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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.



MEMORANDUM BOOK

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1733

May 11

R-210-Open Side
R-211-Open End

8

E. LUCY BRAUN
2702 MAY ST.
CINCINNATI, O

Rockcastle River, June 7
Colliers Creek

June 8

Pine Mt.

June 10, 11, 21

Trees along Poor Fork, June 22

1933
II

South of Livingston
 on US 25 June 7
 Rockcastle Co

Flat of Rockcastle R
~~brush (etc)~~ 1 Nyssa 1

beech III III III III III III III III

buckeye II VIII III

butternut 1

walnut IIII

tulip IIII

white elm IIII

white ash IIII

red oak II

Magn macrocarpa oak 1

copalms trap shb hick 1

poplar red maple II

spice bush mulberry 1

Sambucus dogwood

hazewood II

2 maple 1

<i>Viola can.</i>	<i>Thalictrum purp.</i>
<i>Mechanica</i>	<i>Arisaema deal.</i>
<i>Tiarella</i>	<i>Juncus patens</i>
<i>Dentaria heter. nettle</i>	
<i>Podoph.</i>	<i>Aster div.</i>
<i>Cauloph.</i>	<i>Cimicifuga</i>
<i>V. blanda</i>	<i>Aristoloch.</i>
<i>Arisaema</i>	<i>Sisyltria</i>
<i>Circaea</i>	<i>poisoning</i>
<i>Phegopt</i>	<i>virg. creeper</i>
<i>Asp. noveln.</i>	<i>Amphirayf.</i>
<i>Erinyon americanus</i>	<i>Vitis sp.</i>

Understory contains
 all v sp of cherry & chestnut

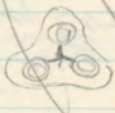
Cross vine

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Near stream
Betula nigra
 white elm

Other side of river,
 steep bank
 hemlock,
Magn. macro. & leaf

Just above Spring -
 Dispersed in 3-angled
 leaves



En Route, June 7

On plateau before
reaching Corbin - in
Laurel Co -

Generally rolling with
broad valleys. Some flats
are sweet gum or pin oak
Some flats but slightly
above are beech.

Some are oak of approx
same comp. as oaks
of Bena campus.

In general, m. m. forest
not compact; oak &
oak hickory more so

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Calliers Creek + Roger's Fork
June 8.

In sugar maple - buckeye
part - add larkspur
Hentau (Aphylla) ??
Tr. erectum
Ginseng

Just above spring &
below, too, - above by
red oaks - 3-angled
Hesperis is common

Herb. plants etc
along the red rocks
but still in the maple
(above V. rotundifolia etc)
(+ chestnut ridge)

Urticastrum
Solidago curtisii & caesia
Stellaria pubera
Trillium erectum
" grandif
Ran. recurvata
Asclepe
Joe-pye
Umbellifer
Impatiens
Caryophyllaceae
Viola pubescens
" Canadensis
Monarda V. blanda

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Viola rotundifolia
Eup. verticif
Polygonatum
Cimicifuga
blue violet
Thalictrum dioicum
Smilacina
Sanicle
Collinsonia
Caulophyllum
Podophyllum
Inula
Sisyrinchium smooth
Hioscoper
Hiosporium
" 3-angled
Hydrangea
Aster divaricatus
Bloodroot
Asteraceae max

Asp n. br
Polyst. acrost.
Aspl. acrost
 marginal
Phegopteris, blund
Maidenhair
Botry. virg
Gallin lance.
Hepatica
Acer penn
Thaspium baltico
Geranium
Clintonia
Sedum
Arisaema
Aralia racemosa
Pentstemon lacin
Aristolochia, hirs
Hydrophyllum macro
Asarum canad
Aster cordif

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Ran. abortivus
Lilium canadense
Amphicarpa
Arum

Belm red oaks

Goldie fern Botry virg
Aspl. acrost.
Cystis frag.
Asp f f
Aspl angust
Mulle
Phacelia
Nettle + Impatiens
Hydr. canadense
Cimicifuga
Impatiens
Sisyrinchia
Polymnia

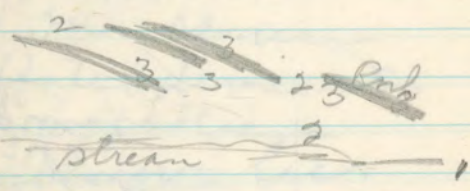
Sullaria pubera
Hieracium max.
Solid. curtisii
Viola canadensis
Ran. recurv.
Aster divaricatus
Cryptotaen.
identaria lae.
Aristida vine
Asp. margin.
Sedum
Turkspun
Virg. Creeper
Asarum
Hepatica
Momarda
Oenanthe

