

**Inventory and Assessment
Plan for Stewardship and Monitoring
at
Hitchcock Nature Center**



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Inventory and Assessment
Plan for Stewardship and Monitoring

Hitchcock Nature Center
27792 Ski Hill Loop
Honey Creek, Iowa 51542

Cover Photo: *Penstemon grandiflorus* on Badger Ridge

**Hitchcock Nature Center
Honey Creek, Iowa**



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Gaura coccinea

Introduction

The principal and irreplaceable natural assets of Hitchcock Nature Center at Honey Creek, Iowa, include the aboriginal landscapes of timber and prairie that are unique and characteristic of the Loess Hills of Iowa. It is evident from the work of Novacek, Roosa, and Pusateri (1985) that not only are the plants and animals of the Loess Hills singular to any biota elsewhere in the world, the vegetation of Hitchcock Nature Center is unique even within and among the remnants of Iowa. As an example, the tree diversity of Pottawattamie County is only 72% similar to that of Woodbury County. Clearly, it is the manifest goal and responsibility for the land custodians of the globally significant natural features of the 1270-acre Hitchcock Nature Center to steward the land such that the aboriginal landscapes and their biodiversity be rehabilitated to sustain from generation to generation.

These remnant landscapes developed throughout the Holocene, their flora and fauna derived from a continent-wide, unbroken fabric of Eastern North American biodiversity. From the approximately 5,000 or so species of vascular plants native to the Midwest, we have recorded about 360 that, in unique combination, have coalesced into the communities now evident at Hitchcock Nature Center. The remnant landscapes of Hitchcock Nature Center preserve a rich array of insects and birds as well, just as singularly disposed.

This irreplaceable treasure trove of biodiversity, however, is not a museum where the objects sit as identifiable individuals in relative perpetuity in glass cases or on pedestals, mere abstract artifacts of a world that we could take or leave in accordance with the fads or technologies of the day. Rather, it is a beautiful living warp and weft of ecological complexity in which the plants and animals thrive only when their time-honored circumstances are in a familiar harmony. The extent to which the infinitely complex weave of the earth upon which we depend becomes tattered is the extent to which the fabric of our own existence is frayed.

The Cultural Connection

The land now known as Iowa, was described by Meriwether Lewis from his vantage point along the Missouri River as some of the more beautiful he had ever beheld. It was not, however, an empty, quiescent backdrop of scenic wonder placed here to ease the eye. It was a lived-in landscape, populated not only by plants and animals but also by the human beings who were native here and had been living here throughout the Holocene. These native people owed their existence to resources that were maintained and stewarded within walking distance--in accordance with choices made by them for their survival. All of their medicines, foods, building materials, energy sources, dyes, fabrics, and spiritual inspiration were provided by the local plants and animals. To have mismanaged the land even for a year or so would have led to severe deprivation or worse, both physically and psychologically.

People of our culture today derive their resources from remote districts and from lands and people about whom we know little and perhaps could care less. We tend to see our landscape only as something that has little value beyond that governed by contemporary pecuniary interests. Consequently, it can be difficult for us to appreciate the complex interdependencies that native peoples had with their landscape, whose cultural development and sustainability were fundamentally and inextricably interwoven with that of the aboriginal flora and fauna of the Loess Hills. In the contemporary era, we exhibit a disconnection with the natural world, our awareness of our dependency on it accordingly less apparent to us---too easy to disregard and replace with the manufactured prostheses of our own presumed creative genius.

The original peoples were connected inextricably to the land as it related to their own survival. One example of the relationship the native people had with the land included the annual application of landscape-scale fire. We learn the following from Paul Wilhelm, Duke of Wurttemberg, in his *Travels in North America, 1822-1824*:

For a distance of three or four miles our way from the Platte to the larger village of the Otos led continuously through the prairie. From the first village to the second one finds neither a creek nor any other watering place. . . On all sides the Indians had set the prairie afire, such fires running over vast stretches with unbelievable speed, causing dense smoke to darken the sky. Especially pretty were the valleys of tall grass on the Platte, where surging flames advanced amid extraordinary crackling. . . . Since the prairie fire surged all around the great village of the Otos, we were obliged to ride through the fire in the manner of the Indians. This cannot be called a dangerous undertaking, for the burning region is usually not very wide, and one rides against the wind to cross the flames. Mine, a gentle horse accustomed to this kind of thing, galloped through the fire without suffering the least damage. . . . The Indians know how to fire the prairie with great skill and how to take advantage of a favorable wind. Despite the fact that all around the village the grass was burned, the cornfields nearby were unharmed.

The character of the native landscape is tied to the quality and substance of the relationship it had with native peoples. In nature, plants and animals are adapted to a very specific physiographic and geographic habitat. Throughout the Holocene, their habitats changed with changing times, but changed with rates at which mountains rise and fall and the fingernails grow.

Beginning in the 1840's, habitat and cultural changes in the Honey Creek area began suddenly and proceeded at a rate never before experienced by a Holocene-aged, specialized landscape. Roads were established. Prairies were subjected either to intensive grazing or were turned over to grow annual crops. Landscape-scale fires either stopped or became irregular, as fragmented as the aboriginal biodiversity itself.

Native peoples were forcibly disengaged from the land and their language and culture nearly or quite obliterated, the Way of the relationship with the land all but forgotten and the land itself forsaken. The effects of this transition were described in "Journalism of Northwest Iowa:"

People who have only seen our country during the past ten or fifteen years can scarcely imagine the indescribable beauty of the prairies before they were settled. Grass, both on the uplands and in the sloughs, grew rank and luxuriant as it is never seen in these days.

. . . . Then what myriads of prairie flowers we had in those days! They began to come in early spring and they kept coming all the season through until the frosts of autumn destroyed the last and most beautiful of all, the aster and the golden rod. The prevailing colors were white, purple, and yellow, though some of the phloxes, presented different tints of red. But now a single acre of prairie, as it was seen in those days of primeval luxuriance, is seldom found. The breaking plow and the heavy pasturage have obliterated both the luxuriant grasses and the beautiful flowers, and like the Indians and the animals which roamed over this region forty years ago, they have passed away and they will never return.

One of the most interesting features of the old times in our county was the regularly recurring autumnal prairie fires. Not more than twenty-four hours after the first hard, killing frost, great masses of smoke would be seen rising in almost every direction, while at night the sky would be lit up by the flames. True, the law was very severe upon any person convicted of setting out a fire, but then no one seemed to regard it or try to enforce it. And so the grass was burned off each season just as it was in the ancient times of Indian occupation. But gradually as settlements increased, the red lights in the evening skies became fewer, and now they are seldom if ever seen.

When their habitats change at the rates at which they have changed since the time of European settlement, there is no possibility of “evolution” or the transformation from one habitat to some other equally livable habitat of aboriginal quality or essence. Because of land-use choices our contemporary culture has made, however, there has been a transformation of the biological and physical make up of the land, one that inevitably has led to a depauperization of native species in concert with an influx of a few Old World weeds. The resulting combination of plants and animals lack both the diversity and genetic memory of local conditions to “succeed” back to a stable, self-sustaining system.

As a “bioblitz” demonstrated a few years ago, Hitchcock Nature Center is a refuge, a clearing house for plants and animals of Iowa’s Loess Hills, but like all such contemporary remnant refuges, its integrity as a living system has been variously degraded by all manner of post-settlement land uses. It is also a place where dedicated, contemporary practitioners have been struggling to discover the ancient rhythms of fire, timber harvesting, and even more subtle relationships between a people and their place, in accordance with the Mission Statement of Hitchcock Nature Center:

To promote appropriate management models and educational strategies to preserve and explain the natural integrity of the area and to provide, in a self-sufficient manner, interpretive and low impact leisure time activities that will foster a sense of awareness, understanding and stewardship of our natural world.

Soil and Water

Other than the extreme fragmentation of native biodiversity, one of the more catastrophic impacts of post-settlement trauma to the land has arisen from the degradation and destruction of the soil. Soil is the interface between the heaven and the earth, the medium or substrate within which grows the fundamental basis of life. It is largely the meter above and below ground that nurtures the life zone of terrestrial earth, the membrane that receives the rain. If the soil is sandy, it must have sufficient organic matter content maintained at and near the surface to hold nutrients from leaching away, if it is silty or clayey it must have sufficient organic matter to keep soil particles distant enough to allow rainfall to enter.

Loess is fine-grained, more along the line of clay or silt, so an appropriate and maintained level of soil organic matter (SOM) is just as critical if all of the natural resources necessary for plant life are sustained. It is this surface root zone, the rhizosphere, that must be maintained in good condition if the system is to remain in good condition. The loess soils are quite oxidized, the SOM constantly exposed to decomposition. The only way the nutrients and rain water can be sustained in proper amounts is for the SOM to be replaced at a rate at least as fast as the rate at which it decomposes. The only physical way for this organic matter to be replaced constantly below the surface is for the fibrous roots of grasses and sedges to grow, die, and decompose at a steady turnover rate.

If this rate of SOM replacement falls below the oxidation rate, the rain water that once infiltrated into the soil becomes run-off. Water in motion along a slope takes with it not only its own, non-compressible volume, but sediment, seeds, insect larvae, bulbs, and anything else that can move with the flow. Such soil and biota, adapted to the high hills fills the low grounds with out-of-place soil and with animals and plants poorly adapted to such flats under the constant pulse of scour and accretion; the slopes and hills from which they came are rendered progressively more depauperate. Most people see this run-off and its floodwaters as a nuisance, even if the degradation of the land from which it flowed is not evident.

Historically the soils could receive and hold nearly all the rain water that fell upon them, even those soils of the steepest slopes (Weaver & Noll 1935). The strong growth of bunch grasses not only suffuses the soils with SOM but the constant decomposition of their fine roots filled the rhizosphere with both CO₂ and water. This water, together with rainfall and the waters that seeped into the soil at night from the condensation among the leaves, whose green surfaces were cooled by the transpiration stream that brought up cool water from the depths below ground, facilitated a connection between the ectothermic life of the rhizosphere with the thermal mass beneath. Such strong soil moisture kept the soil from becoming too hot or too cold and mediated the rate at which soil temperatures changed.

When SOM is oxidized at a rate faster than it can be replaced, the bulk density of the soil rises and rain water no longer can infiltrate. When soil moisture is lost, this

connection with the thermal mass is frustrated. The system collapses. The chief causes of soil degradation and loss are:

- Overgrazing compacts the soil, which in loess soils can damage the fragile mycelium and prothallus development of terricolous lichens and mosses.
- Overgrazing diminishes the leaf surface area available for photosynthesis and night-time condensation, which diminishes accordingly SOM production.
- Fire suppression allows trees and shrubs to grow too densely to enable enough light to reach the sedges and grasses, the diminished growth of which retards fibrous root [SOM] production.
- Fire suppression also increased the fuel load on the ground, which exposes the cryptogamic flora and young seedlings to destructive levels of conflagration.
- Agriculture of annual crops that tills [oxidizes] land at a scale that makes it economically unfeasible to replenish it deeply with organic matter.

The amounts of water that can flow off of damaged soils can be impressive. One can infer from the data provided by Novacek, Roosa, and Pusateri (1985) that the annual rainfall at Hitchcock Nature Center is about 37 inches per year. This amounts to about 1,000,000 gallons of water per acre per year---about 27,000 gallons per acre for every 1 inch of rain. One cubic foot of water equals about 7.4 gallons (U.S) of water (U.S.).

Even with rather small rainfall events over degraded soils and vegetation, tremendous amounts of water that once went into the ground to sooth and nurture the living soils of the system are converted to dirty, sediment-loaded, often costly runoff episodes. For some perspective on this, see Back Gate Stream Valley in Appendix A.

Already, about 10% of the acreage of the entire preserve that has been wholly obliterated by agriculture has been brought under prairie reconstruction programs in an effort to connect biologically hitherto fragmented natural area remnants and to enhance the more healthful and sustainable disposition of rainwater in the soils of the watershed. There is no question that these restoration and reconstruction efforts must continue to move forward if the natural assets of Hitchcock Nature Center are to sustain their uniqueness and aboriginal diversity and if its lands and its stewards are to serve as a model for contemporary and future generations.

Stewardship and Pedagogy

The question that falls to any practitioner compelled by such fundamental responsibilities to care for the land, however, is not whether to steward the land, but rather what stewardship is most cost effective for the institution and also the most salubrious to the complex of remnant habitats? A coordinated pedagogy with potential benefactors and the next generation of stewards is also an important consideration for the long term.

In order to address the questions of stewardship and pedagogy, there must be established an understanding of the character and quality of the remnant landscapes at Hitchcock Nature Center. Once the condition and circumstances of the remnants are inventoried and understood, a stewardship plan can be established that seeks to preserve and sustain the ability of these lands to function in autogenic or self-renewing processes. Inasmuch as our culture is still new to the idea of integrating itself into a healthful relationship with the land, we must develop a monitoring protocol that measures the extent to which stewardship activities on these remnants are efficacious.

What follows is a summary of the inventory and assessment of the landscape at Hitchcock Nature Center, an interpretation of their condition, and a plan for its rehabilitation and restoration, an estimated cost for its implementation, and a monitoring protocol to assure that stewardship is on the right track.



Inventory and Assessment Remnant Landscapes and Reconstructions

Three principal groups of organisms were inventoried during this assessment: vascular plants, lichens, and certain guilds of insects. Vascular plants comprise the matrix that defines the vegetational systems that prevail in any “undeveloped” landscape and their identification is accessible to most naturalists because of the availability of several floristic manuals. The most current and suitable manual for the loess hills of Iowa is McGregor et al. (1986). The lichens, prevailing because terricolous crusts are an important element in soil stability within the prairies and so closely associated with the presence of certain soil-inhabiting insects. An understanding of the insects is just as important to understanding the ecology of the loess hills as the vascular plants, but there are no manuals available that make their identification accessible to naturalists. This inventory focuses on those insects that have specific interrelationships with the vascular plants and soils. It is hoped that the provision of a base-line inventory of the insects of Hitchcock Nature Center and the forensics of their populations will help balance stewardship and management decisions.

Vascular Plants

The evaluation and assessment method applied here to the vegetation inventories is described by Swink & Wilhelm (1994). Nomenclature and species concepts follow those presented in Eilers and Roosa (1994). Individual coefficients of conservatism (C values) are those produced for Iowa by Iowa botanists and listed in a downloadable table available from the Neal Smith National Wildlife Refuge (PaulineDrobney@fws.gov) in Prairie City, Iowa.

Although the individual C values for the plants of Iowa differ somewhat from those of the Chicago Region and other states for some species, their aggregate performance and the general philosophy and evaluation perspective are the same. According to Swink and Wilhelm:

Mean C values in the preponderance of our open land range from 0-2. In light of the fact that 89% of our native flora has a C value of 4 or greater . . . it is evident that the principal elements of our native systems are virtually uninvolved in the . . . landscape today.

The vast majority of land . . . registers Floristic Quality Index values less than 20 and essentially has no significance from a natural area perspective. Areas with I values higher than 35 possess sufficient conservatism and richness to be of profound importance from a regional perspective. Areas registering in the 50's and higher are extremely rare and of paramount importance; they represent less than 0.5% of the land area in the Chicago region.

While we do not have such actuarial information available on Pottawattamie County, a quick observation of aerial photographs shows very little of the county left in even degraded natural condition. Much of the remnant vegetation is preserved within and among the line of loess bluffs along the Missouri River, wherein is nested Hitchcock Nature Center.

The remnants of natural vegetation that do remain owe their uniqueness to vagaries of geologic history, slope exposure, the general phenomenology of landscape variability, land-use history, and current landscape management approaches. When the organisms, soils, and attendant human culture are in sustained harmony with each other, the remnant can be said to be “healthy”, at least by contemporary understanding.

Some of the landscape units at Hitchcock Nature Center have Floristic Quality Indices less than 20 and can be said to be severely damaged. There is a general belief, even among some ecologists, that if one simply were to let a landscape alone, somehow, perhaps through “ecological succession,” it would just “grow back.” Those who make this claim seem to rely on the idea that so long as the “structure” of a floristic system is present, the “system” is present, or perhaps base their belief on the idea that all the original genetic components of the system are still “around,” and need only to be “dispersed back” to the area. Observations of the last quarter of a century have disabused us of this idea. We have seen little hard evidence this in the case of contemporary, highly fragmented, culturally neglected landscapes.

Rather, it seems that our remnant natural areas are less like the segments of worms, and more like the nerves of human beings---once they are severely damaged, they rarely grow back. The corporal structure degrades catastrophically if too much nervous tissue is damaged [too much local biodiversity]. Once too many conservative species have been eroded, or scraped away, or dissipated through fire suppression, or diminished by other trauma-scale changes in ecological processes, the natural area degrades irretrievably to a much more simplified, depauperate, unstable system, very often one that cannot sustain. We have found, however, that if relatively high-quality remnants of the caliber described above [I values of 35 or more] are stewarded to the advantage of their aboriginal biodiversity, the healing response can be impressive, beautiful, and inspiring to the human souls involved.

As we already have implied, remnant landscapes are of significance when they possess a sufficient native species richness to represent a regional character found nowhere else in the world. As cultures disengage, become unaware of the native species and the cultural interrelationships that support them, the system degrades---even as their erstwhile stewards focus on more secular, usually man-made interests. This lessening of richness and accrued deficiencies in indigenous habitat represent a disengaged relationship between the land and contemporary people.

Such cultural disengagement usually results in ecosystem instability and can lead to more difficult or even impossible prospects in ecosystem recovery and health. An example of this would be the flood plains along some rivers that have been virtually

obliterated by increased stormwater runoff and sediments that flow from built impervious surfaces such as roads, lawns, or from lands under the influence of commodity-scale agricultural practices---where soil organic matter loss to tillage or chronic production of annual crops retards infiltration and exaggerates erosion well beyond geologic-scale rates. These once beautiful, prairie bedecked bottomlands, crippled by watershed-scale hydrologic and hydraulic changes, have become much less biodiverse, less beautiful, and less efficient even in the reception of rain water.

Table 1: Principal Vegetation Types at Hitchcock Nature Center 2010-2011

Plant Community	Tracts Inventoried	Total Acreage
Timber	16	240
Loess Hill Prairie	37	216
Reconstruction	11	115
Pasture	5	55
Wetland	3	31
Valley	2	25
Thicket	5	27
Ruderal	3	11
Clearing	6	7
Undifferentiated	--	373

During our survey of the remnant lands at Hitchcock Nature Center, we were able to codify most of the non-built landscape as comprising nine extant vegetated scenarios, which loosely can be called “plant communities;” see Table 1. English colloquial words are used here to describe these plant communities, but in so doing, of course, one must remember not discount the singular nature and conservation importance of each individual remnant.

In our necessary attempts to categorize, characterize, and plan our stewardship activities, there is a strong tendency to taxonomize the landscape as we do organisms. Descriptive terms such as wet, mesic, and dry prairie, dry-mesic upland woods, and so forth are deployed. Such designated plant communities, however, are not the equivalent to organisms, where there are genetically derived descendents along with close and distant evolutionary relatives. Generally, species are genetically isolated, each from one another. Plant communities have no such genetic disciplines in operation. Each tract of land, however large or small, is geographically, physiographically, and often temporally unique to all others, even ones ambient to each other. Each is populated by numerous species of plants and animals, each one of which has its own evolutionary history, well-developed species-species interrelationships, geographic ranges, and cultural overlays. Consequently, each tract of land is unique among all others.

Table 2: Sørensen Coefficients of Similarity between and among six loess hill prairies at Hitchcock Nature Center

Loess Hill Prairie	CRC	CRE	CRW	TotW	R'sP
Badger Camp Prairie	0.57	0.56	0.59	0.59	0.60
Crescent Ridge, Central	-	0.61	0.67	0.62	0.70
Crescent Ridge, East	-	-	0.67	0.58	0.60
Crescent Ridge, West	-	-	-	0.60	0.69
Top-of-the-World Ridge	-	-	-	-	0.59
Rahel's Prairie	-	-	-	-	-

To emphasize these unique attributes, Table 2 shows the Sørensen Coefficients of Similarity [2C/A+B] between and among six high-quality Loess Hill Prairies at Hitchcock, three of which are on neighboring, identically oriented ridges. The average coefficient of

similarity is 61% ± 0.04% and only slightly higher, 63% ± 0.02% among the three Crescent Ridges. Each remnant, if our goals of stewardship are to be taken to heart, must be appreciated as an irreplaceable individual in its own right, preserving a unique combination of interrelated organisms and its own genetic memory of life in the Loess Hills.

Timbered Remnants

While it is much appreciated that Tall Grass Prairies were characteristic of the Loess Hills of Iowa, there is also no doubt that some portions of the northern districts of Hitchcock Nature Center were timbered at the time of settlement, as can be seen by an examination of the original General Land Survey notes. See Appendix E. It is evident that these woodlands were quite open in character. Along the eight section lines that traverse Hitchcock Nature Center, where trees were mentioned, 0.9 +/- 0.9 line trees per mile were recorded, the canopy trees being mostly Bur Oak, Slippery Elm, Bitternut Hickory, Linden, Hackberry, and Walnut.

Table 3. Plants conservative to woodlands in Iowa and present at Hitchcock Nature Center

<i>Adiantum pedatum</i>	<i>Carex rosea</i>	<i>Galium triflorum</i>
<i>Amelanchier arborea</i>	<i>Carya cordiformis</i>	<i>Lonicera prolifera</i>
<i>Arabis canadensis</i>	<i>Cinna arundinacea</i>	<i>Monotropa uniflora</i>
<i>Arabis shortii</i>	<i>Desmodium paniculatum</i>	<i>Muhlenbergia sylvatica</i>
<i>Arisaema triphyllum</i>	<i>Dicentra cucullaria</i>	<i>Muhlenbergia tenuiflora</i>
<i>Bromus pubescens</i>	<i>Dioscorea villosa</i>	<i>Poa sylvestris</i>
<i>Carex artitecta</i>	<i>Dryopteris carthusiana</i>	<i>Prenanthes alba</i>
<i>Carex backii</i>	<i>Euonymus atropurpureus</i>	<i>Sanguinaria canadensis</i>
<i>Carex gracilescens</i>	<i>Festuca obtusa</i>	<i>Staphylea trifolia</i>
<i>Carex hitchcockiana</i>		<i>Talictum dioicum</i>

It is also quite clear that these trees, for the most part, were not growing among tall grasses. The presence of such ground-layer species as listed in Table 3 testify to the fact that, while the woods were quite open, they definitely could not have been classified as prairie-like. None of these species are known from the prairie remnants and they are too conservative to have arrived at Hitchcock Nature Center under post-settlement conditions. Those areas of Hitchcock Nature Center dominated by trees today that do not have any of these plants in their flora are likely either to have been prairie at the time of settlement or to have been so traumatized by post-settlement disturbance as to render the “woods” unrecoverable in any time frame with which we are familiar or through any successional process that has revealed itself to ecologists who study whole systems. In many such areas, it is likely that the more stable approach to landscape restoration would be to remove the trees and implement a prairie reconstruction or some other sustainable landscape program, such as a properly managed orchard or forestry plot programmed in such a way that the groundcover beneath holds its rainwater and is nurtured as to optimize native diversity.

Contemporary wooded areas that do have some of the species listed in Table 3 almost certainly were timbered at the time of settlement and are found only in the northern districts of Hitchcock Nature Center. None of these wooded tracts today approximates the aboriginal condition. One of the more ubiquitous degradation influences on lands that have not suffered the plow, bulldozer, or pavement is the excessive proliferation of thicket growth resulting from fire suppression and depauperization brought about by episodes of heavy grazing.

Shade produced from thickets has a deleterious impact on soil structure and the maintenance of soil organic matter as well as on the inhabitancy of native plants and animals conservative to the timbered districts. These impacts are discussed and referenced in Wilhelm & Rericha (2007). Generally, if the mid-summer sunlight reaching the ground falls much below 10% of ambient, the ground cover sedges that are so important in the maintenance of SOM and rainwater infiltration will begin to languish. Most thickets and overstocked timbered lands at Hitchcock Nature Center have light levels of about 1% of ambient, only one tenth of optimum.

Prairie Remnants

The remnant loess hill prairies at Hitchcock Nature Center are more intact than the loess timbers and we think we know more about their original character and composition. See Table 4. As can be seen in Table 5, the total number of native species is about the same for the timbered and prairie landscapes, but in general, the better prairies remaining are a little richer per unit area and have higher mean C values than their sister timbers.

Table 4. Plants conservative to prairies in Iowa and present in loess prairies at Hitchcock Nature Center

<i>Agalinis aspera</i>	<i>Ceanothus herbaceus</i>	<i>Lygodesmia juncea</i>
<i>Amorpha canescens</i>	<i>pubescens</i>	<i>Muhlenbergia cuspidata</i>
<i>Anemone cylindrica</i>	<i>Chenopodium denticatum</i>	<i>Nothocalais cuspidata</i>
<i>Arabis hirsuta</i>	<i>Chenopodium pratericola</i>	<i>Oxalis violacea</i>
<i>Asclepias sullivanii</i>	<i>Cirsium undulatum</i>	<i>Oxytropis lamberti</i>
<i>Asclepias tuberosa</i>	<i>Comandra umbellata</i>	<i>Panicum oligosanthos scribnerianum</i>
<i>Asclepias viridiflora</i>	<i>Crotalaria sagittalis</i>	<i>Panicum virgatum</i>
<i>Aster azureus</i>	<i>Dalea candida</i>	<i>Panicum wilcoxianum</i>
<i>Aster laevis</i>	<i>Dalea enneandra</i>	<i>Pediomelum argophyllum</i>
<i>Aster oblongifolius</i>	<i>Dalea purpurea</i>	<i>Pediomelum esculentum</i>
<i>Aster sericeus</i>	<i>Delphinium virescens</i>	<i>Penstemon grandiflorus</i>
<i>Astragalus crassicaarpus</i>	<i>Desmodium canadense</i>	<i>Polygala verticillata</i>
<i>Astragalus lotiflorus</i>	<i>Desmodium illinoense</i>	<i>Potentilla arguta</i>
<i>Astragalus missouriensis</i>	<i>Echinacea angustifolia</i>	<i>Salix humilis</i>
<i>Bouteloua curtipendula</i>	<i>Equisetum laevigatum</i>	<i>Schizachyrium scoparium</i>
<i>Bouteloua gracilis</i>	<i>Gaura coccinea</i>	<i>Scutellaria leonardii</i>
<i>Bouteloua hirsuta</i>	<i>Hedyotis nigricans</i>	<i>Silphium laciniatum</i>
<i>Brickelia eupatorioides</i>	<i>Helianthus rigidus</i>	<i>Solidago missouriensis</i>
<i>Cacalia plantaginea</i>	<i>Koeleria macrantha</i>	<i>Solidago speciosa</i>
<i>Calamovilva longifolia</i>	<i>Liatris aspera</i>	<i>Sphenopholis obtusata obtusata</i>
<i>Calylophus serrulatus</i>	<i>Liatris punctata</i>	<i>Stipa spartea</i>
<i>Carex festucacea</i>	<i>Linum rigidum</i>	<i>Strophostyles leiosperma</i>
<i>Carex heliophila</i>	<i>Linum sulcatum</i>	<i>Vicia americana</i>
<i>Carex meadii</i>	<i>Lithospermum canescens</i>	<i>Viola pedatifida</i>
<i>Carex muhlenbergii</i>	<i>Lithospermum incisum</i>	<i>Yucca glauca</i>

As one might expect, with Mean Wetness Coefficients of 2.0, areas identified as timber areas identified as timber are more mesic than the prairie, which has Mean

Wetness Coefficients of 3.3 (Table 55). The origin and application of wetness coefficients are described by Swink & Wilhelm (1994). The -5 value represents aquatic species or plants obligate to saturated soils, intermediate values such as 0 are applied to species more attuned to mesophytic conditions, and +5 values represent those plants that grow in very well-drained conditions.

Plant Community	Number of Species	Mean C	Mean Wetness Coefficient
Aquatic	5	4.6	-5
Valley Bottom	44	3.1	-3.1
Mesic Prairie	19	4.4	0.9
Timber	114	5.0	2.0
Loess Prairie	111	5.9	3.7

Also shown in Table 5 are 3 minor “plant communities,” which can be described as aquatic, valley, or mesic prairie. The extent to which they were present at the time of settlement is not known, but we believe that their proportion of the

total landscape was quite small. A compilation of all inventories conducted at Hitchcock Nature Center over the growing seasons of 2010, 2011, and 2012, and 2012 is presented in Appendix A. Each inventory area has been given a colloquial name and map reference number.

The Back Gate Stream Valley (61) probably was sustained by a low-level base flow of ground water discharge, the groundwater shed formed from Fern Ridge (37) and its ambient ridges. See also Appendix A, under Back Gate Stream Valley. The Hohnke Steam Flat and Pond (83) also may have had some base-flow wetness, born of Boardwalk Ridge (51) and its ambient ridges. The aboriginal composition of these valley bottoms and streams is lost to antiquity, obfuscated by rainwater runoff and associated soil loss and sedimentation.

All of the contemporary landscapes that can be described as “Mesic Prairie” are reconstructions, with very few native species in comparison with aboriginal systems. For example, there is a general lack of plants in the Cyperaceae and associated forbs. The plants are all recent in origin and still recruiting from native species sowed during the installation. Table 5 notes that these reconstructions currently provide the habitat for only 19 species conservative to mesic prairies, while, here at Hitchcock Nature Center, the loess prairies are known to have 111 conservative native species.

Undifferentiated Timber

In addition to remnants and reconstructions, there are about 375 acres of “Undifferentiated Timber” or wooded areas. These are shown in Table 6. Generally, they are on tracts of steeply sloped lands that are variously wooded or infested by thicket. In all cases, the woody growth is the result of some kind of post-settlement trauma. In some cases, the original vegetation has been utterly changed by clear-cutting, where the response has been the thrifty growth of “dog-hair thicket,” typified by what is seen in the Bulldozed Valley (93) and Campground Thicket (91). Most other areas appear to have some remnant quality, but have suffered severe fire suppression in the post-settlement era.

Some of these areas, such as the Entryway Thicket (92), most of the Back Gate Timber (94), West Ridge Timber (96), the Southwest Ridges (98) and the eastern face of Tuffsumbich Ridge (97), were characterized by wide-open timbered lands of Bur Oak, probably just a few trees per acre, with a sedge-dominated ground-cover. Sadly, the actual features of these aboriginal landscapes essentially are unknown to us. It is hoped that, with proper stewardship, we can become progressively more insightful in regards to their character and composition.

The quality of such areas is relatively low, both in the Mean C and Floristic Quality Index metrics. The area that Rosburg (1993) called area #7 has a Mean C value of 3.3 with an FQI of 15. A similar area, which we call West Ridge Thicket (#15) has a Mean C of 3.1 and registers an index value of 18. Forays into such areas have shown that there is little likelihood that significant concentrations of aboriginal biota are remnant within them. Large acreages of Hitchcock Nature Center are remnant and provide the habitat for nearly or quite all of the irreplaceable assets native to the preserve. Given that these areas bear within them the obvious stewardship priorities and responsibilities, it is within them that we have focused the inventory and assessment effort.

Unit	Total Acreage	Map #
Campground Thicket	27.3	91
Entryway Thicket	17.9	92
Bulldozed Valley	52.6	93
Back Gate Timber	43.1	94
West Ridge Bluffs	90.5	95
West Ridge Timber	37.4	96
Tuffsumbich Ridge	10.2	97
Southwest Ridges	26.8	98
Pond Ridge Thicket	17.5	99
Badadditood Ridge	25.8	100
Rahel's Thicket	23.8	101

There is a large, relatively unexplored complex of bluffs along the western flank of the preserve, including the West Ridge Bluffs (95) and the western face of Tuffsumbich Ridge (97), all of which undoubtedly was prairie and nearly or quite treeless at the time of settlement. As with much of the land in the loess hills, these prairies have become progressively overrun by shrubby thickets, principally of sumac, dogwood, and juniper. Even trees such as Green Ash, Hackberry, and Bur Oak are advancing well along into canopy-sized new growth. Importantly, the conservative species of timbered ground cover are not part of the replacement guild. Robertson *et. al.* (1996) noted that, over a period of half a century, nine loess hill prairies in Illinois lost 63% of their area, with the rate of loss appearing to accelerate as the thicket edge expanded.

The southern thickets, Pond Ridge (99), Badadditood Thicket (100) and Rahel's Thicket (101) probably were even more open than the "timbered" districts, but their original character is unknown to us and perhaps even less recoverable.

Lichens

Although the lichenose vegetation of the loess hills is far from diverse, it nevertheless is an important component of the ecosystem at Hitchcock Nature Center. The terricolous lichens are very important components of the cryptogamic crust that characterizes the

surface soil between the tufts of bunch grasses in the almost desert-like loess prairies. The mycelium and upper cortices of the cryptogamic soil crusts appear strongly to be associated with surface soil formation and as well as the stability of surface soils. This cryptogamic crust and its intercalation into the soil matrix enhances the habitats for numerous insects that overwinter in or inhabit the soil.

Lichens that grow on soil at Hitchcock Nature Center include the squamulose macrolichen, *Cladonia peziziformis*, and the crustose lichens, *Heppia adglutinata*, *Placidium squamulosum*, and *Psora decipiens*. Although few in number, the extent to which their populations thrive is the extent to which many other elements of the landscape will prosper. Also commonly on the soil in the prairies is the moss, *Weissia controversa*.

The corticolous lichen growth is also an important part of the ecology of the hills. The Ruby-throated Hummingbird and Blue-gray Gnatcatcher, for example, line their nests, inside and out with pieces of the corticolous thalli of the shield lichen, *Parmelia sulcata*, the former bird with much smaller pieces than the latter.

We have recorded several corticolous species that grow on the trunks and branches of trees. They include *Caloplaca holocarpa*, *Candelaria concolor*, *Opegrapha atra*, *Parmelia sulcata*, *Phaeophyscia cernohorskyi*, *Phaeophyscia ciliata*, *Phaeophyscia hirtella*, *Physcia aipolia*, *Physcia millegrana*, *Physcia stellaris*, *Physciella chloantha*, *Physconia leucoleptes*, *Teloschistes chrysophthalmus*, and *Xanthoria fallax*. Crustose lichens that grow on old wood, or lignin, include *Caloplaca microphyllina* and *Trapeliopsis granulosa*.

Insects

In addition to inventories of the vegetation, we have engaged in an assessment of the insects, particularly those that have intimate relationships with the plants or the soils. This inventory is presented in Appendix B. Without a healthy soil, the insect population upon which native plant systems critically are dependent will languish and dissipate. With healthy floristic and faunistic circumstances, one can infer indirectly that the soil, nutrient, and system water relations are salubrious to sustained life. Altogether, 325 native insects were collected and preserved in alcohol over the three years of survey, among which were: 3 Dipterans, 93 Coleopterans, 47 Hemipterans, 144 Hymenopterans, and 47 Lepidopterans. We know of 6 non-native insects, 3 weevils, 1 plant bug, 1 butterfly, and 1 bee.

The remnant loess prairies at Hitchcock Nature Center are strikingly rich, with 46% of all the insects collected during the survey conservative to prairie. Our survey vouchered 104 bee species, all but the Old World Honey Bee, native to the preserve. One bee in particular, *Lasioglossum achilleae*, collected from Rahel's Prairie in July of 2011, is not only new to Iowa, but is a very rare species from the mountainous and boreal districts of eastern North America. Iowa is disjunct from its typical geographic range. Possibly a relic from the immediate post-Pleistocene Era, this geographic disjunction

demonstrates how little we do know of the biota that inhabits our natural areas. Other insects, such as *Orthaltica melina* and *Coleothorpa axillaris*, two beetles in the Chrysomelidae, were unknown from Iowa as well as *Mordellistena liturata*, a tumbling flower beetle. Also never before collected in Iowa were an ant, *Pheidole tysoni*, eight bees, *Lasioglossum callidum*, *Lasioglossum coreopsis*, *Lasioglossum heterognathum*, *Lasioglossum laevissimum*, *Lasioglossum mitchelli*, *Lasioglossum tegulare*, *Lasioglossum weemsi*, *Triepeolus helianthi*, and the plant bugs, *Neurocolpus brevicornis* and *Schaffneria pilophoroides*.

Overall, more than half of the insects vouchered at Hitchcock Nature Center over the last three years can be said to be restricted to remnant plant communities. Fifty-four percent of the beetles are confined to prairie or timber, as are 49% of the true bugs, 70% of the ants, 78% of the bees, and 78% of the butterflies and moths. Insects that are dependent on aboriginal or remnant habitats at Hitchcock Nature Center include the following:

- *Acanthoscelides seminulum*, locally common in prairie on its host genus, *Dalea*.
- *Agrilus parvus*, collected at the Rahel's Prairie on its host, *Amorpha canescens*.
- *Anthophora walshii*
- *Atheas mimeticus*, common in high prairie at the preserve on its host *Dalea purpurea*.
- *Bombus pennsylvanicus*, once a common species, but now collected most often in prairie remnants.
- *Bombus fraternus*, rare, in high prairie at the preserve.
- *Bruchomorpha dorsata*
- *Colletes susannae*
- *Crematogaster missouriensis*, locally frequent in high prairie throughout the preserve.
- *Cylindera celeripes*, rare prairie species of the central United States whose population size has diminished greatly over the last century (MacRae & Brown, 2011).
- *Dorymyrmex grandulus*, uncommon species of prairie throughout its geographic range.
- *Florilegus condignus*
- *Formica dolosa*, common in prairie throughout the preserve
- *Hypoconera opacior*, uncommon in high prairie at the preserve.
- *Isotrilophus erratica*, one collected in prairie.
- *Lasioglossum coreopsis*, rare in prairie
- *Lasioglossum heterognathum*, rare in high prairie at the preserve and rare throughout its geographic range.
- *Lopidea teton*, rare in prairie on *Astragalus crassicaarpus*.
- *Longitarsus subrufus*, uncommon in prairie at the preserve on its host, *Onosmodium molle*.
- *Megachile frugalis*, uncommon in prairie at the preserve

- *Meligethes saevus*, uncommon in prairie at the preserve on its host, *Onosmodium molle*
- *Neivamyrmex nigrescens*, rare, in high prairie at the preserve
- *Neivamyrmex opacithorax*, rare, in high prairie at the preserve
- *Neurocolpus brevicornis*, rare, in high prairie at the preserve
- *Nylanderia arenivaga*, rare in high prairie at the preserve
- *Pseudopanurgus albitarsis*, local in prairie at the preserve
- *Pseudopanurgus nebrascensis*, rare in prairie at the preserve
- *Pseudopanurgus rugosus*, local in prairie at the preserve
- *Saxinus omogera*, rare in prairie at the preserve
- *Schaffneria pilophoroides*, rare prairie species in North America
- *Schinia lucens*, locally common on *Amorpha canescens* throughout the preserve
- *Stenamma diecki*, rare in moist leaf litter in remnant woodland on the property
- *Stenamma schmittii*, rare in moist leaf litter in remnant woodland on the property
- *Tibicen dorsatus*, locally common in the high prairies at the preserve
- *Trichapion tenuirostrum*, collected only at Bouteloua Ridge on its plant host, *Dalea purpurea*.
- *Typocerus octonotatus*, locally common in prairie throughout the preserve
- *Xeromelecta interrupta*, rare in prairie at the preserve

Many of the bees are oligolectic on the pollen of certain plant species or genera. The extent to which strong populations of these plants produce abundant pollen each year is the extent to which the fecund inhabitancy of these bee species will be most assured. Even the polylectic bee species are better served in a landscape that produces a profusion of flowering species throughout the growing season. Examples of oligolects at Hitchcock Nature Center include:

- *Andrena gardineri* (*Senecio* pollen)
- *Andrena nubecula* (*Solidago* and *Aster* pollen)
- *Andrena platyparia* (with a preference for *Cornus* pollen)
- *Andrena simplex* (*Solidago* and *Aster* pollen)
- *Colletes simulans* (*Asteraceae* pollen)
- *Colletes susannae* (*Dalea purpurea* pollen)
- *Megachile frugalis* (prairie *Fabaceae*)
- *Melissodes agilis* (*Asteraceae* pollen, but primarily from the genus, *Helianthus*)
- *Melissodes desponsa* (*Cirsium* pollen)
- *Melissodes trinodis* (*Asteraceae* pollen, but primarily from the genus *Helianthus*)
- *Pseudopanurgus albitarsis* (*Asteraceae* pollen)
- *Pseudopanurgus nebrascensis* (*Aster* and *Solidago* pollen)
- *Pseudopanurgus rugosus* (*Helianthus* pollen)
- *Svastra obliqua* (*Asteraceae* pollen)

The loess hill prairies at Hitchcock Nature Center represent some of the more remarkable, unique ant habitats in the Midwest. Such notable species include the

following: *Aphaenogaster treatae*, *Crematogaster missuriensis*, *Dorymyrmex grandulus*, *Dorymyrmex smithi*, *Hypoponera opacior*, *Neivamyrmex nigrescens*, *Neivamyrmex opacithorax*, *Nylanderia arenivaga*, and *Pheidole tysoni*. Interestingly, the genus *Dolichoderus* is missing entirely and, with the exception of *Myrmica punctiventris*, the genus *Myrmica* astonishingly is rare in loess soil at the preserve. The genus is ubiquitous, however, elsewhere in prairie and woodland remnants throughout the Midwest. The ubiquitous *Tapinoma sessile*, even in the broad taxonomic sense, is yet unknown. Most of the ants at Hitchcock Nature Center are conservative to remnant habitats.

