

NATURAL AREA FORM

Site Crow Knob Date 21 July 94
 Natural Community Dry Upland Forest / barren on sandstone
 Investigator (s) EPH
 Subplot 1 (N)

Seedlings (Nursery Stage 2.5 cm - 9 cm DBH)

Species	Dead/Alive	DBH	Asymmetry	Distance from Subplot Center
<i>Jun vir</i>	Dead	2.5	32	17' 5"
<i>Jun vir</i>	alive	2.0	40	14' 1"
<i>Quercus glabra</i>	alive	3.5	41	2' 11"
<i>C. glab</i>	damaged	1.0	15	7' 9"
<i>Jun vir</i>	alive	3.5	232	13' 7"
<i>Jun vir</i>	alive	1.0	232	5' 10"
<i>Jun vir</i>	alive	2.5	248	18' 0"
<i>Jun vir</i>	dead	1.0	268	11' 8"
<i>Jun vir</i>	dead	2.0	284	12' 2"
<i>Jun vir</i>	alive	2.5	333	12' 1"

Stems (Nursery Stage 2.5 cm - 9 cm DBH, 100 cm or more tall)

Species	DBH	Alive	Dead
<i>Quercus glabra</i>		1	

NATURAL AREA FORM

Site B Crow Knob Date 21 July 94
 Natural Community Dry upland forest
 Investigator (s) EFH
 Subplot 2 (E)

Stems (Mostly stems 2.5 cm - 9 cm DBH)

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
<i>Jub. sp.</i>	both alive	3.0	25	15' 5"
<i>Jub. sp.</i>	alive	3.5	210	12' 3"
<i>Jub. sp.</i>	alive	3.5	27	21' 8"
<i>Jub. sp.</i>	alive			19' 5"
<i>Jub. sp.</i>	alive	3.0	190	14' 9"
<i>Jub. sp.</i>	dead	3.5	178	12' 8"
<i>Jub. sp.</i>	dead	2.0	187	11' 10"
<i>Jub. sp.</i>	dead	3.0	263	11' 3"
<i>Jub. sp.</i>	dead	3.0	211	6' 5"
<i>Jub. sp.</i>	alive	3.5	350	27' 4"
<i>C. glaberrima</i>	alive	3.0	340	18' 3"

tipper

Stems (Mostly stems > 9 cm tall, but < 2.5 cm DBH and many stems)

Species	No. of Stems	
	Alive	Dead
<i>Rosa multiflora</i>	1	111
<i>Rosa glauca</i>		

NATURAL AREA FORM

Site Crowhurst Date 21 July 94
 Natural Community Xeric woodland
 Investigator (s) PCW
 Subplot 3 (5)

Sampling (Neely Stem 2.5 cm - 9 cm DBH)

Species	Dead/Alive	DBH	Apex	Distance from Subplot Center
<i>Vacc. vit.</i>	alive	2"	350	16' 2"
<i>Q. sp.</i>	alive	1.5	60	12' 6"
<i>Q. sp.</i>	alive	2.5	80	14' 0"
<i>Q. sp.</i>	alive	1.5	130	14' 10"
<i>Q. sp.</i>	alive			12' 2"
<i>Q. sp.</i>	alive			12' 2"
<i>Q. sp.</i>	alive	1.5	185	10' 8"
<i>Q. sp.</i>	alive	3.5	115	5' 11"
<i>Q. sp.</i>	alive	1.0	276	11' 5"

Sampling (Neely Stem 2.5 cm - 9 cm DBH)

Species	No. of Stems	
	Alive	Dead
<i>Vacc. vit.</i>		
<i>Q. sp.</i>		
<i>Q. sp.</i>		
<i>Q. sp.</i>		

NATURAL AREA FORM

Site Crow knob

Date 26 July 94

Natural Community Glade - Xeric cordw

Investigator (s) EFU

Subplot (1)

Quadrat 13(45°) - 16(315°)

Observation notes (add notes; show any newly found cover on page)

Species Cover Quadrat Representative Species Number of/Chosen
(flowers/fruits) Percent

Lichen	4		
Rest	6		
Flg c.b.	1	Trunk	
Q. arboresc.	1		
Q. canadensis	1		
Diosp. spicata	2	✓	
Pinus	1	seedling	
Q. macrocarpa	1		
Q. imbricaria	1	Wood spr	
	1	seedling	
	2	✓	
	1		
	1		
	1		



Lichen	20		
Rest	2		

100% of substrate is sandstone

Comments:

Subplot center marked w/ a circular "wick" in sandstone.

NATURAL AREA FORM

Site Crow Knob Date 26 July 94
 Natural Community Sandbar barren/corridor
 Investigator(s) EPH
 Subplot 4(W)

Sampling (Meady) Stems 2.5 cm - 9 cm dbh

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
<i>Quercus laevis</i>	alive	1.0	24	17' 0"
<i>Quercus laevis</i>	alive	1.0	36	16' 0"
<i>Quercus laevis</i>	alive	1.0	42	14' 0"
<i>Quercus laevis</i>	alive	1.5	44	11' 9"
<i>Quercus laevis</i>	alive	1.5	46	15' 1"
<i>Quercus laevis</i>	alive	1.5	48	9' 2"
<i>Juniperus virginiana</i>	alive	3.5	53	7' 8"
<i>Quercus laevis</i>	alive	2.0	55	17' 6"
<i>Quercus laevis</i>	dead	2.2	56	16' 10"
<i>Quercus laevis</i>	alive	1.1	62	15' 10"
<i>Quercus laevis</i>	alive	1.5	76	15' 1"
<i>Quercus laevis</i>	alive	2.5	76	15' 7"
<i>Quercus laevis</i>	alive	2.0	88	10' 4"
<i>Quercus laevis</i>	alive	1.5	92	7' 9"
<i>Quercus laevis</i>	alive	3.5	97	17' 0"
<i>Quercus laevis</i>	alive	1.5	98	17' 0"
<i>Quercus laevis</i>	alive	2.5	100	17' 0"
<i>Quercus laevis</i>	alive	1.5	100	17' 0"

~~Sampling (Meady) Stems 2.5 cm - 9 cm dbh~~

Species	No. of Stems	
	Alive	Dead
<i>Q. stellata</i>	1	0
<i>Quercus laevis</i>	1	1
<i>Juniperus virginiana</i>	1	1
<i>Quercus laevis</i>	120	17' 9"
<i>Juniperus virginiana</i>	132	9' 2"
<i>Quercus laevis</i>	156	16' 1" 15' 7"
<i>Juniperus virginiana</i>	158	24' 2" 13' 5"
<i>Quercus laevis</i>	215	17' 16' 9"

Site Ohaw Knob

Date 26 July 94

Nearest Community dry woods / bar

Investigator (s) ECM

Location of Plot:

Witness Trees

	Species	dbh	Azimuth	Distance from Plot Center (? 18 m)
WT 1				
WT 2				

Trees

Species	Dead/Alive	DBH	Azimuth	Distance from Plot Center
C. glabra	Dead	8.5	30	5' 7"
Q. stellata	Dead	7.0	30	18' 0"
J. virginiana	alive	7.0	30	28' 6"
C. glabra	alive	6.5	32	26' 11"
C. glabra	alive	4.5	3	40' 3"
Q. macrocarpa	alive	7.0	10	50' 10"
J. virginiana	alive	7.5	10	10' 11"
Q. macrocarpa	alive	7.5	10	10' 11"
C. glabra	alive	8.0	61	31' 7"
C. glabra	alive	5.0	77	30' 5"
J. virginiana	alive	6.0	77	32' 7"
C. glabra	alive	6.5	77	38' 7"
Q. macrocarpa	alive	6.0	77	30' 7"
C. glabra	alive	6.0	77	10' 7"
C. glabra	alive	5.0	77	51' 5"
J. virginiana	alive	5.5	38	53' 7"
C. glabra	alive	7.0	42	55' 7"
J. virginiana	alive	13.5	44	36' 5"
J. virginiana	alive	6.0	59	50' 8"
Q. macrocarpa	dead	4.0	58	40' 34"
C. glabra	alive	7.0	60	11' 6"
C. glabra	alive	6.0	64	26' 40"
J. virginiana	alive	7.5	64	48' 11"
C. glabra	alive	4.5	68	22' 5"
C. glabra	alive	4.0	70	31' 11"
C. glabra	alive	7.0	74	38' 7"
J. virginiana	alive	8.0	79	54' 7"
J. virginiana	alive	5.5	82	49' 20"
J. virginiana	alive	7.5	82	53' 10"
J. virginiana	alive	7.0	85	57' 8"
C. glabra	alive	5.5	85	25' 11"
C. glabra	alive	6.5	86	26' 6"
J. virginiana	alive	7.0	86	39' 10"
J. virginiana	alive	6.0	87	43' 8"
Q. stellata	alive	8.0	90	37' 9"
J. virginiana	alive	6.5	90	2' 6"