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<i>Polygonatum</i>	<i>brachycarpa</i>
<i>Allium tric.</i>	<i>virg.</i>
<i>Liarella</i>	<i>Polyg. virg.</i>
<i>Ostelbe</i>	
<i>Juncus</i>	
<i>Arisaema</i>	
<i>Hesperis</i>	
<i>Chelidonium</i>	
<i>Hepatica</i>	
<i>Juncus</i>	

June 10 - Pine Mt. bog -
saw mill -

① Ravine slope, west -



- 1. alder
- 2 Rhod
- 3 Hawthorn
- + occ. witchhazel, Clithra

White oak, red oak, black oak
 hemlock, beech

tulip red bud
 M. fraseri Oxydendron
 buckeye chestnut

Butternut
 birch
 Amelanchier
 red maple

Pine Mt. bog
 June 10 1900
 Hunt Institute

Asarum virg.
 Mitchella
 Viola rotundif.
 Aster div.
 Clem. virg.
 Hepatica round

Polystichum
 Aspl. f. f.
 Aspl. m. f.
 Adiantum
 Aspl. platyneuron

Viola silva
 Wild grape - V. bicolor
 V. rotundif.
 Scutellaria (spec)
 Arnica
 Eryngium amer

hemlock ^{###} ### ### ### ### ### ###
 Chestnut ||||
 red maple ### ### ||
 white oak ### ### | (2)
 Dryd. (by) |
 magnifera (by) ||
 red oak ||
 ch oak ||
 birch ### cucumber |
 Nyssa | tulip ### |
 dense Rhododendron
 w. some Kalnia
 dogwood
 birch
 hemlock
 oyst. Self of
John Brewer

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~~magnifera (by)~~
 Rhododendron | Hamamelis
 Kalnia | Chrysothamnus
 Drydend | Vitis bicolor
 Magnifera | vac. stem
 Asplen. orange | Acer penn
 Galax
 narrow Houstonia
 Gaultheria + Arbutus
 Smilax br + glauca
 Lespedeza repens } where
 Potentilla pumila } open
 Santhonia }
 Lesmodium par
 Lespedeza sp
 Mitchell
 Anemone quing
 Cypr. acule
 Viola hastata
 Aster div.
 Pogonia vertec

Low Cove - left fork Elk
A Rhod. lux & Kalm
Aer. perfr. & trap
grape

Everything mossy

Viola blanda
hemlock
Phegapt
Aspl n b
Polystich
dispon
Galax
Mitchell
Clintonia
Gnathium

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Rhod., Laurel & hemlock
grow esp. on rocks
A leafy heath - hemlock
tangle
Only hemlock large -
but mixture is mess

Chinquapin in valley
hazel nut

② Trail starts up slope

Material of slope ^{aren.} shaly
Hemlock ~~###~~ red oak
Chestnut &
sugar oak See attached
Aronia
red maple ~~##~~ piece
white oak ~~###~~
~~Red maple~~

(4) 7

Low ridge

white oak ##-III

chestnut ### IIII

y pine II

p pine II

red oak I

brom oak I

scarlet oak I

Cont. heath understory

my Laurel dom + ground

vac. stem Azulea

Gaultheria

H. arbutus

Smaller trees

Ash dogwood

Nyssa red maple

Sassafras Rhod. cop

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black oak chinquapin

dogwood

chestnut

hickory alba

(5) 3 On up slope: -

Pogon Sarcocarpus ast

P. p. pumila Cassia rich

Gaultheria Ant plant

H. arbutus (Webera sessilis)

Galax Hieracium hairy

Brom. n. n.

Lichen Gentiana

Younger (2nd growth)
 stands are similar
 but more pine -
 (6) (Becoming more sandy)

Chrysopsis gramin
 Historiogramin
 Plesm. rotundif. spp
 Krigia
 Tephrosia Clitoria
 Ceanothus incl. phytol
 Hypoxis
 P. pedata spp

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vac. vaullans
 Aletis
 Andr. scop
 Solidago odora
 Viola sag
 Panicum depaup
 Viola pedata
 Pteris
 Ascyrum Popularea

(Baeromyces
 of Sclerium in
 new edge of tree)

(In some places in western
 parts, young tree stand
 too heavy for max. devel
 of heart understory)

In many places the
 large amount of big
 dead chestnut has
 resulted in great
 increase in pine

Under a big red maple (picture)
 & herb etc.

Campanula divaricata
Citoria
Baptisia tinctoria

Chestnut ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ nearly dead

tulip ###

red maple ### 1

wh oak ###

p pine ### 1

y pine 11

ch. oak ~~###~~ ~~###~~

bl oak 1

scarlet oak 111

hickglab 1

In a place like above,
dead chestnut, young oaks
vigorous - ! -

Scarlet oak

white oak

red oak

Oak

chestnut oaks

pinus

picture 3

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Kalmia

Azalea

Corymbus major

① Ridge top & near ^{trail} (at turn off)

Ch. oak ### ### ### ### ### ### ###

wh oak 1

Chestnut ~~###~~ ~~###~~ 1

black oak 11

p pine ###

sc. oak 11

y pine 111

red maple 1 tulip 1

Sandstone rocks on

surface

Same as smaller ones

ch

Less open than pine

Picture II, 7

of slope - more undrains
 less herbs &
 open sandy places herbs.