The ants nested prevailingly either in the root-zone of the bunch grasses, or in the interstitial soil spaces between grass clumps where there was a developed matrix of terricolous lichens particularly of the following species: *Placidium squamulosum*, *Cladonia peziziformis*, *Heppia adglutinata*, and *Psora decipiens*. The lichenized soil surface appears to serve as a soil-binding agent for the highly erodible loess soils, which enables the inhabitancy of several, conservative, terricolous-nesting ant species such *Brachymyrmex depilis*, *Crematogaster missuriensis*, and *Hypoponera opacior*. The loess soils do not provide the substrate for humus-living ants such as *Myrmecina americana* or several species of the genus, *Myrmica*, which curiously are absent. Even the ubiquitous soil dweller, *Ponera pennsylvanica* is rare at Hitchcock Nature Center. The terricolous lichen mats are as fragile as the soil algal crusts in the desert. Where duff from years of fire suppression fill in the interstitial zones between the grasses, infrequent burns can damage or destroy terricolous lichen populations.



Stewardship Plan

Having inventoried and assessed the natural assets of Hitchcock Nature Center, it is clear that preserved on the land are some of the last remnants of a globally rare ecosystem. Importantly, however, the reader should know that much has yet to be learned about the plant and animal inhabitants at Hitchcock Nature Center. Also, given the focus on prairies in the loess hills, it is perhaps not well appreciated that aboriginally timbered tracts of the loess hills biome are rarer even than the prairies. These timbers are so degraded physiognomically and depauperized biologically as to render their original character and composition quite obscure. Their diminished comeliness, limited occurrence, and poorly understood importance has rendered them under studied.

Contemporary observations have taught us that if our native landscapes are simply set aside and declared safe, they will languish into an unrecoverable oblivion. The question is no longer, should we steward the land? But, how do we steward it to preserve and enhance and sustain the biological integrity of what remains? There are discussions among land managers that entertain growing season burns and an array of fire frequencies, as if there was some abiotic, human-free, stochastic algorithm that governs life on earth in the contemporary era.

There is no shortage of theories as to what should be done; many of them are contradictory, given the attention that has been given to natural area management. With regard to loess hill prairies, for example, Robertson et al. (1996) maintains that the “natural fire frequency” falls within a range of 5-30 year intervals, although they acknowledge that at least rehabilitation efforts can benefit from more frequent intervals. Few ecologists acknowledge the cultural overlays and the annual or nearly annual fire frequency that sustained the land’s biodiversity and human societies prior to European settlement. Doug Ladd (2011), however, has integrated the cultural connections to the sustaining of our natural heritage in what he calls the “Ten Conservation Commandments,” Appendix F.

Stewardship Goals and Strategies

Too often it is the nature of students of the Enlightenment, such as ourselves, to think that at any given point in time we are ultimately wise, but as most naturalists who have spent significant time with organisms in the field, we must be open to disabusing ourselves of some learned doctrines. Perhaps the more important goal of restoration and stewardship is to become knowledgeable enough of the plants and animals native to the area to inspire ourselves to become humble enough to recognize that the plants and animals are the only source of wisdom that is authentic with regard to their own vitality and fecundity.

Because they are unique and irreplaceable, the remnant prairies and timbers of Hitchcock Nature Center cannot be sacrificed for research purposes or their rehabilitation wait for the scientifically certified fire interval. Our rehabilitation and stewardship

efforts must be decisively implemented and monitored closely to be certain that the stewardship is salubrious to all guilds of native species. Never completely isolated in the Holocene from human culture, when in good condition and properly stewarded, natural land is essentially self-renewing year by year.

An internally self-renewing landscape is sustainable when its functions and processes, along with the reproduction and growth of its aboriginal species, exhibit the capacity to weather the vicissitudes of seasonal and annual variation without losing key elements of the system. Within this dynamic equilibrium is the internal diversity that enables the landscape to respond easily to episodic or periodic stochasticity in abiotic factors such as rainfall, degree days, and temperature extremes.

With this in mind, the desired stewardship and management goals for restored and rehabilitated aboriginal landscapes at Hitchcock Nature Center include:

- The enfranchisement of conservative indigenous species to the greatest practicable extent.
- The potential for colonization by natural means of all functional and essential ecosystem guilds, including nitrogen fixers, pollinators, appropriate large herbivores, soil dwellers, seed dispersers, and the like.
- Enhancement of the physical environment, which is influenced by abiotic factors such as soil moisture, soil temperature, sunlight exposure, organic matter, stability of base flow, water temperature, and others.
- Sufficient system stability to enable aboriginal landscapes the capacity to sustain reproducing populations of species necessary to weather the changes through which any healthy system must go to adapt to the vicissitudes of changing times at geologic and world-climatic scales.
- Address and obviate threats of non-native species, soil erosion, and inappropriate cultural impacts.

Stewardship strategies that are specifically designed to achieve a healthy local ecosystem at Hitchcock Nature Center include:

- Annual prescribed landscape-scale fire during the dormant season, the limits to which are organized around defensible boundaries and safety---not some preconceived construct regarding the borders of “plant communities.” Autumn is the historically ubiquitous season; annual is the only frequency mentioned in the frontier accounts.
- Removal of the chronic growth of invasive brush and thicket that threatens the establishment of desirable species and undermines soil stability. Experience at Hitchcock Nature Center has shown the late-July/early August cutting obviates the need for significant herbicide treatment of re-sprouts. It should be taken into account that the complete removal of native shrubs, such as *Cornus drummondii* and *Rhus glabra*, is not a goal. The pollen of these shrubs and the timing of its

- production, when few other such pollen producers are in bloom, are salubrious to certain insects, including bee, beetle, and ant species (see Appendix B).
- Stabilization of timbered soils through the selective removal or thinning of overstocked canopy trees that exclude sufficient sunlight from reaching the ground. At Hitchcock Nature Center, it is unlikely that the ground-layer sedges and forbs will respond to light levels much lower than 10% of ambient.
 - Timely and targeted herbicide treatment of invasive species, whose presence threatens the integrity of the matrix of native species.

Depending upon the availability and proximity of experienced, well-bonded vendors, the costs of stewardship can vary rather widely, with man-hour rates ranging from \$20-\$112. For the purposes of estimates here, we will assume that “prevailing wage” is not a factor, but that competence and experience are factors. \$45 per hour may be a reasonable estimate for a contracted work force.

Application of Fire

Our own experience has shown that fire in prairies subject to shrub invasion actually exaggerates the proliferation of shrubs if it is administered with a frequency less often than annual. If shrubs are at a level of innocuous occurrence, annual fire does little to diminish them. Indeed, it stimulates branching from the base and, in many species, optimizes flower and fruit production, both of which are salubrious to insects, birds, and other animals. We have also noted that, at least in the years during which they occur, growing season burns can result in a depauperization of the insect fauna, seedling development, and damage to terricolous cryptogams—all of which are related to the long-term sustainability of both the abiotic and biological attributes of the landscape. It is well known that many fire regimes can have a deleterious impact on insects and has been discussed at length (Panzer 2002), although annual and autumnal regimes have had very little disciplined study.

When dormant-season burns occur in grassland landscapes, in which the duff has lain over for one or more growing seasons, they are apt to ignite duff of various moisture levels and reside on a given square meter for protracted periods of time. Such fires burn not only any standing fine fuels of the season, but can cook and parboil leaf litter at or near the ground surface. Oxidants that result from conflagrations of various temperatures and moisture levels can be more diverse and, of course more toxic, than carbon dioxide and water. Particulates can be more complex.

In contrast, fires that occur annually in autumn, after the manner of the ancient, culturally mediated rhythms, have a much different fuel load than spring burns or less frequent burns. The native peoples of Iowa are known to have set the fires on the first day after the first hard frost in which the wind, temperature, and cloud cover made it possible. Generally, the only fuels available in grassland exposed to annual autumnal fires are those standing, fine fuels of the season, the flames and heat therefore confined to the air space above the ground.

Even in productive prairies, there would be areas of stubble near the ground, which would experience very little change in temperature; the fire has no capacity to linger, only to progress with the wind. Annual fire, especially when administered at the landscape scale in autumn, when the only available combustible fuel is standing above the ground, can pass around areas of various sizes and at different locations year after year leaving some patches unburned. The natural heterogeneity inherent in the stochasticity of landscape-scale burns is far more felicitous with regard to a specific landscape than the formulaic, hard-line burn units with burn/unburned programs so commonly conceived and administered in this era.

Most insect populations in the few areas today that experience such fires are impressively diverse and fecund, which corresponds to the annual availability of a diversity of pollen, nectars, and other plant products. Many of the insects at Hitchcock Nature Center overwinter at or below ground. There are nevertheless, some insects whose populations can be much diminished by annual conflagrations, even in fall. The prairie conservative mirid, *Plagiognathus amorphae*, for example, feeds only on *Amorpha canescens* and occurs at Hitchcock Nature Center. The adults are present around the first week of June when the plant has tight flower buds then disappear just after flowering. Females lay their eggs in the green wood of Lead Plant, where they overwinter. Clearly, if all of the Lead Plant were to succumb to conflagration in a single year, the life cycle of *Plagiognathus amorphae* could be interrupted severely. The same could be said for many other insects that overwinter above the ground.

Given the fact that the grassland system is so complexly diverse in its array of plants, animals, and species interdependencies, it would appear that no one fire frequency at the scale of a square meter is likely to optimize the inhabitancy of all species conservative to the system. The loess prairies and timbers are variously disposed upon complex, unique arrays of topography, with various and sundry potential exposures to wind, humidity, and slope. Although it generally is the nature of our work ethic to try to achieve burn coverage of 100% everywhere in the “burn unit”, we believe it is best to avoid such thorough-going efforts. At the present time, we are comfortable with landscape-scale controlled burns that are administered annually, in autumn, but inclined to let the vagaries of topography, vegetation, and the stochasticity of the burn day govern the distribution of conflagration.

In 2010, for example, *Plagiognathus amorphae* was abundant on the Lead Plant at Bouteloua Ridge, which had not burned for two or three years. After a burn in 2011, it was quite rare. If a particular exposure or portion of Bouteloua Ridge were to be passed over by a fire well administered for one or more years, it is likely to represent a reflection of the aboriginal nature of the system’s susceptibility to fire. No one amongst us can guess or ever hope to comprehend the most felicitous treatment for all organisms on any particular square meter. *Plagiognathus amorphae*, however, was present, albeit rare, in the annually burned prairies throughout the property.

It is probable that the landscapes at Hitchcock Nature Center can be exposed fully to landscape fires with a fully-equipped 10-man crew over the course of no fewer than 7 burn days. It is also probable that the mobilization would have to include some intervening days during which fire will not carry. Steep, timbered slopes are more time consuming than open, contiguous prairie tracts.

There are 400 acres of steep timbered slopes, of which 40-100 acres can be burned per day. There are nearly 600 acres of prairie, reconstruction, and not-so-steep slopes that can be burned at 100-300 acres per day. If the entire landscape cannot be exposed reasonably to fire in the autumn, another mobilization will be necessary in late winter. Were it to be out-sourced to contract, during the first decade one should allocate as much as \$45,000 per year. As time goes on and burn units become larger and logistics improve, the annual cost will drop significantly.

It is anticipated that at the landscape scale, the stochasticity of coverage will leave some areas less exposed to conflagration than other areas and that attempts to achieve “complete” burns will be avoided. The cost of burning will always be high, however, until the thickets and overgrown timbered tracts are cleared and thinned. Such growth restricts or blocks the natural flow of wind and oxygen and can render the humidity at suboptimum levels, all of which are interruptive of landscape-scale fire regimes.

Thicket Clearing

Clearing and thinning in woodlands can range from \$2000/day on flats and gentle slopes, where tracked, low-p.s.i. skid steer loaders are deployable. If the slash can be disposed of in tactically placed burn piles, such timbered tracts can be thinned or cleared at a rate of about 7 acres/day with a crew of 6-10 experienced men. On steep slopes, with no tracked equipment, the same-sized crew can accomplish about 1 acre per day at a cost of \$5000/day. At Hitchcock Nature Center there are about 200 acres of timber in which tracked equipment is useable; such areas will cost about \$57,000 dollars to accomplish, probably achievable in one year. The 400 acres of steep-sloped, undifferentiated thicket will cost \$2,000,000 to accomplish, probably spread out over ten years. These numbers do not include herbicide costs needed to be applied to re-sprouts, which costs may vary depending upon the time of year and the tactic deployed. If, however, the extent to which one were to internalize the chronic costs of downstream flooding over time due to the ready runoff from these degraded soils, is the extent to which the one-time cost of restoration looks more beneficial. See also Appendix A, under Back Gate Stream Valley.

Care should be taken to avoid stewardship approaches that would involve equipment that might damage the soils. Some areas have been heavily grazed and, at first blush, might appear unworthy of significant attention. Experience has shown that with the thinning of trees to the point where light levels register about 10% of ambient in early afternoon, coupled with annual controlled burns, such areas can respond rather dramatically.

As laid out above, if a fully optimized and contracted restoration and rehabilitation were to be funded and implemented, the first year would require about \$300,000; years 2-10 about \$250,000 each, with a maintenance level after 10 years of about \$25,000 per year. We would advise that no such intensity of stewardship effort be implemented without a monitoring program targeted to determine the extent to which the stewardship is cost-effective at benefiting conservative organisms.

Grazing Implementation

One of the management goals proposed in many prairie remnants and restored prairies is the reintroduction of light grazing. Given the near total depletion of native macro-fauna in the Midwest, and given that grazing animals most certainly were integral to the prairie biome, we believe that in most instances such goals are appropriate. We think, however, that the rather unique characteristics of the loess hills may have made their exposure to grazing by large animals rare in the presettlement era.

Ambient to the steep slopes of the almost desert-like loess hills were nearly endless districts of lush, tall grass in flat to gently rolling topography. There was scant temptation on the slopes of the loess hills to entice herds of mammals up the slopes and onto the ridges. There is some evidence to suggest that such forays into the high hills were rare.

One of the aspects of high-quality loess prairies is that in the spaces amongst the bunch grasses there is a delicate network of cryptogamic crust that binds the fine loess silty soil at the surface and plays a critical role in soil formation and soil structure development. Some of these cryptogamic species were mentioned earlier.



The picture on the left shows erosion and exposure of fine roots in the absence of cryptogamic crust. The picture on the right shows a growth of the lichen, *Psora decipiens*, the mycelium from which is stabilizing and old wound.

In those areas where the cryptogamic crust has been damaged by grazing, infrequent fire regimes, or other mechanical means, erosion is more evident and soil moisture

appears to have been diminished. The recovery time for this biological crust and soil formation is rather slow, probably measurable in decades once felicitous stewardship approaches have been implemented.

Had these loess hills been exposed to significant hoof activity on a regular basis, it is unlikely that the integrity of the cryptogamic crust would sustain and that the fragile loess soil could have sustained its integrity. The more mesic soils are not as dependent on the strong development of a cryptogamic crust. We are suggesting that if grazing were to be implemented in the flatter, more gently sloping restorations, ongoing and proposed at Hitchcock Nature Center, the stocking rate be such that the ungulates have little or no incentive to climb the hills.





Monitoring Protocol

If our stewardship goals are to be validated and improved, we must address the systems we are stewarding to determine the extent to which our activities are effective. We must design and implement a monitoring protocol that consults the plants and animals in our care. Such a monitoring protocol must be affordable in accordance with the frequency of application, must be repeatable, and must provide answers that inform the steward of the direction his efforts are headed. It would be best if interpretive programs could be developed to showcase and explicate stewardship activities along with regular presentations on the importance of the aboriginal biodiversity of Hitchcock Nature Center to Iowa and the world. Some of the degradation problems that need to be addressed and are evident at this time at Hitchcock Nature Center include areas where:

- The excessive proliferation of woody growth is having a diminishing effect on soil organic matter and plants and animals of the timbered districts, in some areas, overwhelming the prairie remnants through progressively more intense invasion.
- The established inhabitancy by certain non-native species can be regarded as having a negative impact on the restoration and rehabilitation of natural plant communities.
- Growing-season burns designed to set back or kill weeds also may have a deleterious impact on insects of the season or in damaging many other of the biological components of the system, including young seedlings of native annuals, biennials, or perennials.
- Infrequent fires or fires that result in hot, cooking burns that generate heat at or near the soil surface in prairies can have deleterious impacts on overwintering leaf-litter-inhabiting insects, oxidize soil organic carbon near the surface, or render the diversity of flowers too diminished on an annual basis to sustain fecund insect populations.
- The collapse of native, graminoid-dominated plant communities has exaggerated sheet-erosion, gully formation, sediment deposition, and led to the loss or impairment of the two ground-water discharge wetlands and low meadows associated with timbered tracts such as Fern Ridge and Boardwalk Ridge.

A monitoring protocol is most affordable if the metric directly or indirectly can measure several attributes, or if it is believed that a single or small suite of metrics reliably can provide confidence that the plants, animals, and their habitats are being sustained or enhanced. Biologists intimate with plants and animals at the ground level inevitably are provided additional understandings, insights, and questions, as the forensics of the results are evaluated over time. The monitoring protocol must be:

- Contrived to be repeatable year after year, such that any differences in the metrics owe to differences to habitat or quality changes, not differences in skill levels of the practitioners.
- Implemented with metrics that are consistent by convention and reflect contemporary understandings of the quality and condition of remnant landscapes.

- Organized around factors that are perennial, in the sense that the monitored organism or physico-chemical attribute is committed to or resident within a specific habitat or context.
- Integrated into and designed to conform to a budget that is likely to be sufficient in perpetuity or until such time as the stewardship team can, with confidence, recommend that the implementation monitoring intensity can be attenuated or modified.

Vascular Plants

Generally, because they are perennially resident and committed to a relatively small and specific area, vascular plants, terricolous lichens, mosses, and soil-nesting invertebrates are suitable metrics to monitor. From among the organisms listed, the most accessible guild to field practitioners today is vascular plants. For this reason, we have organized the monitoring plan to use regular observations of vascular plants as representative of the general health of the remnant plant communities at Hitchcock Nature Center, which include principally the aboriginal woodlands and loess prairies.

With regard to vascular plants, at least, there is nearly as much floristic conservatism remaining in the timbered landscapes as in the loess prairies (see Table 5). Given the proportion of the landscape at Hitchcock Nature Center that is fundamentally some variant of open timber, monitoring the recovery of aboriginal woodlands in response to stewardship is quite important. It is also probable that as we endeavor to restore these timbers, our understanding of their nature will change dramatically.

Much can be learned about the efficacy of the stewardship of these wooded landscapes if a line transect of forty quarter-meter-square quadrats were to be placed at random intervals in representative portions of Fern Ridge (37), the North Entryway Woods (77) and in the Hohneke Addition (85). The distance between the quadrats will vary depending upon the size of the area to be sampled. At Fern Ridge, for example, we would begin at about the midpoint of the northeast toe and follow a line due south at 20-pace intervals. For the North Entryway Woods, we would begin near the middle of the entrance road and proceed north on 5-pace intervals. The layout of a 3rd woodland transect might begin in the Hohneke Pasture and proceed along the ridge line into the Hohneke Addition on 10-pace intervals, the goal here being to document the extent to which the woodland can recover from intense grazing. Transect data collection should occur in June, at a time when most of the critical sedge species are identifiable.

Data for each quadrat are to include:

- Inventory of all the vascular plants in the quadrat.
- Determine the Mean C value and Floristic Quality Index for all of the species in each quadrat.
- Determine the Mean C value and Floristic Quality Index for all of the species that appeared in all 25 quadrats of the transect.

The initial transect will provide floristic metrics upon which forensics can be made with respect to system quality. If stewardship activities are having a positive impact on the woodlands over time, the Mean C and, more especially, FQI values will rise slowly. Most importantly, metric variation among the 25 quadrats in a transect should diminish, which can be measured in various ways; the standard deviation works quite well for this metric. If the metric values trend toward lower qualities over a period of three years, it is a strong indication that the stewardship program needs to be re-evaluated. An example of transect monitoring metrics provided with Floristic Quality Assessment is shown in Appendix C.

The same transect monitoring approach should be applied to the loess prairie remnants as well. Three remnants are recommended. A very high-quality prairie such as seen at the Munchkin Prairie (49) can serve as a contemporary optimum; its current floristic metric values are shown in Table 7, where its metrics are compared with a nearby prairie that had received a growing-season burn that year.

**Table 7: Comparison of floristic metrics at two prairie remnants
At Hitchcock Nature Center:**
Munchkin Prairie, following a spring burn
Badger Hill, following a growing season burn
N = number of native taxa; Mean C = mean coefficient of conservatism; I = floristic quality index

Prairie Remnant	Overall Transect Metrics			Average Quadrat Metrics		
	N	Mean C	I	N	Mean C	I
Munchkin Prairie	35	6.2	37	10.3 +/- 2.5	6.2 +/- 0.6	20 +/- 2.7
Badger Hill	28	5.6	30	7.3 +/- 2.2	5.6 +/- 0.7	16 +/- 3.8

Another transect laid out up the slope of Juniper Ridge (40), beginning at the more mesic, degraded portion near the toe of the slope and extending along the catena to the ridge top, can record the qualitative variation. After a decade or so, one might anticipate that the lower-slope portions of the transect will improve in quality, becoming nearer to that of the upper-slope portions; the variance among the metrics should diminish if stewardship activities are felicitous to the system.

A prairie that has undergone some serious disturbance in the past and come back remarkably on its own, such as Pond Ridge Prairie (16), can serve to provide target data for the recently cleared landscapes along its flanks. Even a simple

**Table 8: Comparison a degraded prairie, after two consecutive years of brush removal and fire, with a nearby remnant
at Hitchcock Nature Center**
N = number of native taxa; Mean C = mean coefficient of conservatism
I = floristic quality index; Mean W = mean coefficient of wetness

Plant Community	N	Mean C	I	Mean W
Remnant [Pond Ridge Prairie]	46	5.2	36	4.3
1 st Year late-summer clearing	21	2.2	10	2.4
2 nd Year late-summer clearing	37	2.5	15	2.5

inventory, repeated regularly, can provide useable data in the early years. Table 8 compares the floristic quality metrics over two years since the removal of weedy native shrubs and trees, particularly Rough-leaved Dogwood (*Cornus drummondii*) Green Ash (*Fraxinus pennsylvanica lanceolata*), Smooth Sumac (*Rhus glabra*), and Wolfberry (*Symphoricarpos orbiculatus*) in what once, long ago, had been a loess prairie. Note that

all three metrics showed an improvement over a single growing season. It also appears that the Mean Coefficient of Wetness shows a slight upward (drier) direction. In some areas at Hitchcock Nature Center, Eastern Red Cedar (*Juniperus virginiana*) and Prickly Ash (*Zanthoxylum americanum*) can be present in annoying numbers, but not in this particular example.

In this instance, the surveyor walked a meander similar to one that he remembered had been walked the year before, so the data have a meaning. Such inventories, however, even when repeated in a fairly disciplined way, lack the fine-grain repeatability that is discernable in an established transect.

Thickets

As portions of undifferentiated thicket are cleared of the smothering brush and shade, one might for one or two of them inventory the vascular plants evident the year before the prescribed activity. Simple inventories every other year or so, with FQA metrics compared with those of the initial inventory can provide the steward with confidence that the plants, and presumably the animals, are burgeoning in a positive manner. After three or so such inventories, a trajectory can be determined to demonstrate that quality metrics are improving and that the effort is contributing to the overall recovery of Hitchcock Nature Center.

Non-Native Species

As with most natural landscapes today, the presence of non-native species can be interruptive of a system's capacity to regain its full diversity and fecundity. Some non-native species are fairly innocuous in that their presence offers little threat to the population resurgence of conservative native species. Rather innocuous non-native species include: Buttonweed (*Abutilon theophrasti*), Japanese Chess (*Bromus japonicus*), Lamb's Quarters (*Chenopodium album*), Queen Anne's Lace (*Daucus carota*), Stink Grass (*Eragrostis cilianensis*), Wild Poinsettia (*Euphorbia cyathophora*), Prickly Lettuce (*Lactuca serriola*), Field Cress (*Lepidium campestre*), Catnip (*Nepeta cataria*), Lady's Thumb (*Polygonum persicaria*), Curly Dock (*Rumex crispus*), Yellow Foxtail (*Setaria glauca*), Spiny-leaved Sow Thistle (*Sonchus asper*), Dandelion, (*Taraxacum officinale*), Common Mullein (*Verbascum thapsus*), and Corn Speedwell (*Veronica arvensis*). Mostly weeds of European agricultural origin, they dissipate rather quickly when native species burgeon with proper stewardship.

Far more deleterious is a guild of non-native species, the inhabitancy of which can be difficult to dislodge from remnants with maintenance-level stewardship approaches. A key to such species at Hitchcock Nature Center are shown in Table 9. The "relative ubiquity" is simply the percent of occurrences noted among the surveyed landscape units. They can be classified into five physiognomic classes: biennial forbs, perennial forbs, perennial grasses, shrubs, and trees. Non-native annual forbs rarely persist or present competition problems in areas stewarded well at the maintenance level.

**Table 9: Relative ubiquity of invasive species
at Hitchcock Nature Center:
Plants resistant to maintenance-level management approaches**

Values represent % of presence (ubiquity) in survey units

Biennial Forbs		9 Tall Fescue	<i>Festuca arundinacea</i>
52 Yellow Sweet Clover	<i>Melilotus officinalis</i>	1 Quack Grass	<i>Agropyron repens</i>
47 Garlic Mustard	<i>Alliaria petiolata</i>	1 Common Reed	<i>Phragmites australis</i>
45 White Sweet Clover	<i>Melilotus alba</i>		
5 Poison Hemlock	<i>Conium maculatum</i>		
1 Dame's Rocket	<i>Hesperis matronalis</i>		
Perennial Forbs		Shrubs	
7 Crown Vetch	<i>Coronilla varia</i>	4 Amur Honeysuckle	<i>Lonicera maackii</i>
6 Honey Vine	<i>Ampelamus albidus</i>	1 Multiflora Rose	<i>Rosa multiflora</i>
6 Field Thistle	<i>Cirsium arvense</i>	1 Common Buckthorn	<i>Rhamnus cathartica</i>
3 Leafy Spurge	<i>Euphorbia esula</i>	1 Autumn Olive	<i>Elaeagnus umbellata</i>
Perennial Grasses		Trees	
52 Smooth Brome	<i>Bromus inermis</i>	43 White Mulberry	<i>Morus alba</i>
12 Reed Canary Grass	<i>Phalaris arundinacea</i>	21 Tree of Heaven	<i>Ailanthus altissima</i>
		18 Siberian Elm	<i>Ulmus pumila</i>
		2 Black Locust	<i>Robinia pseudoacacia</i>
		1 White Willow	<i>Salix alba</i>

The elimination or diminishment of plant populations common to each class generally involves similar tactical approaches. For example, biennial forb populations can be much reduced by removing their seed heads prior to maturity on an annually sustained basis until the seed bank is depleted. Perennials and woody plants commonly require cutting and application of herbicide.

The non-native blue grasses, *Poa compressa* and *Poa pratensis*, are ubiquitous at Hitchcock Nature Center and in nearly every other natural area remnant in Iowa, but little can be done to eliminate them other than to hope that, in time, they will yield to the native perennial matrix. Growing-season burns to target them are ill advised for reason stated earlier. Fire should not be used as a killing agent inasmuch as it kills indiscriminately any plants or animals in synchronous activity with the "target." Fire should be thought of as one of the critical, regular attributes of the system, more like the flux of tide in an estuary.

Other species considered invasive or problematic in western Iowa remnants include Dame's Rocket (*Hesperis matronalis*) and Leafy Spurge (*Euphorbia esula*). Both have occurred at Hitchcock Nature Center, but the stewards have been so thorough in controlling them that they are scarcely evident. Tordon© has been applied to the Leafy Spurge plants near the Lodge; the few plants of Dame's Rocket at the Campground are plucked, usually before they go to seed.

A few non-native species troublesome elsewhere in Western Iowa are yet unknown from Hitchcock Nature Center, which include Red Top (*Agrostis gigantea*); Spotted Knapweed (*Centaurea maculosa*), Russian Olive (*Elaeagnus umbellata*), and Purple Loosestrife (*Lythrum salicaria*). Monitoring the progress of non-native species population diminishment can include transect application and analysis but, in many cases, a visual description and assessment recorded in a site log by the land steward can be sufficient.

Insects

Quite clearly, the sustained populations of native insects are a high priority for the land stewards and custodians of Hitchcock Nature Center. This report has shown that there is a very high diversity of native insects here, more than half of which are generally confined to remnant landscapes.

A key attribute in the monitoring of vascular plants is that there has been devised an assessment method that embeds *a priori* value judgments in the evaluation through the forensics of what has become known as floristic quality assessment. The central organizational factor is the assignment of coefficients of conservatism (C values) to taxonomic elements in a specified flora, such as is catalogued for a state or region (Swink & Wilhelm 1994).

With scaled values from 0-10, each species is evaluated as to the extent it provides the practitioner with confidence that its inhabitation is indicative of high quality remnant. Generally, one can be about 95% confident that those species with C values of 5 or higher are dependent on the remnants of aboriginal conditions. As an example, plants with a value 5 are quite likely to be in remnants, though there is little or no confidence that the remnant is well intact. Plants with values of 10 provide the practitioner with a very high degree of confidence that the areas within which they are found have survived in good condition.

Although this methodology was applied to ants in a savanna assessment in south-central Iowa (Wilhelm & Rericha 2007), it has not been published for any group of insects for any state or region; however, the recognition that it is possible and desirable to codify insects in accordance with their predisposition to natural area remnants is well explored and presented by Panzer, Shuey, and Stillwaugh (1997). They concluded that many butterflies can be characterized as “remnant dependent,” which is to acknowledge that they are not found outside of remnants in fields, lawns, or agricultural districts. Their habitats, or at least the plants upon which they depend, are restricted to natural areas. Such organisms could be said to register coefficients of conservatism between 5 and 10.

The data presented here for Hitchcock Nature Center can be interpreted as indicating that remnant dependent, or conservative insects comprise significant portions of the inventories of beetles, bugs, ants, bees, and butterflies. If inventories of these organisms in the future reveal that the numbers and proportions of remnant dependent insects are

sustained or increasing at Hitchcock Nature Center, one can be fairly confident that the stewardship approaches are salubrious to the inhabitancy of conservative insects. If inventories over the course of time show a chronic decline in conservative insects, the steward must seek an understanding as to the cause of the decline and adapt the stewardship approaches accordingly.

Timing of Burns and Weed Control

Burns during the growing season, particularly in recent years, have been deployed by some land managers in the Midwest. Generally, such burns are timed to impair the growth of non-native species, such as Smooth Brome and certain trees, such as *Juniperus virginiana*, *Robinia pseudoacacia*, and *Ulmus pumila*. Commonly, there are no disciplined observations to indicate that populations of native plants and animals whose life cycles intersect with these burns also are not diminished.

In order to monitor growing season burns to assure stewards that populations of native species aboriginal to the site are not impaired, one would need a working knowledge of the life cycles of all native plants and animals, or at least a working knowledge of a significant sampling of them; such knowledge is never available. It is presumed that a first principle among custodians of remnant landscapes is that the fecundity and population health of native species is primary. Tactical approaches to weed elimination would be most satisfying if native species were not lost in the effort.

Even to justify a growing-season burn, one would need to find some evidence that growing season burns were included in aboriginal cultural patterns within the region. For Iowa, Missouri, and Illinois, at least, one can infer from nearly all written records of pre-settlement landscape burn frequencies that they were Indian-set in autumn, generally the first day after the first hard frost when the grass of the season was combustible and still standing; there is one record of a early spring burn near Forsyth, Illinois, but it was still in the dormant season; according to the European who recorded it, from a promontory that had burned the previous autumn, it was an unusual time, the Indians having failed to achieve it the previous fall.

At the present time there are no growing season burns prescribed at Hitchcock Nature Center. Inasmuch as we can posit no theory that suggests it would be felicitous to the native landscapes under its custodianship, to monitor the various possible growing-season permutations of landscape conflagration would fall into the category of research. Such research is outside the presently funded scope of consideration and management priority. Annual, autumnal landscape fires at Hitchcock Nature Center are seen as part of the aboriginal scenario, a Holocene-aged phenomenon as integrated into the patterns of life here as naturally as the wind and rain, light and dark, and change of seasons.

This is not to say that encroachment and inhabitancy of non-native species is not a serious issue. It only speaks to the fact that there has yet to be gathered sufficient evidence to suggest that fire is an innocuous tool for that purpose. There is, however, early evidence that the late-summer cutting of Drummond's Dogwood and Smooth

Sumac, in conjunction with dormant-season fall burns, can set populations of these shrubs back to the point that prairie plants can burgeon at the expense of these particular shrubs. This can be monitored in the clearings around Pond Ridge in the sites indicated in Table 7.

Elsewhere in Iowa, and in the Midwest generally, meadows of Smooth Brome that have not suffered significant episodes of tillage, have responded with a resurgence of prairie plants when an annual fire regime is implemented. The Cottonwood Prairie is an area where such resurgence might be anticipated; transect monitoring might be used to document it.

Cryptogamic Crust

Cryptogamic crusts are soil biotic communities composed largely of fungi, lichenized fungi, cyanobacteria, algae, and mosses. Given the importance of the cryptogamic crust in the formation, maintenance, stability, and fertility of the fine silty surface soils at Hitchcock Nature Center, it is advisable to include an observational protocol that notes the degree and rate at which the crust reforms after it has been damaged.

Damage can occur with grazing by hoofed animals and other mechanical agents. Also, when duff accumulates between the bunch grass tufts and lies low to the ground, infrequent fires can move from the standing fine fuels of the season and reside too long in the blanket of duff, which can destroy the cryptogams through too much heat and even conflagration.

We would recommend that data be developed to document that the cryptogamic crust is forming at a discernable rate following mechanical destruction and during a fire regime that is nearly or quite annual and administered as soon as possible at the end of the growing season. The monitoring of cryptogamic crust recovery can become quite involved and include the kind of research parameters laid out and referenced in Kettenring (2001). It may be sufficient, however, simply to follow a disturbed area for several decades to determine when prothalli and mycelia are growing and the eventual appearance of moss gametophytes and cortical development in the lichens.

Hydrology

One of the more interesting and important aspects of loess hills ecology is the water relations of the soil and vegetation. Clearly, the way the hills received rainwater since settlement has changed markedly. Had such erosive and hydraulic energies been in place even for a thousand years prior to settlement, the disemboweling head cuts in the hidden valleys would have leveled the landscape long ago. The shift from infiltration with base-flow streams to stormwater torrent and runoff is a phenomenon we must address and reverse. See the notes in Appendix A under Back Gate Stream Valley.

Engineers and hydrologists can account for surface runoff volumes and durations, but little is known of soil water relations insofar as they relate to factors such as rainfall, condensation on bunch grasses, and products of below-ground respiration. What we do know, however, is that grasslands with annual potential evaporation/transpiration rates higher than annual rainfall amounts still produce base-flow streams. Unfortunately, a section line does not cross a base-flow creek that issued specifically from hills at Hitchcock. All we know is that, along the township line between sections 2 and 35, the surveyors began their descent 644 feet east of Honey Creek, the channel of which was about 6.5 feet wide at the time. Just east of Honey Creek there was a “low wet and swampy bog,” which suggests a component of groundwater discharge, though not necessarily an open run.

