

VASCULAR PLANTS OF HOOSIER PRAIRIE NATURE PRESERVE, LAKE COUNTY, INDIANA

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INTRODUCTION

Hoosier Prairie Nature Preserve is located in Lake County, Indiana (Sec. 33 and 34, T36N, R9W; Sec. 3 and 4, T35N, R9W; Highland 7.5' topographic quadrangle). The original 304-acre tract was purchased by the State of Indiana in 1976, and subsequently an additional 31 acres were transferred to the State by the National Park Service. The tract, which is now part of the Indiana Dunes National Lakeshore, is a dedicated State nature preserve and national natural landmark. It is owned and managed by the Division of Nature Preserves, Indiana Department of Natural Resources. Hoosier Prairie is located in the Chicago Lake Plain Section of the Northwestern Morainal Natural Region (Homoya, *et al.*, 1985). It contains several natural communities and provides habitat for a number of rare vascular plants.

The soil types are primarily sandy soils on the higher ground (Brems fine sand and Plainfield fine sand), Watseka and Maumee loamy sands at intermediate topographic levels, and Gilford mucky sandy loam in the swales (Persinger, 1972). The topography is gently rolling and varies from 618' in the swales to 625' on the rises.

METHODS

Hoosier Prairie has been studied by a number of botanists, since its "discovery" as one of Indiana's remaining prairie remnants in the 1960's. These botanists compiled a master plant species list, which was periodically updated. Following the area's acquisition as a nature preserve, permanent plots and belt transects were installed and periodically sampled for species' presence. This information, in addition to continual botanizing, has resulted in the list presented in this paper.

NATURAL COMMUNITIES

Several natural communities (Homoya, *et al.*, 1985) were delineated, and their plants identified. The natural communities were delineated based on dominant vegetation, topographic position, and soil type. These communities grade into one another and in some cases, occupy a very narrow width, largely in response to the gentle change in topography. For purposes of this paper, the following communities are identified, and their major components are listed below.

Sand savanna. The dominant tree here is *Quercus velutina*, followed by *Quercus alba*. Characteristic understory species include *Andropogon scoparius*,

Koeleria cristata, *Comptonia peregrina*, *Liatris aspera*, *Pteridium aquilinum latiusculum*, and *Carex pennsylvanica*. This community type occurs on the higher, drier, sandy soils.

Mesic sand prairie. This community type includes dry-mesic sand prairie and wet-mesic sand prairie, which are sometimes treated separately. It occupies slopes and level soils below the savannas and above the swales. Characteristic species includes *Andropogon gerardi*, *Helianthus mollis*, *Parthenium integrifolium*, *Euphorbia corollata*, *Sorghastrum nutans*, and *Liatris spicata*.

Wet prairie/sedge meadow. These communities are sometimes distinct and sometimes blend into one another. They occupy the loamy sand soils on the lower topographic levels just above the marches. Characteristic species include a variety of sedges, primarily *Carex* spp., *Calamagrostis canadensis*, *Panicum virgatum*, *Spartina pectinata*, *Eryngium yuccifolium*, *Lilium michiganense*, and *Dryopteris thelypteris pubescens*.

Marsh. Marches occur in the lower "swales" on mucky soils. They are primarily dominated by cattails (*Typha latifolia* and *T. angustifolia*), bullrushes (*Scirpus validus creber*), and numerous other species, including *Eupatorium perfoliatum*, *Galium asprellum*, *Lysimachia terrestris*, and *Scirpus acutus*.

Disturbed ground. A portion of the Hoosier Prairie Nature Preserve has been disturbed in the past, primarily by agriculture. While primarily confined to the 31-acre tract located at the southeast corner of Main Street and Kennedy Avenue, disturbed areas are also found along roads, pipelines, and powerline corridors. These areas harbor many non-native species as well as many of the native species found in the open prairie/wetland communities.

Shaded habitats. These areas consist primarily of aspen (*Populus tremuloides*) thickets, overgrown black oak savannas, and willow (*Salix* spp.) thickets. They are in a continual state of change, determined by the frequency and intensity of fires. The shaded habitats contain species such as *Osmorhiza claytonii*, *Botrychium virginianum*, *Claytonia virginica*, and *Podophyllum peltatum*.

PLANT SPECIES

The list of vascular plants presently known from Hoosier Prairie Nature Preserve (Table 1) is annotated to show the primary natural communities in which the species are found. These determinations are based primarily on sampling data, which are on file in the Division of Nature Preserves' office, and on field observations. The list is further annotated to show which species are non-native and which are considered rare in Indiana (Aldrich, *et al.*, 1986; Bacone and Hedge, 1980). The nomenclature is according to Swink and Wilhelm (1979).

