NATURAL AREA FORM

Site Crow Knob Date 21 July 94

Natural Community Sandstone barren/woodland

Investigator (s) EFU

Subplot S1 (N) Quadrat 1 (45°), 2, 3

[redacted] (all herbs, shrub and woody ground cover <1m tall)

Species	% Cover Quadrat	Reproductive Status (Flowers/Fruits)	Herbivore/Pathogen Damage
(1) Vc	1		
Cunila	1		
Panicum lanuginosum	5	✓	
P. Tenuiflorum	2	✓	
P. dichotomum	1	✓	
Agrostis perennans	1		
Juniperus virg.	1		
Carex houchinii	1	✓	
(2) P. lanuginosum	15		
P. linearifolium	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
Juniperus virg.	2	trunk	
Cunila	1		
[redacted]	1		
[redacted]	1	[redacted]	
[redacted]			
Carex sp.	1		
Quercus alba	1	seedling	
(4) Danthonia sp.	1		
Andropogon scop.	1		

Comments:

NATURAL AREA FORM

Site Crow Knob Date 21 July 94

Natural Community Dry upland forest / brush on sandstone

Investigator (s) EPH

Subplot 1 (N)

[redacted] (Woody Stems 2.5 cm - 9 cm [redacted])

Species	Dead/Alive	DBH	Azimuth	Distance	Spon	Subplot	Concor
Jun vir	Dead	2.5	32	17' 5"			
Jun vir	alive	2.0	40	14' 1"			
Carya glabra	alive	3.5	[illegible]	[illegible] 11"			
C. glab	damaged	1.0	195	[illegible] 4"			
Jun vir	alive	3.5	232	13' 7"			
Jun vir	alive	1.0	232	5' 10"			
Jun vir	alive	2.5	248	18' 6"			
Jun vir	dead	1.0	268	16' 8"			
Juniperus vir.	dead	2.0	[illegible]	14' 2"			
Jun vir	alive	2.5	333	12' 1"			

[redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted]

[redacted]

Species	No. of [redacted] Alive	Dead
Fax ornus	1	

NATURAL AREA FORM

Site Crowlands Date 21 July 94

Natural Community Farm/Dry woods

Investigator (s) EJM

Subplot 2 (E) Quadrat 5-8

[redacted] (all herbs; shrub and woody ground cover <[illegible]%)

Species	% Cover Quadrat	Reproductive Status (Flowers/Fruit)	Herbivore/[redacted] [redacted]
(1) San can	3	✓	
Ju vir.	2	Fruit	
VC	4		
Galn gtum	2	✓	
Ulmus alata	2		
Acalyph gnc.	1	✓	
Polygon arifolium	1	✓	
P. insulicum	1		
(2) San can	3	✓	
VC.	2		
[redacted]	1	✓	
[redacted]	1		
[redacted]	1		
[redacted]	2		
[redacted]	1	✓	
[redacted]			

indicate paths about 50% of area

Comments:

NATURAL AREA FORM

Site Crow Km-6 Date 21 July 94

Natural Community Dry yellow Pond

Investigator (s) EFU

Subplot 2 (E)

[redacted] (Mostly Stems 2.5 cm - 9 cm [redacted])

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
Juniper virg.	dead alive	3.0	25	15' 3"
Juniper virg	alive	3.5	[illegible]	17' 3"
Juniper virg	alive	3.5	[illegible]	9' 9"
[illegible] C. glabra	alive			14' 3"
Juniper virg.	alive	3.0	140	14' 9"
Juniper virg	dead	3.5	178	12' 8"
Juniper virg	dead.	2.0	187	11' 10"
Juniper virg.	dead.	3.0	263	8' 3"
tipped [illegible]	dead	3.0	266	6' 5"
Juniper virg	alive	3.5	330	9' 9"
C. glabra	alive	3.0	340	18' 3"

[redacted] (Mostly Stems ≥ 1 cm, but <2.5 cm [redacted]) and [redacted] Vines

Species	No. of Stems Alive	Dead
Rhus aromatica	1	III
[redacted]		

NATURAL AREA FORM

Site Crow Knob Date 21 July 94

Natural Community Xeric open dry forest

Investigator (s) EFG

Subplot 3(S) Quadrat 9-12

[redacted] (cell tops; shrub and woody ground cover the cell)

Species	% Cover Quadrat	Reproductive Status (Flowering/Fruiting)	Herbivore/Pathogen Damage
(1) Moss	2		
Lichen	1		
Deathcap spp	12	✓	
Q. stellata	2		
(2) Moss	25		
Lichen	3		
Deathcap spp	3	✓	
Cover unknown	6		
(3) Moss	30		
Deathcap spp	3	✓	
Cover of other	[illegible]		
Juni. virg	1		
[illegible]	[illegible]		
Q. stellata	[illegible]		
Juni. virg	[illegible]	fruit	
Deathcap spp	[illegible]	✓	
[illegible]	[illegible]		
Cover unknown	[illegible]		
Vacc. ang	20		

Comments:

NATURAL AREA FORM

Site Crowlands Date 21 July 94

Natural Community Xeric woodland

Investigator (s) [illegible]

Subplot 3 (5)

[redacted] (Woody Stems 2.5 cm - 9 cm dbh)

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
Vacc. ash	alive	2"	350	16' 7"
Q. stellata	alive	1.5	60	5' 6"
[illegible]	alive	2.5	80	[illegible]
Q. marilandica	alive	1.5	130	14' 0"
American elm	alive			18' 2"
" "	alive			14' 3"
Vacc. ashon	alive	1.5	185	10' 8"
Q. stellata	alive	3.5	115	5' 11"
Vacc. ash.	alive	1.5	226	11' 5"

[redacted] (Woody Stems >1 m tall, but <2.5 cm [illegible]) [illegible]

[redacted] of Stems

Species	Alive	Dead
Vacc. ash	1	1
[redacted]	[redacted]	
Green briar	[redacted]	
C. [illegible]	1	

NATURAL AREA FORM

Site Crow Creek Date 26 July 94

Natural Community Slate - Xeric woodland

Investigator (s) EFU

Subplot [illegible] Quadrat 13 (45°) - 16 ([illegible]°)

[illegible] (add Weeks; [illegible] ground cover [illegible])

Species	% Cover Quadrat	Reproductive Status (Volunteer/Pseudo)	Herbivore/Anthropogen Damage
(1) Lichen	4		
Moss	6		
Page sp.	1	Trunk	
Q. alba	1		
Q. prinoides	1		
Danthonia spicata	2	✓	
Pinus sp.	1	seedling	
(2) Q. [illegible]	1		
Q. [illegible]	1	Wind sthy	
Q. [illegible]	1	seedling	
[illegible]	2	✓	
[illegible]	1		
[illegible]	[illegible]		
(3) [illegible]	[illegible]		
[illegible]	5		
[illegible]	[illegible]		
(4) Lichen	90		
Moss	2		

100% of substrate is sandstone

Comments:

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

NATURAL AREA FORM

Site Crow Knob Date 26 July 94

Natural Community Southern barren/woodland

Investigator (s) EPU

Subplot 4(W)

[redacted] (Woody Stems 2.5 cm - 9 cm dbh)

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
Quercus stellata	alive	1.0	24	[redacted] 17'0"
Quercus stellata	alive	1.0	36	[redacted] 16'6"
Vaccinium ash.	alive	1.0	42	[redacted] 19'0"
Vaccinium ash	alive	1.5	49	[redacted] 9"
Vaccinium ash	alive	1.5	46	15' 1"
Vaccinium ash	alive	1.5	48	9' 2"
Juniperus virginiana	alive	3.5	53	[redacted] 7'8"
Vaccinium ash	alive	2.0	55	17'0" 17'3"
Vaccinium ang	dead	2.0	56	[redacted] 16'10"
Vaccinium ash	alive	1.5	62	[redacted] 18'10"
Vaccinium ash	alive	1.5	76	[redacted] 15'1"
Vaccinium ash	alive	2.5	76	[redacted] 8'11"
Vaccinium ash	alive	2.0	88	10' 4"
Juniperus virginiana	alive	1.5	92	[redacted]
[redacted]	alive	3.5	93	[redacted]
[redacted]	[redacted]	1.5	98	[redacted]
[redacted]	[redacted]	1.5	101	[redacted]
Vaccinium ash	alive	1.5	[redacted]	[redacted]

[redacted] (Woody Stems [redacted] - [redacted], but [redacted] cm [redacted] and [redacted] [redacted])

Species	No. of Stems Alive	No. of Stems Dead
Q. stellata	6	[redacted]
Vaccinium ash	1	[redacted]
Juniperus virginiana	1	[redacted]

Vaccinium ash	alive	1.5	120	17'9"
Juniperus virginiana	alive	3.0	132	9'2"
Vaccinium ash	dead	1.0	156	16'1" 15'7"
Juniperus virginiana	alive	1.0	159	14'2" 13'8"
Q. montana	alive	3.5	215	16'9"

Site Oliver Knob Date 26 July 94
Natural Community dry mesic / Oak
Investigator (s) [illegible]