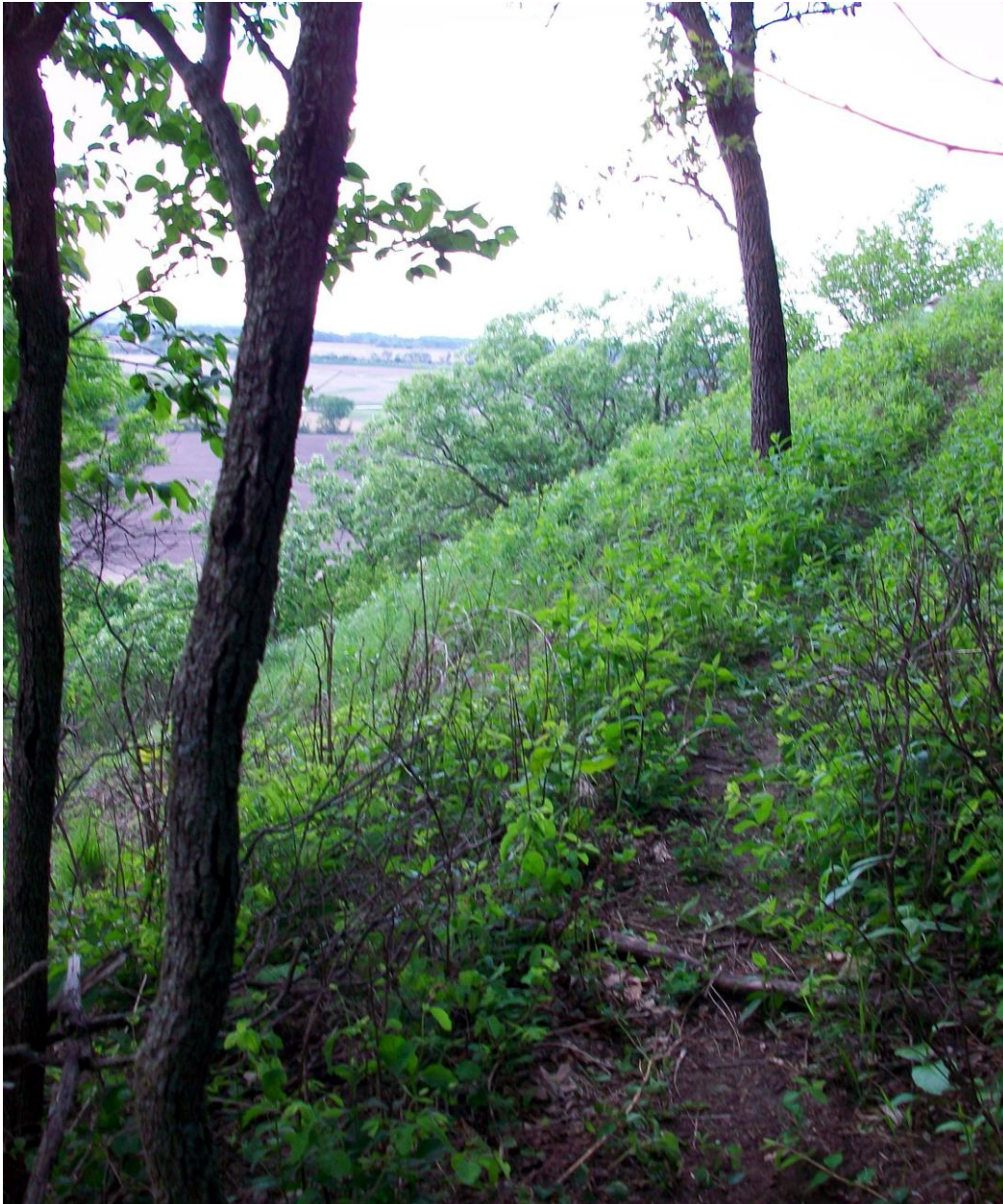
We may speculate that there was base flow in what we now call the Back Gate Stream Valley, but we have no evidence other than that there is a small level of base flow now, even in summer, perhaps as low as 0.1 cubic feet per second (cfs). Given that so much of the rainwater today obviously leaves on the surface, we may speculate that the base flow in the valley at settlement might have been rather more than we see today-- particularly since the density and dominance of phreatophytic vegetation in the watershed was notably less.

While a fully permutated and thought-through research program is out of the question at this time, certain rough estimates can be useful. An estimate can be determined by timing the velocity (V) of a floating object and record its movement in feet per second. The cross-sectional area (A) of the channel can provide a volume. With some simple arithmetic, a flow rate (Q) measured in cfs can be calculated. Some practice and repeated measurements can provide a sufficiently robust estimate that comparisons can be made in the future as the landscape stewardship program brings vegetation of Hitchcock Nature Center more into alignment with aboriginal conditions.

The general formula is $Q = VA$. The velocity of water in small shallow channel, however, is not constant due to any number of vagaries that can be described for small naturally formed channels. The floating object used as an index of velocity is likely to be situated to flow in midstream, which can give an exaggerated impression of the actual volume of water moving from point “a” to point “b” if the side of the channel appears to be moving slower.

A channel the size of the one at the Back Gate Stream Valley is too small and irregularly formed to fractionate the velocity measurements. Also, the base-flow channel is not very deep. One could estimate an average velocity, perhaps 20% of that that is measured, and one may want to reduce the cross-sectional area by a similar percentage. At this point, actual volumes are probably not as important as relative changes, so one could use measured values and worry with the vagaries of channel roughness down the road. A couple of photographs of the channel could document the contemporary scenario. Changes over time may become so profound that these early measures will fall well within the variance of the aboriginal flows.

It would be helpful if a rain gage were situated in the watershed in such a place as to obviate any concerns about tree canopy interception. The rain gauge can provide one of the more easily obtained metrics with respect to local surface-water components. Such metrics can be useful as we attempt to understand the landscape of the hills over time.



Thinning and burning along a prairie ridge

The Land Steward

The curiosity, knowledge of plants and animals, humility, the ability to synthesize observations, and a deep love of the place are far better the stewardship of land than a prescription and one who can acquit it. If Hitchcock Nature Center and its biological and cultural amenities are to survive beyond a generation, it will continue to need a land steward.

Our understanding of the ecology of the loess hills is quite nascent, so our theories as to “target plant communities” must be flexible enough to adjust to our forensics on empirical observations. There is no greater truth than that told by the native plants and animals. If our stewardship efforts foster their fecundity and diversity, it will be hard to argue that our stewardship is off track. The various manifestations of “plant community” will develop in accordance with aboriginal patterns unique to every ridge and valley, rill and run. The recovery of each area will depend upon the severity of its post-settlement abuse, so expectations must be tempered by the fact that living tissues, once damaged, can remain stricken indefinitely.

A full understanding of the loess hills at Hitchcock Nature Center will escape science in perpetuity, just as a parent cannot understand wholly an individual child. Fully as important as hard data well gathered in a monitoring protocol, Hitchcock Nature Center will need, in perpetuity, a steward whose sole purpose is to be in day-to-day study and contact with the plants and animals of each fold and field on the preserve. With such a steward personally involved in monitoring and management, the treasured remnants in these loess hills will be able to inspire us with their beauty and mysteries in perpetuity.

One could prepare a detailed operations and maintenance manual, replete with specifications, schedules, necessary staff, and all the rest. It would not be used, because right out of the box, it is unlikely that budgets, available staff, and equipment would be insufficiently available. There is no substitute for a knowledgeable, dedicated land steward, who is far better able to run the calculus as to the deployment of available resources personnel experience at any given time.

A land steward at Hitchcock Nature Center cannot be an “ordinary” naturalist, fire specialist, strong back, although those attributes are welcome and useful. A steward here should be described by the following attributes:

- An authentic love of the outdoor world.
- Self confidence, decisiveness, and personal strength buffered by humility and philosophy.
- An urge to nurture all of the plants and animals, not just those that have political or “Oh my!” followings.
- An unencumbered ability to pronounce Latin names mellifluously.
- An interest in detailed transect work and the capacity to understand the meaning of data.

- The physical ability to be comfortable negotiating the rugged landscape.
- A willingness to mentor and prepare a successor.
- Be able to evaluate critically research data and integrate the necessarily narrow conclusions of individual studies with inductive reasoning based upon intimate familiarity with the broad range of landscape stewardship issues at Hitchcock Nature Center.
- Be comfortable in colloquium with scientists and practitioners that have related data and experience.

Given that the whole reason for the existence of Hitchcock Nature Center is the presence of unique remnant landscapes, a steward to husband them, properly qualified, funded, and supported, is the single-most critical personnel asset that could be described for Hitchcock Nature Center at this point in time and probably for the foreseeable future.

While the application of applied and repeatable metric sampling in the representative areas mentioned above, just as important are regular and disciplined observations of the land steward. We recommend that each week the steward choose one of the inventory units and spend about two hours meandering through it. During the visit, the steward should:

- Make note of every plant he can identify with confidence.
- Identify any plant that is in bloom with which he is not completely familiar.
- Make note and learn to identify every bird observed (seen or heard).
- Make note of every invertebrate with which he is familiar.
- Attempt to identify at least two unknown species of invertebrates on a regular basis.
- Record weather observations and note the relationship between the elements the system.
- Make note of observations of effects of stewardship activities.

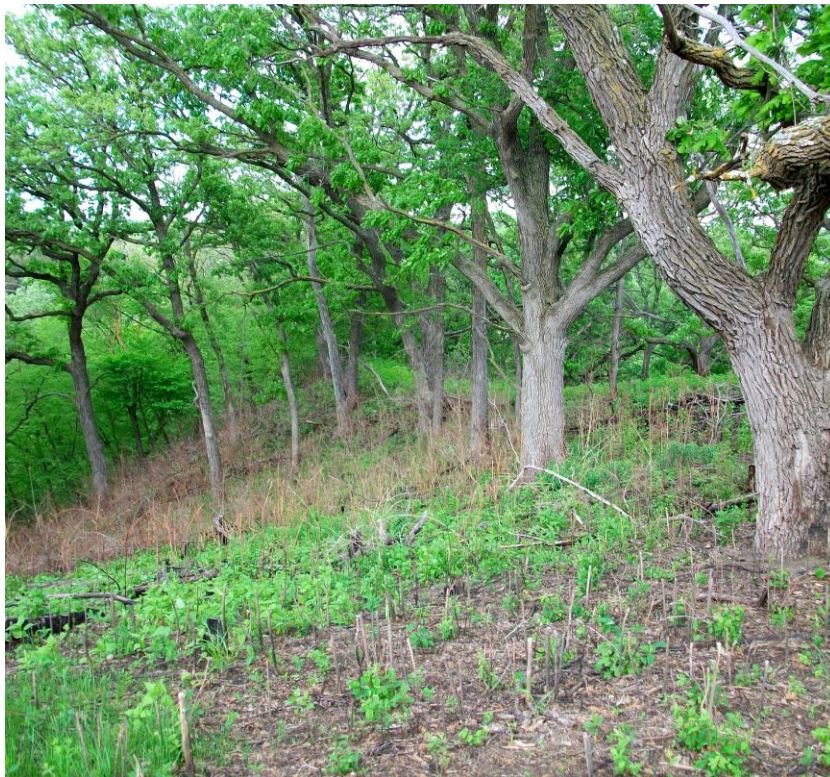
The first run through all of the inventory units could take two years, but it should not end there. The goal is not simply to acquire a more detailed inventory, but to provide the steward with a deep and visceral understanding of the infinite dramas of critical importance to the land, water, plants, and animals of Hitchcock Nature Center. It would serve Hitchcock Nature Center best if education staff, seasonal employees, board members, foundation members, and various partners in conservation were to join the steward as often as possible, so they might lend their expertise, share their perspective, and gain insight from the time spent in observation and colloquium.

Indeed, nearly or quite as important to Hitchcock Nature Center as a dedicated steward is a pedagogue who can appreciate that which is discovered and known by the steward and pass this along to generations of patrons, born and yet unborn. Without a strong guild of people in Pottawattamie County who love and support the deep values of the hills at Hitchcock, even the best land steward will not be able to protect the natural assets in perpetuity.

The words of Rachel Carson are compelling:

“I believe that natural beauty has a necessary place in the development of any individual or any society. I believe that whenever we destroy beauty and whenever we substitute something man-made and artificial for a natural feature of this earth, we have retarded some part of man’s natural and spiritual growth. In contemplating the exceeding beauty of this earth, I have found calmness and courage, for there is symbolic as well actual beauty in the migration of the birds, the ebb and flow of tides, in the folded bud ready for spring. There is something infinitely healing in the repeated refrains of nature, the assurance the dawn comes after night and spring after winter.

“Mankind has gone very far into an artificial world of his own creation, has sought to insulate himself in his cities of steel and concrete, away from the realities of earth, water, the growing seed and intoxicated with the scent of his own growing power. He seems to be going farther and farther into experiments toward the destruction of himself and his world. There is certainly no single remedy for this condition, and I can offer no panacea. But it seems reasonable to believe, and I do believe, that the more clearly we can focus our attention to the wonders and realities of this universe about us, the less we shall have its destruction.”



Removal of undergrowth and follow-up burn management

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APPENDIX A

Inventory Units

Hitchcock Nature Center

Observations made in 2010, 2011, 2012

Gerould Wilhelm

Conservation Design Forum
185 South York Street
Elmhurst, Illinois 60126

Laura Rericha

Conservation Research Institute
W59N412 Hilgen Ave.
Cedarburg, Wisconsin 53012

Hitchcock Nature Center Inventory Units Floristic Quality Metrics

N = number of native taxa; **A** = Non-native taxa; **Mean C** = mean coefficient of conservatism
I = floristic quality index; **Mean W** = mean coefficient of wetness

Inventory Units	N	A	Mean C	I	Mean W	Vegetation	Acres	Map #
Access Ridge	116	19	4.3	46	3.3	Prairie	12.0	69
Amorpha Ridge	56	2	4.7	35	3.5	Prairie	15.1	8
Archery Range Woods	55	14	3.0	23	1.7	Thicket	3.6	71
Archery Road Slope	59	7	3.1	24	2.2	Timber	2.0	70
Archery Valley Reconstruction	34	7	2.9	17	2.8	Reconstruction	9.1	87
Back Gate Stream Valley	78	5	3.4	30	0.6	Timber	3.1	61
Badger Bowl	79	15	3.4	30	3.1	Prairie	1.2	46
Badger Camp	52	10	2.6	19	1.6	Ruderal	1.0	45
Badger Camp Prairie	64	3	4.7	38	3.9	Prairie	1.7	36
Badger Hill	77	7	4.2	37	3.2	Prairie	5.1	47
Badger Ridge	116	15	4.6	50	2.9	Prairie	13.0	52
Barn Parking Reconstruction	45	14	2.3	15	2.7	Reconstruction	0.8	73
Barn Parking Woods	56	24	2.5	19	1.7	Timber	0.7	74
Below-the-Dam Wetland	92	15	2.9	28	0.0	Wetland	4.4	7
Bluestem Meander	69	18	2.5	21	2.1	Reconstruction	15.0	60
Boardwalk Ridge	117	27	3.5	38	2.3	Timber	27.7	59
Bouteloua Ridge	103	10	4.5	46	3.7	Prairie	5.0	51
Bouteloua Ridge Addition	65	5	4.5	36	3.6	Prairie	4.6	44
Boy Scout Clearing	79	23	3.1	28	1.9	Clearing	0.3	66
Bulldozed Valley, East Face	37	1	4.0	25	2.2	Thicket	5.3	68
Campground	83	40	1.9	18	1.4	Ruderal	8.5	81
Campground Reconstruction	49	15	3.0	21	2.7	Reconstruction	1.6	80
Campground Roadside Reconstruction	39	7	2.8	18	2.5	Reconstruction	1.8	79
Chute Prairie	34	7	2.5	15	2.3	Reconstruction	1.2	58
Chute Thicket	47	2	3.6	25	2.1	Thicket	5.2	57
Chute Woods	77	3	3.9	34	1.9	Timber	19.2	56

Inventory Units	N	A	Mean C	I	Mean W	Vegetation	Acres	Map #
Cottonwood Camp Ridge	67	11	3.6	29	2.5	Prairie	0.4	30
Cottonwood Prairie	41	5	3.0	19	2.9	Pasture	3.4	29
Crescent Ridge, Central	58	1	5.5	42	3.9	Prairie	7.2	3
Crescent Ridge, East	49	4	4.9	34	3.9	Prairie	7.6	1
Crescent Ridge, West	55	1	5.4	40	4.0	Prairie	9.0	2
Crescent Valley, West	55	18	2.4	18	1.9	Clearing	2.4	4
Entrance Playground & Lawn	27	24	2.0	10	1.9	Ruderal	1.8	86
Entry Road Reconstruction	51	12	3.0	21	2.9	Reconstruction	1.0	75
Entryway Woods, North	70	1	4.0	34	1.7	Timber	14.8	77
Entryway Woods, South	72	3	3.8	32	1.5	Timber	4.4	76
Ferguson Ridge	109	24	3.7	38	3.0	Prairie	12.8	72
Fern Ridge	99	7	4.0	39	1.9	Timber	58.4	37
Few-Forb Prairie	27	4	4.2	22	4.0	Pasture	0.7	39
Fox Run Ridge Prairie	72	15	3.0	26	2.6	Prairie	6.6	63
Fox Run Ridge Woods	83	12	3.5	32	2.0	Timber	3.2	64
Gaura Ridge	62	5	4.9	39	3.7	Prairie	1.2	48
Gaura Ridge Addition	76	20	3.3	29	3.3	Prairie	2.6	43
Goodman Ridge	56	4	4.6	35	3.3	Prairie	1.3	10
Great Horned Owl Prairie	32	1	3.3	19	3.1	Prairie	0.2	38
Hidden Valley, East	54	3	3.1	23	1.1	Valley Bottom	13.9	35
Hidden Valley, West	41	2	3.0	20	0.6	Valley Bottom	10.7	34
High-Point Camp Ridge	38	3	4.0	25	2.2	Prairie	20.5	32
Hohneke Addition	127	34	3.1	35	2.2	Timber	20.0	85
Hohneke Hill Pasture	45	31	2.4	16	2.6	Pasture	4.8	82
Hohneke Point Ridge	111	18	4.0	42	2.6	Timber	24.3	65
Hohneke Stream Flats & Farm Pond	32	9	2.6	15	-0.3	Wetland	2.6	83
Hohneke Valley Pasture	50	20	2.2	16	2.1	Pasture	36.7	84
Juniper Ridge	107	13	4.2	43	3.6	Prairie	12.1	40
Leisure Ridge	69	4	3.7	31	2.0	Timber	9.7	33
Lindsey's Ridge	39	1	3.5	22	1.5	Timber	9.3	24
Lodge Landscape	89	39	2.7	25	2.2	Reconstruction	1.0	55
Lodge Parking Thicket	44	12	2.9	19	2.3	Thicket	1.4	78

Inventory Units	N	A	Mean C	I	Mean W	Vegetation	Acres	Map #
Lodge Prairie	61	4	3.4	26	3.2	Prairie	0.2	54
Lost Prairie	33	1	3.9	23	3.2	Prairie	0.2	18
Mary & Alex Ridges	83	10	3.6	33	2.4	Timber	22.2	53
McKenzie Research Ridge, North	98	12	3.5	35	2.5	Timber	2.7	62
McKenzie Research Ridge, South	45	4	3.4	23	1.9	Timber	0.9	26
Meador Ridge Pasture	72	16	4.1	35	3.6	Prairie	7.6	42
Munchkin Prairie	38	0	6.1	38	4.2	Prairie	0.8	49
Old Field Reconstruction, Central	68	15	2.9	24	1.6	Reconstruction	4.7	20
Old Field Reconstruction, Complex	91	24	3.1	30	1.9	Reconstruction	26.5	21
Pond Ridge	46	1	5.2	36	4.3	Prairie	16.1	16
Pond Ridge Clearing 1 st Year	21	3	2.2	10	2.4	Clearing	2.0	17
Pond Ridge Clearing 2 nd Year	37	8	2.5	15	2.5	Clearing	2.0	17
Rahel's Easement	62	6	4.3	34	4.0	Prairie	10.6	14
Rahel's Impoundment & Marsh	61	10	2.6	20	-0.6	Wetland	23.9	19
Rahel's Knob	70	12	3.2	27	3.2	Prairie	7.1	13
Rahel's Knob, Herbicided Thicket	21	2	3.9	18	3.1	Clearing	0.2	12
Rahel's Knob, Mowed Thicket	15	2	1.9	8	2.2	Clearing	0.2	11
Rahel's Prairie	76	5	5.2	45	3.5	Prairie	9.7	5
Rahel's Reconstruction	52	22	2.6	19	1.8	Reconstruction	51.9	6
Rayburn's Knob	71	16	4.1	35	3.4	Prairie	3.1	41
Satin Grass Bluff	39	2	4.8	30	3.6	Prairie	0.3	22
Southwest Hill Prairie	53	0	5.1	37	4.0	Prairie	3.6	23
Top-of-the-World Prairie	62	0	5.2	41	3.6	Prairie	1.4	9
Wavy-leaved Thistle Nose	76	7	4.4	38	3.3	Prairie	0.4	50
West Ridge Prairie, North	103	11	4.2	42	3.2	Prairie	6.5	28
West Ridge Prairie, South	75	6	4.5	39	3.7	Prairie	6.2	27
West Ridge Thicket	51	5	2.9	21	1.8	Thicket	11.0	15
West Ridge Valley	69	10	2.9	24	1.7	Pasture	9.3	25
Wildflower Wander	73	4	3.9	33	2.0	Timber	20.9	67
Yucca Ridge	78	10	4.2	37	2.6	Prairie	0.5	31

Access Ridge

12.0 acres; Loess Prairie; Map #69

Notes: This is the area that was designated units D & E in the Rosburg (1993) survey. Plants shown in bold face type are known only from that original survey. This is the only location other than Yucca Ridge from which we have a report of *Yucca glauca* and the only location for *Bouteloua gracilis*.

FLORISTIC QUALITY DATA		Native	116	85.9%	Adventive	19	14.1%
116	NATIVE SPECIES	Tree	9	6.7%	Tree	2	1.5%
135	Total Species	Shrub	8	5.9%	Shrub	0	0.0%
4.3	NATIVE MEAN C	W-Vine	5	3.7%	W-Vine	0	0.0%
3.7	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
46.2	NATIVE FQI	P-Forb	61	45.2%	P-Forb	3	2.2%
42.9	W/Adventives	B-Forb	3	2.2%	B-Forb	5	3.7%
3.3	NATIVE MEAN W	A-Forb	7	5.2%	A-Forb	3	2.2%
3.2	W/Adventives	P-Grass	17	12.6%	P-Grass	3	2.2%
AVG: Fac. Upland		A-Grass	1	0.7%	A-Grass	3	2.2%
		P-Sedge	5	3.7%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACHMIL	0 Achillea millefolium ssp. lanulosa	3 FACU	Nt P-Forb	Western yarrow
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
ARAHIR	8 Arabis hirsuta	5 UPL	Nt B-Forb	Hairy rock cress
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 Asclepias viridiflora	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 Aster oblongifolius	5 UPL	Nt P-Forb	Aromatic aster
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
ASTLOT	10 Astragalus lotiflorus	5 UPL	Nt P-Forb	Lotus milk vetch
BELCHI	0 BELAMCANDA CHINENSIS	5 UPL	Ad P-Forb	Blackberry lily
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BOUGRA	8 Bouteloua gracilis	5 UPL	Nt P-Grass	Blue grama
BOUHIR	7 Bouteloua hirsuta	5 UPL	Nt P-Grass	Hairy grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian plaintain
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXPENP	6 Carex pensylvanica	-4 FACU+	Nt P-Sedge	Pennsylvania oak sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CEAHER	8 Ceanothus herbaceus var. pubescens	5 UPL	Nt Shrub	Redroot
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRVUL	0 CIRSIUM VULGARE	4 FACU-	Ad B-Forb	Bull thistle
CLEVIR	2 Clematis virginiana	0 FAC	Nt W-Vine	Virgin's bower
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 Dalea candida	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane

EUPALT	2	<i>Eupatorium altissimum</i>	3	FACU	Nt P-Forb	Tall boneset
EUPRUG	2	<i>Eupatorium rugosum</i>	3	FACU	Nt P-Forb	White snakeroot
EUPCOR	3	<i>Euphorbia corollata</i>	5	UPL	Nt P-Forb	Flowering spurge
EUPDEN	0	<i>Euphorbia dentata</i>	5	UPL	Nt A-Forb	Toothed spurge
EUPMAR	0	<i>Euphorbia marginata</i>	3	FACU	Nt A-Forb	Snow-on-the-mountain
FESOB	7	<i>Festuca obtusa</i>	2	FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1	<i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3	FACW	Nt Tree	Green ash
GALCIR	6	<i>Galium circaeazans</i>	4	FACU-	Nt P-Forb	Wild licorice
GALTRO	7	<i>Galium triflorum</i>	2	FACU+	Nt P-Forb	Sweet-scented bedstraw
GAUCOC	7	<i>Gaura coccinea</i>	5	UPL	Nt P-Forb	Scarlet gaura
GLETRI	0	<i>Gleditsia triacanthos</i>	0	FAC	Nt Tree	Honey locust
HACVIR	0	<i>Hackelia virginiana</i>	1	FAC-	Nt P-Forb	Stickseed
HEDHIS	2	<i>Hedeoma hispidum</i>	5	UPL	Nt A-Forb	Rough pennyroyal
HELHIR	5	<i>Helianthus hirsutus</i>	5	UPL	Nt P-Forb	Hispid sunflower
HELIRIG	8	<i>Helianthus rigidus</i>	5	UPL	Nt P-Forb	Prairie sunflower
JUGNIG	4	<i>Juglans nigra</i>	3	FACU	Nt Tree	Black walnut
JUNVIR	1	<i>Juniperus virginiana</i>	3	FACU	Nt Tree	Red cedar
LACCAN	1	<i>Lactuca canadensis</i>	2	FACU+	Nt B-Forb	Wild lettuce
LACTAP	2	<i>Lactuca tatarica</i> ssp. <i>pulchella</i>	5	UPL	Nt P-Forb	Showy blue lettuce
LESCAP	3	<i>Lespedeza capitata</i>	3	FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8	<i>Liatris punctata</i>	5	UPL	Nt P-Forb	Dotted blazing star
LINRIG	7	<i>Linum rigidum</i>	5	UPL	Nt P-Forb	Stiff flax
LITINC	5	<i>Lithospermum incisum</i>	5	UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7	<i>Lygodesmia juncea</i>	5	UPL	Nt P-Forb	Skeletonweed
MEDLUP	0	MEDICAGO LUPULINA	1	FAC-	Ad A-Forb	Black medick
MELALB	0	MELILOTUS ALBA	3	FACU	Ad B-Forb	White sweet clover
MORALB	0	MORUS ALBA	0	FAC	Ad Tree	White mulberry
MUHCUS	10	<i>Muhlenbergia cuspidata</i>	5	UPL	Nt P-Grass	Prairie satin grass
MUHMEX	5	<i>Muhlenbergia mexicana</i>	-3	FACW	Nt P-Grass	Leafy satin grass
MUHRAC	4	<i>Muhlenbergia racemosa</i>	-3	FACW	Nt P-Grass	Upland wild Timothy
MUHSCH	1	<i>Muhlenbergia schreberi</i>	0	FAC	Nt P-Grass	Nimblewill
NEPCAT	0	NEPETA CATARIA	1	FAC-	Ad P-Forb	Catnip
ONOMOO	4	<i>Onosmodium molle</i> ssp. <i>occidentale</i>	5	UPL	Nt P-Forb	False gromwell
OSTVIR	5	<i>Ostrya virginiana</i>	4	FACU-	Nt Tree	Hop hornbeam
OXADIL	0	<i>Oxalis dillenii</i>	5	UPL	Nt P-Forb	Common wood sorrel
OXYLAM	8	<i>Oxytropis lambertii</i>	4	FACU-	Nt P-Forb	Locoweed
PANOLS	5	<i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3	FACU	Nt P-Grass	Scribner's panic grass
PANVIR	5	<i>Panicum virgatum</i>	-1	FAC+	Nt A-Grass	Switch grass
PARQUI	2	<i>Parthenocissus quinquefolia</i>	-1	FAC-	Nt W-Vine	Virginia creeper
PEDESC	8	<i>Pediomelum esculentum</i>	5	UPL	Nt P-Forb	Prairie turnip
PENGRN	5	<i>Penstemon grandiflorus</i>	5	UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2	<i>Physalis heterophylla</i>	5	UPL	Nt P-Forb	Ground cherry
PHYVIG	4	<i>Physalis virginiana</i>	5	UPL	Nt P-Forb	Ground cherry
PLAPAT	2	<i>Plantago patagonica</i>	5	UPL	Nt A-Forb	Woolly plantain
POACOM	0	POA COMPRESSA	2	FACU+	Ad P-Grass	Canadian blue grass
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4	<i>Polygonatum biflorum</i>	3	FACU	Nt P-Forb	Solomon's seal
QUEMAC	4	<i>Quercus macrocarpa</i>	1	FAC-	Nt Tree	Bur oak
RATPIN	4	<i>Ratibida pinnata</i>	5	UPL	Nt P-Forb	Gray-headed coneflower
RHUGLA	0	<i>Rhus glabra</i>	5	UPL	Nt Shrub	Smooth sumac
RUBOCC	1	<i>Rubus occidentalis</i>	5	UPL	Nt Shrub	Black raspberry
RUDHIR	2	<i>Rudbeckia hirta</i>	3	FACU	Nt P-Forb	Black-eyed Susan
SANCAS	6	<i>Sanicula canadensis</i>	2	FACU+	Nt B-Forb	Black snakeroot
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt P-Grass	Little bluestem
SETFAB	0	SETARIA FABERII	2	FACU+	Ad A-Grass	Giant foxtail
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad A-Grass	Yellow foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad A-Grass	Green foxtail
SILLAC	7	<i>Silphium laciniatum</i>	4	FACU-	Nt P-Forb	Compass plant
SISCAM	4	<i>Sisyrinchium campestre</i>	5	UPL	Nt P-Forb	Prairie blue-eyed grass
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt W-Vine	Greenbrier
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt P-Forb	Tall goldenrod
SOLMIS	5	<i>Solidago missouriensis</i>	5	UPL	Nt P-Forb	Missouri goldenrod
SOLRIG	4	<i>Solidago rigida</i>	4	FACU-	Nt P-Forb	Stiff goldenrod
SOLSPE	7	<i>Solidago speciosa</i>	5	UPL	Nt P-Forb	Showy goldenrod
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt P-Grass	Indian grass
SPHOB	8	<i>Sphenopholis obtusata</i> var. <i>obtusata</i>	0	FAC	Nt P-Grass	Prairie wedge grass
STISPA	6	<i>Stipa spartea</i>	5	UPL	Nt P-Grass	Porcupine grass
STRLEI	7	<i>Strophostyles leiosperma</i>	5	UPL	Nt A-Forb	Small wild bean
SYMOC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad P-Forb	Common dandelion
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt P-Forb	Germander
THYPAS	0	THYMELAEA PASSERINA	5	UPL	Ad A-Forb	Sparrow weed
TILAME	5	<i>Tilia americana</i>	3	FACU	Nt Tree	Basswood
TRIFLA	0	<i>Tridens flavus</i>	5	UPL	Nt P-Grass	Purple top
TRIPEM	4	<i>Triosteum perfoliatum</i>	5	UPL	Nt P-Forb	Late horse gentian
ULMAME	2	<i>Ulmus americana</i>	-2	FACW-	Nt Tree	American elm
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad Tree	Siberian elm
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad B-Forb	Common mullein
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt P-Forb	Hoary vervain

VERBAL	2	Vernonia baldwinii	5 UPL	Nt	P-Forb	Baldwin's ironweed	
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape
YUCGLA	10	Yucca glauca	5 UPL	Nt	P-Forb	Soapweed	
ZANAME	3	Zanthoxylum americanum	5 UPL	Nt	Shrub	Prickly ash	

Amorpha Ridge

15.1 acres; Loess Prairie; Map #8

Notes: The prairie-conservative bee, *Megachile frugalis*, was collected here.

FLORISTIC QUALITY DATA	Native	56	96.6%	Adventive	2	3.4%
56 NATIVE SPECIES	Tree	3	5.2%	Tree	1	1.7%
58 Total Species	Shrub	7	12.1%	Shrub	0	0.0%
4.7 NATIVE MEAN C	W-Vine	1	1.7%	W-Vine	0	0.0%
4.6 W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
35.4 NATIVE FQI	P-Forb	30	51.7%	P-Forb	0	0.0%
34.8 W/Adventives	B-Forb	1	1.7%	B-Forb	1	1.7%
3.5 NATIVE MEAN W	A-Forb	3	5.2%	A-Forb	0	0.0%
3.4 W/Adventives	P-Grass	9	15.5%	P-Grass	0	0.0%
AVG: Fac. Upland	A-Grass	0	0.0%	A-Grass	0	0.0%
	P-Sedge	2	3.4%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	A-Sedge	0	0.0%
	Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ASCVIF	6 Asclepias viridiflora	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
ASTLOT	10 Astragalus lotiflorus	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian plintain
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CEAHER	8 Ceanothus herbaceus var. pubescens	5 UPL	Nt Shrub	Redroot
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
HEDNIG	7 Hedyotis nigricans	5 UPL	Nt P-Forb	Narrow-leaved bluets
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LIAASP	8 Liatris aspera	5 UPL	Nt P-Forb	Rough blazing star
LINRIG	7 Linum rigidum	5 UPL	Nt P-Forb	Stiff flax
LINSUL	7 Linum sulcatum	5 UPL	Nt P-Forb	Grooved yellow flax
LITCAN	7 Lithospermum canescens	5 UPL	Nt P-Forb	Hoary puccoon
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MUHCUS	10 Muhlenbergia cuspidata	5 UPL	Nt P-Grass	Prairie satin grass
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PANOLS	5 Panicum oligosanthes var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PANWIL	7 Panicum wilcoxianum	5 UPL	Nt P-Grass	Wilcox's panic grass
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RATPIN	4 Ratibida pinnata	5 UPL	Nt P-Forb	Gray-headed coneflower
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
ROSARS	4 Rosa arkansana var. suffulta	5 UPL	Nt Shrub	Sunshine rose
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SISCAM	4 Sisyrinchium campestre	5 UPL	Nt P-Forb	Prairie blue-eyed grass
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLRIG	4 Solidago rigida	4 FACU-	Nt P-Forb	Stiff goldenrod
SOLSPE	7 Solidago speciosa	5 UPL	Nt P-Forb	Showy goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SPHOB	8 Sphenopholis obtusata var. obtusata	0 FAC	Nt P-Grass	Prairie wedge grass
STISPA	6 Stipa spartea	5 UPL	Nt P-Grass	Porcupine grass
SYMOCC	0 Symphoricarpos occidentalis	5 UPL	Nt Shrub	Wolfberry
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
VERSTR	1 Verbena stricta	5 UPL	Nt P-Forb	Hoary vervain

VERURT 2 *Verbena urticifolia*
VITRIP 1 *Vitis riparia*

-1 FAC+ Nt P-Forb White vervain
-2 FACW- Nt W-Vine Riverbank grape

Archery Range Woods

3.6 acres; Thicket; Map #71

Notes: These are the "woods" that encircle the archery field. Probably, they occupy what once was loess prairie were once in prairie. Occasional is the adventive species, *Ampelamus albidus*, which is not in the Iowa data base.

FLORISTIC QUALITY DATA		Native		Adventive			
55	NATIVE SPECIES	Tree	9	13.0%	Tree	2	2.9%
69	Total Species	Shrub	6	8.7%	Shrub	0	0.0%
3.0	NATIVE MEAN C	W-Vine	5	7.2%	W-Vine	0	0.0%
2.4	W/Adventives	H-Vine	1	1.4%	H-Vine	0	0.0%
22.5	NATIVE FQI	P-Forb	20	29.0%	P-Forb	2	2.9%
20.1	W/Adventives	B-Forb	2	2.9%	B-Forb	5	7.2%
1.7	NATIVE MEAN W	A-Forb	5	7.2%	A-Forb	3	4.3%
2.0	W/Adventives	P-Grass	5	7.2%	P-Grass	2	2.9%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	2	2.9%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	Box elder
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ARCMIN	0 ARCTIUM MINUS	5 UPL	Ad B-Forb	Common burdock
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXSPAR	6 Carex sparganioides	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHESTA	6 Chenopodium standleyanum	5 UPL	Nt A-Forb	Woodland goosefoot
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DACGLO	0 DACTYLIS GLOMERATA	3 FACU	Ad P-Grass	Orchard grass
DESPIB	1 Descurainia pinnata var. brachycarpa	5 UPL	Nt A-Forb	Tansy mustard
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCYA	0 EUPHORBIA CYATHOPHORA	5 UPL	Ad A-Forb	Wild poinsettia
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaeans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HYSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LEOCAR	0 LEONURUS CARDIACA	5 UPL	Ad P-Forb	Motherwort
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MENCAN	5 Menispermum canadense	-1 FAC+	Nt W-Vine	Moonseed
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
POLVIG	5 Polygonum virginianum	0 FAC	Nt P-Forb	Jumpseed
PRUVIR	2 Prunus virginiana	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SCRMAR	4 Scrophularia marilandica	4 FACU-	Nt P-Forb	Late figwort
SICANG	2 Sicyos angulatus	-2 FACW-	Nt H-Vine	Bur cucumber
SISLOE	0 SISYMBRIUM LOESELII	5 UPL	Ad A-Forb	Tall hedge mustard
SMIECI	6 Smilax ecirrhata	5 UPL	Nt P-Forb	Upright carrion flower

SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad	Tree	Siberian elm
ULMRUB	2	Ulmus rubra	0	FAC	Nt	Tree	Slippery elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt	P-Forb	Stinging nettle
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOPUP	5	Viola pubescens	4	FACU-	Nt	P-Forb	Downy yellow violet
VIOSOR	1	Viola sororia	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

Archery Road Slope

2.0 acres; Timber; Map #70

Notes: *Carex backii*, as listed here, is actually *Carex saximontana*.