Five hundred sixty species, representing 274 genera, were identified on this preserve. Of these, 92 are non-native taxa. Thirty-one taxa are considered endangered, threatened or rare, or are on the "watch" list in Indiana (Aldrich, *et al.*, 1986; Bacone and Hedge, 1980). Twelve taxa are considered endangered, including *Corydalis sempervirens*, *Geranium bicknellii*, *Malaxis unifolia*, *Polytaenia nuttallii*, and *Utricularia subulata*. The six taxa considered threatened include *Aster ptarmicoides*, *Carex trichocarpa*, and *Eriophorium angustifolium*. Examples of the nine species considered rare include *Comptonia peregrina* and *Pogonia ophioglossoides*. Four species are on the "watch list," including *Monotropa hypopithys*.

ACKNOWLEDGMENTS

The authors would like to thank Robert Betz, Floyd Swink, Ray Schulenberg, Gerould Wilhelm, and many of the other botanists, who provided the original plant lists for the prairie. We are extremely grateful to Irene Herlocker-Meyer without whose efforts this prairie would never have been preserved. Our special thanks go to Michelle Martin of the Division of Nature Preserves for providing so much help with the preparation of the computerized species lists used in Table 1 and to Ron Hellmich for proofreading assistance.

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TABLE 1. Vascular plants of the Hoosier Prairie Nature Preserve (e = endangered, t = threatened, r = rare, w = watch list, a = alien. mar = marsh, sm/wp = sedge meadow/wet prairie, mp = mesic prairie, sav = savanna, dist = disturbed, and shad = shaded).

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Acalypha rhomboidea</i>		x			x	
<i>Acer saccharinum</i>						x
^a <i>Achillea millefolium</i>			x	x	x	
<i>Agrimonia parviflora</i>		x				
<i>Agrimonia pubescens</i>					x	
^a <i>Agropyron repens</i>					x	
^a <i>Agrostis alba</i>			x	x	x	
<i>Agrostis hyemalis</i>				x		
<i>Aletris farinosa</i>			x			
<i>Alisma subcordatum</i>	x					
<i>Alisma triviale</i>	x					
<i>Allium canadense</i>			x			
^a <i>Allium vineale</i>					x	
<i>Alopecurus aequalis</i>	x					
^a <i>Alopecurus carolinianus</i>	x					
^a <i>Amaranthus retroflexus</i>					x	
<i>Ambrosia artemisiifolia</i>			x		x	
v. <i>elatior</i>						
<i>Ambrosia trifida</i>					x	

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Amelanchier laevis</i>						x
<i>Amorpha canescens</i>				x		
<i>Amphicarpa bracteata</i>				x	x	
<i>Andropogon gerardi</i>		x	x	x		
<i>Andropogon scoparius</i>			x	x		
<i>Anemone cylindrica</i>				x		
<i>Anemone quinquefolia</i> v. <i>interior</i>			x	x		
<i>Anemonella thalictroides</i>						x
<i>Antennaria neglecta</i>			x			
<i>Antennaria plantaginifolia</i>			x			
<i>Apios americana</i>			x	x	x	
<i>Apocynum androsaemifolium</i>			x	x		
<i>Apocynum cannabinum</i>		x		x		
<i>Apocynum sibiricum</i>			x	x		
<i>Arabis lyrata</i>				x		
<i>Aralia nudicaulis</i>				x		
<i>Arenaria lateriflora</i>		x	x	x		
<i>Artemisia caudata</i>				x		
<i>Asclepias amplexicaulis</i>			x			
<i>Asclepias hirtella</i>			x			
<i>Asclepias incarnata</i>		x				
<i>Asclepias syriaca</i>					x	
<i>Asclepias tuberosa</i>				x		
<i>Asclepias verticillata</i>			x		x	
^a <i>Asparagus officinalis</i>				x	x	
<i>Aster azureus</i>		x	x	x		
<i>Aster dumosus</i>		x	x	x		
<i>Aster ericoides</i>			x	x		
<i>Aster laevis</i>				x		
<i>Aster lateriflorus</i>		x		x		
<i>Aster linariifolius</i>			x	x		
<i>Aster novae-angliae</i>		x	x			
<i>Aster pilosus</i>				x		
<i>Aster praealtus</i>				x		
^t <i>Aster ptarmicoides</i>			x			
<i>Aster simplex</i>		x	x	x		
<i>Aster umbellatus</i>		x	x	x		
<i>Athyrium filix-femina</i> v. <i>michauxii</i>						x
<i>Baptisia leucantha</i>		x	x	x		
^a <i>Barbarea vulgaris</i>					x	
<i>Bartonia virginica</i>			x	x		
^a <i>Berberis thunbergii</i>					x	
<i>Bidens comosa</i>					x	
<i>Bidens coronata</i>	x	x				
<i>Bidens frondosa</i>	x	x				