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
Q. [illegible]	Dead	8.5	310	5' 7"
[illegible]	Dead	7.0	[illegible]	[illegible]
J. virg	[illegible]	7.0	[illegible]	[illegible]
[illegible]	[illegible]	6.5	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	alive	5.0	[illegible]	[illegible]
C. glab	alive	5.0	[illegible]	[illegible]
J. virg	alive	8.0	[illegible]	[illegible]
C. glab	alive	8.5	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
C. glabra	alive	6.0	[illegible]	[illegible]
[illegible]	alive	5.0	32	59' 5"
J. virg	alive	5.5	38	53' 7"
C. glabra	alive	7.0	42	55' 7"
J. virg	alive	13.5	49	38' 5"
J. virg	alive	6.0	59	50' 8"
Q. [illegible]	dead	4.0	58	40' 3"
C. glabra	alive	7.0	60	11' 6"
C. glabra	alive	6.0	64	36' 4"
J. virg	alive	7.5	64	48' 11"
C. glabra	alive	4.5	68	22' 5"
C. glabra	alive	4.0	70	31' 11"
[illegible]	alive			[illegible]
C. glabra	alive	7.0	74	38' 7"
J. virg	alive	8.0	79	54' 7"
J. virg	alive	5.5	82	49' 2"
J. virg	alive	7.5	82	53' 10"
J. virg	alive	7.0	85	57' 8"
C. glabra	alive	5.5	85	25' 11"
C. glabra	alive	6.5	86	26' 6"
J. virg	alive	7.0	86	39' 10"
J. virg	alive	6.0	[illegible]	43' 8"
Q. stellata	alive	8.0	90	37' 9"
J. virg	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
Q. stellata	alive	6.0	93	48' 1"
C. glabra	alive	7.5	[illegible]	[illegible] 10"
C. glabra	alive	5.5	99	50' 1"
C. glabra	alive	5.5	100	50' 6"
Q. stellata	alive	6.5	102	[illegible]
[illegible]	alive	[illegible]	108	[illegible] 3"
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
J. virg	alive	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
J. virg	alive	6.5	[illegible]	51' 6"
[illegible]	alive	6.0	[illegible]	[illegible]
C. glabra	alive	5.0	[illegible]	[illegible]
C. glabra	alive	4.5	130	[illegible]
C. glabra	alive	4.5	132	27' 10"
J. virg	alive	7.5	135	42' 11"
Q. stellata	alive	14.5	136	17' 10"
J. virg	alive	10.5	136	51' 3"
J. virg	alive	11.5	137	35' 10"
J. virg	alive	4.0	137	12' 5"
J. virg	dead	6.0	138	31' 4"
Q. stellata	alive	6.0	138	56' 3"
Q. marilandica	dead	7.0	139	47' 0"
J. virg	alive	7.5	139	55' 11"
J. virg	alive	6.5	164	32' 0"
J. virg	alive	4.0	167	56' 10"
Q. marilandica	dead	4.0	171	55' 5"
Q. nigra	barely alive	4.0	172	55' 6"
J. virg	dead	4.0	178	42' 8"
J. virg	alive	5.5	180	24' 8"
J. virg	alive	6.0	182	18' 8"
J. virg	alive	4	183	38' 9"
J. virg	alive	5	185	
Q. stellata	alive	7.5	189	21' 10"
J. virg	alive	6.5	192	40' 2"
J. virg	alive	6.0	192	30' 11"
Q. stellata	alive	5.0	190	16' 5"
J. virg	dead	4.0	196	9' 7"

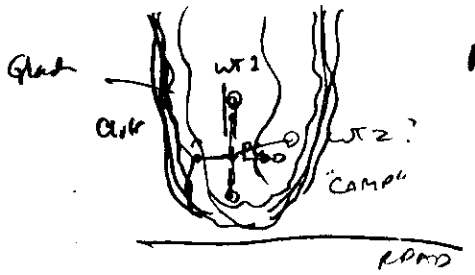
Site Crow Knob Date 26 July 94 / 27 July 94

Natural Community

Investigator (s) EFY

Location of Plot:

Delineation needs
Known artifacts



PC is 46' due W of trail -

Witness Trees

	Species	dbh	Azimuth	Distance from Plot Center (? 18 m)
WT 1	J. virg	7.5	354	74' 9"
WT 2				

Trees

J. virg	alive	5.5	355	52' 1"
J. virg	alive	4.0	356	52' 6"
J. virg	alive	4.5	358	57' 0"

Species	Dead/Alive	DBH	Azimuth	Distance from Plot Center
J. virg	alive	9.0	204	35' 6"
J. virg	alive	5.5	212	32' 0"
J. virg	alive	4.5	214	47' 10"
J. virg	dead	4.5	218	15' 7"
Q. stellata	alive	6.0	220	31' 3"
Q. montana	alive	7.5	222	52' 10"
Q. montana	alive	7.0	224	54' 6"
Q. stellata	alive	[illegible]	[illegible]	[illegible]
Q. stellata	alive	6.0	228	[illegible]
Q. stellata	alive	6.0	228	40' 9"
Q. montana	top dead	5.5	232	51' 4"
J. virg	alive	7.5	234	[illegible]
J. virg	alive	8.0	242	[illegible]
J. virg	alive	5.0	240	47' 10"
Q. montana	top dead	6.0	247	37' 10"
J. virg	alive	7.0	250	36' 7"
J. virg	alive	5.0	266	14' 10"
J. virg	alive	5.5	269	18' 9"
J. virg	alive	6.5	274	29' 5"
J. virg	alive	4.0	303	29' 1"
J. virg	alive	5.5	308	33' 8"
C. glabra	alive	7.0	312	16' 9"
Q. montana	alive	6.0	315	45' 3"
J. virg	alive	4.0	314	40' 4"
~~J. virg~~	~~alive~~		~~315~~	~~47' 0"~~
J. virg	alive	6.5	317	23' 9"
J. virg	alive	4.5	318	30' 9"
J. virg	alive	5.5	318	50' 1"
Q. montana	alive	7.0	320	54' 11"
J. virg	alive	4.0	324	50' 6"
J. virg	alive	7.5	326	27' 2"
Q. montana	dead	4.5	328	55' 10"
J. virg	alive	4.0	334	37' 9"
J. virg	alive	7.5	340	46' 1"
J. virg	alive	7.0	341	33' 10"
Q. stellata	alive	9.0	345	40' 5"
J. virg	alive	4.0	345	55' 7"
J. virg	alive	5.0	346	57' 8"
J. virg	dead	4.0	347	58' 8"

Site Provo Can. Date 24 Jun 79

Veg. Community Dry-mesic / Dry ghd land

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

Mature, fairly open stand on widetop - contour down N, NE, E, SE facing slope with moderate disturbed by lumbering - occ. very large stumps - 2x size of larger extant trees. (20-24" DBH)

Canopy species

Quercus alba w/ Q. velutina, Carya
Q. prinus / Q. muehlenbergii
Nyssa

Subcanopy

lots of Carya, Sassafras, Cornus, Carpinus -
Ostrya, Diospyros, Rhus
supposedly a beech on slopes — low sampling

[redacted]

other others Aralia spinosa
Crataegus punctata

[redacted] PI & VC
Vib acer Lithospermum
very common

[redacted] / seedlings / [redacted].

Ac. rubrum	lots of PI + VC.
Lep violacea	Celastrus orbiculatus
Sol altissima	Sanicula canadensis
Mosses & lichens	Asarum canadense
Panicum boscii	Phryma
Cala arundinacea	Monot. bract.
Andr. sabol.	Elymus glabriflorus
Thalictrum hindsianum	Sol caesium
	Verbesina helianthoides

Carex sp. collected
loose clump - dell. rhizomes
about 2m² colony
under Quercus / pinus / Carya, Nyssa
w/ PI + VC.

Site "Chert Barren" = Open Dry oak Forest Date 24 Jan '94

Nat. Community Prairie Glades

Description ([illegible], age, [illegible], substrate, etc.) Ridges trashed - roads, stumps

Regrowth - "young" mature.

Overall - prairie, alder, [illegible], relictual.

on S + SW facing slope - chert exposed or chert soil: lots of mosses.

trees down from spring 93 storm -

Canopy species

Dominant - oaks.

Carya tonsa

Q. marilandica occ.

Subcanopy

Carya spp. Diospyros Amelanchier Acer nigrum

Sassafras

Ulmus alata

Quercus alba

Shrub - Cornus florida

Viburnum prunifolium

Prunus serotina

Cercis canadensis

Vine - Campsis radicans, VC

Vitis aestivalis

Herbs / seedlings / ground cover.

Panicum dichotomum

Tephrosia virginiana

Desmodium spp.

Antennaria

Quercus

Hieracium gronovii

Helianthus divaricatus

Krigia dandelion

Sol nemoralis

Panicum linearifolium

Cunila

Quercus spp

Sol petiolata

Euphorbia corollata

Aster oolentangiensis

Aster turbinellus

Carya seedling

Carex muhlenbergii

Rhinanthus

Aster ericoides

Rudbeckia fulgida

Panicum boscii

Ipomoea pandurata

Stylosanthes biflora

Ruellia strepens

Lespedeza hirta?