FLORISTIC QUALITY DATA		Native		Adventive			
59	NATIVE SPECIES	Tree	6	9.1%	Tree	0	0.0%
66	Total Species	Shrub	8	12.1%	Shrub	0	0.0%
3.1	NATIVE MEAN C	W-Vine	5	7.6%	W-Vine	0	0.0%
2.8	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
24.0	NATIVE FQI	P-Forb	20	30.3%	P-Forb	1	1.5%
22.6	W/Adventives	B-Forb	2	3.0%	B-Forb	4	6.1%
2.2	NATIVE MEAN W	A-Forb	2	3.0%	A-Forb	0	0.0%
2.3	W/Adventives	P-Grass	10	15.2%	P-Grass	0	0.0%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	2	3.0%
		P-Sedge	6	9.1%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
APOCAN	1 Apocynum cannabinum	0 FAC	Nt P-Forb	Indian hemp
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBACK	10 Carex backii	1 FAC-	Nt P-Sedge	Northern grass sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELTUB	0 Helianthus tuberosus	0 FAC	Nt P-Forb	Jerusalem artichoke
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
HYSPAT	5 Hyssopus patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PANOLS	5 Panicum oligosanthos var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
PRUVIR	2 Prunus virginiana	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SCRMAR	4 Scrophularia marilandica	4 FACU-	Nt P-Forb	Late figwort
SETFAB	0 SETARIA FABERII	2 FACU+	Ad A-Grass	Giant foxtail
SETGLA	0 SETARIA GLAUCA	0 FAC	Ad A-Grass	Yellow foxtail
SMISTE	5 Smilacina stellata	1 FAC-	Nt P-Forb	Starry false Solomon's seal
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0 Solidago canadensis	3 FACU	Nt P-Forb	Tall goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SPHOB0	8 Sphenopholis obtusata var. obtusata	0 FAC	Nt P-Grass	Prairie wedge grass

SYMOCC	0	Symphoricarpos occidentalis	5	UPL	Nt Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad P-Forb	Common dandelion
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt W-Vine	Poison ivy
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt P-Forb	Late horse gentian
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad B-Forb	Common mullein
VERURT	2	Verbena urticifolia	-1	FAC+	Nt P-Forb	White vervain
VIOSOR	1	Viola sororia	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt W-Vine	Riverbank grape
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt Shrub	Prickly ash

Archery Valley Reconstruction

9.1 acres; Reconstruction; Map #87

FLORISTIC QUALITY DATA		Native		Adventive			
34	NATIVE SPECIES	Tree	2	4.9%	Tree	0	0.0%
41	Total Species	Shrub	5	12.2%	Shrub	0	0.0%
2.9	NATIVE MEAN C	W-Vine	2	4.9%	W-Vine	0	0.0%
2.4	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
16.8	NATIVE FQI	P-Forb	17	41.5%	P-Forb	0	0.0%
15.3	W/Adventives	B-Forb	1	2.4%	B-Forb	1	2.4%
2.8	NATIVE MEAN W	A-Forb	1	2.4%	A-Forb	3	7.3%
2.7	W/Adventives	P-Grass	4	9.8%	P-Grass	3	7.3%
AVG:	Fac. Upland	A-Grass	1	2.4%	A-Grass	0	0.0%
		P-Sedge	1	2.4%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
APOCAN	1 <i>Apocynum cannabinum</i>	0 FAC	Nt P-Forb	Indian hemp
ASCAMP	4 <i>Asclepias amplexicaulis</i>	5 UPL	Nt P-Forb	Sand milkweed
ASCSYR	0 <i>Asclepias syriaca</i>	5 UPL	Nt P-Forb	Common milkweed
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CANSAT	0 <i>CANNABIS SATIVA</i>	0 FAC	Ad A-Forb	Hemp
CXBREV	4 <i>Carex brevior</i>	0 FAC	Nt P-Sedge	Plains oval sedge
CELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
CHAFAS	1 <i>Chamaecrista fasciculata</i>	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DACGLO	0 <i>DACTYLIS GLOMERATA</i>	3 FACU	Ad P-Grass	Orchard grass
DESILE	5 <i>Desmodium illinoense</i>	5 UPL	Nt P-Forb	Illinois tick trefoil
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
HELMAX	4 <i>Helianthus maximilianii</i>	5 UPL	Nt P-Forb	Maximilian's sunflower
HELHEL	4 <i>Heliopsis helianthoides</i>	5 UPL	Nt P-Forb	False sunflower
IPOPUR	0 <i>IPOMOEA PURPUREA</i>	4 FACU-	Ad A-Forb	Annual morning glory
LACCAN	1 <i>Lactuca canadensis</i>	2 FACU+	Nt B-Forb	Wild lettuce
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LINRIG	7 <i>Linum rigidum</i>	5 UPL	Nt P-Forb	Stiff flax
MEDLUP	0 <i>MEDICAGO LUPULINA</i>	1 FAC-	Ad A-Forb	Black medick
MELOFC	0 <i>MELILOTUS OFFICINALIS</i>	3 FACU	Ad B-Forb	Yellow sweet clover
PANVIR	5 <i>Panicum virgatum</i>	-1 FAC+	Nt A-Grass	Switch grass
PHYHET	2 <i>Physalis heterophylla</i>	5 UPL	Nt P-Forb	Ground cherry
POAPRA	0 <i>POA PRATENSIS</i>	1 FAC-	Ad P-Grass	Kentucky blue grass
POPDEL	1 <i>Populus deltoides</i>	-1 FAC+	Nt Tree	Cottonwood
RATPIN	4 <i>Ratibida pinnata</i>	5 UPL	Nt P-Forb	Gray-headed coneflower
RHUGLA	0 <i>Rhus glabra</i>	5 UPL	Nt Shrub	Smooth sumac
ROSARS	4 <i>Rosa arkansana</i> var. <i>suffulta</i>	5 UPL	Nt Shrub	Sunshine rose
RUDHIR	2 <i>Rudbeckia hirta</i>	3 FACU	Nt P-Forb	Black-eyed Susan
SAMCAN	1 <i>Sambucus canadensis</i>	4 FACU-	Nt Shrub	Elderberry
SOLALT	0 <i>Solidago altissima</i>	3 FACU	Nt P-Forb	Tall goldenrod
SORNUT	4 <i>Sorghastrum nutans</i>	2 FACU+	Nt P-Grass	Indian grass
SPHOB	8 <i>Sphenopholis obtusata</i> var. <i>obtusata</i>	0 FAC	Nt P-Grass	Prairie wedge grass
SYMORB	0 <i>Symphoricarpos orbiculatus</i>	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 <i>Teucrium canadense</i>	-2 FACW-	Nt P-Forb	Germander
VERSTR	1 <i>Verbena stricta</i>	5 UPL	Nt P-Forb	Hoary vervain
VERBAL	2 <i>Vernonia baldwinii</i>	5 UPL	Nt P-Forb	Baldwin's ironweed
VITRIP	1 <i>Vitis riparia</i>	-2 FACW-	Nt W-Vine	Riverbank grape

Back Gate Stream Valley

3.1 acres; Timber; Map #61

Notes: This area includes the cool-flowing stream bottom and the ambient toe slopes. Its water shed includes Fern Ridge and its ambient ridges: Alex and Mary Ridges, Munchkin Prairie, the Chute Thicket, Chute Woods, Chute Prairie, the north McKenzie Research Ridge, Bluestem Meander, Fox Run Ridge Prairie, Highpoint Camp Ridge, about 4 acres of Leisure Ridge, and the slopes of undifferentiated timber #94 & 96; it is fed by the Hidden Valleys. This represents a surface watershed of 257 acres. At 27,000 gallons of water per acre per 1 inch of rain, this means that the potential surface runoff could go as high as 6,000,000 gallons per inch of rain of saturated slopes, about 18 acre-feet of water. This represents about nearly 1/40 of the volume of the 257,000,000 gallons of rain that fall on this watershed each year. Prior to system degradation all or nearly all of this water, no matter the amount rainfall, infiltrated into the ridges and seeped out as a base flow in the form of surface ground water discharge. If it all were to pass through, the flow rate would amount to about 490 gallons per minute, year round. Obviously much rain water remains up in and utilized by the system, but the system itself also produced ground water through condensation on the bunch grasses and through decomposition of soil organic matter, the amounts of which are unknown. Given there are very few functioning watersheds from which to extrapolate, watershed restoration, research, and time will provide us the information necessary fully to understand the hydrology and hydraulics of such systems in the Loess Hills, though clearly there are implications with regard to the costs of flooding and the chronic degradation of water resources. The plant listed as *Rhamnus cathartica* is actually *Rhamnus japonica*, which is not in the Iowa Data base.

On June 24, 2012, late in the day after a 0.03" rain in the morning, there was no base flow at the mouth of the ravine bottom.

FLORISTIC QUALITY DATA		Native	78	94.0%	Adventive	5	6.0%
78	NATIVE SPECIES	Tree	15	18.1%	Tree	1	1.2%
83	Total Species	Shrub	6	7.2%	Shrub	2	2.4%
3.4	NATIVE MEAN C	W-Vine	3	3.6%	W-Vine	0	0.0%
3.2	W/Adventives	H-Vine	2	2.4%	H-Vine	0	0.0%
30.3	NATIVE FQI	P-Forb	28	33.7%	P-Forb	0	0.0%
29.4	W/Adventives	B-Forb	2	2.4%	B-Forb	1	1.2%
0.6	NATIVE MEAN W	A-Forb	8	9.6%	A-Forb	0	0.0%
0.6	W/Adventives	P-Grass	6	7.2%	P-Grass	1	1.2%
AVG:	Faculative (-)	A-Grass	1	1.2%	A-Grass	0	0.0%
		P-Sedge	3	3.6%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	4	4.8%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACARHO	6 <i>Acalypha rhomboidea</i>	3 FACU	Nt A-Forb	Three-seeded mercury
ACENEG	0 <i>Acer negundo</i>	-2 FACW-	Nt Tree	Box elder
ADIPEP	7 <i>Adiantum pedatum</i>	1 FAC-	Nt Fern	Northern maidenhair fern
AGANEP	4 <i>Agastache nepetoides</i>	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLPET	0 <i>ALLIARIA PETIOLATA</i>	0 FAC	Ad B-Forb	Garlic mustard
AMBTRI	0 <i>Ambrosia trifida</i>	-1 FAC+	Nt A-Forb	Giant ragweed
ARITRI	4 <i>Arisaema triphyllum</i>	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ASTLAN	4 <i>Aster lanceolatus</i>	-5 OBL	Nt P-Forb	Panicled aster
BIDFRO	3 <i>Bidens frondosa</i>	-3 FACW	Nt A-Forb	Beggar ticks
BOTVIR	6 <i>Botrychium virginianum</i>	3 FACU	Nt Fern	Rattlesnake fern
CAMAME	4 <i>Campanula americana</i>	0 FAC	Nt A-Forb	Tall bellflower
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CXGRIS	4 <i>Carex grisea</i>	5 UPL	Nt P-Sedge	Gray sedge
CXOLIC	6 <i>Carex oligocarpa</i>	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CARCOR	5 <i>Carya cordiformis</i>	0 FAC	Nt Tree	Bitternut hickory
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
CRYCAN	4 <i>Cryptotaenia canadensis</i>	0 FAC	Nt P-Forb	Honewort
CYSPRO	6 <i>Cystopteris protrusa</i>	4 FACU-	Nt Fern	Creeping fragile fern
DESGLU	5 <i>Desmodium glutinosum</i>	5 UPL	Nt P-Forb	Pointed tick trefoil
DRYCAR	10 <i>Dryopteris carthusiana</i>	5 UPL	Nt Fern	Spinulose wood fern
ECHMUR	2 <i>Echinochloa muricata</i>	-5 OBL	Nt A-Grass	Spiny barnyard grass
ELYVIL	5 <i>Elymus villosus</i>	3 FACU	Nt P-Grass	Slender wild rye
EUPPUR	6 <i>Eupatorium purpureum</i>	0 FAC	Nt P-Forb	Purple Joe Pye weed
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 <i>Festuca obtusa</i>	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEP	3 <i>Fraxinus pennsylvanica</i>	-3 FACW	Nt Tree	Red ash
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
GALTRO	7 <i>Galium triflorum</i>	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 <i>Geum canadense</i>	0 FAC	Nt P-Forb	White avens
GLETRI	0 <i>Gleditsia triacanthos</i>	0 FAC	Nt Tree	Honey locust

GLYSTR	5	Glyceria striata	-5	OBL	Nt	P-Grass	Fowl manna grass
GYMDIO	5	Gymnocladus dioica	5	UPL	Nt	Tree	Kentucky coffee tree
HACVIR	0	Hackelia virginiana	1	FAC-	Nt	P-Forb	Stickseed
HELTUB	0	Helianthus tuberosus	0	FAC	Nt	P-Forb	Jerusalem artichoke
HUMLUP	3	Humulus lupulus	3	FACU	Nt	H-Vine	Common hops
HYSPAT	5	Hystrix patula	5	UPL	Nt	P-Grass	Bottlebrush grass
IMPPAL	5	Impatiens pallida	-3	FACW	Nt	A-Forb	Pale touch-me-not
JUGNIG	4	Juglans nigra	3	FACU	Nt	Tree	Black walnut
LACFLO	4	Lactuca floridana	1	FAC-	Nt	B-Forb	Blue lettuce
LAPCAN	3	Laportea canadensis	-3	FACW	Nt	P-Forb	Wood nettle
LEEVIR	6	Leersia virginica	-3	FACW	Nt	P-Grass	White grass
LOBSIP	3	Lobelia siphilitica	-4	FACW+	Nt	P-Forb	Great blue lobelia
LONMAA	0	LONICERA MAACKII	5	UPL	Ad	Shrub	Amur honeysuckle
MORALB	0	MORUS ALBA	0	FAC	Ad	Tree	White mulberry
MORRUB	4	Morus rubra	1	FAC-	Nt	Tree	Red mulberry
MUHFR0	3	Muhlenbergia frondosa	-3	FACW	Nt	P-Grass	Common satin grass
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt	Tree	Hop hornbeam
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt	W-Vine	Virginia creeper
PHAARU	0	PHALARIS ARUNDINACEA	-4	FACW+	Ad	P-Grass	Reed canary grass
PHLDIV	5	Phlox divaricata	3	FACU	Nt	P-Forb	Woodland phlox
PHRLEP	4	Phryma leptostachya	5	UPL	Nt	P-Forb	Lopseed
PILPUM	3	Pilea pumila	-3	FACW	Nt	A-Forb	Common clearweed
PLARUG	0	Plantago rugelii	0	FAC	Nt	A-Forb	Red-stalked plantain
POLBIF	4	Polygonatum biflorum	3	FACU	Nt	P-Forb	Solomon's seal
POLPUN	4	Polygonum punctatum	-5	OBL	Nt	A-Forb	Water smartweed
POLVIG	5	Polygonum virginianum	0	FAC	Nt	P-Forb	Jumpseed
POPDEL	1	Populus deltoides	-1	FAC+	Nt	Tree	Cottonwood
PRUVUL	0	Prunella vulgaris var. lanceolata	0	FAC	Nt	P-Forb	Self heal
PRUVIR	2	Prunus virginiana	1	FAC-	Nt	Shrub	Choke cherry
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
QUERUB	6	Quercus rubra	3	FACU	Nt	Tree	Northern red oak
RHACAT	0	RHAMNUS CATHARTICA	3	FACU	Ad	Shrub	Common buckthorn
RIBMIS	3	Ribes missouriense	5	UPL	Nt	Shrub	Wild gooseberry
RUBOCC	1	Rubus occidentalis	5	UPL	Nt	Shrub	Black raspberry
RUDLAC	4	Rudbeckia laciniata	-4	FACW+	Nt	P-Forb	Wild golden glow
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt	Shrub	Elderberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt	B-Forb	Black snakeroot
SCRMAR	4	Scrophularia marilandica	4	FACU-	Nt	P-Forb	Late figwort
SICANG	2	Sicyos angulatus	-2	FACW-	Nt	H-Vine	Bur cucumber
SMIECI	6	Smilax ecirrhata	5	UPL	Nt	P-Forb	Upright carrion flower
SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	Solidago gigantea	-3	FACW	Nt	P-Forb	Smooth goldenrod
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
TILAME	5	Tilia americana	3	FACU	Nt	Tree	Basswood
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
ULMAME	2	Ulmus americana	-2	FACW-	Nt	Tree	American elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt	P-Forb	Stinging nettle
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERALT	4	Verbesina alternifolia	-3	FACW	Nt	P-Forb	Wingstem
VIOSOR	1	Viola sororia	1	FAC-	Nt	P-Forb	Hairy blue violet

Badger Bowl

1.2 acres; Loess Prairie; Map #46

Notes: Also here is the adventive species, *Ampelamus albidus*, which not in the Iowa data base.

FLORISTIC QUALITY DATA		Native	79	84.0%	Adventive	15	16.0%
79	NATIVE SPECIES	Tree	3	3.2%	Tree	1	1.1%
94	Total Species	Shrub	5	5.3%	Shrub	0	0.0%
3.4	NATIVE MEAN C	W-Vine	4	4.3%	W-Vine	0	0.0%
2.8	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
29.8	NATIVE FQI	P-Forb	40	42.6%	P-Forb	1	1.1%
27.3	W/Adventives	B-Forb	3	3.2%	B-Forb	3	3.2%
3.1	NATIVE MEAN W	A-Forb	10	10.6%	A-Forb	6	6.4%
3.1	W/Adventives	P-Grass	10	10.6%	P-Grass	2	2.1%
AVG:	Fac. Upland	A-Grass	2	2.1%	A-Grass	2	2.1%
		P-Sedge	2	2.1%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVFR	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 Asclepias viridiflora	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTMIS	8 Astragalus missouriensis	5 UPL	Nt P-Forb	Missouri milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CALSEP	0 Calystegia sepium	0 FAC	Nt P-Forb	Hedge bindweed
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 Dalea candida	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DESILE	5 Desmodium illinoense	5 UPL	Nt P-Forb	Illinois tick trefoil
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAA	0 Euphorbia maculata	4 FACU-	Nt A-Forb	Carpet spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 Euphorbia nutans	3 FACU	Nt A-Forb	Nodding spurge
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
HEDNIG	7 Hedyotis nigricans	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELRIE	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
MUHRAC	4 Muhlenbergia racemosa	-3 FACW	Nt P-Grass	Upland wild Timothy
OENBIE	0 Oenothera biennis	3 FACU	Nt B-Forb	Common evening primrose
ONOMOO	4 Onosmodium molle ssp. occidentale	5 UPL	Nt P-Forb	False gromwell
OXASTR	0 Oxalis stricta	3 FACU	Nt P-Forb	Tall wood sorrel
OXAVIO	7 Oxalis violacea	5 UPL	Nt P-Forb	Violet wood sorrel
PANCAP	0 Panicum capillare	0 FAC	Nt A-Grass	Old witch grass

PANOLS	5	<i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3	FACU	Nt	P-Grass	Scribner's panic grass
PANVIR	5	<i>Panicum virgatum</i>	-1	FAC+	Nt	A-Grass	Switch grass
PARVIT	1	<i>Parthenocissus vitacea</i>	3	FACU	Nt	W-Vine	Thicket creeper
PENGRN	5	<i>Penstemon grandiflorus</i>	5	UPL	Nt	P-Forb	Large-flowered beard tongue
PHYHET	2	<i>Physalis heterophylla</i>	5	UPL	Nt	P-Forb	Ground cherry
PHYLON	0	<i>Physalis longifolia</i>	5	UPL	Nt	P-Forb	Tall ground cherry
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
RATPIN	4	<i>Ratibida pinnata</i>	5	UPL	Nt	P-Forb	Gray-headed coneflower
RHUGLA	0	<i>Rhus glabra</i>	5	UPL	Nt	Shrub	Smooth sumac
SANCAS	6	<i>Sanicula canadensis</i>	2	FACU+	Nt	B-Forb	Black snakeroot
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt	P-Grass	Little bluestem
SETFAB	0	SETARIA FABERII	2	FACU+	Ad	A-Grass	Giant foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad	A-Grass	Green foxtail
SILLAC	7	<i>Silphium laciniatum</i>	4	FACU-	Nt	P-Forb	Compass plant
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad	A-Forb	Tall hedge mustard
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt	W-Vine	Greenbrier
SOLAME	0	<i>Solanum americanum</i>	4	FACU-	Nt	A-Forb	Black nightshade
SOLCAR	0	<i>Solanum carolinense</i>	4	FACU-	Nt	P-Forb	Horse nettle
SOLROS	0	SOLANUM ROSTRATUM	5	UPL	Ad	A-Forb	Buffalo bur
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLMIS	5	<i>Solidago missouriensis</i>	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLRIG	4	<i>Solidago rigida</i>	4	FACU-	Nt	P-Forb	Stiff goldenrod
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt	P-Grass	Indian grass
SPHOB	8	<i>Sphenopholis obtusata</i> var. <i>obtusata</i>	0	FAC	Nt	P-Grass	Prairie wedge grass
STISPA	6	<i>Stipa spartea</i>	5	UPL	Nt	P-Grass	Porcupine grass
STRLEI	7	<i>Strophostyles leiosperma</i>	5	UPL	Nt	A-Forb	Small wild bean
SYMOCC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt	P-Forb	Germander
THYPAS	0	THYMELAEA PASSERINA	5	UPL	Ad	A-Forb	Sparrow weed
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad	Tree	Siberian elm
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt	P-Forb	Hoary vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt	W-Vine	Riverbank grape

Badger Camp

1.0 acres; Ruderal; Map #45

Notes: The adventive species, *Ampelamus albidus*, is here, but not in the Iowa data base. This is the area that was designated as unit #4 in the Rosburg (1993) survey. It includes the campsite area and the ambient thicket. Plants shown in bold face type are known only from that original survey.

FLORISTIC QUALITY DATA		Native	52	83.9%	Adventive	10	16.1%
52	NATIVE SPECIES	Tree	10	16.1%	Tree	1	1.6%
62	Total Species	Shrub	5	8.1%	Shrub	0	0.0%
2.6	NATIVE MEAN C	W-Vine	3	4.8%	W-Vine	0	0.0%
2.2	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
18.9	NATIVE FQI	P-Forb	17	27.4%	P-Forb	1	1.6%
17.3	W/Adventives	B-Forb	2	3.2%	B-Forb	1	1.6%
1.8	NATIVE MEAN W	A-Forb	6	9.7%	A-Forb	3	4.8%
1.8	W/Adventives	P-Grass	5	8.1%	P-Grass	2	3.2%
AVG: Fac. Upland (+)		A-Grass	0	0.0%	A-Grass	2	3.2%
		P-Sedge	4	6.5%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	Box elder
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
ARACAN	7 Arabis canadensis	5 UPL	Nt B-Forb	Sickle pod
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CINARU	4 Cinna arundinacea	-3 FACW	Nt P-Grass	Wood reed
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DATSTS	0 DATURA STRAMONIUM	5 UPL	Ad A-Forb	Jimsonweed
DIGISC	0 DIGITARIA ISCHAEMUM	3 FACU	Ad A-Grass	Smooth crab grass
ELLNYC	1 Elysisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LEOCAR	0 LEONURUS CARDIACA	5 UPL	Ad P-Forb	Motherwort
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MUHSCH	1 Muhlenbergia schreberi	0 FAC	Nt P-Grass	Nimblewill
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PARPEN	3 Parietaria pensylvanica	3 FACU	Nt A-Forb	Pellitory
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
PHYAME	0 Phytolacca americana	1 FAC-	Nt P-Forb	Pokeweed
PILPUM	3 Pilea pumila	-3 FACW	Nt A-Forb	Common clearweed
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
POLVIG	5 Polygonum virginianum	0 FAC	Nt P-Forb	Jumpseed
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SCRMAR	4 Scrophularia marilandica	4 FACU-	Nt P-Forb	Late figwort
SETGLA	0 SETARIA GLAUCA	0 FAC	Ad A-Grass	Yellow foxtail

SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
TILAME	5	Tilia americana	3	FACU	Nt	Tree	Basswood
TRIFLA	0	Tridens flavus	5	UPL	Nt	P-Grass	Purple top
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt	P-Forb	Late horse gentian
ULMRUB	2	Ulmus rubra	0	FAC	Nt	Tree	Slippery elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt	P-Forb	Stinging nettle
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOSOR	1	Viola sororia	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

Badger Camp Prairie

1.7 acres; Loess Prairie; Map #36

Notes: Some of grandest views are available from this beautiful, natural belvedere. The following conservative insects have been collected here: *Atbeas mimeticus*, *Longitarsus subrufus*, *Meligethes saevus*, *Plagiognathus amorphae*, *Pseudopanurgus albitarsis*, and *Pseudopanurgus rugosus*.

FLORISTIC QUALITY DATA		Native		Adventive			
64	NATIVE SPECIES	Tree	4	6.0%	Tree	0	0.0%
67	Total Species	Shrub	7	10.4%	Shrub	0	0.0%
4.7	NATIVE MEAN C	W-Vine	2	3.0%	W-Vine	0	0.0%
4.5	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
37.6	NATIVE FQI	P-Forb	35	52.2%	P-Forb	0	0.0%
36.8	W/Adventives	B-Forb	0	0.0%	B-Forb	1	1.5%
3.9	NATIVE MEAN W	A-Forb	2	3.0%	A-Forb	1	1.5%
3.8	W/Adventives	P-Grass	10	14.9%	P-Grass	1	1.5%
AVG: Fac. Upland (-)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	4	6.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 <i>Agalinis aspera</i>	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower"
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
CXBREV	4 <i>Carex brevior</i>	0 FAC	Nt P-Sedge	Plains oval sedge
CXCEPP	5 <i>Carex cephalophora</i>	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXFEST	8 <i>Carex festucacea</i>	0 FAC	Nt P-Sedge	Fescue oval sedge
CXMUHM	5 <i>Carex muhlenbergii</i>	5 UPL	Nt P-Sedge	Sand bracted sedge
CEAHER	8 <i>Ceanothus herbaceus</i> var. <i>pubescens</i>	5 UPL	Nt Shrub	Redroot
GELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 <i>Dalea candida</i>	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 <i>Desmanthus illinoensis</i>	1 FAC-	Nt P-Forb	Prairie mimosa
DESILE	5 <i>Desmodium illinoense</i>	5 UPL	Nt P-Forb	Illinois tick trefoil
ECHANG	8 <i>Echinacea angustifolia</i>	5 UPL	Nt P-Forb	Purple coneflower
ELYCAN	5 <i>Elymus canadensis</i>	1 FAC-	Nt P-Grass	Canada wild rye
ERASPE	2 <i>Eragrostis spectabilis</i>	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
EUPMAR	0 <i>Euphorbia marginata</i>	3 FACU	Nt A-Forb	Snow-on-the-mountain
GALCIR	6 <i>Galium circaezans</i>	4 FACU-	Nt P-Forb	Wild licorice
HEDNIG	7 <i>Hedyotis nigricans</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELHIR	5 <i>Helianthus hirsutus</i>	5 UPL	Nt P-Forb	Hispid sunflower
HELRIE	8 <i>Helianthus rigidus</i>	5 UPL	Nt P-Forb	Prairie sunflower
JUGNIG	4 <i>Juglans nigra</i>	3 FACU	Nt Tree	Black walnut
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8 <i>Liatris punctata</i>	5 UPL	Nt P-Forb	Dotted blazing star
LINRIG	7 <i>Linum rigidum</i>	5 UPL	Nt P-Forb	Stiff flax
LINSUL	7 <i>Linum sulcatum</i>	5 UPL	Nt P-Forb	Grooved yellow flax
LITCAN	7 <i>Lithospermum canescens</i>	5 UPL	Nt P-Forb	Hoary puccoon
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Skeletonweed
MEDLUP	0 <i>MEDICAGO LUPULINA</i>	1 FAC-	Ad A-Forb	Black medick
MELOFC	0 <i>MELILOTUS OFFICINALIS</i>	3 FACU	Ad B-Forb	Yellow sweet clover
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	5 UPL	Nt P-Grass	Prairie satin grass
ONOMOO	4 <i>Onosmodium molle</i> ssp. <i>occidentale</i>	5 UPL	Nt P-Forb	False gromwell
OSTVIR	5 <i>Ostrya virginiana</i>	4 FACU-	Nt Tree	Hop hornbeam
PANIMP	3 <i>Panicum implicatum</i>	1 FAC-	Nt P-Grass	Old field panic grass
PANOLS	5 <i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3 FACU	Nt P-Grass	Scribner's panic grass
PEDARG	5 <i>Pedimelum argophyllum</i>	5 UPL	Nt P-Forb	Silvery scurfy pea
PENGRN	5 <i>Penstemon grandiflorus</i>	5 UPL	Nt P-Forb	Large-flowered beard tongue
POAPRA	0 <i>POA PRATENSIS</i>	1 FAC-	Ad P-Grass	Kentucky blue grass
QUEMAC	4 <i>Quercus macrocarpa</i>	1 FAC-	Nt Tree	Bur oak

RHUGLA	0	<i>Rhus glabra</i>	5	UPL	Nt Shrub	Smooth sumac
ROSARS	4	<i>Rosa arkansana</i> var. <i>suffulta</i>	5	UPL	Nt Shrub	Sunshine rose
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt P-Grass	Little bluestem
SISCAM	4	<i>Sisyrinchium campestre</i>	5	UPL	Nt P-Forb	Prairie blue-eyed grass
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt W-Vine	Greenbrier
SOLMIS	5	<i>Solidago missouriensis</i>	5	UPL	Nt P-Forb	Missouri goldenrod
SOLRIG	4	<i>Solidago rigida</i>	4	FACU-	Nt P-Forb	Stiff goldenrod
STISPA	6	<i>Stipa spartea</i>	5	UPL	Nt P-Grass	Porcupine grass
SYMOC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt Shrub	Coralberry
TRIFLA	0	<i>Tridens flavus</i>	5	UPL	Nt P-Grass	Purple top
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt P-Forb	Hoary vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt P-Forb	Baldwin's ironweed
VIOSOR	1	<i>Viola sororia</i>	1	FAC-	Nt P-Forb	Hairy blue violet

Badger Hill

5.1 acres; Loess Prairie; Map #47

FLORISTIC QUALITY DATA		Native		Adventive	
77	NATIVE SPECIES	77	91.7%	7	8.3%
84	Total Species	Tree	4 4.8%	Tree	0 0.0%
4.2	NATIVE MEAN C	Shrub	8 9.5%	Shrub	0 0.0%
3.9	W/Adventives	H-Vine	4 4.8%	H-Vine	0 0.0%
37.3	NATIVE FQI	H-Vine	1 1.2%	H-Vine	0 0.0%
35.7	W/Adventives	P-Forb	43 51.2%	P-Forb	1 1.2%
3.2	NATIVE MEAN W	B-Forb	1 1.2%	B-Forb	3 3.6%
3.2	W/Adventives	A-Forb	5 6.0%	A-Forb	0 0.0%
AVG: Fac. Upland		P-Grass	8 9.5%	P-Grass	2 2.4%
		A-Grass	1 1.2%	A-Grass	1 1.2%
		P-Sedge	1 1.2%	P-Sedge	0 0.0%
		A-Sedge	0 0.0%	A-Sedge	0 0.0%
		Fern	1 1.2%		

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10	Agalinis aspera	5	UPL	Nt A-Forb	Rough false foxglove
AMBART	0	Ambrosia artemisiifolia	3	FACU	Nt A-Forb	Common ragweed
AMBPSI	2	Ambrosia psilostachya	1	FAC-	Nt P-Forb	Western ragweed
AMOCAN	8	Amorpha canescens	5	UPL	Nt Shrub	Lead plant
ANDGER	4	Andropogon gerardii	1	FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7	Anemone cylindrica	5	UPL	Nt P-Forb	"Windflower
ANEVIR	4	Anemone virginiana	5	UPL	Nt P-Forb	Tall anemone
ANTNEG	2	Antennaria neglecta	5	UPL	Nt P-Forb	Cat's feet
APOSIB	1	Apocynum sibiricum	-1	FAC+	Nt P-Forb	Indian hemp
ASCAMP	4	Asclepias amplexicaulis	5	UPL	Nt P-Forb	Sand milkweed
ASCSYR	0	Asclepias syriaca	5	UPL	Nt P-Forb	Common milkweed
ASCVER	0	Asclepias verticillata	5	UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6	Asclepias viridiflora	5	UPL	Nt P-Forb	Green milkweed
ASTAZU	7	Aster azureus	5	UPL	Nt P-Forb	Sky-blue aster
ASTERI	3	Aster ericoides	4	FACU-	Nt P-Forb	Heath aster
ASTOBL	10	Aster oblongifolius	5	UPL	Nt P-Forb	Aromatic aster
ASTSAG	6	Aster sagittifolius	5	UPL	Nt P-Forb	Arrow-leaved aster
ASTSER	10	Aster sericeus	5	UPL	Nt P-Forb	Silky aster
ASTCAN	4	Astragalus canadensis	-1	FAC+	Nt P-Forb	Canadian milk vetch
BOUCUR	6	Bouteloua curtipendula	5	UPL	Nt P-Grass	Side-oats grama
BRIEUP	5	Brickellia eupatorioides	5	UPL	Nt P-Forb	False boneset
BROINE	0	BROMUS INERMIS	5	UPL	Ad P-Grass	Smooth brome
CXPENP	6	Carex pensylvanica	-4	FACW+	Nt P-Sedge	Pennsylvania oak sedge
CARCOR	5	Carya cordiformis	0	FAC	Nt Tree	Bitternut hickory
CEAHER	8	Ceanothus herbaceus var. pubescens	5	UPL	Nt Shrub	Redroot
CELSCA	1	Celastrus scandens	3	FACU	Nt W-Vine	Bittersweet
COMUMB	6	Comandra umbellata	3	FACU	Nt P-Forb	Bastard toadflax
CORDRU	4	Cornus drummondii	0	FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10	Dalea candida	5	UPL	Nt P-Forb	White prairie clover
DALENN	10	Dalea enneandra	5	UPL	Nt P-Forb	Sailpod dalea
DALPUR	8	Dalea purpurea	5	UPL	Nt P-Forb	Purple prairie clover
DELVIR	7	Delphinium virescens	5	UPL	Nt P-Forb	Prairie larkspur
DESILE	5	Desmodium illinoense	5	UPL	Nt P-Forb	Illinois tick trefoil
ECHANG	8	Echinacea angustifolia	5	UPL	Nt P-Forb	Purple coneflower
ELYCAN	5	Elymus canadensis	1	FAC-	Nt P-Grass	Canada wild rye
EQULAE	6	Equisetum laevigatum	-3	FACW	Nt Fern	Smooth scouring rush
ERASPE	2	Eragrostis spectabilis	5	UPL	Nt P-Grass	Purple love grass
EREHIE	0	Erechtites hieracifolia	3	FACU	Nt A-Forb	Fireweed
ERISTR	2	Erigeron strigosus	1	FAC-	Nt P-Forb	Daisy fleabane
EUPRUG	2	Eupatorium rugosum	3	FACU	Nt P-Forb	White snakeroot
EUPCOR	3	Euphorbia corollata	5	UPL	Nt P-Forb	Flowering spurge
EUPDEN	0	Euphorbia dentata	5	UPL	Nt A-Forb	Toothed spurge
EUPMAR	0	Euphorbia marginata	3	FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1	Fraxinus pennsylvanica var. lanceolata	-3	FACW	Nt Tree	Green ash
HACVIR	0	Hackelia virginiana	1	FAC-	Nt P-Forb	Stickseed
HEDNIG	7	Hedyotis nigricans	5	UPL	Nt P-Forb	Narrow-leaved bluets
HELRIE	8	Helianthus rigidus	5	UPL	Nt P-Forb	Prairie sunflower
JUGNIG	4	Juglans nigra	3	FACU	Nt Tree	Black walnut
LACCAN	1	Lactuca canadensis	2	FACU+	Nt B-Forb	Wild lettuce
LACTAP	2	Lactuca tatarica ssp. pulchella	5	UPL	Nt P-Forb	Showy blue lettuce
LESCAP	3	Lespedeza capitata	3	FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8	Liatris punctata	5	UPL	Nt P-Forb	Dotted blazing star
LINRIG	7	Linum rigidum	5	UPL	Nt P-Forb	Stiff flax
LYGJUN	7	Lygodesmia juncea	5	UPL	Nt P-Forb	Skeletonweed
MELALB	0	MELILOTUS ALBA	3	FACU	Ad B-Forb	White sweet clover
MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad B-Forb	Yellow sweet clover
MUHCUS	10	Muhlenbergia cuspidata	5	UPL	Nt P-Grass	Prairie satin grass
PANCAP	0	Panicum capillare	0	FAC	Nt A-Grass	Old witch grass
PARVIT	1	Parthenocissus vitacea	3	FACU	Nt W-Vine	Thicket creeper

PENGRN	5	Penstemon grandiflorus	5	UPL	Nt	P-Forb	Large-flowered beard tongue
PHYVIG	4	Physalis virginiana	5	UPL	Nt	P-Forb	Ground cherry
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
ROSARS	4	Rosa arkansana var. suffulta	5	UPL	Nt	Shrub	Sunshine rose
SALHUM	8	Salix humilis	3	FACU	Nt	Shrub	Prairie willow
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SETFAB	0	SETARIA FABERII	2	FACU+	Ad	A-Grass	Giant foxtail
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SMILAS	5	Smilax lasioneura	0	FAC	Nt	H-Vine	Common carrion flower
SOLRIG	4	Solidago rigida	4	FACU-	Nt	P-Forb	Stiff goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
STISPA	6	Stipa spartea	5	UPL	Nt	P-Grass	Porcupine grass
SYMOCC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOPEF	8	Viola pedatifida	4	FACU-	Nt	P-Forb	Prairie violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

Badger Ridge

13.0 acres; Loess Prairie; Map #52

Notes: Badger Ridge is one of the better prairie ridges at Hitchcock Nature Preserve, but its ridge top is wholly degraded by two-track access to most of the southern and western districts of the preserve. At long-term plan might consider decommissioning it as a vehicle throughway and limiting portions of it to hiking, for which use it also is popular. The following conservative insect species have been collected here: *Pseudopanurgus albitarsis*, *Pseudopanurgus nebrascensis*, and *Pseudopanurgus rugosus*.