Understory

Ch oak	y + p pine
chestnut	Amel
red maple	Carya alba
bl. oak	
scarlet oak	
tulip	
hickory	
dogwood	
lobelia	
Saxifraga	
Oxalis	
grape	
lyon	

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Cutleaved *Diospyros*

vac. vac	Vitis bic
" stam	Somolax N
Kalmia	Chenopodium
Gaultheria	Carya alba
tr. arbutus	
Galax	

Pteris	Coreopsis major
Desmodium spp	Conoclinium
Viola sag	Andr.
Solidago v. dora	Chrysopsis gran
Euph. cor	Diosyst. laes
Helianthus pan	Lepidosma
Hieracium venosum	
Panicum spp	Ascyrum
Aster patens	Beroc. aster.
Euph., hairy sessile	
Chrysop. marian	
Desm. maril.	

(8)

Continuing up -
chestnut oak nearly
drops out; trail leaves
ridge & follows back on side

chestnut IIII III

sc. oak II

y. pine IIII

p. pine I

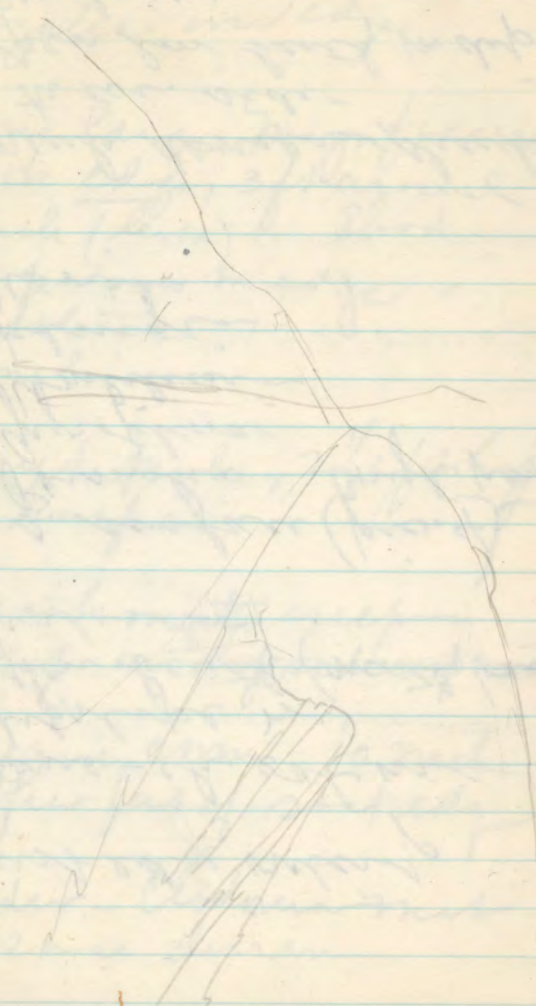
tulip II

bl. oak I

ch oak III

Local (to right of trail)

& more on ridge slope -
y. pine - pitch pine



⑨ First edge outcrop
pine - ch. oak on
dipslope in
open heath (mostly bare)
understory

D. s. surface (pic. 4)
Parnelia Croyd. pink
Gyrophora
Umbilicaria
Hedwigia
Usnea

Much denser shrub
to esc. side -
open low heath in dip

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Azalea over edge

Very large Magnifera
on edge, 3 ft around
virens (leaves) Rhod
D. prunus on edge
chestnut
Amel.

Croyd. pink, 2 1/2 ft high
on surface

Heath mat. creeping
up on dip side - esp. windings

Y pine comes to mat
few feet of soil edge

Heder. - Cladonia mat
some decran

Picture 6

Cladonia var

Corydalis

Gaylussacia

Pyrus melanocarpa

Sassafras

P. pine

Nyssa

Quercus oak

Rhus copallina

High pt on S.S. outcrop
flattens + mat
is in center on either of

June 11.

Continues Pine Mt where
June 10 left off

(10)

Over sandstone ledge
into Trough; pine drops out.

Chestnut ### ## ### 1

ch. oak ### (1)

tulip ###

red oak ||

Carya alla 1

Magn fraser^(alt) 1

Oxydendron 1

Clethra

Azalea

Rubus allegh

Rhod

Kalmia

Lyce.

Popularia

Vitis bicolor

Hamamelis

Magn fraser

Osmunda cinn

Aspl. n. b.

