

HOPEWELL HILL PRAIRIES
VASCULAR PLANT INVENTORY

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Funded by
Illinois Department of Natural Resources
Natural Heritage Division
From Contributions to
Illinois Wildlife Preservation Fund

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Introduction

The Hopewell hill prairies were first publically documented as a plant community in the Illinois Natural Areas Inventory (1). An earlier detailed study of hill prairies by Robert A. Evers (2) did not include any of the hill prairies on the west side of the Illinois river north of Peoria. In the Hopewell Estates hill prairies section of the INAI, the 78 acre natural area contained 21 scattered prairies. See attachment 1. About the time of the inventory, the Hopewell site was subdivided into residential lots and sold to individual owners. Protection of some of the hill prairies commenced in 1997 and now 4 prairies have been restored and dedicated as the Hopewell Hill Prairies Nature Preserve (3), (4), (5). Another 2 prairies have been restored and provided some protection as an Illinois Natural Heritage Landmark. This plant survey was undertaken to aid in the managing of the natural area.

Methods

The objective of this survey is to identify most of the plants in the 6 protected prairies and in 2 other accessible prairies. The best remaining savannas in Central Illinois surround hill prairies according to Marlin Bowles (6), so many of these plants were also identified. Since the hill prairies are relatively small, the full inventory method was used. No historical comparison of changes in the plant community is possible as the exact location of the transect used in the original INAI was not included.

Not all of the hill prairies identified in 1977 INAI work are still in existence due to persistent woody encroachment into the prairies, supression of fire and housing development. None of the 7 small prairie openings on the eastern end of the natural area indicated in 1977 could be located and have probably been covered by woody invasion. The extant hill prairies are defined in this study by the ravines that dissect them and are numbered from east to west as shown in the following table:

Description of Extant Hopewell Hill Prairies - Also see map in Attachment 2

#	location	
1	Lot 118	Natural Heritage Landmark , very small , close to house
2	Lot 118 + Lot 117	Landmark and Nature Preserve, shaded but Grade A
3	Lot 117	Nature Preserve, center of best Grade A
4	Lot 116	Nature Preserve, but very small prairie mostly shaded
5	Lot 115	not surveyed, very eroded, small colony of stiff gentian
6	Lot 114	not surveyed, steep, near house, dwarf liatris
7	Lot 238 + 124	not surveyed, below house on large ridge
8	Lot 125	not surveyed, on several small ridges, on cul du sac
9	Lot 131	not surveyed, close to house, steep
10	Lot 133	not surveyed, close to house, steep
11	Lot 139	Nature preserve, small prairie, diverse species for size
12	Lot 139 + 238	Nature preserve, long prairie on ridge
13	Lot 238	small prairie on large ridge being closed by encroachment
14	Lot 238	very small prairie left from encroachment on large ridge

Results

The plant inventory is shown in the following table.

HOPEWELL HILL PRAIRIES PLANT LIST AND COEFFICIENTS OF CONSERVATISM**

<i>Carex meadii</i>	Mead's stiff sedge	6	6	6	6	6	6	6
<i>Carex normalis</i>	Spreading oval sedge		4					4
<i>Carex pensylvanica</i>	Pennsylvania sedge	5	5	5	5	5	5	5
<i>Carex rosea</i>	Curly-styled wood sedge		5					5
<i>Carex umbellata</i>	Early oak sedge		6					6
<i>Carya ovata</i>	Shagbark hickory		4	4				4
<i>Carya tomentosa</i>	Mockernut hickory		6	6	6	6		6
<i>Cassia fasciculata</i>	Golden cassia		1					1
<i>Ceanothus americanus</i>	New Jersey tea	8	8	8	8	8		8
<i>Celastrus scandens</i>	Climbing bittersweet	2	2	2	2	2		2
<i>Cerastium vulgatum</i>	Com. mouse-ear chickweed		0					0
<i>Cercis canadensis</i>	Redbud	3	3	3	3	3	3	3
<i>Cinna arundinacea</i>	Common wood reed			5				5
<i>Cirsium altissimum</i>	Tall thistle	3	3	3	3	3		3
<i>Cirsium vulgare*</i>	Bull thistle		0					0
<i>Claytonia virginica</i>	Spring beauty		1					1
<i>Comandra umbellata</i>	Bastard toadflax		6	6				6
<i>Conyza canadensis</i>	Horseweed	0	0	0	0	0		0
<i>Coreopsis palmata</i>	Prairie coreopsis	6	6	6	6	6		6
<i>Cornus racemosa</i>	Gray dogwood	2	2	2	2	2	2	2
<i>Corylus americana</i>	American filbert		4	4	4	4		4
<i>Crataegus crus-galli</i>	Cock-spur hawthorn				2			2
<i>Crataegus mollis</i>	Downy hawthorn	2	2					2
<i>Cuscuta campestris</i>	Field dodder		2					2
<i>Cystopteris protrusa</i>	Fragile fern		4					4
<i>Dalea candida</i>	White prairie clover	9	9	9				9
<i>Dalea purpurea</i>	Purple prairie clover	8	8	8	8			8
<i>Danthonia spicata</i>	Poverty oat grass		3	3	3	3		3
<i>Daucus carota*</i>	Queen Ann's lace	0	0	0	0			0
<i>Desmodium glutinosum</i>	Pointed tick trefoil	3	3	3	3	3		3
<i>Desmodium nudiflorum</i>	Bare-stemmed tick trefoil		5					5
<i>Desmodium paniculatum</i>	Panicled tick trefoil	2	2	2	2			2
<i>Desmodium sessilifolium</i>	Sessile-leaved tick trefoil		6					6
<i>Dioscorea villosa</i>	Wild yam		4					4
<i>Echinacea pallida</i>	Pale purple coneflower	7	7	7	7	7	7	7
<i>Echinacea purpurea</i>	Purple coneflower			6				6
<i>Elaeagnus umbellata*</i>	Autumn olive	0	0	0	0	0	0	0
<i>Elymus canadensis</i>	Canada wild rye	4	4	4	4	4	4	4
<i>Elymus hystrix</i>	Bottlebrush grass		5	5	5	5		5
<i>Elymus villosus</i>	Silky wild rye		4					4
<i>Equisetum hyemale affine</i>	Rough horsetail		2					2
<i>Erechites hieraciifolia</i>	Fireweed		2					2
<i>Erigeron strigosus</i>	Daisy fleabane	2	2	2				2
<i>Eryngium yuccifolium</i>	Rattlesnake master		7					7
<i>Eupatorium purpureum</i>	Purple Joe pye weed	5			5			5
<i>Eupatorium rugosum</i>	White snakeroot			2				2
<i>Eupatorium serotinum</i>	Late boneset	1	1	1	1	1	1	1
<i>Euphorbia corollata</i>	Flowering spurge	3	3	3	3	3	3	3
<i>Festuca obtusa</i>	Nodding fescue		5	5				5
<i>Festuca pratensis*</i>	Meadow fescue		0	0				0
<i>Fragaria virginiana</i>	Wild strawberry		2					2
<i>Fraxinus americana</i>	White ash	4		4				4
<i>Galium aparine</i>	Annual bedstraw		0		0			0
<i>Galium circaezans</i>	Wild Licorice	4	4	4				4