FLORISTIC QUALITY DATA		Native	116	88.5%	Adventive	15	11.5%
116	NATIVE SPECIES	Tree	9	6.9%	Tree	1	0.8%
131	Total Species	Shrub	10	7.6%	Shrub	0	0.0%
4.6	NATIVE MEAN C	W-Vine	3	2.3%	W-Vine	0	0.0%
4.1	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
50.0	NATIVE FQI	P-Forb	59	45.0%	P-Forb	2	1.5%
47.0	W/Adventives	B-Forb	3	2.3%	B-Forb	3	2.3%
3.0	NATIVE MEAN W	A-Forb	8	6.1%	A-Forb	5	3.8%
2.9	W/Adventives	P-Grass	16	12.2%	P-Grass	3	2.3%
AVG: Fac. Upland		A-Grass	1	0.8%	A-Grass	1	0.8%
		P-Sedge	6	4.6%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	0.8%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANEVIR	4 Anemone virginiana	5 UPL	Nt P-Forb	Tall anemone
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
APOSIB	1 Apocynum sibiricum	-1 FAC+	Nt P-Forb	Indian hemp
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 Asclepias viridiflora	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 Aster oblongifolius	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
ASTCAN	4 Astragalus canadensis	-1 FAC+	Nt P-Forb	Canadian milk vetch
ASTLOT	10 Astragalus lotiflorus	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
BROJAP	0 BROMUS JAPONICUS	3 FACU	Ad A-Grass	Japanese chess
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian plaintain
CALSER	9 Calylophus serrulatus	5 UPL	Nt Shrub	Toothed evening primrose
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CXPELL	4 Carex pellita	-5 OBL	Nt P-Sedge	Broad-leaved woolly sedge
CXPENP	6 Carex pensylvanica	-4 FACW+	Nt P-Sedge	Pennsylvania oak sedge
CEAHER	8 Ceanothus herbaceus var. pubescens	5 UPL	Nt Shrub	Redroot
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRUND	10 Cirsium undulatum	1 FAC-	Nt P-Forb	Wavy-leaved thistle
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 Dalea candida	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESPIB	1 Descurainia pinnata var. brachycarpa	5 UPL	Nt A-Forb	Tansy mustard
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DESILE	5 Desmodium illinoense	5 UPL	Nt P-Forb	Illinois tick trefoil
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye

EQUILAE	6	Equisetum laevigatum	-3	FACW	Nt	Fern	Smooth scouring rush
ERASPE	2	Eragrostis spectabilis	5	UPL	Nt	P-Grass	Purple love grass
ERISTR	2	Erigeron strigosus	1	FAC-	Nt	P-Forb	Daisy fleabane
EUPCOR	3	Euphorbia corollata	5	UPL	Nt	P-Forb	Flowering spurge
EUPCYA	0	EUPHORBIA CYATHOPHORA	5	UPL	Ad	A-Forb	Wild poinsettia
EUPDEN	0	Euphorbia dentata	5	UPL	Nt	A-Forb	Toothed spurge
EUPMAR	0	Euphorbia marginata	3	FACU	Nt	A-Forb	Snow-on-the-mountain
FESOBT	7	Festuca obtusa	2	FACU+	Nt	P-Grass	Nodding fescue
FRAPEL	1	Fraxinus pennsylvanica var. lanceolata	-3	FACW	Nt	Tree	Green ash
GAUCOC	7	Gaura coccinea	5	UPL	Nt	P-Forb	Scarlet gaura
GYMDIO	5	Gymnocladus dioica	5	UPL	Nt	Tree	Kentucky coffee tree
HEDNIG	7	Hedyotis nigricans	5	UPL	Nt	P-Forb	Narrow-leaved bluets
HELANN	0	Helianthus annuus	1	FAC-	Nt	A-Forb	Garden sunflower
HELRIG	8	Helianthus rigidus	5	UPL	Nt	P-Forb	Prairie sunflower
HELSTR	5	Helianthus strumosus	5	UPL	Nt	P-Forb	Pale-leaved sunflower
HELHEL	4	Heliopsis helianthoides	5	UPL	Nt	P-Forb	False sunflower
JUGNIG	4	Juglans nigra	3	FACU	Nt	Tree	Black walnut
KOEMAC	7	Koeleria macrantha	5	UPL	Nt	P-Grass	June grass
LACCAN	1	Lactuca canadensis	2	FACU+	Nt	B-Forb	Wild lettuce
LACFLO	4	Lactuca floridana	1	FAC-	Nt	B-Forb	Blue lettuce
LACSER	0	LACTUCA SERRIOLA	0	FAC	Ad	B-Forb	Prickly lettuce
LESCAP	3	Lespedeza capitata	3	FACU	Nt	P-Forb	Round-headed bush clover
LIAPUN	8	Liatris punctata	5	UPL	Nt	P-Forb	Dotted blazing star
LINRIG	7	Linum rigidum	5	UPL	Nt	P-Forb	Stiff flax
LITCAN	7	Lithospermum canescens	5	UPL	Nt	P-Forb	Hoary puccoon
LITINC	5	Lithospermum incisum	5	UPL	Nt	P-Forb	Fringed puccoon
LYGJUN	7	Lygodesmia juncea	5	UPL	Nt	P-Forb	Skeletonweed
MEDLUP	0	MEDICAGO LUPULINA	1	FAC-	Ad	A-Forb	Black medick
MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad	B-Forb	Yellow sweet clover
MENCAN	5	Menispermum canadense	-1	FAC+	Nt	W-Vine	Moonseed
MONFIS	2	Monarda fistulosa	3	FACU	Nt	P-Forb	Wild bergamot
MORALB	0	MORUS ALBA	0	FAC	Ad	Tree	White mulberry
MUHCUS	10	Muhlenbergia cuspidata	5	UPL	Nt	P-Grass	Prairie satin grass
MUHMEX	5	Muhlenbergia mexicana	-3	FACW	Nt	P-Grass	Leafy satin grass
MUHRAC	4	Muhlenbergia racemosa	-3	FACW	Nt	P-Grass	Upland wild Timothy
NEPCAT	0	NEPETA CATARIA	1	FAC-	Ad	P-Forb	Catnip
ONOMOO	4	Onosmodium molle ssp. occidentale	5	UPL	Nt	P-Forb	False gromwell
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt	Tree	Hop hornbeam
OXYLAM	8	Oxytropis lambertii	4	FACU-	Nt	P-Forb	Locoweed
PANIMP	3	Panicum implicatum	1	FAC-	Nt	P-Grass	Old field panic grass
PANOLS	5	Panicum oligosanthos var. scribnerianum	3	FACU	Nt	P-Grass	Scribner's panic grass
PEDESC	8	Pediomelum esculentum	5	UPL	Nt	P-Forb	Prairie turnip
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt	P-Forb	Large-flowered beard tongue
POACOM	0	POA COMPRESSA	2	FACU+	Ad	P-Grass	Canadian blue grass
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt	P-Forb	Solomon's seal
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
RUBOCC	1	Rubus occidentalis	5	UPL	Nt	Shrub	Black raspberry
SALHUM	8	Salix humilis	3	FACU	Nt	Shrub	Prairie willow
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt	Shrub	Elderberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt	B-Forb	Black snakeroot
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SCRMAR	4	Scrophularia marilandica	4	FACU-	Nt	P-Forb	Late figwort
SENPLA	3	Senecio plattensis	4	FACU-	Nt	P-Forb	Prairie ragwort
SILLAC	7	Silphium laciniatum	4	FACU-	Nt	P-Forb	Compass plant
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	Solidago gigantea	-3	FACW	Nt	P-Forb	Smooth goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt	P-Forb	Stiff goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
SPHOB	8	Sphenopholis obtusata var. obtusata	0	FAC	Nt	P-Grass	Prairie wedge grass
SPOASP	3	Sporobolus asper	5	UPL	Nt	P-Grass	Rough dropseed
SPOVAG	1	Sporobolus vaginiflorus	5	UPL	Nt	A-Grass	Sheathed rush grass
STISPA	6	Stipa spartea	5	UPL	Nt	P-Grass	Porcupine grass
SYMOC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
THYPAS	0	THYMELAEA PASSERINA	5	UPL	Ad	A-Forb	Sparrow weed
TILAME	5	Tilia americana	3	FACU	Nt	Tree	Basswood
TRADUB	0	TRAGOPOGON DUBIUS	5	UPL	Ad	B-Forb	Sandy goat's beard
ULMAME	2	Ulmus americana	-2	FACW-	Nt	Tree	American elm
ULMRUB	2	Ulmus rubra	0	FAC	Nt	Tree	Slippery elm
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOPEF	8	Viola pedatifida	4	FACU-	Nt	P-Forb	Prairie violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

Barn Parking Reconstruction

0.8 acre; Reconstruction; Map #73

Notes: The adventive species, *Physalis angulata* is not in the Iowa database. The lichen growing on the interpretive sign is *Physcia stellaris*.

FLORISTIC QUALITY DATA		Native		Adventive	
45	NATIVE SPECIES	45	76.3%	14	23.7%
59	Total Species	Tree	2 3.4%	Tree	1 1.7%
2.3	NATIVE MEAN C	Shrub	4 6.8%	Shrub	0 0.0%
1.7	W/Adventives	W-Vine	1 1.7%	W-Vine	0 0.0%
15.4	NATIVE FQI	H-Vine	3 5.1%	H-Vine	0 0.0%
13.4	W/Adventives	P-Forb	21 35.6%	P-Forb	2 3.4%
2.7	NATIVE MEAN W	B-Forb	3 5.1%	B-Forb	3 5.1%
2.6	W/Adventives	A-Forb	5 8.5%	A-Forb	5 8.5%
AVG: Fac. Upland		P-Grass	5 8.5%	P-Grass	1 1.7%
		A-Grass	1 1.7%	A-Grass	2 3.4%
		P-Sedge	0 0.0%	P-Sedge	0 0.0%
		A-Sedge	0 0.0%	A-Sedge	0 0.0%
		Fern	0 0.0%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMBTRI	0 Ambrosia trifida	-1 FAC+	Nt A-Forb	Giant ragweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCTUB	6 Asclepias tuberosa	5 UPL	Nt P-Forb	Butterfly weed
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CALSEP	0 Calystegia sepium	0 FAC	Nt P-Forb	Hedge bindweed
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESPIB	1 Descurainia pinnata var. brachycarpa	5 UPL	Nt A-Forb	Tansy mustard
DESCAD	6 Desmodium canadense	1 FAC-	Nt P-Forb	Showy tick trefoil
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GAUBIE	3 Gaura biennis	4 FACU-	Nt B-Forb	Biennial gaura
HELHEL	4 Helianthus helianthoides	5 UPL	Nt P-Forb	False sunflower
HUMLUP	3 Humulus lupulus	3 FACU	Nt H-Vine	Common hops
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LACSER	0 LACTUCA SERRIOLA	0 FAC	Ad B-Forb	Prickly lettuce
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MIARNYC	0 Mirabilis nyctaginea	5 UPL	Nt P-Forb	Wild four o'clock
MONFIS	2 Monarda fistulosa	3 FACU	Nt P-Forb	Wild bergamot
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
OENBIE	0 Oenothera biennis	3 FACU	Nt B-Forb	Common evening primrose
PANVIR	5 Panicum virgatum	-1 FAC+	Nt A-Grass	Switch grass
PENGRN	5 Penstemon grandiflorus	5 UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2 Physalis heterophylla	5 UPL	Nt P-Forb	Ground cherry
PHYLON	0 Physalis longifolia	5 UPL	Nt P-Forb	Tall ground cherry
POLSCN	2 Polygonum scandens	0 FAC	Nt H-Vine	Climbing false buckwheat
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RUMPAT	0 RUMEX PATIENTIA	5 UPL	Ad P-Forb	Patience dock
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SETFAB	0 SETARIA FABERII	2 FACU+	Ad A-Grass	Giant foxtail
SETVIR	0 SETARIA VIRIDIS	5 UPL	Ad A-Grass	Green foxtail
SICANG	2 Sicyos angulatus	-2 FACW-	Nt H-Vine	Bur cucumber
SISLOE	0 SISYMBRIUM LOESELII	5 UPL	Ad A-Forb	Tall hedge mustard
SOLCAR	0 Solanum carolinense	4 FACU-	Nt P-Forb	Horse nettle
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0 Solidago canadensis	3 FACU	Nt P-Forb	Tall goldenrod
SONASP	0 SONCHUS ASPER	0 FAC	Ad A-Forb	Spiny-leaved sow thistle
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
THLARV	0 THLASPI ARVENSE	5 UPL	Ad A-Forb	Penny cress
ULMRUB	2 Ulmus rubra	0 FAC	Nt Tree	Slippery elm
URTDIO	0 Urtica dioica	-1 FAC+	Nt P-Forb	Stinging nettle

VERURT	2	<i>Verbena urticifolia</i>	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt	W-Vine	Riverbank grape
ZANAME	3	<i>Zanthoxylum americanum</i>	5	UPL	Nt	Shrub	Prickly ash

Barn Parking Woods

0.7 acre; Timber; Map #74

FLORISTIC QUALITY DATA		Native		Adventive	
56	NATIVE SPECIES	56	70.0%	24	30.0%
80	Total Species	6	7.5%	3	3.8%
2.5	NATIVE MEAN C	5	6.3%	0	0.0%
1.8	W/Adventives	3	3.8%	0	0.0%
18.8	NATIVE FQI	2	2.5%	0	0.0%
15.8	W/Adventives	23	28.8%	3	3.8%
1.7	NATIVE MEAN W	1	1.3%	5	6.3%
1.9	W/Adventives	6	7.5%	5	6.3%
AVG: Fac. Upland (+)		8	10.0%	4	5.0%
		1	1.3%	4	5.0%
		1	1.3%	0	0.0%
		0	0.0%	0	0.0%
		0	0.0%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACARHO	6 <i>Acalypha rhomboidea</i>	3 FACU	Nt A-Forb	Three-seeded mercury
AILALT	0 <i>AILANTHUS ALTISSIMA</i>	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 <i>ALLIARIA PETIOLATA</i>	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 <i>Ambrosia artemisiifolia</i>	3 FACU	Nt A-Forb	Common ragweed
AMBTRI	0 <i>Ambrosia trifida</i>	-1 FAC+	Nt A-Forb	Giant ragweed
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
APOCAN	1 <i>Apocynum cannabinum</i>	0 FAC	Nt P-Forb	Indian hemp
APOSIB	1 <i>Apocynum sibiricum</i>	-1 FAC+	Nt P-Forb	Indian hemp
ARCMIN	0 <i>ARCTIUM MINUS</i>	5 UPL	Ad B-Forb	Common burdock
ASCSYR	0 <i>Asclepias syriaca</i>	5 UPL	Nt P-Forb	Common milkweed
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CAMAME	4 <i>Campanula americana</i>	0 FAC	Nt A-Forb	Tall bellflower
CANSAT	0 <i>CANNABIS SATIVA</i>	0 FAC	Ad A-Forb	Hemp
CAPBUR	0 <i>CAPSELLA BURSA-PASTORIS</i>	1 FAC-	Ad A-Forb	Shepherd's purse
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
CHEALB	0 <i>CHENOPODIUM ALBUM</i>	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 <i>Chenopodium hybridum</i>	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DESILS	4 <i>Desmanthus illinoensis</i>	1 FAC-	Nt P-Forb	Prairie mimosa
DESCAD	6 <i>Desmodium canadense</i>	1 FAC-	Nt P-Forb	Showy tick trefoil
DIGSAN	0 <i>DIGITARIA SANGUINALIS</i>	3 FACU	Ad A-Grass	Common crab grass
ELEIND	0 <i>ELEUSINE INDICA</i>	3 FACU	Ad A-Grass	Goose grass
ELLNVC	1 <i>Ellisia nyctelea</i>	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYCAN	5 <i>Elymus canadensis</i>	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 <i>Elymus villosus</i>	3 FACU	Nt P-Grass	Slender wild rye
EUPALT	2 <i>Eupatorium altissimum</i>	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
FESARU	0 <i>FESTUCA ARUNDINACEA</i>	2 FACU+	Ad P-Grass	Tall fescue
FRAPEP	3 <i>Fraxinus pennsylvanica</i>	-3 FACW	Nt Tree	Red ash
FRAPEL	1 <i>Fraxinus pennsylvanica var. lanceolata</i>	-3 FACW	Nt Tree	Green ash
GYMDIO	5 <i>Gymnocladus dioica</i>	5 UPL	Nt Tree	Kentucky coffee tree
HELTUB	0 <i>Helianthus tuberosus</i>	0 FAC	Nt P-Forb	Jerusalem artichoke
HELHEL	4 <i>Heliopsis helianthoides</i>	5 UPL	Nt P-Forb	False sunflower
HUMLUP	3 <i>Humulus lupulus</i>	3 FACU	Nt H-Vine	Common hops
JUGNIG	4 <i>Juglans nigra</i>	3 FACU	Nt Tree	Black walnut
LACCAN	1 <i>Lactuca canadensis</i>	2 FACU+	Nt B-Forb	Wild lettuce
LACSER	0 <i>LACTUCA SERRIOLA</i>	0 FAC	Ad B-Forb	Prickly lettuce
LAPCAN	3 <i>Laportea canadensis</i>	-3 FACW	Nt P-Forb	Wood nettle
LEEVIR	6 <i>Leersia virginica</i>	-3 FACW	Nt P-Grass	White grass
LEOCAR	0 <i>LEONURUS CARDIACA</i>	5 UPL	Ad P-Forb	Motherwort
MELALB	0 <i>MELILOTUS ALBA</i>	3 FACU	Ad B-Forb	White sweet clover
MORALB	0 <i>MORUS ALBA</i>	0 FAC	Ad Tree	White mulberry
OXADIL	0 <i>Oxalis dillenii</i>	5 UPL	Nt P-Forb	Common wood sorrel
PANVIR	5 <i>Panicum virgatum</i>	-1 FAC+	Nt A-Grass	Switch grass
PHAAARU	0 <i>PHALARIS ARUNDINACEA</i>	-4 FACW+	Ad P-Grass	Reed canary grass
POAPRA	0 <i>POA PRATENSIS</i>	1 FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4 <i>Polygonatum biflorum</i>	3 FACU	Nt P-Forb	Solomon's seal
POLSCN	2 <i>Polygonum scandens</i>	0 FAC	Nt H-Vine	Climbing false buckwheat
PRUVIR	2 <i>Prunus virginiana</i>	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 <i>Quercus macrocarpa</i>	1 FAC-	Nt Tree	Bur oak
RUBOCC	1 <i>Rubus occidentalis</i>	5 UPL	Nt Shrub	Black raspberry
SAMCAN	1 <i>Sambucus canadensis</i>	4 FACU-	Nt Shrub	Elderberry
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem
SETFAB	0 <i>SETARIA FABERII</i>	2 FACU+	Ad A-Grass	Giant foxtail
SETGLA	0 <i>SETARIA GLAUCA</i>	0 FAC	Ad A-Grass	Yellow foxtail

SILINT	4	Silphium integrifolium	5	UPL	Nt	P-Forb	Rosin weed
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad	A-Forb	Tall hedge mustard
SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt	P-Forb	Tall goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
THLARV	0	THLASPI ARVENSE	5	UPL	Ad	A-Forb	Penny cress
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
TRIFLA	0	Tridens flavus	5	UPL	Nt	P-Grass	Purple top
TRIPRA	0	TRIFOLIUM PRATENSE	2	FACU+	Ad	P-Forb	Red clover
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad	Tree	Siberian elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt	P-Forb	Stinging nettle
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOSOR	1	Viola sororia	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

Below-the-Dam Wetland

4.4 acres; Wetland; Map #7

Notes: This area includes some seeding from a very recent prairie reconstruction attempt. The following conservative insects have been collected here: *Anthophora walsbii* and *Xeromelecta interrupta*.

FLORISTIC QUALITY DATA		Native		Adventive	
92	NATIVE SPECIES	Tree	7	Tree	1
107	Total Species	Shrub	7	Shrub	0
2.9	NATIVE MEAN C	W-Vine	5	W-Vine	0
2.5	W/Adventives	H-Vine	1	H-Vine	0
27.8	NATIVE FQI	P-Forb	38	P-Forb	2
25.8	W/Adventives	B-Forb	2	B-Forb	2
0.0	NATIVE MEAN W	A-Forb	13	A-Forb	2
0.2	W/Adventives	P-Grass	12	P-Grass	3
AVG:	Faculative	A-Grass	2	A-Grass	5
		P-Sedge	2	P-Sedge	0
		A-Sedge	0	A-Sedge	0
		Fern	3		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACARHO	6 <i>Acalypha rhomboidea</i>	3 FACU	Nt A-Forb	Three-seeded mercury
ACENEG	0 <i>Acer negundo</i>	-2 FACW-	Nt Tree	Box elder
ACESAI	1 <i>Acer saccharinum</i>	-3 FACW	Nt Tree	Silver maple
AGANEP	4 <i>Agastache nepetoides</i>	3 FACU	Nt P-Forb	Yellow giant hyssop
AGRGRY	3 <i>Agrimonia gryposepala</i>	2 FACU+	Nt P-Forb	Tall agrimony
ALLPET	0 <i>ALLIARIA PETIOLATA</i>	0 FAC	Ad B-Forb	Garlic mustard
AMATUB	0 <i>Amaranthus tuberculatus</i>	-5 OBL	Nt A-Forb	Water hemp
AMBTRI	0 <i>Ambrosia trifida</i>	-1 FAC+	Nt A-Forb	Giant ragweed
AMMCOB	4 <i>Ammannia coccinea</i>	-5 OBL	Nt A-Forb	Toothcup
AMPBRB	4 <i>Amphicarpaea bracteata</i>	0 FAC	Nt H-Vine	Hog peanut
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
APOSIB	1 <i>Apocynum sibiricum</i>	-1 FAC+	Nt P-Forb	Indian hemp
ARITRI	4 <i>Arisaema triphyllum</i>	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
ASTLAE	7 <i>Aster laevis</i>	5 UPL	Nt P-Forb	Smooth blue aster
ASTLAN	4 <i>Aster lanceolatus</i>	-5 OBL	Nt P-Forb	Panicled aster
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
BROJAP	0 <i>BROMUS JAPONICUS</i>	3 FACU	Ad A-Grass	Japanese chess
CAMAME	4 <i>Campanula americana</i>	0 FAC	Nt A-Forb	Tall bellflower
CAPBUR	0 <i>CAPSELLA BURSA-PASTORIS</i>	1 FAC-	Ad A-Forb	Shepherd's purse
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
CHAFAS	1 <i>Chamaecrista fasciculata</i>	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
CLEVIR	2 <i>Clematis virginiana</i>	0 FAC	Nt W-Vine	Virgin's bower
CONCAN	0 <i>Conyza canadensis</i>	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DESILS	4 <i>Desmanthus illinoensis</i>	1 FAC-	Nt P-Forb	Prairie mimosa
DESCAD	6 <i>Desmodium canadense</i>	1 FAC-	Nt P-Forb	Showy tick trefoil
DESILE	5 <i>Desmodium illinoense</i>	5 UPL	Nt P-Forb	Illinois tick trefoil
ECHCRU	0 <i>ECHINOCHLOA CRUSGALLI</i>	-3 FACW	Ad A-Grass	Barnyard grass
ELYCAN	5 <i>Elymus canadensis</i>	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 <i>Elymus villosus</i>	3 FACU	Nt P-Grass	Slender wild rye
ELYVIR	3 <i>Elymus virginicus</i>	-2 FACW-	Nt P-Grass	Virginia wild rye
EQUARV	0 <i>Equisetum arvense</i>	0 FAC	Nt Fern	Common horsetail
EQUFER	1 <i>Equisetum X ferrissii</i>	-3 FACW	Nt Fern	Hybrid scouring rush
ERIPHI	2 <i>Erigeron philadelphicus</i>	-3 FACW	Nt P-Forb	Fleabane
EUPPER	6 <i>Eupatorium perfoliatum</i>	-4 FACW+	Nt P-Forb	Common boneset
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
EUPSER	2 <i>Eupatorium serotinum</i>	-1 FAC+	Nt P-Forb	Late boneset
FESOBT	7 <i>Festuca obtusa</i>	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 <i>Fraxinus pennsylvanica var. lanceolata</i>	-3 FACW	Nt Tree	Green ash
GALAPA	1 <i>Galium aparine</i>	3 FACU	Nt A-Forb	Cleavers
GALTRO	7 <i>Galium triflorum</i>	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 <i>Geum canadense</i>	0 FAC	Nt P-Forb	White avens
HACVIR	0 <i>Hackelia virginiana</i>	1 FAC-	Nt P-Forb	Stickseed
HELHEL	4 <i>Heliopsis helianthoides</i>	5 UPL	Nt P-Forb	False sunflower
HORJUB	0 <i>Hordeum jubatum</i>	-1 FAC+	Nt P-Grass	Squirrel-tail barley
HORPUS	0 <i>HORDEUM PUSILLUM</i>	0 FAC	Ad A-Grass	Little barley
JUNDUD	2 <i>Juncus dudleyi</i>	0 FAC	Nt P-Forb	Dudley's rush
JUNTOR	3 <i>Juncus torreyi</i>	-3 FACW	Nt P-Forb	Torrey's rush
KOEMAC	7 <i>Koeleria macrantha</i>	5 UPL	Nt P-Grass	June grass
LACCAN	1 <i>Lactuca canadensis</i>	2 FACU+	Nt B-Forb	Wild lettuce
LAPCAN	3 <i>Laportea canadensis</i>	-3 FACW	Nt P-Forb	Wood nettle

LEEORY	2	<i>Leersia oryzoides</i>	-5	OBL	Nt	P-Grass	Rice cut grass
LEEVIR	6	<i>Leersia virginica</i>	-3	FACW	Nt	P-Grass	White grass
LOBSIP	3	<i>Lobelia siphilitica</i>	-4	FACW+	Nt	P-Forb	Great blue lobelia
MELOF	0	<i>MELILOTUS OFFICINALIS</i>	3	FACU	Ad	B-Forb	Yellow sweet clover
MONFIS	2	<i>Monarda fistulosa</i>	3	FACU	Nt	P-Forb	Wild bergamot
MORALB	0	<i>MORUS ALBA</i>	0	FAC	Ad	Tree	White mulberry
MUHFR	3	<i>Muhlenbergia frondosa</i>	-3	FACW	Nt	P-Grass	Common satin grass
OSMCLN	7	<i>Osmunda claytoniana</i>	-1	FAC+	Nt	Fern	Interrupted fern
PANCAP	0	<i>Panicum capillare</i>	0	FAC	Nt	A-Grass	Old witch grass
PANVIR	5	<i>Panicum virgatum</i>	-1	FAC+	Nt	A-Grass	Switch grass
PARQUI	2	<i>Parthenocissus quinquefolia</i>	1	FAC-	Nt	W-Vine	Virginia creeper
PHAARU	0	<i>PHALARIS ARUNDINACEA</i>	-4	FACW+	Ad	P-Grass	Reed canary grass
PILPUM	3	<i>Pilea pumila</i>	-3	FACW	Nt	A-Forb	Common clearweed
POAPRA	0	<i>POA PRATENSIS</i>	1	FAC-	Ad	P-Grass	Kentucky blue grass
POLPEN	0	<i>Polygonum pensylvanicum</i>	-4	FACW+	Nt	A-Forb	Pinkweed
POLVIG	5	<i>Polygonum virginianum</i>	0	FAC	Nt	P-Forb	Jumpseed
POPDEL	1	<i>Populus deltoides</i>	-1	FAC+	Nt	Tree	Cottonwood
PRUVIR	2	<i>Prunus virginiana</i>	1	FAC-	Nt	Shrub	Choke cherry
RATPIN	4	<i>Ratibida pinnata</i>	5	UPL	Nt	P-Forb	Gray-headed coneflower
RIBMIS	3	<i>Ribes missouriense</i>	5	UPL	Nt	Shrub	Wild gooseberry
RORPAL	7	<i>Rorippa palustris</i>	-5	OBL	Nt	A-Forb	Marsh cress
ROTRAM	6	<i>Rotala ramosior</i>	-5	OBL	Nt	A-Forb	Toothcup
RUDHIR	2	<i>Rudbeckia hirta</i>	3	FACU	Nt	P-Forb	Black-eyed Susan
RUMPAT	0	<i>RUMEX PATIENTIA</i>	5	UPL	Ad	P-Forb	Patience dock
SALAMY	3	<i>Salix amygdaloides</i>	-3	FACW	Nt	Tree	Peach-leaved willow
SALERI	3	<i>Salix eriocephala</i>	-4	FACW+	Nt	Shrub	Heart-leaved willow
SALEXI	0	<i>Salix exigua ssp. Interior</i>	-5	OBL	Nt	Shrub	Sandbar willow
SAMCAN	1	<i>Sambucus canadensis</i>	4	FACU-	Nt	Shrub	Elderberry
SANCAS	6	<i>Sanicula canadensis</i>	2	FACU+	Nt	B-Forb	Black snakeroot
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt	P-Grass	Little bluestem
SCIATR	1	<i>Scirpus atrovirens</i>	-5	OBL	Nt	P-Sedge	Dark green rush
SCRMAR	4	<i>Scrophularia marilandica</i>	4	FACU-	Nt	P-Forb	Late figwort
SETFAB	0	<i>SETARIA FABERII</i>	2	FACU+	Ad	A-Grass	Giant foxtail
SETGLA	0	<i>SETARIA GLAUCA</i>	0	FAC	Ad	A-Grass	Yellow foxtail
SILINT	4	<i>Silphium integrifolium</i>	5	UPL	Nt	P-Forb	Rosin weed
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	<i>Solidago gigantea</i>	-3	FACW	Nt	P-Forb	Smooth goldenrod
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt	P-Grass	Indian grass
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	<i>TARAXACUM OFFICINALE</i>	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt	P-Forb	Germander
THLARV	0	<i>THLASPI ARVENSE</i>	5	UPL	Ad	A-Forb	Penny cress
TOXRAD	0	<i>Toxicodendron radicans</i>	-1	FAC+	Nt	W-Vine	Poison ivy
ULMAME	2	<i>Ulmus americana</i>	-2	FACW-	Nt	Tree	American elm
VERHAS	3	<i>Verbena hastata</i>	-4	FACW+	Nt	P-Forb	Blue vervain
VERURT	2	<i>Verbena urticifolia</i>	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
VERPEG	0	<i>Veronica peregrina</i>	-4	FACW+	Nt	A-Forb	Purslane speedwell
VIOSOR	1	<i>Viola sororia</i>	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt	W-Vine	Riverbank grape

Bluestem Meander

15 acres; Reconstruction; Map #60

Notes: The plant listed as *Setaria italica* is actually *Setaria viridis* var. *magna*, which is not in the Iowa Database

FLORISTIC QUALITY DATA		Native		Adventive			
69	NATIVE SPECIES	Tree	7	8.0%	Tree	2	2.3%
87	Total Species	Shrub	6	6.9%	Shrub	0	0.0%
2.5	NATIVE MEAN C	W-Vine	3	3.4%	W-Vine	0	0.0%
2.0	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
20.8	NATIVE FQI	P-Forb	28	32.2%	P-Forb	3	3.4%
18.5	W/Adventives	B-Forb	1	1.1%	B-Forb	3	3.4%
2.1	NATIVE MEAN W	A-Forb	10	11.5%	A-Forb	3	3.4%
2.3	W/Adventives	P-Grass	11	12.6%	P-Grass	2	2.3%
AVG: Fac. Upland (+)		A-Grass	2	2.3%	A-Grass	5	5.7%
		P-Sedge	1	1.1%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
ALLALT	0 ALLANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
AMARET	0 AMARANTHUS RETROFLEXUS	2 FACU+	Ad A-Forb	Pigweed
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
APOCAN	1 Apocynum cannabinum	0 FAC	Nt P-Forb	Indian hemp
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
BAPLAC	6 Baptisia lactea	3 FACU	Nt P-Forb	White wild indigo
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CASMAR	5 Cassia marilandica	-3 FACW	Nt P-Forb	Wild senna
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CROSAG	6 Crotalaria sagittalis	5 UPL	Nt A-Forb	Rattlebox
CYPESC	0 Cyperus esculentus	-3 FACW	Nt P-Sedge	Yellow nut grass
DALLEP	6 Dalea leporina	5 UPL	Nt A-Forb	Foxtail dalea
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DIGISC	0 DIGITARIA ISCHAEMUM	3 FACU	Ad A-Grass	Smooth crab grass
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPPUR	6 Eupatorium purpureum	0 FAC	Nt P-Forb	Purple Joe Pye weed
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 Euphorbia nutans	3 FACU	Nt A-Forb	Nodding spurge
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HELANN	0 Helianthus annuus	1 FAC-	Nt A-Forb	Garden sunflower
HELRIG	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
HELTUB	0 Helianthus tuberosus	0 FAC	Nt P-Forb	Jerusalem artichoke
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LEEVIR	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
LEOCAR	0 LEONURUS CARDIACA	5 UPL	Ad P-Forb	Motherwort
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
MUHRAC	4 Muhlenbergia racemosa	-3 FACW	Nt P-Grass	Upland wild Timothy
MUHSCH	1 Muhlenbergia schreberi	0 FAC	Nt P-Grass	Nimblewill
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PANCAP	0 Panicum capillare	0 FAC	Nt A-Grass	Old witch grass
PANVIR	5 Panicum virgatum	-1 FAC+	Nt A-Grass	Switch grass
PHYHET	2 Physalis heterophylla	5 UPL	Nt P-Forb	Ground cherry

PHYVIG	4	<i>Physalis virginiana</i>	5	UPL	Nt	P-Forb	Ground cherry
POAPRA	0	<i>POA PRATENSIS</i>	1	FAC-	Ad	P-Grass	Kentucky blue grass
PRUVUL	0	<i>Prunella vulgaris</i> var. <i>lanceolata</i>	0	FAC	Nt	P-Forb	Self heal
QUEMAC	4	<i>Quercus macrocarpa</i>	1	FAC-	Nt	Tree	Bur oak
RHUGLA	0	<i>Rhus glabra</i>	5	UPL	Nt	Shrub	Smooth sumac
RUBOCC	1	<i>Rubus occidentalis</i>	5	UPL	Nt	Shrub	Black raspberry
RUDHIR	2	<i>Rudbeckia hirta</i>	3	FACU	Nt	P-Forb	Black-eyed Susan
SAMCAN	1	<i>Sambucus canadensis</i>	4	FACU-	Nt	Shrub	Elderberry
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt	P-Grass	Little bluestem
SCRMAR	4	<i>Scrophularia marilandica</i>	4	FACU-	Nt	P-Forb	Late figwort
SETFAB	0	<i>SETARIA FABERII</i>	2	FACU+	Ad	A-Grass	Giant foxtail
SETGLA	0	<i>SETARIA GLAUCA</i>	0	FAC	Ad	A-Grass	Yellow foxtail
SETITA	0	<i>SETARIA ITALICA</i>	3	FACU	Ad	A-Grass	Foxtail millet
SETVIR	0	<i>SETARIA VIRIDIS</i>	5	UPL	Ad	A-Grass	Green foxtail
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt	P-Grass	Indian grass
SPOASP	3	<i>Sporobolus asper</i>	5	UPL	Nt	P-Grass	Rough dropseed
SYMOC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	<i>TARAXACUM OFFICINALE</i>	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt	P-Forb	Germander
TRIFLA	0	<i>Tridens flavus</i>	5	UPL	Nt	P-Grass	Purple top
ULMPUM	0	<i>ULMUS PUMILA</i>	5	UPL	Ad	Tree	Siberian elm
URTDIO	0	<i>Urtica dioica</i>	-1	FAC+	Nt	P-Forb	Stinging nettle
VERTHA	0	<i>VERBASCUM THAPSUS</i>	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	<i>Verbena urticifolia</i>	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt	W-Vine	Riverbank grape

Boardwalk Ridge

27.7 acres; Timber; Map #59

Notes: This is the area that was designated as unit #3 in the Rosburg (1993) survey. It was also surveyed during the recent bioblitz. Plants shown in bold face type are known only from that original survey.

FLORISTIC QUALITY DATA		Native	117	81.3%	Adventive	27	18.8%
117	NATIVE SPECIES	Tree	14	9.7%	Tree	2	1.4%
144	Total Species	Shrub	9	6.3%	Shrub	0	0.0%
3.5	NATIVE MEAN C	W-Vine	7	4.9%	W-Vine	0	0.0%
2.8	W/Adventives	H-Vine	1	0.7%	H-Vine	0	0.0%
37.5	NATIVE FQI	P-Forb	44	30.6%	P-Forb	6	4.2%
33.8	W/Adventives	B-Forb	6	4.2%	B-Forb	7	4.9%
2.1	NATIVE MEAN W	A-Forb	11	7.6%	A-Forb	5	3.5%
2.2	W/Adventives	P-Grass	13	9.0%	P-Grass	3	2.1%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	4	2.8%
		P-Sedge	10	6.9%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	2	1.4%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
ANEVIR	4 Anemone virginiana	5 UPL	Nt P-Forb	Tall anemone
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ARACAN	7 Arabis canadensis	5 UPL	Nt B-Forb	Sickle pod
ARCMIN	0 ARCTIUM MINUS	5 UPL	Ad B-Forb	Common burdock
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVIR	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
BOTVIR	6 Botrychium virginianum	3 FACU	Nt Fern	Rattlesnake fern
BROCOM	0 BROMUS COMMUTATUS	5 UPL	Ad A-Grass	Hairy chess
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CAPBUR	0 CAPSELLA BURSA-PASTORIS	1 FAC-	Ad A-Forb	Shepherd's purse
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXCEPP	5 Carex cephalophora	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXGRAS	10 Carex gracilescens	5 UPL	Nt P-Sedge	Slender wood sedge
CXGRVC	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXHITC	8 Carex hitchcockiana	5 UPL	Nt P-Sedge	Hairy gray sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPRE	4 Carex spengelii	0 FAC	Nt P-Sedge	Long-beaked sedge
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CINARU	4 Cinna arundinacea	-3 FACW	Nt P-Grass	Wood reed
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRDIS	1 Cirsium discolor	5 UPL	Nt B-Forb	Pasture thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CYSPRO	6 Cystopteris protrusa	4 FACU-	Nt Fern	Creeping fragile fern
DACGLO	0 DACTYLIS GLOMERATA	3 FACU	Ad P-Grass	Orchard grass
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DICCUC	7 Dicentra cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
ELLYNYC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
ELYVIR	3 Elymus virginicus	-2 FACW-	Nt P-Grass	Virginia wild rye
ERIANN	0 Erigeron annuus	1 FAC-	Nt B-Forb	Annual fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPESU	0 EUPHORBIA ESULA	5 UPL	Ad P-Forb	Leafy spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers

GALCIR	6	Galium circaezans	4	FACU-	Nt	P-Forb	Wild licorice
GALTRO	7	Galium triflorum	2	FACU+	Nt	P-Forb	Sweet-scented bedstraw
GEUCAN	2	Geum canadense	0	FAC	Nt	P-Forb	White avens
GLEHED	0	GLECHOMA HEDERACEA	4	FACU-	Ad	P-Forb	Creeping Charlie
GLETRI	0	Gleditsia triacanthos	0	FAC	Nt	Tree	Honey locust
GYMDIO	5	Gymnocladus dioica	5	UPL	Nt	Tree	Kentucky coffee tree
HACVIR	0	Hackelia virginiana	1	FAC-	Nt	P-Forb	Stickseed
HELSTR	5	Helianthus strumosus	5	UPL	Nt	P-Forb	Pale-leaved sunflower
HYDVIR	3	Hydrophyllum virginianum	-2	FACW-	Nt	P-Forb	Virginia waterleaf
HYSPAT	5	Hystrix patula	5	UPL	Nt	P-Grass	Bottlebrush grass
JUGNIG	4	Juglans nigra	3	FACU	Nt	Tree	Black walnut
JUNVIR	1	Juniperus virginiana	3	FACU	Nt	Tree	Red cedar
LACCAN	1	Lactuca canadensis	2	FACU+	Nt	B-Forb	Wild lettuce
LACFLO	4	Lactuca floridana	1	FAC-	Nt	B-Forb	Blue lettuce
LACSER	0	LACTUCA SERRIOLA	0	FAC	Ad	B-Forb	Prickly lettuce
LAPCAN	3	Laportea canadensis	-3	FACW	Nt	P-Forb	Wood nettle
LEEVIR	6	Leersia virginica	-3	FACW	Nt	P-Grass	White grass
LEOCAR	0	LEONURUS CARDIACA	5	UPL	Ad	P-Forb	Motherwort
LILMIC	6	Lilium michiganense	-1	FAC+	Nt	P-Forb	Michigan lily
LONPRO	7	Lonicera prolifera	5	UPL	Nt	W-Vine	Wild honeysuckle
MEDLUP	0	MEDICAGO LUPULINA	1	FAC-	Ad	A-Forb	Black medick
MELALB	0	MELILOTUS ALBA	3	FACU	Ad	B-Forb	White sweet clover
MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad	B-Forb	Yellow sweet clover
MENCAN	5	Menispermum canadense	-1	FAC+	Nt	W-Vine	Moonseed
MORALB	0	MORUS ALBA	0	FAC	Ad	Tree	White mulberry
MORRUB	4	Morus rubra	1	FAC-	Nt	Tree	Red mulberry
MUHSCH	1	Muhlenbergia schreberi	0	FAC	Nt	P-Grass	Nimblewill
OSMCLI	3	Osmorhiza claytonii	4	FACU-	Nt	P-Forb	Hairy sweet cicely
OSMLON	5	Osmorhiza longistylis	4	FACU-	Nt	P-Forb	Smooth sweet cicely
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt	Tree	Hop hornbeam
OXASTR	0	Oxalis stricta	3	FACU	Nt	P-Forb	Tall wood sorrel
PANIMP	3	Panicum implicatum	1	FAC-	Nt	P-Grass	Old field panic grass
PANOLS	5	Panicum oligosanthes var. scribnerianum	3	FACU	Nt	P-Grass	Scribner's panic grass
PARPEN	3	Parietaria pensylvanica	3	FACU	Nt	A-Forb	Pellitory
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt	W-Vine	Virginia creeper
PHRLEP	4	Phryma leptostachya	5	UPL	Nt	P-Forb	Lopseed
PHYHET	2	Physalis heterophylla	5	UPL	Nt	P-Forb	Ground cherry
PLARUG	0	Plantago rugelii	0	FAC	Nt	A-Forb	Red-stalked plantain
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
POASYL	10	Poa sylvestris	0	FAC	Nt	P-Grass	Woodland blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt	P-Forb	Solomon's seal
PRUVIR	2	Prunus virginiana	1	FAC-	Nt	Shrub	Choke cherry
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
QUERUB	6	Quercus rubra	3	FACU	Nt	Tree	Northern red oak
RANABO	0	Ranunculus abortivus	-4	FACW+	Nt	A-Forb	Small-flowered crowfoot
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
RIBMIS	3	Ribes missouriense	5	UPL	Nt	Shrub	Wild gooseberry
ROBPSE	0	ROBINIA PSEUDOACACIA	4	FACU-	Ad	Tree	Black locust
RUBOCC	1	Rubus occidentalis	5	UPL	Nt	Shrub	Black raspberry
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt	Shrub	Elderberry
SANCAN	7	Sanguinaria canadensis	4	FACU-	Nt	P-Forb	Bloodroot
SANCAS	6	Sanicula canadensis	2	FACU+	Nt	B-Forb	Black snakeroot
SANGRE	5	Sanicula gregaria	-1	FAC+	Nt	P-Forb	Common snakeroot
SCRLAN	4	Scrophularia lanceolata	2	FACU+	Nt	P-Forb	Early figwort
SETFAB	0	SETARIA FABERII	2	FACU+	Ad	A-Grass	Giant foxtail
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad	A-Grass	Yellow foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad	A-Grass	Green foxtail
SILSTE	4	Silene stellata	5	UPL	Nt	P-Forb	Starry campion
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad	A-Forb	Tall hedge mustard
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SMIRAC	4	Smilacina racemosa	3	FACU	Nt	P-Forb	False Solomon's seal
SMIECI	6	Smilax ecirrhata	5	UPL	Nt	P-Forb	Upright carrion flower
SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SMILAS	5	Smilax lasioneura	0	FAC	Nt	H-Vine	Common carrion flower
SOLAME	0	Solanum americanum	4	FACU-	Nt	A-Forb	Black nightshade
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	Solidago gigantea	-3	FACW	Nt	P-Forb	Smooth goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt	P-Forb	Stiff goldenrod
SPHOB	8	Sphenopholis obtusata var. obtusata	0	FAC	Nt	P-Grass	Prairie wedge grass
STATRI	7	Staphylea trifolia	0	FAC	Nt	Shrub	Bladdernut
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
THLARV	0	THLASPI ARVENSE	5	UPL	Ad	A-Forb	Penny cress
TILAME	5	Tilia americana	3	FACU	Nt	Tree	Basswood
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
TRIFLA	0	Tridens flavus	5	UPL	Nt	P-Grass	Purple top
TRIPRA	0	TRIFOLIUM PRATENSE	2	FACU+	Ad	P-Forb	Red clover
TRIREF	0	TRIFOLIUM REPENS	2	FACU+	Ad	P-Forb	White clover
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt	P-Forb	Late horse gentian
ULMAME	2	Ulmus americana	-2	FACW-	Nt	Tree	American elm

ULMRUB	2	Ulmus rubra	0	FAC	Nt Tree	Slippery elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt P-Forb	Stinging nettle
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt P-Forb	White vervain
VERPEG	0	Veronica peregrina	-4	FACW+	Nt A-Forb	Purshlane speedwell
VIOPOP	5	Viola pubescens	4	FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1	Viola sororia	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt W-Vine	Riverbank grape
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt Shrub	Prickly ash

Bouteloua Ridge

5.0 acres; Loess Prairie; Map #51

Notes: Some of the more stable soils are well invested with the terricolous lichens, prevailingy *Catapyrenium lachneum* and *Psora decipiens*. The following conservative insects have been collected here: *Acanthoscelides seminulum*, *Agrius parvus*, *Atbeas mimeticus*, *Kissingeria capitone*, *Megachile frugalis*, *Plagiognathus amorphae*, *Trichapion modicum*, *Trichapion tenuirostrum*, and *Saxinus omogera*. This is the area that was designated as unit G in the Rosburg (1993) survey. Plants shown in bold face type are known only from that original survey.

