

RECORD

41

Collection and Field Note Book

No. 41

(May 28, 1955 - Dec. 4, 1955)

(36377 - 36666)

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Collection and Field Note Book

No. 41

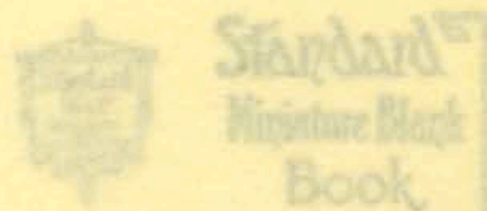
(May 28, 1955--Dec. 4, 1955)

(36377 - 36626)

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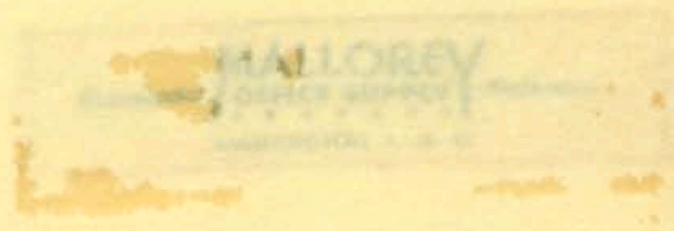
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VI 2 1955 Virginia

May 28 - North entrance to
Skyline Drive

36377 *Wisteria frutescens* (L.) Poir.
edge of woods on steep slope.

May 28 - Gooney Manor Overlook
steep rocky slope, sunny

1 78 *Bromus tectorum*
just below road on

2 79 *Bromus*
abundant just below road

2 80 *Alyssum alyssoides* L.
common just below road

2 81 *Crataegus*
occasional on

1 82 *Cheilanthes vestita*
rock crevices

1 83 *Chironanthus virginicus*
occasional on

1 84 *Rosa carolina*
abundant locally on

2 85 *Rhus aromatica*
common on

1 86 *Panicum linearifolium*
common locally on

1 87
common locally on

2 88 *Crataegus marshallii* Ashe
occasional on

Shenandoah Nat. Park 3

woody vine climbing
in trees, racemes pendent,
petals light violet, standard
with greenish-yellow center

shrub 2 m. tall

stoloniferous, shoots
petals pink.

depressed shrub
fruits red.

erect,

shrub 1.5 m. tall.

May 29 - Milestone 86 on
Skyline Drive, 1 mi. S. of Black Rock,
Albemarle Co.

An area of dense scrub
principally *Quercus ilicifolia*,
but with liberal components
of *Nyssa sylvatica*, *Quercus*
prinus, *Kalmia latifolia*,
Rhododendron nudiflorum, *Sassafras albidum*,
clumps of *Castanea dentata*, many of which
are killed back by blight.
Lower layer up to 1 m. high
of *Vaccinium vacillans*,
V. stamineum, *Pteridium*
aquilinum, and locally especially
Jaylussacia barcata.

The whole unevenly 3 m. tall
clumps 1-2 m. apart,
the whole so tangled as to
be traversed with difficulty.
36389 *Rhododendron nudiflorum*
occasional in scrub

- 3 90 *Convolvulus spithameus*
on steep shaly road cut
1 91 *Spiraea ~~latifolia~~ betulaeifolia* f.
on steep open road cut
3 92 *Hieracium pilosella*
on steep open road cut

Around edges are *Rubus*
(*Eubatus*) bushes and *Myrica*
pergrina, tangled in the
rest of the scrub.

A scattered emergent
layer, trees 10-20 m. apart
locally closer, principally
Pinus rigida and *Quercus*
prinus.

shrub 2 m. tall, leaves
slightly glaucous beneath;
most corollas dry, fresh
ones pinkish with red
tube, odor not agreeable.
flowers white,

campii

buds pink

flower yellow.

May 29 - Along s. base
of ~~Wildcat Ridge~~ ^{of ~~Dayton Mt.~~} on fairly
level ground.

Thin forest of small
Quercus coccinea and
Q. prinus, mostly not
over 10 m. tall and 10 cm.
d.b.h., with chestnut sprouts
and a conspicuous shrub
layer, principally *Kalmia*
and a low shrub layer of
Vaccinium vacillans, etc.
Some small *Acer rubrum*
and *Pinus virginiana*; ~~taxus~~

The *Kalmia* is in full
flower. The *Vaccinium*
fruits are well grown
but unripe.

Woods similar to
this extend along the
Crimora Fire Road north
to the Pine Run Fire Road,
though they are in
places taller and
denser.

May 29 - Near Miller Run

sl. north. bet. 1400 - 1500'

Flat ground with open wood of *Pinus rigida* 60-75' tall, 10-12" dbh crowns not or only just touching, second story uneven but averaging half height of pines of *Quercus prinus*, *Q. velutina*, *Carya*, etc.

~~Low~~ Shrub layer scattered of *Quercus ilicifolia*, *Castanea pumila*, saplings of oaks & *Carya*, etc. Sassafras. Ground layer rather dense, mostly *Vaccinium vacillans* and *Pteridium* some *Rubus* (dewberry), *Ceanothus*, etc.

Much of the *Pteridium* malformed, pinnae somewhat twisted, slightly yellowish green, apparently attached by a mosaic. Some other herbs at least along road. Also *Robinia* along road.

Vitis climbing in trees.

10

1955

Virginia

May 29 - Black Rock Gap
grassy roadside
36393 *Lithospermum arvense* L.
4 common

May 29 Paine Run

1 94 *Quercus coccinea*
3 95 *Quercus coccinea*
dominant in woods
on gentle slope

May 29 - Black Rock Spring,
Paine Run

Bottom of deep canyon

6 96 *Alnus serrulata*
thicket around wet
ground below spring
2 97 *Rubus alumnus* Bailey
wet ground below spring

2 98 *Carex crinita*
wet ground around spring
2 99 *Carex swanica*
wet ground

36400 3 *Lindera benzoin* (L.) Bl.
moist ground

2 01 *Carex tribuloides* Wahl.
moist ground

3 02 *Lonicera japonica*
abundant in thin woods

1 03 *Populus grandidentata*
~~*canadensis*~~
very local

Shen. Nat. Park.

11

2300'

flowers white

1600 ft.

tree 25 m. tall, 4 dm. thick (acorns from ground)
Tree 15 m. tall, 2 dm. thick

1900'

slender trees 10 m. tall.

shrub 1.5 m. tall,
arching, primocanes erect,
1 m. tall.
spikes pendent

tufts

shrub, fruit green.

twining over shrubs

sprouts only, to 1 m. tall,
leaves at tip white beneath.

May 29 - Paine Run at the
Horsehead

- 36404 *Epigaea repens*
at sparse woods
- 1 05 *Hyloxys* ~~linearis~~
sparse woods
- 2 06 *Asplenium montanum*
crevices on vertical cliff
of quartzite
- 2 07 *Carex reniformis*
in small flat meadow
of thin grass near stream
- 1 08 *Lisyrinchium angustifolium*
shaded roadside
- 1 09 *Festuca octoploa*
common in small open meadow
of thin grass
- 3 10 *Vitis aestivalis*
common in thickets along stream
- 1 11 *Erigeron strigosus*
rare in bushes near stream
- 1 12 *Carex torta*
in bushes near stream

May 29 - Madison Run
south of Austin Mt.
open roadside

- 2 13 *Asclepias amplexicaulis*
occasional
- 2 14 *Rumex acetosella*
occasional in grass
- 3 15 *Danthonia spicata*
abundant locally
- 2 16 *Bromus*
common

prostrate
flower yellow

loose spreading tufts.

flower blue-violet.

erect, reddish.

woody vines; leaves
glaucous and venulose beneath.
erect, flowers white,
disk greenish.

1500'

erect (buds not open),
leaves ^{flat} horizontal, decussate.

erect, spikelets horizontal.

May 29 - Dunder Picnic Area
flat ground partly open,
former CCC camp site

- 36417 *Festuca ovina*
common in open
- 2 18 *Thuja occidentalis*
one tree in old camp, persisting
after cultivation
- 3 19 *Prunus serotina*
in thicket
- 1 20 *Rhododendron latifolium*?
in small thicket in open
- 2 21 *Quercus velutina*
in semi-open
- 2 22 *Pinus virginiana*
occasional
- 2 23 *Potentilla canadensis*
abundant in open places
- 1 24 *Fragaria virginiana*
common in open places
- 2 25 *Iris pallida* Lam.
persisting from cultivation
- 3 26 *Vitis aestivalis*
edge of woods
- 1 27 *Oxalis*
in open places
- 3 28 *Psathyra venosus* var. *meridionalis* Britt. & H. f.
local along road
- 1 29 *Pinus rigida*
occasional in woods
- 1 30 *Asclepias quadrifolia*
occasional along road

2600'

densely tufted

tree 4 m. tall, narrowly
columnar, sterile.small tree 8 m. tall,
open growing
leaves glaucous beneath.tree 10 m. tall, inner
bark yellow.

small tree

procumbent, petals
yellow, scarcely emarginate.
fruit red, sweet.

flowers blue lavender.

woody vine, climbing in
trees, leaves glaucous
beneath.erect, leaves red-brown
above, flowers yellow.
flower purplish

small tree

flowers pale dull pinkish

36431 *Rhododendron roseum*
occasional in sparse woods

~~32~~

2 32 *Rhododendron roseum*
one bush seen in sparse woods

1 33 *Gaylussacia baccata*
common in sparse woods

3 34 *Menziesia pilosa*
common in sparse woods

shrub 1.5 m. tall,
flowers bright rose pink,
strong delicious clove pink odor.

shrub 2 m. tall, flowers
pink with reddish tube,
clove pink odor.

shrub 0.6 m. tall,
flowers red.

shrub 1 m. tall,
corollas ~~are~~ cream,
pinkish on one side.

broad
level
top

May 30 - ridge from
Skyline Drive to Rocky Top
Thin second growth
forest, trees about 10 m.
tall 1-2 dm. diam.

Largely *Quercus prinus*,
Q. rubra, a few *Carya*
many partly burned
chestnut trunks, rather small.

Understory sparse,
mostly tree saplings,
little herbaceous growth.
Sparse *Vaccinium vacillans*
Many chestnut sprouts.

Ceanothus occasional
a few *Sassafras* seedlings,
also *Robinia*.

Gillenia, *Thaspium*,
Vicia, *Hedysotis* (exp. in
trail), *Hypoxis*, *Smilacina*,
Solidago, *Hieracium venosum*,
Festuca octoflora (in trail)
Iris cristata, *Zizia* com.

Locally *Pinus rigida*

Locally *Quercus ilicifolia*
and *Rhododendron nudiflorum*

Pteridium, *Menziesia*
Coreopsis verticillata, *Aster*

Where there are big
trees the herbaceous
growth is more abundant
and more diversified.
Several grasses,

Helianthus, *Prenanthes*,
Galium latifolium, *Carex*
Achillea, *Heuchera*,
Lasiopogon virginica,
Antennaria, *Potentilla canadensis*.

This has been burned
by a ground fire at
some time.

Environmental determinism
of vegetation is more rigid
in extreme environments,
less so in mesic ones.

Same ridge beyond
fork to Big Run Shelter -
partly covered by a
tall scrub, largely
Quercus ilicifolia
with scattered trees
of *Q. prinus*, *Q. rubra*,
Carya sp. *Pinus pungens*,
etc.

Partly young sapling
forest of *Q. prinus*
with some admixture
of *Q. rubra* and other
things. Fire signs.
Saplings perhaps 10 years -
5-7 cm. dbh. with
scattered larger trees.

Same ridge beyond trail to Austin Mt. on steep (45°) north slope thick second growth 10-15 m. tall, 3-12 dbh mostly *Quercus prinus* some *Carya*, *Acer rubrum*, *Quercus rubra*, etc. Thin undergrowth *Sassafras*, *Kalmia*, *Hamelia*, saplings then ground layer of *Vaccinium vacillans* ferns, etc. Ferns mainly *Dryopteris marginalis* but some *Asplenium platyneuron*, *Pteridium*, very little *Polypodium*.

Farther on, on s.w. slope, is conspicuous boulder talus, some of it open, scattered *Quercus prinus*, *Pinus pungens*, *P. virginiana*, *Acer rubrum*, *Betula lenta*, clumps of *Kalmia* + *Vaccinium vacillans*. *Parthenocissus* creeping over rocks. No other herbaceous growth. Rocks lying at angle of rest, about 45°.

Habitat classification - Major - a formula including climate, roughness, vegetation formations,

Minor - a formula including slope, exposure, density of vegetation, rock or soil drainage, etc.

Also *Prunus virginiana*, *Castanea dentata* sprouts, *Juglans nigra* (!), *Acer pennsylvanicum*.

