
Area on Prospect Hill
never cleared or
made into pasture
- is now young
upland red ground.

red oak

wh. oak

green

hard maple (few)

wh. pine (scattered & over 1/2)

wh. birch

chestnut sprouts

(blight in 1916)

oaks are sprouts

evidence still shows

in position of sprouts

black birch
some red maple

Comp. closely compar
to old growth

var. congo ^{var.?} azalea
var. ^{var.} Epigaea
Gaultheria ^{Rubus}
Rycop compl ^{angust}
dendr

Small (3-5 ft) hemlock

Wh. pine & p. birch will
prob disappear

red maple with much
shrub appearance

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Such hardwood
stumps on drier
gravelly sites -
like upland forest

Where slightly more
moist, gentle
slight N slope -
much hemlock

Ground layer (cont) -
Pteris of harder
Cornus can.
Rubus trif (amer)

Hemlock slope down
to red spruce

Red spruce in bog -

Extreme et. of temp. difference

19° in sept.

-3° in spruce

log, last
week 8 - i.e. log

with ^{northern} red spruce
occupies a ~~pt~~ frost
porch,

Spring 1 month

later than in surround
frost

Spruce on slopes
of mt. Monahan
down to 2300

Here in log at 1100 ft

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P.M., -

II
Was white pine -
cut in 1918-19.

Now a young hard-
wood stand - although
planted to white pine,
which is entirely suppressed.

Charleston pine sandy
loam & fertile

On a good soil cannot
get white pine in a grove

red oak

wh ash

wh oak - very few

wh birch

red maple

But little

red oak, red maple
& wh. ash usually
most abundant

Osmunda
Asp. spec.
Lyc. 2
Witchh.

(Berkeley College -
10 mi. W. of Wheeling
W. Va. had a forest
III (3rd area seen)

White Pine cut
in 1907 + 8
& in a wh. pine seed
year - lots of young
wh. pine after but

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none really green
small hardwoods
about 2 in. diam.
were under old
pine

These moved to
give white pine
a chance &
wh. pine grew prof.
until 1928, then
hardwoods allowed
to grow as pine
could not grow well.
Now - on same
red oak } part where
wh. ash } water runs
Bet. lutea } from stream
" poppy } creek
Bet. lutea }

Higher - more red oak
a down pine - about
22 in dbh - 70 yrs
all wide ring, some
nearly $\frac{1}{2}$ inch
thick
Polystrich
Soil changed from podzol to mull

An old growth
hemlock woods
i.e.
hemlock - white pine (occ
beech, some maple,
y birch, occ wh. birch
occ red maple, Betula
a nar. flr. spruce
very rocky slopes &
moss
brown podsol

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Polystrich

In this region the
n. type limited to
north esp

all the hardwoods
sprout; they cannot
be disposed of by cutting.
As they may sprout
repeatedly, the same
tree keeps coming back,
so that many "young"
forests are the direct
continuation of former
old-growth stands.

White pine comes in
quantity only in "old
fields" & i.e., on land

which had been
utilized for farm &
pasture, and from
which the hardwood
had been laboriously
grubbed out.

Now that almost all
farm land has been
abandoned (except for
a few pastures) there is
no place for white
pine.

Hardwoods replace
white pine

Old field succ:
shrubs -> grey birch -
& wh. pine -> white pine
-> mixed hardwoods

In moister places &
northerly slopes, hemlock

may invade the hard-
woods.

There the end product
is hemlock-wh. pine-beech-
birch-p. maple, + red
maple, ash, ^{in dry places} sweet birch

In general, the end
is red oak-(wh. oak)-ash-
red & p. maple, Bet. lenta -

The accumulated snow
stays on the ground in
the shade of the ever-
greens long after it is
gone elsewhere. Growth
may start in upper
branches in hot sun
while ground still frozen.

Trip from Cambridge
to Athol on Boston &
Maine route three
Concord, Fitchburg - -)

goes thru Boston basin
where red cedar is part
of old field growth.

Rising out of basin
red cedar soon drops out
& white pine begins to
appear.

Everywhere ~~are~~ seen
the prev. old field hardwoods,
common, with red oak
prom. in hardwoods.

R.R. climbs; soon a little
snow is seen. When
we reach the height of

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land, ponds are frozen
& have new snow on
them. King George ice on trees.

Mt. Monadnock to
the north looks like a
snow-capped western
mountain. Spruce (red)
starts is on its slopes
from 2300 ft up.

The climatic difference
which is demonstrated
by snow & ice as seen
bet Boston & higher land
about corresponds to
map of New Engl. forest
types.

Snow at Petersham fell
in Nov. & never melted.
Only 3.6 in. prec. in 3 mo.,
Dec. - Feb. March wet.