FLORISTIC QUALITY DATA		Native	103	91.2%	Adventive	10	8.8%
103	NATIVE SPECIES	Tree	4	3.5%	Tree	0	0.0%
113	Total Species	Shrub	8	7.1%	Shrub	0	0.0%
4.5	NATIVE MEAN C	W-Vine	4	3.5%	W-Vine	0	0.0%
4.1	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
45.8	NATIVE FQI	P-Forb	56	49.6%	P-Forb	0	0.0%
43.7	W/Adventives	B-Forb	3	2.7%	B-Forb	2	1.8%
3.7	NATIVE MEAN W	A-Forb	8	7.1%	A-Forb	5	4.4%
3.6	W/Adventives	P-Grass	15	13.3%	P-Grass	2	1.8%
AVG:	Fac. Upland (-)	A-Grass	2	1.8%	A-Grass	1	0.9%
		P-Sedge	3	2.7%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
ARAHIR	8 Arabis hirsuta	5 UPL	Nt B-Forb	Hairy rock cress
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 Asclepias viridiflora	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
ASTLOT	10 Astragalus lotiflorus	5 UPL	Nt P-Forb	Lotus milk vetch
ASTMIS	8 Astragalus missouriensis	5 UPL	Nt P-Forb	Missouri milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BOUHIR	7 Bouteloua hirsuta	5 UPL	Nt P-Grass	Hairy grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian plaintain
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CEAHER	8 Ceanothus herbaceus var. pubescens	5 UPL	Nt Shrub	Redroot
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRUND	10 Cirsium undulatum	1 FAC-	Nt P-Forb	Wavy-leaved thistle
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 Dalea candida	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DELVIL	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain

FRAPEL	1	Fraxinus pennsylvanica var. lanceolata	-3	FACW	Nt Tree	Green ash
GALCIR	6	Galium circaezans	4	FACU-	Nt P-Forb	Wild licorice
GAUCOC	7	Gaura coccinea	5	UPL	Nt P-Forb	Scarlet gaura
HEDHIS	2	Hedeoma hispidum	5	UPL	Nt A-Forb	Rough pennyroyal
HEDNIG	7	Hedyotis nigricans	5	UPL	Nt P-Forb	Narrow-leaved bluets
HELHIR	5	Helianthus hirsutus	5	UPL	Nt P-Forb	Hispid sunflower
HELIRIG	8	Helianthus rigidus	5	UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1	Juniperus virginiana	3	FACU	Nt Tree	Red cedar
LACCAN	1	Lactuca canadensis	2	FACU+	Nt B-Forb	Wild lettuce
LACTAP	2	Lactuca tatarica ssp. pulchella	5	UPL	Nt P-Forb	Showy blue lettuce
LESCAP	3	Lespedeza capitata	3	FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8	Liatris punctata	5	UPL	Nt P-Forb	Dotted blazing star
LINRIG	7	Linum rigidum	5	UPL	Nt P-Forb	Stiff flax
LINSUL	7	Linum sulcatum	5	UPL	Nt P-Forb	Grooved yellow flax
LITCAN	7	Lithospermum canescens	5	UPL	Nt P-Forb	Hoary puccoon
LITINC	5	Lithospermum incisum	5	UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7	Lygodesmia juncea	5	UPL	Nt P-Forb	Skeletonweed
MEDLUP	0	MEDICAGO LUPULINA	1	FAC-	Ad A-Forb	Black medick
MUHCUS	10	Muhlenbergia cuspidata	5	UPL	Nt P-Grass	Prairie satin grass
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt Tree	Hop hornbeam
OXYLAM	8	Oxytropis lambertii	4	FACU-	Nt P-Forb	Locoweed
PANCAP	0	Panicum capillare	0	FAC	Nt A-Grass	Old witch grass
PANOLS	5	Panicum oligosanthos var. scribnerianum	3	FACU	Nt P-Grass	Scribner's panic grass
PANVIR	5	Panicum virgatum	-1	FAC+	Nt A-Grass	Switch grass
PANWIL	7	Panicum wilcoxianum	5	UPL	Nt P-Grass	Wilcox's panic grass
PASSES	4	Paspalum setaceum var. stramineum	0	FAC	Nt P-Grass	Downy lens grass
PEDARG	5	Pediomelum argophyllum	5	UPL	Nt P-Forb	Silvery scurfy pea
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2	Physalis heterophylla	5	UPL	Nt P-Forb	Ground cherry
PHYVIG	4	Physalis virginiana	5	UPL	Nt P-Forb	Ground cherry
POACOM	0	POA COMPRESSA	2	FACU+	Ad P-Grass	Canadian blue grass
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	Kentucky blue grass
POLVER	7	Polygala verticillata	5	UPL	Nt A-Forb	Whorled milkwort
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt Tree	Bur oak
RATCOL	4	Ratibida columnifera	5	UPL	Nt P-Forb	Long-headed coneflower
RHUGLA	0	Rhus glabra	5	UPL	Nt Shrub	Smooth sumac
ROSARS	4	Rosa arkansana var. suffulta	5	UPL	Nt Shrub	Sunshine rose
RUBOCC	1	Rubus occidentalis	5	UPL	Nt Shrub	Black raspberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt B-Forb	Black snakeroot
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt P-Grass	Little bluestem
SENPLA	3	Senecio plattensis	4	FACU-	Nt P-Forb	Prairie ragwort
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad A-Grass	Green foxtail
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt P-Forb	Prairie blue-eyed grass
SMIHIS	4	Smilax hispida	0	FAC	Nt W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt P-Forb	Tall goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt P-Forb	Field goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt P-Grass	Indian grass
SPOASP	3	Sporobolus asper	5	UPL	Nt P-Grass	Rough dropseed
SPOCRY	3	Sporobolus cryptandrus	4	FACU-	Nt P-Grass	Sand dropseed
STISPA	6	Stipa spartea	5	UPL	Nt P-Grass	Porcupine grass
STRLEI	7	Strophostyles leiosperma	5	UPL	Nt A-Forb	Small wild bean
SYMOCC	0	Symphoricarpos occidentalis	5	UPL	Nt Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt P-Forb	Germander
THYPAS	0	THYMELAEA PASSERINA	5	UPL	Ad A-Forb	Sparrow weed
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt W-Vine	Poison ivy
TRIFLA	0	Tridens flavus	5	UPL	Nt P-Grass	Purple top
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt P-Forb	Late horse gentian
VERSTR	1	Verbena stricta	5	UPL	Nt P-Forb	Hoary vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt P-Forb	Baldwin's ironweed
VIOPEF	8	Viola pedatifida	4	FACU-	Nt P-Forb	Prairie violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt W-Vine	Riverbank grape

Bouteloua Ridge Addition

4.6 acres; Loess Prairie; Map #44

FLORISTIC QUALITY DATA		Native		Adventive	
65	NATIVE SPECIES	65	92.9%	5	7.1%
70	Total Species	Tree	2 2.9%	Tree	0 0.0%
4.5	NATIVE MEAN C	Shrub	6 8.6%	Shrub	0 0.0%
4.2	W/Adventives	W-Vine	1 1.4%	W-Vine	0 0.0%
36.1	NATIVE FQI	H-Vine	0 0.0%	H-Vine	0 0.0%
34.8	W/Adventives	P-Forb	38 54.3%	P-Forb	0 0.0%
3.6	NATIVE MEAN W	B-Forb	0 0.0%	B-Forb	2 2.9%
3.5	W/Adventives	A-Forb	4 5.7%	A-Forb	2 2.9%
AVG: Fac. Upland (-)		P-Grass	10 14.3%	P-Grass	1 1.4%
		A-Grass	1 1.4%	A-Grass	0 0.0%
		P-Sedge	3 4.3%	P-Sedge	0 0.0%
		A-Sedge	0 0.0%	A-Sedge	0 0.0%
		Fern	0 0.0%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
ASCHIR	5 Asclepias hirtella	5 UPL	Nt P-Forb	Tall green milkweed
ASCVIF	6 Asclepias viridiflora	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTDRU	4 Aster drummondii	3 FACU	Nt P-Forb	Drummond's aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 Aster oblongifolius	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BOUHIR	7 Bouteloua hirsuta	5 UPL	Nt P-Grass	Hairy grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian plaintain
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CEAHER	8 Ceanothus herbaceus var. pubescens	5 UPL	Nt Shrub	Redroot
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 Dalea candida	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
HELANN	0 Helianthus annuus	1 FAC-	Nt A-Forb	Garden sunflower
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACTAP	2 Lactuca tatarica ssp. pulchella	5 UPL	Nt P-Forb	Showy blue lettuce
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LINSUL	7 Linum sulcatum	5 UPL	Nt P-Forb	Grooved yellow flax
LITINC	5 Lithospermum incisum	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MUHCUS	10 Muhlenbergia cuspidata	5 UPL	Nt P-Grass	Prairie satin grass
PANOLS	5 Panicum oligosanthes var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PANVIR	5 Panicum virgatum	-1 FAC+	Nt A-Grass	Switch grass
PENGRN	5 Penstemon grandiflorus	5 UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2 Physalis heterophylla	5 UPL	Nt P-Forb	Ground cherry
PHYVIG	4 Physalis virginiana	5 UPL	Nt P-Forb	Ground cherry
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SENPLA	3 Senecio plattensis	4 FACU-	Nt P-Forb	Prairie ragwort
SISCAM	4 Sisyrinchium campestre	5 UPL	Nt P-Forb	Prairie blue-eyed grass

SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLMIS	5	<i>Solidago missouriensis</i>	5	UPL	Nt	P-Forb	Missouri goldenrod
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt	P-Grass	Indian grass
SPOASP	3	<i>Sporobolus asper</i>	5	UPL	Nt	P-Grass	Rough dropseed
SYMOCC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt	P-Forb	Germander
TRIFLA	0	<i>Tridens flavus</i>	5	UPL	Nt	P-Grass	Purple top
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt	P-Forb	Hoary vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed

Boy Scout Clearing

0.3 acres; Clearing; Map #66

Notes: This is the area that was designated as unit I in the Rosburg (1993) survey. A more recent clearing was done for the boy scouts in the area that had been cleared in the early 1990's. *Lonicera dioica* was reported from here, but Eilers and Roosa (1994) do not list it from western Iowa. Plants shown in bold face type are known only from that original survey.

FLORISTIC QUALITY DATA	Native	79	77.5%	Adventive	23	22.5%
79 NATIVE SPECIES	Tree	10	9.8%	Tree	2	2.0%
102 Total Species	Shrub	8	7.8%	Shrub	1	1.0%
3.1 NATIVE MEAN C	W-Vine	5	4.9%	W-Vine	0	0.0%
2.4 W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
27.7 NATIVE FQI	P-Forb	27	26.5%	P-Forb	3	2.9%
24.4 W/Adventives	B-Forb	4	3.9%	B-Forb	7	6.9%
1.9 NATIVE MEAN W	A-Forb	8	7.8%	A-Forb	6	5.9%
2.2 W/Adventives	P-Grass	8	7.8%	P-Grass	3	2.9%
AVG: Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	1	1.0%
	P-Sedge	8	7.8%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	A-Sedge	0	0.0%
	Fern	1	1.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMOFRE	5 Amorpha fruticosa	-4 FACW+	Nt Shrub	Indigo bush
ANEVIR	4 Anemone virginiana	5 UPL	Nt P-Forb	Tall anemone
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ARCMIN	0 ARCTIUM MINUS	5 UPL	Ad B-Forb	Common burdock
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
BOTVIR	6 Botrychium virginianum	3 FACU	Nt Fern	Rattlesnake fern
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
BROJAP	0 BROMUS JAPONICUS	3 FACU	Ad A-Grass	Japanese chess
BROPUB	9 Bromus pubescens	2 FACU+	Nt P-Grass	Woodland brome
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXCEPP	5 Carex cephalophora	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPAR	6 Carex sparganioides	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CXSPRE	4 Carex spengelii	0 FAC	Nt P-Sedge	Long-beaked sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CINARU	4 Cinna arundinacea	-3 FACW	Nt P-Grass	Wood reed
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRVUL	0 CIRSIUM VULGARE	4 FACU-	Ad B-Forb	Bull thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DACGLO	0 DACTYLIS GLOMERATA	3 FACU	Ad P-Grass	Orchard grass
ELAUMB	0 ELAEAGNUS UMBELLATA	5 UPL	Ad Shrub	Autumn olive
ELLNVC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ERIANN	0 Erigeron annuus	1 FAC-	Nt B-Forb	Annual fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPSPA	5 Euphorbia spathulata	5 UPL	Nt A-Forb	Spatula spurge
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEP	3 Fraxinus pennsylvanica	-3 FACW	Nt Tree	Red ash
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALSPE	4 Galearis spectabilis	5 UPL	Nt P-Forb	Showy orchis
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
HELSTR	5 Helianthus strumosus	5 UPL	Nt P-Forb	Pale-leaved sunflower
HYDVIR	3 Hydrophyllum virginianum	-2 FACW-	Nt P-Forb	Virginia waterleaf
HYSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LACSER	0 LACTUCA SERRIOLA	0 FAC	Ad B-Forb	Prickly lettuce
LEOCAR	0 LEONURUS CARDIACA	5 UPL	Ad P-Forb	Motherwort

MEDLUP	0	MEDICAGO LUPULINA	1	FAC-	Ad A-Forb	Black medick
MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad B-Forb	Yellow sweet clover
MENCAN	5	Menispermum canadense	-1	FAC+	Nt W-Vine	Moonseed
MORALB	0	MORUS ALBA	0	FAC	Ad Tree	White mulberry
MUHSCH	1	Muhlenbergia schreberi	0	FAC	Nt P-Grass	Nimblewill
NEPCAT	0	NEPETA CATARIA	1	FAC-	Ad P-Forb	Catnip
OENBIE	0	Oenothera biennis	3	FACU	Nt B-Forb	Common evening primrose
OSMCLI	3	Osmorhiza claytonii	4	FACU-	Nt P-Forb	Hairy sweet cicely
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt Tree	Hop hornbeam
OXADIL	0	Oxalis dillenii	5	UPL	Nt P-Forb	Common wood sorrel
OXASTR	0	Oxalis stricta	3	FACU	Nt P-Forb	Tall wood sorrel
PANOLS	5	Panicum oligosanthes var. scribnerianum	3	FACU	Nt P-Grass	Scribner's panic grass
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt W-Vine	Virginia creeper
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2	Physalis heterophylla	5	UPL	Nt P-Forb	Ground cherry
PHYLON	0	Physalis longifolia	5	UPL	Nt P-Forb	Tall ground cherry
PLARUG	0	Plantago rugelii	0	FAC	Nt A-Forb	Red-stalked plantain
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt P-Forb	Solomon's seal
POPDEL	1	Populus deltoides	-1	FAC+	Nt Tree	Cottonwood
PRUVIR	2	Prunus virginiana	1	FAC-	Nt Shrub	Choke cherry
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt Tree	Bur oak
RANABO	0	Ranunculus abortivus	-4	FACW+	Nt A-Forb	Small-flowered crowfoot
RHUGLA	0	Rhus glabra	5	UPL	Nt Shrub	Smooth sumac
RIBMIS	3	Ribes missouriense	5	UPL	Nt Shrub	Wild gooseberry
ROBPSE	0	ROBINIA PSEUDOACACIA	4	FACU-	Ad Tree	Black locust
RUBOCC	1	Rubus occidentalis	5	UPL	Nt Shrub	Black raspberry
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt Shrub	Elderberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt B-Forb	Black snakeroot
SILSTE	4	Silene stellata	5	UPL	Nt P-Forb	Starry campion
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad A-Forb	Tall hedge mustard
SMIHIS	4	Smilax hispida	0	FAC	Nt W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt P-Forb	Tall goldenrod
SONASP	0	SONCHUS ASPER	0	FAC	Ad A-Forb	Spiny-leaved sow thistle
SPHOBM	4	Sphenopholis obtusata var. major	0	FAC	Nt P-Grass	Slender wedge grass
SPHOB	8	Sphenopholis obtusata var. obtusata	0	FAC	Nt P-Grass	Prairie wedge grass
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt P-Forb	Germander
THADAD	4	Thalictrum dasycarpum	-2	FACW-	Nt P-Forb	Purple meadow rue
THLARV	0	THLASPI ARVENSE	5	UPL	Ad A-Forb	Penny cress
TILAME	5	Tilia americana	3	FACU	Nt Tree	Basswood
TORARV	0	TORILIS ARVENSIS	5	UPL	Ad A-Forb	Hedge parsley
TRADUB	0	TRAGOPOGON DUBIUS	5	UPL	Ad B-Forb	Sandy goat's beard
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt P-Forb	Late horse gentian
ULMAME	2	Ulmus americana	-2	FACW-	Nt Tree	American elm
ULMRUB	2	Ulmus rubra	0	FAC	Nt Tree	Slippery elm
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad B-Forb	Common mullein
VERPEG	0	Veronica peregrina	-4	FACW+	Nt A-Forb	Purslane speedwell
VIOPUP	5	Viola pubescens	4	FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1	Viola sororia	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt W-Vine	Riverbank grape

Bulldozed Valley, East Face

5.3 acres; Thicket; Map #68

Notes: This is a dog-hair thicket that grew up after the clearcutting of a timbered valley. The surviving inhabitancy of such species as *Carex backii* (= *Carex saximontana*), *Carex hitchcockiana*, *Carex oligocarpa*, *Carex rosea*, *Carex sprengeii*, *Cystopteris protrusa*, *Festuca obtusa*, *Galium circaeazans*, *Sanguinaria canadensis*, and *Staphylea trifolia* testify to the fact that this valley was timbered prior to settlement.

FLORISTIC QUALITY DATA		Native		Adventive			
37	NATIVE SPECIES	Tree	5	13.2%	Tree	0	0.0%
38	Total Species	Shrub	5	13.2%	Shrub	0	0.0%
4.0	NATIVE MEAN C	W-Vine	2	5.3%	W-Vine	0	0.0%
3.9	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
24.5	NATIVE FQI	P-Forb	12	31.6%	P-Forb	0	0.0%
24.2	W/Adventives	B-Forb	0	0.0%	B-Forb	1	2.6%
2.2	NATIVE MEAN W	A-Forb	3	7.9%	A-Forb	0	0.0%
2.2	W/Adventives	P-Grass	2	5.3%	P-Grass	0	0.0%
AVG: Fac. Upland (+)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	7	18.4%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	2.6%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBACK	10 Carex backii	1 FAC-	Nt P-Sedge	Northern grass sedge
CXGRIS	4 Carex grisea	5 UPL	Nt P-Sedge	Gray sedge
CXHITC	8 Carex hitchcockiana	5 UPL	Nt P-Sedge	Hairy gray sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPRE	4 Carex sprengeii	0 FAC	Nt P-Sedge	Long-beaked sedge
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CYSPRO	6 Cystopteris protrusa	4 FACU-	Nt Fern	Creeping fragile fern
ELLNVC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaeazans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
HYDVIR	3 Hydrophyllum virginianum	-2 FACW-	Nt P-Forb	Virginia waterleaf
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
OXASTR	0 Oxalis stricta	3 FACU	Nt P-Forb	Tall wood sorrel
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RANABO	0 Ranunculus abortivus	-4 FACW+	Nt A-Forb	Small-flowered crowfoot
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
SANCAN	7 Sanguinaria canadensis	4 FACU-	Nt P-Forb	Bloodroot
SILSTE	4 Silene stellata	5 UPL	Nt P-Forb	Starry campion
STATRI	7 Staphylea trifolia	0 FAC	Nt Shrub	Bladdernut
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TRIPEM	4 Triosteum perfoliatum	5 UPL	Nt P-Forb	Late horse gentian
VIOPUP	5 Viola pubescens	4 FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1 Viola sororia	1 FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape

Campground

8.5 acres; Ruderal; Map #81

FLORISTIC QUALITY DATA		Native		Adventive			
83	NATIVE SPECIES	Tree	10	8.1%	Tree	3	2.4%
123	Total Species	Shrub	7	5.7%	Shrub	0	0.0%
1.9	NATIVE MEAN C	W-Vine	6	4.9%	W-Vine	0	0.0%
1.3	W/Adventives	H-Vine	3	2.4%	H-Vine	0	0.0%
17.6	NATIVE FQI	P-Forb	25	20.3%	P-Forb	8	6.5%
14.4	W/Adventives	B-Forb	2	1.6%	B-Forb	7	5.7%
1.4	NATIVE MEAN W	A-Forb	20	16.3%	A-Forb	11	8.9%
1.8	W/Adventives	P-Grass	6	4.9%	P-Grass	5	4.1%
AVG:	Faculative (-)	A-Grass	2	1.6%	A-Grass	6	4.9%
		P-Sedge	2	1.6%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	Box elder
AILALT	0 AILANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMATUB	0 Amaranthus tuberculatus	-5 OBL	Nt A-Forb	Water hemp
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBTRI	0 Ambrosia trifida	-1 FAC+	Nt A-Forb	Giant ragweed
APOSIB	1 Apocynum sibiricum	-1 FAC+	Nt P-Forb	Indian hemp
ARASER	0 ARENARIA SERPYLLIFOLIA	0 FAC	Ad A-Forb	Thyme-leaved sandwort
ASTPIL	0 Aster pilosus	4 FACU-	Nt P-Forb	Hairy aster
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
BROJAP	0 BROMUS JAPONICUS	3 FACU	Ad A-Grass	Japanese chess
BUCDAC	7 Buchloe dactyloides	4 FACU-	Nt P-Grass	Buffalo grass
CALSEP	0 Calystegia sepium	0 FAC	Nt P-Forb	Hedge bindweed
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CAPBUR	0 CAPSELLA BURSA-PASTORIS	1 FAC-	Ad A-Forb	Shepherd's purse
CXGRAS	10 Carex gracilescens	5 UPL	Nt P-Sedge	Slender wood sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONMAC	0 CONIUM MACULATUM	-3 FACW	Ad B-Forb	Poison hemlock
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CORVAR	0 CORONILLA VARIA	5 UPL	Ad P-Forb	Crown vetch
CYPESC	0 Cyperus esculentus	-3 FACW	Nt P-Sedge	Yellow nut grass
DAUCAR	0 DAUCUS CAROTA	5 UPL	Ad B-Forb	Queen Anne's lace
DESPIB	1 Descurainia pinnata var. brachycarpa	5 UPL	Nt A-Forb	Tansy mustard
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DIOTER	2 Diodia teres	3 FACU	Nt A-Forb	Buttonweed
ECHCRU	0 ECHINOCHLOA CRUSGALLI	-3 FACW	Ad A-Grass	Barnyard grass
ELEIND	0 ELEUSINE INDICA	3 FACU	Ad A-Grass	Goose grass
ELLNVC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYRIP	5 Elymus riparius	-3 FACW	Nt P-Grass	Riverbank wild rye
ERACIL	0 ERAGROSTIS CILIANENSIS	3 FACU	Ad A-Grass	Stink grass
ERIANN	0 Erigeron annuus	1 FAC-	Nt B-Forb	Annual fleabane
ERYREP	0 ERYSIMUM REPANDUM	5 UPL	Ad A-Forb	Treacle mustard
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAA	0 Euphorbia maculata	4 FACU-	Nt A-Forb	Carpet spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 Euphorbia nutans	3 FACU	Nt A-Forb	Nodding spurge
FESARU	0 FESTUCA ARUNDINACEA	2 FACU+	Ad P-Grass	Tall fescue
FRAPEP	3 Fraxinus pennsylvanica	-3 FACW	Nt Tree	Red ash
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GAUBIE	3 Gaura biennis	4 FACU-	Nt B-Forb	Biennial gaura
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HEDHIS	2 Hedeoma hispidum	5 UPL	Nt A-Forb	Rough pennyroyal
HELANN	0 Helianthus annuus	1 FAC-	Nt A-Forb	Garden sunflower
HELTUB	0 Helianthus tuberosus	0 FAC	Nt P-Forb	Jerusalem artichoke
HOLLAN	0 HOLCUS LANATUS	4 FACU-	Ad P-Grass	Velvet grass
HUMLUP	3 Humulus lupulus	3 FACU	Nt H-Vine	Common hops
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACSER	0 LACTUCA SERRIOLA	0 FAC	Ad B-Forb	Prickly lettuce

LAMAMP	0	LAMIUM AMPLEXICAULE	5	UPL	Ad A-Forb	Henbit
LEPCAM	0	LEPIDIUM CAMPESTRE	5	UPL	Ad B-Forb	Field cress
LEPDEN	0	Lepidium densiflorum	0	FAC	Nt A-Forb	Pepper cress
LITINC	5	Lithospermum incisum	5	UPL	Nt P-Forb	Fringed puccoon
LOBSPI	6	Lobelia spicata	0	FAC	Nt P-Forb	Spiked lobelia
LOLPER	0	LOLIUM PERENNE	3	FACU	Ad P-Grass	Perennial rye grass
MEDLUP	0	MEDICAGO LUPULINA	1	FAC-	Ad A-Forb	Black medick
MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad B-Forb	Yellow sweet clover
MENCAN	5	Menispermum canadense	-1	FAC+	Nt W-Vine	Moonseed
MIARNYC	0	Mirabilis nyctaginea	5	UPL	Nt P-Forb	Wild four o'clock
MORALB	0	MORUS ALBA	0	FAC	Ad Tree	White mulberry
MUHMEX	5	Muhlenbergia mexicana	-3	FACW	Nt P-Grass	Leafy satin grass
NEPCAT	0	NEPETA CATARIA	1	FAC-	Ad P-Forb	Catnip
PANCAP	0	Panicum capillare	0	FAC	Nt A-Grass	Old witch grass
PANDIC	0	Panicum dichotomiflorum	-2	FACW-	Nt A-Grass	Knee grass
PANOLS	5	Panicum oligosanthes var. scribnerianum	3	FACU	Nt P-Grass	Scribner's panic grass
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt W-Vine	Virginia creeper
PHYHET	2	Physalis heterophylla	5	UPL	Nt P-Forb	Ground cherry
PHYLON	0	Physalis longifolia	5	UPL	Nt P-Forb	Tall ground cherry
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt P-Forb	Solomon's seal
POLSCN	2	Polygonum scandens	0	FAC	Nt H-Vine	Climbing false buckwheat
POPDEL	1	Populus deltoides	-1	FAC+	Nt Tree	Cottonwood
POROLE	0	PORTULACA OLERACEA	1	FAC-	Ad A-Forb	Common purslane
PRUAMA	2	Prunus americana	5	UPL	Nt Tree	Smooth wild plum
PRUVIR	2	Prunus virginiana	1	FAC-	Nt Shrub	Choke cherry
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt Tree	Bur oak
RANABO	0	Ranunculus abortivus	-4	FACW+	Nt A-Forb	Small-flowered crowfoot
RHUGLA	0	Rhus glabra	5	UPL	Nt Shrub	Smooth sumac
RIBMIS	3	Ribes missouriense	5	UPL	Nt Shrub	Wild gooseberry
RORPAL	7	Rorippa palustris	-5	OBL	Nt A-Forb	Marsh cress
RUBOCC	1	Rubus occidentalis	5	UPL	Nt Shrub	Black raspberry
RUDHIR	2	Rudbeckia hirta	3	FACU	Nt P-Forb	Black-eyed Susan
RUMALT	0	Rumex altissimus	4	FACU-	Nt P-Forb	Pale dock
RUMCRI	0	RUMEX CRISPIUS	-1	FAC+	Ad P-Forb	Curly dock
RUMPAT	0	RUMEX PATIENTIA	5	UPL	Ad P-Forb	Patience dock
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt Shrub	Elderberry
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt P-Grass	Little bluestem
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad A-Grass	Yellow foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad A-Grass	Green foxtail
SICANG	2	Sicyos angulatus	-2	FACW-	Nt H-Vine	Bur cucumber
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad A-Forb	Tall hedge mustard
SMIHIS	4	Smilax hispida	0	FAC	Nt W-Vine	Greenbrier
SOLCAR	0	Solanum carolinense	4	FACU-	Nt P-Forb	Horse nettle
SOLALT	0	Solidago altissima	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt P-Forb	Tall goldenrod
SONARV	0	SONCHUS ARVENSIS	1	FAC-	Ad P-Forb	Perennial sow thistle
SONASP	0	SONCHUS ASPER	0	FAC	Ad A-Forb	Spiny-leaved sow thistle
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt P-Forb	Germander
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt W-Vine	Poison ivy
TRIFLA	0	Tridens flavus	5	UPL	Nt P-Grass	Purple top
TRIPRA	0	TRIFOLIUM PRATENSE	2	FACU+	Ad P-Forb	Red clover
TRIREF	0	TRIFOLIUM REPENS	2	FACU+	Ad P-Forb	White clover
ULMAME	2	Ulmus americana	-2	FACW-	Nt Tree	American elm
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad Tree	Siberian elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt P-Forb	Stinging nettle
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad B-Forb	Common mullein
VERBRA	0	Verbena bracteata	3	FACU	Nt A-Forb	Creeping vervain
VERARV	0	VERONICA ARVENSIS	5	UPL	Ad A-Forb	Corn speedwell
VERPEG	0	Veronica peregrina	-4	FACW+	Nt A-Forb	Purslane speedwell
VIOSOR	1	Viola sororia	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt W-Vine	Riverbank grape

Campground Reconstruction

1.6 acres; Reconstruction; Map #80

FLORISTIC QUALITY DATA		Native		Adventive			
49	NATIVE SPECIES	Tree	2	3.1%	Tree	1	1.6%
64	Total Species	Shrub	5	7.8%	Shrub	0	0.0%
3.0	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
2.3	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
20.7	NATIVE FQI	P-Forb	29	45.3%	P-Forb	2	3.1%
18.1	W/Adventives	B-Forb	0	0.0%	B-Forb	3	4.7%
2.7	NATIVE MEAN W	A-Forb	5	7.8%	A-Forb	2	3.1%
2.7	W/Adventives	P-Grass	4	6.3%	P-Grass	3	4.7%
AVG:	Fac. Upland	A-Grass	0	0.0%	A-Grass	4	6.3%
		P-Sedge	4	6.3%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	Box elder
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCTUB	6 Asclepias tuberosa	5 UPL	Nt P-Forb	Butterfly weed
ASTCAN	4 Astragalus canadensis	-1 FAC+	Nt P-Forb	Canadian milk vetch
BAPLAC	6 Baptisia lactea	3 FACU	Nt P-Forb	White wild indigo
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
BROJAP	0 BROMUS JAPONICUS	3 FACU	Ad A-Grass	Japanese chess
CALSEP	0 Calystegia sepium	0 FAC	Nt P-Forb	Hedge bindweed
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CXCEPP	5 Carex cephalophora	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXMOLE	2 Carex molesta	0 FAC	Nt P-Sedge	Field oval sedge
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONMAC	0 CONIUM MACULATUM	-3 FACW	Ad B-Forb	Poison milklock
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DACGLO	0 DACTYLIS GLOMERATA	3 FACU	Ad P-Grass	Orchard grass
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
HELMAX	4 Helianthus maximiliani	5 UPL	Nt P-Forb	Maximilian's sunflower
HELTRIG	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
HELTUB	0 Helianthus tuberosus	0 FAC	Nt P-Forb	Jerusalem artichoke
HYPPER	0 HYPERICUM PERFORATUM	5 UPL	Ad P-Forb	Common St. John's wort
LEPDEN	0 Lepidium densiflorum	0 FAC	Nt A-Forb	Pepper cress
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MIARNYC	0 Mirabilis nyctaginea	5 UPL	Nt P-Forb	Wild four o'clock
OXASTR	0 Oxalis stricta	3 FACU	Nt P-Forb	Tall wood sorrel
PENDIG	4 Penstemon digitalis	1 FAC-	Nt P-Forb	Foxglove beard tongue
PHYHET	2 Physalis heterophylla	5 UPL	Nt P-Forb	Ground cherry
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
RATPIN	4 Ratibida pinnata	5 UPL	Nt P-Forb	Gray-headed coneflower
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
RUDHIR	2 Rudbeckia hirta	3 FACU	Nt P-Forb	Black-eyed Susan
RUMPAT	0 RUMEX PATIENTIA	5 UPL	Ad P-Forb	Patience dock
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SETFAB	0 SETARIA FABERII	2 FACU+	Ad A-Grass	Giant foxtail
SETGLA	0 SETARIA GLAUCA	0 FAC	Ad A-Grass	Yellow foxtail
SETVIR	0 SETARIA VIRIDIS	5 UPL	Ad A-Grass	Green foxtail
SILINT	4 Silphium integrifolium	5 UPL	Nt P-Forb	Rosin weed
SILLAC	7 Silphium laciniatum	4 FACU-	Nt P-Forb	Compass plant
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0 Solidago canadensis	3 FACU	Nt P-Forb	Tall goldenrod
SOLRIG	4 Solidago rigida	4 FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SPHOBO	8 Sphenopholis obtusata var. obtusata	0 FAC	Nt P-Grass	Prairie wedge grass

TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad	Tree	Siberian elm
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
ZIZAUR	6	Zizia aurea	-1	FAC+	Nt	P-Forb	Golden alexanders

Campground Roadside Reconstruction

1.8 acres; Reconstruction; Map #79

Notes: Aster novae-angliae escaped to this restoration from its original planting, now defunct, at the nearby entry sign for Hitchcock Nature Center.