Polystichum

Allicksonia { aspl. p. sp. t.
biol. hastate

Chamaelirion { *Crepis major*

Medeola { *Steirquad*

Elephantopus { *Arist. serp.*

Desmodium glaucum + *D. acum*

Aspect much more meso. due to absence of pines, fewer creeks in understory, more decid shrub & saplings, and ferns.

Drop from p.s. crest is 10-25%

Greater amt's of saplings prob. due to incr. light w. dead chestnut

But sp. of ground layer

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diff. as *Gaultheria*, *Galax* etc confined to s.s. esc.;

ferns absent on dip slopes.

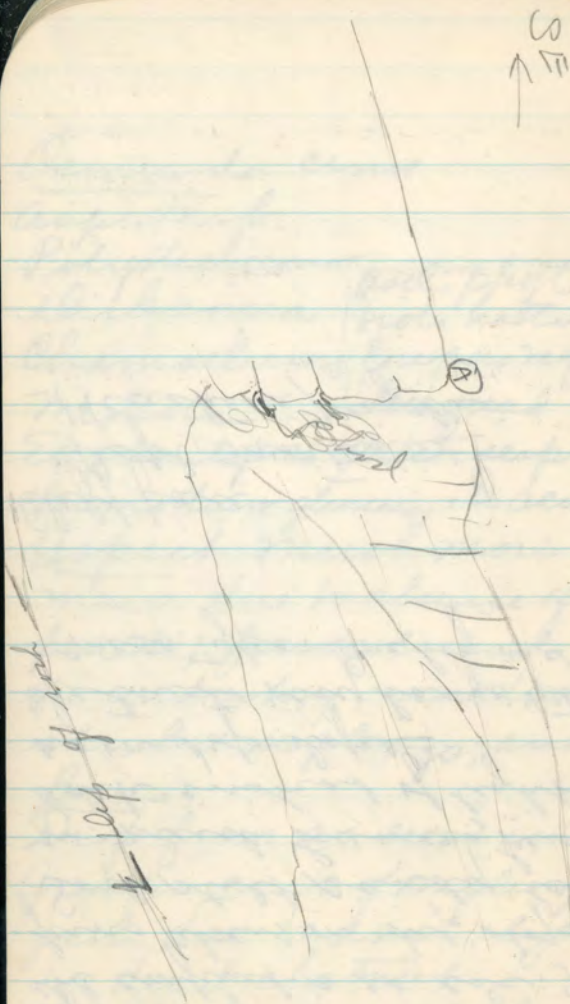
Soil still sandy but w. much humus, hence dark instead of light as on dip slope

Chestnuts very large & straight meso. type. One log 4 1/2 in. across

Cliff face -

Aspl. montanum

Hieracium puzosii



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Go long. in trough & rise slightly.

② With rise of mt, (A) finally is at surface & cont. slope of mt upward

Here veg. cont. as before trough, with pines & prom. land

Go on to south into s. s. dip slope: - yellow pine (II, 9) & where soil deeper, patch pine less than 1ft of soil on rock.

Under pines (rock app. 2ft from base of tree) needle cover on rock prevents moss-broken mat. etc for few cushions of Cath & Clad.

Crustose lichens covered & dying

Heath ^{layer} is almost all huckleberry; blueberry where soil is deeper & more green; huckleberries in 2 in. of soil

Repr. of red maple, sassa, chestnuts, & dry myrica

Some Kalmia, Amel

~~soil~~ ~~rock~~ Slope to S.E.

(12) Cont. rise

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Diversity patches in soil

Typical sandy slope veg.

Soil changing to white sand - in trail

Heath layer more prominent with shrubs & ground - more to. Art. of myrica - more Cladonia.

Aster linearifolius enters

Pitch pine

ch oak

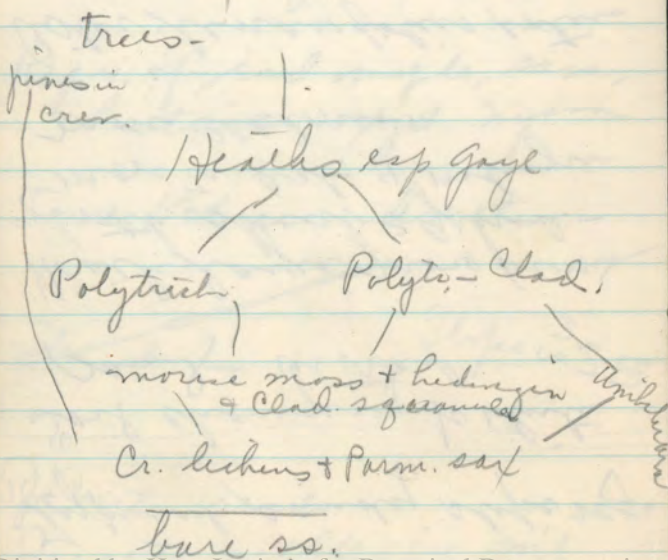
scarlet oak

(13) 2 rd sandstone.