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Blephilia hirsuta</i>						x
<i>Boehmeria cylindrica</i>						x
<i>v. drummondiana</i>						
<i>Boltonia latisquama</i>	x					
<i>v. recognita</i>						
<i>Botrychium virginianum</i>						x
^a <i>Bromus inermis</i>					x	
<i>Bromus purgans</i>						x
^a <i>Bromus tectorum</i>					x	
<i>Bulbostylis capillaris</i>					x	
<i>Cacalia tuberosa</i>		x				
<i>Calamagrostis canadensis</i>	x	x	x	x		
<i>Calamagrostis inexpansa</i>			x			
<i>v. brevior</i>						
<i>Callitriche heterophylla</i>	x					
<i>Calopogon pulchellus</i>		x				
<i>Caltha palustris</i>	x					
<i>Campanula aparinoides</i>		x	x			
^a <i>Capsella bursa-pastoris</i>					x	
<i>Cardamine bulbosa</i>	x					
<i>Cardamine parviflora</i>					x	
<i>v. arenicola</i>						
<i>Cardamine pensylvanica</i>					x	
<i>Carex artitecta</i>				x		
<i>x pensylvanica</i>						
<i>Carex bicknellii</i>			x			
<i>Carex buxbaumii</i>		x				
<i>Carex cephalophora</i>						x
^e <i>Carex conoidea</i>			x			
^t <i>Carex eburnea</i>			x			
<i>Carex emmonsii</i>				x		
<i>Carex foenea</i>			x			
<i>Carex gracillima</i>				x		
<i>Carex haydenii</i>		x				
<i>Carex hystericina</i>		x				
<i>Carex lanuginosa</i>	x					
<i>Carex lasiocarpa</i>	x					
<i>v. americana</i>						
<i>Carex meadii</i>		x				
<i>Carex pensylvanica</i>			x	x		
<i>Carex rostrata</i>	x					
<i>v. utriculata</i>						
<i>Carex sartwellii</i>	x	x				
<i>Carex scoparia</i>	x					
<i>Carex sterilis</i>		x				
<i>Carex stricta</i>		x				

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Carex suberecta</i>		x				
<i>Carex tetanica</i>		x				
<i>Carex tribuloides</i>		x				
^t <i>Carex trichocarpa</i>	x					
<i>Carex vulpinoidea</i>		x				
<i>Castilleja coccinea</i>			x			
<i>Ceanothus americanus</i>				x		
^a <i>Centurium pulchellum</i>					x	
<i>Cephalanthus occidentalis</i>	x					
^a <i>Cerastium brachypodium</i>					x	
^a <i>Cerastium vulgatum</i>					x	
^a <i>Chenopodium album</i>					x	
^a <i>Chrysanthemum leucanthemum</i> v. <i>pinnatifidum</i>					x	
^a <i>Cichorium intybus</i>					x	
<i>Cicuta maculata</i>	x	x				
^a <i>Cirsium arvense</i>			x	x	x	
<i>Cirsium discolor</i>			x	x		
<i>Cirsium muticum</i>		x	x	x		x
^a <i>Cirsium vulgare</i>					x	
<i>Claytonia virginica</i>						x
<i>Comandra richardsiana</i>		x	x	x		
^r <i>Comptonia peregrina</i>			x	x		
<i>Convolvulus sepium</i>		x	x	x		
<i>Corallorhiza odontorhiza</i>						x
<i>Coreopsis lanceolata</i>			x			
<i>Coreopsis palmata</i>			x	x		
<i>Coreopsis tripteris</i>		x	x	x		
<i>Cornus obliqua</i>		x				
<i>Cornus racemosa</i>				x	x	
<i>Cornus stolonifera</i>						x
<i>Corydalis sempervirens</i>				x		
<i>Corylus americana</i>				x		x
^a <i>Crotalaria sagittalis</i>					x	
<i>Cuscuta</i> sp.			x	x		
^e <i>Cyperus dentatus</i>		x				
<i>Cyperus ferruginescens</i>		x				
<i>Cyperus rivularis</i>		x				
<i>Cyperus strigosus</i>	x					
^w <i>Cypripedium calceolus</i> v. <i>pubescens</i>				x		
^r <i>Cypripedium candidum</i>			x			
^a <i>Dactylis glomerata</i>					x	
^a <i>Daucus carota</i>				x	x	
<i>Desmodium canadense</i>			x	x		
<i>Desmodium ciliare</i>			x			
<i>Desmodium glutinosum</i>			x	x		