C. glabra

Site Crow Knob Date 26 July 94
 Natural Community _____
 Investigator (s) EFM

Location of Plot: _____

Witness Trees

	Species	dbh	Azimuth	Distance from Plot Center (? 18 m)
WT 1				
WT 2				

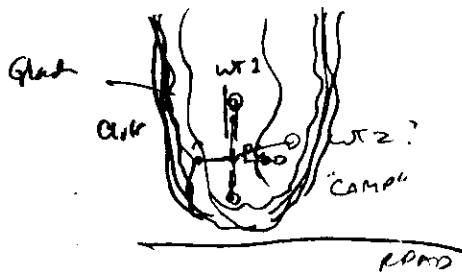
Trees

Species	Dead/Alive	DBH	Azimuth	Distance from Plot Center
<i>Q. stellata</i>	alive	6.0	93	48' 1"
<i>Q. glabra</i>	alive	7.5	97	46' 10"
<i>C. alba</i>	alive	5.5	99	50' 1"
<i>Q. stellata</i>	alive	8.5	100	50' 6"
<i>Q. stellata</i>	alive	8.5	102	52' 3"
<i>Q. stellata</i>	alive	10.0	108	52' 3"
<i>Q. stellata</i>	alive	7.5	110	50' 11"
<i>Q. stellata</i>	alive	6.0	120	50' 11"
<i>Q. stellata</i>	alive	5.0	120	50' 11"
<i>J. virginiana</i>	alive	7.5	120	50' 11"
<i>J. virginiana</i>	alive	6.0	120	50' 11"
<i>C. alba</i>	alive	5.0	120	50' 11"
<i>C. alba</i>	alive	4.5	130	50' 11"
<i>C. alba</i>	alive	4.5	132	67' 10"
<i>J. virginiana</i>	alive	7.5	135	42' 11"
<i>Q. stellata</i>	alive	14.5	136	17' 10"
<i>J. virginiana</i>	alive	10.5	136	51' 3"
<i>J. virginiana</i>	alive	11.5	137	35' 10"
<i>J. virginiana</i>	alive	4.0	137	12' 5"
<i>J. virginiana</i>	dead	6.0	138	31' 4"
<i>Q. stellata</i>	alive	6.0	138	56' 3"
<i>Q. macrocarpa</i>	dead	7.0	139	47' 0"
<i>J. virginiana</i>	alive	7.5	139	55' 11"
<i>J. virginiana</i>	alive	6.5	164	32' 0"
<i>J. virginiana</i>	alive	4.0	167	56' 10"
<i>Q. macrocarpa</i>	dead	4.0	171	55' 5"
<i>Q. macrocarpa</i>	bambusa	4.0	172	55' 2"
<i>J. virginiana</i>	demoyd.	4.0	178	42' 8"
<i>J. virginiana</i>	alive	5.5	180	24' 8"
<i>J. virginiana</i>	alive	6.0	182	18' 8"
<i>J. virginiana</i>	alive	4	183	38' 9"
<i>J. virginiana</i>	alive	5	185	38' 9"
<i>Q. stellata</i>	alive	7.5	185	21' 10"
<i>J. virginiana</i>	alive	8.5	192	40' 2"
<i>J. virginiana</i>	alive	6.0	192	30' 11"
<i>Q. stellata</i>	alive	3.0	190	16' 5"
<i>J. virginiana</i>	dead	4.0	196	41' 7"

Site Crow Knob Date 26 July 94 / 27 Aug 94
 Natural Community _____
 Investigator (s) EPY

Location of Plot:

Dioscorea nests
 Rhinoceros antlers



PC is 46' due W
 of trail -

Witness Trees

WT	Species	dbh	Azimuth	Distance from Plot Center (? 18 m)
WT 1	<i>J. vizi</i>	7.5	354	24' 9"
WT 2				

Tree	Species	Dead/Alive	DBH	Azimuth	Distance from Plot Center
	<i>J. vizi</i>	alive	5.5	355	52' 1"
	<i>J. vizi</i>	alive	4.0	355	52' 6"
	<i>J. vizi</i>	alive	4.5	358	57' 0"
	<i>J. vizi</i>	alive	9.0	204	35' 6"
	<i>J. vizi</i>	alive	5.5	212	32' 0"
	<i>J. vizi</i>	alive	4.5	214	47' 10"
	<i>J. vizi</i>	dead	4.5	218	15' 7"
	<i>J. vizi</i>	alive	6.0	220	31' 3"
	<i>Q. maritima</i>	alive	2.5	220	52' 10"
	<i>Q. maritima</i>	alive	2.0	220	59' 6"
	<i>Q. maritima</i>	alive	2.0	220	59' 6"
	<i>Q. maritima</i>	alive	6.0	225	28' 8"
	<i>Q. maritima</i>	alive	6.0	228	40' 9"
	<i>Q. maritima</i>	top dead	6.5	237	51' 4"
	<i>J. vizi</i>	alive	7.5	240	11' 8"
	<i>J. vizi</i>	alive	8.0	242	17' 6"
	<i>J. vizi</i>	alive	3.0	240	47' 10"
	<i>Q. maritima</i>	top dead	6.0	247	37' 10"
	<i>J. vizi</i>	alive	7.0	258	36' 7"
	<i>J. vizi</i>	alive	5.0	266	14' 10"
	<i>J. vizi</i>	alive	5.5	269	18' 9"
	<i>J. vizi</i>	alive	6.5	274	21' 5"
	<i>J. vizi</i>	alive	4.0	303	29' 11"
	<i>J. vizi</i>	alive	5.5	308	33' 8"
	<i>C. glabra</i>	alive	7.0	312	16' 9"
	<i>Q. maritima</i>	alive	6.0	315	45' 3"
	<i>J. vizi</i>	alive	4.0	314	40' 4"
	<i>J. vizi</i>	alive		315	47' 0"
	<i>J. vizi</i>	alive	6.5	317	23' 8"
	<i>J. vizi</i>	alive	4.5	318	30' 9"
	<i>J. vizi</i>	alive	5.5	318	50' 1"
	<i>Q. maritima</i>	alive	7.0	320	54' 11"
	<i>J. vizi</i>	alive	4.0	324	50' 6"
	<i>J. vizi</i>	alive	7.5	326	27' 2"
	<i>Q. maritima</i>	dead	4.5	328	55' 10"
	<i>J. vizi</i>	alive	4.0	334	37' 8"
	<i>J. vizi</i>	alive	7.5	340	46' 11"
	<i>J. vizi</i>	alive	7.0	341	33' 10"
	<i>Q. maritima</i>	alive	9.0	345	40' 5"
	<i>J. vizi</i>	alive	4.0	345	55' 7"
	<i>J. vizi</i>	alive	5.0	346	57' 12"
	<i>J. vizi</i>	dead	4.0	344	58' 8"

Site Phoro Can.

Date 24 July

Plot Community Dry-mixed / Dry upland forest

Description (Disturbance, age, structure, substrate, etc.)

Moisture fairly open forest in high top - contour down N, NE, E, SW facing slope with ravine.

Disturbed by logging - occ. very large stumps - 2x size of logs etc. (20-25" dia)

Canopy species

Quercus spp w/ Q. rubra, Cast
Q. prinus / Q. millberry
Nyssa

Subcanopy

lot of Carya, Sassafras, Cornus, Cereus -

Osage, Diospyros, Rhus

superimposed based on slopes - low vegetation

Other notes Analisis species

Cont present

PI + VC

Vib. acer Lithosperm

very common

Notes / ~~measurements~~ / ~~ground~~ colours.

Ac. verum	lot of PI + VC.
leg. violaceum	Cela. circumscissum
Sol. ulmifolia	Sarcocolla canadensis
Morus nigra	Asplenium nidus
Panicum, boscum	Phytolacca
Cela. circumscissum	Morist. lutea
Muhl. sobol.	Alnus glutinosa
Andromeda	Sol. crenata
hibiscus	Verbascum thapsus

Canopy sp. collected

lowe clump - del. rhizomes

about 2m x 2m

under Quercus / Pinus / Carya, Nyssa

w/ PI + VC

Site "Chert Barren" = Open dry upland forest

Date 24 Jun 14

Net. Community Phoro Canals

Description (Distance, age, structure, substrate, etc)

Ridges trashed, roads, stump

Regrowth - "young" forest.

Cover - pine, oak, sycamore, red maple.

on S & SW facing slope - chert exposed or clay soil: lots red moss.

tree down from spring 93 storm -

Canopy species

Domina - oaks

Canopy tree

Q. macrocarpa 60%

Subcanopy

Liana spp. Dioscorea

Sorbus
the maple
the glab

Amelanchier
mossy ground
Cercia
Ulmus alba

Acacia

~~...~~
Muscicapa
Ardea herodias

Ceanothus

~~...~~
Carya, etc.
Vitis rotifolia

Herb / seedlings / ground cover.

Panicum dichotomum

Tephrosia virginica
various mosses

Dianthus sp.
Antennaria

Stachys

Hemerocallis

Hedera

Krigia

Silphium

Panicum

Cirsium

Quercus

Sedum

Euphorbia

Aster

Aster

Carya

Cercis

Mint

Aster

Ruellia

Panicum

Ipanox

Stylosanthes

Lycopodium

Celastrus

Rubus

Solanum

Urtica

Hypoxis

Aster

P.I.