white

1. or. lichens & Parmelia sax
2. mouse moss & Hedwigia

3. Polytr. (like Cat?) & Clad.
 4. Heath - Gayl.; Ruluo (dwarf)
 Smilax bt. v., Smilax glauca
 vac. Kalmia
 5. trees - P. virg.; P. rigida, Amel;
 birch, red maple
 6. forest - ch. oak - pine, etc
 forest



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- 6 Forest. Ch. oak, ^{111b} nearly
 P. virg ^{111a} & rig
 Magn. Fraseri
 red maple (younger) 111
 Nyssa! ¹¹¹ Quid. 1
 with built up map of
 sandy humus - v.
 Polytrichum
 pleurozoum
 Cath. Puccobryum
 & structures leaf moss
 & dead -
 Heath layer:
 vac. vac
 Gayl
 Kalmia
 Gaultheria
 to arb
 Tephrosia
 Chrysop gran

Quercus dumetorum (peruviana)
 Androp.
Smilax glauca
 Mitchell

(14) Over into troughs 9
 drop of 35 ft in
 60 ft to Rhod thickets

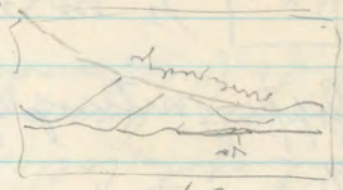
12. $\frac{1}{5}$ m 22 - Succession in 2nd 22.

Ch. oak in light from water
 near of gully in tree.

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11. $\frac{1}{3}$ m 22. 2nd 22. of Pine oak.

Portulaca in *Calliandra* in



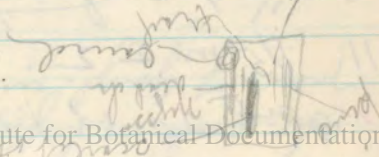
8. $\frac{1}{5}$ m 22
 9. $\frac{1}{2}$ m 22 - sandy gully
 at ft. 5 Rhod - + grass height
 Rhod in cliff; long shadows
 10. $\frac{1}{2}$ m 22, very loose, sandy
 layers + layers of red
 of a. c. with succulent
 yellow pine in dip slope
 + gully

II = photos - charcoal

for mags (June 10) in case
of fire in
left - right side; (very
pale pin + dead branch)
Palms in water. (note)
1" m 16. very slender

2. 1" m 16, cloudy
base of midrib with
moss, like in
big banks in State park
bank of, Collesco
river, Assorted (John
Stu (like Penna, m, etc))

3. 1/2" m 22 cloudy
right side
flat up from mt -
leaving bank -



4. 1/2" m 22 cloudy

Alphington m 22

5. 1/2" m 22
+ Collesco
m 22

6. 1" m 22
leaf - thick
in A. A. - see note

7. 1/2" m 22 cloudy bright
chestnut side top on

Prime mt (m 10) (see p 10)

10. $\frac{1}{2}$ " m 2 or 8

11. Sugar maple, clear
spring 1" m 2

10. $\frac{1}{2}$ " m 2
No. 1000 (under the
big red & purple)
spring

9. $\frac{1}{2}$ " m 2
a. maple, purple, purple
of 1" m 2

9. $\frac{1}{2}$ " m 2
clear first position
purple

in purple - a. maple part

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8. $\frac{1}{2}$ " m 2
purple
purple
purple

6. $\frac{1}{2}$ " m 2
Buckeye (1) over
purple

5. $\frac{1}{2}$ " m 2. In purple
purple part of
purple left - purple, purple
purple

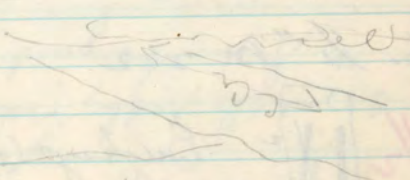
4. $\frac{1}{2}$ " m 16 at 8 1/2
purple with
purple, but they clear
purple

1/2

Thick in night

3 nearby & same □ 1" m 22
 (from post office)
 (from post office)
 (from post office)
 (from post office)

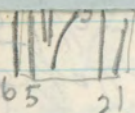
1" m 22
 1/2 In color book 9:30 AM
 (from post office)



field - frog
 1/2 m 11 7:45 AM
 from post office
 1. from tourist collector

I = K23
 Rhododendron

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65 21

3 Nysa 5 tulip
 6 white bat

Rhod. thicker in trough forest

Glet of Rockcastle R

June 7

KB 8

basewood

Thalictrum pur.

Rogers Fork of Colliers

Solidago curtisii ?