Some distance farther a similar exposure and somewhat gentler more uneven rock slope has *Pinus strobus*, *Quercus prinus*, *Castanea dentata*, and on gentler parts, solid cover of *Gaylussacia baccata* and some *Amelanchier arborea*. Some *Pinus virginiana* and *Robinia*, also. *Betula lenta*. *Pinus strobus* seedling, in open parts. no herbs or other small shrubs

Ridge top covered by sparse
low forest of *Quercus*
prinus with some
Carya. about 10 m. tall
trees varied in diameter
up to 25 cm.

Shrubs dead, esp. in
openings; some *Prunus*,
Quercus ilicifolia

low cover of *Spiraea*
betulaefolia, *Vaccinium*
vacillans

some herbs, grasses
and canes esp. in
openings.

Saddle just before Rocky Top -
open scrub of *Quercus*
ilicifolia, *Kalmia*,
~~some~~ *Nyssa*,

thick ground cover of
Gaylussacia baccata,
Vaccinium vacillans,
Pteridium, *Myrica*
perrepina, etc. some
Xerophyllum.

scattered pines - *P.*
rigida and *P. pungens*
Quercus prinus etc.

South ridge of Rocky Top
covered by pine forest
East side hardwood.
North side scattered
pines and scrub.

Pines on south ridge
really rather scattered.
Between is a scrub of
Quercus ilicifolia,
solid in places, broken
in others, with a dense
ground layer of
Vaccinium vacillans
with some *Pteridium*,
Iris cristata, *Tephrosia*
virginiana. Tangled with *Smilax*
glauca.
A little *Kalmia*.
Pines *rigida* and *pungens*.
A few small trees of
Quercus prinus.

Some *Spiraea betulaefolia*
and *Gaylussacia baccata*.

S.W. side is a tremendous
boulder talus of quartzite
locally bare, locally
covered by a sparse
growth of *Quercus prinus*
Pinus rigida and *Betula*
lenta - undergrowth

a dense stand of
Kalmia in full flower,
 some *Nyssa*, *Hammamelis*,
Acer rubrum, *Sassafras*
 some *Vaccinium vacillans*
 locally *Q. ilicifolia* & *Amelanchier* etc.

Near top, on w. side
 a thick woods of small
Acer rubrum, *Q. prinus*,
Sassafras, *Nyssa*, etc.
 little undergrowth.
 a few *Cypripedium acaule*,
Dicentra quaternata, *Vacc.*
vacillans, *Kalmia*, etc.
Cornus florida *Hammamelis*, *Rhododendron*
 (*Azalea*) sp., but sparse.

On n.w. slope an open
 area with dense
 knee high scrub of
Gaylussacia baccata
 and *Vaccinium vacillans*
 with *Xerophyllum*, *Myrica* ^{*repens*}
 scattered taller bushes
 of *Kalmia*, *Menziesia*, &
~~occasional~~ *Nyssa*
 the whole scattered
 with young *Pinus*
~~rigida~~ *rigida* about
 3-10 m. tall

West slope of peak
 beyond ~~Rock~~ Rocky Top
 is a tremendous fire
 scar, covered by an
 uneven scrub of
Quercus ilicifolia, *Q.*
maulandica, *Q. prinus*,
Kalmia, *Nyssa*, *Castanea*
dentata sprouts, *Robinia*
 sapling, scattered
Pinus rigida up to 2 dm.
 thick, bark still charred,
 a dense under layer
 of ~~fast~~ *Gaylussacia*
baccata, *Vaccinium*
vacillans, *Menziesia*,
Pteridium, ^{*Piptunia*} and even
Lyonia ligustrina (rare).
 The whole surface
 is irregular and the
 local composition varied.

26

1955 Virginia

June 4 - Sleepy Hollow,

1.5 mi. s. of Falls Church

36435

Festuca elatior

7

open roadside on bare ground

Fairfax Co.

27

somewhat caespitose,
erect.

June 12 - 1/2 mi. south of
entrance to Big Meadows,
Skyline Drive, near Tanners Ridge overlook
Gallium mollugo
~~*Geranium macranthum*~~
small patch along roadside

74W

June 12 - Big Meadows
in opening in scrubby
growth of birch, cornus,
Crataegus.

2 37 *Laxifraga pensylvanica* L.
occasional

1 38 *Maianthemum canadense*
common in shade and
semi-shade

2 39 *Anemone quinquefolia* var.
common

40

June 12 - Skyline Drive

2 364 40 *Rhododendron calendulaceum*
local in oak forest
on slope

74W

June 12 - Old Rag View
meadow extensively
invaded by trees and shrubs
1 41 *Abies balsamea* L.
small group of trees in rocky
place, many seedlings.

1 42 *Poa*
common on roadside

perennial, not yet
in flower, rhizomes
and roots yellow.

scape erect, peduncles
very fistulose.

rhizome white, 2-3 mm.
thick, brittle, with
scattered very thin brownish scales.

shrub 2 m. tall;
style reddish.

3600'

trees 10 m. tall, young
growth blue-green, cones immature,
erect, dark purple, bracts pale green.

36443

~~June 12~~*Convolvulus spithameus*
on open road-cut

44

June 12 - Skyline Drive, 1/2
mi. north of Skyland entrance
Iris germanica
on steep road-cut

36445

June 12 - Skyline Drive, head of trail
to Thayer Hollow Shelter, Nicholson Hollow
Lepidium campestris L.
roadside

2

46 *Panicum wernerii* Scribn.
open road cut

47

June 12 - Thornton River
along highway in wooded valley
Tephrosia virginiana
locally common on steep roadcut

1

48 *Panicum clandestinum*
occasional in ~~cracks~~ opening

2

49 *Bromus*

roadside

3

50 *Pyrus*

in edge of woods

2

51 *Erigeron strigosus* Muhl.
in woodserect; flowers white,
stigmas obovate,
verrucose.dense colony, rhizomes
horizontal; petals and
sees strongly striped
with deep purple; stamens
and yellow, slightly
marked toward base,
pistil yellow. (July 10 - no fruit set)

3250 ft.

erect, much branched
caespitose

1150'

caespitose; flowers greenish
outside, rose within.

1050'

↓

spiny shrub 2 m. tall,
sterile (others seen size
of small trees).
erect herb, rays
lavender, disk yellow-green.

- 36452 *Rumex crispus* L.
 1 one plant seen, edge of woods.
 53 *Agropyron repens*
 grassy road cut
 1 54 *Lagotis*
 grassy road cut
 2 55 *Panicum ^{oligosperum} scribnerianum*
 grassy road cut
 2 56 *Bromus japonicus*
 grassy road cut
 4 57 *Arrhenatherum elatius* (L.) Presl
 grassy road cut
 1 58 *Bromus*
 grassy road cut
 3 59 *Rosa multiflora*
 roadside

erect.

somewhat glaucous,
 rhizomes slender, ~~horizontal~~ ^{horizontal}.

1000'

rather vine-like,
 flowers bright crimson

July 3 - north of
Tyson's corner
Patch of *Pinus virginiana*
surrounded by deciduous
woods.

Pinus virginiana about 20 m.
tall 1.5' - 2.5 dm. dbh
spaced 2 - 5 dm. apart.
A second story about
15 m. tall of young
Liriodendron, some
reaching canopy.
3rd story of *Cornus* 3-4
~~20~~ m. tall. These
two sparse and uneven.

Ground cover of *Lonicera*
japonica rather thin,
with *Rhus toxicodendron*
common. *Lycopodium*
complanatum occasional.
Some *Rubus*, some *Parthenocissus*,
some *Eumyrtus*, *Vitis*
a few seedlings of oak,
Acer rubrum, *Nyssa*,
Ilex opaca, *Pinus serotina*,
Carya, *Fagus*.

some
Desmodium

Some *Smilax rotundi-*
folia, the *Smilax*
and *Lonicera* more
common near edges of
woods.

The *Lonicera* and
Smilax tend to climb trees.

July 3 - north
of Tyson's corner
mixed deciduous
woods with some
Pinus virginiana.

Largest trees are pines
and *Liriodendron* about
3 dm. dbh and 30 m. tall
these 10-20 m. apart
or more. Occasional fair sized oaks, large
Among them saplings
of varied age and size,
mostly less than 1.5 dm.
thick, including *Lirio-*
dendron, *Fagus*, *Quercus*,
Carya, *Cornus florida*,

Shrub layer up to
2-3 m. tall includes
smaller saplings of trees
mentioned above, *Robinia*,
Vaccinium atrococcum,
Corylus, sprouts of
Castanea dentata, seedling
of *Nyssa*, *Rhus toxicodendron*.

Ground cover of *Mitchella*,
some *Vaccinium vacillans*,
Desmodium, *Medeola*, *Smilax*
seedlings of *Acer rubrum*,
Vitis, and of oaks, *Nyssa*,
Smilax, *Cornus*,
Parthenocissus.

July 9 - Corbin Cabin, Hughes
River, Madison Co.
(Nicholson Hollow)

This is a relatively
flat valley bottom which
has been under culti-
vation in the days when
the mountaineers lived in
the scattered cabins which
still stand in the valley.

The inhabitants were
removed about 25 years ago
and the forest has come
back. The present forest
is a mixed second growth.

36460 *Galium triflorum* Michx.
occasional in rather open
pine woods.

61 *Anemone virginiana*
occasional in overgrown
clearing in second-growth

62 *Prunella vulgaris*
occasional in weedy clearing

63 *Asclepias tuberosa*
rare in weedy clearing

64 *Ilex verticillata* (L.) Gray
in second-growth along stream

65 *Galium circaeae*
in stony ground in second growth.

66 *Cornus alternifolia*
in second-growth woods

67 *Anemone virginiana* f. *leucantha* Fern.
occasional in very weedy clearing

640 m. thicket of *Fraxinus*,
Robinia, *Pinus virginiana*,
Sassafras, *Acer rubrum*,

Clematis very abundant
in weedy places and thickets.

procumbent

erect, sepals greenish-white

flowers purple

flowers deep orange
several stems from base.

shrub 3 m. tall,

spreading.

roots yellow

small tree 4 m. tall

fruits green.

erect; sepals white.

- 36469 *Leonurus cardiaca*
4 common in clearing around abandoned cabin
- 3 69 *Clinopodium vulgare*
in clearing near cabin
- 3 70 *Malva neglecta* Wallr.
in clearing around cabin
- 1 71 *Agrimonia*
rare along trail in woods
- 3 72 *Monarda clinopodioides*
occasional in woods
- 7xW same July 10
- 3 73 *Oenothera*
common in clearing around cabin
- 2 74 *Chenopodium*
occasional in clearing around cabin
- 3 75 *Plantago*
common around cabin
- 1 76 *Carya*
in woods along stream
- 1 77 *Phlox paniculata*
rare in weedy clearing around cabin
- 2 78 *Hemerocallis fulva*
local, patches around cabins

erect, up to 2 m. tall,
flowers purple.

flowers bright purple
flowers pale lavender.

erect, flowers orange.

erect, flowers white.

erect herb to 1.5 m. tall,
branched at base; flowers
clear yellow; androecia
zygomorphic.

erect, leaves green
above, glaucous beneath.

small tree.

caespitose, flower
dull orange red.

July 10 -

Upper end of Nicholson Hollow
Hughes River, trail above
Corbin Cabin well above Indian Run

second-growth woods
of oaks, maples and
birch, with scattered
large Tsuga. A thick
undergrowth of Tsuga
seedlings 2-4 m. tall
coming in locally.

General canopy rather
thin, 10-15 m. tall,
trees extremely varied
in trunk diameter up
to 25 cm., mostly under
10 cm. Tsuga up to 40 cm.
Old dead chestnut trunks
up to 40 cm.

Substratum of broken
rock with some soil
and a thick litter layer.
Kalmia common in
undergrowth, some
Vitis ^{V. acerifolia} tree seedlings, etc.
Few herbs (Mitchella)

Tree seedlings incl. Carya,
Quercus, Acer rubrum, Fraxinus
Castanea sprouts, Acer nigrum,
Acer pennsylvanicum.

Undergrowth 1.5 - 2.5 m. tall.

All of this on fairly level
ground, cut by ravines.

Walker
photo

July 10 - Skyline Drive
- many formerly
open meadows are
now covered by a scrub
of Robinia pseudo-acacia
from 2-4 m. tall, forming
a solid canopy. In
places this may be
varied by sumac thickets.

Other meadows are
principally invaded
by Corylus cornuta,
forming low dense
patches about 1 m. tall
and several to many
m. across. (Old Rag View)

Others have scattered
pines and junipers.
Still others are still
primarily grass

Bright colored flowers
are mostly in the open
grassy meadows and
especially on open road cuts.

July 10 - Big Meadows, e. of Skyline Drive, Top of Rapidan Fire Rd.