Calamintha arkansana

Prunella vulgaris

Salvia pitcheri

Liatris squarrosa / scabra

Hypericum stragulum

Aster patens

PI.

VC.

Helianthus mollis

Carex pensylvanica

Agrostis gerardii

Sol juncea

Monarda fistulosa

Site Provo Date 20 July 94

Veg. Community S Ridge - E. Pierce G.C. Fitzgerald

[redacted] (elevation, aspect, [redacted], [redacted], etc.)
[redacted] than N ridge - no sign of [redacted].
Pretty open understory.
more closed canopy than N ridge - but less disturbed.
PI / sandstone / thicket [redacted] very rare
Little Stone Dam

Canopy species
Oak - Hickory - maple
i.e. Q. prinus, Q. velutina, Q. alba, Q. stellata,
Carya texana Q. coccinea
Fraxinus am Carya tomentosa

Subcanopy
[redacted] Cornus florida
Cercis
Diospyros
Ostrya

Pure stand of Q. prinus
indicator of moister [redacted] + very
Q. prinus -
occ. Vaccinium ash + pall.

[redacted]
[redacted]
Vacc. pallidum [redacted]

[redacted]
Rhus aromatica

[redacted] / [redacted] / [redacted]. Large stand of Hel dor + Sol juncea. ?
PI - rare? - l[redacted]. local (very!) unbroken

Hel dor; Sol juncea, Antennaria, Sol ulmifolia, Lesp. virg., Ayo andersonii, Geranium
Brom j.b., Festuca g., Poa pedunculata, Ast ericoides, Sol nemoralis
Hyp stagnum, Euph corol, Penst digitalis, Cruciata ovata, Antennaria
Danthonia instabilis, Carex sp., Lesp. hirta, Sol ceas.g, Hieracium gronovii
Carex mich., Panicum boscii, Carex sinicola, Aster turbinellus, Aster shortii
Aureolaria flava, Krigia biflora, Lesp. procumbens, Schizachyrium scop., Verb halei
Liatris ("scaria") Acc. virgatum, Lesp. latifolia, Solanum "nigrum" - tip up from Alex Kan
Viola tribloba

Mesic Forest.
Bitsadna virginiana
South [redacted] on [redacted] N ridge.

Site Provo Date 28 Sep 94

Nat. Community _____ Tree Frog

Description ([illegible], [illegible], [illegible], substrate, etc.)

Transition from Dry Upper Forest + Barren to Mesic Forest with seeping. (on S. facing slope)

Narrow strip of Oak forest w/ PI - Nyssa, Sassafras, Acer saccharum, [illegible]

Lower B/C — Dry-mesic woods on ridge + N. facing slopes
→ on the S ridge - many big red + black oaks (> 2' @ DBH)

Canopy species: Q. alba, Q. rubra, Acer saccharum, Q. velutina (Dry-mes.)
Magnol. Liriodendron
Fagus
Q. prinus - on N. slope of S ridge
Sassafras
Juglans
Carya laciniosa?
Carya ovalis
Q. rugosa
Carya ovata
Frax. americana

Subcanopy
Magnolia virginiana (gap)
Cornus florida
Mon. [illegible]
Asimina triloba
Fagus
Cath. [illegible]
Ostrya virginiana
Ulmus alata
Cercis
Pinus, Chaem.
Impatiens alba, Sanicula canadensis
Also Microstegium vimineum!
[illegible] alba, [illegible]

[illegible]
Fraxinus [illegible]
Rubus allegheniensis
[illegible] spinosa
Euonymus atropurpurea

Dead [illegible] in stream bottom -
Acer [illegible]
Ligustrum, [illegible]
Clematis virginiana,
Campsis, Scrophularia marilandica
Ulmus americana

[illegible]
Similax rotundifolia, PI, VC
Vitis aestivalis, Vitis palmata!
Smilax glauca, Smilax bona-nox
[illegible] / [illegible] / [illegible].

Dry-mesic - Hel div., Galeat., PI, VC, Dennst., Sol canad., Vitis, Antennaria, Sol ulm
On the S. facing slope below the N. barrens, "Barrens" species penetrate the transition into the dry-mesic forest: Panicum bosc., Eupt. coroll., Hel div., Lond. [illegible],
Acr. platanoides, Phytolacca, Physalis heterophylla
Amphicarp. bract., Smilax rotundifolia, Galium pilosum, Brom. pubens, Dioscorea, Vitis sp.,
Uvularia, Carex [illegible]? Brachyelytrum, Passiflora lutea, Rudbeckia
Galeat. circaeana, Aralia spinosa, Panax quinq., Arab. serpe

Actaea
Calycanthus
Lyon.
Panicum
Gen. canad.
Asarum
Athyrium pyc.
Adiantum
circaea

Mesic - mostly grades C+D (some E) - lower slopes + terraces To E stand disturbed by logging
Scutellaria, Sanicula marilandica, Polystichum, Polypodium, Blepharoneuron (local sp.) 5-10 yr sp.
Uvularia, Aristolochia, Spigelia marilandica, Cynoglossum, Smilax glauca, Helianthus hebecarpus
Carex blanda, Hybanthus - Osmorhiza, Lindera, Smilax tam., Carpinus
Carpinus - Dirca, Amer. Bom. log on trail, w/ Asarum + PI, Carex jamesii
Cor. alternifolia, Phryma, Cryptotaenia, Pinus strobus, Microstegium, Dog stem
Elym. hystrix, Polygonum virginianum, Arisaema triphyllum, Impatiens, Viola rotundifolia,
Ambrosia (rac.), Phlox divaricata, Trad. sibiricum, Platanthera, Sanguinaria,
Trillium flexipes, Actaea, Lonicera japonica, Campanula americana

Site Prow Canyon Date 20 July 74
Plant Community [illegible] from [illegible]
Investigator (s) [illegible]

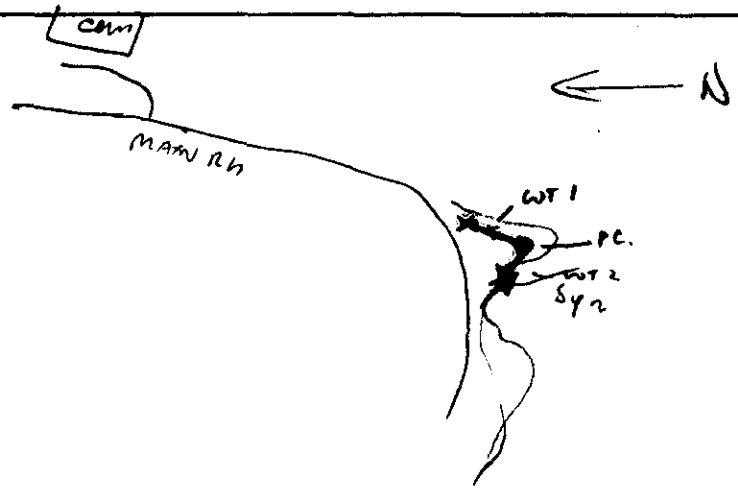
Location of Plot:

Witness Trees

	Species	dbh	Azimuth	Distance from Plot Center (? 18 m)
WT 1	C. texan	12.0	260	88'
WT 2	C. texan	9.0	124	60' 8"

Trees

Species	Dead/Alive	DBH	Azimuth	Distance from Plot Center
[illegible]	alive	5.5	308	49' 9"
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	9.5	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	alive	13.0	255	[illegible]



Sceloporus
Fence Lizard
Cnyx tonsonton
Verconicotion
Leg. Lutz
Aster anomalus
A. abrotti

Site Pearo Cem. Date 20 Sep 94

Natural Community Dry [illegible] chert woodland

Investigator (s) EFG

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
Q. alba	alive	8.0	16	31'5"
[illegible]	alive	[illegible]	[illegible]	[illegible]
Q. alba	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]
Q. stellata	dead	6.5	108	23'5"
Q. prinus	alive	6.0	112	28'8"
Q. stellata	[illegible] dead -	6.0	116	23'10"
Q. prinus	dead	6.0	120	[illegible]
[illegible]	dead	6.0	140	[illegible]
Q. stellata	alive	1.0	148	37'5"
Q. prinus	alive	7.0	150	28'8"
Q. prinus	alive	9.0	150	29'9"
"	alive	6.5	151	21'7"
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Q. stellata	alive	5.5	155	58'4"
Q. prinus	alive	11.5	200	12'11"
Q. prinus	alive	11.0	203	15'10"

1 trunk → 16' at 8-12" above grnd

one tree

NATURAL AREA FORM

Site _____ Date _____

Natural Community _____

Investigator (s) _____

Subplot _____

[redacted] (Woody Stems 2.5 cm - 9 cm [redacted])

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
[redacted]	[redacted]	1.0	285	7' 10"
[redacted]	[illegible]	3.5	33.0	4' 0"
[redacted]	[illegible]	3.0	[illegible]	[illegible] 9'
[illegible]	[illegible]	2.0	140	16' 6"
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Q prinus	alive	3.0	52	13' 7"
"	dead	3.5	72	18' 2"
"	alive	7.5	165	8' 5"
"	alive	2.0	160	17' [illegible]"
[redacted]	alive	1.0	186	[illegible] 8"
"	alive	1.0	186	14' 8"
Q prinus	alive	1.0	220	6' 5"