V.C.

Hedyotis

Carex

Arago

Silphium

Morad

Site Provo

Date 20 July 94

Hot. Community S Ridge

E. Leven
C.C. Floyd

Description (Location, size, structure, substrate, etc.)

Much less disturbed than N ridge - no sign of road.

Flora open & sunny.

more closed canopy than N ridge - but less disturbed.

PI/sandstone/strata
Little Stone Dandelion ~~very rare~~

Canopy species

Oaks - Hales-Coryl

- inc. Q. prinus, Q. velutina, Q. rubra, Q. stellata,
- Carya texa, Q. coccois,
- Frax am, Carya tomentosa

Substratum

- Sandstone
- Clay
- Disconformity
- Basalt

Pure stand of Q. prinus
stand of ~~oaks~~ + very
Q. prinus -
occ. Vaccinium rub + pall.

~~the other~~ ~~the eastern end~~
Vacc. pallidum ~~the western~~

~~the other~~
Rosa carolina

Herb / seedlings / ground cover. Large stand of Hel. div + Sol jun. 2
PI - rare? - ~~load~~ (very!)

- Hel. div; Sol juncea, Artem. sp., Sol. ulm, Lesq. vis., Ayo. aurea, Galact.
- Brom. p-6, Festuca p-6, Phlox pedunculata, Ant. crinita, Sol. nemoralis
- Hyp. angulata, Euph. coroll., Penst. didyma, Cornif. ang., Antenn.
- Dandelion "instructus" - Carex sp., Lesq. hirta, Sol. cas. G., Hierac. glomer.
- Carex umb., Penst. brevis, Carex hirsuta, Aster turbidus, Ant. shortii
- Aureolan. Pleva, Krigia hirta, Lesq. pumila, Schiz. scab. - Verb. hederif.
- Lonic. ("scabra") Ac. v. ~~viridis~~, Lesq. (v. ~~viridis~~), Solanum "nigrum" - tip up

NOTE Found

Bitrodia vsp
Sorgh. halapua on ~~the~~ N ridge

Vicia tuberosa

sun-killer

Net. Community

Tree Frog

Description (Distance, Age, structure, substrate, etc.)

Transition from Dry Open Forest + Barren to Mesic Forest rather sudden.

(on 5-foot steps)

Narrow strip of oak forest / w/ PE - Mesic, somewhat, Acc. seed + other vegetation

200m SW - Dry-mesic woods on ridge + N. slope of ridge
→ on the S. slope - more lg. red + black oak (> 2 @ OSH)

Canopy species Q. alba, Q. rubra, Acc. media, Q. vel. (Dry-mesic)
Magnol. Linderothia Fagus

Serotina Q. puber - on N. slope of ridge

Carya leucocarpa? Carya ovalis
Q. pagoda Carya ovata
Frax. cornia

Subcanopy

Alnus incana
Liriodendron (gap)
Downy flower
Magn. rubra

Asimina Fagus
Celtis sp.

Ostrya
Ulmus alata
Cercis

P. lica, Glycos, Impatiens along stream, Scutellaria
also Rhinanthus virginicus
Vitis rotifolia, Rubus cuneifolius

~~...~~
Rhus glabra
Rhus glabra
Rhus glabra

Daphniphyllum
Q. f. rostrata
Shorea boltonii
Aster latifolius
Ligularia, per. rugata
Clematis virginica
Camptotheca acuminata
Vitis rotifolia

Smilax hispida, PE, K
Vitis rotifolia, Vitis rotifolia!
Smilax glabra, Smilax bonariensis

Wisteria / something / ground cover.

Dry-mesic - the d.v., Galactia, PE, KC, Derris, Sol. ca. n., Vitis, Antennaria, Sol. glabra
On the S. slope, below the N. slope, "Binomial" spec. pointed to during site into the
dry-mesic forest; ground level, high wood. Hill div, low + mid-level,
Acc. platensis, Phytolacca, Physalis heterophylla
Anemone bsd, Smilax racemosa, Galium pilosum, Broomrape, Discocarpus, Viola sp.,
Urtica, Carex stipularis? Eragrostis, Passiflora lutea, Podalyria
Galium circumscissum, Acrotheca, Panax quinquefolium, Arist. sepe

Actaea
Calyptrocarpon
Lyon
Mandragora
Gen. crinale
Asarum
Atropa plicata
Adiantum
Cicuta

Mesic - mostly grasses C&D (some E) - lower slope + terrace To E start distal by logging
Scutellaria, Scutellaria incana, Phytolacca, Podalyria, Blechnum (local sp.) - 5-10 yr sp
Urtica, Aristolochia, Symplocos, Cynoglossum, Smilax, daisy Helianthus tuberosus
Carex glauca - Hybrid - Osmunda, small Liriodendron, Smilax, Carex
Carex - Dierham americana, low on on terrace, w/ Asarum + PE, Carex juncifolia
Carex albigena, Phytolacca, Cystopteris, Parnassia, Parnassia, Parnassia, Parnassia
Urtica glabra, Polypodium virginicum, Anemone, Parnassia, Parnassia, Parnassia
Anemone (rare) Parnassia, Troll. sp., Parnassia, Parnassia, Parnassia, Parnassia
Troll. sp., Anemone, Carex, Carex, Carex

Date 12/5/94

Site Pine Camp

Natural Community *Burned / X on north*

Investigator (s) *ECR*

Subplot *3(5)*

Structures (Woody stems ≥ 2.5 cm dbh - 9 cm dbh)

Species	Dead/Alive	DBH	AZUREL	Distance from Subplot Center
<i>Vic. arb.</i>		2.0	6	8.5
<i>Vic. arb.</i>		3.0	23	8.5
<i>Vic. arb.</i>		1.5	50	11.6
<i>Vic. arb.</i>		3.5	80	12.0
<i>Vic. arb.</i>		1.0	95	14.4
<i>Vic. arb.</i>		1.5	110	17.2
<i>Vic. arb.</i>		1.0	110	15.4
<i>Vic. arb.</i>		1.0	117	13.2
<i>Vic. arb.</i>		1.5	115	9.10
<i>Vic. arb.</i>		1.5	120	6.2
<i>Vic. arb.</i>		1.5	140	7.9
<i>Vic. arb.</i>		1.5	143	10.6
<i>Vic. arb.</i>		1.0	143	12.1
<i>Vic. arb.</i>		2.5	170	8.1
<i>Vic. arb.</i>		1.0	170	11.0
<i>Vic. arb.</i>		1.0	170	8.1
<i>Vic. arb.</i>		1.0	170	13.0
<i>Vic. arb.</i>		1.0	170	14.1

Structures (Woody stems ≥ 2.5 cm dbh - 9 cm dbh)

Species	No. of stems	DBH	Distance from Subplot Center
<i>Sp. 1</i>	1	2.0	18.6
<i>Sp. 2</i>	2	1.5	12.6
<i>Sp. 3</i>	1	1.5	12.6
<i>Sp. 4</i>	1	1.0	5.0
<i>Sp. 5</i>	1	1.5	9.7
<i>Sp. 6</i>	2	2.0	12.1
<i>Sp. 7</i>	1	2.0	12.1
<i>Sp. 8</i>	1	1.5	21.6
<i>Sp. 9</i>	1	2.0	21.6
<i>Sp. 10</i>	1	2.0	21.6

↑ error

Handwritten notes: Species, No. of stems, DBH, Distance from Subplot Center

NATURAL AREA FORM

Site Provo Cam. Date 19 July 94

Natural Community Chert Woodland

Investigator (s) EFU

Subplot 3(S) Quadrat 1, 2, 3, 4

Vegetation Survey (all herbs; shrub and woody ground cover < 1m tall)

Species **% Cover** **Quadrat** **Reproductive Status** **Herbivore/Pathogen**
(Flower/Fruit) Damage

1)	<i>Vaccinium</i>	5		
	<i>Q. stellata</i>	20		
	<i>Amelanchier</i>	1		
	<i>Moss</i>	1		
	<i>Carex</i>	1		
2)	<i>Quercus stellata</i>	1		
	<i>Danthonia</i>	1		
	<i>Vulpia</i>			✓
	<i>Moss</i>	30		✓
3)	<i>Vaccinium</i>		Fruit	✓
	<i>Q. stellata</i>			
	<i>Amelanchier</i>			
	<i>Moss</i>		Fruit	
	<i>Carex</i>			
	<i>Q. stellata</i>			
	<i>Amelanchier</i>			
	<i>Moss</i>			
	<i>Carex</i>			
	<i>Q. stellata</i>			
4)	<i>Q. stellata</i>			
	<i>Moss</i>	30		
	<i>Carex</i>			
	<i>Q. stellata</i>			

Comments:

NATURAL AREA FORM

Site Pharo Can Date 19 July 94
 Natural Community Cherty open woodl.
 Investigator (s) DM
 Subplot S2 (E)

Snags (Moody 2.5 (2) - 9 (2) (2))