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Desmodium illinoense</i>			x			
<i>Desmodium nudiflorum</i>				x		
<i>Desmodium paniculatum</i>				x		
^a <i>Dianthus armeria</i>					x	
^r <i>Diervilla lonicera</i>				x		
<i>Dodecatheon meadia</i>			x			
^r <i>Drosera intermedia</i>			x			
<i>Dryopteris thelypteris</i>		x	x			
<i>v. pubescens</i>						
<i>Dulichium arundinaceum</i>	x					
<i>Echinochloa crusgalli</i>					x	
<i>Eleocharis acicularis</i>	x					
<i>Eleocharis compressa</i>		x		x		
<i>Eleocharis elliptica</i>		x				
<i>Eleocharis obtusa</i>		x				
<i>Eleocharis palustris</i>	x	x				
<i>v. major</i>						
^r <i>Eleocharis pauciflora</i>		x				
<i>v. fernaldii</i>						
<i>Eleocharis smallii</i>		x				
^e <i>Eleocharis wolfii</i>		x	x			
<i>Elymus virginicus</i>						x
<i>Epilobium angustifolium</i>		x				
<i>Epilobium coloratum</i>		x	x			
<i>Epilobium glandulosum</i>		x				
<i>v. adenocaulon</i>						
<i>Epilobium leptophyllum</i>	x			x		
<i>Epilobium strictum</i>		x				
<i>Equisetum arvense</i>			x	x		
<i>Equisetum hyemale</i>			x			
<i>Erechtites hieracifolia</i>	x	x	x	x		
<i>Erigeron canadensis</i>					x	
<i>Erigeron philadelphicus</i>	x					
<i>Erigeron pulchellus</i>			x			
<i>Erigeron strigosus</i>			x			
^t <i>Eriophorum angustifolium</i>		x				
<i>Eryngium yuccifolium</i>		x	x	x		
<i>Eupatorium altissimum</i>			x			
<i>Eupatorium maculatum</i>	x					
<i>Eupatorium perfoliatum</i>	x	x				
<i>Eupatorium serotinum</i>					x	
<i>Euphorbia corollata</i>		x	x	x		
^a <i>Euphorbia maculata</i>					x	
^a <i>Euphorbia supina</i>					x	
<i>Fimbristylis autumnalis</i>		x				
<i>v. mucronulata</i>						

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Fragaria virginiana</i>		x	x	x		
<i>Fraxinus pennsylvanica</i> v. <i>subintegerrima</i>						x
<i>Galium aparine</i>				x	x	
<i>Galium asprellum</i>	x	x				
<i>Galium boreale</i>			x	x		
<i>Galium concinnum</i>				x		
<i>Galium obtusum</i>	x	x	x	x		
<i>Galium tinctorium</i>	x	x				
<i>Galium trifidum</i>		x				
<i>Gaylussacia baccata</i>			x	x		
<i>Gentiana crinita</i>	x					
^t <i>Gentiana puberula</i>			x			
<i>Gentiana saponaria</i>			x	x		
^e <i>Geranium bicknellii</i>				x		
<i>Gerardia flava</i>				x		
<i>Gerardia paupercula</i>		x				
<i>Gerardia purpurea</i>		x	x	x		
^e <i>Gerardia skinneriana</i>			x			
<i>Gerardia tenuifolia</i>			x			
<i>Geum laciniatum</i> v. <i>trichocarpum</i>		x				x
<i>Glyceria septentrionalis</i>	x					
<i>Gnaphalium obtusifolium</i>		x				
<i>Gratiola neglecta</i>						x
^r <i>Habenaria flava</i> v. <i>herbiola</i>		x	x			
^w <i>Habenaria lacera</i>		x				
<i>Helenium autumnale</i>		x				
^a <i>Helenium nudiflorum</i>		x				
<i>Helianthemum bicknellii</i>						x
<i>Helianthemum canadense</i>				x		x
<i>Helianthus divaricatus</i>				x		x
<i>Helianthus grosseserratus</i>		x	x			
<i>Helianthus laetiflorus</i> v. <i>rigidus</i>			x	x		
<i>Helianthus mollis</i>		x	x	x		
<i>Helianthus occidentalis</i>			x			
^a <i>Helianthus petiolaris</i>						x
^a <i>Hemerocallis fulva</i>						x
<i>Heracleum maximum</i>						x
<i>Heuchera richardsonii</i>			x	x		
<i>Hieracium canadense</i> v. <i>fasciculatum</i>				x		
<i>Hierochloe odorata</i>			x			
^a <i>Hordeum jubatum</i>						x
<i>Houstonia caerulea</i>		x	x	x		
<i>Hydrophyllum virginianum</i>						x