Open meadow, scattered small pines and junipers. *Centaurea maculosa* forms a belt several yards wide along both sides of road.

Some small areas of *Robinia* 1-2 m. tall.

In lowest parts are large areas, almost fields, made white (from a distance) by ~~Troutretia~~ *Troutretia* in flower. *Languisorba* dominates other areas but ~~scarcely~~ flowering yet. *Rubus hispidus* also forms local patches in these low spots. *Thalictrum* also common locally. Some open desiccated pools with *Carex*, *Elymus*, and *Juncus*, as well as a *Polygonum* not yet in flower. *Rosa*, a very hispid prickly stoloniferous one, low 2-3 dm.

Patches of *Onoclea*

Patches of *Spiraea alba*

low 3-5 dm. beginning to flower.

Patches of *Pteridium*.

Patch of *Cornus foemina* and some *Crataegus* & *Spiraea*, 1-2 m. tall. some *Corylus*.

a low *Rubus* with retrorse prickles.
Polygonum in open spots
overgrowth
of rocks.

On higher ground *Chrysanthemum leucanthemum* is locally common.

Patches of very low *Crataegus*, also of *Rubus flagellaris*. Low patches of *Pyrus virginiana* about 2 m. tall, surrounded by a belt of spreading *Rubus flagellaris*.
~~etc~~

Grassy areas with abundant *Fragaria*, but little ~~and~~ *Vaccinium* except in a few local patches. Low patches of *Corylus*, with running underground stolons, the stems only 1-2 dm. tall, both smooth and very glandular forms. No fruit. Patches of *Hennstaedtia*. The grassy places with *Danthonia*, *Agrostis*, *Carex*, *Pyrus (arvensis)* with the *Corylus*. Some *Cyano*, *Asclepias*, *Syracus*, *Cirsium* (large), *Lysimachia quadrifolia*, *Solidago*, *Polytrichum*. Large spots of ~~Polygonum~~ *Polygonum* common, partly dead. Low patches of *Rubus* (argenteus?) *primocane*. *Lycopodium complanatum*.

Achillea
herpifolia
Chilobium
angustifolium
Anemone
quinquefolia

July 10 Rapidan River
 River-line right-of-way
 has thick growth of sprouts
 of Sassafras, Robinia,
 Liriodendron, Nyssa, etc.
 Forest here is largely Liriodendron.

July 10 - Stony Man Mountain
 Overlook, Skyline Drive

Grassy roadside
Galium mollugo L.

one clump seen on

Carex

common on

July 10 Old Rag View

Corylus cornuta
 forming patches in
 meadow

July 10 1/2 mile south of
 Big Meadows entrance,
 Skyline Drive

Galium mollugo L.
 grassy roadside

July 9 - The Pinnacles Overlook
 Skyline Drive

Asclepias tuberosa
 roadside

July 9 - Thornton River

Campsis radicans
 roadside thicket

800 m.

caespitose; flowers white.

caespitose, culms
 spreading.

1190 m.

shrub 1 m. tall.

1050 m.

caespitose, stems
 decumbent to ascending,
 flowers white (same
 clump as #)

3720'

1040 m.

flowers orange

wine climbing in bushes,
 flowers deep orange red. stigmas

breaching
 closing when
 touched.

July 12 - Fat Buffalo,
(7-corners), south of Falls
Church.

A strip about 30 m wide
and perhaps ~~200~~ 200 m.
long of thick oak forest
was cut at about
1 m. height from the ground.

The forest ~~is~~ was about
20-25 ~~ft~~ m tall, trees
3-8 m. apart, up to an
extreme of 55 cm. thick.

The tops of the stumps of
60 trees were measured,
mostly *Quercus velutina*,
Q. coccinea, etc. Measure-
ments in inches diameter.
Rings were counted.

Accuracy probable to within
 ± 2 rings, possible error
due to some rings being very
small. Measurement
was total diameter incl. bark.

Table on p. 47 arranged along
the strip from east to west.

Clear indication that
there is no relation between
diameter and ~~ring~~ age.

This forest is about 50
years old, except the east
end which is between 18+30
years and mixed in composition.
No regular pattern of ring
width variation. Some trees

diam.	rings	tree	diam.	rings	tree
9½"	20	tulip	13"	48	oak
13"	18	"	7½"	40	"
11"	20	oak	10"	48	"
14"	29	locust	17½"	49	"
10"	24	red maple	15"	45	"
19"	20	oak	9"	40	"
10½"	26	"	14"	47	"
9½"	26	locust	13"	49	"
21"	50-52	oak	18"	49	"
22"	49	"	12"	52?	"
10½"	45	"	11"	41?	"
13"	44-45	"	9"	50	"
19½"	50	"	9½"	47	"
19½"	50	"	12"	47	"
10"	47	nyssa?	13"	47	"
12"	41	oak	11½"	46	"
13"	49	"	12"	47	"
15½"	51	"	10"	45	"
8½"	50	"	16"	48	"
14"	46	"	16"	48	"
13"	49	"	18½"	44	"
12"	46	"	12"	43	"
10"	48	"	8½"	46	"
8½"	45	"	14½"	44	"
10½"	42	"	19"	44	"
17½"	49	"	11½"	46	"
9"	48	"	22"	47	"
6½"	43	"	have a narrow		
13"	48	"	period about 2/3		
15½"	47	"	from center to margin,		
10½"	50	"	other, more or less		
7"	44	"	equal, others very		
17½"	38	"	narrow in outer inch.		

July 18 - Sleepy Hollow
1 mi. S. of Falls Church
Planted in garden,
reproducing spontaneously

36485

Monarda

2

86

Monarda

July 16 -

1

87

Goodyera pubescens
occasional in young
pine forest

July 23 -

1

88

Pyrola

mixed second growth woods

2

89

Cuscuta

parasitic on various weeds
in recently abandoned corn field.

1

90a

Glycine

occasional to common in stubblefield

1

91a

Glycine

occasional to common in stubblefield

erect, flowers bright
- deep maroon-purple.
erect, flowers bright
red.

erect, leaves gray-green
with white veins; flowers white.

stems pale yellow,
flowers white.

flowers rose-purple.

flowers white

July 9, 16, 23, 30 - Area west of Potomac River in area of Great Falls and ~~Shiloh~~ ^{Georgetown} ~~Reservoir~~ covered by S.C.S. air photo DUB-3M-69, lying between river and Old Georgetown Pike and to the west of the Pike.

The area is a mosaic of cultivated fields, pastures, abandoned fields and pastures, deciduous woods of varied age and composition, and *Pinus virginiana* woods of varied age and amount of admixture with other things. The outlines of patches of different forest types, especially of the pine, in many places suggests that they came in on old fields which have been abandoned.

Unfortunately much of this land is being sold for lots and houses are being built on them. The face of this area will change rapidly and the principal value any observations will have is as records of what was there in the summer of 1955.

Notes are arranged by numbers as marked on overlay in red, each number indicating a plot or area that seems on the photo to be more or less uniform.

1) Open field, grassy, *Tridens flavus* and *Lespedeza striata* the most important component. Several small clumps of oaks scattered in the field. Was cleared from scrub pine forest and planted to grass, according to owner, who was mowing it at the time. Grass 15-20 cm. tall.

2) a) area of abandoned field near road with abundant invasion by shrubs such as *Rhus copallina* and tree seedlings, esp. *Prunus serotina*.

2) b) young pine forest, *P. virginiana*, with pine saplings very closely spaced, about 2.5 m. apart or less, 6-10 m. tall, canopy incomplete because

of narrowness of crowns
some grass and a little
Lonicera japonica in
ground cover. Seedlings
of hardwoods - *Acer rubrum*,
Quercus spp., *Prunus*
serotina, etc. Interrupted
second story of *Cornus florida*.

In open places denser
ground cover of *Andropogon*
virginicus, *Rhus*, *Vaccinium*
stamineum, young pines,
etc.

In parts the pine is
sparse, evidently an old
pasture. The spaces
between the pines are
being filled with saplings,
also largely pine.

3.) Open ground around farm
house.

4.) Forest of *Pinus virginiana*
with some *Robinia pseudo-acacia*
about 65 ft. tall. Rather
open forest with ~~no~~ irregular
canopy, trees 3-5 m. apart.
second story of *Cornus*
florida with saplings

of such trees as red
maple, *Fagus grandifolia*,
a little *Ilex opaca*, etc.

Ground cover princi-
pally *Lonicera japonica*,
with some *Campsis radicans*,
Parthenocissus quinquefolia,
Vitis sp. *Smilax*, etc. These
~~in thin places~~ all tending
to climb trees but
principally forming
a mat on the ground.

In thin places some
Lycopodium complanatum,
Goodyera, *Mitchella*,
seedlings of hardwood trees.

5.) Irregular forest,
mostly hardwood, a
few pines among scattered
larger trees, much
younger growth. In
this young growth are
Cornus florida, *Ilex opaca*,
and saplings of *Carya*,
Quercus alba, *Q. velutina*,
Nyssa sylvatica, etc.
This growth of saplings
very dense where the
taller trees are sparse,
more open where they are
close. Some *Aralia spinosa*
and *Juniperus virginiana*.

On ground are *Lycopodium complanatum*, seedlings of *Quercus*, *Carya*, *Acer rubrum*, but ground cover is very sparse.

This section merges into area no. 4.

- 6) Pasture of grass, mainly *Digitaria*, with scattered other plants.
- 7 Small ravine with mixed thicket of deciduous shrubs and small trees - *Cornus florida*, *Rhus*, *Acer rubrum*, *Quercus falcata*, *Diospyros virginiana*, *Prunus serotina*, and a few small *Pinus virginiana*. Dense undergrowth tangled with *Lonicera* and *Vitis*.
- 8 Pasture of mixed grasses, some *Digitaria*, mostly *Agrostis alba*, recently mowed.
- 9 Alfalfa field recently mowed.

10) Sparse forest, mainly of oaks in upper story, but with some pine locally.

Second story dense in places, of *Cornus florida*, *Myrica sylvatica*, *Acer rubrum*, oak saplings.

Ground cover sparse, some *Vaccinium*, *Vitis*, seedlings of oaks, *Carya*, *Sassafras*, sprouts of *Castanea*.

11. An abandoned field, mainly covered by *Andropogon*. Divided by small road. On one side of road some invasion by seedlings of pine, sumac and a few oaks. *Andropogon* dominant.

On east side of road the grass has been mainly replaced by *Solidago*. Invasion by woody plants mod. more prominent - pine, locust, sumac, *Sassafras*, etc.

Strip along edge of forest has little open ground left and saplings are quite tall.

12) Patch of young *Pinus virginiana* west of field (11). Edges toward field and road are thick stands of ~~of~~ smaller pines, 2-3 m. tall, here with grassy ground cover.

13) Tall mixed forest, locally deciduous locally with some pines. Some of these very tall, over 100'. This is an old pine stand gradually being replaced by deciduous trees, especially oaks, some beech and other trees forming an important second story. Little ground cover - a few tree seedlings and some *Lycopodium complanatum*. ~~The~~ Pines are on higher spots, lower are pure hardwood - very uneven, some large trees. ~~possibly~~ ~~formerly~~

14a) Deciduous forest with some pine - otherwise oaks, *Prunus serotina*, some *Acer rubrum*. On the edge this is very dense and the trees are fair sized. Inside the large trees have been logged out - principally pine judging from stumps. Much of the interior is a low thicket of saplings of *Cornus florida*, *Prunus serotina*, *Rhus*, *Acer rubrum*, *Nyssa*, etc. 1-2" diam. Less than 20' tall. The *Cornus* and *Prunus* are dominant. Undergrowth of *Viburnum*, some *Ilex opaca* and chestnut sprouts. *Rhus toxicodendron* common near edge. Ground cover varied locally, *Mitchella*, a few ferns, seedlings of trees.

This stand appears rather the same age. Perhaps was burned after logging. Farther in some *Fagus*, a few large trees, seedlings of oaks, hickory, sassafras, *Ehonymus americanus*.

14b) Changes to predominantly pine forest (*P. virginiana* but a few *P. rigida*).

Almost complete second story, ~~of~~ uneven in height of saplings of tulip and hickory, with *Cornus florida*.

Pine stand rather sparse, canopy open, tree measured about 93' tall.

Shrubs of *Ilex opaca*, chestnut sprouts, seedlings of deciduous trees, much *Lycopodium complanatum* forming ground cover.

little
humus.

More southward the second story and ground cover become very sparse, forest is open, some large tulip trees.

15) Abrupt change to almost pure pine forest with a thin second story of *Cornus florida*; pines rather even in height. Very low sparse ground cover. Humus very thin, but no fire scars on trees.