[redacted] (Woody Stems [redacted] cm [redacted], but [redacted] cm [redacted] [redacted] [redacted])

Species	No. of Stems Alive	No. of Stems Dead
[redacted]	[redacted]	

NATURAL AREA FORM

Site Prairie Cem. Date 19 July 94
Natural Community Dry oak chest woods
Investigator (s) EFG

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

[redacted] (old herbs; shrub and woody ground cover the rest)

Species	% Cover Quadrat	Reproductive Status (Fruit/Flower)	Herbivore/Pathogen Damage
1) Quercus	1		
Lonicera japonica	1	✓	
Lichen	1		
Moss	55		
2) Rhus radicans	2		
Quercus	45		
Lonicera japonica	1		
Carex sp	1		
Moss	80	✓	
4) Rhus radicans	10		
Moss	70	✓	
Lichen	1		
3) Quercus	25		
Grass	1		

Comments:

Sedgeville
Ye Cudas
Rt. Hunt

NATURAL AREA FORM

Site Provo County Date 19 July 94
Natural Community [illegible] / [illegible]
Investigator (s) FFU
Subplot 3 ([illegible])

Seedlings (Woody Stems 2.5 cm - 9 cm dbh)

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
Vice arb.	Mostly dead	2.0	6	8'8"
Q. mandat	dead	3.0	23	7'5"
Vice arb	alive	1.5	50	11'6"
Q. stellata	alive	3.5	80	12'0"
Vice arb.	dead	1.0	95	1'4"
Vice arb.	lg. stm dead	1.5	110	3'6"
Vice arb.	alive	1.0	110	15'9"
Vice arb.	alive	1.0	112	13'2"
Vice arb	alive	1.5	115	9'10"
Vice. arb.	alive	1.5	120	6'2"
Vice. arb	alive	1.5	140	7'0"
Vice arb	alive	1.5	143	10'6"
Vice arb	alive	1.0	143	12'11"
[illegible]	alive	2.5	170	8'[illegible]
Vice arb.	alive	[illegible]	[illegible]	12'[illegible]
Vice arb.	alive	1.0	170	15'0"
Vice arb	alive	1.5	179	10'11"
[illegible]	alive	[illegible]	185	[illegible]

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

Species	No. of Stems Alive	Dead
[illegible]	6	
Vice. arb	[illegible]	
Q. montana	1	
Q. [illegible]	1	
Q. stellata	4	
[illegible]	[illegible]	

Vice arb	alive	1.0	186	16'0"
Vice arb	alive	2.0	205	12'6"
"	alive	1.5	210	12'6"
"	alive	1.0	215	5'0
"	alive	1.5	215	9'7"
"	alive	2.0	216	12'11"

↓ over

NATURAL AREA FORM

Site Provo Cem. Date 19 July 94

Natural Community Chaparral Woodland

Investigator (s) EFU

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

[redacted] (all herbs; shrub and woody ground cover <1m tall)

Species	% Cover Quadrat	Reproductive Status (Flowers/Fruits)	Herbivore/Pathogen Damage
1) Hack patch	5		
Q. wislizenii	20		
Amelanchier utahensis	1		
Moss	1		
Carex multicaulis	1		
Quercus gambelii	1		
Danthonia spicata	1		✓
Vulpia octoflora	1		✓
Moss	30		✓
[redacted]	[redacted]	fruit	
[redacted]	[redacted]		
[redacted]	[redacted]		
[redacted]	[redacted]	fruit	
[redacted]	[redacted]		
[redacted]	[redacted]		
[redacted]	[redacted]

NATURAL AREA FORM

Site Pharo Cam Date 19 July 94

Natural Community Closed oak woodland

Investigator (s) [illegible]

Subplot S2 (E)

[redacted] (Woody Stems 2.5 cm - 9 cm dbh)

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
Q. [illegible]	alive	2.0	108	[illegible]
[illegible]	alive	1.5	107	[illegible]
C. [illegible]	alive	1.5	[illegible]	[illegible]
Ulu ad.	alive	1.5	206	[illegible]
C. tetraka	alive	1.0	306	6' 8"
Vace. ovatum	alive	1.0	302	17' 0"
Vaca ad.	alive	1.0	315	17' 9"
Vaca ad.	alive	1.0	330	16' 5"

[redacted] (Woody Stems [illegible] cm dbh, but [illegible] cm dbh) [redacted]

Species	No. of Stems Alive	Dead
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
Q. [illegible]		

NATURAL AREA FORM

Site Prairie County Alex. Co. Date 19 July 94
Natural Community Chert woodland / Barren
Investigator (s) EFU

Subplot S2(E) Quadrat 1(45

[redacted] (all herbs; shrub and woody ground cover [redacted])

	Species	% Cover Quadrat	Reproductive Status (Flowering/Fruit)	Herbivore/[redacted] [redacted]
1	Resp. virg.	1		
	Tephrosia virg.	1		
	Aster pat.	1		
	Hel. divar.	1		
	Schiz scop.	2		
	Galactia.	1		
	Moss	1		
	Cnyc tm.	1		
	Penic l.h.	1		
2	[redacted]	2	[redacted]	[redacted]
	[redacted]	3	[redacted]	
	[redacted]	[redacted]	[redacted]	
	[redacted]	4		
	[redacted]	[redacted]		
3	[redacted]	[redacted]	[redacted]	
	[redacted]	[redacted]		
	[redacted]	[redacted]		
	[redacted]	[redacted]		
	Pann. [redacted]	2	[redacted]	
	Doutia unicat	1	[redacted]	
	[redacted]	1	[redacted]	
	[redacted]	[redacted]	[redacted]	
	[redacted]	4	[redacted]	
	Aureolaria flav.	2		
	Ant. plantag.	1		
	Moss	1	[redacted]	
	Aster patens	1		
	Carex [redacted]	2		
	Q. velutin.	1		

Comments:
Frax americ 1

NATURAL AREA FORM

Site Provo Canyon Date 19 July 94
Natural Community Oak Woodland
Investigator (s) Fifty
Subplot 1 (N)

Seedlings (Woody Stems 2.5 cm - 9 cm dbh)

Species	Dead/Alive	DBH	Azimuth	Distance from Subplot Center
C. fremontii	alive	2.0	20	16' 4"
C. fremontii	alive	1.0	46	12' 7"
Vacc. arb.	alive	1.5	93	[redacted] 15' 0"
Vacc. arb.	alive	1.5	92	17' 10"
Vacc. arb.	alive	1.0	112	16' 3"
Vacc. arb.	alive	1.5	114	7' 8"
Vacc. arb.	alive	1.0	132	17' 1"
Vacc. arb.	alive	1.5	132	14' 6"
Vacc. arb.	alive	1.0	135	18' [redacted]"
Vacc. arb.	alive	1.0	[redacted] 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"
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted] (Woody Stems 2.5 cm [redacted] but <9.0 cm [redacted] and woody vines

Species	No. of Stems Alive	Dead
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

Q. gambelii	alive	3.5	300	16' 8"
Amelanchier utah.	alive	1.5	308	14' 3"
Q. velutina	alive	1.0	335	9' 10"

NATURAL AREA FORM

Site Prov Cem / Alex Co. Date 19 July 94
Natural Community Chest / woodland
Investigator (s) EPM

Subplot 1 (N) Quadrat 1 (45°) + 2 (135°)

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

	Species	% Cover Quadrat	Reproductive Status (Flowers/Fruit)	Herbivore/Pathogen Damage
1	Carya tenera	4	trunk	
	Q. stellata	6		
	Carex mulenbergii	1		✓
	Moss	4		
	Ant. plantag.	1		
	Sol ulmifo	1		
	Aster turbinella	1		
	Conyza canadensis	2		
	Lichen			
2	Carex mulenbergii	2		
	Moss	10		✓
	Danthonia spicata	1		
	Quercus stellata			
3	Viola sororia	1	stem	
	Geranium carolinianum	1		
	Sol. nem	1		
	Moss	13		✓
	Vicia	1		
	Carex mulenbergii	1		
	Lespedeza multiflora	1		
	Houstonia longifolia	1		
	Q. stellata	2		
4	Lespedeza multiflora	1		
	Moss	60		
	Lichen	1		
	Antennaria plantaginifolia	1		
	Sol. nem	1		
	Conyza canadensis	1		

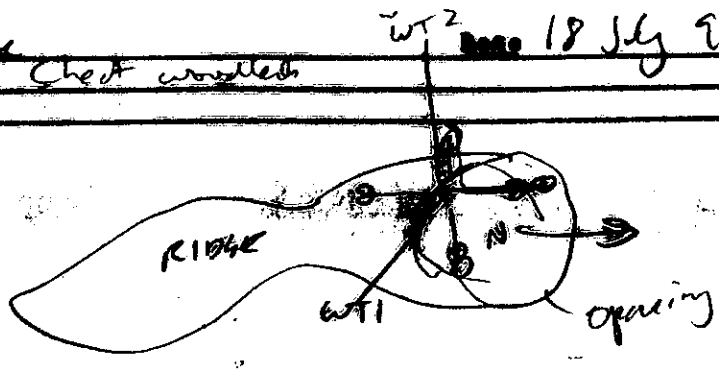
Comments:

Site Big Rocky Ridge Date 18 July 94

Marshal County, Cheat watershed

Investigator (s) EFG

Location of Plot:



Witness Trees

	Species	dbh	Azimuth	Distance from Plot Center (? 18 m)
WT 1	Q. prinus	27.5	13.0	45'10" + 29'3" = 75'1"
WT 2	Q. prinus alba	13.5	260	71' 6"

Trees

Species	Dead/Alive	DBH	Azimuth	Distance from Plot Center
Q. prinus	alive	18	172	41' 4"
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Q. prinus	alive	11.0	240	[illegible]
Q. prinus	alive	17.0	270	64'10"
Q. alba	alive	5.0	303	96'2"
Sassafras	alive	6.5	303	[illegible]
Q. velutina	alive (broken)	11.5	317	[illegible]
Carya glabra	alive	7.5	327	46'7"
Q. prinus	alive	2	348	24'7

Site Big Brady Ridge Date 14 July 94

Vegetal Community: Chest Front/[illegible]

Investigator (s) EFU

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
[illegible]	[illegible]	5.5	3	13' 5"
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NATURAL AREA FORM

Site Big Brushy Bridge Date 14 July 94
Natural Community [illegible]
Investigator (s) [illegible]
Subplot [illegible]

[redacted] Stems 2.5 cm - 9 cm [redacted]

Species	Dead/Alive	[redacted]	Azimuth	Distance	Spec	Subplot	Corner
[illegible]	alive	1.5	[illegible]	12' 5"			
[illegible]	alive	1.0	[illegible]	7' 4"			
[illegible]	alive	1.0	73	7' 10"			
Q. prinus	alive	2.0	100	7' 10"			
Q. prinus	alive	1.0	153	15' 9"			
Q. prinus	alive	2.5	193	[redacted] 16' 8"			
Q. prinus	alive	2.0	115	9' 3"			
Nyssa [redacted]	alive	1.0	255	3' 10"			
Nyssa syl.	alive	1.0	290	8' 9"			
Q. prinus	alive	1.0	312	3' 0"			
Nyssa syl.	alive	1.5	320	9' 11"			
Nyssa syl.	alive	1.0	329	8' 5"			

[redacted] Stems [redacted] cm - [redacted] cm [redacted]

Species	No. of [redacted] Alive	Dead
[illegible]	[redacted]	
[illegible]	[redacted]	
[illegible]	[redacted]	

NATURAL AREA FORM

Site Big Brushy Ridge Date 14 July 94
Natural Community Chert woodland
Investigator (s) BPM

Subplot 4(w) Quadrat 13, 14, 15 + 16

[redacted] (all herbs, shrub and woody ground cover <6m tall)

Species	% Cover Quadrat	Reproductive Status (Flowering/fruiting)	Herbivore/Pathogen Damage
Q prinus	6		✓
moss	15		
Saxifraga	1		
Panicum sensitum	1		
Q prinus	6		✓
moss	6		
Lonicera flexuosa	1		
Krigia biflora	1		
Sol caesium	1		
Q alba	2		✓
[redacted]	1		✓
[redacted]	2		
[redacted]	1		✓
[redacted]	1		
[redacted]	2		✓
[redacted]	2		✓

Comments:

NATURAL AREA FORM

Site Big Brushy Ridge Date 14 July '94

Natural Community Oak woodland

Investigator (s) [illegible]

Subplot 3 (5)

[redacted]

Species	Description	[redacted]	[redacted]	[redacted]	[redacted]
Q. prinus	slab-dominate	7.5	155	8'8"	[redacted]
Q. prinus	slab	[redacted]	[redacted]	[redacted]	[redacted]
Q. prinus	slab	[redacted]	[redacted]	[redacted]	[redacted]
Q. prinus	dead	2	[redacted]	9'9"	[redacted]

[redacted]

Species	[redacted]	[redacted]
Q. prinus	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

NATURAL AREA FORM

Site Big Bridge Ridge Date 14 July 94
Natural Community Chest wooded / Blow down
Investigator (s) EFU

Subplot 3(S) Quadrat 11, 12

[redacted] (all Native; check and verify ground cover [redacted])

Species	% Cover Quadrat	Reproductive Status [redacted]	Herbivore/Pathogen [redacted]
Q. prinus	30		✓
Q. velutina	20		
Q. alba	2		✓
Carya sp.	1		
PT	40		
Carex flaccosperma	1		
Carex intumescens	1	✓	
Cypripedium parviflorum	1		
PI	[illegible]		✓
Q. prinoides	5		✓
[illegible]	[illegible]		

11

12

Comments:

NATURAL AREA FORM

Site Big Brushy Ridge Date 14 July '94

Natural Community Oak woodland

Investigator (s) FFU

Subplot 3(5) Quadrat 9, 10

[redacted] (all herbs, shrub and sapling percent cover <1% only)

Species	% Cover Quadrat	Reproductive Stages [redacted]	Herbivore/Anthropogenic [redacted]
Q velutina	10		✓
Q prinus	11		✓
Quercus glandulifera	3		✓
Carya	1		
Sol caes	2		✓
Hel. div.	1		
Sassafras	1		
Aster sagittifolius	1		
deer tracks	15		
Sol. nutans	3		
[redacted]	5		✓
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		✓

Comments:

NATURAL AREA FORM

Site Big Brady Ridge Date 14 July 94

Natural Community Dry Chert Woodland

Investigator (s) ERY

Subplot 2(E)

[redacted]

Species	Dead/Alive	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
C. glabra	dead	3.5	[redacted]	12' 9"		1 VC
Sassafras	dead	3.5	[redacted]	6' 3"		
Sassafras	dead	3.5	[redacted]	[redacted]		
Sassafras	dead/alive	3.5	[redacted]	[redacted]		
Sassafras	dead	2.5	147	17' 9"		
Sassafras	dead	2.5	149	16' 1"		
Sassafras	alive	1.0	165	18' 1"		
Sassafras	alive	2.0	178	14' 11"		1 VC
[redacted]	alive	3	157	[redacted]		vine [redacted] in crown
C. glabra	alive	2.5	[redacted]	[redacted]		
tree C. glabra	alive	0.5	[redacted]	[redacted]		
C. glabra	alive	1.5	299	14' 3"		
C. glabra	alive	2.0	[redacted]	14' 6"		
C. glabra	alive	2.0	[redacted]	[redacted]		
C. glabra	alive	2.0	[redacted]	[redacted]		
C. glabra	alive	1.0	[redacted]	[redacted]		
[redacted]	alive	1.0	[redacted]	[redacted]		

[redacted]

Species	[redacted]	[redacted]
[redacted]		

R. b. Christopher

NATURAL AREA FORM

Site Big Brushy Ridge Date 14 July 94

Natural Community Dry Chert woodland / blow down

Investigator (s) EPG

Subplot Z (E) Quadrat 5 + 6, 7, 8

[redacted] (all herbs; shrub and tree ground cover <1m only)

Species	% Cover Gradient	Reproductive Status [redacted]	Herbivore/Pathogen [redacted]
PC	1		
Comm Hardy	25		
Maianthemum	2		
Sol. ulmifolia	1		
FC	3		
Fallen log	12		
Sassafras	2		
VC	1		
[redacted]			
[redacted]	[redacted]		
[redacted]	1		
[redacted]	[redacted]		
[redacted]	[redacted]		
[redacted]	[redacted]

NATURAL AREA FORM

Site Big Brady Ridge Date 14 July 94

Natural Community Chad Woodland.

Investigator (s) [illegible]

Subplot 1 (N)

[redacted] (1-3.5 in.)