June 8

Sanicle

Dentaria max.

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~~Warren~~ *Houstonia*

June 10 Pine mt

Heracium hairy

cur-leafed *Desyptoma*

Eup., hairy pessel

Habenaria

June 11.

" 11

Chelone

Alder (trough -

"


Mimulus ringens

June 21

"

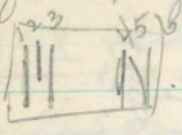
1/2

twp in night

3 nearby same  1" m 2 2

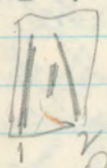
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III ^{K 25} 1. 1/2 m 22 light sun forest of 2nd trough



1 tulip, 2 wh. oak, 3 Nyssa
 4 tulip, 5 & 6 red maple
 Rhod. Large bush bet. Rhod
 is Populus

2. 1/5 m 22 sunny

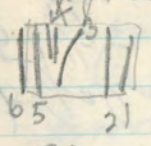


1 tulip, same as above
 2 Nyssa " " 3 "
 chestnut began

On trail across 2nd trough, 9 at R.L. to picture 1

3. 1/5 m 16 sunny

Opp. dir. to # 2



1, 2 tulip 4 red maple
 3 Nyssa 5 tulip
 6 white oak

Rhod. bushes in trough forest

4 Galax 1/5 m 22

5 1/25 m 8

Ferns (Osm. + New York) in
ramo head, with laurel
tree - right one is 26 in.
around left, 16

6. Azalea at 5 ft

1/2 on 22

light cloud

7 - 1/25 m 11 - Sparrow Collier ^{some east 10}

8 " SE more to north

See Line Fish note
book

VI-8 Corydalis on Potentilla

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K 28

VI-2 Rhododendron
in Elkins Branch trap
1 m 22

3. 1/25 m 11 - rock ledge -
Pine - Gayl. (June 21)

& things listed, see notes

4. Red Azalea in tram trap
8 ft. 1/25 m 11

5 1" m 22

Interim of Rhod.
sheep near head
of Elkins branch

6 Interim of Rhod []
Hucket 5 1" m 16

7. Meso. slope of tram
trough 1/2 on 22

Shows Hydr. + Retic. in
blow []
Cucurbit ash
red maple chestnut
tulip

(15)

June 11, cont

Trough nearly E.W.

Trough after 2nd sp.

Slope is south on
chestnut - pine - oak for
red azalea

Rhod., Kalmia

Utricularia

dogwood

Aspect is mesophytic

Stream starts in trough
in Rhododendron - laurel
thicket

Osmunda cinn.

" regalis

Asp. norbor.

Grass, alt. dropped

(like in our ^{Hypha} ~~stump~~ ^{narrow})

Scirpus sp. - atrov

Halenia

Mni. Hypox. Thuid.

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Chelone

Sagittaria

Juncus eff.

Alder

Boehmeria

Carex sp.

Galap leaf on either side

Forest of

tulip IIII III

white oak IIII III

chestnut IIII IIII I

Oxyd III

red maple IIII

ch oak III

Nyssa IIII

oak 10 ft high; dogwood

Rhod. Popularia

Kalmia. Azalea

vit. acerif. vac vac

Nitchwood Acer penn.

Pyrola

Clintonia
Viola hastata

Galea
Gentiana
Epipactis

Pogonia
Ostr. Clayb. Ⓞ

Asp. n. br
Medeola
Polystichum
Panicum spp
piperaceae
Lesmaceum

Slope up out of trough
fine yellow sand
about 2 in at top dnd

(16) S.E. slope up out of 10
trough

chestnut + + + + +

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white oak + + + + +

ch oak + + + + + + + + + + +

tulip + + +

Oryz + +

Nyssa 1

Ord. forest understory
of saplings (same)
& a few beeches, etc

Azalea

Chestnut oak inner, uproad

Pine enters

Lateral panic enters
trough - Rhododendron
Luzula

This trough is dulle -
has a hump in it -
but so protected that
no effects except such

Rhod. thickets in 2nd half

(17) Coming up out of
trough. = 10

slope rise rapidly
y & p pine become
prom

Ch. oak less stately
Gayl. in bunch layer

(18) rd top not very = ^{IV}
= 11
prominent

Gayl. down in patches
where red-

but not thick cover

(19) Slight drop to saddle = 12

which is divide between
2 str. wh. drop off
rapidly

Saddle lacks pine &
brush except Laurel

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not prominent Azalea again
& Pyrusaria

Saddle:- (about 100 ft
long + etc)
Chest oak, Chestnut
White oak, scarlet
red Mysoe

Under - Laurel, oak, tan
Rhod (very little of it) Sassafras
Smilax for Pyrusaria
Azalea

Wintergreen, Pogonia but
Galax Host. fern

Pine Mt June 21
 (cont. trip of June 11)