Old small clearing with young pines, tangled with *Lonicera japonica*,

oaks, locust, sassafras, *Prunus serotina*, very thick but low.

16) recently abandoned corn field, corn stalks not entirely rotted away. Apparently abandoned last year as there is a dense layer of *Plantago virginiana* dry from last year and a thriving layer of living *Erigeron annuus*, *Ambrosia artemisiifolia*, *Oenothera biennis*, *Coryza canadensis* and *Daucus carota* about 1 m. or less tall. *Euphorbia corollata* rare.

17) Very uneven forest mainly oaks and hickory. A scattering of very large oaks and tulips 100' tall. Canopy not continuous. Under story continuous, of *Cornus florida*, *Nyssa*, oaks and hickory saplings. Little ground cover.

Forest thicker, mainly oaks toward road. Eastward forest gets lighter less tall, mostly oaks.

1955 Virginia

hickory, occasional tulip, second story of saplings of same. Sparse undergrowth with vines.

(18)

19) Fairly close stand of pines forming a roughly rectangular patch surrounded by deciduous forest - probably site of an old field. Pines (*P. virginiana*) 75-100' tall, well developed understory of *Liriodendron*, *Acer rubrum*, *Carya*, *Cornus florida*, with much *Ronicea japonica*, *Rhus toxicodendron*, etc. Little ground cover, some *Lycopodium complanatum*.

20) Irregular occurrence on slightly higher ground of tall pines - many of them fallen or dying. Mixed with other trees of various sizes. Pines being replaced. Undergrowth of saplings of beech, *Nyssa*, bushes of *Vaccinium stamineum*, saplings also of sassafras and sprouts of chestnut. A few large trees in places, with second story of *Cornus florida*, oak, *Nyssa*, *Carya*, sassafras ^{few little} ~~at~~ *Juniperus*.

sprouts of chestnut,

Toward road some large oaks, tulips, lots of ferns. Another side of road a rather sparse stand almost pure oak - in somewhat a blanket of *Lonicera japonica*.

- 21) Irregular stand of large oak and Hickory, one large beech, ground cover very sparse, second story uneven. An opening with seedlings of oaks, tulips, *Carya*, sprouts of *Castanea*, undergrowth of *Gaylussacia* and *Vitis*.

Locally there has been a ground fire. Here are oaks, tulip, some hickory 100' tall. A little ~~beech~~. Understory sparse, very little undergrowth.

- 22) Stubble field with *Lespedeza* and *Glycine* probably planted for green-manure or pasture.

- 23) Irregular forest, rather open, mainly *Liriodendron* & *Acer rubrum*. Undergrowth of saplings and *Lindera* almost smothered by *Lonicera japonica*.

- 24) Pasture with scattered trees, mowed.

- 25) 24 Unmowed part with mostly holidays, seedlings of trees - *Robinia*, *Quercus*, *Rassafras*, *Diospyros*.

- 26) (omitted)

- 27) Rather sparse and uneven stand of fairly mature pines with an admixture of *Quercus falcata* - incomplete canopy about 75' tall. Second story ~~is~~ rather well developed but uneven, of *Cornus florida* and saplings of oak, tulip, *Fagus*, a few *Robinia*. Shrub layer of *Vaccinium stamineum* and small saplings of trees. Ground cover almost solid carpet of *Lycopodium complanatum* with

seedlings of oaks, hickories,
Cornus florida.

28 Somewhat denser
pine stand with a few
Quercus falcata. Canopy
still sparse.

Second story about as
in 27, with *Cornus*,
tulip, red maple, beech,
a few hickory saplings.

Ground cover very sparse,
very little *Lycopodium*,
some ferns. *Goodyera*,
Whitchella, tree seedlings.

Many pines dead.
Dense shrub growth in
openings left by dying pines.

29) Stand of pine of uneven
age - has been open
with scattered trees, as
some large pines have
well developed lower
limbs, now dead.

Second story of beech,
tulip, *Cornus*, locust.

Ground cover of *Lycopodium*
complanatum.

Occasional patches of
Lonicera japonica. Occasional
saplings of oak, hickory, tulip,
sassafras. Clump of *A. glaucus*
where no water evident.

30) Sharp boundary ^(old pine line?)
between this and 29.

Forest of mainly hardwood.
Oaks, ~~hickory~~ beech, Acer,
rubrum, small hickories,
a few pines.

Thin understory of
saplings of same trees
(except pine) with *Nyssa*
and some *Cornus*. Some
small *Juniperus*.

Thin layer of *Gaylussacia*
and *Vaccinium* rather
local, seedlings of trees -
all quite sparse.

Abundant stumps of
Castanea.

Much *Fagus* and small
Nyssa here.

Ground cover sparse,
of *Vaccinium vacillans*,
Parthenocissus, tree
seedlings or root sprouts.
This drops out in low
places.

Chestnut has evidently
been cut here after
it died.

31 (omitted)

32) *Quercus falcata* and *Q. coccinea* - a few large trees up to 2' diameter. mostly much smaller. Some small hickory in top story, more in second story which is extremely sparse. Very little herb ground cover, only irregular scattering of small shrubs and tree seedlings: hickory, tulip, oak, some maple and sassafras. *Vitis*, *Parthenocissus*, *Rubus*. a few *Lindera*, *Smilax*. Much litter exposed because ground cover so sparse.

32a) Lower ground -

Liriodendron becomes abundant, some oaks, hickory, locally *Juglans nigra*. Canopy quite thick. Some trees quite large, over 50 cm. diam. Second story largely *Cornus florida*, ^{spaced} shrub layer abundantly of *Lindera benzoin*. Ground cover mostly a blanket of *Lonicera japonica*, locally ferns, these in places abundant.

Phryma rare here. This type occupies bottom land of small meandering streams.

32b) Thin oak forest with second story of *Cornus*, undergrowth of *Acer rubrum* and *Carya* saplings, this sparse.

33) Sparse irregular patch of pine, many fallen. Second story of *Cornus*, sassafras, *Fagus*, *Acer rubrum*. Ground cover of *Lycopodium*, *Lindera*, *Parthenocissus*, *Rhus toxicodendron*, tree seedlings.

33a) On both sides of road on little rise - dense rather even stand of pine about 60' tall. (abundant seedling pines to 3 years old on road cut.) Second story thick but uneven - *Cornus* with saplings of *Acer rubrum*, oaks, *Fagus*, some *Nyssa*, tulip, chestnut sprouts. Very little ground cover.

Aug. 23 - estuary west
of Joe Dyer's Point

✓

36490

slope of low knoll
just above salt marsh
Aster macrophyllus var. *sejunctus*
^{Burgess}
forming a dense
ground-cover in aspen
grove, mainly of sterile rosettes
91 *Euphrasia rigidula* Jrd.?
on ^{bare} eroded ~~the~~ ground

2 92 *Aster divaricatus* ^{umbellatus} Mill.
common

2 93 *Euthamia graminifolia* v. *nuttallii*
common

same - at high tide
level in edges of salt-marsh

3 94 *Stellaria graminea*
very local

3 95 *Hypergularia canadensis*
restricted narrowly to
upper edge of ~~the~~ area
covered by tidal water.

2 96 *Plantago maritima*
very common

2 97 *Triglochin maritima*
common

4 98 *Spartina patens*
very local

1-2 m

~~fertile~~ rhizomes prostrate
subterranean; fertile
stems erect, dish yellow
rays pale lavender.
erect, flowers white
with yellow eye in ^{lower lip} ~~the~~ lip.
^{lateral lobes} and upper lip dark-marked
inside.
erect; rays white, dish
yellow.
flowers yellow

0 m

procumbent, petals
white, bifid.
leaves fleshy; flowers
straw-white.

leaves stiffish, somewhat
~~fleshy~~ fleshy, plants
varying much in size.
caespitose, spikes erect.

rhizomes form a dense sod.

- 36499 *Suaeda maritima* (L.) Dumr.
common
3
36500 *Halicornia europaea* L.
local
2
3 01 *Scirpus fluviatilis* (Tor.) Gray
forming dense patch
2 02 *Juncus*
common
4 03 *Limnium nasale* Small
common
vv same - mud flats below
high tide level.
4 04 *Spartina alterniflora* Loisel.
abundant, pure
stands ~~are~~ over large areas
practically submerged
at high tide.

vv Aug. 24 - Milbridge,

- 36505 *Veronica longifolia* L.
persisting around old
house-site
2

~~leaves~~ erect; leaves fleshy.

stems terete, fleshy,
red to green
rhizomes horizontal,
subterranean.
caespitose

corollas lavender.

0 m.

erect,

4 m.

erect, branched at base,
flowers blue-violet.

Aug. 24 - ~~West~~ ^{West} of Cherryfield
(bet. Cherryfield & ~~Cherryfield~~ ^{Franklin} (Twp. 10))
Low hills of granite
which have been burned
about 2 years ago. Most
of trees were killed - a
few small *Quercus rubra*
etc. surviving, some
Q. rubra many *Betula* ^{new sprouts}
^{acorn} sprouting from root crown.
Ground cover of *Vaccinium*
(*V. angustifolium*?), *Deschampsia*,
Pteridium, etc. Being
extensively invaded by
Myrica pensylvanica, *Rhus*
typhina, *Spiraea*, some
Rubus (*Rubatus*), some *Dierwilla*,
Gaylussacia, etc.
Now open enough to be
traversed in any direction

Aug. 24 Salmon Pond, s. of
Tunk Mt., 8 mi. w. of Cherryfield
Slopes of about 30° down
to lake. Covered by rather
dense wood of *Petula*
papyrifera, *Thuja*, *Picea*,
Abies, *Acer rubrum*, etc.
Dense ground layer of
Vaccinium angustifolium,
Gaultheria procumbens,
Pteridium, *Aralia nudicaulis*,
with *Cladonia* and
mosses thickly covering

rocks and bare spots.
Scattered shrub
layer of *Vaccinium*
corymbosum, *Alnus*,
Ilex, etc. getting
thicker toward the
lake margin. Thick
peat on the ground.
Pinus strobus and
Picea seedlings, as
well as those of
~~deciduous~~ maples,
oaks, etc. in shade.

Forest varies locally
in dominants.
Around the lake *Alnus*,
Myrica gale, *Rhododendron*
sp. are abundant.

Some *Tsuga* very locally,
with *Pyrola* on roots.
Acer pensylvanicum,
Viburnum ^{*alnifolium*} ~~*strawberry*~~,
etc. in undergrowth.

Aug. 24 Spring River Lake 200'

✓ Aug. 24 - Hill north of ~~Little~~ ^{west end of} Spring River Lake,
3 mi. west of Cherryfield
Bare open rounded granite
slopes with patches
of vegetation - *Vaccinium angustifolium*,
Gaylussacia, *Empetrum*,
Syrinx melanocarpa,
Juniperus communis,
Danthonia, *Cladonia*.
growing in crevices
and on places where
grit and humus have
accumulated and been
stabilized by mosses.
Some small *Betula populifolia*,
Myrica perrepens. Wind
beaten firs and *Pinus strobus*.

Aug. 24 - west end of Spring
River Lake, 3 mi. w. of Cherryfield
beach of fine gravel Hancock Co.

- 36506 *Alnus incana* var. *americana*
important component of scrub
at top of beach
07 *Ranunculus reptans*
rare, above water level
08 *Veronica scutellata*
above water level
09 *Galium brevipes*
above water level

- 10 *Utricularia cornuta*
same - delta of fine ^{wet} sand.

420-440'

Aug. 24 - Spring River Lake -
west end surrounded
by mixed forest of red
maple, *Thuja*, *Abies*,
Betula on flat ground
on both sides of small
stream. Mouth of stream
forms a delta of fine
sand. The landward
part is dry and covered
by a broken scrub of *Myrica*
gale. The stream margins
and lobes extending into the
lake are wet, covered by
a mixture of a sterile grass,
several sedges, *Drosera*,
Xyris, *Eriocaulon*, with a
patch of low *Myrica gale*
in the center of one lobe.

200'

60 m.

shrub 2.5 m. tall; leaves
glaucous beneath.

prostrate, flowers yellow.

flowers lavender.

prostrate

erect, flowers bright yellow.

- 36511 *Xyris montana*
common
- 1 12 *Drosera intermedia*
abundant
- 1 13 *Eriocaulon septangulare*
abundant
- 1 14 *Fimbristylis autumnalis*
very rare
- 1 15 *Cyperus*
common

same - in scrub at top of beach

- 2 16 *Chamaedaphne calyculata* (L.) Moench
occasional
- 3 17 ~~*Desmodium illinoense*~~ *mucronata*
common
- 2 18 *Thuja occidentalis*
common

Aug. 24 - Hill north of west
end of Spring River Lake
bare granite exposure
near top

- 2 19 *Betula*
isolated, wind-beaten on
- 2 20 *Pyrus melanocarpa* (Michx.) Willd.
in thin grit accumulation
in depression on slope.
- 1 21 *Potentilla tridentata* Ait.
in thin grit accumulation
on slope
- 1 22 *Lechea*
on thin grit accumulation
on slope

leaves distichous; flowers yellow.

plant dark reddish.

plants solitary

plants solitary

60 m.

shrub 1 m. tall

shrub 1-2 m. tall; fruit
dull red, unpleasantly
bitter.

small tree 5 m. tall, very
bushy.