HOPEWELL HILL PRAIRIES PLANT LIST AND COEFFICIENTS OF CONSERVATISM**

Galium concinnum	Shing bedstraw		4					4
Galium triflorum	Sweet-scented bedstraw		4	4				4
Gaura biennis	Biennial guara					2		2
Gentiana puberlenta	Downy gentian		4					4
Gentianella quinquefolia	Stiff gentian					7		7
Geranium maculatum	Wild geranium		4					4
Gleditsia triacanthos	Honey locust						2	2
Hammelis virginiana	Witch-hazel					8	8	8
Hedeoma pulegiodes	American pennyroyal		4					4
Helianthus decapetalus	Pale sunflower	5	5	5	5	5	5	5
Helianthus occidentalis	Western sunflower		7			7		7
Helianthus strumosus	Pale-leaved sunflower		3	3				3
Hepatica nobilis var. acuta	Sharp-lobed hepatica					7		7
Hieracium scabrum	Rough hawkweed	5	5			5		5
Hypericum sphaerocarpum	Round-fruited St. John's wort						5	5
Hypoxis hirsuta	Yellow stargrass			6		6		6
Juglans nigra	Black walnut	4	4	4	4	4	4	4
Juncus interior	Inland rush					3		3
Juncus tenuis	Path rush		0			0		0
Juniperus virginiana	Eastern red cedar				1	1	1	1
Lactuca canadensis	Wild lettuce	1	1	1	1	1		1
Lechea tenuifolia	Narrow-leaved pinweed		6		6			6
Lespedeza capitata	Round-headed bush clover		4					4
Lespedeza virginica	Slender bush clover		5					5
Liatris aspera	Rough blazing star		7		7	7		7
Liatris cylindracea	Dwarf blazing star					8		8
Linum sulcatum	Grooved yellow flax					8		8
Liparis liliifolia	Purple twayblade			4		4		4
Lithospermum carolinense	Hairy puccoon	7	7	7	7	7		7
Lobelia inflata	Indian tobacco		4		4			4
Lonicera prolifera	Grape honeysuckle		5					5
Malus ioensis	Iowa crabapple	3	3	3	3	3		3
Medicago lupulina*	Black medic		0					0
Melilotus alba*	White sweet clover		0		0			0
Melilotus officinalis*	Yellow sweet clover		0			0		0
Menispermum canadense	White moonseed		4					4
Monarda fistulosa	Wild bergamot	4	4	4		4		4
Muhlenbergia schrebieri	Nimblewill		0					0
Muhlenbergia sobolifera	Rock satin grass	5	5	5	5	5		5
Orobancha uniflora	Cancer root		8					8
Ostrya virginiana	Hop hornbeam		4	4	4	4	4	4
Oxalis violacea	Violet wood sorrel		5			5		5
Panicum capillare	Old witch grass		0					0
Panicum implicatum	Old-field panic grass		2		2	2		2
Panicum latifolium	Broad-leaved panic grass	5	5	5				5
Panicum leibergii	Prairie panic grass		7	7	7	7		7
Panicum linearifolium	Slender-leaved panic grass		7					7
Paronychia canadensis	Tall forked chickweed		5					5
Parthenocissus inserta	Thicket creeper				1			1
Parthenocissus quiqueifolia	Virginia creeper	2	2	2	2	2	2	2
Phlox divaricata	Blue phlox				5	5		5
Phlox pilosa var. fulgida	Prairie phlox	7	7	7	7	7		7
Phyma leptostachya	Lopseed		4		4	4		4
Physalis subglabrata	Smooth ground cherry	0						0