Species	Dead/Alive	DBH	Height	Distance from Subplot Center
<i>P. sp.</i>	alive	2.0	108	21' 8"
<i>P. sp.</i>	alive	1.5	107	21' 8"
<i>C. sp.</i>	alive	1.5	107	10' 3"
<i>V. sp.</i>	alive	1.5	206	12' 5"
<i>C. sp.</i>	alive	1.0	306	6' 8"
<i>V. sp.</i>	alive	1.0	302	17' 0"
<i>V. sp.</i>	alive	1.0	315	17' 9"
<i>V. sp.</i>	alive	1.0	330	16' 5"

Snags (Moody 2.5 (2) - 9 (2) (2))

Species	No. of Snags	Alive	Dead
<i>P. sp.</i>			
<i>C. sp.</i>			
<i>V. sp.</i>			

NATURAL AREA FORM

Site Pinus County Alex. Co. Date 19 July 94
 Natural Community Chert woods / Barren
 Investigator (s) EPH

Subplot S2 (E) Quadrat 1 (45)

Disturbance Status (all herbs; shrub and woody ground cover (in bold))

Species **% Cover** **Quadrat** **Reproductive Status** **Herbivore/Pathogen**
 (Flowers/Fruit) **Notes**

1	<i>Asp. virg.</i>	1			
	<i>Teuchry. virg.</i>	1			
	<i>Aster pat.</i>	1			
	<i>Hel. dipar.</i>	1			
	<i>Schiz. scop.</i>	2			
	<i>Galactia.</i>	1			
	Moss	1			
	<i>Corys ten.</i>	1			
	<i>Penic. l.h.</i>	1			
	2	<i>Querc. imbricaria</i>	2		
.....		3			
.....		1			
.....		1			
.....		1			
.....		1			
.....		1			
.....		1			
.....		1			
.....		1			
3	<i>Penic. l.h.</i>	2			
	<i>Dactyl. sicut.</i>	1			
	<i>Penic. l.h.</i>	1			
	<i>Asp. virg.</i>	1			
	<i>Artem. sp. flou.</i>	2			
	<i>Aster. pleuchy-</i>	1			
	Moss	1			
	<i>Aster. patens</i>	1			
	<i>Carex. muskell...</i>	2			
	<i>Q. velutina</i>	1			
Comments:					
<i>Frax. americana</i>		1			

NATURAL AREA FORM

Site Prwo Cam. Date 19 July 84
 Natural Community chc Woodlot
 Investigator (s) FPM
 Subplot 1(N)

~~Species~~ (Woody Stems 2.5 cm - 9 cm dbh)

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
C. strepera	alive	2.0	20	16' 4"
C. strepera	alive	1.0	46	12' 7"
Vacc. arb.	alive	1.5	93	15' 6"
Q. sp.	alive	1.5	92	17' 10"
Q. sp.	alive	1.0	112	16' 3"
Vacc. arb.	alive	1.5	114	7' 8"
Q. sp.	alive	1.0	132	17' 1"
Q. sp.	alive	1.5	132	14' 6"
Vacc. arb.	alive	1.0	135	18' 0"
Vacc. arb.	alive	1.0	138	17' 3"
Vacc. arb.	alive	1.5	140	8' 6"
Vacc. arb.	alive	1.5	150	14' 10"
Vacc. arb.	alive	1.5	160	11' 0"
Vacc. arb.	alive	1.5	160	11' 0"
Vacc. arb.	alive	2.0	160	11' 6"
Vacc. arb.	alive	1.5	160	12' 0"
Vacc. arb.	alive	1.0	160	7' 8"
Vacc. arb.	alive	1.5	160	11' 6"

~~Species~~ (Woody Stems \geq 2.5 cm dbh, but $<$ 2.5 cm dbh and woody stems)

Species	No. of Stems	
	Alive	Dead
Ambrosia arb.	0	0
Vacc. arb.	1	0
Q. sp.	1	0
Q. sp.	1	1
Vacc. arb.	1	1
Q. sp.	1	0

Q. prinus alive 3.5 300 16' 8"
 Ambrosia arb. alive 1.5 308 14' 3"
 Q. velutina alive 1.0 335 9' 10"

NATURAL AREA FORM

Site Provo Can / Alex Co. Date 19 July 94
 Natural Community Chert / Woodland
 Investigator (s) SPU

Subplot 1 (N) Quadrat 1 (45°) + 2 (35°)

Herbaceous Strata (all herbs; shrub and woody ground cover <1m tall)

Species % Cover Quadrat Reproductive Status Herbivore/Pathogen
 (Flowers/Fruit) Damage

1	<i>Carya ferrug</i>	4	trunk	
	<i>Q. stellata</i>	6		
	<i>Carex mullerbergii</i>	1		✓
	Moss	4		
	<i>Ant. plantag.</i>	1		
	<i>Sol. ulm. fr.</i>	1		
	<i>Aster tuberosus</i>	1		
	<i>Cornifera originae</i>	2		
2	Lichen			
	<i>Carex mullerbergii</i>	2		
	Moss	10		✓
	<i>Dianthus sp.</i>	1		
	<i>Quercus stellata</i>			
	<i>Vicia sativa</i>	1	stem	
	<i>Stachys germanica</i>	1		
	<i>Sol. nem.</i>	1		
	Moss	13		✓
	<i>Vicia</i>	1		
	<i>Carex mullerbergii</i>	1		
	4	<i>Lythrum multicaule</i>	1	
<i>Androsace linearis</i>		1		
<i>Q. stellata</i>		2		
<i>Lythrum multicaule</i>		1		
Moss		60		
Lichen		1		
<i>Antenn. plantag.</i>		1		
<i>Sol. nem.</i>		1		
<i>Cornifera originae</i>	1			

Comments:

NATURAL AREA FORM

Site Big Bushy Ridge Date 14 July '94
Natural Community Chert woodlot
Investigator(s) EPH
Subplot 3(S)

Number of samples 2.5 m - 9 m

Species	Number	Area	Volume	Number	Area	Volume
<u>Q. prinus</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>
<u>Q. sp.</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>
<u>Q. sp.</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>
<u>Q. sp.</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>

Number of samples 2.5 m - 9 m

Species	Number	Area	Volume	Number	Area	Volume
<u>Q. prinus</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>
<u>Q. sp.</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>
<u>Q. sp.</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>
<u>Q. sp.</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>	<u>1</u>	<u>1.5</u>	<u>1.5</u>

NATURAL AREA FORM

Site Big Brook Ridge

Date 14 July 94

Recent Community Dry Chest Woodland

Investigator (s) EPH

Subplot 2 (E)

Inventory (Nearest Stem 2.5 m - 9 m DBH)

Species	Dead/Alive	DBH	Aspen	Distance	Height	Notes
<i>C. alba</i>	damaged	3.5	45		12' 9"	1 VG (with)
<i>S. sp.</i>	dead	2.5	100		6' 3"	
<i>S. sp.</i>	dead	2.5	100		6' 3"	
<i>S. sp.</i>	damaged	3.5	100		6' 3"	
<i>S. sp.</i>	dead	2.5	149		17' 9"	
<i>S. sp.</i>	dead	2.5	149		16' 1"	
<i>S. sp.</i>	alive	1.0	165		18' 1"	
<i>S. sp.</i>	alive	2.0	178		15' 11"	1 VG
<i>M. sp.</i>	dead	3	157		15' 6"	1 VG each in crown
<i>C. sp.</i>	alive	2.5	100		10' 7"	
<i>C. sp.</i>	alive	4.0	209		12' 2"	
<i>C. glabra</i>	alive	1.5	294		14' 3"	
<i>C. sp.</i>	alive	2.0	278		19' 6"	
<i>C. sp.</i>	alive	2.0	259		15' 11"	
<i>C. sp.</i>	alive	2.0	188		15' 10"	
<i>C. sp.</i>	alive	1.0	306		15' 10"	
<i>C. sp.</i>	alive	1.0	306		15' 10"	

Inventory (Nearest Stem 2.5 m - 9 m DBH)

Species	Dead/Alive	DBH	Aspen	Distance	Height	Notes
<i>Cornus</i>						

R. b. chestnut

NATURAL AREA FORM

Site Big Brandy Ridge Date 14 July 94
 Natural Community Dry Chert woodlot / low down
 Investigator(s) EPH

Subplot 2 (E) Gradient 5 + 6, 7, 8

Important Plants (add notes about any other ground cover ← in table)

Species **% Cover** **Reproductive Status** **Herbivore/Pathogen**
 (Common/Abundant) (None)

5	PC	1		
	Cornus Florida	25		
	Morone latifolia	2		
	Sol. ulmaria	1		
	PC	3		
6	Filler log	12		
	Saxifraga	2		
	PC	1		
8	log thick litter			
	PC			
	PC			
	PC			
	PC			
	PC			
	PC			
	PC			
	PC			
	PC			
9	Cornus Florida	3		
	Large Lichen	1		
	PC	3		
	Moss	25		
	Wet dir	1		
PC	1			
Condition	1			

note that part (1) is covered by a filler log - 50%.