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
C. glabra	Alive	2.0	[redacted]	7.5"	
Q. [illegible]	Alive	3.5	[redacted]	16"	
[illegible]	Dead	2.0	[redacted]	[illegible]	
Q. prinus	Alive	1.0	152	[illegible]	
Q. prinus	Alive	3.5	162	16.5"	
Q. alba	Alive	3.0	235	11.2"	
C. florida	Alive	1.5	259	15.1"	
C. florida	Alive	2.0	258	15.1"	
N. sylvatica	damaged	1.0	200	17.0"	dead
N. sylvatica	Alive	1.5	510	[illegible]	
Q. alba	Alive	2.0	335	2.0	

[redacted]

[redacted]	[redacted]	[redacted]
[illegible]		
[illegible]		
[illegible]		

NATURAL AREA FORM

Site Big Brushy Rock; Mer. Co. Date 14 July 94
Natural Community [illegible]; Q. prinoides; blue [illegible]
Investigator (s) [illegible]

Subplot 1 (N) Quadrat 1 + 2

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

Species	% Cover Quadrat	Reproductive Status (Flowers/Fruit)	Herbivore/Pathogen [illegible]
Moss	2%	2 spec. prod. - one is Lexobasis glaucum	
Antennaria plantaginifolia	1%		
[illegible]	1		✓
Fragaria virginiana	1		
Carex [illegible]	3		
Sol. [illegible]	2		
Cunila orig.	1		
Rani [illegible]	1		
[illegible]	1	✓	
[illegible]	1		
[illegible]	1		
[illegible]	1		
[illegible]	1		
[illegible]	1		
[illegible]	1		
[illegible]	1		
[illegible]	1		
[illegible]	1		
Cunila orig.	1		

Comments:

B.C. [illegible]
[illegible]
S.C. [illegible]
C.C. [illegible]

NATURAL AREA FORM

Site Big Brush Rdg. **Date** 14 July 94
Natural Community Chert Woodland / Glade
Investigator (s) EEU

Subplot 1 (N) **Quadrat** 2-4

[redacted]

Species	**% Cover Quadrat**	**Reproductive Status** [redacted]
Moss	5	
Hedera helix	1	
Carex cf. pen.	2	
Antennaria solitaria	1	
Rosa bracii	1	
Fraxinus americana	1	
Sedum circaeoides	1	
VC	1	
Krigia biflora	1	
Quercus prinus	1	
[redacted]	[redacted]	

3

4

Comments:

Carolina Wren
Gray Tree Frog

Site Big Grady Ridge Date 13 July 94

Veg. Community Mixed Forest Cary Tran Fry

[redacted] (Disturbance, age, structure, [redacted], etc.)

Fairly mix - 1 str of tall [redacted] - 1 str of canopy [redacted], thy [redacted] [redacted] / [redacted] [redacted] storm

Canopy species → to E - wet - w/ Acer rubrum.

Quercus, Liriodendron, Carya cordiformis - Q. palustris, Liriodendron, Carya cordiformis

[redacted] rubrum Fraxinus [redacted] rectus

[redacted] serotina Q. michauxii Magnolia

[redacted]

[redacted] Sambucus canadensis Carpinus caroliniana

[redacted] Vitis, PT, HC similar nature

[redacted] / [redacted] / [redacted].

Lapsanthes, [redacted], Asarum, HC, PT, Carex [illegible], Verbena urticifolia

Hydrophyllum canadense, Smilacina pulv

Dicentra cucullaria Sanicula c.a. Cystopt. [illegible], Andr. triphyll

Pilea pumila, Carex blanda, Circaea

old red bud — Phytolacca, Urtica Botrychium virg., Physostegia hexastachya

Viola pubera, striata, sororia, Hydrophyllum canadense, Phlox divaricata

Hydrastis, Cynoglossum, Polystichum, Menispermum

Trillium sulcatum Euphorbia, Phryma, Polyg. virginianum

Silene stellata Scrophularia marilandica, Cryptotaenia

Osmorhiza longistylis Elymus hystrix

Sedum ternatum, Thalictrum thalictroides, Dicentra

Sanguinaria

Uncharted

Carex jamesii

Geranium

Adiantum pedatum

Adiantum pedatum var. [illegible]

Cothosperma atrofirma

NATURAL AREA FORM

Site Dodd Grid (A) Date 12 July 74

Natural Community [illegible]

Investigator (s) EPA

Subplot 4

[redacted] (Sandy Soils [illegible] cm [illegible]) [redacted]

Species	Dead/Alive	DBH(in)	Azimuth	Distance	Gap	Slope	Comments
[illegible]	Alive	[illegible]	[illegible]	[illegible]			
[illegible]	Alive	[illegible]	[illegible]	[illegible]			
[illegible]	Alive	[illegible]	170	[illegible]			
Carpinus Pl.	alive	1.5	190	12'6"			
Ostrya v.	alive	1.0	268	17'6"			

[redacted] (Sandy Soils [illegible] cm [illegible]) [redacted]

Species	No. of Stems Alive	Dead
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	
[illegible]		

Site Big Brushy Ridge Date 21 Jul 94

Nat. Community Dry-mesic

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

closed mature forest; regrowth — oak on broad ridgetop

most disturbance fr. storm damage

heavy leaf litter - most diversity on steep slope

herbaceous

multi-stemmed trees

Canopy species

Q alba, Q. velutina, Q. montana, Fraxinus am.

A. saccharum, Carya cordiformis, Liriodendron, Magnolia acuminata, Carya ovata

Subcanopy

Cornus florida, A. saccharum, Carya cordiformis, Sassafras, Cercis, Fagus grandifolia, Ulmus

Shrubs

Hydrangea

Vines

PI, VC, Vitis, Celastrus

Herbs / seedlings / ground cover.

Mostly PI & VC;

also Galium circaezans, Aralia nudicaulis, Botrychium, Cryptogramma

Brachyelytrum erectum, Anoplotheca sessilis

Smilacina racemosa

Polystichum acrostichoides

Festuca obtusa

Polygonatum

Smilacina ciliata

Geum canadense

Desmodium nudiflorum

Triosteum

Site Big Bmly Rush Date 28 June 94

Veg. Community Wet-mesic

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

most trees under 20" DBH,
but tree along stream >30"!

Canopy species
White Q alb., Fagus g.
Liriodendron Q. rubra

Subcanopy
Hamamelis, Lonicera, Acer rub. Ostrya
Carpinus, Viburnum lent.
Ilex verticillata
Viburnum

PI VC.

Herbs / Seedlings / Ground Cover.

Cystopteris
Polystichum
Impatiens capensis
Polygonum virg
Lycopus
Athyrium
Galium triflorum
Osmorhiza longistylis
Phryma leptostachya
Dennstaedt.

Carex blanda
Arisaema triphyllum
Adiantum
Asc. rugosum
Asarum can
Smilacina stellata
Carex
Actaea pachypoda
Hydrophyllum
Smilacina racemosa
Polystichum
Carex sp.

Panax

Site Big Brushy Mtn Date 21 Jun 94

Nat. Community "Chest Barrens"

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

Soil loss / Chert Fragments - to 18"

lots of uprooted trees.

broader ridge top upper slopes - lots of PI, Sassafras, Acer spicatum

pigs?

Canopy species

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

occ. Magn. acuminata Tilia, Juglans nigra

Carya glabra

Subcanopy

Q. prinus, Sassafras, Cornus florida

Beech

Vaccinium pallidum

Rhus aromatica Ceanothus

PI - local - on more site or under dense sassafras

VC + PI

Vitis est

Lonicera japonica Celastrus

Herbs / Seedlings / Ground Cover.

Eurybia divaricata, Carex pensylvanica, multiflora

Danthonia	Verbena	Antennaria neg
Cunila	Sol juncea	Diarrhena
Solidago -	Desmodium glutinosum	Mon. bruna
Antennaria	Apocynum androsaemifolium	Galium circ.
Chiloscia	Euph cor	Phytolacca
Cynoglossum	Hel. div.	Dioscorea
Monarda fist.	Andr gen	Lobelia inflata
E. Brac. pub.	Lysp hirs	Eupt coelestinum
Sol ulm.	Elym hystrix	Smilax
Verbascum	Pam bari	Hel. canadensis
Penstemon	Prod. hirs	Viola fimbr.
Lysimachia	Verbena urt.	Aic. vimineus
	Aureolaria	Aster shortii

Hieracium

Site Dutch Creek Chert Barrens Date 20 Jun 94.

Nat. Community Successional? Dry-mesic Upland Forest.

Description (Distribution, Topo, Structure, Substrate, etc.)

Successional forest on ridge top - adjacent [illegible] "plateau", abandoned field / pasture.

Canopy species

on slopes, occ. Q. alba + Q. velutina,

with Sassafras on ridge top "plateau"

also. Carya tomentosa, ovata, cordiformis, Fraxinus americana

[illegible]

Celastrus, PI, VC, V tiri [illegible], Smilax glauca

Herbs / Seedlings / Ground Cover. Lots of PI + VC. Fraxinus americana seedlings

Aralia nudicaulis, A. triphylla, Podophyllum, Maianthemum, Carex digitalis, Agrimonia rostellata, Asc. sp., Sanicula canadensis, Cynoglossum virginianum, Dioscorea quaternata, Polygonatum biflorum, Solidago caesia, Sol. ulmifolia, Smilax rotundifolia, Phytolacca, Carex willdenowii, Erigeron philadelphicus, Verbena urticifolia, Desmodium spp., Desmodium glutinosum, Asplenium platyneuron, Phegopteris hexagonoptera, Polystichum acrostichoides, Athyrium pubescens,

Site Dutch Creek Chert Barrens Date 20 Jun 94

No. Community Dry-mesic upland forest.

Description ([illegible], [illegible], [illegible], [illegible], [illegible])

Structure? [illegible] closed canopy - not [illegible] 25-45 cm [illegible], a few larger. Stumps present

Canopy species

dom by Q. alba, with [illegible], C. ovata, Q. rubra, Fraxinus americana

[illegible]

Vaccinium pallidum (uncommon)

[illegible]

Smilax glauca, VC, PI, Vitis aestivalis

Herbs / Seedlings / Ground Cover.