HOPEWELL HILL PRAIRIES PLANT LIST AND COEFFICIENTS OF CONSERVATISM**

<i>Physalis virginiana</i>	Lance-leaved ground cherry			3		3			3
<i>Poa compressa*</i>	Canada bluegrass			0					0
<i>Poa pratensis*</i>	Kentucky bluegrass			0					0
<i>Polygala senega</i>	Seneca snakeroot	7	7	7	7	7			7
<i>Polygala verticillata</i>	Short-whorled milkwort	9	9		9	9			9
<i>Polygonatum commutatum</i>	Great solomon seal					4			4
<i>Polystichum acrosticoides</i>	Christmas fern			4					4
<i>Populus grandidentata</i>	Large-toothed aspen			4		4	4		4
<i>Potentilla simplex</i>	Common cinquefoil			3	3	3	3		3
<i>Prenanthes alba</i>	Lion's foot			5	5	5	5		5
<i>Prunus serotina</i>	Wild black cherry	1	1	1	1	1	1	1	1
<i>Prunus virginiana</i>	Common chokecherry			3		3			3
<i>Psoralea onobrychis</i>	French grass						6		6
<i>Psoralea tenuiflora</i>	Scurfy-pea	8	8	8	8	8	8	8	8
<i>Pynanthemum pilosum</i>	Hairy mountain mint					5			5
<i>Quercus alba</i>	White oak			5	5	5	5	5	5
<i>Quercus prinoides v. acumin</i>	Chinquapin oak	5	5	5	5	5	5		5
<i>Quercus rubra</i>	Red oak	5	5	5	5	5	5	5	5
<i>Quercus velutina</i>	Black oak			5					5
<i>Ranunculus abortivus</i>	Little-leaved buttercup				1		1		1
<i>Ratibida pinnata</i>	Yellow coneflower	4	4	4	4	4	4	4	4
<i>Rhus glabra</i>	Smooth sumac	1	1	1	1	1	1	1	1
<i>Ribes missouriense</i>	Missouri gooseberry			2			2		2
<i>Rosa multiflora*</i>	Japanese rose			0	0	0	0		0
<i>Rosa suffulta</i>	Sunshine rose	5	5	5	5	5	5	5	5
<i>Rubus occidententalis</i>	Blackcap raspberry	2		2	2	2			2
<i>Rubis pensylvanica</i>	Yankee blackberry	2		2	2	2			2
<i>Ruellia humilis</i>	Hairy ruellia	3	3	3	3	3			3
<i>Salix humilis</i>	Prairie willow			5	5				5
<i>Sanicula gregaria</i>	Clustered black snakeroot	2		2		2	2		2
<i>Sassafras albidum</i>	White sassafras	2	2	2	2	2		2	2
<i>Schizachyrium scoparium</i>	Little bluestem	5	5	5	5	5	5	5	5
<i>Scutellaria leonardii</i>	Small skullcap			5					5
<i>Setaria faberi*</i>	Giant foxtail					0	0		0
<i>Silene stellata</i>	Starry campian			5		5			5
<i>Silphium integrifolium</i>	Rosinweed	5	5	5	5	5			5
<i>Silphium laciniatum</i>	Compass plant	5	5	5	5				5
<i>Silphium terebinthinaceum</i>	Prairie dock	4	4	4	4				4
<i>Sisyrinchium albidum</i>	Common blue-eyed grass	4	4	4		4			4
<i>Smilacina racemosa</i>	Feathery false solomon seal	4		4		4			4
<i>Smilax ecirrhata</i>	Upright carrion flower		5	5		5	5		5
<i>Smilax hispida</i>	Bristly green brier	3		3			3		3
<i>Solidago canadensis</i>	Tall goldenrod	1		1			1		1
<i>Solidago juncea</i>	Early goldenrod			4	4				4
<i>Solidago nemorales</i>	Old field goldenrod			3					3
<i>Solidago rigida</i>	Rigid goldenrod	4	4	4	4	4	4	4	4
<i>Solidago speciosa</i>	Showy goldenrod			7	7				7
<i>Solidago ulmifolia</i>	Elm-leaved goldenrod	5	5	5	5	5	5		5
<i>Sorghastrum nutans</i>	Indian grass	4	4	4	4	4	4		4
<i>Sphenopholis obtusata</i>	Prairie wedge grass			5	5				5
<i>Sporobolus heterolepis</i>	Prairie dropseed	9		9					9
<i>Staphylea trifolia</i>	Bladdernut					5	5		5
<i>Stipa Spartea</i>	Porcupine grass			6					6
<i>Taenidia integerrima</i>	Yellow pimpernel	7	7	7					7

HOPEWELL HILL PRAIRIES PLANT LIST AND COEFFICIENTS OF CONSERVATISM**

Taraxicum officinale*	Common dandelion			0	0	0		
Teucrium canadense v. virgi.	American germander	3	3					3
Toxicodendron radicans	Poison ivy			1	1	1	1	1
Tradescantia ohioensis	Common spiderwort			3	3			3
Trillium recurvatum	Red trillium					5		5
Triodanis perfoliata	Venus' looking-glass	2	2	2			2	2
Triosteum perfoliatum	Late horse gentian					5		5
Ulmus rubra	Slippery elm	3				3	3	3
Uvularia grandiflora	Bellwort	7	7	7	7	7		7
Verbena stricta	Hoary vervain					2		2
Vernonia baldwinii	Baldwin's ironweed					5	5	5
Viburnum prunifolium	Black haw	4		4	4	4	4	4
Viburnum rafinesquianum	Downy arrowwood					6	6	6
Viola sagittata	Arrow-leaved violet			6	6		6	6
Viola sororia	Wooly blue violet	3		3	3	3		3
Vitis riparia	Riverbank grape	2	2	2	2	2	2	2
Zanthoxylum americanum	Prickly ash			4	4	4	4	4

* denotes an exotic species

** coefficient of conservatism
Taft et al. ERIGENIA, Nov 97

Discussion

- - plant communities

The Hopewell hill prairies and surrounding savannas which were surveyed are highly diverse. 233 species of vascular plants were identified with many having high coefficients of conservatism which indicates rare plants found in rare undisturbed habitat. With only 14 acres of Grade A glacial drift hill prairie found in Illinois in 1977, more than an acre of this is found on lots 116 and 117 (prairie #3).

From the separate plant lists for each of the 8 praries surveyed, it can be shown that some plants are unique to each prairie. The larger restored Grade A prairie #3 had the most diversity of species; however, protecting more of the prairies would protect more of the diversity of the natural area.