(20) ¹³
 Rise from saddle = d
 Slope rocky -
 Oh. oak in. + very
 soon pines enter

(21) Rock ridge - 4th summit ^{IV}
 Pines

Gayl. m. m. r. *Quercus*
 + *Pyrus melan* ^{Water} *Sarcocodes*
 Scarp edge by big laurel
 + Rhod. Arnel, *Myrica*

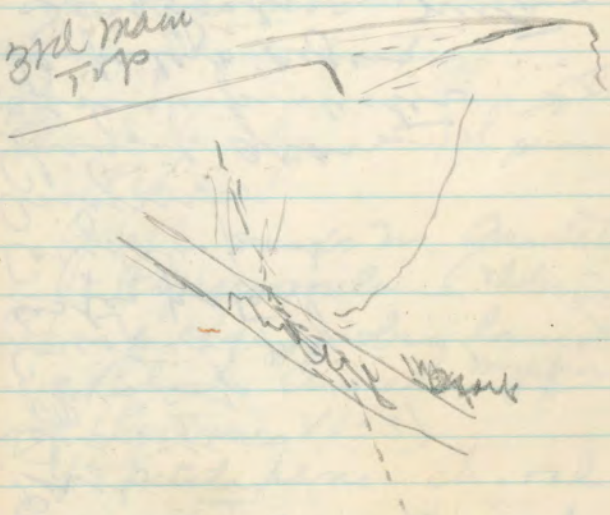
top (Picture VI-3)

Y + pitch pine ch. oak
 Eup. rotund ^{peach}
Hamamelis ^{pub. black oak}

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Arnel.
Smilax br
Parosman
Sassafras
Rhus cop
Coreopsis major
Aster pat.
Corydalis fr
Ascyrum
Chrysop gran
Sideroxylon aster
Despedeza repens
Sorghastrum nutan
 vac vac vac
 Big *Dianthus*
 Andr *Scop*
Pteris
Leprosia
Paleo pine IIII IIII IIII IIII IIII IIII
Y. pine IIII *Nyssa* I
Oh oak IIII II *Chestnut* IIII
bl oak IIII *Glyd* II

Diagonal outcrop - rising
 toward west crest, -
 same down to right
 (23) Drowned, over edge -
 Clectra, Osmunda cin
 Magna fern



Over rock outcrop
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(23) Diagonally & up slope
 cont. ch. oak, ch. heath
 slope

very hairy (Hesperis)

(24) up to peak, full of quartz
 pebbles. Fifth summit II
 This ridge has larger
 % of ch. oak -
 deeper moss mats &
 soil acc.
 more plants ripened
 w. Gayl. heath

Chrysopsis gr. common
 Eup. rotund ? brampton, spec
 Azalea, out of bloom, spec

(25) Scarp slope instead of cliff
 nearly north 15

250

Dense shrubs of heaths
 mostly about 5-6 ft
 Laurel (Aspect of
 bac. tal. ^{Bushy mt, summit}
 Gayal, gray tall
 Azalea, lutea
 + some lower bac + gray
 + ground layer of Gaultheria
 + tr. arbutus or Prionom, Galax
Rhodod
Dryd

Trees are ch oak
 chestnut, nyssa
 + these, or red maple
 are in understory

Descent is steep +
 Rhod. in downward

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25
 Herb layer opens up
 more herb. plants enter:
 Aster dir.
 Sol. crisp
Prenanthes perp
Steir cil

26 16
 Heath layer about disappears
 + aspect becomes more
 meso
 some solidago Pren. perp
Viola rotundif Collinsonia
 " purple ben Saxif
Amphicarpa Rub acaly
Geranium Intendrom
Polystich Hesperon
Red azalea Aster
Huechera, pink Hesm acum
Asp n t Fr. grand
Aster dir Eup., hairy Jep
Aster (loscharge upnd)

Smilax herb	Eup vertic
Adiantum	Hydrangea
Cimicifuga	Phegopteris
Trees are	Cypr. palm
<u>Ch oak</u>	Walnut
Carya glabra	hassard
Thuja fraseri	red maple
red oak	
tulip	
dogwood	
birch	

(rock here contains no pebbles
seems less coarse sandy
& moister), soil clayey.