Podophyllum peltatum Dioscorea quaternata
Solidago caesia
Carex rosea
Thaspium trifoliatum
Panicum boscii
Asarum canadense
Fothergilla obtusata
[illegible]

Site Dutch Creek Chert Barren Date 20 Jun 94

Nat. Community Mesic Upland Forest

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

Mature - submature w/ scattered dry-heir stands.

Canopy species

Sugar maple w/ beech

Subcanopy

Sugar maple

[redacted]

[redacted]

[redacted] / [redacted] / [redacted].

Predominantly P.I.

Site Dutch Creek Chert Barrens Date 20 June 84

No. Community Dry (Oak) Upland Forest / "Chert Barrens"

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

[illegible] predominant character of open understory [illegible] grasses [illegible]

Some understory closure because of fire suppression.

lots of rock exposed; also outcrops

locally, there are small (10-100 m²) opening dominated by grasses + forbs.

Canopy species

dom by Q. stellata; with Q. velutina, Q. alba, Q. marilandica, Carya glabra, C. tomentosa.

occ. to rare →

[illegible] Diospyros virginiana, Sassafras, Cornus florida, Celtis occidentalis, [illegible] Fraxinus americana, [illegible] Pinus echinata, [illegible] Prunus serotina, [illegible] Ulmus alata, [illegible] Fraxinus americana, [illegible] Pinus virginiana, R. copallina; Rubus sp. of [illegible], Amelanchier sp., Antennaria sp., [illegible] Vitis aestivalis, VC, PI, Smilax glauca.

Understory / seedlings / ground cover. Oak seedlings; also Pinus echinata

locally, dom by PI. + VC.

Helianth. div, Antennaria plantag., Soli. pet, Soli. ulm., Panicum boscii, Brachyelytrum erecta, Verbena hel., Danthonia spicata, Amphicarpa bracteata, Panicum dichotomum, Aclepias verrucosa, Prenanthes autumnalis, Anatolodia rupestris, Carex cristatella, Andropogon gerardii, Panicum lanuginosum, Phlox pilosa, Galium circaezans, Woodsia obtusa, Oxalis stricta, Aralia virginica, Bromus pubescens, Elymus virginicus, Muhlenbergia sobolifera, Monarda fistulosa, Sassafras, Prenanthes hirsuta, Aralia w/ reflexed pubs. - canadensis, Krigia dandelion, K. biflora, Cunila origan., Lespedeza hirta, Stylosanthes biflora, Houstonia purpurea, Desmodium nudiflorum, Lactuca canadensis, Tephrosia virginiana, Luzula multiflora, Hypericum stragulum, Clitoria mar., Hieracium scabrum, Aureolaria flava, Panicum sphaerocarpon, Tridanis perfoliata, Acalypha gracilens, Chaetanthera lanosa, Carex multilenticularis, Schizachyrium scoparium, Manfreda virginica, Galium pilosum, Desmodium rotundifolium, Asclepias tuberosa, Prenanthes barbata, Hypericum punctatum, Tradescantia virginiana, Physalis spp, Solidago nemoralis,

Site DUTCH CREEK "A" Date 12 July '94
Natural Community [illegible] / [illegible]
Investigator (s) EFM

Location of Plot:
Plot located on upper slope, below dog-hair / PI stand that continues to ridgetop, but above the open slope that is dissected by the heads of tributary – Canopy dom by Q. [illegible], w/ occ Q. velutina, Q. marilandica, Carya glabra, C. texana. Understory trees include C. tex., C. glabra, Q. stellata, Q. alba, Fraxinus americana, Cornus florida, Ulmus alata

Witness Trees

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

Trees

Species	Dead/Alive	DBH	Azimuth	Distance from Plot Center
?	DEAD – about 5' lg	7.5"	6	31' 10"
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NATURAL AREA FORM

Site Dutch Creek, Date 17 July 94
Natural Community Oak Bottom / Lowland
Investigator (s) FFU
Subplot 3

Saplings (Woody Stems 2.5 cm - 9 cm dbh)

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

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

Species	No. of Stems Alive	Dead
Ostrya virginiana	1	

ILLINOIS NATURAL AREAS INVENTORY
MAIN DATA FORM

BASIC INFORMATION (1) Index no. _____

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

(4) Natural area name DUTCH CREEK CHERT WOODLANDS

[redacted]

(5) [redacted]

a. Cat	Ind	b. Description of significant feature
I		[redacted]
I		[redacted]
V		Shawnee National Forest Natural Area

(6) Exceptional features and notable features

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

(7) [redacted] scene ____ (8) [redacted] _____ (9) [redacted] _____

[redacted]

(9) [redacted]: T. 12 S., R. 2W, ____ R. [redacted] 27, NE Q SEC. 33, NW SEC. 34

(9') Access: _____

(10) Topographic quadrangle JONESBORO 7.5'

(11) Watershed Clear Creek (12) Specific stream DUTCH CREEK

(13) Legislative district _____ (14) Municipality _____

NATURAL CHARACTERISTICS

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

(16) Topography:

a. Physiographic unit _____ b. Major feature _____ c. Individual feature _____

(17) Geologic formation _____

(18) Soil association (State) _____

(19) Soil association (County) _____

NATURAL AREA FORM

Site: DUTCH CREEK "A" Date: 12 July 94

Natural Community: Chest Banner / Lowland

Investigator (s): EPU

Subplot: 1 Quadrat: 1, 2, 3, 4

[redacted]

	Species	% Cover Quadrat	Reproductive Stages [redacted]	Habitat/Ecology [redacted]
1	PI	80		
	[redacted]	20		
	[redacted]	3		
	Hel diver.	3		
	PI	35		
2	[redacted]	2		↙
	[redacted]	1		
	[redacted]	1		↙
	V.C.	2		
	[redacted]	15		↙
	[redacted]	1		↙
3	[redacted]	[redacted]		
	[redacted]	[redacted]		
	[redacted]	[redacted]		↙
	[redacted]	[redacted]		
	[redacted]	[redacted]		↙
4	[redacted]	[redacted]		
	[redacted]	[redacted]		
	[redacted]	[redacted]		

Comments:

NATURAL AREA FORM

Site Dutch Creek "A" Date 12 July 84

Natural Community Oak Beech/Woodland

Investigator (s) EFH

Subplot 1

[redacted]

Species	Description	Dbh	Height	Presence	Sign	Subplot	Cover
Ulmus alata	live	1.5"	[redacted]		4"		
Fraxinus	alive	[redacted]	[redacted]		4"		
A. saccharum	alive	3.0	[redacted]		4"		
Q. velutina	alive	2.0	250		10' 3"		
Platanus occidentalis	alive	1.5	300		17' 1"		
Ulmus alata	alive	3.0	70		4' 3"		

[redacted]

Species	No. of Stems Alive	Dead
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	
Q. velutina	1	
Ulmus alata	1	

NATURAL AREA FORM

Site Dutch Creek "A" Date 12 July 84

Natural Community Chaparral Beer / Woodland

Investigator (s) EFU

Subplot 3

[redacted] (Woody) Size 2.5 cm - 9 cm (DBH)

Species	Dead/Alive	DBH	Azimuth	Distance	[redacted]	[redacted]
[redacted]	Alive	2.5	72	[redacted]	[redacted]	
[redacted]	Alive	2.5	109	[redacted]	[redacted]	
[redacted]	[redacted]	10	[redacted]	[redacted]	[redacted]	
C[redacted]	Alive	2	255	16	10	
C[redacted]	Alive	2	249	18	6	

[redacted]

Species	No. of [redacted] Alive	Dead
[redacted]	1	1
[redacted]	1	

NATURAL AREA FORM

Site Dutch Creek "A" Date 12 July 94

Natural Community Chart "Barren / Wetland

Investigator (s) [redacted]

Subplot 2 Quadrat 7

[redacted]

Species	% Cover Quadrat	[redacted]	[redacted]
Red River	3		
Wir Grass	2		✓
Sol Amyrandis	2		
Wild Indigo	2		✓
Cinna Grass	1		
Carex [illegible]	2	✓	
Other [illegible]	1		
[illegible] Amphicarpa	1		
Panicum Lanc'i	1	✓	✓
[illegible]	1		
[redacted]			

Comments:

NATURAL AREA FORM

Site: Dutch Creek "A" Date: 12 July 94

Natural Community: Chest Barrow / woodland

Investigator (s): EPU

Subplot: 2 Quadrat: 5

[redacted] (cell height; shrub and woody ground cover <4m tall)

Species	% Cover Quadrat	Reproductive Stages (Flowering/Fruit)	Herbivore/Pathogen [redacted]
Virg. Creeper	5		
Pine [illegible]	20		
Robur [illegible]	4	✓	✓
[illegible]	1		
V. [illegible]	2		✓
[illegible]	1		
So. [illegible]	1		
[illegible]	1		
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible]	[illegible]		

Page 6

Comments:

NATURAL AREA FORM

Site: Dutch Creek "A" Date: 12 July 94

Natural Community: Oak Barrens / Woodland

Investigator (s): [illegible]

Subplot: 1 3 Quadrat: N

[redacted]

Species	% Cover Dominant	[redacted]
Acel. div.	2	
Panicum lax	1	
Q. stellata	5	Trunk
Moss	1	
Lichen	1	
Aster patens	1	
Aster [illegible]	1	
Aster dumosus	1	
Sol ulmi	1	
[illegible]	25	
[illegible]	1	
[illegible]	1	
[illegible]	1	
[illegible]	1	
[redacted]		
[illegible]	1	
[illegible]	1	
[illegible]	1	
[illegible]	1	
Q. [illegible]	1	
[illegible]	1	
[illegible]	1	
Carex gravida	1	
Panicum linearifolium	1	
Hel dibranchiata	1	

Quad 12

Comments:

B.C. Gnatcatcher

Gray Tree Frog

Fisher Wizard.