NATURAL AREA FORM

Site Big Brody Ridge

Date 14 July 74

Natural Community Chert woodland

Investigator (s) EPA

Subject 1 (a)

Number of trees 2.3 @ .9 @

(1-3.5 in.)

Species	Condition	DBH	Height	Notes
C. alba	Alive	2.0	15.0	
C. alba	Alive	2.5	16.2	
C. alba	Dead	2.0	15.0	
C. alba	Alive	1.0	13.0	
C. alba	Alive	3.5	16.2	
C. alba	Alive	3.0	23.5	
C. alba	Alive	1.5	25.9	
C. alba	Alive	2.0	25.8	
C. alba	damaged	1.0	30.0	down
C. alba	Alive	1.5	31.0	
C. alba	Alive	2.0	33.5	

Number of trees 2.3 @ .9 @

Species	Condition	DBH	Height	Notes
C. alba	Alive	2.0	15.0	
C. alba	Alive	2.5	16.2	
C. alba	Dead	2.0	15.0	
C. alba	Alive	1.0	13.0	
C. alba	Alive	3.5	16.2	
C. alba	Alive	3.0	23.5	
C. alba	Alive	1.5	25.9	
C. alba	Alive	2.0	25.8	
C. alba	damaged	1.0	30.0	down
C. alba	Alive	1.5	31.0	
C. alba	Alive	2.0	33.5	

NATURAL AREA FORM

Site Big Bush Pkz Date 14 July 94
 Natural Community chest Woodland / Glades
 Investigator (s) JKU

Subplot 1(N) Quadrat 24

Vegetation Stage (all forest, scrub and very young forest are rare)

Species 1 Cover Quadrat Reproductive Status Number/Quadrat

3	Mass	5
	Stem: <u>palms</u>	1
	<u>Carex cf. pan.</u>	2
	<u>Phil. <u>subulata</u></u>	1
	<u>Ranunc. <u>obovif.</u></u>	1
	<u>Frag. <u>umbell.</u></u>	1
	<u>Sida <u>circosar</u></u>	1
	<u>HC</u>	1
	<u>Ruzia <u>grisea</u></u>	1
	<u>Oreoc. <u>primit</u></u>	1

Comments:

Carolina Wren
 Gray Tree Frog

Site Big Bushy Ridge

Date 13 July 94

Net. Community Forest

Long Tracing

Description (Disturbance, age, structure, substrate, etc.)

Fraxinus -
100% tall trees - 100% of canopy gaps, they

don't storm

Canopy species

Quercus, Liriodendron, large cord.

→ to E-wet - w/ An. rham.

Other rham

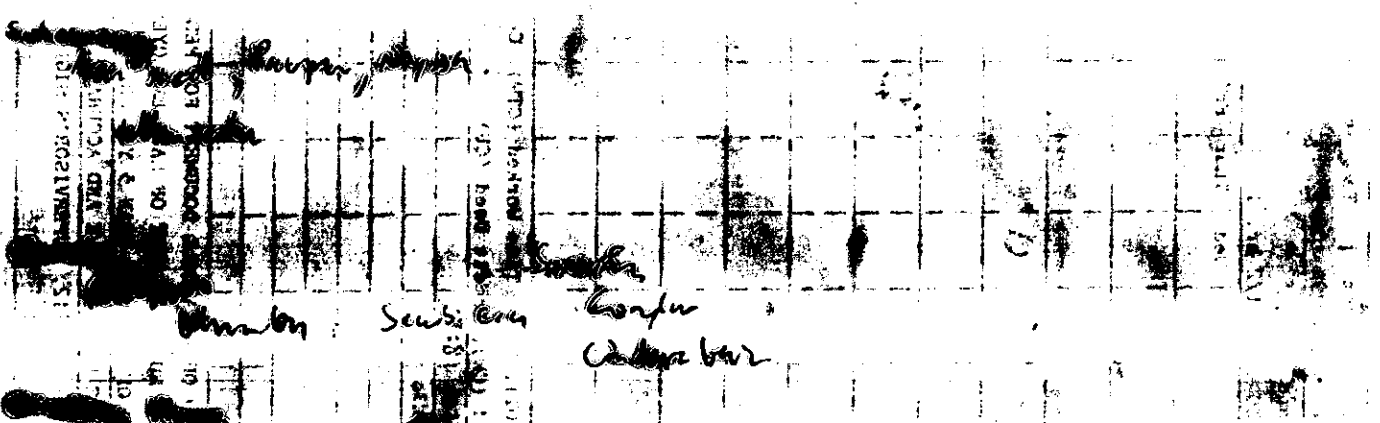
Fraxinus An. rham

Q. rubra
Liriodendron

From scrub

Q. macrocarpa Magnolia

Cycas



Notes, PI, etc, similar notes

Herbs / seedlings / ground cover.

Laportia, Rubus, Asplenium, etc, PI, Camp. rham, Verbena alternifolia

Hydrocotyle, Smilax, etc
Dioscorea, Senecio, etc, Cystopteris, etc, And. trifid
Pilea, etc, Carex, etc, Carex

old road bed
Phytolacca, Urtica, Botrychium, Phlox, etc

Diole, etc, striat, etc, Hypochaeris, etc, Phlox, etc

Hydrangea, Cynodon, Polydora, etc, Menisperm

Taraxacum, Euphorbia, Phlox, etc, Polydora, etc

Silene, etc, Scroph. etc, Cryptotaenia

Osmunda, etc, Elymus, etc

Sium, etc, Thymus, etc, Dipsacae
Sagittaria

Unclear

- Artemisia
- Gemina
- Adiantum pedunculatum
- Adiantum
- Alnus
- Cotoneaster

NATURAL AREA FORM

Site Dudh Gred (A) Date 2 July 74
 Natural Community Chal. Swamp / Forest
 Investigator (s) ERA
 Subplot 4

Species **Dead/Alive** **DBH (cm)** **Azimuth** **Distance from Subplot Center**

<i>Cast. indica</i>	1/0	1.5	135	12'
<i>Cast. indica</i>	1/0	1.5	135	12'
<i>A. indica</i>	1/0	1.5	135	12'
<i>Castan. Pl.</i>	1/0	1.5	135	12'
<i>Ostrya sp.</i>	1/0	1.5	135	12'

Species **No. of Stems** **Alive** **Dead**

<i>Castan. Pl.</i>	1	1	0
<i>Ostrya sp.</i>	1	1	0

Site Big Brody Ridge

Date 21 June 94

Det. Community Dry-meadow

Description (Disturbance, age, structure, substrate, etc.)

Closed mature forest, regrowth - oak on broad ridge top

most disturbance to stem damage

heavy leaf litter - mod dummies on steep slope

multi-stemmed tree

herbaceous

Canopy species

Q. alba, Q. velutina, Q. nodulata?, Frax. americana

A. saccharum, Carex lasiocarpa, Woodwardia, Magnolia

Carex ovata

Substratum

Common Pines, A. saccharum, Carex lasiocarpa, Woodwardia

Carex ovata, Fragaria, Myrica

Hydrocotyle

PI, VC, Urtica, Carex

Herbs / seedlings / ground covers.

Mostly PI + VC;

de. Galium aparine, Millefolium, Bistorta, Cypripedium

Broomrape

Arnica montana

Smilax racemosa

Polygonum bistorta

Festuca ovina

Polygonum

Sanicula canadensis

Geranium

Desmodium

Trifolium

Site Big Bushy Hill

Date 21 Nov 94

Net. Community "Chest Barn"

Description (Disturbance, Age, structure, substrate, etc.)

Soil loose / Chest Fragment - to 18"

lot of upended trees

broader ridge top open pasture - lot of PE, Sassafras, Acer sp. in

pi 57
Canopy species

Q. velutina, *Q. prinus*, *Q. alba* -

oak. *Prunus americana* *Tilia*, *Juglans* sp.
Carya glabra

Subcanopy

Q. prinus *Sassafras*, *Com. plants*

Beech

Vaccinium *sp.*

Rosa carolina *Ceanothus*

VC + PE

Vit. et

PI = Total

- on one site
or under dense Sassafras

low veg. - rose

Celastrus

Herbs / seedlings / Ground covers.

Erythraea *drum.*, *Carex* *ovata*, *mill.* *latz.*

Dianthus *virgin.* *Androsace* *rep.*

Cuscuta *Sol. junca.* *Dianthus*

Solidago *Desmodium* *Man. bunt.*

Antennaria *Apocynum* *eximium* *Galium* *virg.*

Chloris *Eup. cor.* *Rumex*

Cynodon *Hel. div.* *Dioscorea*

Monarda *Andr. gen.* *Lobelia* *infl.*

Bra. pub. *Urt. hor.* *Euph. cor. lat.*

Sol. ul. r. *Elym. hystrix* *Suaeda*

Vernonia *Pum. bar.* *Hel. sp. ovata*

Panic. lat. *Prud. bar.* *Vicia* *trifida*

Ly. hystrix *Verben. ul.* *Aic. variegata*

Heuc. ... *Arcularia* *As. ...*

Site Dutch Creek Cheat Basin

Date 20 Jun 94

Dist. Community Successional? Dry-mesic Upland Forest.