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Hypericum canadense</i>		x	x			
<i>Hypericum gentianoides</i>					x	
<i>Hypericum mutilum</i>		x	x			
^a <i>Hypericum perforatum</i>					x	
<i>Hypericum virginicum</i> v. <i>fraseri</i>	x	x				
<i>Hypoxis hirsuta</i>				x		
<i>Impatiens capensis</i>				x		
^a <i>Ipomoea hederacea</i>					x	
^a <i>Iris germanica</i>					x	
<i>Iris virginica</i> v. <i>shrevei</i>	x	x				
<i>Juglans nigra</i>						x
<i>Juncus acuminatus</i>		x				
<i>Juncus alpinus</i> v. <i>rariflorus</i>		x				
<i>Juncus biflorus</i>	x					
<i>Juncus brachycarpus</i>		x				
<i>Juncus bufonius</i>		x				
<i>Juncus canadensis</i>		x				
<i>Juncus dudleyi</i>		x				
<i>Juncus effusus</i> v. <i>solutus</i>		x	x			
<i>Juncus greenei</i>		x				
<i>Juncus interior</i>		x				
<i>Juncus marginatus</i>		x				
<i>Juncus tenuis</i>					x	
<i>Juncus torreyi</i>		x				
<i>Koeleria cristata</i>				x		
<i>Krigia biflora</i>			x	x		
<i>Lactuca canadensis</i>				x		
<i>Lathyrus palustris</i>		x				
<i>Lechea leggettii</i> v. <i>moniliformis</i>				x		
<i>Lechea villosa</i>			x			
<i>Leersia oryzoides</i>		x				
<i>Lemna minor</i>		x				
^a <i>Lepidium campestre</i>					x	
<i>Lepidium virginicum</i>					x	
<i>Lespedeza capitata</i>			x	x		
<i>Lespedeza hirta</i>				x		
<i>Liatris aspera</i>			x	x		
<i>Liatris cylindracea</i>			x			
<i>Liatris spicata</i>		x	x	x		
<i>Lilium michiganense</i>		x				
<i>Lilium philadelphicum</i> v. <i>andinum</i>			x			
^a <i>Linaria vulgaris</i>					x	

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Lindernia anagallidea</i>		x				
<i>Lindernia dubia</i>					x	
<i>Linum medium</i> v. <i>texanum</i>		x				
^a <i>Linum usitatissimum</i>					x	
<i>Liparis lilifolia</i>			x		x	
^w <i>Liparis loeselii</i>			x			
<i>Lithospermum canescens</i>			x			
<i>Lithospermum croceum</i>				x		
<i>Lobelia cardinalis</i>			x			
<i>Lobelia spicata</i>			x			
^a <i>Lonicera tatarica</i>					x	x
<i>Ludwigia alternifolia</i>		x	x			
<i>Ludwigia palustris</i> v. <i>americana</i>	x	x				
<i>Ludwigia polycarpa</i>	x					
<i>Lupinus perennis</i> v. <i>occidentalis</i>			x	x		
^e <i>Luzula acuminata</i>						x
<i>Luzula multiflora</i>		x				
^a <i>Lychnis dioica</i>					x	
^e <i>Lycopodium inundatum</i>		x				
<i>Lycopus americanus</i>		x	x	x		
<i>Lycopus rubellus</i>		x				
<i>Lycopus uniflorus</i>	x	x	x	x		
<i>Lycopus virginicus</i>	x					
<i>Lysimachia lanceolata</i>		x		x		
<i>Lysimachia quadriflora</i>		x				
<i>Lysimachia terrestris</i>	x	x				
<i>Lysimachia thyrsoflora</i>	x					
<i>Lythrum alatum</i>	x	x	x			
^a <i>Lythrum salicaria</i>	x					
<i>Maianthemum canadense</i>			x	x		
^e <i>Malaxis unifolia</i>						x
^a <i>Medicago lupulina</i>					x	
^a <i>Melilotus alba</i>				x	x	
^a <i>Melilotus officinalis</i>					x	
<i>Mentha arvensis</i> v. <i>villosa</i>		x				
<i>Mimulus ringens</i>	x					
^a <i>Mirabilis nyctaginea</i>					x	
^a <i>Mollugo verticillata</i>					x	
<i>Monarda fistulosa</i>			x	x		
^w <i>Monotropa hypopithys</i>				x		
<i>Muhlenbergia glomerata</i>	x					
<i>Muhlenbergia mexicana</i>		x	x	x		
<i>Muhlenbergia schreberi</i>					x	
<i>Myosotis verna</i>					x	