130-135 m.

tree 2 m. tall, bark
reddish.

prostrate; fruit black.

- ✓
36523 ³ ~~Thymus~~ ^{Comptonia} peregrina
abundant in openings
on thin soil.
- 1 24 Pinus resinosa Ait.
common in sparse woods
- 4 25 Betula populifolia
~~Aug. 24~~ ^{opening} in sparse woods
wooded
same - north slope
- 3 26 Monotropa uniflora
in deep humus, local
- 1 27 Lycopodium obscurum
in thick woods, deep humus
- 2 28 Chimaphila umbellata
in deep humus in thick woods

Aug. 24 - Salmon Pond,
south of Tunk Mt., 8 mi.
w. of Cherryfield.

Thick woods at edge
of pond.

- 43 29 Viburnum alnifolium Marsh.
occasional in ~~woods~~
- 3 30 Vaccinium corymbosum
occasional in
- 3 31 Gaylussacia
occasional in
- 3 32 Rhododendron canadense
common, especially at lake
margin
- 2 33 Pyrola secunda L.
very local, under Tsuga canadensis
on slopes.

shrub 0.5 m. tall, very
fragrant when bruised.

small tree 2 m. tall,
bark pale.

120 m.

whole plant pure
white except yellow anthers.

leaves glossy, scapes erect.

90 m.

shrub 2 m. tall; fruit
not quite mature, orange-red.

shrub 2 m. tall; fruit
blue, sweet.

shrub 1 m. tall; fruit
black, sweet.

shrub 1 m. tall; leaves
glaucous, especially
beneath.

reserves definitely secund.

Aug. 25 - Bois Bubert Island,

The island is generally low, rolling, of glacially worn granite. It is mostly covered by a low wood of mixed spruce, fir, birch and alder, with some *Prunus*. This is of uneven stature, rather sparse so ~~it is~~ ^{the trees are} branched to base in many places. Young trees, mostly spruce and alder fill many of the spaces where the forest is rather sparse. General ground cover of *Ericaceae*, pure stands locally of *Vaccinium angustifolium* and *V. ~~mitis-idaea~~ ^{mitis-idaea} urasi*, ~~but~~ *Empetrum nigrum*, *Gaylussacia baccata*, etc. *Kalmia angustifolia*, etc. Upper parts of low hills generally open, bare rock, covered with *Cladonia*, patches of *Vaccinium angustifolium* and *V. urasi*, *Gaylussacia baccata*, & a little scattered *Myrica peregrina*. Openings separated by patches of alder - mostly one with rusty

pubescence, but some with leaves glaucous beneath.

Pond in interior of island has

✓ Aug. 25 - Bois Bubert Island
south of Milbridge

- 36534 *Cuscuta*
4 parasitic on *Holidago*
sempervirens just above beach.
- 2 35 *Alnus nigra* f. *emersoniana*
common forming thickets
over most of the island.
- 7 36 *Empetrum nigrum*
common locally in
openings and thin woods.
- 3 37 *Alnus nigra* f. *emersoniana*
common, forming thickets
and undergrowth.
- 38 same - on ^{submerged} mat of *Nymphaea*
~~rhizomes~~ ^{rhizomes} bordering pond.
- 2 39 *Eriocaulon septangulare* with
rosettes submerged, heads
above water, in patches
near shore.
- 1 39 *Nymphaea odorata*
in water, forming a
zone 50-100 m. wide around
pond.
- 1 40 *Nymphoides cordata*
local near shore,
growing on
- 1 41 *Eriocaulon septangulare*
local, on raised places in
mat, rosettes at water's surface.

- ~~120'~~ 37 m stems orange, flowers
white.
- 120' 37 m shrub 2.5 m. tall.
pubescence yellowish,
leaves green beneath.
- 115' 35 m prostrate, forming
mats: fruit dull black,
fleshy but not agreeable
to taste.
- 115' 35 m shrub 2-3 m. tall,
pubescence yellowish,
leaves green beneath.
- 110' 33 m heads gray; roots
septate.
- ~~rhizomes~~ ^{rhizomes} thick and spongy,
forming a dense mat;
leaves floating, smooth
and green above, maroon
and with impressed
veins beneath.
- leaves floating, green
above, maroon beneath.
- heads gray

✓

Aug. 26 Joe Dyer's Point,
5 mi. south of Milbridge
spruce forest with
deep raw humus over
rocks, just back of
rocky shore.

36542

2

Trientalis borealis

common in shade

1

43

Vaccinium ~~viticordata~~ ^{viticordata} var. minus

common generally in shade

2

44

Vaccinium canadense

in spruce forest

2

45

Vaccinium angustifolium

in opening (old burn)

same - sandy patches
at top of boulder beach

cl

46

Mertensia maritima

common in

3

47

Atriplex patula var. *hastata*

common in

2

48

Convolvulus sepium var. *repens* (L.) Gray

common in

49

Atriplex glabriuscula Edm. ?

very common in

3-5 m.

leaves glossy; fruit
scarlet, acid, excellent
cooked with sugar.

shrub 3-4 dm. tall;

fruit blue, sweet.

fruit blue, sweet.

2 m.

prostrate, many branches
spreading from root crown
to form mat-like patches
up to 1 m. across; leaves
very glaucous, flowers
~~pinkish~~ bluish, turning
pink.

spreading, much
branched, green.

Twining over other
plants and creeping
on sand; flowers with
limb pink, nerves
white; stigmas oblong, 2, white.

plant prostrate, spreading,
much branched; whitish green.

- 36550 *Elymus*
occasional in
- 1 51 *Lathyrus maritimus*
common in
- 3 52 *Chenopodium*
rare in
- 1 53 *Ammophila ^{breviligulata} ~~canadensis~~*
common, ^{forming} patches in
- 2 54 *Chenopodium*
rare in
- 1 55 *Scutellaria epilobiifolia*
occasional in
- 3 56 *Stachys*
common in
- 1 57 *Muhlenbergia*?
rare in

Aug. 27 - same

- 3 58 *Spiraea*
edge of forest at top of beach
- 1 59 *Cornus canadensis* L.
abundant in spruce
forest growing on deep humus

- 50 erect, green.
- 51 forming tangled masses
- 52 erect, bushy, somewhat
glaucous, ill-scented.
- 53 erect
- 54 erect, bushy, somewhat
glaucous
- 55 erect, flowers bluish.
- 56 flowers pink
- 57 erect, leaves glaucous.
- 2 m. shrub 1 m. tall, flowers
pinkish white.
- fruit scarlet.

1955

Maine

west side of

Aug. 28 - Webb Lake, ^{n.e. of} ~~Webb~~
~~side of~~ Blue Mt. State Park,
 second-growth woods
 of Betula lutea and
 Acer rubrum, undergrowth
 of Abies saplings.

36560

Lycopodium clavatum
 common in shade

2 61

Lycopodium sabinæfolium Willd.
 common in shade

Franklin Co.

Ground cover of Aralia,
 Lycopodium, Cornus canadensis,
 Pteridium, Acer ~~nigrum~~
 seedlings, etc. Linnæa, Trientalis,
 Clintonia.

creeping, fruiting
 stems erect.
 creeping with erect
 branching secondary
 stems.

Aug. 28 - Shelburne,
Androscoggin River
Mixed forest of beech,
birch, hemlock, spruce,
white pine on rocky slope.

36562 *Lycopodium complanatum*
common in shade

2 63 *Lycopodium obscurum*
local in shade

2 64 *Fagus grandifolia*

1 65 *Betula papyrifera*
~~tree~~ common

3 66 *Betula papyrifera*
common

Aug. 28 - ~~Ellis River~~ south of
Pinkham's Notch, above Glen Ellis Falls 1550'

Low forest, mixed *Betula*,
Picea, *Acer*.

6 67 *Betula papyrifera*
common

The general forest cover
at lower altitudes in the
White Mts. is a general uneven
mixture of *Betula papyrifera*,
B. lutea, *Acer rubrum*, *A.*
nigrum, *Fagus grandifolia*,
Abies balsamea, *Tsuga*
canadensis, *Pinus strobus*,
Picea rubens, etc.

creeping rhizome on top
of ground, branches erect.
rhizome deeply buried,
stems erect.
small tree 5 m. tall, 10 cm.
diam., (others much larger)
tree 18 cm. diam., bark
white to base.
tree 20 cm. diam. bark
white to base.

photos of Mts. at Madison Adams, -
Jefferson (+ Great Gulf), Washington
from n. of Pinkham's Notch.
Washington ~~from~~ + Franklin from
s. of P.N.

Tree, several trunks from
base, largest 20 cm. diam.
bark white to base.

It seems to extend
upward, becoming
more coniferous, to a
timber line at perhaps
5500'. Most of the peaks
are wooded to the tops. Mt.
Washington has an extensive
area above timber line, mostly
covered by broken rock.

Sept. 2 - Road north from Lansing to Houghton Lake - first $3/4$ rolling glaciated country, mainly farm land, occasional spots of wood, scattered trees, fence rows, etc. sandy soil, much in low spots.

Transitional area apparently much of it abandoned fields with principally a low scrub of *Comptonia peregrina*, patches of *Pteridium*, areas of aspen thicket - these becoming more general northward. result of cutting and burning. Deer browse on aspen seedlings and lower branches.

North of this a conspicuous belt of pine-oak - both *Pinus banksiana* and *P. resinosa* and several oaks. Fairly closed forest though not old.

North of this, again, a mosaic of patches of aspen forest, *Thuja* swamp and open heath-like areas of *Comptonia peregrina* and *Pteridium* with

scattered trees.

Stop. 1 - Deer and rabbit enclosure in degraded *Thuja* swamp. This is a wet peaty spot with thickets of *Thuja*, *Alnus*, *Potamogeton*, *Betula nana* and various other less prominent small trees & shrubs.

This was logged over about 75 years ago and all big timber removed. The *Thuja* is mostly under 75 years old but some up to 175, but all small. Some very small cedars, an inch or so diam. may be very old. Dwarfing vaguely ascribed to fire, etc. but no satisfactory reason given.

Originally this was predominantly *Thuja* with some *Picea* and *Abies*.

Deer "yard" here in winter when snow is 15" or more deep. eat low *Thuja* branches and shoots above snow line. Also eat various other things but *Thuja* and *Taxus* are preferred, also *Cornus sericea*.

Enclosure in 85 years has not made conspicuous difference yet except to increase deer rubs & shoots.

Higgins Lake Conservation
~~Station~~ Training School

Lake with narrow sand beach, then surrounded by a broad strip of swamp forest - this has a peat layer apparently shallow. The swamp is mainly *Thuja* with *Tsuga*, *Abies*, *Betula papyrifera*, *B. lutea* - these birches more abundant toward lake and toward periphery, with some *Acer nigrum*. In the cedar and hemlock are thick there is almost no ground cover. Here the cedar layers conspicuously where it falls or grows down to the ground. Where the cedar and *Tsuga* are thick the ground cover is almost absent. Where birch is common *Aster macrophylla*, *Maianthemum*, *Pteridium*, *Aralia*, *Gaultheria*, *Polygala mederla*, *Trientalis*, *Actaea*, *Dryopteris austriaca*, seedlings of *Abies*, *Quercus*, *Acer nigrum*, *A. spicatum*, *Ulmus*, *Thuja*, etc. and such shrubs as *Amelanchier*, *Acer spicata*, etc.

This is surrounded by second-growth of oak, birch, and aspen.

Deer browsed northern white cedar forest.

This is a peat swamp with *Thuja*, *Picea*, *Abies*, *Betula papyrifera*, and *Populus*. The trees are up to 2 dm. ~~the~~ dbh, spaced 1-3 m., forming a dense shade. They are browsed off to about 2 m. showing a definite "browse line".

This is a "deer yard" and lacks shrub undergrowth. There is a thin ground layer of *Clintonia*, *Coptis*, *Galium triflorum*, *Viola* sp., *Asarum canadense*, *Linnaea*, *Maianthemum*, *Rubus* sp., *Trillium* sp., *Lysiplocarpus*, *Cornus canadensis*, *Equisetum* sp., *Carex intumescens*, *Lycopodium*, *Thelypteris palustris*, *Aralia nudicaulis*, *Carex stellata*, *Ronicera canadensis*, and seedlings of *Acer rubrum* and *Abies*.