- - individual species

At the beginning of the study there were 2 state threatened plant species, but in May of 1999, both of these were delisted. Smooth forked aster (*Aster Schreberi*) is found near #3 and #12 prairies and is blooming profusely at the tops of north slopes on Lots 119, 402 and 356. Black-seeded rice grass (*Oryzopsis racemosa*) was found at one location in the village of Hopewell but not in the natural area. The Rattlesnake master (*Eryngium yuccifolium*) plant found on prairie #3 is worth mentioning because this species was not recorded in the 36 prairies in the Evers study (2). 52 species of plants were found which are not currently included in the Marshall county list of the Illinois Plant Information Network (7).

- - restoration and maintenance

Intensive restoration has been done on prairies #1,2,3,4,11 and 12 by Maury Brucker and Emiko Yang (8) (9). Maintaining the prairie and savanna plant communities by a low level effort of selective cutting and individual plant herbicide treatment and weeding should continue to be oriented toward protecting and encouraging the more conservative plants in the natural area. This maintainance will be required into the foreseeable future to sustain the integrity of these plant communities. Although Garlic mustard (*Alliaria petiolata*) has not yet been found, this serious threat should be looked for regularly. Exotics and weeds are primarily found next to the frontage roads and utility areas as shown by the subarea plant list for lot 116 and 117 in Appendix 1.

From the plant lists by prairies and the extant prairies descriptions, a suggested strategy for securing additional protection should be focused on Lots 238 and 125. Working with residents who have small prairies on their lots could also be done when time is available.

- Lot 238 has 2 hill prairies #13, 14 and parts of 2 others #7,12. this 14 acre outlot encompasses an entire high ridge and a complete ravine with good north slope plants such as Smooth forked aster (*Aster Schreberi*), Marginal shield fern (*Dropteris marginalis*) and Bishop's cap (*Mitella diphylla*)

- Lot 125 is a vacant lot with a prairie on several small ridges with easy access and which is owned by an adjacent resident.

- Further searches for the eastern 7 small prairies found in 1977 could be done if access was arranged and time was available.

FOOTNOTES

- (1) White, J., 1978, Illinois Natural Areas Inventory Techncl Report, Vol. 1, Illinois Natural Areas Inventory, Urbana, Illinois
- (2) Evers, Robert A., 1955, Hill Prairies of Illinois, Bulletin of the Illinois Natural History Survey, Vol. 26, Article 5, Urbana, Illinois, p. 423
- (3) Lerczak, T.V., 1997, Proposal for Dedication of Hopewell Hill Prairies as an Illinois Nature Preserve, Illinois Natures Preserve Commission, Springfield, Illinois
- (4) Lerczak, T.V., 1998, Proposal for Dedication of an Addition (Lot #116 in Hopewell) to Hopewell Hill Prairies Nature Preserve, Illinois Nature Preserves Commission, Springfield, Illinois
- (5) Lerczak, T.V., 1999, Proposal for Dedication of an Addition (Lot #139 in Hopewell) to Hopewell Hill Prairies Nature Preserve, Illinois Nature Preserves Commission, Springfield, Illinois
- (6) Bowles Marlin, 1997, Morton Arboretum, personal communication
- (7) Iverson L.R., D. Ketzner and J. Karnes, 1999, Illinois Plant Information Network, Database at <http://www.fs.fed.us/ne/delaware/ilpin.html>, Illinois Natural History Survey and USDA Forest Service
- (8) Brucker, M. and E. Yang, 1998, "Private Prairie and Woodland Restoration: Updating an Older Subdivision", The Central Nebraska Loess Hills Prairie: Proceedings of the Sixteenth North American Prairie Conference, Joseph T. Springer, editor, University of Nebraska at Kearney, Kearney, Nebraska, pp. 148-150
- (9) Brucker, M. and E. Yang, 1999, "Private Prairie and Woodland Restoration: Updating an Older Subdivision", Land and Water, Vol. 43, Number 4, Fort Dodge, Iowa, pp. 34-36

County	MARSHALL	No.
Name of Area	HOPEWELL ESTATES HILL PRAIRIES	
Quadrangle	CHILLICOTHE 7.5'	
Location	SEC. 34 T12N, R9E	
ILLINOIS NATURAL AREAS INVENTORY		



Figure 3a. Hopewell Estates Hill Prairies Natural Area outlined on the USGS 7.5-minute series map. The location of the proposed preserve Hopewell Hill Prairies is marked by an asterisk (*).

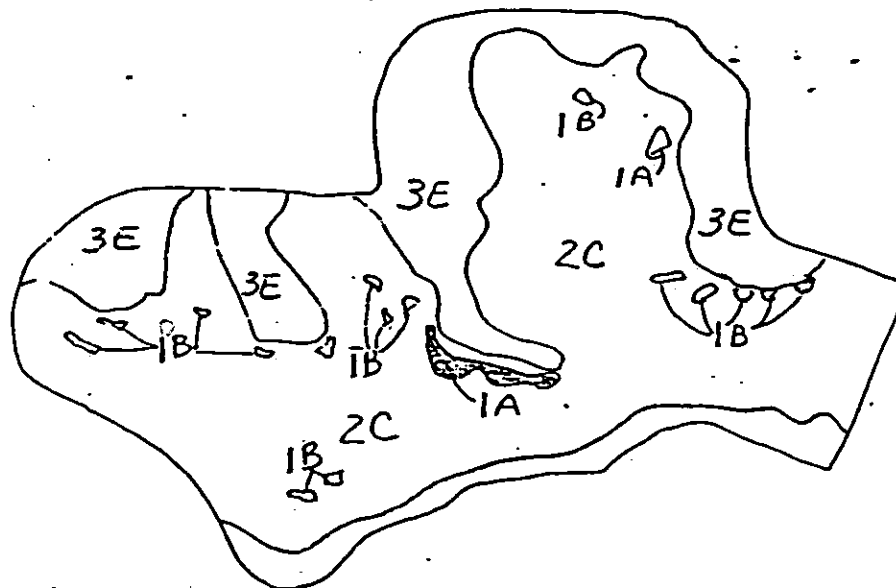


Figure 3b. Outline of Hopewell Estates Hill Prairies Natural Area in 1977 showing patches of Grade A (1A) and Grade B (1B) hill prairies and Grade C (2C) woodlands. Developed areas are labeled 3E.