Scitcella

Viola pedata

NATURAL AREA FORM

Site Dutch Creek "A" Date 12 July 94

Natural Community Chert Barren / Woodland

Investigator (s) EFU

Subplot 3 Quadrat 9

[redacted] (all herbs, shrub and woody ground cover [redacted])

Species	% Cover Quadrat	Reproductive Stages (Flowers/Fruits)	Rare/Uncommon/Endangered [redacted]
Lichen	1		
Moss	2		
Aster shortii	2		✓
[illegible]	2		✓
Aster patens	1		
Panicum boscii	1	✓	
Panicum p. latum	1		
Carex hirsutella	1		
Q. marilandica	2		✓
Carex [illegible]	2		
[redacted]			
[redacted]	1		✓
[redacted]	1		✓
[redacted]	3	✓	
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1	✓	
[redacted]	2		
[redacted]	1		✓
[redacted]	1		✓
Carex [illegible]	1		
Panicum boscii	1	✓	

[redacted]

Comments:

Y.R. Cactus
R.B. Woodpecker
L.C. Flycatcher
C. Chickadee
T. Titmouse
Purple Martin } soared
R.S. hawk }
T. Vulture

NATURAL AREA FORM

Site Dutch Creek (A) Date 12 July 94

Natural Community [illegible]

Investigator (s) EPM

Subplot 4 Quadrat 16

[redacted] (all herbs, shrub and woody ground cover <1m tall)

Species	% Cover Quadrat	Reproductive Stages [redacted]	Herbivore/Pathogen [redacted]
[illegible] wyomi	1		
Aster patens	2		
Bid divarica	3		
Vir. austrinus	2		
Rub canadensis	1		
Q. [illegible]	1		
Poth toxicar	1		
Moss	2		
Carex cf. [illegible]	2		
[redacted]			

Comments:

NATURAL AREA FORM

Site Dutch Creek (A) Date 12 July 94
Natural Community Chert Barren / woodland
Investigator (s) EFM

Subplot 4 Quadrat 15

[redacted] (all herbs; shrub and woody ground cover <[redacted])

[redacted]	% Cover Quadrat	Reproductive Status (Flowers/Fruit)	Herbivore/Pathogen [redacted]
Rhus aromatica.	20		
Panicum boscii	1	✓	✓
Carex hirsutella ~~[redacted]~~	1		
~~Carex [redacted]~~ Carex artitecta	1		
Solidago hispida	1		
Solidago [redacted]	1		
[redacted]	1		
[redacted] virginica	3		
[redacted] ?	3	✓	✓
[redacted]	1		
[redacted]	1		
[redacted]	1		
[redacted]	1		

collected - [redacted]?

Comments:

NATURAL AREA FORM

Site DUTCH CREEK (A) Date 12 July 94

Natural Community CHERT BARRENS / WOODLAND

Investigator (s) EFG

Subplot 4 Quadrat 13

[redacted] (all herbs; shrub and woody ground cover <1m tall)

[redacted]	Species	% Cover Quadrat	Reproductive Status (Flowers/fruit)	Herbivore/Pathogen Damage
	Q. marilandica	10	WOODY TRUNK (LIVE)	
	P.F.	6		K
	Q. marilandica (seedlings)	10	seedlings	✓
	Panicum gattii	1	✓	✓
	Panicum oligosanthes	3		
	Andropogon glomeratus	3		
	Carex S. arkansana	4		
	Danthonia spicata	1		
	Houstonia longifolia	1		
	[redacted]	[redacted]		
	[redacted]	[redacted]		
	[redacted]	[redacted]	✓	
	[redacted]	[redacted]		✓
	[redacted]	[redacted]		

Comments:

Monitoring plot placed at upper edge of "barrens"
above is dogwood thicket / PI zone.

Site PUTCH CREEK "A" Date 13 July '94
Natural Community CHERT BARRENS / WOODLAND
Investigator (s) EFU

Location of Plot:

+PC – Short thin Q. velutina (in plot)

Witness Trees

tag on N side

	Species	dbh	Azimuth	Distance ~~from~~ to Plot Center (> 18 m)
WT 1	Q marilandica	16	107	55' 10"
WT 2	Q stellata	15	45	61' 0"

Crooked tree.

Trees

Species	Dead/Alive	DBH	Azimuth	Distance from Plot Center	
Carya tom	dead	7"	178	52' 2"	1 Vitaes
[illegible]	alive	11"	193	45' 2"	—
[illegible]	alive	[illegible]	[illegible]	31' 0"	—
[illegible]	alive	12.5	208	39' 0"	[illegible]
[illegible]	alive	[illegible]	0	56' 0"	—
[illegible]	alive	[illegible]	220	[illegible]	[illegible]
[illegible]	alive	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
C. glabra	alive	5.5	[illegible]	[illegible]	[illegible]
Q. stellata	alive	13.5	265	35' 1"	2 PI
Q. stellata	alive	[illegible]	273	[illegible]	1 PI
[illegible]	alive	[illegible]	[illegible]	[illegible]	—
Carya tom	alive	[illegible]	247	[illegible]	[illegible]
Carya tom	alive	5.5	278	46' 0"	1 VC.
Q. velutina	alive	8.0	285	55' 10"	—
Q. marilandica	alive	11.5	287	31' 8"	—
C. glabra	alive	6.5	295	52' 3"	1 PI, 1 Vitaceae
Q. stellata [illegible]	alive	4.0	305	17' 3"	—
C. tomo	alive (wounded)	8.0	315	53' 10"	1 PI, 1 VC
Fraxinus americana	alive	5.5	325	58' 9"	
C. texana	alive	4.5	332	39' 6"	
Q. velutina	alive	13.5	336	70' 0"	2 PI
C. texana	alive	10.5	345	47' 2"	4 PI, 1 VC

Bufo woodhousii ? Pale belly.

NATURAL AREA FORM

Site Dutch Creek (A) Date 12 July 94
Natural Community Chert Barren / Woodland
Investigator (s) EFU

Subplot 4 Quadrat 14

[redacted] (all herbs; shrub and woody ground cover [redacted])

Species	% Cover Quadrat	Reproductive Status (Flowers/Fruits)	Herbivore/Pathogen [redacted]
Rhus aromatica	25	[redacted]	✓
Ranunculus linearis	1	✓	
Antennaria plantaginifolia	1		
Hel. [illegible]	3		
Solidago ulmifolia	3		
Ranunculus [illegible]	3	✓	✓
Carex hirsutella	1		
[illegible]	1		
Viola [illegible]	1		
Lespedeza [illegible]	1		
[illegible]	1	✓	
[illegible]	1	✓	
[illegible]	1	✓	✓
[illegible]	1		
[illegible]	1		

(>25 % of leaf surface removed by [illegible])

Comments:

No. 93-090800-020 CCS

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 /JT

DATE: 08/10/93

ATTACHMENT A

FINANCIAL PROJECT PLAN
(PROJECT TITLE)

FOREST SERVICE CONTRIBUTION

	FS IN-KIND CONTRIBUTION	FUNDING TO CHALLENGER	TOTAL	
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

	FUNDING TO FS	CHALLENGER IN-KIND	TOTAL
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 conjuction with the contract; the contract and all books, records, and supporting ducuments 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 countinue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

THE UNDERSIGNED AFFIRMS, UNDER PENALTIES OF PERJURY, THE 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

Requistion/Contract/Grant ID Number

DAVID L. ROGERS, ACTING FOREST SUPERVISOR
Printed Name and Title

08/02/93
Date

This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Chapter 127, paragraphs 132.1-132.13. Disclosure of this information is REQUIRED. Failure to provide any information will result in this form not being processed. This form has been appoved by the Forms Management Center. IL 422-0787 Printed on Recycled Paper

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 72-0564834F is my correct Federal Taxpayer Identification Number. I am doing business as a (please check one):

- ☐ Individual
- ☐ Sole Proprietorship
- ☐ Partnership
- ☐ Corporation
- ☐ Not-for-Profit Corporation
- ☐ Trust or Estate
- ☐ Real Estate Agent
- ☒ Government Entity
- ☐ Tax Exempt Organization (ICR 510(a) only)
- ☐ Medical and Health Care Services Provider Corporation

Firm Name: USDA - FOREST SERVICE, SHAWNEE NF.

David L. Rogers
Signed

08/02/93
Date

14

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