The deer prefer the *Thuja* and, in fact, it and *Taxus* are the plants on which they can live over the winter exclusively.

Sept. 3 Miller's Landing
Dead stream

Large wilderness area of about 70,000 acres, with river dammed up to flood about 2000 acres. This has been flooded about 15 years and the water level is maintained within 3 inches.

The depth of water varies locally. Where it is about 1 m. there is a thick growth of *Myriophyllum*, *Cabomba*, *Elodea*, *Potamogeton americanum*, other *Potamogeton*, *Ceratophyllum*, *Najas*, *Nymphaea*, etc.

Where water is 2-3 m. *Ceratophyllum* is more abundant, also *Potamogeton zosterifolius* and *P. illinoensis*, some *Bidens beckii*, an alga, probably *Spirogyra*.

Much local variation in abundance and in proportions of different species. The bottom is generally but not always completely covered. *Sparganium* and *Vallisneria* are locally abundant. A sterile *Sparganium*(?) ~~former~~

which is emergent forms a crooked line which probably marks the old stream margin. Occasional dense patches of *Pontederia*. A few patches of *Typha*.

Large areas of dead trees. A knoll of slightly higher ground, just out of water, has a forest of *Betula papyrifera*. The only tree that has at all stood the flooding is a species of *Fraxinus*, which is half dead.

In areas of dead trees *Najas* and *Nymphaea* are abundant.

In one of the trees a pair of ospreys are nesting.

A grebe seen at edge of marshy area. Flock of ducks scared up by boat.

Gizania has been introduced and tends to crowd everything out.

Sept. 3 - just north of Higgins Lake - white pine saplings growing abundantly in rather thin shade.

Sept. 3 - Hartwich Pines State Park
north of Grayling & east of Frederic

A stand of very tall white pine on flat site - soil profile of litter 1-2 cm., dark brown humus 2 cm., gray fine sand 10 cm., then a yellow-brown layer over yellowish sand parent material. The white pines are 100-150 ft. tall, 2-12 dm. thick, with long clear boles. Mixed with fairly large hemlocks, red maple & sugar maple 75-100 ft tall. Good second story developed locally of maples, with many maple seedlings, these badly browsed. Little ground cover except maple seedlings and a few ferns.

On slope above there is an admixture of tall red pine, more slender than the white pine.

Surrounding area in a very open stand of young pines with bracken, ~~and~~ Rubus, and grass between.

To the north of Hartwich Pines is a long stretch of *Pinus banksiana*, mostly young, on sandy pale brown soil. Then on more gravelly soil a pine-oak mixture, with some patches of aspen.

Sept. 3 - 3 mi. n. of Lewiston
Montmorency Co.

Outwash plain, Grayling sand - covered by a mixed woodland ^{10 m. pines} of *Pinus banksiana* and *Quercus*, with some aspen. Shrubs of *Crataegus* and ~~Quercus~~ *Salix*. Dense ground cover of bracken, *Arctostaphylos*, *Vaccinium*, *Carex* and many herbs, with *Comptonia* common.

This on a yellow-brown sand, darkened in the top 2 inches, scarcely leached.

Just up the road on gravelly morainal material, Roselawn soil, there is dense second-growth wood of *Quercus*, aspen, *Pinus resinosa*, *Acer rubrum* about 15 m. undergrowth of *Corylus*, *Aralia*, *Pteridium*.

Q. velutina
Q. ellipsoidalis

Michigan

Sept. 7 - 6 mi. e. of Vienna
stand of northern
hardwood forest on Emmett
sand.

Beech-maple selectively
cut 50 years ago (for size.)

Acer nigrum, *Fagus*,
Populus grandidentatum.
The beech is up to 16 in. diam
maples smaller. A few
elms. Almost no ground
cover except beech and
maple seedlings. Some
local herbs, such as
Botrychium virginianum,
Dryopteris austriaca, *Viola*
canadensis, *V. sororia*, *Galium*
triflorum.

The trees are about
40-80 ft. tall, mostly 6-12
in. d.b.h. Canopy perhaps
95%. No second story
except a few scattered saplings.

Soil gray for 3-10 inches,
sandy, then yellow-brown.

Sept. 3 13 mi. n. of Atlanta,
north of Clear Lake.
Jack pine woodland on ~~flat~~ sand
plains.

- 36568 *Polygonella stipulata*
69 *Arctostaphylos uva-ursi* L.
abundant in ground layer
70 *Pinus banksiana*
dominant in

Sept. 3 - 13 mi. n. of Atlanta,
north of Clear Lake,
Montmorency Co.

Jack pine plains,
sparse woodland
of trees uneven in size,
up to 10 m. tall, a few
small oaks. Ground
cover of *Arctostaphylos*
uva-ursi where trees are
closely spaced, in more
open places with *Vaccinium*,
Comptonia, *Andropogon*
gerardi, and *Prunus susque-*
hannae.

7 ft. on sand, top 2-3
inches grayish black,
gradually changing to
yellow brown, changing
downward to tan. All
sand, no leached layer.

Small patches of small
oaks and aspen to north,
also open areas with
scattered clumps of
much more stunted pine
and scattered stunted oaks.

- flowers white.
- prostrate, leaves glossy,
- fruit red.
- small tree 4 m. tall.

Sept. 3 - Onaway State
Park, Black Lake

Deciduous forest on calcareous
soil - rather dense and
scrubby second growth
with scattered larger
trees. Large trees are
Tilia, *Quercus*, *Populus*
grandidentata, *Tsuga*,
and a few white and red
pines. Rare big white pine.

Small trees mostly
Astrya, *Acer nigrum*, *Fraxinus*,
Quercus velutina, *Tilia*.
Some *Betula papyrifera*
toward lake.

Fair shrub layer
1-2 (-3) m. tall of tree saplings.
Dirca palustris near lake.

Sparsely herb layer with
Hepatica, *Actaea pachypoda*,
Aster macrophylla, *Carex*, etc.
and seedlings of trees.

Sept. 4 - $2\frac{1}{2}$ mi. ^{west} south of Cross
Village

Flat ground ~~lined~~ behind
a wide belt of dunes
bordering lake. Flat ground
is of Kalkaska sandy soil,
gray upper layer, then
a purplish chocolate brown,
below this drift.

This bears a magnificent
northern hardwood forest.

The trees are *Fagus*, *Betula*,
Carya, *Acer nigrum*, *Quercus*
rubra, a *Tsuga*, a little
Betula papyrifera.

Complete range in size
in trees, preponderance
of small, but up to
3 ft. & over d.b.h. (maple &
hemlock), beech, oak &
yellow birch to 18 inches.

Uneven sparse shrub
layer of beech, maple,
and hemlock saplings.

Herb layer sparse and local

36571 *Lycopodium annotinum*
in forest on top of dune

72 *Epifagus*.
on beech roots in depression
in dunes.

of *Maianthemum*,
Polygonatum orientale,
Clintonia, *Mitchella*,
Lycopodium obscurum,
Acer ^{nigrum} seedlings, *Acer pennsylvanicum*
seedlings, oak seedlings.
Spacing of trees 2-3 m.
lots of rotting logs.
a little unsystematic
cutting evident.

There are about 5 dune
ridges bordering lake.

The dune forest has
about the same composition
but different proportions,
some different species. - much
more oaks, more *Acer pennsylv-*
anicum, some *Amelanchier*,
many more herbaceous
species and much more
herbaceous ground cover.
The trees average much
smaller and on ridges much
lower stature. Undergrowth
of *Tsuga* ~~is~~ thick in places.

Sept. 4 - Sturgeon Bay, ^{Lake Michigan}

An irregular sand flat (an old town site abandoned a few years ago) surrounded by high dunes; the lake front with a low dune ridge.

irregular sand flat, and low dunes

- 36573 *Cornus sericea* f. *baileyana*
74 *Populus balsamifera* x *deltoidea*?

- 75 *Potentilla fruticosa* L.
scattered on
76 *Campanula rotundifolia*
occasional
77 *Anemone cylindrica*
occasional.

on high dunes

- 78 *Zygadenus glaucus*
occasional
79 *Arctostaphylos uva-ursi* L.
locally dominant

land flats dominated by *Calamovilfa* & *Arctostaphylos*, scattered bushes of *Potentilla fruticosa*, scattered *Artemisia* and *Cirsium pitcheri*.

Dunes with clumps and groups of *Pinus strobus*, with some *Picea glauca*, even *Thuja*. *Juniperus communis* var. *depressa* (stems spreading and ascending to 3-4 dm. tall, clumps several m. across, compact) *Arctostaphylos* and *Calamovilfa* dominant in open, clumps of *Cornus sericea* and *Rumex allegheniensis* shrub, forming clumps.

shrubs 1-2 m. tall, buds filled with aromatic resin, leaves pale beneath. compact clumps, petals yellow, mostly gone. flowers blue ~~under~~ purple.

prostrate shrub, fruit red.

- 34580 *Smilacina stellata*
local
- 81 *Calamovilfa*
locally dominant
- 82 *Juniperus communis* var. *depressa*
very common
- 83 *Thuja plicata*
occasional

~~Cecil Bay~~

Sept. 4 - Cecil Bay, Lake Michigan
Wet rock flat, just
above water - with
Juncus, *Lobelia*, *Triglochin*,
Gerardia, *Loliodago*, *Potentilla*
fruticosa.

Back of this are parallel
beach ridges covered by
mixed coniferous forest
of *Abies*, *Thuja*, *Picea*,
Pinus strobus, *P. resinosa*,
Petula papyrifera, *Populus*
tremuloides.

No shrub layer except

- 84 *Cornus rugosa*
in coniferous forest.

low spreading clumps
several m. across and
3-4 dm. high.
stunted trees 3 m. tall

occasional saplings and
rare *Cornus rugosa*.

Where light gets in
Iris lacustris forms
patches, some *Linnaea*,
also, and *Cornus canadensis*,
Carex, etc. Patches also
of *Aster macrophyllus*,
fir seedlings are
common. Elsewhere
the floor is absolutely
bare except for moss
patches.

shrub.

Sept. 4 -

Long point projecting into lake, with a sand flat with parallel beach ridges of sand, a pond or lagoon back of outer one. *Calamovilfa*, *Arctostaphylos* and *Juniperus horizontalis* are stabilizing the sand on these ridges. The *Juniperus* is really extremely prostrate and creeping.

The highest of these ridges has *Juniperus communis* var. *depressa*, with an open woodland of *Thuja*, *Pinus strobus*, *Picea* etc. extending back from it on a strip of low dunes, the spaces between the trees filled by *Juniperus communis* var. *depressa* and some *Juniperus horizontalis*.

~~on sand ridges~~

- 36585 *Solidago houghtonii*
occasional in ^{low} open sand ridges
- 86 *Juniperus horizontalis*
common on low sand ridges

- 87 *Zygadenus glaucus*
occasional on sand

Back of this is an extensive ^{open} flat of sand and small gravel with low wet spots and ponds. Where this is dry *Potentilla fruticosa*, *Gentiana crinita*, *Lobelia halimii*, small junci, *Solidago houghtonii*. Low spots have *Juncus* spp., *Triglochin*, *Scirpus americanus*, *Carex vesicaria*? etc. Toward the other side of the point and open water are extensive cobble or shingle flats, the rocks partly limestone. Examined these for algae in the surface but did not find any evidence except on the surface. The rocks are colored a blue-gray on the upperside.

erect, flowers yellow.

absolutely prostrate, extending several m. horizontally, only 1-2 dm. tall in center of patch.

36584

Hypericum

common on low sand ridges

89

Gerardia

common on pebble and sand flats

90

Robelia kalmii

common on pebble and sand flats

91

Cirsium pitcheri

occasional on sand ridges

92

Rhynchospora

abundant on shingle flats

93

Castilleja coccinea

rare on shingle and wet sand

94

*Euthamia*common on gravel flats
above water line.

95

*Gentiana crinita*common on sand and
gravel flats.

96

Solidago bromptonii

common on gravel flats

97

Lingula alpina

rare on wet sand

98

*Helaginella*common between rocks on
wet shingle flats.

99

Tofieldia

rare on wet gravel flats

36600

Latureja arkanziana

occasional on wet gravel flats

01

Utricularia

rare on wet gravel flats.

flowers rose purple.

flowers pale blue-lavender,
erect.bracts bright red, ~~ff~~ corollas
yellow.
flowers yellow.

flowers bright blue.

flowers yellow.

leaves pale green.

prostrate

aromatic, plant purplish,
flowers pink-purple.
scapes erect, vegetative
parts not evident.