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Najas flexilis</i>	x					
<i>Nyssa sylvatica</i>						x
<i>Oenothera biennis</i>			x	x		
<i>Oenothera pilosella</i>			x			
<i>Onoclea sensibilis</i>		x	x	x		
<i>Ophioglossum vulgatum</i>		x				
<i>v. pseudopodium</i>						
^a <i>Ornithogalum umbellatum</i>					x	x
<i>Osmorhiza claytoni</i>						x
<i>Osmunda cinnamomea</i>			x	x		
<i>Osmunda claytoniana</i>				x		x
<i>Osmunda regalis</i>		x	x			
<i>v. spectabilis</i>						
<i>Oxalis europaea</i>					x	
<i>Oxalis stricta</i>					x	
<i>Oxalis violacea</i>				x		
<i>Oxypolis rigidior</i>		x				
<i>Panicum agrostoides</i>		x				
<i>Panicum depauperatum</i>				x		
<i>Panicum implicatum</i>		x		x		
<i>Panicum meridionale</i>					x	
<i>Panicum oligosanthos</i>				x	x	
<i>v. scribnerianum</i>						
<i>Panicum sphaerocarpon</i>			x			
<i>Panicum spretum</i>					x	
<i>Panicum villosissimum</i>			x			
<i>Panicum virgatum</i>		x	x	x		
<i>Parthenium integrifolium</i>			x	x		
<i>Parthenocissus inserta</i>				x		
^a <i>Pastinaca sativa</i>					x	
<i>Pedicularis canadensis</i>			x	x		
<i>Pedicularis lanceolata</i>			x			
<i>Penstemon calycosus</i>						x
<i>Penstemon digitalis</i>						x
<i>Penthorum sedoides</i>	x					
<i>Petalostemum purpureum</i>			x			
^a <i>Phleum pratense</i>					x	
<i>Phlox glaberrima</i>		x	x	x		
<i>v. interior</i>						
^a <i>Phlox paniculata</i>					x	
<i>Phlox pilosa</i>				x		
<i>Physalis heterophylla</i>					x	
<i>Physalis subglabrata</i>				x		
<i>Physostegia virginiana</i>			x			
^a <i>Plantago lanceolata</i>					x	
^a <i>Plantago major</i>					x	
<i>Plantago rugelii</i>					x	

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
^a <i>Plantago major</i>					x	
<i>Plantago rugelii</i>					x	
^a <i>Plantago virginica</i>					x	
^a <i>Poa annua</i>				x		
^a <i>Poa compressa</i>				x		
^a <i>Poa pratensis</i>			x	x	x	
<i>Podophyllum peltatum</i>						x
^r <i>Pogonia ophioglossoides</i>		x				
<i>Polygala cruciata</i>		x				
v. <i>aquilonia</i>						
<i>Polygala polygama</i>				x		
v. <i>obtusata</i>						
<i>Polygala sanguinea</i>			x			
<i>Polygala senega</i>			x			
<i>Polygala verticillata</i>			x	x		
v. <i>isocycla</i>						
<i>Polygonatum canaliculatum</i>						x
<i>Polygonum amphibium</i>	x	x				
v. <i>stipulaceum</i>						
^e <i>Polygonum careyi</i>	x					
<i>Polygonum coccineum</i>	x	x	x			
<i>Polygonum hydropiper</i>	x					
<i>Polygonum hydropiperoides</i>		x				
<i>Polygonum pensylvanicum</i>		x				
v. <i>laevigatum</i>						
^a <i>Polygonum persicaria</i>					x	
<i>Polygonum punctatum</i>					x	
<i>Polygonum scandens</i>		x				
<i>Polygonum tenue</i>					x	
^e <i>Polytaenia nuttallii</i>			x			
<i>Populus deltoides</i>		x	x			
<i>Populus grandidentata</i>					x	
<i>Populus tremuloides</i>		x	x	x	x	x
^a <i>Portulaca oleracea</i>					x	
<i>Potentilla arguta</i>			x			
<i>Potentilla norvegica</i>			x			
^a <i>Potentilla recta</i>					x	
<i>Potentilla simplex</i>		x	x	x		
<i>Prenanthes alba</i>						x
^r <i>Prenanthes aspera</i>			x			
<i>Prenanthes racemosa</i>				x		
<i>Proserpinaca palustris</i>	x	x				
v. <i>crebra</i>						
<i>Prunella vulgaris</i>			x		x	
v. <i>lanceolata</i>						
<i>Prunus pumila</i>			x			
<i>Prunus serotina</i>			x	x		