FLORISTIC QUALITY DATA		Native		Adventive	
39	NATIVE SPECIES	Tree	1 2.2%	Tree	0 0.0%
46	Total Species	Shrub	3 6.5%	Shrub	0 0.0%
2.8	NATIVE MEAN C	W-Vine	1 2.2%	W-Vine	0 0.0%
2.4	W/Adventives	H-Vine	0 0.0%	H-Vine	0 0.0%
17.5	NATIVE FQI	P-Forb	19 41.3%	P-Forb	1 2.2%
16.1	W/Adventives	B-Forb	1 2.2%	B-Forb	2 4.3%
2.5	NATIVE MEAN W	A-Forb	3 6.5%	A-Forb	1 2.2%
2.6	W/Adventives	P-Grass	6 13.0%	P-Grass	2 4.3%
AVG: Fac. Upland (+)		A-Grass	1 2.2%	A-Grass	1 2.2%
		P-Sedge	4 8.7%	P-Sedge	0 0.0%
		A-Sedge	0 0.0%	A-Sedge	0 0.0%
		Fern	0 0.0%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTNOV	3 Aster novae-angliae	-3 FACW	Nt P-Forb	New England aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXMOLE	2 Carex molesta	0 FAC	Nt P-Sedge	Field oval sedge
CXPELL	4 Carex pellita	-5 OBL	Nt P-Sedge	Broad-leaved woolly sedge
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CORVAR	0 CORONILLA VARIA	5 UPL	Ad P-Forb	Crown vetch
CROSAG	6 Crotalaria sagittalis	5 UPL	Nt A-Forb	Rattlebox
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DESCAD	6 Desmodium canadense	1 FAC-	Nt P-Forb	Showy tick trefoil
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
HELHIR	5 Helianthus hirsutus	5 UPL	Nt P-Forb	Hispid sunflower
HELPEP	0 HELIANTHUS PETIOLARIS	5 UPL	Ad A-Forb	Petioled sunflower
HELRIE	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MIARNYC	0 Mirabilis nyctaginea	5 UPL	Nt P-Forb	Wild four o'clock
PANVIR	5 Panicum virgatum	-1 FAC+	Nt A-Grass	Switch grass
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SETFAB	0 SETARIA FABERII	2 FACU+	Ad A-Grass	Giant foxtail
SILINT	4 Silphium integrifolium	5 UPL	Nt P-Forb	Rosin weed
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0 Solidago canadensis	3 FACU	Nt P-Forb	Tall goldenrod
SOLRIG	4 Solidago rigida	4 FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SPOASP	3 Sporobolus asper	5 UPL	Nt P-Grass	Rough dropseed
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
TRIFLA	0 Tridens flavus	5 UPL	Nt P-Grass	Purple top
VERSTR	1 Verbena stricta	5 UPL	Nt P-Forb	Hoary vervain
VERURT	2 Verbena urticifolia	-1 FAC+	Nt P-Forb	White vervain
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape

Chute Prairie

1.2 acres; Reconstruction; Map #58

FLORISTIC QUALITY DATA	Native	34	82.9%	Adventive	7	17.1%
34 NATIVE SPECIES	Tree	3	7.3%	Tree	0	0.0%
41 Total Species	Shrub	5	12.2%	Shrub	0	0.0%
2.5 NATIVE MEAN C	W-Vine	2	4.9%	W-Vine	1	2.4%
2.1 W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
14.6 NATIVE FQI	P-Forb	11	26.8%	P-Forb	0	0.0%
13.3 W/Adventives	B-Forb	0	0.0%	B-Forb	2	4.9%
2.3 NATIVE MEAN W	A-Forb	3	7.3%	A-Forb	1	2.4%
2.2 W/Adventives	P-Grass	5	12.2%	P-Grass	2	4.9%
AVG: Fac. Upland (+)	A-Grass	1	2.4%	A-Grass	1	2.4%
	P-Sedge	4	9.8%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	A-Sedge	0	0.0%
	Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMBART	0 <i>Ambrosia artemisiifolia</i>	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ASCSYR	0 <i>Asclepias syriaca</i>	5 UPL	Nt P-Forb	Common milkweed
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CAMRAD	0 <i>CAMPISIS RADICANS</i>	0 FAC	Ad W-Vine	Trumpet creeper
CXBREV	4 <i>Carex brevior</i>	0 FAC	Nt P-Sedge	Plains oval sedge
CXCEPP	5 <i>Carex cephalophora</i>	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXGRVG	1 <i>Carex gravida</i>	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXTENE	8 <i>Carex tenera</i>	-1 FAC+	Nt P-Sedge	Narrow-leaved oval sedge
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
EUPALT	2 <i>Eupatorium altissimum</i>	3 FACU	Nt P-Forb	Tall boneset
EUPMAR	0 <i>Euphorbia marginata</i>	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 <i>Euphorbia nutans</i>	3 FACU	Nt A-Forb	Nodding spurge
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
GALCIR	6 <i>Galium circaezans</i>	4 FACU-	Nt P-Forb	Wild licorice
MEDLUP	0 <i>MEDICAGO LUPULINA</i>	1 FAC-	Ad A-Forb	Black medick
MELALB	0 <i>MELILOTUS ALBA</i>	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 <i>MELILOTUS OFFICINALIS</i>	3 FACU	Ad B-Forb	Yellow sweet clover
MONFIS	2 <i>Monarda fistulosa</i>	3 FACU	Nt P-Forb	Wild bergamot
PANOLS	5 <i>Panicum oligosanthos</i> var. <i>scribnerianum</i>	3 FACU	Nt P-Grass	Scribner's panic grass
PANVIR	5 <i>Panicum virgatum</i>	-1 FAC+	Nt A-Grass	Switch grass
PARVIT	1 <i>Parthenocissus vitacea</i>	3 FACU	Nt W-Vine	Thicket creeper
POAPRA	0 <i>POA PRATENSIS</i>	1 FAC-	Ad P-Grass	Kentucky blue grass
QUEMAC	4 <i>Quercus macrocarpa</i>	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 <i>Rhus glabra</i>	5 UPL	Nt Shrub	Smooth sumac
RUDHIR	2 <i>Rudbeckia hirta</i>	3 FACU	Nt P-Forb	Black-eyed Susan
SAMCAN	1 <i>Sambucus canadensis</i>	4 FACU-	Nt Shrub	Elderberry
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem
SETGLA	0 <i>SETARIA GLAUCA</i>	0 FAC	Ad A-Grass	Yellow foxtail
SOLALT	0 <i>Solidago altissima</i>	3 FACU	Nt P-Forb	Tall goldenrod
SORNUT	2 <i>Sorghastrum nutans</i>	2 FACU+	Nt P-Grass	Indian grass
SYMOC	0 <i>Symphoricarpos occidentalis</i>	5 UPL	Nt Shrub	Wolfberry
SYMORB	0 <i>Symphoricarpos orbiculatus</i>	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 <i>Teucrium canadense</i>	-2 FACW-	Nt P-Forb	Germander
ULMAME	2 <i>Ulmus americana</i>	-2 FACW-	Nt Tree	American elm
VERSTR	1 <i>Verbena stricta</i>	5 UPL	Nt P-Forb	Hoary vervain
VERBAL	2 <i>Vernonia baldwinii</i>	5 UPL	Nt P-Forb	Baldwin's ironweed
VITRIP	1 <i>Vitis riparia</i>	-2 FACW-	Nt W-Vine	Riverbank grape

Chute Thicket

5.2 acres; Thicket; Map #57

FLORISTIC QUALITY DATA		Native		Adventive			
47	NATIVE SPECIES	Tree	7	14.3%	Tree	1	2.0%
49	Total Species	Shrub	4	8.2%	Shrub	0	0.0%
3.6	NATIVE MEAN C	W-Vine	4	8.2%	W-Vine	0	0.0%
3.5	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
24.9	NATIVE FQI	P-Forb	17	34.7%	P-Forb	0	0.0%
24.4	W/Adventives	B-Forb	1	2.0%	B-Forb	1	2.0%
2.1	NATIVE MEAN W	A-Forb	4	8.2%	A-Forb	0	0.0%
2.0	W/Adventives	P-Grass	3	6.1%	P-Grass	0	0.0%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	6	12.2%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	2.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
ANEVIR	4 Anemone virginiana	5 UPL	Nt P-Forb	Tall anemone
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
BOTVIR	6 Botrychium virginianum	3 FACU	Nt Fern	Rattlesnake fern
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXHITC	8 Carex hitchcockiana	5 UPL	Nt P-Sedge	Hairy gray sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPRE	4 Carex spengelii	0 FAC	Nt P-Sedge	Long-beaked sedge
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DICCCUC	7 Dicteria cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
ELLNYC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HYSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RANABO	0 Ranunculus abortivus	-4 FACW+	Nt A-Forb	Small-flowered crowfoot
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SCRMAR	4 Scrophularia marilandica	4 FACU-	Nt P-Forb	Late figwort
SMIECI	6 Smilax ecirrhata	5 UPL	Nt P-Forb	Upright carrion flower
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
VIOSOR	1 Viola sororia	1 FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape

Chute Woods

19.2 acres; Timber; Map #56

Notes: This is the area that was designated as unit #6 in the Rosburg (1993) survey. Plants shown in bold face type are known only from that original survey.

FLORISTIC QUALITY DATA	Native	85	95.5%	Adventive	4	4.5%
85 NATIVE SPECIES	Tree	11	12.4%	Tree	1	1.1%
89 Total Species	Shrub	5	5.6%	Shrub	0	0.0%
3.9 NATIVE MEAN C	W-Vine	5	5.6%	W-Vine	0	0.0%
3.7 W/Adventives	H-Vine	1	1.1%	H-Vine	0	0.0%
35.9 NATIVE FQI	P-Forb	32	36.0%	P-Forb	1	1.1%
35.1 W/Adventives	B-Forb	4	4.5%	B-Forb	2	2.2%
1.8 NATIVE MEAN W	A-Forb	6	6.7%	A-Forb	0	0.0%
1.9 W/Adventives	P-Grass	8	9.0%	P-Grass	0	0.0%
AVG: Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	0	0.0%
	P-Sedge	11	12.4%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	A-Sedge	0	0.0%
	Fern	2	2.2%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACARHO	6 <i>Acalypha rhomboidea</i>	3 FACU	Nt A-Forb	Three-seeded mercury
AGANEP	4 <i>Agastache nepetoides</i>	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLPET	0 <i>ALLIARIA PETIOLATA</i>	0 FAC	Ad B-Forb	Garlic mustard
AQUCAN	6 <i>Aquilegia canadensis</i>	1 FAC-	Nt P-Forb	Columbine
ARACAN	7 <i>Arabis canadensis</i>	5 UPL	Nt B-Forb	Sickle pod
ARITRI	4 <i>Arisaema triphyllum</i>	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ASTSAG	6 <i>Aster sagittifolius</i>	5 UPL	Nt P-Forb	Arrow-leaved aster
ASTCAN	4 <i>Astragalus canadensis</i>	-1 FAC+	Nt P-Forb	Canadian milk vetch
BOTVIR	6 <i>Botrychium virginianum</i>	3 FACU	Nt Fern	Rattlesnake fern
CAMAME	4 <i>Campanula americana</i>	0 FAC	Nt A-Forb	Tall bellflower
CXARTI	8 <i>Carex artitecta</i>	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBACK	10 <i>Carex backii</i>	1 FAC-	Nt P-Sedge	Northern grass sedge
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CXCEPP	5 <i>Carex cephalophora</i>	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXGRAS	10 <i>Carex gracilescens</i>	5 UPL	Nt P-Sedge	Slender wood sedge
CXGRIS	4 <i>Carex grisea</i>	5 UPL	Nt P-Sedge	Gray sedge
CXHITC	8 <i>Carex hitchcockiana</i>	5 UPL	Nt P-Sedge	Hairy gray sedge
CXOLIC	6 <i>Carex oligocarpa</i>	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXROSE	7 <i>Carex rosea</i>	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPAR	6 <i>Carex sparganioides</i>	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CXSPRE	4 <i>Carex spengelii</i>	0 FAC	Nt P-Sedge	Long-beaked sedge
CELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
CINARU	4 <i>Cinna arundinacea</i>	-3 FACW	Nt P-Grass	Wood reed
CIRLUT	5 <i>Circaea lutetiana</i> var. <i>canadensis</i>	3 FACU	Nt P-Forb	Enchanter's nightshade
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
CYSPRO	6 <i>Cystopteris protrusa</i>	4 FACU-	Nt Fern	Creeping fragile fern
DICCCU	7 <i>Dicentra cucullaria</i>	5 UPL	Nt P-Forb	Dutchman's breeches
ELYVIL	5 <i>Elymus villosus</i>	3 FACU	Nt P-Grass	Slender wild rye
ELYVIR	3 <i>Elymus virginicus</i>	-2 FACW-	Nt P-Grass	Virginia wild rye
ERIANN	0 <i>Erigeron annuus</i>	1 FAC-	Nt B-Forb	Annual fleabane
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 <i>Festuca obtusa</i>	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
GALSPE	4 <i>Galearis spectabilis</i>	5 UPL	Nt P-Forb	Showy orchis
GALAPA	1 <i>Galium aparine</i>	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 <i>Galium circaezans</i>	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 <i>Galium triflorum</i>	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 <i>Geum canadense</i>	0 FAC	Nt P-Forb	White avens
GYMDIO	5 <i>Gymnocladus dioica</i>	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 <i>Hackelia virginiana</i>	1 FAC-	Nt P-Forb	Stickseed
HYSPAT	5 <i>Hystrix patula</i>	5 UPL	Nt P-Grass	Bottlebrush grass
JUGNIG	4 <i>Juglans nigra</i>	3 FACU	Nt Tree	Black walnut
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LACCAN	1 <i>Lactuca canadensis</i>	2 FACU+	Nt B-Forb	Wild lettuce
LAPCAN	3 <i>Laportea canadensis</i>	-3 FACW	Nt P-Forb	Wood nettle
LEEVIR	6 <i>Leersia virginica</i>	-3 FACW	Nt P-Grass	White grass
MELOFC	0 <i>MELILOTUS OFFICINALIS</i>	3 FACU	Ad B-Forb	Yellow sweet clover
MENCAN	5 <i>Menispermum canadense</i>	-1 FAC+	Nt W-Vine	Moonseed
MORRUB	4 <i>Morus rubra</i>	1 FAC-	Nt Tree	Red mulberry
MUHSYL	7 <i>Muhlenbergia sylvatica</i>	-3 FACW	Nt P-Grass	Woodland satin grass

OSMCLI	3	<i>Osmorhiza claytonii</i>	4	FACU-	Nt	P-Forb	Hairy sweet cicely
OSMLON	5	<i>Osmorhiza longistylis</i>	4	FACU-	Nt	P-Forb	Smooth sweet cicely
OSTVIR	5	<i>Ostrya virginiana</i>	4	FACU-	Nt	Tree	Hop hornbeam
OXASTR	0	<i>Oxalis stricta</i>	3	FACU	Nt	P-Forb	Tall wood sorrel
PARQUI	2	<i>Parthenocissus quinquefolia</i>	1	FAC-	Nt	W-Vine	Virginia creeper
PHLDIV	5	<i>Phlox divaricata</i>	3	FACU	Nt	P-Forb	Woodland phlox
PHRLEP	4	<i>Phryma leptostachya</i>	5	UPL	Nt	P-Forb	Lopseed
PHYLON	0	<i>Physalis longifolia</i>	5	UPL	Nt	P-Forb	Tall ground cherry
PILPUM	3	<i>Pilea pumila</i>	-3	FACW	Nt	A-Forb	Common clearweed
PLARUG	0	<i>Plantago rugelii</i>	0	FAC	Nt	A-Forb	Red-stalked plantain
POASYL	10	<i>Poa sylvestris</i>	0	FAC	Nt	P-Grass	Woodland blue grass
POLBIF	4	<i>Polygonatum biflorum</i>	3	FACU	Nt	P-Forb	Solomon's seal
POPDEL	1	<i>Populus deltoides</i>	-1	FAC+	Nt	Tree	Cottonwood
PRUVIR	2	<i>Prunus virginiana</i>	1	FAC-	Nt	Shrub	Choke cherry
QUEMAC	4	<i>Quercus macrocarpa</i>	1	FAC-	Nt	Tree	Bur oak
RANABO	0	<i>Ranunculus abortivus</i>	-4	FACW+	Nt	A-Forb	Small-flowered crowfoot
RIBMIS	3	<i>Ribes missouriense</i>	5	UPL	Nt	Shrub	Wild gooseberry
ROBPSE	0	ROBINIA PSEUDOACACIA	4	FACU-	Ad	Tree	Black locust
SAMCAN	1	<i>Sambucus canadensis</i>	4	FACU-	Nt	Shrub	Elderberry
SANCAS	6	<i>Sanicula canadensis</i>	2	FACU+	Nt	B-Forb	Black snakeroot
SMIECI	6	<i>Smilax ecirrhata</i>	5	UPL	Nt	P-Forb	Upright carrion flower
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt	W-Vine	Greenbrier
SMILAS	5	<i>Smilax lasioneura</i>	0	FAC	Nt	H-Vine	Common carrion flower
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	<i>Solidago gigantea</i>	-3	FACW	Nt	P-Forb	Smooth goldenrod
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt	P-Forb	Germander
TILAME	5	<i>Tilia americana</i>	3	FACU	Nt	Tree	Basswood
TRIPEM	4	<i>Triosteum perfoliatum</i>	5	UPL	Nt	P-Forb	Late horse gentian
ULMAME	2	<i>Ulmus americana</i>	-2	FACW-	Nt	Tree	American elm
VERURT	2	<i>Verbena urticifolia</i>	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOPUP	5	<i>Viola pubescens</i>	4	FACU-	Nt	P-Forb	Downy yellow violet
VIOSOR	1	<i>Viola sororia</i>	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt	W-Vine	Riverbank grape

Cottonwood Camp Ridge

0.4 acres; Loess Prairie; Map #30

FLORISTIC QUALITY DATA		Native		Adventive			
67	NATIVE SPECIES	Tree	5	6.4%	Tree	0	0.0%
78	Total Species	Shrub	7	9.0%	Shrub	0	0.0%
3.6	NATIVE MEAN C	W-Vine	2	2.6%	W-Vine	0	0.0%
3.1	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
29.3	NATIVE FQI	P-Forb	26	33.3%	P-Forb	1	1.3%
27.2	W/Adventives	B-Forb	4	5.1%	B-Forb	2	2.6%
2.5	NATIVE MEAN W	A-Forb	6	7.7%	A-Forb	5	6.4%
2.4	W/Adventives	P-Grass	12	15.4%	P-Grass	2	2.6%
AVG:	Fac. Upland	A-Grass	1	1.3%	A-Grass	1	1.3%
		P-Sedge	4	5.1%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CHESTA	6 Chenopodium standleyanum	5 UPL	Nt A-Forb	Woodland goosefoot
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCYA	0 EUPHORBIA CYATHOPHORA	5 UPL	Ad A-Forb	Wild poinsettia
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HEDNIG	7 Hedyotis nigricans	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELIRIG	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LACFLO	4 Lactuca floridana	1 FAC-	Nt B-Forb	Blue lettuce
LITCAN	7 Lithospermum canescens	5 UPL	Nt P-Forb	Hoary puccoon
LITINC	5 Lithospermum incisum	5 UPL	Nt P-Forb	Fringed puccoon
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MUHCUS	10 Muhlenbergia cuspidata	5 UPL	Nt P-Grass	Prairie satin grass
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
MUHRAC	4 Muhlenbergia racemosa	-3 FACW	Nt P-Grass	Upland wild Timothy
MUHSCH	1 Muhlenbergia schreberi	0 FAC	Nt P-Grass	Nimblewill
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
OENBIE	0 Oenothera biennis	3 FACU	Nt B-Forb	Common evening primrose
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PANCAP	0 Panicum capillare	0 FAC	Nt A-Grass	Old witch grass
PANOLS	5 Panicum oligosanthes var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PEDARG	5 Pedimelum argophyllum	5 UPL	Nt P-Forb	Silvery scurfy pea
PENGRN	5 Penstemon grandiflorus	5 UPL	Nt P-Forb	Large-flowered beard tongue
PHAARU	0 PHALARIS ARUNDINACEA	-4 FACW+	Ad P-Grass	Reed canary grass
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
PLARUG	0 Plantago rugelii	0 FAC	Nt A-Forb	Red-stalked plantain
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
POPDEL	1 Populus deltoides	-1 FAC+	Nt Tree	Cottonwood
PRUVIR	2 Prunus virginiana	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak

RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
RIBMIS	3	Ribes missouriense	5	UPL	Nt	Shrub	Wild gooseberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt	B-Forb	Black snakeroot
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad	A-Grass	Green foxtail
SMISTE	5	Smilacina stellata	1	FAC-	Nt	P-Forb	Starry false Solomon's seal
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	Solidago gigantea	-3	FACW	Nt	P-Forb	Smooth goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
STISPA	6	Stipa spartea	5	UPL	Nt	P-Grass	Porcupine grass
SYMOC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
URTDIO	0	Urtica dioica	-1	FAC+	Nt	P-Forb	Stinging nettle
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape
XANSTR	0	XANTHIUM STRUMARIUM	0	FAC	Ad	A-Forb	Cocklebur
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt	Shrub	Prickly ash

Cottonwood Prairie

3.4 acres; Pasture; Map #29

Notes: The cottonwood trees are characterized by the lichens, *Candelaria concolor*, *Phaeophyscia hirtella*, *Physcia airpolia*, *Physcia stellaris*, *Physconia detersea*, *Xanthoria candelaria*, and *Xanthoria fallax*. A prairie-conservative bee, *Pseudopanurgus albitarsis*, was collected at this site.

FLORISTIC QUALITY DATA		Native		Adventive			
41	NATIVE SPECIES	Tree	4	8.7%	Tree	0	0.0%
46	Total Species	Shrub	5	10.9%	Shrub	0	0.0%
3.0	NATIVE MEAN C	W-Vine	3	6.5%	W-Vine	0	0.0%
2.7	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
19.4	NATIVE FQI	P-Forb	18	39.1%	P-Forb	0	0.0%
18.3	W/Adventives	B-Forb	0	0.0%	B-Forb	1	2.2%
2.9	NATIVE MEAN W	A-Forb	2	4.3%	A-Forb	1	2.2%
2.9	W/Adventives	P-Grass	5	10.9%	P-Grass	2	4.3%
AVG: Fac. Upland		A-Grass	2	4.3%	A-Grass	1	2.2%
		P-Sedge	2	4.3%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower
APOSIB	1 <i>Apocynum sibiricum</i>	-1 FAC+	Nt P-Forb	Indian hemp
ASCSYR	0 <i>Asclepias syriaca</i>	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CXARTI	8 <i>Carex artitecta</i>	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBREV	4 <i>Carex brevior</i>	0 FAC	Nt P-Sedge	Plains oval sedge
CELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
CHAFAS	1 <i>Chamaecrista fasciculata</i>	4 FACU-	Nt A-Forb	Partridge pea
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
EUPNUT	0 <i>Euphorbia nutans</i>	3 FACU	Nt A-Forb	Nodding spurge
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
HELHIR	5 <i>Helianthus hirsutus</i>	5 UPL	Nt P-Forb	Hispid sunflower
HELRIE	8 <i>Helianthus rigidus</i>	5 UPL	Nt P-Forb	Prairie sunflower
HELHEL	4 <i>Heliopsis helianthoides</i>	5 UPL	Nt P-Forb	False sunflower
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
MEDLUP	0 <i>MEDICAGO LUPULINA</i>	1 FAC-	Ad A-Forb	Black medick
MELALB	0 <i>MELILOTUS ALBA</i>	3 FACU	Ad B-Forb	White sweet clover
PANCAP	0 <i>Panicum capillare</i>	0 FAC	Nt A-Grass	Old witch grass
PANOLS	5 <i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3 FACU	Nt P-Grass	Scribner's panic grass
PANVIR	5 <i>Panicum virgatum</i>	-1 FAC+	Nt A-Grass	Switch grass
PENGRN	5 <i>Penstemon grandiflorus</i>	5 UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2 <i>Physalis heterophylla</i>	5 UPL	Nt P-Forb	Ground cherry
POAPRA	0 <i>POA PRATENSIS</i>	1 FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4 <i>Polygonatum biflorum</i>	3 FACU	Nt P-Forb	Solomon's seal
POPDEL	1 <i>Populus deltoides</i>	-1 FAC+	Nt Tree	Cottonwood
QUEMAC	4 <i>Quercus macrocarpa</i>	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 <i>Rhus glabra</i>	5 UPL	Nt Shrub	Smooth sumac
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem
SETVIR	0 <i>SETARIA VIRIDIS</i>	5 UPL	Ad A-Grass	Green foxtail
SMIHIS	4 <i>Smilax hispida</i>	0 FAC	Nt W-Vine	Greenbrier
SOLALT	0 <i>Solidago altissima</i>	3 FACU	Nt P-Forb	Tall goldenrod
SOLRIG	4 <i>Solidago rigida</i>	4 FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4 <i>Sorghastrum nutans</i>	2 FACU+	Nt P-Grass	Indian grass
SPOASP	3 <i>Sporobolus asper</i>	5 UPL	Nt P-Grass	Rough dropseed
SYMOC	0 <i>Symphoricarpos occidentalis</i>	5 UPL	Nt Shrub	Wolfberry
SYMORB	0 <i>Symphoricarpos orbiculatus</i>	3 FACU	Nt Shrub	Coralberry
TRIPEM	4 <i>Triosteum perfoliatum</i>	5 UPL	Nt P-Forb	Late horse gentian
VITRIP	1 <i>Vitis riparia</i>	-2 FACW-	Nt W-Vine	Riverbank grape

Crescent Ridge, Central

7.2 acres; Loess Prairie; Map #3

Notes: The following conservative insects were collected here: *Anthophora walsbii* and *Nylanderia arenivaga*.

FLORISTIC QUALITY DATA		Native		Adventive			
58	NATIVE SPECIES	Tree	2	3.4%	Tree	0	0.0%
59	Total Species	Shrub	6	10.2%	Shrub	0	0.0%
5.5	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
5.4	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
41.9	NATIVE FQI	P-Forb	36	61.0%	P-Forb	0	0.0%
41.5	W/Adventives	B-Forb	0	0.0%	B-Forb	1	1.7%
3.9	NATIVE MEAN W	A-Forb	2	3.4%	A-Forb	0	0.0%
3.9	W/Adventives	P-Grass	8	13.6%	P-Grass	0	0.0%
AVG:	Fac. Upland (-)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	3	5.1%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	1.7%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
ASTMIS	8 Astragalus missouriensis	5 UPL	Nt P-Forb	Missouri milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian pliantain
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXMEAD	9 Carex meadii	0 FAC	Nt P-Sedge	Mead's stiff sedge
CEAHER	8 Ceanothus herbaceus var. pubescens	5 UPL	Nt Shrub	Redroot
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 Dalea candida	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DESILE	5 Desmodium illinoense	5 UPL	Nt P-Forb	Illinois tick trefoil
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
EQULAE	6 Equisetum laevigatum	-3 FACW	Nt Fern	Smooth scouring rush
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GAUCOC	7 Gaura coccinea	5 UPL	Nt P-Forb	Scarlet gaura
HEDNIG	7 Hedyotis nigricans	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELTRIG	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LIAASP	8 Liatris aspera	5 UPL	Nt P-Forb	Rough blazing star
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LINRIG	7 Linum rigidum	5 UPL	Nt P-Forb	Stiff flax
LINSUL	7 Linum sulcatum	5 UPL	Nt P-Forb	Grooved yellow flax
LITINC	5 Lithospermum incisum	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MUHCUS	10 Muhlenbergia cuspidata	5 UPL	Nt P-Grass	Prairie satin grass
OXYLAM	8 Oxytropis lambertii	4 FACU-	Nt P-Forb	Locoweed
PANOLS	5 Panicum oligosanthes var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PEDESC	8 Pedicularis esculentum	5 UPL	Nt P-Forb	Prairie turnip
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
ROSARS	4 Rosa arkansana var. suffulta	5 UPL	Nt Shrub	Sunshine rose
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SISCAM	4 Sisyrinchium campestre	5 UPL	Nt P-Forb	Prairie blue-eyed grass
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLMIS	5 Solidago missouriensis	5 UPL	Nt P-Forb	Missouri goldenrod
SOLNEM	4 Solidago nemoralis	5 UPL	Nt P-Forb	Field goldenrod
SOLSPE	7 Solidago speciosa	5 UPL	Nt P-Forb	Showy goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
STISPA	6 Stipa spartea	5 UPL	Nt P-Grass	Porcupine grass

SYMOCC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt Shrub	Wolfberry
TRIPEM	4	<i>Triosteum perfoliatum</i>	5	UPL	Nt P-Forb	Late horse gentian
VIOPEF	8	<i>Viola pedatifida</i>	4	FACU-	Nt P-Forb	Prairie violet

Crescent Ridge, East

7.6 acres; Loess Prairie; Map #1

FLORISTIC QUALITY DATA		Native		Adventive			
49	NATIVE SPECIES	Tree	3	5.7%	Tree	1	1.9%
53	Total Species	Shrub	6	11.3%	Shrub	0	0.0%
4.9	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
4.5	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
34.3	NATIVE FQI	P-Forb	26	49.1%	P-Forb	0	0.0%
33.0	W/Adventives	B-Forb	0	0.0%	B-Forb	1	1.9%
3.8	NATIVE MEAN W	A-Forb	3	5.7%	A-Forb	0	0.0%
3.8	W/Adventives	P-Grass	8	15.1%	P-Grass	2	3.8%
AVG: Fac. Upland (-)		A-Grass	1	1.9%	A-Grass	0	0.0%
		P-Sedge	1	1.9%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	1.9%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANTNEG	2 <i>Antennaria neglecta</i>	5 UPL	Nt P-Forb	Cat's feet
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
ASTSER	10 <i>Aster sericeus</i>	5 UPL	Nt P-Forb	Silky aster
ASTMIS	8 <i>Astragalus missouriensis</i>	5 UPL	Nt P-Forb	Missouri milk vetch
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CEAHER	8 <i>Ceanothus herbaceus</i> var. <i>pubescens</i>	5 UPL	Nt Shrub	Redroot
CHAFAS	1 <i>Chamaecrista fasciculata</i>	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
CROSAG	6 <i>Crotalaria sagittalis</i>	5 UPL	Nt A-Forb	Rattlebox
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DESILE	5 <i>Desmodium illinoense</i>	5 UPL	Nt P-Forb	Illinois tick trefoil
EQULAE	6 <i>Equisetum laevigatum</i>	-3 FACW	Nt Fern	Smooth scouring rush
ERASPE	2 <i>Eragrostis spectabilis</i>	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
HEDNIG	7 <i>Hedyotis nigricans</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELTRIG	8 <i>Helianthus rigidus</i>	5 UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LINRIG	7 <i>Linum rigidum</i>	5 UPL	Nt P-Forb	Stiff flax
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Skeletonweed
MELALB	0 <i>MELILOTUS ALBA</i>	3 FACU	Ad B-Forb	White sweet clover
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	5 UPL	Nt P-Grass	Prairie satin grass
OSTVIR	5 <i>Ostrya virginiana</i>	4 FACU-	Nt Tree	Hop hornbeam
OXYLAM	8 <i>Oxytropis lambertii</i>	4 FACU-	Nt P-Forb	Locoweed
PANCAP	0 <i>Panicum capillare</i>	0 FAC	Nt A-Grass	Old witch grass
PANOLS	5 <i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3 FACU	Nt P-Grass	Scribner's panic grass
POAPRA	0 <i>POA PRATENSIS</i>	1 FAC-	Ad P-Grass	Kentucky blue grass
QUEMAC	4 <i>Quercus macrocarpa</i>	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 <i>Rhus glabra</i>	5 UPL	Nt Shrub	Smooth sumac
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem
SILLAC	7 <i>Silphium laciniatum</i>	4 FACU-	Nt P-Forb	Compass plant
SISCAM	4 <i>Sisyrinchium campestre</i>	5 UPL	Nt P-Forb	Prairie blue-eyed grass
SOLNEM	4 <i>Solidago nemoralis</i>	5 UPL	Nt P-Forb	Field goldenrod
SOLRIG	4 <i>Solidago rigida</i>	4 FACU-	Nt P-Forb	Stiff goldenrod
SOLSPE	7 <i>Solidago speciosa</i>	5 UPL	Nt P-Forb	Showy goldenrod
SORNUT	4 <i>Sorghastrum nutans</i>	2 FACU+	Nt P-Grass	Indian grass
STISPA	6 <i>Stipa spartea</i>	5 UPL	Nt P-Grass	Porcupine grass
STRLEI	7 <i>Strophostyles leiosperma</i>	5 UPL	Nt A-Forb	Small wild bean
SYMORB	0 <i>Symphoricarpos orbiculatus</i>	3 FACU	Nt Shrub	Coralberry
ULMPUM	0 <i>ULMUS PUMILA</i>	5 UPL	Ad Tree	Siberian elm
VERBAL	2 <i>Vernonia baldwinii</i>	5 UPL	Nt P-Forb	Baldwin's ironweed
ZANAME	3 <i>Zanthoxylum americanum</i>	5 UPL	Nt Shrub	Prickly ash

Crescent Ridge, West

9.0 acres; Loess Prairie; Map #2

Notes: *Catapyrenium lachneum*, *Cladonia peziziformis*, and *Psora decipiens* are rare on stable soil.

FLORISTIC QUALITY DATA		Native		Adventive	
55	NATIVE SPECIES	Tree	1 1.8%	Tree	0 0.0%
56	Total Species	Shrub	6 10.7%	Shrub	0 0.0%
5.4	NATIVE MEAN C	W-Vine	0 0.0%	W-Vine	0 0.0%
5.3	W/Adventives	H-Vine	0 0.0%	H-Vine	0 0.0%
40.3	NATIVE FQI	P-Forb	38 67.9%	P-Forb	0 0.0%
40.0	W/Adventives	B-Forb	0 0.0%	B-Forb	1 1.8%
4.0	NATIVE MEAN W	A-Forb	2 3.6%	A-Forb	0 0.0%
4.0	W/Adventives	P-Grass	7 12.5%	P-Grass	0 0.0%
AVG:	Fac. Upland (-)	A-Grass	0 0.0%	A-Grass	0 0.0%
		P-Sedge	0 0.0%	P-Sedge	0 0.0%
		A-Sedge	0 0.0%	A-Sedge	0 0.0%
		Fern	1 1.8%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 <i>Agalinis aspera</i>	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower
ANEVIR	4 <i>Anemone virginiana</i>	5 UPL	Nt P-Forb	Tall anemone
ANTNEG	2 <i>Antennaria neglecta</i>	5 UPL	Nt P-Forb	Cat's feet
ASCAMP	4 <i>Asclepias amplexicaulis</i>	5 UPL	Nt P-Forb	Sand milkweed
ASCSUL	7 <i>Asclepias sullivantii</i>	5 UPL	Nt P-Forb	Prairie milkweed
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 <i>Aster oblongifolius</i>	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 <i>Aster sericeus</i>	5 UPL	Nt P-Forb	Silky aster
ASTMIS	8 <i>Astragalus missouriensis</i>	5 UPL	Nt P-Forb	Missouri milk vetch
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
CACPLA	7 <i>Cacalia plantaginea</i>	0 FAC	Nt P-Forb	Prairie Indian plaintain
CEAHER	8 <i>Ceanothus herbaceus</i> var. <i>pubescens</i>	5 UPL	Nt Shrub	Redroot
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 <i>Dalea candida</i>	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
ECHANG	8 <i>Echinacea angustifolia</i>	5 UPL	Nt P-Forb	Purple coneflower
EQULAE	6 <i>Equisetum laevigatum</i>	-3 FACW	Nt Fern	Smooth scouring rush
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
EUPMAR	0 <i>Euphorbia marginata</i>	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAVIR	3 <i>Fragaria virginiana</i>	1 FAC-	Nt P-Forb	Wild strawberry
HEDNIG	7 <i>Hedyotis nigricans</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LIAASP	8 <i>Liatris aspera</i>	5 UPL	Nt P-Forb	Rough blazing star
LINRIG	7 <i>Linum rigidum</i>	5 UPL	Nt P-Forb	Stiff flax
LINSUL	7 <i>Linum sulcatum</i>	5 UPL	Nt P-Forb	Grooved yellow flax
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Skeletonweed
MELOFC	0 <i>MELILOTUS OFFICINALIS</i>	3 FACU	Ad B-Forb	Yellow sweet clover
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	5 UPL	Nt P-Grass	Prairie satin grass
OXYLAM	8 <i>Oxytropis lambertii</i>	4 FACU-	Nt P-Forb	Locoweed
PANOLS	5 <i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3 FACU	Nt P-Grass	Scribner's panic grass
PENGRN	5 <i>Penstemon grandiflorus</i>	5 UPL	Nt P-Forb	Large-flowered beard tongue
RHUGLA	0 <i>Rhus glabra</i>	5 UPL	Nt Shrub	Smooth sumac
ROSARS	4 <i>Rosa arkansana</i> var. <i>suffulta</i>	5 UPL	Nt Shrub	Sunshine rose
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem
SENPLA	3 <i>Senecio plattensis</i>	4 FACU-	Nt P-Forb	Prairie ragwort
SILLAC	7 <i>Silphium laciniatum</i>	4 FACU-	Nt P-Forb	Compass plant
SISCAM	4 <i>Sisyrinchium campestre</i>	5 UPL	Nt P-Forb	Prairie blue-eyed grass
SOLALT	0 <i>Solidago altissima</i>	3 FACU	Nt P-Forb	Tall goldenrod
SOLNEM	4 <i>Solidago nemoralis</i>	5 UPL	Nt P-Forb	Field goldenrod
SOLRIG	4 <i>Solidago rigida</i>	4 FACU-	Nt P-Forb	Stiff goldenrod
SOLSPE	7 <i>Solidago speciosa</i>	5 UPL	Nt P-Forb	Showy goldenrod
SORNUT	4 <i>Sorghastrum nutans</i>	2 FACU+	Nt P-Grass	Indian grass
STISPA	6 <i>Stipa spartea</i>	5 UPL	Nt P-Grass	Porcupine grass
SYMOC	0 <i>Symphoricarpos occidentalis</i>	5 UPL	Nt Shrub	Wolfberry

Crescent Valley, West

2.4 acres; Loess Prairie; Map #4

FLORISTIC QUALITY DATA		Native		Adventive	
56	NATIVE SPECIES	56	76.7%	17	23.3%
73	Total Species	Tree	6 8.2%	Tree	2 2.7%
2.4	NATIVE MEAN C	Shrub	3 4.1%	Shrub	0 0.0%
1.9	W/Adventives	H-Vine	3 4.1%	H-Vine	0 0.0%
18.3	NATIVE FQI	H-Vine	1 1.4%	H-Vine	0 0.0%
16.0	W/Adventives	P-Forb	26 35.6%	P-Forb	0 0.0%
1.9	NATIVE MEAN W	B-Forb	0 0.0%	B-Forb	4 5.5%
2.0	W/Adventives	A-Forb	11 15.1%	A-Forb	6 8.2%
AVG: Fac. Upland (+)		P-Grass	3 4.1%	P-Grass	1 1.4%
		A-Grass	1 1.4%	A-Grass	4 5.5%
		P-Sedge	2 2.7%	P-Sedge	0 0.0%
		A-Sedge	0 0.0%	A-Sedge	0 0.0%
		Fern	0 0.0%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	Box elder
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
AGRGRY	3 Agrimonia gryposepala	2 FACU+	Nt P-Forb	Tall agrimony
AILALT	0 AILANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMBTRI	0 Ambrosia trifida	-1 FAC+	Nt A-Forb	Giant ragweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
BARVUL	0 BARBAREA VULGARIS	0 FAC	Ad B-Forb	Yellow rocket
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXGRIS	4 Carex grisea	5 UPL	Nt P-Sedge	Gray sedge
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DESSOP	0 DESCURAINIA SOPHIA	5 UPL	Ad A-Forb	Flixweed
DIGISC	0 DIGITARIA ISCHAEMUM	3 FACU	Ad A-Grass	Smooth crab grass
EREHIE	0 Erechtites hieracifolia	3 FACU	Nt A-Forb	Fireweed
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALCIR	6 Galium circaeazans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELTUB	0 Helianthus tuberosus	0 FAC	Nt P-Forb	Jerusalem artichoke
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MUHFRO	3 Muhlenbergia frondosa	-3 FACW	Nt P-Grass	Common satin grass
PANCAP	0 Panicum capillare	0 FAC	Nt A-Grass	Old witch grass
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
PILPUM	3 Pilea pumila	-3 FACW	Nt A-Forb	Common clearweed
POLPER	0 POLYGONUM PERSICARIA	-3 FACW	Ad A-Forb	Lady's thumb
POLSCN	2 Polygonum scandens	0 FAC	Nt H-Vine	Climbing false buckwheat
POLVIG	5 Polygonum virginianum	0 FAC	Nt P-Forb	Jumpseed
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RUDHIR	2 Rudbeckia hirta	3 FACU	Nt P-Forb	Black-eyed Susan
SCRMAR	4 Scrophularia marilandica	4 FACU-	Nt P-Forb	Late figwort
SETFAB	0 SETARIA FABERII	2 FACU+	Ad A-Grass	Giant foxtail
SETGLA	0 SETARIA GLAUCA	0 FAC	Ad A-Grass	Yellow foxtail
SETVIR	0 SETARIA VIRIDIS	5 UPL	Ad A-Grass	Green foxtail
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbriar
SOLCAR	0 Solanum carolinense	4 FACU-	Nt P-Forb	Horse nettle

SOLROS	0	SOLANUM	ROSTRATUM	5	UPL	Ad	A-Forb	Buffalo bur
SOLALT	0	Solidago	altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	Solidago	canadensis	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	Solidago	gigantea	-3	FACW	Nt	P-Forb	Smooth goldenrod
SORNUT	4	Sorghastrum	nutans	2	FACU+	Nt	P-Grass	Indian grass
SYMORB	0	Symphoricarpos	orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium	canadense	-2	FACW-	Nt	P-Forb	Germander
ULMRUB	2	Ulmus	rubra	0	FAC	Nt	Tree	Slippery elm
VERTHA	0	VERBASCUM	THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	Verbena	stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	Verbena	urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	Vernonia	baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOPUP	5	Viola	pubescens	4	FACU-	Nt	P-Forb	Downy yellow violet
VITRIP	1	Vitis	riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

Entrance Playground and Lawn

1.8 acres; Ruderal; Map #86

Notes: This survey includes the lawn and the ambient disturbed ground. The few conservative plants indicate that it was forced into what once was timbered land.