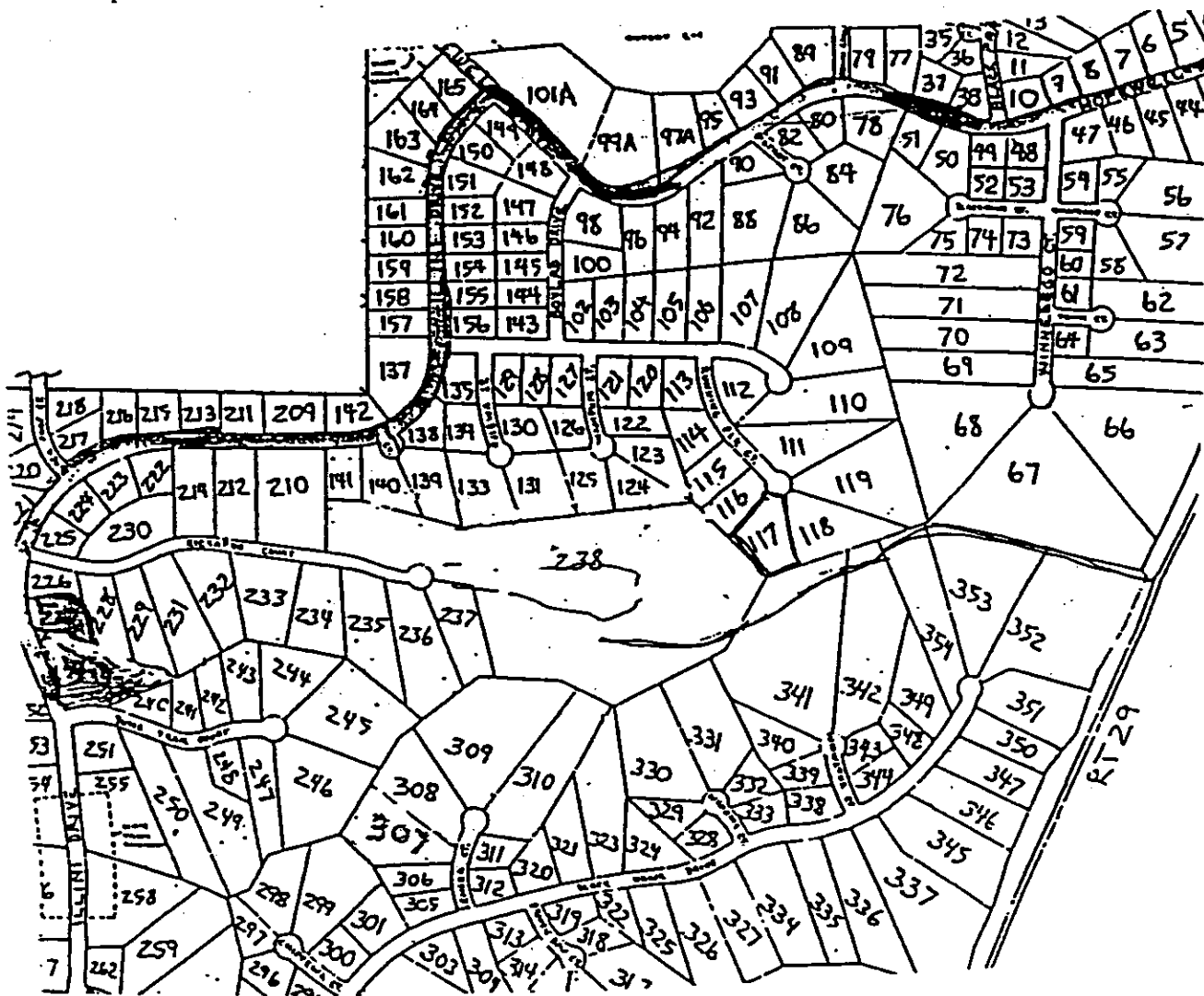


Figure 4. Partial outline of the Village of Hopewell in Marshall County. The proposed preserve Hopewell Hill Prairies is located on lot #117.

HOPEWELL PRAIRIES SPECIES LIST.