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Prunus virginiana</i>						x
<i>Ptelea trifoliata</i>						x
<i>Pteridium aquilinum</i>			x	x		
<i>v. latiusculum</i>						
<i>Pycnanthemum tenuifolium</i>			x			
<i>Pycnanthemum virginianum</i>		x	x	x		
^a <i>Pyrus malus</i>					x	
<i>Pyrus melanocarpa</i>			x	x		
<i>Quercus alba</i>				x		
<i>Quercus velutina</i>				x		
<i>Ranunculus abortivus</i>						x
<i>Ranunculus fascicularis</i>					x	
<i>Ranunculus flabellaris</i>		x				
<i>Ranunculus pensylvanicus</i>	x					
<i>Ratibida pinnata</i>			x			
^a <i>Rhamnus cathartica</i>			x	x		x
^a <i>Rhamnus frangula</i>			x	x	x	x
<i>Rhexia virginica</i>		x				
<i>Rhus copallina</i>		x	x	x		
<i>v. latifolia</i>						
<i>Rhus glabra</i>		x	x	x		
<i>Rhus radicans</i>				x		x
<i>Rhus typhina</i>				x		
<i>Rhynchospora capitellata</i>	x					
^e <i>Rhynchospora globularis</i>		x				
<i>v. recognita</i>						
<i>Ribes missouriense</i>						x
^a <i>Robinia pseudo-acacia</i>					x	
<i>Rorippa islandica</i>	x					
<i>v. fernaldiana</i>						
<i>Rosa carolina</i>		x		x		
^a <i>Rosa multiflora</i>					x	
^a <i>Rosa palustris</i>		x				
<i>Rubus allegheniensis</i>		x	x	x	x	
<i>Rubus flagellaris</i>		x	x	x		x
<i>Rubus hispidus v. obovalis</i>		x	x	x		
<i>Rubus occidentalis</i>					x	x
<i>Rudbeckia hirta</i>			x	x		
^a <i>Rumex acetosella</i>					x	
^a <i>Rumex crispus</i>					x	
<i>Rumex verticillatus</i>	x					
<i>Sagittaria brevirostra</i>	x					
<i>Sagittaria latifolia</i>	x	x				
<i>Salix amygdaloides</i>		x	x			
^a <i>Salix babylonica</i>					x	
<i>Salix discolor</i>		x				

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Salix glaucophylloides</i> v. <i>glaucophylla</i>		x	x	x		
<i>Salix humilis</i>		x	x	x		
<i>Salix interior</i>		x				
<i>Salix nigra</i>	x					
<i>Sambucus canadensis</i>						x
<i>Sanicula gregaria</i>					x	
<i>Sanicula marilandica</i>			x			
^a <i>Saponaria officinalis</i>					x	
<i>Sassafras albidum</i>						x
^e <i>Satureja arkansana</i>			x			
<i>Saxifraga pensylvanica</i>			x			
<i>Scirpus acutus</i>	x					
<i>Scirpus americanus</i>	x					
<i>Scirpus atrovirens</i>	x					
<i>Scirpus cyperinus</i>		x				
<i>Scirpus lineatus</i>		x				
<i>Scirpus validus</i> v. <i>creber</i>	x					
<i>Scleria triglomerata</i>			x			
<i>Scrophularia lanceolata</i>				x		
<i>Scutellaria epilobiifolia</i>	x	x		x		
<i>Scutellaria lateriflora</i>		x				
<i>Senecio pauperculus</i> v. <i>balsamitae</i>		x	x			
<i>Senecio plattensis</i>			x			
<i>Silene antirrhina</i>				x		
<i>Silene stellata</i>				x	x	
<i>Silphium integrifolium</i>		x	x			
<i>Silphium laciniatum</i>			x			
<i>Silphium terebinthinaceum</i>			x			
<i>Sisyrinchium albidum</i>			x			
<i>Sisyrinchium angustifolium</i>			x			
<i>Sium suave</i>	x	x				
<i>Smilacina racemosa</i>		x	x	x	x	
<i>Smilacina stellata</i>				x		
^a <i>Solanum carolinense</i>					x	
^a <i>Solanum dulcamara</i>					x	
<i>Solidago altissima</i>		x	x	x	x	x
<i>Solidago gigantea</i>		x	x			
<i>Solidago graminifolia</i> v. <i>media</i>		x	x	x		
<i>Solidago graminifolia</i> v. <i>nuttallii</i>		x	x	x		
<i>Solidago gymnospermoides</i>		x	x			
<i>Solidago juncea</i>		x	x	x		
<i>Solidago missouriensis</i> v. <i>fasciculata</i>			x			