Feb, 1944

Notes -

Stamford to Boston
via Springfield, Mass

Springfield, west
to west of Utica N.Y.

Mich. 28 - Stamford to Boston
The so. N. Eng. habitats -

rocky hills
slopes

conifer forest

flats & depressions

marshes

old fields

sand plains

Woods of well drained soils -

wh. oak, red oak, beech,
(chestnut) with black oak

less abundant in drier
places; beech more abundant

in more meso. sit; dry
ridges with chestnut - ch. oak

& Kalmia. S.M. varies, is

abund. in diff. particular
sites. ^{some tulip}

The nearest approach

to the M M is the B -

RO - W. O - S M + + as in

the Acad. Soc. areas, but
the abund. azaleas & lack
of lux. herb. layer.

The wet flats and depressions
are sometimes dom. pin oak,
" " red maple
Younger ones are swamp
shrubs.

On the wet red maple on dunes
(not quite in water) beech
is entering. What follows
pin oak?

The marshes - *Phragmites*
dominant

The old fields - vary
fortuitously.
prunus

At Ten Haven - the east

- (gentle) slope of the intrusive dike is a
 - mixed forest of hemlock, beech ++ (other slope is
 - cliff
-

Swamps -

red maple

Salix spp

Alnus

Cornus stol

Ceph.

Cattail

gray birds in red maple
flats, in old fields etc

Sand plains -

e. of New Haven
tufts of Andr.

barren

Scattered oaks - round
crowns

" cedar

" shrubs

" gray birch - sev. sprouts

to patches of oak woods

to local accumulation

(Wallingford, Conn.)

Sand plains cont.

Farther inland - hills

beech, oak, ^{red, white} tulip, red maple
on prairie slopes

At Meridan, some more
high hills or. west-facing
cliffs (intrusives?)

mixed hemlock - dec. slopes
farther along

Appr. to (Hartford)
before Newington

Swamp (water) with lots
of small pine oak
pine oak & elm forest

Less oak - & several sp
+ aspen

Some old pine oak areas
resemble open part of
Goshen woods

Bush invasion in red
maple swamps

Old white oak grove on
low round hills of

Hartford Ins. Co. grounds.

After leaving Hartford

pitch pine appears on
flat terrace (in Windsor
locks) & on some slopes.

red rocky slopes -

w. some hemlock in places

This borders a body of water

- Conn. R.

↑ some
bush

pass Tomp - ville, Conn.

Swamps

lots of pussy willow
with other shrubs

Cottonwood, elm, silver maple
& some willow along shore.

Higher country in distance
to N.W.

Springfield, Mass.

Leaving -

low sandy hills.

red oak - wh. oak - fresh pine

old field brush (young) - pine

older - more pine

Aspect has changed.

Some wh pine & hemlock

on slopes or, oaks

white brush

Palmer, Mass

High hills.

hemlock & wh pine dotted

in the slope oak woods
+ s. maple
Pitch pine - oak gravelly
hills

More oldfield birch than
in cone

Chamaedaphne bogs

Extensive marsh lands -

Chamaedaphne (Phrygnite)
(at Brookfield)

White pine in oldfield

W. birch, also some in
swamps

Oak-blodberry woods

A sandy gravelly jumble
of hills - oak (oak & b. t.) +
pitch pine.

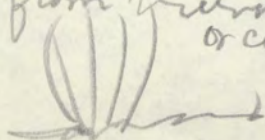
young wh. pine invading
and. - shrub hillsides
greendale?

Juniperus ^{*communis depressa*} *horiz.* in
old fields

White oak sprouts (5 ft ±)
from little burned & wh.
wh. oak - brush

Kalmia in most rocky
flats

Endless gray birch
hillsides - all in clusters
from burned bases
or cut



Worcester, Mass.

Σ

1:40. A chamaedaphne bog
with spruce? ~~Thyme~~
Framingham

Note :-

suckering habit
of beech :-

Sprout habit of
all hardwoods

oaks retain lvs in
winter, esp. white oak

Springfield, west

- red oak - beech - hemlock
bluffs of river &

- wh. oak, wh. pine
occ. white birch

- Upper Westfield, much
wh elm at edge of river
forming on its slopes
down to water-edge

- Young up river - when
valley becomes narrow -

- much hemlock

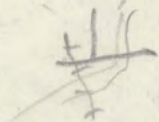
basewood, maple, cherry

- wh. pine hemlock wh. birch
red oak, poplar (gs.)
beech

very few wh. oaks
except on river terrace
(where there is any "
Mt. slopes very rocky.
no laurel.