Herbs, emb	
Ascl. phytol	Circaea
Anemone	Diptera
Arisaema	Smilax
Thalictrum	Medeola
Asp marginale	
Mazus	Osmunda

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Arist. vine	Orchis spicata
brodiaea, 3 lobed deeply cut	
(1932 spec)	Ruellia
Witch hazel	Pedicularis
Rhus glabra	Clematis
Acer penn	Viola blanda
Cucumber	
Aethra	
Spice bush	

1932
 1933
 1934

(57) Along creek margin, wet places

Rhododendron	1 1/2 muen
red lobelia	Sphyranthe
Chelone	Juniper
Opis	Imp. biflora
Viola cuc	Carex spp
Phlox	Glyceria
Hemlock	Scirpus atr
Joe-pye	Sol. aspa
Samolus	Boehmeria
Senecio aureus	Polygon
Thyris	perges
Menyanthes	

Some little sp. of Hakonaria
in Sphagnum

Sphagnum in more
shaded places
Some dense part -
common on young trees
Have Sphagnum + Mitchell's
briar bluish

Openings bet Rhod +
tree thickets are
herb. swamps w/
Munro + Coth

Big walnut tree

West flowing branch
in trough
hotter & less moss
than east-flowing
branch

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Tulip & chestnut prom.
tulip here occ. head of
valley slope
also, red oak, Myrica
red maple, white oak

Ericads more prom than
in east branch

~~at the summit~~

~~near summit~~

gentiana
Cassipouita fulvescens
Panicum

Some little *Halenia* in
Sphagnum

Returning in East-
fleming Marsh.

(with swamp flat)

Ch. oak	understory
Chestnut	chestnut
tulip	hickory
hickory	oak
Nyssa	red oak
red oak	Nyssa
red maple	tulip
Chestnut oak	maple
downward.	prairie

SE slope

<i>Vicia</i>	<i>purpl</i>	<i>sein</i>	<i>Urtica</i>
<i>Amphicarpus</i>			<i>Pteris</i>
<i>Lespedeza</i>	<i>sp</i>		<i>viridis</i>
<i>Pentstemon</i>			<i>Polypodium</i>

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Geranium	<i>acumin</i>
red Azalea	" <i>bract</i>
Galax	" <i>par</i>
Pedicularis	<i>Osmondacea</i>
Medeola	<i>Smilacina</i>
Aspl f f	<i>Piperacina</i>
" n r	<i>Halenia</i>
	<i>Epipactis</i>

As valley deepens

Rhod & Laurel thickets
along stream, except
where open herb, swamps

(9)

Ascent up out of
tramway trough
S.E. slope

Chestnut	Chestnut oak
tulip	in understory
hickory	becoming prominent
Ch oak	as chestnut dies
red maple	

Downy	Glebe
Rhod	Gnaphalium
Laurel	Eugenia
tall tree	Lespedeza
Dryad	Asmundaca
pedunculate	Asp. n.t.
vac. vac.	Amphigenia
Azalea lutea	Plebe
Withholt	Lespedeza hirta
	Pedicular

An open forest -
 Amr, due to decay of chestnut
 more of a single

Ascending, tulip drops
 out ch & ch oval
 more brown

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Pines enter & young
 ones vigorous in opening
 understory
 more & more open,
 more vac. vac.
 more open grassy patches
 & " ground beneath

The young forest to come
 will have more
 sassafras, pecan
 ch. oak, hickory
 red maple

Alnus
 Chamaecyparis

(29) Gap has no rock -
 Last summit here is
 chestnut - sh. oak
 Pogonaea

back to head of Elkens
Branch, + then N.E.

add to plants of trip

Asclepias quadrifida

Silene virginica

much ferns - *Osmunda* & *Nerodia*

Beech trees

Aralia racemosa

Spore goes down to

beautiful valley of

Rhod. w. tulips &

hemlock, white oak

Low damp places of

Osmunda regalis

" "*Cheilanthes*

~~toft bac~~

~~Juncus~~

~~Sedge~~

~~Phlox~~

~~Erigeron~~

~~Chelone~~

~~bibirum~~ ~~Leontopodium?~~

~~mosses~~ ~~Cassinia?~~

more white oak & red maple

than big hemlocks

& valley become

hemlock - Rhod.

with laurel

Acer pennsylvanicum

Arenaria leaf

Magnolia

Gentiana

Peperomia

a few *Asplenium*

Phytolacca

Epipactis

Araceae

Orontium

Araceae plant in
Chelone swamp
& in creek

Cyper. acule

Althia

Orchid (beech seedling)
Listera smallii

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(June 22)

Trees along Poor Fork
at Mullens

Beech

White oak

Chestnut

Hemlock

Red maple

Birch (Lenta)

Basswood

& next to river -

Betula nigra

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map Galax 4

Sherman Bush Cave Branch
a little less than $\frac{1}{2}$ mi up

John Year

 $\frac{1}{2}$ mi beyond Bush's, a
big beech on right, entrance
A.S.M. turn up mountain
on right.

Salamanders -
dark + light - Collars
red - with orange spots
ringed with black
yellowish or brown stripe
down each side

Lichen salamander
dark ground irreg. spotted
with with lichen colored
blotches, these (w. lens)
seen to be brown speckled
(walking on beech or moss sticks)

Speckled - seen in spring
almost brown back + wavy
line down side