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
<i>Solidago nemoralis</i>		x				
<i>Solidago ohioensis</i>		x	x			
<i>Solidago riddellii</i>		x				
<i>Solidago rigida</i>			x			
<i>Solidago rugosa</i>		x		x		
<i>Solidago speciosa</i>				x		
<i>Solidago tenuifolia</i>				x		
<i>Solidago uliginosa</i>		x				
^a <i>Sonchus uliginosus</i>				x		
<i>Sorghastrum nutans</i>		x	x	x		
<i>Spartina pectinata</i>	x	x	x			
<i>Sphenopholis intermedia</i>		x				
<i>Spiraea alba</i>		x	x			
<i>Spiraea tomentosa</i> v. <i>rosea</i>		x				
<i>Spiranthes cernua</i>		x				
<i>Sporobolus heterolephus</i>			x			
<i>Stachys palustris</i>		x	x			
v. <i>homotricha</i>						
<i>Stachys tenuifolia</i>						x
v. <i>hispida</i>						
^a <i>Stellaria graminea</i>					x	
<i>Stipa spartea</i>				x		
^t <i>Strophostyles leiosperma</i>					x	
^a <i>Syringa vulgaris</i>					x	
<i>Taenidia integerrima</i>			x			
^a <i>Taraxacum officinale</i>					x	
<i>Tephrosia virginiana</i>				x		
<i>Teucrium canadense</i>		x				
<i>Thalictrum dasycarpum</i>			x	x		
<i>Thalictrum dioicum</i>			x			
<i>Thalictrum revolutum</i>		x	x	x		
<i>Tradescantia ohiensis</i>			x	x		
^a <i>Tragopogon pratensis</i>					x	
^a <i>Trifolium agrarium</i>					x	
^a <i>Trifolium hybridum</i>					x	
^a <i>Trifolium pratense</i>					x	
^a <i>Trifolium repens</i>					x	
<i>Trillium recurvatum</i>						x
<i>Typha angustifolia</i>	x					
<i>Typha latifolia</i>	x					
<i>Ulmus americana</i>						x
<i>Ulmus rubra</i>						x
<i>Urtica procera</i>		x	x			
^e <i>Utricularia subulata</i>		x				
<i>Utricularia vulgaris</i>	x					
<i>Vaccinium angustifolium</i>			x	x		
v. <i>laevifolium</i>						

Species Name	Natural Community					
	mar	sm/wp	mp	sav	dist	shad
^a <i>Verbascum thapsus</i>					x	
<i>Verbena hastata</i>		x	x			
<i>Verbena stricta</i>					x	
<i>Verbena urticifolia</i>						x
<i>Vernonia fasciculata</i>		x				
<i>Vernonia missurica</i>					x	
^a <i>Veronica arvensis</i>					x	
<i>Veronica peregrina</i>					x	
<i>Veronica scutellata</i>	x					
^a <i>Veronica serpyllifolia</i>					x	
<i>Veronicastrum virginicum</i>		x	x			
<i>Viburnum lentago</i>						x
<i>Vicia americana</i>					x	
<i>Viola candensis</i>						x
<i>Viola fimbriatula</i>				x		
<i>Viola lanceolata</i>		x	x	x		
<i>Viola papilionacea</i>		x				
<i>Viola pedata</i> v. <i>lineariloba</i>			x			
<i>Viola sagittata</i>			x	x		
<i>Viola sororia</i>					x	
<i>Vitis riparia</i>		x		x	x	
^a <i>Xanthium strumarium</i>					x	
<i>Xyris torta</i>		x	x			
<i>Zizia aurea</i>		x	x			