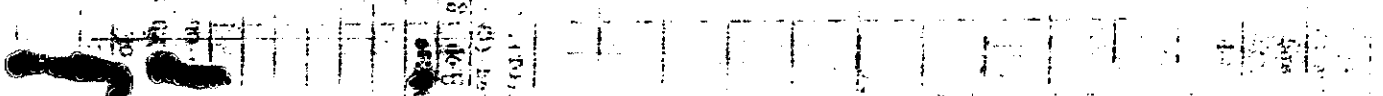
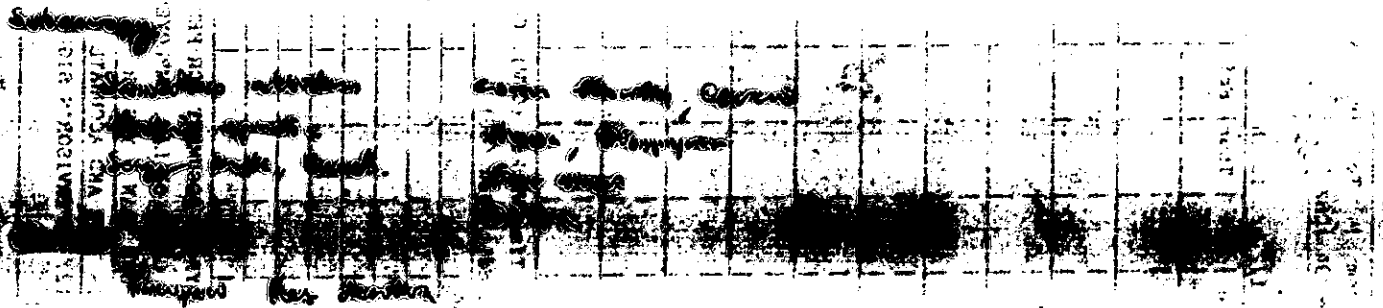
Description (Disturbance, Age, Structure, Substrate, etc.)

Successional forest on wedge top - not adjacent to pasture
abandoned field/pasture.

Canopy species

on slopes, occ. *Q. alba* + *Q. velutina*,
with *Scots Pine* on wedge top plate

also. *Carya tomentosa*, *oaks*, *Cordifolia*, *Frax americana*



Celastrus, PE, VC, *V. tinctoria*, *Smilax glauca*

Picea canadensis *resinosa*

Herbs / Seedlings / Ground Cover. Lot of PE + VC.

- Aronia discolor*, *A. trifida*, *Podophyllum*, *Morone alba*, *Carya digitalis*, *Argemone* *scabra*,
- Asc. sp.*, *Sarcocolla canadensis*, *Cynophellon virginicum*, *Dioscorea quaternata*, *Asplenium platyneuron*,
- Solidago canadensis*, *Sol. ulmifolia*, *Smilax racemosa*, *Phytolacca*, *Carex umbellata*, *Eriogonum alpicolor*,
- Valeriana officinalis*, *Desmodium* *sp.*, *Desmodium glutinosum*, *Asplenium platyneuron*, *Plagiosiphus leucogaster*,
- Polygonum bistorta*, *Asplenium platyneuron*.

Site Dutch Creek Cheat Barren

Date 20 Jun 94

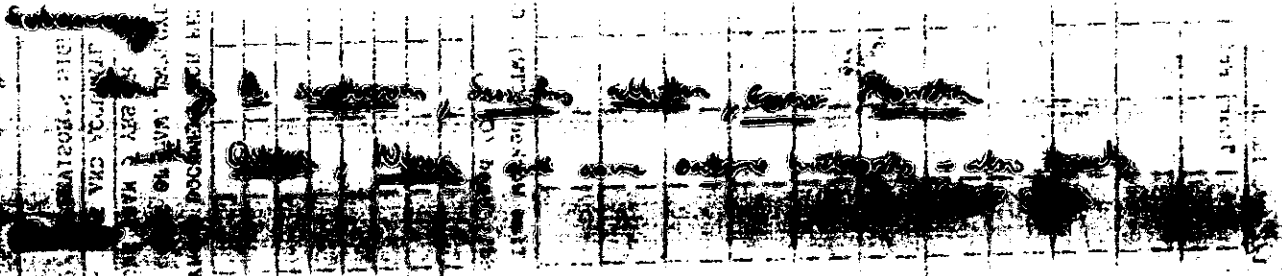
No. Community Dry-mesic upland forest.

Description (Structure, substrate, etc.)

Substrate? bed with closed canopy - not dense 25-45 cm
few large. Stumps present

Canopy species

dom by Q. alba, with ~~Q. alba~~, C. ovata, Q. rubra, Frax americana



Vaccinium pallidum (common)

Smilax glauca, VC, PI, Vitis rotundifolia

Herbs / Seedlings / Ground Cover.

- Podoptilum peltatum Dioscorea eschscholii
- Solidago caesia
- Carex rostrata
- Thymus ruficapillus
- Panicum boreale
- Arrhenatherum elatius
- Festuca ovina

predominantly P.S.
trunks / seedlings / ground cover.

	1	2	3	4	5	6	7	8	9	10
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										

canopy species
sugar maple w/ beech

Description (Diameter, age, crown, etc.)
Pattern - substructure of scattered dog-hair spruce.

Red. Community Maple Upland Forest

Site Dutch Creek West Branch
Date 20 June 94

NATURAL AREA FORM

Site Dutch Creek Date 17 July 94
 Natural Community Open Barren / Limited
 Investigator (s) RFU
 Subplot 3

Saplings (Woody Stems 2.5 cm - 9 cm dbh)

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
<i>Alnus alata</i>	alive	1.5	320	5' 10"
<i>Carya glabra</i>	alive	2.5	342	13' 5"
<i>C. glabra</i>	alive	2.5	76	13' 6"
<i>C. texana</i>	alive	3.0	105	17' 5"
<i>Alnus alata</i>	alive	3.0	124	13' 8"
<i>C. texana</i>	alive	3.5	206	3' 0"
<i>C. texana</i>	alive	1.0	257	14' 4"
<i>C. texana</i>	alive	1.5	272	16' 8"

Stems (Woody Stems > 1 m tall, but < 2.5 cm dbh) and woody vines

Species	No. of Stems	
	Alive	Dead
<i>Quercus laevis</i>	1	

BASIC INFORMATION

(1) Index no. _____

(2) County UNION (3) Ref. no. _____

(4) Natural area name DUTCH CREEK CHEST WOODLANDS

SIGNIFICANCE

(5) ~~Inventory map coordinates and significance~~

a. Cat	Loc	b. Description of significant feature
I		GRADE 1 DRY BARRIERS (GRADE 1 DRY BARRIERS)
I		GRADE B DRY UPLAND FOREST
V		Shawnee National Forest Natural Area

(6) Exceptional features and notable features

a. Cat	Loc	E/N	b. Description of feature

(7) N. sec _____ (8) Easting _____ (9) S. sec _____

(10) ~~Map location~~
Map location: T. 12 S., R. 2W., S. 27, NE 6 SEC. 23, NW SEC. 34

(11) Access: _____

(12) Topographic quadrangle JONESBORO 7.5'

(13) Watershed Clear-Creek-Horseshoe Lake (14) Specific stream DUTCH CREEK

(15) Legislative district _____ (16) Municipality _____

NATURAL CHARACTERISTICS

(17) Altitude: a. minimum 420' b. maximum 720'

(18) Topography:
a. Physiographic unit _____ b. Major feature _____ c. Individual feature _____

(19) Geologic formation _____
(20) Soil association (State) _____
(21) Soil association (County) _____

NATURAL AREA FORM

Site DUTCH CREEK "A" Date 12 July 74
 Natural Community Chert Barren / Woodland
 Investigator (s) EPH

Subject 1 Quadrat 1, 2, 3, 4

~~Disturbance Source, Field Number, Area and Water (Percent Area of Water)~~

Species 1 Common Grasses Reproductive Stage Flowering/Seeds

1	PI	80	
	Quercus	20	
2	P. stolon	2	
	Hell dier.	2	
	PI	35	
	Red maple	2	✓
3	Sp. 1	1	
	Sp. 2	1	✓
	V.C.	2	
	Sp. 3	16	✓
4	Sp. 4	1	✓
	Sp. 5	1	✓
	Sp. 6	1	✓
	Sp. 7	1	✓

Comments:

NATURAL AREA FORM

Site Dutch Creek "A" Date 12 July 84
 Natural Community Oak Scrub/Wooded
 Investigator (s) ESM
 Subplot 1

Inventory (Woody Stem 2.5 cm - 9 cm DBH)

Species	Dead/Alive	DBH	Height	Distance from Subplot Center
<i>Alnus alba</i>	alive	1.5"	10	10"
<i>Q. velutina</i>	alive	2.0	10	10"
<i>Q. velutina</i>	alive	2.0	10	10"
<i>Q. velutina</i>	alive	2.0	10	10"
<i>Q. velutina</i>	alive	1.5	10	10"
<i>Alnus alba</i>	alive	3.0	10	10"