SCIENTIFIC NAMES	COMMON NAMES	PRAIRIE	CUT AREA	MOWED AREA ¹	FOREST	LOT 116	INAI Site	HOPEWELL ESTATES
<i>Acalypha rhomboides</i>	Three-angled mercury		X					
<i>Acer saccharum</i>	Sugar maple		X		X	X		
<i>Adiantum pedatum</i>	Maidenhair fern						X	
<i>Agalinis aspera</i>	Rough false foxglove		X					
<i>Agrimonia pubescens</i>	Soft agrimony						X	
<i>Agrimonia rostellata</i>	Beaked agrimony						X	
<i>Agrostis alba</i> *	Red top		X			X		
<i>Agrostis alba</i> var <i>palustris</i>	Creeping bent grass						X	
<i>Agrostis perennans</i>	Upland bent grass		X		X			
<i>Ambrosia artemisiifolia</i>	Common ragweed		X	X				
<i>Amelanchier laevis</i>	Shadbush		X		X			
<i>Amorpha canescens</i>	Lead plant	X	X	X	X	X		
<i>Amphicarpa bracteata</i> var	Lowland hog peanut		X					
<i>Amphicarpa bracteata</i>	Upland hog peanut					X		
<i>Andropogon gerardii</i>	Big bluestem	X	X			X		
<i>Anemone cylindrica</i>	Thimbleweed				X			
<i>Anemone virginiana</i>	Tall anemone	X	X		X	X		
<i>Antennaria plantaginifolia</i>	Pussy toes		X	X	X			
<i>Apocynum sibiricum</i>	Prairie Indian hemp	X						
<i>Arabis laevigata</i>	Smooth rock cress				X	X		
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit						X	
<i>Asarum canadense</i>	Wild ginger						X	
<i>Asclepias verticillata</i>	Whorled milkweed	X						
<i>Asclepias verticillata</i>	Whorled milkweed		X					
<i>Asclepias viridiflora</i>	Short green milkweed	X						
<i>Asparagus officinalis</i> *	Garden asparagus	X						
<i>Asplenium platyneuron</i>	Ebony spleenwort					X		
<i>Aster azureus</i>	Sky-blue aster	X						
<i>Aster cordifolius</i>	Heart-leaved aster					X		
<i>Aster drummondii</i>	Drummond aster		X					
<i>Aster ericoides</i>	Heath aster	X						
<i>Aster laevis</i>	Smooth blue aster	X	X	X		X		
<i>Aster lateriflorus</i>	Side-flowering aster		X	X		X		
<i>Aster oblongifolius</i>	Aromatic aster		X					
<i>Aster pilosus</i> *	Hairy aster		X	X				
<i>Aster sagittifolius</i>	Arrow-leaved aster		X	X		X		
<i>Aster schreberi</i> <<	Schreber aster				X	X		
<i>Aster sericeus</i>	Silky aster	X						
<i>Aster shortii</i>	Short's aster		X	X		X		
<i>Astragalus canadensis</i>	Canadian milk vetch		X					
<i>Aureolaria grandiflora</i> var	Yellow false foxglove	X	X	X				
<i>Baptisia lactea</i>	White wild indigo		X	X				
<i>Bidens vulgata</i>	Tall bezzar's ticks		X			X		

SCIENTIFIC NAMES	COMMON NAMES	PRAIRIE	CUT AREA	MOWED AREA ¹	FOREST	LOT 116	INAI Site	HOPEWELL ESTATES
<i>Blaphelia hirta</i>	Wood mint						X	
<i>Borveliana virginianum</i>	Rattlesnake fern				X	X		
<i>Borveliona carolinensis</i>	Side-oats grama	X	X			X		
<i>Briquetia cymatoroides</i>	Fake horset	X	X			X		
<i>Bromus pubescens</i>	Woodland brome		X			X		
<i>Casalia stipulicifolia</i>	Pale indian plantain		X		X	X		
<i>Calystegia spithamea</i>	Dwarf triadend	X	X			X		
<i>Carpentaria americana</i>	Tall bellflower						X	
<i>Carex albertina</i>	Blight-scaled wood sedge						X	
<i>Carex bicknellii</i>	Prairie sedge		X	X				
<i>Carex blanda</i>	Common woodland sedge		X		X			
<i>Carex cephalophora</i>	Short-headed beaked sedge		X					
<i>Carex hirsutella</i>	Hairy green sedge		X					
<i>Carex meadii</i>	Mead's sedge	X						
<i>Carex normalis</i>	Spreading oval sedge			X				
<i>Carex pennsylvanica</i>	Pennsylvania sedge		X	X	X	X		
<i>Carex rosea</i>	Curly-styled wood sedge					X		
<i>Carex umbellata</i>	Wrinkle-seeded oak sedge	X						
<i>Carya ovata</i>	Shagbark hickory		X					X
<i>Carya tomentosa</i>	Mockernut hickory		X			X		
<i>Cassia fasciculata</i>	Partridge pea		X					
<i>Ceanothus americanus</i>	New Jersey tea		X					
<i>Colostera scandens</i>	Climbing bitterweed		X			X		
<i>Celtis occidentalis</i>	Hackberry						X	
<i>Cerastium vulgatum</i> *	Common mouse-ear chickweed			X				
<i>Cercis canadensis</i>	Redbud		X					
<i>Cirsium altissimum</i>	Tall thistle		X			X		
<i>Cirsium vulgare</i> *	Bull thistle		X					
<i>Clematis virginiana</i>	Virginia's horser							X
<i>Comandra umbellata</i>	False foxglove	X	X		X	X		
<i>Comiza canadensis</i>	Male tail	X	X			X		
<i>Coreopsis palmata</i>	Prairie coreopsis	X	X		X	X		
<i>Coreopsis thymifolia</i>	Tall coreopsis						X	
<i>Cortusa racemosa</i>	Grey dogwood		X			X		
<i>Corylus americana</i>	Hazelnut	X	X			X		
<i>Cotalegus mollis</i>	Red barv					X		
<i>Oenantha campylocha</i>	Field dodder	X						
<i>Oxylogosis prostrata</i>	Fragile fern					X		
<i>Dalea candida</i>	White prairie-clover	X						
<i>Dalea purpurea</i>	Purple prairie clover	X						
<i>Danthonia spicata</i>	Poverty oat grass	X		X				
<i>Daucus carota rosens</i> *	Wild carrot			X				
<i>Desmodium glaberrimum</i>	Pointed tick trefoil		X		X			
<i>Desmodium nudiflorum</i>	Peep-stemmed tick trefoil		X					