Masses of ice like
frozen waterfalls
(about 2:30)

3rd pt. of road
wh. pine even on terrace
(cross river; highway ^{US} bridge
also



Parts of mt. slope woods
not so sprout-looking
fair-sized beech

Other part all birch

(mostly gray, some white,
+ ash - all young)

Some places appear to
be wh. birch + hemlock
++ (young)

The north slope woods
is "northern hardwoods"
plenty of snow (see patches)
(Chester)

Black ^{mossy} fresh ridge

9 steep slope - called
young hemlock with

lots of older white
birch.

Train climbing
Stream a rushing
mt stream

beech - s maple -
hemlock - red oak
& Y. birch
& ash - is in general
the older forest type

In many places -
slopes are rock-
slides (frost action?)
Taper in granite
(about 3 PM)

Both slopes are the
same

~~Plateau~~ Plateau upland

much snow patches -

● apple orchards -

oldfield wh. pine

● Lakes still have ice on them.

red maple swamps

● Lots of Lycopodium

Moraine dep. on this

plateau (or cut - 20 ft)

support same type of

● forest. Bog with spruce.

Less steep slopes here

● on plateau are or have been utilized.

● Much (aspen?) or Pop. gr.

A toron -

downgrade

A conifer top on a high
hill to n. of rr. (is it spruce?)
above Weston.

Inner plateau

Lots of shrubs & oldfield
gray birch

Very high to north

Pittsfield -

dense wh. pine

What looks like a gray
Crataegus in old pastures

White pine on slopes & in

wet flats w. alder &

red maple & larch (?)

State line (?)

- Tunnel thru black massive rock.

- Another area of rolling plateau

- Spruce hardwoods incl.
" & pucker beech

Large groves of aspen (which?)

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(another town)

- Topogr. changing - no
more rugged hills

- No more snow patches
- Hemlock has almost
dropped out.

- Much open country
- R.R. follows down a
stream; hemlock on

its rocky slopes

Sycamore

wh. pine & wh. birch still here

white oak becoming conspicuous again.

on N.Y. 295 (23 mi from Pittsfield)
at Chatham N.Y.

4:30 - very high to west

in distance (in dir. of sun)

occ. corn fields

large isol. white oaks

wh. pine still here

sprout woods

a broad lowland high distant

med. high

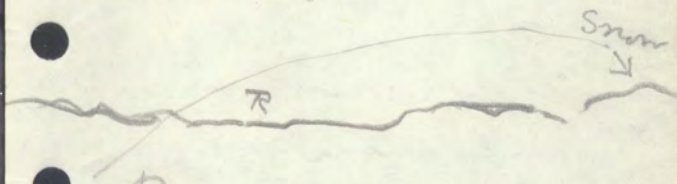
Lowland

Lowland mostly agr.
w. lot of orchard

Large flatish areas of
wh. oak woods

Coming nearer to lower
+ nearer range of hills
to west

Balm - are lowlands of
Hudson R



Rensselaer N.Y.

Cross River to Albany

Mohawk valley.

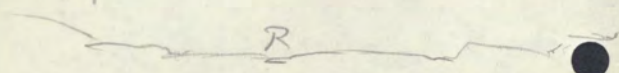
Broad flats

White oak down on
flats & low hills

^{Pitch}
~~Jack~~ (*) pine on
sandy flats & hills

Red cedar begins
on Schenectady

—
—
hemlock across the
Mohawk river on N-facing
bluffs


Snow in patches on N slope

Cattail & alder swamps

Some groves of wh. pine (?) on hills

elm - poplar - willow floodplain & a bur oak (?)

Low rounded hills &

gentle slopes. The conifers more in ravines & on occ. bluffs & with them, birch ^{wh or green}

A narrow part of valley

with rocky bluffs on either

side (white stratified)

Arborescens? on cliffs

(a very reg. & compact form)

- at 6:40

just east of a trail from
somewhere a little town

Another town, on south
side of river is (Beck's Bend Ford)

a narrows; ^{+ a torn} a resist. dark
rock; much snow on n-face
conifers + hardwoods

✓? cedar? hemlock? pine
Several terrace levels
show clearly; valley wide

mostly agr.

The flat only a few ft above
river

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Not much relief; conifers
for except patches of cedar?
(Are the conifers on cliffs as
Utah red cedar?)

W. of Utah ^{+ e. of Oriskany} many beech
trees on north-fac. sand bluff
also red oak ++ (too dark) it
getting very flat much com-
mon (red) maple swamps

Alps. same in Pleistocene

Time



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Back Cover

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Halimolobos mollis
(Lepidoptera)

Halimolobos mollis (Lepidoptera)

Hamamelis mollis
(sprung)

H. vernalis - fragrant