Inventory (Woody Stem 2.5 cm - 9 cm DBH) - 100m x 100m

Species	No. of Stems	Alive	Dead
<i>Q. velutina</i>	11	11	0
<i>Alnus alba</i>	1	1	0

NATURAL AREA FORM

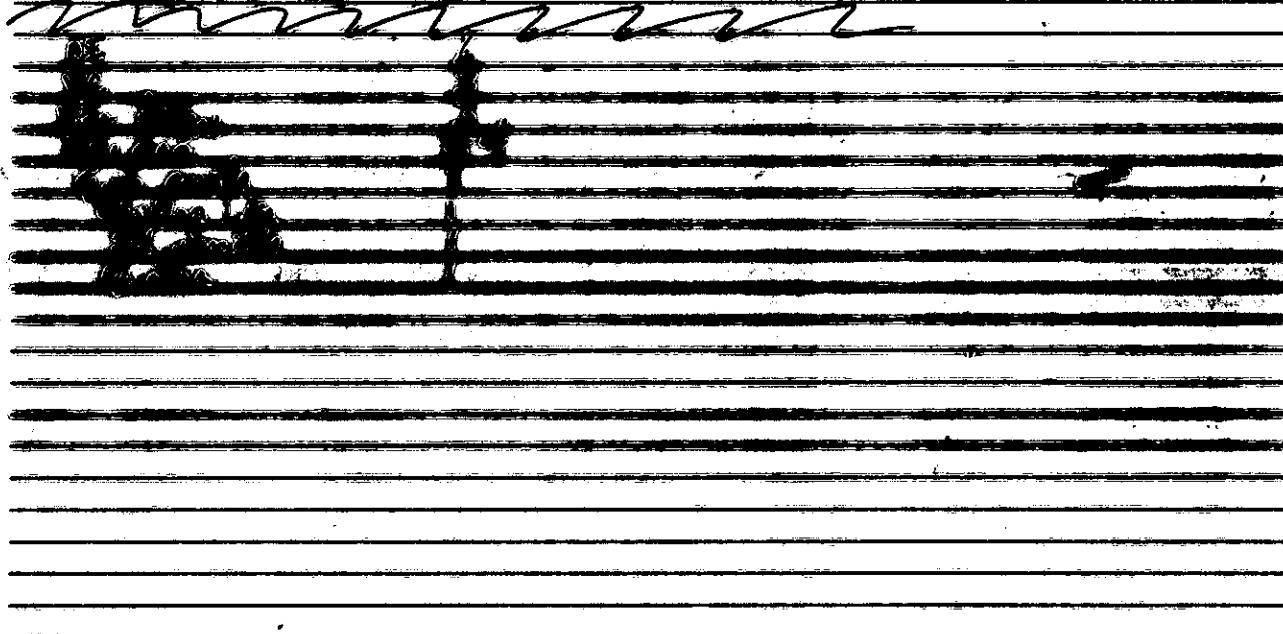
Site Dubby Creek "A" Date 12 July 94
 Natural Community Chert Barren / Woodland
 Investigator (s) EPU

Subplot 2 Quadrat 5

~~Subplot~~ ~~Quadrat~~ (add number, check and record ground cover etc. etc.)

Species 1 Cover Quadrat Reproductive Status Herbivore/Pathogen

Species	Cover	Quadrat	Reproductive Status	Herbivore/Pathogen
Virg. Grass		5		
Blue grass	20			
Robin chert	4		✓	✓
Anthology	1			
V. m. grass	3			✓
Academy	1			
Soil	1			
Other	1			



Comments:

Challenge
Cost-Share Agreement
between
Shawnee National Forest
and
Illinois Department of Conservation

THIS CHALLENGE COST-SHARE AGREEMENT, is hereby made and entered into by and between Illinois Department of Conservation, hereinafter referred to as the Cooperator and the Shawnee National Forest, U.S. Department of Agriculture Forest Service, hereinafter referred to as the Forest Service (FS), under the provisions of the Interior and Related Agencies Appropriations Act, Pub. L. 102-154.

I. INTRODUCTION

The Forest Service and the Cooperator have established this agreement to help one another accomplish mutually beneficial objectives related to gaining additional information concerning the areas recently listed in the Illinois Natural Areas Inventory and listed as Natural Areas in the Shawnee Land and Resource Management Plan, signed May 1992.

II. MUTUAL BENEFITS

Both parties agree that information concerning the floral and faunal resources of the newly listed Illinois Natural Areas on the Shawnee National Forest are presently lacking, and that a survey of these areas is needed. This information will significantly increase the level of knowledge regarding these areas' unique resources. The areas that will be inventoried are Crow Knob (Vienna R.D., 15 acres), Dean Cemetery East (Vienna R.D., 20 acres), Dog Barrens (Vienna R.D., 74 acres), Dutch Creek Chert Woodlands (Jonesboro R.D., 126 acres), Jackson Hole (Vienna R.D., 116 acres), Kickasola Cemetery (Vienna R.D., 36 acres), Poco Cemetery East (Vienna R.D., 34 acres), Poco Cemetery North (Vienna R.D., 22 acres), Reid's Chapel (Vienna R.D., 134 acres), Robnett Barrens (Vienna R.D., 21 acres), Gibbons Creek (Elizabethtown R.D., 95 acres), Big Brushy Ridge (Jonesboro R.D., 150 acres), and Provo Cemetery (Jonesboro R.D., 50 acres). Additional information to be gained, which will be of mutual benefit, are the identification of significant and exceptional features, the quality of these features, the location of threatened, endangered, and sensitive plant species, the establishment of long-term monitoring plots, and the collection of baseline data. Information gathered will also include potential threats to threatened, endangered, and sensitive plant species, and to the various plant communities. The information obtained on these sites will aid in the management of these newly designated natural areas.

III. THE FOREST SERVICE SHALL:

1. Inventory each of the recent additions to the Illinois Natural Areas Inventory as listed above.
2. Establish a minimum of one long-term monitoring plot for vegetation on each site, to be determined on site.

3. Collect and identify plant voucher specimens as representatives of the species encountered at said sites during surveys. Photos may be taken in lieu of voucher specimens when deemed necessary.

4. Map the natural communities at each site surveyed.

5. Provide a final report which will include a completed inventory form, natural communities map indicating the plant communities, a plant species list of the areas inventoried, monitoring plot information, a list of potential threats to the inventoried sites, and management suggestions for each inventoried site.

6. Match the Challenger's \$5,000 with \$5,000 of in-kind contributions.

IV. THE CHALLENGER SHALL:

1. Reimburse the Shawnee National Forest \$5,000 for salary and expenses related to the natural areas inventory as shown in the Financial Plan, Attachment "A". The Challenger will make payment of \$4,000 at the time of project initiation, and the remaining \$1,000 will be paid upon the completion of the project.

2. Provide the Shawnee National Forest with the inventory methodology and the appropriate forms and maps for the areas to be inventoried.

3. Give the Forest Service or Comptroller General, through any authorized representative, access to and the right to examine all books, papers, or documents related to this agreement.

V. IT IS MUTUALLY AGREED AND UNDERSTOOD BY THE FOREST SERVICE AND CHALLENGER THAT:

1. Both parties will arrange for a continuing consultation to discuss the conditions covered by this agreement and agree to actions necessary to implement and further the stated goals of the agreement.

2. The Forest Service, in writing, may terminate the agreement in whole, or in part, at any time before the date of expiration, whenever it is determined that the other party(s) has materially failed to comply with the conditions of this agreement.

3. The cooperator shall comply with all Federal statutes relating to nondiscrimination and all applicable requirements of all other Federal laws, executive orders, regulations and policies. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (40 U.S.C. 2000), which prohibits discrimination on the basis of race, color, handicap, or national origin; (b) Title IX of the Education amendments of 1972, as amended (20 U.S.C. 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex.

4. Improvements placed on National Forest land at the direction of either of the parties, shall thereupon become property of the United States, and shall be subject to the same regulations and administration of the Forest Service as other National Forest improvements of a similar nature.

5. This agreement in no way restricts the Forest Service from participating in similar activities with other public or private agencies, organizations, and individuals.

6. No part of this agreement shall entitle the Challenger to any share or interest in the project other than the right to use and enjoy the same under the existing regulations of the Forest Service.

7. No member of, or Delegate to Congress shall be admitted to any share or part of this agreement, or any benefits that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

8. Nothing herein shall be considered as obligating the Forest Service to expend or as involving the United States in any contract or other obligations for the future payment of money in excess of appropriations authorized by law and administratively allocated for this work.

9. This agreement may be revised as necessary by mutual consent of both parties, by the issuance of a written amendment, signed and dated by both parties.

10. Either party may terminate the agreement by providing 60 days written notice, unless terminated by the Forest Service unilaterally for cause in accordance with Article 2 of this section.

11. The work under this agreement shall be completed no later than March 1, 1994.

VI. PROJECT COORDINATORS: Administration of this agreement shall be accomplished by:

Elizabeth L. Shimp
USDA Forest Service
Shawnee National Forest
901 S. Commercial
Harrisburg, IL 62946
(618) 253-7114

Todd E. Fink
Illinois Department of Conservation
Ferne Clyffe State Park
P.O. Box 67
Goreville, IL 62939
(618) 995-2568

IN WITNESSETH WHEREOF, the parties hereto have executed the agreement as of the last date written below.