SCIENTIFIC NAMES	COMMON NAMES	PRAIRIE	CUT AREA	MOWED AREA	FOREST	LOT 116	INAI Site	HOPEWELL ESTATES
<i>Desmodium paniculatum</i>	Panicled tick trefoil		X					
<i>Desmodium paniculatum</i>	Panicled tick trefoil		X					
<i>Desmodium sessilifolium</i>	Seedle-leaved tick trefoil		X					
<i>Dielsambelium serotinum</i>	Old-field panic grass		X				X	
<i>Dielsambelium latifolium</i>	Broad-leaf panic grass		X			X		
<i>Dielsambelium lobortii</i>	Panic panic grass	X		X		X		
<i>Dielsambelium linearifolium</i>	Slender-leaved panic grass		X					
<i>Dioscorea villosa</i>	Wild yam					X		
<i>Dryopteris marginalis</i>	Marginal shield fern							
<i>Echinacea pallida</i>	Pale purple coneflower	X	X			X		
<i>Elaeagnus umbellata</i> *	Autumn olive			X	X			
<i>Elymus canadensis</i>	Canada wild eye		X					
<i>Elymus hystrix</i>	Bothernash grass		X					
<i>Elymus riparius</i>	Ryebank wild eye						X	
<i>Epilobium coloratum</i>	Common willow herb							X
<i>Eragrostis hymenale</i>	Rough horse-tail		X					
<i>Eragrostis hymenale</i>	Rough horse-tail						X	
<i>Eragrostis spectabilis</i>	Tumble grass						X	
<i>Erechtides hieracifolia</i>	Firweed		X					
<i>Eriogonum strigosum</i>	Dairy fleabane			X	X			
<i>Eryngium yuccifolium</i>	Rattlesnake master	X						
<i>Eragrostis strigosum</i>	Waloo						X	
<i>Eragrostis strigosum</i>	White snakeroot						X	
<i>Eragrostis strigosum</i>	Lawn bonnet					X		
<i>Euphorbia corollata</i>	Flowering spurge	X	X	X	X	X		
<i>Festuca obtusa</i>	Nodding fescue		X		X	X		
<i>Festuca pratensis</i> *	Tall fescue		X	X				
<i>Fragaria virginiana</i>	Wild strawberry						X	
<i>Galium spicatum</i>	Annual bedstraw		X		X			
<i>Galium obtusum</i>	Hairy wild horsetail	X	X					
<i>Galium coccineum</i>	Shining bedstraw				X	X		
<i>Galium triflorum</i>	Sweet-scented bedstraw		X		X			
<i>Galium triflorum</i>	Sweet-scented bedstraw						X	
<i>Galium triflorum</i>	Sweet-scented bedstraw							
<i>Gentiana puberulenta</i>	Dewy gentian		X					
<i>Gentianaella quinquefolia</i> ssp	Stiff gentian						X	
<i>Gentiana maculatum</i>	Wild gentian					X		
<i>Gemma canadense</i>	White eyes						X	
<i>Hamamelis virginiana</i>	Witch-hazel						X	
<i>Hedysarum paleogoides</i>	American pennyroyal		X					
<i>Helianthus decurrens</i>	Thin-leaved sunflower		X			X		
<i>Helianthus occidentalis</i>	Western sunflower	X						
<i>Helianthus strumosus</i>	Pale-leaved sunflower	X	X			X		
<i>Hesperis nobilis</i> var acuta	Sharp-lobed forgetif						X	
<i>Hieracium scaberrimum</i>	Rough hawkweed		X					
<i>Hydrophyllum virginianum</i>	Virginia waterleaf						X	

SCIENTIFIC NAMES	COMMON NAMES	PRAIRIE	CUT AREA	MOWED AREA	FOREST	LOT 116	INAI Site	HOPEWELL ESTATES
<i>Hypoxis hirsuta</i>	Yellow stargrass	X	X					
<i>Impatiens capensis</i>	Spotted touch-me-not						X	
<i>Juncus tenuis</i>	Poverty rush			X				
<i>Juncus virginiana</i>	Eastern reed cedar		X			X		
<i>Lactuca canadensis</i>	Wild lettuce		X			X		
<i>Laportea canadensis</i>	Wood nettle						X	
<i>Lechea tenuifolia</i>	Slender-leaved pigweed	X	X					
<i>Lesnia virginica</i>	White grass						X	
<i>Lespedeza virginica</i>	Slender brash clover		X					
<i>Liatris cylindracea</i>	Cylindrical blazing star	X						
<i>Liparis liliifolia</i>	Purple twayblade		X					
<i>Lithospermum carolinense</i>	Hairy puccoon	X						
<i>Lonicera maackii*</i>	Azure honeysuckle						X	
<i>Lonicera prolifera</i>	Rock honeysuckle					X		
<i>Lycopodium lucidulum</i>	Shining clubmoss							X
<i>Medicago lupulina*</i>	Black medic			X				
<i>Melilotus officinalis*</i>	Yellow sweet clover		X	X				
<i>Menispermum canadense</i>	Moonsseed						X	
<i>Mentarda fenilosa</i>	Wild bergamot	X						
<i>Morus rubra</i>	Red mulberry						X	
<i>Muhlenbergia schreberei</i>	Nimblewill		X			X		
<i>Muhlenbergia sobolifera</i>	Rock satin grass		X		X			
<i>Muhlenbergia sobolifera</i>	Rock satin grass							X
<i>Orobancha uniflora</i>	One-flowered broomrape	X	X	X				
<i>Oryzopsis racemosa</i> <<	Black-seeded ricegrass							X
<i>Osmorhiza clytoniij</i>	Hairy sweet cicely						X	
<i>Ostrea virginiana</i>	Eastern hop humbern		X		X			
<i>Oxalis violacea</i>	Violet wood sorrel	X	X					
<i>Panicum capillare</i>	Old witch grass		X					
<i>Paronychia canadensis</i>	Tall forked chickweed				X			
<i>Parthenocissus insorta</i>	Thicket creeper					X		
<i>Phlox divaricata</i>	Blue phlox					X		
<i>Phlox pilosa</i>	Prairie phlox	X	X		X			
<i>Phytolmia leptostachya</i>	Lopsided					X		
<i>Physalis virginiana</i>	Lance-leaved ground cherry	X						
<i>Pilea pumila</i>	Clearweed						X	
<i>Plantago major*</i>	Common plantain						X	
<i>Poa compressa*</i>	Canadian bluegrass	X	X					
<i>Poa pratensis*</i>	Kentucky bluegrass	X	X	X				
<i>Polygala senega</i>	Seneca snakeroot	X	X	X				
<i>Polygala verticillata</i>	Short whorled milkwort			X				
<i>Polygonum virginianum</i>	Woodland knotweed						X	
<i>Populus grandidentata</i>	Large-toothed aspen		X					
<i>Potentilla simplex</i>	Common cinquefoil		X	X			X	
<i>Erigeron alba</i>	White lettuce		X			X		