Sept. 4 - Douglas Lake

A kettle-hole bog near village -

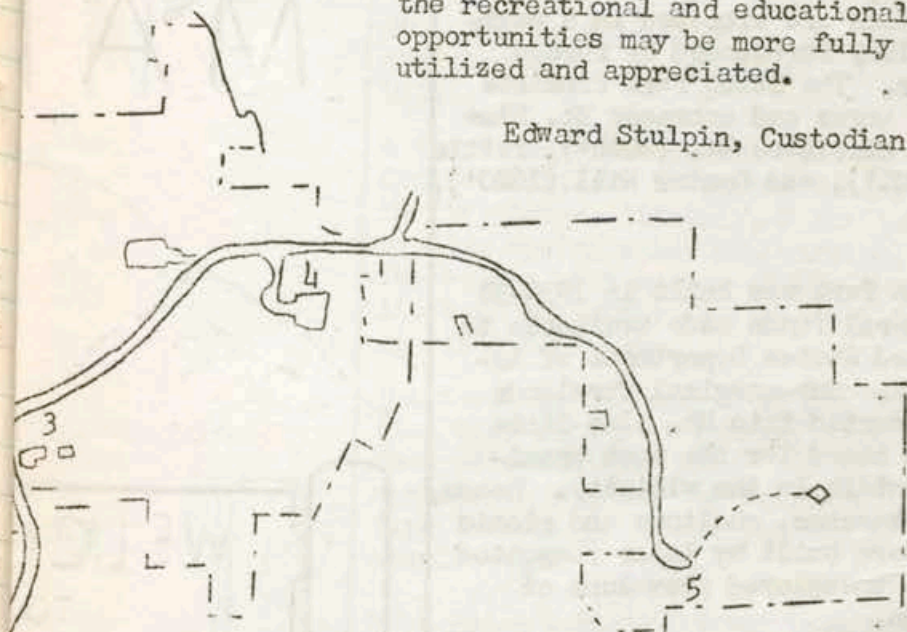
An open pool of brown water with a few plants of *Nymphaea*. Around this a belt of *Sphagnum* a few yards wide with *Chara* dominant, some *Andromeda* and *Kalmia polifolia*. Here *Laracenia* is abundant - said to be introduced but probably not.

Picea mariana is invading this. *Pinus strobus* approaches to within 50 ft

- 36602 *Kalmia polifolia*
occasional on sphagnum mat around bog.
- 03 *Arceuthobium*
parasitic on small *Picea mariana* growing on sphagnum
- 1 04 *Scheuchzeria*
rare on sphagnum
- 05 *Smilacina trifolia*
local on sphagnum in openings in spruce-pine woods.

This bulletin is prepared for the guests of the State Park so that the recreational and educational opportunities may be more fully utilized and appreciated.

Edward Stulpin, Custodian



1. Ranger Station, Bathing Beach, Bathhouses, Picnic Area, Tables, Fireplaces, Boats, and Picnic Shelter.
2. Campground: Adirondack Shelters, Tables, and Fireplaces for Campers Only.
3. Headquarters, Parking overlooks.
4. Center Hill, Picnic Area, Parking overlook, Overlook ledges, Foot Trails, Picnic Shelters.
5. Base of Mt., Parking Area, Trail to Summit 1.5 miles, 47 foot Tower at Summit, Fire Tower Watcher on duty May - November.

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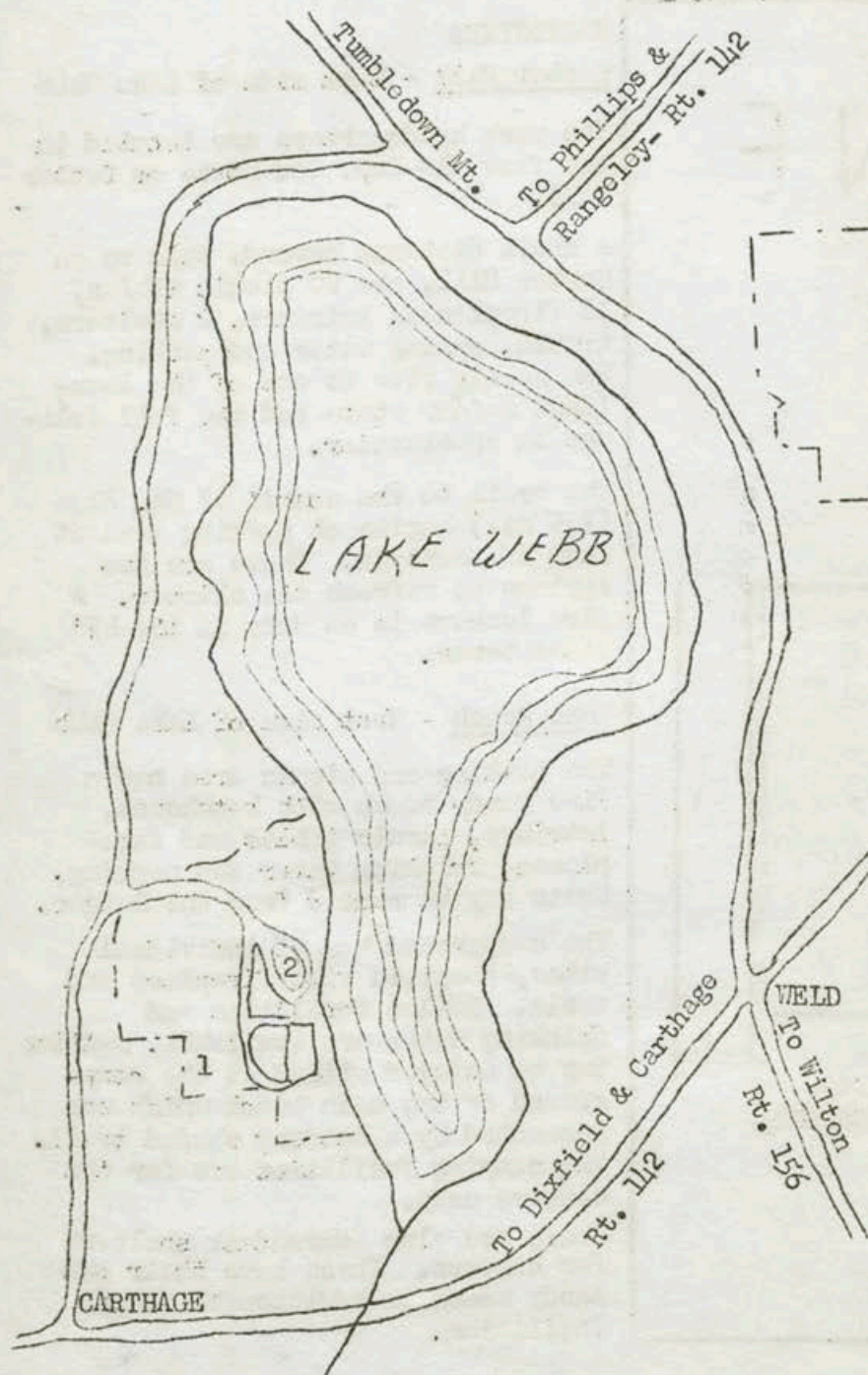
An open pool of brown water with a few plants of *Nymphaea*. Around this a belt of *Sphagnum* a few yards wide with *Chamaedaphne* dominant, some *Andromeda* and *Kalmia polifolia*. Here *Sarracenia* is abundant - said to be introduced but probably not.

Picea mariana is invading this. *Pinus strobus* approaches to within 50 ft

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- 05 *Smilacina trifolia*
local on sphagnum in openings in spruce-pine woods.

of open water. Spruce-pine forest surrounds the bog. Potyger, who studied this bog many years ago, says that succession here is proceeding very rapidly, quite noticeable difference in 25 years.

small shrub



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MOUNT BLUE STATE PARK is located in the towns of Weld and Avon in Franklin County, Maine. Lake Webb and the Town of Weld are situated in a beautiful valley surrounded by rugged mountains. The State Park consists of 4,927 acres and embraces Mt. Blue (3187'), Hurricane Mt. (2484'), Little Blue (2001'), and Center Hill (1620').

HISTORY

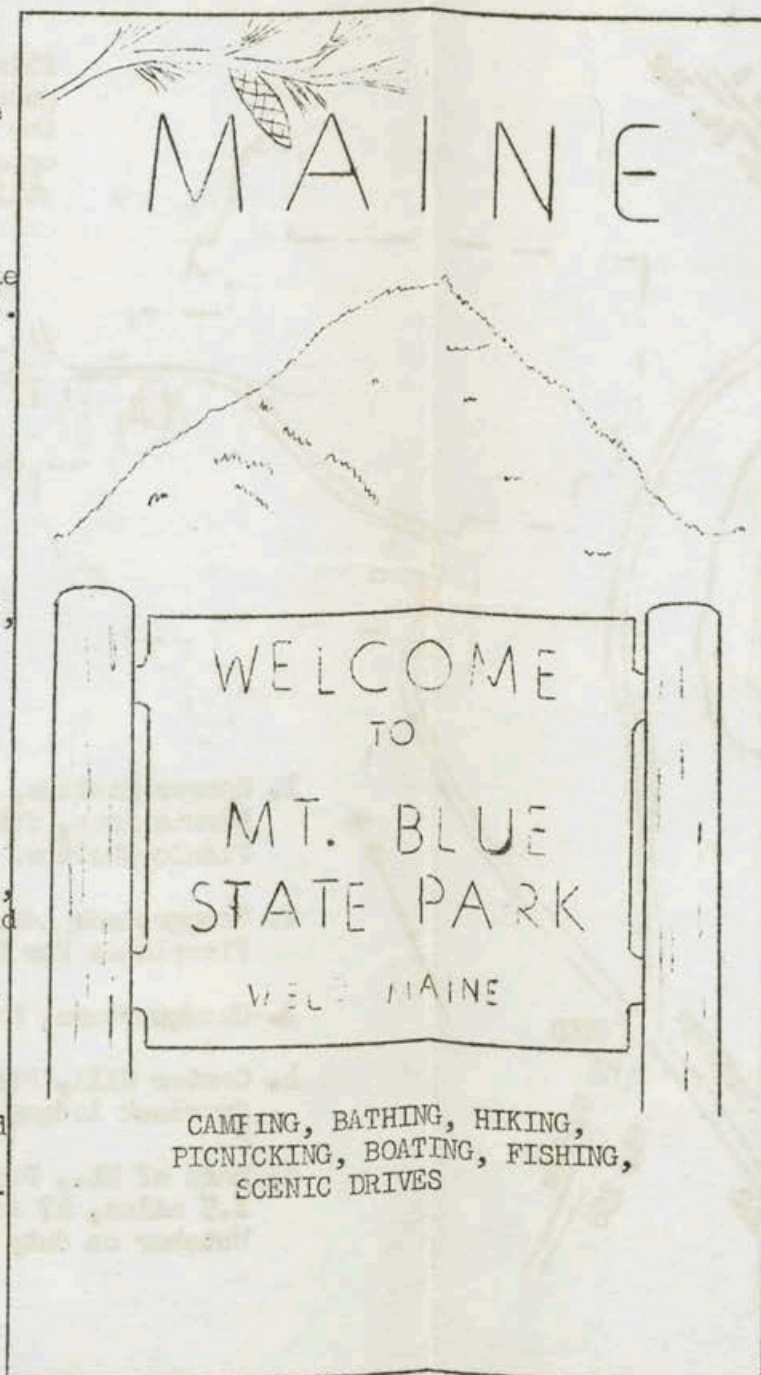
The State Park was built in 1936-38 with Federal funds made available to the United States Department of Agriculture. Sub-marginal farmlands were converted into Mt. Blue State Park and named for the most prominent mountain in the vicinity. Roads, trails, beaches, shelters and picnic tables were built by labor recruited from the unemployed prevalent at that time.

FAUNA

Here may be seen moose, deer, rabbit, wildcat, woodchuck, squirrel, muskrat, mink, beaver, weasel, woodcock, ruffed grouse, migratory water fowl, owls, salmon, brook and brown trout, perch, bass, and pickerel.

FLORA

The forest growth consists of a mixed forest of hard and soft woods, and a ground cover of dense and thin underbrush, wild flowers, grasses, ferns, and mosses.



FACILITIES

Center Hill - East side of Lake Webb

The park headquarters are located in the fine old Cape Cod house on Center Hill.

A short distance beyond, well up on Center Hill, are 20 picnic tables, 18 fireplaces, latrines, 2 shelters, trails, spring water and parking. The scenic view is one of the loveliest in our state and the fall foliage is spectacular.

The trail to the summit of Mt. Blue (1.5 mi.) begins at parking area at foot of mountain. There are two springs to refresh the climber. A fire lookout is on duty in the 47' steel tower.