USDA Forest Service

BY: David L. Rogers

DATE: 08/02/93

Illinois Department of Conservation

BY: Brent Manning / JH

DATE: 08/10/93

ATTACHMENT A

FINANCIAL PROJECT PLAN
(PROJECT TITLE)

FOREST SERVICE CONTRIBUTION

	<u>FS IN-KIND CONTRIBUTION</u>	<u>FUNDING TO CHALLENGER</u>	<u>TOTAL</u>
SALARIES	\$ 4,500.00	\$ _____	\$ 4,500.00
TRAVEL	\$ _____	\$ _____	\$ _____
SUPPLIES	\$ _____	\$ _____	\$ _____
EQUIPMENT USE	\$ 500.00	\$ _____	\$ 500.00
TOTAL DIRECT COST	\$ _____	\$ _____ 1/	\$ _____
ADD: INDIRECT COST	\$ _____		\$ _____
TOTAL FS CONTRIBUTION	-----		\$ 5,000.00 \$ 5,000.00

CHALLENGER CONTRIBUTION

	<u>FUNDING TO FS</u>	<u>CHALLENGER IN-KIND</u>	<u>TOTAL</u>
SALARIES	\$ 3,000.00	\$ _____	\$ 3,000.00
TRAVEL	\$ _____	\$ _____	\$ _____
SUPPLIES/CONTRACT	\$ 2,000.00	\$ _____	\$ 2,000.00
EQUIPMENT USE	\$ _____	\$ _____	\$ _____
TOTAL DIRECT COST	\$ _____ 2/	\$ _____	\$ _____
ADD: INDIRECT COST		\$ _____	\$ 5,000.00
ADD: VALUE OF CONTRIBUTIONS WHERE THE CHALLENGER INCURS NO COST (i.e., voluntary labor) (May be used only to satisfy matching requirement - not reimbursable)			\$ _____
TOTAL CHALLENGER CONTRIBUTION	-----		\$ 5,000.00 \$ 5,000.00

OTHER SOURCES

Other Federal Contributions	\$ _____
Other Non-Federal Contributions	\$ _____

PROJECT TOTAL ----- \$ 10,000.00

Total FS Share 50 % of Project Value
Challenger Share 50 % of Project Value

Management Code(s) Established by FS: 226005 ; 226700

1/ Estimated payment to Challenger
2/ Amount to be collected from Challenger

STATE OF ILLINOIS, DEPARTMENT OF CONSERVATION

VENDOR'S CONTRACT CERTIFICATIONS

1. Vendor certifies that it has not been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or in any other state in that officer or employee's official capacity; or has made an admission of guilt of such conduct which is a matter of record but has not been prosecuted for such conduct. Section 10.1 of the **Illinois Purchasing Act**.
2. Vendor certifies it has not been barred from being awarded a contract with a unit of State or local government as a result of a violation of Section 33E-3 or 33E-4 of the Criminal Code of 1961 (bid rigging or bid rotating).
3. Vendor certifies that, if this contract is with an individual or individuals, such individual or individuals is not barred from receiving State contracts as a result of default on any educational loan. (Section 2 of An Act in Relation to Educational Loans, Ill. Rev. Stat., 1989, Ch. 127, par 3553).
4. The vendor shall maintain, for a minimum of 5 years after the completion of the contract, adequate books, records, and supporting documents to verify the amounts, recipients, and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records, and supporting documents related to the contract shall be available for review and audit by the Auditor General; and the contractor agrees to cooperate fully with any audit conducted by the Auditor general and to provide full access to all relevant materials. Failure to maintain the books, records, and supporting documents required by this Section shall establish a presumption in favor of the State for the recovery of any funds paid by the State under the contract for which adequate books, records, and supporting documentation are not available to support their purported disbursement.
5. The following certification is required by the Drug Free Workplace Act. (Ill. Rev. Stat., ch. 127, par. 152.311). The Drug Free Workplace Act, effective January 1, 1992, requires that no grantee or contractor shall receive a grant or be considered for the purposes of being awarded a contract for the procurement of any property or services from the State unless that grantee or contractor will provide a drug free workplace. False certification or violation of the certification may result in sanctions including, but not limited to, suspension of contract or grant payments, termination of the contract or grant and debarment of contracting or grant opportunities with the State for at least one (1) year but not more than five (5) years.

For the purpose of this certification, "grantee" or "contractor" means a corporation, partnership, or other entity with twenty-five (25) or more employees at the time of issuing the grant, or a department, division, or other unit thereof, directly responsible for the specific performance under a contract or grant of \$5,000 or more from the State.

The contractor/grantee certifies and agrees that it will provide a drug free workplace by:

(a) Publishing a statement:

- (1) Notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance, including cannabis, is prohibited in the grantee's or contractor's workplace.
- (2) Specifying the actions that will be taken against employees for violations of such prohibition.

(3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:

(A) abide by the terms of the statement; and

(B) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

(b) Establishing a drug free awareness program to inform employees about:

(1) the dangers of drug abuse in the workplace;

(2) the grantee's or contractor's policy of maintaining a drug free workplace;

(3) any available drug counseling, rehabilitation, and employee assistance programs; and

(4) the penalties that may be imposed upon an employee for drug violations.

(c) Providing a copy of the statement required by subparagraph (a) to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.

(d) Notifying the contracting or granting agency within ten (10) days after receiving notice under part (B) of paragraph (3) of subsection (a) above from an employee otherwise receiving actual notice of such conviction.

(e) Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by, any employee who is so convicted, as required by section 5 of the Drug Free Workplace Act.

(f) Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.

(g) Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

THE UNDERSIGNED AFFIRMS, UNDER PENALTIES OF PERJURY, THAT HE OR SHE IS AUTHORIZED TO EXECUTE THIS CERTIFICATION ON BEHALF OF THE DESIGNATED ORGANIZATION.

USDA - FOREST SERVICE, SHAWNEE NF

Printed Name of Organization

David L. Rogers

Signature of Authorized Representative

Requisition/Contract/Grant ID Number

DAVID L. ROGERS, ACTING FOREST SUPERVISOR

Printed Name and Title

08/02/93
Date

Vendor's Federal Taxpayer Identification Number
Disclosure Certification

Instructions:

The form of this certification is established by the Internal Revenue Service. The following instructions to vendors are for use in completing the below certification:

Enter your taxpayer identification number (TIN) in the appropriate space. For individuals and sole proprietors, this is your social security number. For other entities, it is your employer identification number. Federal Employer Identification Numbers (FEIN's) must not be used for sole proprietorships.

If you do not have a TIN, apply for one immediately. To apply, get Form SS-5, Application for a Social Security Number Card (for individuals) from your local office of the Social Security Administration, or Form Ss-4, Application for Employer Identification Number (for businesses and all other entities), from your local Internal Revenue Service Office.

To complete the certification if you do not have a TIN, fill out the certification indicating that a TIN has been applied for, sign and date the form, and return it to this agency. As soon as you receive your TIN, fill out another such form including your TIN, sign and date the form, and give it to this agency.

If you fail to furnish your correct TIN to this agency, you are subject to an IRS penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Certification:

Under penalties of perjury, I certify that 72-0569834F is my correct Federal Taxpayer Identification Number. I am doing business as a (please check one):

- | | |
|---|---|
| <input type="checkbox"/> Individual | <input type="checkbox"/> Real Estate Agent |
| <input type="checkbox"/> Sole Proprietorship | <input checked="" type="checkbox"/> Government Entity |
| <input type="checkbox"/> Partnership | <input type="checkbox"/> Tax Exempt Organization
(ICR 510(a) only) |
| <input type="checkbox"/> Corporation | <input type="checkbox"/> Medical and Health Care
Services Provider Corporation |
| <input type="checkbox"/> Not-for-Profit Corporation | |
| <input type="checkbox"/> Trust or Estate | |

Firm Name: USDA - FOREST SERVICE, SHAWNEE NF.

David L. Rogers
Signed

08/02/93
Date

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FY93 NONGAME WILDLIFE CONSERVATION FUND PROPOSAL

PROJECT TITLE: Illinois Natural Areas Update in the Shawnee National Forest

ESTIMATED COST: \$5,000.00 with potential for Challenge Grant funds from the USFS

JUSTIFICATION: A number of high-quality areas in the Shawnee National Forest have been provisionally accepted as additions to the Illinois Natural Areas Inventory pending further evaluation. These areas include Crow Knob, Pope Co; Bell Pond, Johnson Co., and Double Branch Hole, Pope Co. (as a Category I site). Additional sites considered worthy of evaluation include Kickasola Barrens and Spivey Limestone Barrens (both Pope Co.). The time needed to complete these evaluations is beyond the manpower capability of the Division of Natural Heritage. A timely evaluation and addition of these areas to the Inventory will help assure their protection and management by the USFS.

DURATION: 1993 growing season

PROPOSED BY: Todd Fink