SCIENTIFIC NAMES	COMMON NAMES	PRAIRIE	CUT AREA	MOWED AREA ¹	FOREST	LOT 116	INAI Site	HOPEWELL ESTATES
<i>Prunella vulgaris</i> var. <i>choisyana</i>	Self-heal						X	
<i>Prunus serotina</i>	Wild black cherry		X					
<i>Prunus virginiana</i>	Common chokeberry				X			
<i>Peucedanum pennsylvanicum</i>	Scarf-peg	X						
<i>Quercus alba</i>	White oak		X		X			
<i>Quercus prinoides</i> var. <i>macrocarpa</i>	Chinquapin oak		X		X			
<i>Quercus rubra</i>	Red oak				X			
<i>Quercus velutina</i>	Black oak							X
<i>Rubus idaeus</i>	Yellow coneflower	X	X		X			
<i>Rhus glabra</i>	Smooth sumac	X	X		X			
<i>Ribes missouriense</i>	Missouri gooseberry		X					
<i>Rosa multiflora</i> ²	Multi-flora rose		X		X			
<i>Rosa straminea</i>	Sunshing rose		X					
<i>Rubus occidentalis</i>	Blackcap raspberry				X			
<i>Rubus pensilvanicus</i>	Yellow blackberry						X	
<i>Ruellia humilis</i>	Wild petunia	X						
<i>Salix eriocephala</i>	Heart-leaved willow							X
<i>Salix humilis</i>	Prairie willow	X	X					
<i>Senecio jacobinae</i>	Common snakeroot		X		X			
<i>Sassafras albidum</i>	White sassafras		X		X			
<i>Schizanthus scoparium</i>	Little blue-stem	X			X			
<i>Scirpus atrovirens</i>	Dark green bulrush							X
<i>Scrophularia maritima</i>	Late figwort							
<i>Scutellaria leonardtii</i>	Small skullcap		X		X			
<i>Scutellaria ovata</i> var. <i>virginiana</i>	Heart-leaved skullcap						X	
<i>Setaria faberii</i> ²	Nodding foxtail		X					
<i>Silene acaulis</i>	Sticky campion						X	
<i>Siphium imbricatum</i>	Deer's rue	X	X					
<i>Siphium laciniatum</i>	Compass-plant	X	X					
<i>Siphium pectolatum</i>	Cup plant						X	
<i>Siphium terphidimacron</i>	Prairie-dock	X	X		X			
<i>Syrinchium albidum</i>	Common blue-eyed grass	X	X					
<i>Syntherisma racemosa</i>	Wild spikehead			X				
<i>Sanilax cuneata</i>	Upright carnion flower							X
<i>Sanilax hispida</i>	Bristly green hair		X					
<i>Solidago canadensis</i>	Tall goldenrod		X					
<i>Solidago flexicaulis</i>	Zizag goldenrod						X	
<i>Solidago juncea</i>	Early goldenrod				X			
<i>Solidago rigida</i>	Stiff goldenrod	X	X					
<i>Solidago speciosa</i>	Showy goldenrod		X					
<i>Solidago ulmifolia</i>	Elm-leaved goldenrod		X					
<i>Sorghastrum nutans</i>	Indian grass	X	X					
<i>Spiranthes gracilis</i>	Slender ladies' tresses						X	
<i>Sporobolus heterolepis</i>	Prairie dropseed	X						
<i>Sida spicata</i>	Panicum grass		X					

SCIENTIFIC NAMES	COMMON NAMES	PRAIRIE	CUT AREA	MOWED AREA ¹	FOREST	LOT 116	INAI Site	HOPEWELL ESTATES
<i>Tausidia integerrima</i>	Yellow pimpernel	X	X		X	X		
<i>Taraxacum officinale</i> *	Common dandelion	X		X				
<i>Toxicodendron radicans</i>	Poison ivy		X		X	X		
<i>Tradescantia ohioensis</i>	Common spiderwort		X	X		X		
<i>Tridens flavus</i> *	Tall red top						X	
<i>Trifolium pratense</i> *	Red clover						X	
<i>Trillium recurvatum</i>	Red trillium					X		
<i>Triodanis perfoliata</i>	Venus' looking-glass		X					
<i>Triosteum perfoliatum</i>	Late horse gentian						X	
<i>Ulmus rubra</i>	Slippery elm						X	
<i>Uvularia grandiflora</i>	Bellwort		X		X	X		
<i>Verbascum thapsus</i> *	Woolly mallein						X	
<i>Verbena stricta</i>	Woolly verbena						X	
<i>Vernonia baldwini</i>	Baldwin's ironweed							X
<i>Viburnum prunifolium</i>	Black haw				X	X		
<i>Viburnum rafinesquianum</i>	Downy arrowwood					X		
<i>Viola sagittata</i>	Arrow-leaved violet		X					
<i>Viola sororia</i>	Woolly blue violet		X		X	X		

PRAIRIE = Part of lot 117 that has maintained itself as prairie up to 1998.

CUT AREA = Part of lot 117 that brush was removed from in 1997 and 1998.

MOWED AREA = Part of lot 117 that was mowed as part of neighbors lawn until 1998.

FOREST = Areas of lot 117 not opened up with brush cutting.

LOT 116 = Species that were located in lot 116.

* = non-native species





HOPEWELL HILL PRAIRIES

AN ENDANGERED NATURAL RESOURCE

The prairie grasslands were once widespread in a belt across the eastern United States. It is now limited to the southeastern United States and is being rapidly converted to agriculture. The prairie grasslands are a natural resource of the Hopewell Hill area and are being rapidly converted to agriculture. The prairie grasslands are a natural resource of the Hopewell Hill area and are being rapidly converted to agriculture.

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