Webb Beach - West side of Lake Webb

The bathing and picnic area has a fine sandy beach with bathhouse, latrines, picnic tables and fireplaces, drinking water and parking. Boats may be rented from the Ranger.

The campground has 45 individual sites, complete with fireplace and table. Toilet facilities and drinking water are available. Bathing may be enjoyed either at the campground or the main beach which are connected by a woodsey shaded trail. The camping facilities are for the campers only.

There are also Adirondack shelters for campers. These have their own sandy beach in addition to other facilities.

Sept. 9 - East Lansing -
University Sugar Bush

A patch of beech-maple
wood being run for
maple sugar - rather
disturbed-looking.

Some elms and *Fraxinus americana*.

Tovara virginica is
very prominent in undergrowth.

Surrounded on at least
two sides by swamp forest
of *Ulmus*, *Fraxinus*, *Acer rubrum*.

Sept. 9 - Rose Lake

Oak upland woods, trees
of all sizes, up to 1 ft. dbh
and 30-100 ft. tall. - oaks
some hickory, red maple,
and a swarm of hybrids
bet. *Prunus serotina* and *P. virginiana*.

36606 *Pyrola elliptica*

07 *Galium boreale* L.

Bog surrounding lake

08 *Galium*

09 *Spiraea alba*
common

This bog had the water level
lowered 2 ft in 1914, 2 ft. more in
1930. Burned over, down to
water level. The resulting
habitat was invaded by

Danseman says that
in this area (the "oak-hickory
bulge") there is a definite
correlation between the
occurrence of beech-maple
and swamp forest -
thinks there is a definite
dependence on moisture
relations set up by
swamp.

Little shrub layer - except
locally thick *Cornus racemosa*
colonies. Rich herb layer.
Black oak was logged
out in 1948.

shrub 1 m. tall

Typha, forming now an
extensive stand, with
Scirpus, over much of the
floating mat. Other parts
of the mat are dominated

by *Thelypteris palustris* and *Carex lasiocarpus*, with many herbs and much *Sphagnum*. Locally very different *Carex lasiocarpus* dominant with, locally, much *Osmunda regalis*.

The open part of this is about 75 m. wide. It is strongly invaded by *Larix*, *Rhus vernix*, *Acer rubrum*, *Cornus paniculata*, etc.

Toward the shore in places are patches of *Chamaedaphne* and *Cornus paniculata*.

The whole is surrounded by a swamp forest dominated by red maple up to 15 cm. dbh. growing on deep peat.

34610

Sept. 9 - Michigan State University
Campus, East Lansing, ~~Michigan~~
planted as ornamentals

34610

- 11 Juniperus
- 12 Spiraea

In this swamp is a small pond in which the open zone and invasion are only a few m. wide.

shrub with semi-weeping habit.
erect columnar tree.
gray-green shrub.

Sept. 10 - Oak Openings Park
~~This is a tract~~

This is a tract of about 3000 acres in the old "oak openings" forest type on sandy soil of the old glacial lake bottom (when extended much farther than it does now.) This forest of large oaks was ~~so~~ free enough of undergrowth to drive wagons through at the time of first settlement.

The land is now quite heterogeneous, with patches of very different history, much of it having been cleared.

One piece in the northwest corner of the park is relatively mature oak forest - large *Quercus alba*, *Q. coccinea*, *Q. velutina*, up to 2' dbh, 30' tall, some admixture of *Acer rubrum*. ^{80-90% canopy} some ^{a very little} stumps ^{and a few dead old trees} undergrowth of saplings of *Acer rubrum* and *Hamamelis*. Thin herb and grass cover. low spots almost bare and free of undergrowth.

rather
few
small
trees
here

Much of the park was low swampy land but was drained some years ago. Came up to forest. Now a few areas have been cleared of aspen, cottonwood, maple, etc. and the drainage ditcher dammed. This results in flooding of low areas till about June, when water table goes down. This area has a rich growth of tall perennial herbs.

Dry cleared land, abandoned, has less species, mostly different.

A first year abandoned corn field is a solid stand of *Ambrosia* ^{*artemisiifolia*} with understory of *Bulbostylis capillaris*. A few miscellaneous herbs.

In the dry years of 1952-3 they lost many trees in the high areas, mostly oaks.

One area of about 10 acres of moving dunes. Larger areas of stabilized dunes.

Flora of the Oak Openings, by
 E. L. Mosely, Proc. Ohio Acad. Sci.
 3(7)th. Pap. 20: 31+34, 1928.

Sept. 11 - ~~to~~ Cook Forest

Longfellow Trail to Cathedral.

This trail goes up a ^{roughly level} gently sloping valley with a ~~flat~~ floor of large boulders, steep sides. Forest on this of large white pine and hemlock and a few large red oaks. These trees are tall, perhaps over 150'.

They are not closely spaced.

The second story forms a canopy at 50-60' of red maple, beech, yellow birch, oak.

Under this is a thick undergrowth of hemlock saplings 6-10' tall, a few saplings of hardwoods, none of pine.

Ground layer of *Dryopteris austriaca* and moss (on rocks) with a few broad leafed herbs.

Above this the valley opens out some into the rolling Cathedral area with many big trees, mostly white pines, up to practically 200' tall.

More young beech and red maple here.

Patches of bracken and of bare ground.

Sept. 15 - Sleepy Hollow,
1 1/2 mi. s. of Falls Church,
along Tripp's Run

- 36613 *Andropogon gerardi*
a few clumps in abandoned
pasture invaded by
shrubs.

13a *Ipomoea*
weed in yard around dwelling

Sept. 16 - Markham,

- 14 *Botrychium*
in apple orchard on low
foothills.

Sept. 23 - Great Falls
of the Potomac
floating on surface of Clay Pond,
abundant.

- 15 *Spirodela macromorpha*
16 *Wolffia*

strictly erect large
clumps, spikes bronze
to purple.

twiner, climbing over
herbs, flowers white,
stigmas capitate.

deep green, purple below, flat.
pale green, terete.

Fl. Virginia

Oct. 7 - Shenandoah Valley Overlook

Patch of *Pinus virginiana*
to north of about 1200'Slopes below overlook -
mixed second-growth with
Ulmus, *Diospyros*, *Liriodendron*,
Cornus, *Robinia*, *Cercis*, etc.
tangled with *Vitis*, *Lonicera*, etc.

Dickey Ridge Lodge -

Thicket of *Robinia* with
scattered juniper, pine, *Sassafras*
Pinus serotina
etc. 2-3 m. tall, very dense.with *Lonicera japonica* -
in old meadows.Mixed *Robinia* thicket
3-4 m. tall with scattered
pine about 6-8 m. tall.Along drive *Sassafras*
and *Carya* (2 sp) are
yellow and conspicuous,
form an appreciable part
of cover.

Oct. 7 - Dickey Ridge Lodge

36616a

Asclepias viridiflora?
grassy roadside

Shenandoah Nat. Park 127

Oct. 7 - Gravel Springs Shelter

Bluff Trail north -
through mixed forest
on rocky slopes -
Carya (2 sp), *Quercus*
prinus, *Q. rubra*, *Tilia*
americana, *Betula lenta*,
Sassafras, *Robinia*.Toward Big Devil Stairs
Quercus prinus becomes
most abundant. Here there
are many signs of an
old fire - partially charred
logs, etc. Many fallen
chestnut logs. Some recent
windfalls, perhaps
from one of the recent
hurricanes. One large
Liriodendron seen.Several hundred feet
down the Devil's Stair Run
appears, becoming more
numerous along the
stream downward.
Several hundred feet
more, *Liriodendron* appears.
Large *Liriodendron* 6 dm.
badly scarred by
sapsuckers.

erect, pro erect.

Mr. Francis Blount, sheriff of Warren Co. said that when he was a boy (40-50 years ago?) 15000 acres of land on this slope of the Blue Ridge was owned by John F. Miller and used for extraction of tan-bark. Roads were built all through the area. Special wagons with hind wheels as well as front on a king pin, were built in Front Royal for hauling out tan bark from chestnut oak and chestnut. The wood of the chestnut was used but that of the oak was left to rot. The trees were cut about 6 or 8 feet above ground, as the diameter was less there. Cut at comfortable height by man standing on slope above. Then logs and stump were peeled.

Oct. 7 - Bluff Trail, north of Gravel Springs, Rockingham Co. mixed woods on east slope, very rocky soil.

- 36617 *Hedyotis purpurea* var. *longifolia*
locally abundant in rocky spots.
18 *Fraxinus americana*
fairly common

caespitose; flowers pale purple.
heavily fruiting branches with yellow leaves.

- 36619 *Laportea canadensis*
abundant in wet places

- 6 20 *Crataegus margaritacea* Ashe
rare in this place in ~~the~~
- 2 21 *Thelypteris noveboracensis* (L.) Nicolson
very local
- 2 22 *Physocarpus opulifolius*
local in this place in
- 3 23 *Aster patens* Ait.
local in shaded rocky place
- 2 24 *Hammamelis virginiana*
common

Oct. 9 - Gravel Springs,
Rockingham Co.

- 25 *Polymnia canadensis*
moist opening

- herbs 1 - 2 m. tall.
leafless below; distal
branches of inflorescence
swollen and fleshy; fruits
reflexed under winged
pedicels, edge downward
perpendicular to pedicel, some
swollen, subglobose and
fleshy (probably galled).
- shrub 2 m. tall;
fruit red, fleshy,
acid but not unpleasant
to taste.
- rhizome horizontal,
buried.
- shrub 10 m. tall bark
shredded.
rays violet, disk
pale yellow, becoming
dark red.
- shrub 5 m. tall, petals yellow,
crispate.

- aromatic.
herb 1 m. tall; heads
~~pointed~~ nodding; flowers
pale yellow.

Oct. 9 - Gimlet Ridge Overlook
 Lower slopes of valley
 largely dominated by tulip
 or in places by oak-hickory,
 giving way upward to a
 mixture of oak-hickory-ash.
 The hickory yellow-orange,
 the ash purplish, the oak
 not turning yet. Tulip
 not or scarcely turning yet.
 Steep rocky slopes to s.w.
 are apparently largely
 birch - turning a yellowish
 green (Gimlet Ridge).

Area around overlook itself
 largely in red oak with
 some hickory and birch.
 Robinia coming in in opening

Range View Overlook -

slopes of Harris Hollow
 covered by a mixed forest
 oaks of several kinds, ash,
 birch, hickory, sassafras,
 very few nyssa (bright red).

Down lower tulip becomes
 abundant. Ash dull purple.

Up in area just below saddle
 is patch of Robinia - pale
 dull yellowish green.

Generally, on these slopes
 oak makes up about $\frac{1}{2}$ of cover
 ash and hickory perhaps $\frac{1}{5}$ each.

Almost pure red oak around
 overlook.

2675'

W

Oct. 25 - Sleepy Hollow, 1 mi. s.
of Falls Church

36626

Ceratopteris

cultivated in ~~aggs~~
aquarium, indoors, under
artificial light; ~~floating~~.

Dec. 4 - 1.5 mi. w of Camp Washington,
Fairfax

Solid stand of *Pinus*
virginiana 3-4 m. apart,
20 m. tall, canopy about
60%+ trees 10-30 cm. diam.
smaller trees, overtopped,
dead or dying. Humus 3-6 cm.
or more deep.

Some invasion of *Acer*
rubrum, *Nyssa sylvatica*,
~~*Quercus*~~ *alba*

a few small *Ilex opaca*,

Sassafras *Juniperus virginiana*,
Castanea dentata, *Kalmia*
latifolia, *Cornus florida*, *Robinia* etc.
Tangled here and there
with ~~*Ilex*~~ *Smilax glauca*.
Lonicera japonica sparsely
invading from the edge in
about 30 m. much farther
in places.

Many small pine seedlings
but none developing far.

floating,
produces small plants
on fronds; fertile fronds
emergent, sterile floating or
if at first emergent, soon floating.

Ground layer very sparse.
g c-a *Chimaphila maculata*
l-la *Chimaphila umbellata*
la *Mitchella repens*
g a *Vaccinium vacillans*
g la *Lycopodium complanatum*
~ *Ascyrum hyppocistis*
~ *Monotropa uniflora*
g l *Polystichum acrostichoides*
~ *Gaultheria procumbens*
~ *Danthonia spicata*

patches or cushions of
Cladonia rangiferina,
"Bartramia"
and, rarely, *Leucobryum* scattered.

Castanea common, up to
5 m. but some killed by blight
or branches cut off much
smaller.

136

137

France 17851 1:10.00
Moulins A19.5 sheet 11 L

Charente-Financ sheet 11 M

also 10 M, 10 N, 11 N

Antibes 16 Q

1 Pleau 10 G

Chamonix 15 M

Pic du Midi 7 RS

Les Eyzies 80 (?)