FLORISTIC QUALITY DATA		Native		Adventive			
27	NATIVE SPECIES	Tree	3	5.9%	Tree	1	2.0%
51	Total Species	Shrub	2	3.9%	Shrub	0	0.0%
2.0	NATIVE MEAN C	W-Vine	3	5.9%	W-Vine	0	0.0%
1.0	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
10.2	NATIVE FQI	P-Forb	9	17.6%	P-Forb	4	7.8%
7.4	W/Adventives	B-Forb	1	2.0%	B-Forb	3	5.9%
1.9	NATIVE MEAN W	A-Forb	6	11.8%	A-Forb	7	13.7%
2.0	W/Adventives	P-Grass	1	2.0%	P-Grass	5	9.8%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	4	7.8%
		P-Sedge	2	3.9%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
BUCDAC	7 Buchloe dactyloides	4 FACU-	Nt P-Grass	Buffalo grass
CAPBUR	0 CAPSELLA BURSA-PASTORIS	1 FAC-	Ad A-Forb	Shepherd's purse
CXLEAV	3 Carex leavenworthii	5 UPL	Nt P-Sedge	Dwarf bracted sedge
CXSPAR	6 Carex sparganioides	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
DACGLO	0 DACTYLIS GLOMERATA	3 FACU	Ad P-Grass	Orchard grass
DIGSAN	0 DIGITARIA SANGUINALIS	3 FACU	Ad A-Grass	Common crab grass
ELLYNYC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ERIANN	0 Erigeron annuus	1 FAC-	Nt B-Forb	Annual fleabane
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPMAA	0 Euphorbia maculata	4 FACU-	Nt A-Forb	Carpet spurge
FESARU	0 FESTUCA ARUNDINACEA	2 FACU+	Ad P-Grass	Tall fescue
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HELPEP	0 HELIANTHUS PETIOLARIS	5 UPL	Ad A-Forb	Petioled sunflower
HELTUB	0 Helianthus tuberosus	0 FAC	Nt P-Forb	Jerusalem artichoke
LEOCAR	0 LEONURUS CARDIACA	5 UPL	Ad P-Forb	Motherwort
MATMAT	0 MATRICARIA MATRICARIOIDES	3 FACU	Ad A-Forb	Pineapple weed
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
OXADIL	0 Oxalis dillenii	5 UPL	Nt P-Forb	Common wood sorrel
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHAARU	0 PHALARIS ARUNDINACEA	-4 FACW+	Ad P-Grass	Reed canary grass
PLAMAJ	0 PLANTAGO MAJOR	-1 FAC+	Ad P-Forb	Common plantain
PLARUG	0 Plantago rugelii	0 FAC	Nt A-Forb	Red-stalked plantain
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
POLAVI	0 POLYGONUM AVICULARE	1 FAC-	Ad A-Forb	Common knotweed
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SETFAB	0 SETARIA FABERII	2 FACU+	Ad A-Grass	Giant foxtail
SETGLA	0 SETARIA GLAUCA	0 FAC	Ad A-Grass	Yellow foxtail
SETVIR	0 SETARIA VIRIDIS	5 UPL	Ad A-Grass	Green foxtail
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TAROFF	0 TARAXACUM OFFICINALE	3 FACU	Ad P-Forb	Common dandelion
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
TRIREF	0 TRIFOLIUM REPENS	2 FACU+	Ad P-Forb	White clover
TRIPEM	4 Triosteum perfoliatum	5 UPL	Nt P-Forb	Late horse gentian
VERURT	2 Verbena urticifolia	-1 FAC+	Nt P-Forb	White vervain
VERARV	0 VERONICA ARVENSIS	5 UPL	Ad A-Forb	Corn speedwell
VIOSOR	1 Viola sororia	1 FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape

Entry Road Reconstruction

1.0 acres; Reconstruction; Map #75

FLORISTIC QUALITY DATA		Native		Adventive			
51	NATIVE SPECIES	Tree	5	7.9%	Tree	2	3.2%
63	Total Species	Shrub	5	7.9%	Shrub	0	0.0%
3.0	NATIVE MEAN C	W-Vine	2	3.2%	W-Vine	0	0.0%
2.4	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
21.4	NATIVE FQI	P-Forb	24	38.1%	P-Forb	1	1.6%
19.3	W/Adventives	B-Forb	1	1.6%	B-Forb	2	3.2%
2.9	NATIVE MEAN W	A-Forb	6	9.5%	A-Forb	3	4.8%
2.8	W/Adventives	P-Grass	6	9.5%	P-Grass	2	3.2%
AVG:	Fac. Upland	A-Grass	0	0.0%	A-Grass	2	3.2%
		P-Sedge	2	3.2%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AILALT	0 AILANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
APOSIB	1 Apocynum sibiricum	-1 FAC+	Nt P-Forb	Indian hemp
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False bonaset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
BUCDAC	7 Buchloe dactyloides	4 FACU-	Nt P-Grass	Buffalo grass
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALLEP	6 Dalea leporina	5 UPL	Nt A-Forb	Foxtail dalea
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DESCAD	6 Desmodium canadense	1 FAC-	Nt P-Forb	Showy tick trefoil
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall bonaset
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 Euphorbia nutans	3 FACU	Nt A-Forb	Nodding spurge
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALCIR	6 Galium circaeazans	4 FACU-	Nt P-Forb	Wild licorice
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
HELHIR	5 Helianthus hirsutus	5 UPL	Nt P-Forb	Hispid sunflower
HELTUB	0 Helianthus tuberosus	0 FAC	Nt P-Forb	Jerusalem artichoke
HELHEL	4 Helianthus helianthoides	5 UPL	Nt P-Forb	False sunflower
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LACSER	0 LACTUCA SERRIOLA	0 FAC	Ad B-Forb	Prickly lettuce
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
ONOMOO	4 Onosmodium molle ssp. occidentale	5 UPL	Nt P-Forb	False gromwell
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SETFAB	0 SETARIA FABERII	2 FACU+	Ad A-Grass	Giant foxtail
SETVIR	0 SETARIA VIRIDIS	5 UPL	Ad A-Grass	Green foxtail
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0 Solidago canadensis	3 FACU	Nt P-Forb	Tall goldenrod
SOLRIG	4 Solidago rigida	4 FACU-	Nt P-Forb	Stiff goldenrod
SONASP	0 SONCHUS ASPER	0 FAC	Ad A-Forb	Spiny-leaved sow thistle
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
STISPA	6 Stipa spartea	5 UPL	Nt P-Grass	Porcupine grass
TAROFF	0 TARAXACUM OFFICINALE	3 FACU	Ad P-Forb	Common dandelion
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
THLARV	0 THLASPI ARVENSE	5 UPL	Ad A-Forb	Penny cress
TOXRAD	0 Toxicodendron radicans	-1 FAC+	Nt W-Vine	Poison ivy

VERSTR 1 *Verbena stricta*
VERURT 2 *Verbena urticifolia*
VERBAL 2 *Vernonia baldwinii*
VITRIP 1 *Vitis riparia*

5 UPL Nt P-Forb Hoary vervain
-1 FAC+ Nt P-Forb White vervain
5 UPL Nt P-Forb Baldwin's ironweed
-2 FACW- Nt W-Vine Riverbank grape

Entryway Woods, North

14.8 acres; Timber; Map #77

FLORISTIC QUALITY DATA		Native		Adventive			
70	NATIVE SPECIES	Tree	12	16.9%	Tree	0	0.0%
71	Total Species	Shrub	5	7.0%	Shrub	0	0.0%
4.0	NATIVE MEAN C	W-Vine	6	8.5%	W-Vine	0	0.0%
4.0	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
33.6	NATIVE FQI	P-Forb	26	36.6%	P-Forb	0	0.0%
33.3	W/Adventives	B-Forb	1	1.4%	B-Forb	1	1.4%
1.7	NATIVE MEAN W	A-Forb	6	8.5%	A-Forb	0	0.0%
1.6	W/Adventives	P-Grass	4	5.6%	P-Grass	0	0.0%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	8	11.3%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	2	2.8%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ASTONT	3 Aster ontarionis	0 FAC	Nt P-Forb	Ontario aster
BOTVIR	6 Botrychium virginianum	3 FACU	Nt Fern	Rattlesnake fern
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXCEPP	5 Carex cephalophora	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXGRAS	10 Carex gracilescens	5 UPL	Nt P-Sedge	Slender wood sedge
CXHITC	8 Carex hitchcockiana	5 UPL	Nt P-Sedge	Hairy gray sedge
CXNORM	5 Carex normalis	-3 FACW	Nt P-Sedge	Spreading oval sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPAR	6 Carex sparganioides	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CXSPRE	4 Carex sprengei	0 FAC	Nt P-Sedge	Long-beaked sedge
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CLAVIR	4 Claytonia virginica	3 FACU	Nt P-Forb	Spring beauty
CLEVIR	2 Clematis virginiana	0 FAC	Nt W-Vine	Virgin's bower
CYSPRO	6 Cystopteris protrusa	4 FACU-	Nt Fern	Creeping fragile fern
DIAAME	6 Diarrhena americana	-3 FACW	Nt P-Grass	Beak grass
DICCCUC	7 Dicentra cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
ELLYNYC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELHIR	5 Helianthus hirsutus	5 UPL	Nt P-Forb	Hispid sunflower
HELSTR	5 Helianthus strumosus	5 UPL	Nt P-Forb	Pale-leaved sunflower
HYDVIR	3 Hydrophyllum virginianum	-2 FACW-	Nt P-Forb	Virginia waterleaf
HYSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LILMIC	6 Lilium michiganense	-1 FAC+	Nt P-Forb	Michigan lily
LONPRO	7 Lonicera prolifera	5 UPL	Nt W-Vine	Wild honeysuckle
MENCAN	5 Menispermum canadense	-1 FAC+	Nt W-Vine	Moonseed
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
OSMCLI	3 Osmorhiza claytonii	4 FACU-	Nt P-Forb	Hairy sweet cicely
OSMLON	5 Osmorhiza longistylis	4 FACU-	Nt P-Forb	Smooth sweet cicely
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
PILPUM	3 Pilea pumila	-3 FACW	Nt A-Forb	Common clearweed
PLARUG	0 Plantago rugelii	0 FAC	Nt A-Forb	Red-stalked plantain
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
POLVIG	5 Polygonum virginianum	0 FAC	Nt P-Forb	Jumpseed
POPDEL	1 Populus deltoides	-1 FAC+	Nt Tree	Cottonwood
PRUVIR	2 Prunus virginiana	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RANABO	0 Ranunculus abortivus	-4 FACW+	Nt A-Forb	Small-flowered crowfoot
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry
SANCAN	7 Sanguinaria canadensis	4 FACU-	Nt P-Forb	Bloodroot
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot

SILSTE	4	<i>Silene stellata</i>	5	UPL	Nt	P-Forb	Starry campion
SMIRAC	4	<i>Smilacina racemosa</i>	3	FACU	Nt	P-Forb	False Solomon's seal
SMIECI	6	<i>Smilax ecirrhata</i>	5	UPL	Nt	P-Forb	Upright carrion flower
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt	W-Vine	Greenbrier
STATRI	7	<i>Staphylea trifolia</i>	0	FAC	Nt	Shrub	Bladdernut
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt	P-Forb	Germander
TILAME	5	<i>Tilia americana</i>	3	FACU	Nt	Tree	Basswood
TOXRAD	0	<i>Toxicodendron radicans</i>	-1	FAC+	Nt	W-Vine	Poison ivy
ULMAME	2	<i>Ulmus americana</i>	-2	FACW-	Nt	Tree	American elm
VIOPUP	5	<i>Viola pubescens</i>	4	FACU-	Nt	P-Forb	Downy yellow violet
VIOSOR	1	<i>Viola sororia</i>	1	FAC-	Nt	P-Forb	Hairy blue violet

Entryway Woods, South

4.4 acres; Timber; Map #76

FLORISTIC QUALITY DATA		Native		Adventive			
72	NATIVE SPECIES	Tree	9	12.0%	Tree	0	0.0%
75	Total Species	Shrub	5	6.7%	Shrub	0	0.0%
3.8	NATIVE MEAN C	W-Vine	7	9.3%	W-Vine	0	0.0%
3.6	W/Adventives	H-Vine	2	2.7%	H-Vine	0	0.0%
31.8	NATIVE FQI	P-Forb	27	36.0%	P-Forb	1	1.3%
31.2	W/Adventives	B-Forb	4	5.3%	B-Forb	1	1.3%
1.5	NATIVE MEAN W	A-Forb	6	8.0%	A-Forb	1	1.3%
1.5	W/Adventives	P-Grass	4	5.3%	P-Grass	0	0.0%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	7	9.3%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	1.3%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ASTLAT	4 Aster lateriflorus	-2 FACW-	Nt P-Forb	Side-flowering aster
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
BOTVIR	6 Botrychium virginianum	3 FACU	Nt Fern	Rattlesnake fern
CARPEN	4 Cardamine pensylvanica	-4 FACW+	Nt B-Forb	Pennsylvan bitter cress
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXGRAS	10 Carex gracilescens	5 UPL	Nt P-Sedge	Slender wood sedge
CXGRIS	4 Carex grisea	5 UPL	Nt P-Sedge	Gray sedge
CXHITC	8 Carex hitchcockiana	5 UPL	Nt P-Sedge	Hairy gray sedge
CXNORM	5 Carex normalis	-3 FACW	Nt P-Sedge	Spreading oval sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXSPAR	6 Carex sparganioides	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CLEVIR	2 Clematis virginiana	0 FAC	Nt W-Vine	Virgin's bower
DICCCUC	7 Dicentra cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
ELLYNYC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPPUR	6 Eupatorium purpureum	0 FAC	Nt P-Forb	Purple Joe Pye weed
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPPEP	3 Fraxinus pennsylvanica	-3 FACW	Nt Tree	Red ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaeazans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELHIR	5 Helianthus hirsutus	5 UPL	Nt P-Forb	Hispid sunflower
HUMLUP	3 Humulus lupulus	3 FACU	Nt H-Vine	Common hops
HYDVIR	3 Hydrophyllum virginianum	-2 FACW-	Nt P-Forb	Virginia waterleaf
HYSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LACFLO	4 Lactuca floridana	1 FAC-	Nt B-Forb	Blue lettuce
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LEEVIR	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
LONPRO	7 Lonicera prolifera	5 UPL	Nt W-Vine	Wild honeysuckle
MENCAN	5 Menispermum canadense	-1 FAC+	Nt W-Vine	Moonseed
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
OSMCLI	3 Osmorhiza claytonii	4 FACU-	Nt P-Forb	Hairy sweet cicely
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
PILPUM	3 Pilea pumila	-3 FACW	Nt A-Forb	Common clearweed
PLARUG	0 Plantago rugelii	0 FAC	Nt A-Forb	Red-stalked plantain
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
PREALB	7 Prenanthes alba	3 FACU	Nt P-Forb	White lettuce
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RANABO	0 Ranunculus abortivus	-4 FACW+	Nt A-Forb	Small-flowered crowfoot
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SCRLAN	4 Scrophularia lanceolata	2 FACU+	Nt P-Forb	Early figwort

SMIRAC	4	<i>Smilacina racemosa</i>	3	FACU	Nt P-Forb	False Solomon's seal
SMISTE	5	<i>Smilacina stellata</i>	1	FAC-	Nt P-Forb	Starry false Solomon's seal
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt W-Vine	Greenbrier
SMILAS	5	<i>Smilax lasioneura</i>	0	FAC	Nt H-Vine	Common carrion flower
SOLGIG	3	<i>Solidago gigantea</i>	-3	FACW	Nt P-Forb	Smooth goldenrod
STATRI	7	<i>Staphylea trifolia</i>	0	FAC	Nt Shrub	Bladdernut
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad P-Forb	Common dandelion
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt P-Forb	Germander
TILAME	5	<i>Tilia americana</i>	3	FACU	Nt Tree	Basswood
TOXRAD	0	<i>Toxicodendron radicans</i>	-1	FAC+	Nt W-Vine	Poison ivy
TRIPEM	4	<i>Triosteum perfoliatum</i>	5	UPL	Nt P-Forb	Late horse gentian
ULMAME	2	<i>Ulmus americana</i>	-2	FACW-	Nt Tree	American elm
URTDIO	0	<i>Urtica dioica</i>	-1	FAC+	Nt P-Forb	Stinging nettle
VIOSOR	1	<i>Viola sororia</i>	1	FAC-	Nt P-Forb	Hairy blue violet
ZANAME	3	<i>Zanthoxylum americanum</i>	5	UPL	Nt Shrub	Prickly ash

Ferguson Ridge

12.8 acres; Loess Prairie; Map #72

Notes: The adventive species, *Ampelamus albidus*, is infrequent here, and not in the Iowa data base. This area was surveyed during the recent bioblitz. Plants shown in bold face type are known only from the bioblitz survey.

FLORISTIC QUALITY DATA		Native	109	82.0%	Adventive	24	18.0%
109	NATIVE SPECIES	Tree	9	6.8%	Tree	2	1.5%
133	Total Species	Shrub	9	6.8%	Shrub	1	0.8%
3.7	NATIVE MEAN C	W-Vine	5	3.8%	W-Vine	0	0.0%
3.0	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
38.3	NATIVE FQI	P-Forb	49	36.8%	P-Forb	2	1.5%
34.7	W/Adventives	B-Forb	4	3.0%	B-Forb	6	4.5%
3.0	NATIVE MEAN W	A-Forb	8	6.0%	A-Forb	5	3.8%
2.8	W/Adventives	P-Grass	15	11.3%	P-Grass	4	3.0%
AVG:	Fac. Upland	A-Grass	1	0.8%	A-Grass	4	3.0%
		P-Sedge	9	6.8%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACARHO	6 <i>Acalypha rhomboidea</i>	3 FACU	Nt A-Forb	Three-seeded mercury
AILALT	0 <i>AILANTHUS ALTISSIMA</i>	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 <i>ALLIARIA PETIOLATA</i>	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 <i>Ambrosia artemisiifolia</i>	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower
ANEVIR	4 <i>Anemone virginiana</i>	5 UPL	Nt P-Forb	Tall anemone
ANTNEG	2 <i>Antennaria neglecta</i>	5 UPL	Nt P-Forb	Cat's feet
ASCSYR	0 <i>Asclepias syriaca</i>	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 <i>Aster oblongifolius</i>	5 UPL	Nt P-Forb	Aromatic aster
ASTLOT	10 <i>Astragalus lotiflorus</i>	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
BROJAP	0 <i>BROMUS JAPONICUS</i>	3 FACU	Ad A-Grass	Japanese chess
CANSAT	0 <i>CANNABIS SATIVA</i>	0 FAC	Ad A-Forb	Hemp
CARPEN	4 <i>Cardamine pensylvanica</i>	-4 FACW+	Nt B-Forb	Pennsylvan bitter cress
CARNUT	0 <i>CARDUUS NUTANS</i>	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 <i>Carex artitecta</i>	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 <i>Carex brevior</i>	0 FAC	Nt P-Sedge	Plains oval sedge
CXCEPP	5 <i>Carex cephalophora</i>	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXGRIS	4 <i>Carex grisea</i>	5 UPL	Nt P-Sedge	Gray sedge
CXHITC	8 <i>Carex hitchcockiana</i>	5 UPL	Nt P-Sedge	Hairy gray sedge
CXMEAD	9 <i>Carex meadii</i>	0 FAC	Nt P-Sedge	Mead's stiff sedge
CXPENP	6 <i>Carex pensylvanica</i>	-4 FACW+	Nt P-Sedge	Pennsylvania oak sedge
CXROSE	7 <i>Carex rosea</i>	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
CHEALB	0 <i>CHENOPODIUM ALBUM</i>	1 FAC-	Ad A-Forb	Lamb's quarters
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
COMUMB	6 <i>Comandra umbellata</i>	3 FACU	Nt P-Forb	Bastard toadflax
CONCAN	0 <i>Conyza canadensis</i>	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 <i>Desmanthus illinoensis</i>	1 FAC-	Nt P-Forb	Prairie mimosa
ECHANG	8 <i>Echinacea angustifolia</i>	5 UPL	Nt P-Forb	Purple coneflower
ELYVIL	5 <i>Elymus villosus</i>	3 FACU	Nt P-Grass	Slender wild rye
ERASPE	2 <i>Eragrostis spectabilis</i>	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 <i>Eupatorium altissimum</i>	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
EUPDEN	0 <i>Euphorbia dentata</i>	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 <i>Euphorbia marginata</i>	3 FACU	Nt A-Forb	Snow-on-the-mountain

EUPNUT	0	Euphorbia nutans	3	FACU	Nt	A-Forb	Nodding spurge
FESOBT	7	Festuca obtusa	2	FACU+	Nt	P-Grass	Nodding fescue
FRAPPEL	1	Fraxinus pennsylvanica var. lanceolata	-3	FACW	Nt	Tree	Green ash
GALAPA	1	Galium aparine	3	FACU	Nt	A-Forb	Cleavers
GALCIR	6	Galium circaeazans	4	FACU-	Nt	P-Forb	Wild licorice
GALTRO	7	Galium triflorum	2	FACU+	Nt	P-Forb	Sweet-scented bedstraw
GAUCOC	7	Gaura coccinea	5	UPL	Nt	P-Forb	Scarlet gaura
GLETRI	0	Gleditsia triacanthos	0	FAC	Nt	Tree	Honey locust
GYMDIO	5	Gymnocladus dioica	5	UPL	Nt	Tree	Kentucky coffee tree
HACVIR	0	Hackelia virginiana	1	FAC-	Nt	P-Forb	Stickseed
HELPEP	0	HELIANTHUS PETIOLARIS	5	UPL	Ad	A-Forb	Petioled sunflower
HYSPAT	5	Hystrix patula	5	UPL	Nt	P-Grass	Bottlebrush grass
JUGNIG	4	Juglans nigra	3	FACU	Nt	Tree	Black walnut
JUNVIR	1	Juniperus virginiana	3	FACU	Nt	Tree	Red cedar
LACCAN	1	Lactuca canadensis	2	FACU+	Nt	B-Forb	Wild lettuce
LACSER	0	LACTUCA SERRIOLA	0	FAC	Ad	B-Forb	Prickly lettuce
LESCAP	3	Lespedeza capitata	3	FACU	Nt	P-Forb	Round-headed bush clover
LIAPUN	8	Liatris punctata	5	UPL	Nt	P-Forb	Dotted blazing star
LINRIG	7	Linum rigidum	5	UPL	Nt	P-Forb	Stiff flax
LITINC	5	Lithospermum incisum	5	UPL	Nt	P-Forb	Fringed puccoon
LONMAA	0	LONICERA MAACKII	5	UPL	Ad	Shrub	Amur honeysuckle
MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad	B-Forb	Yellow sweet clover
MORALB	0	MORUS ALBA	0	FAC	Ad	Tree	White mulberry
MUHRAC	4	Muhlenbergia racemosa	-3	FACW	Nt	P-Grass	Upland wild Timothy
MUHSCH	1	Muhlenbergia schreberii	0	FAC	Nt	P-Grass	Nimblewill
NEPCAT	0	NEPETA CATARIA	1	FAC-	Ad	P-Forb	Catnip
OENBIE	0	Oenothera biennis	3	FACU	Nt	B-Forb	Common evening primrose
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt	Tree	Hop hornbeam
OXADIL	0	Oxalis dillenii	5	UPL	Nt	P-Forb	Common wood sorrel
OXAVIO	7	Oxalis violacea	5	UPL	Nt	P-Forb	Violet wood sorrel
PANCAP	0	Panicum capillare	0	FAC	Nt	A-Grass	Old witch grass
PANOLS	5	Panicum oligosanthos var. scribnerianum	3	FACU	Nt	P-Grass	Scribner's panic grass
PANWIL	7	Panicum wilcoxianum	5	UPL	Nt	P-Grass	Wilcox's panic grass
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt	W-Vine	Virginia creeper
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt	P-Forb	Large-flowered beard tongue
PHAARU	0	PHALARIS ARUNDINACEA	-4	FACW+	Ad	P-Grass	Reed canary grass
PHRLEP	4	Phryma leptostachya	5	UPL	Nt	P-Forb	Lopseed
PHYHET	2	Physalis heterophylla	5	UPL	Nt	P-Forb	Ground cherry
PHYVIG	4	Physalis virginiana	5	UPL	Nt	P-Forb	Ground cherry
POACOM	0	POA COMPRESSA	2	FACU+	Ad	P-Grass	Canadian blue grass
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt	P-Forb	Solomon's seal
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
RANABO	0	Ranunculus abortivus	-4	FACW+	Nt	A-Forb	Small-flowered crowfoot
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
RIBMIS	3	Ribes missouriense	5	UPL	Nt	Shrub	Wild gooseberry
ROSARS	4	Rosa arkansana var. suffulta	5	UPL	Nt	Shrub	Sunshine rose
RUBOCC	1	Rubus occidentalis	5	UPL	Nt	Shrub	Black raspberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt	B-Forb	Black snakeroot
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SETFAB	0	SETARIA FABERII	2	FACU+	Ad	A-Grass	Giant foxtail
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad	A-Grass	Yellow foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad	A-Grass	Green foxtail
SILSTE	4	Silene stellata	5	UPL	Nt	P-Forb	Starry campion
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad	A-Forb	Tall hedge mustard
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	Solidago gigantea	-3	FACW	Nt	P-Forb	Smooth goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
SPHOB	8	Sphenopholis obtusata var. obtusata	0	FAC	Nt	P-Grass	Prairie wedge grass
SPOCRY	3	Sporobolus cryptandrus	4	FACU-	Nt	P-Grass	Sand dropseed
SYMOCC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
TRADUB	0	TRAGOPOGON DUBIUS	5	UPL	Ad	B-Forb	Sandy goat's beard
TRIFLA	0	Tridens flavus	5	UPL	Nt	P-Grass	Purple top
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt	P-Forb	Late horse gentian
ULMAME	2	Ulmus americana	-2	FACW-	Nt	Tree	American elm
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOSOR	1	Viola sororia	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape
XANSTR	0	XANTHIUM STRUMARIUM	0	FAC	Ad	A-Forb	Cocklebur
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt	Shrub	Prickly ash

Fern Ridge

58.4 acres; Timber; Map #37

Notes: This is the area that was designated as unit #8 in the Rosburg (1993) survey. Plants shown in bold face type are known only from that original survey.

FLORISTIC QUALITY DATA		Native	99	93.4%	Adventive	7	6.6%
99	NATIVE SPECIES	Tree	11	10.4%	Tree	3	2.8%
106	Total Species	Shrub	8	7.5%	Shrub	0	0.0%
4.0	NATIVE MEAN C	W-Vine	7	6.6%	W-Vine	0	0.0%
3.7	W/Adventives	H-Vine	1	0.9%	H-Vine	0	0.0%
39.4	NATIVE FQI	P-Forb	36	34.0%	P-Forb	2	1.9%
38.1	W/Adventives	B-Forb	4	3.8%	B-Forb	1	0.9%
1.9	NATIVE MEAN W	A-Forb	9	8.5%	A-Forb	0	0.0%
2.0	W/Adventives	P-Grass	8	7.5%	P-Grass	1	0.9%
AVG: Fac. Upland (+)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	11	10.4%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	4	3.8%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ADIPEP	7 Adiantum pedatum	1 FAC-	Nt Fern	Northern maidenhair fern
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
APOSIB	1 Apocynum sibiricum	-1 FAC+	Nt P-Forb	Indian hemp
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ARACAN	7 Arabis canadensis	5 UPL	Nt B-Forb	Sickle pod
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
BOTVIR	6 Botrychium virginianum	3 FACU	Nt Fern	Rattlesnake fern
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBACK	10 Carex backii	1 FAC-	Nt P-Sedge	Northern grass sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXGRAS	10 Carex gracilescens	5 UPL	Nt P-Sedge	Slender wood sedge
CXGRIS	4 Carex grisea	5 UPL	Nt P-Sedge	Gray sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXPENP	6 Carex pennsylvanica	-4 FACW+	Nt P-Sedge	Pennsylvania oak sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPAR	6 Carex sparganioides	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CXSPRE	4 Carex spengelii	0 FAC	Nt P-Sedge	Long-beaked sedge
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CINARU	4 Cinna arundinacea	-3 FACW	Nt P-Grass	Wood reed
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CRYCAN	4 Cryptotaenia canadensis	0 FAC	Nt P-Forb	Honewort
CYSPRO	6 Cystopteris protrusa	4 FACU-	Nt Fern	Creeping fragile fern
DESGLU	5 Desmodium glutinosum	5 UPL	Nt P-Forb	Pointed tick trefoil
DICCCUC	7 Dicentra cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
DRYCAR	10 Dryopteris carthusiana	5 UPL	Nt Fern	Spinulose wood fern
ELLNVC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPPUR	6 Eupatorium purpureum	0 FAC	Nt P-Forb	Purple Joe Pye weed
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPSPA	5 Euphorbia spathulata	5 UPL	Nt A-Forb	Spatula spurge
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALSPF	4 Galearis spectabilis	5 UPL	Nt P-Forb	Showy orchis
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaeans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELSTR	5 Helianthus strumosus	5 UPL	Nt P-Forb	Pale-leaved sunflower

HYSPAT	5	Hystrix patula	5	UPL	Nt P-Grass	Bottlebrush grass
JUGNIG	4	Juglans nigra	3	FACU	Nt Tree	Black walnut
JUNVIR	1	Juniperus virginiana	3	FACU	Nt Tree	Red cedar
LACFLO	4	Lactuca floridana	1	FAC-	Nt B-Forb	Blue lettuce
LAPCAN	3	Laportea canadensis	-3	FACW	Nt P-Forb	Wood nettle
LEEVIR	6	Leersia virginica	-3	FACW	Nt P-Grass	White grass
LESCAP	3	Lespedeza capitata	3	FACU	Nt P-Forb	Round-headed bush clover
LONPRO	7	Lonicera prolifera	5	UPL	Nt W-Vine	Wild honeysuckle
MENCAN	5	Menispermum canadense	-1	FAC+	Nt W-Vine	Moonseed
MORALB	0	MORUS ALBA	0	FAC	Ad Tree	White mulberry
MUHSOB	7	Muhlenbergia sobolifera	5	UPL	Nt P-Grass	Rock satin grass
NEPCAT	0	NEPETA CATARIA	1	FAC-	Ad P-Forb	Catnip
OENBIE	0	Oenothera biennis	3	FACU	Nt B-Forb	Common evening primrose
OSMCLI	3	Osmorhiza claytonii	4	FACU-	Nt P-Forb	Hairy sweet cicely
OSMLON	5	Osmorhiza longistylis	4	FACU-	Nt P-Forb	Smooth sweet cicely
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt Tree	Hop hornbeam
PANOLS	5	Panicum oligosanthos var. scribnerianum	3	FACU	Nt P-Grass	Scribner's panic grass
PARPEN	3	Parietaria pensylvanica	3	FACU	Nt A-Forb	Pellitory
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4	Phryma leptostachya	5	UPL	Nt P-Forb	Lopseed
PILPUM	3	Pilea pumila	-3	FACW	Nt A-Forb	Common clearweed
PLARUG	0	Plantago rugelii	0	FAC	Nt A-Forb	Red-stalked plantain
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	Kentucky blue grass
POASYL	10	Poa sylvestris	0	FAC	Nt P-Grass	Woodland blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt P-Forb	Solomon's seal
POLVIG	5	Polygonum virginianum	0	FAC	Nt P-Forb	Jumpseed
PRUVIR	2	Prunus virginiana	1	FAC-	Nt Shrub	Choke cherry
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt Tree	Bur oak
RANABO	0	Ranunculus abortivus	-4	FACW+	Nt A-Forb	Small-flowered crowfoot
RIBMIS	3	Ribes missouriense	5	UPL	Nt Shrub	Wild gooseberry
ROBPSE	0	ROBINIA PSEUDOACACIA	4	FACU-	Ad Tree	Black locust
RUBOCC	1	Rubus occidentalis	5	UPL	Nt Shrub	Black raspberry
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt Shrub	Elderberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt B-Forb	Black snakeroot
SCRMAR	4	Scrophularia marilandica	4	FACU-	Nt P-Forb	Late figwort
SMIECI	6	Smilax ecirrhata	5	UPL	Nt P-Forb	Upright carrion flower
SMIHIS	4	Smilax hispida	0	FAC	Nt W-Vine	Greenbrier
SMILAS	5	Smilax lasioneura	0	FAC	Nt H-Vine	Common carrion flower
SOLGIG	3	Solidago gigantea	-3	FACW	Nt P-Forb	Smooth goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt P-Forb	Field goldenrod
STATRI	7	Staphylea trifolia	0	FAC	Nt Shrub	Bladdernut
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt P-Forb	Germander
TILAME	5	Tilia americana	3	FACU	Nt Tree	Basswood
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt W-Vine	Poison ivy
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt P-Forb	Late horse gentian
ULMAME	2	Ulmus americana	-2	FACW-	Nt Tree	American elm
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad Tree	Siberian elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt P-Forb	Stinging nettle
VERSTR	1	Verbena stricta	5	UPL	Nt P-Forb	Hoary vervain
VIOPUP	5	Viola pubescens	4	FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1	Viola sororia	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt W-Vine	Riverbank grape
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt Shrub	Prickly ash

Few-forb Prairie

0.7 acre; Loess Prairie; Map #39

FLORISTIC QUALITY DATA		Native		Adventive	
27	NATIVE SPECIES	27	87.1%	4	12.9%
31	Total Species	2	6.5%	0	0.0%
4.2	NATIVE MEAN C	2	6.5%	0	0.0%
3.6	W/Adventives	1	3.2%	0	0.0%
21.7	NATIVE FQI	0	0.0%	0	0.0%
20.3	W/Adventives	0	0.0%	0	0.0%
4.0	NATIVE MEAN W	2	6.5%	2	6.5%
3.8	W/Adventives	6	19.4%	1	3.2%
AVG: Fac. Upland (-)		0	0.0%	1	3.2%
		0	0.0%	0	0.0%
		0	0.0%	0	0.0%
		0	0.0%	0	0.0%
		0	0.0%	0	0.0%

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ASCAMP	4 Asclepias amplexicaulis	5 UPL	Nt P-Forb	Sand milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACTAP	2 Lactuca tatarica ssp. pulchella	5 UPL	Nt P-Forb	Showy blue lettuce
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
PANOLS	5 Panicum oligosanthes var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PENGRN	5 Penstemon grandiflorus	5 UPL	Nt P-Forb	Large-flowered beard tongue
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
POPDEL	1 Populus deltoides	-1 FAC+	Nt Tree	Cottonwood
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SETFAB	0 SETARIA FABERII	2 FACU+	Ad A-Grass	Giant foxtail
SOLROS	0 SOLANUM ROSTRATUM	5 UPL	Ad A-Forb	Buffalo bur
SOLMIS	5 Solidago missouriensis	5 UPL	Nt P-Forb	Missouri goldenrod
SOLRIG	4 Solidago rigida	4 FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SPOASP	3 Sporobolus asper	5 UPL	Nt P-Grass	Rough dropseed
STRLEI	7 Strophostyles leiosperma	5 UPL	Nt A-Forb	Small wild bean

Fox Run Ridge Prairie

6.6 acres; Loess Prairie; Map #63

FLORISTIC QUALITY DATA		Native		Adventive	
72	NATIVE SPECIES	72	79.1%	19	20.9%
91	Total Species	7	7.7%	0	0.0%
3.0	NATIVE MEAN C	7	7.7%	0	0.0%
2.4	W/Adventives	5	5.5%	0	0.0%
25.7	NATIVE FQI	0	0.0%	0	0.0%
22.9	W/Adventives	24	26.4%	1	1.1%
2.6	NATIVE MEAN W	2	2.2%	6	6.6%
2.6	W/Adventives	7	7.7%	5	5.5%
AVG: Fac. Upland		13	14.3%	3	3.3%
		2	2.2%	4	4.4%
		5	5.5%	0	0.0%
		0	0.0%	0	0.0%
		0	0.0%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
APOSIB	1 Apocynum sibiricum	-1 FAC+	Nt P-Forb	Indian hemp
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPRE	4 Carex sprengelii	0 FAC	Nt P-Sedge	Long-beaked sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DIGISC	0 DIGITARIA ISCHAEMUM	3 FACU	Ad A-Grass	Smooth crab grass
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCYA	0 EUPHORBIA CYATHOPHORA	5 UPL	Ad A-Forb	Wild poinsettia
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FESARU	0 FESTUCA ARUNDINACEA	2 FACU+	Ad P-Grass	Tall fescue
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GAUBIE	3 Gaura biennis	4 FACU-	Nt B-Forb	Biennial gaura
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HELANN	0 Helianthus annuus	1 FAC-	Nt A-Forb	Garden sunflower
HELHIR	5 Helianthus hirsutus	5 UPL	Nt P-Forb	Hispid sunflower
HYSPAT	5 Hystrich patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LEEVIR	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MUHRAC	4 Muhlenbergia racemosa	-3 FACW	Nt P-Grass	Upland wild Timothy
MUHSCH	1 Muhlenbergia schreberi	0 FAC	Nt P-Grass	Nimblewill
ONOMOO	4 Onosmodium molle ssp. occidentale	5 UPL	Nt P-Forb	False gromwell
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PANCAP	0 Panicum capillare	0 FAC	Nt A-Grass	Old witch grass

PANOLS	5	<i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3	FACU	Nt P-Grass	Scribner's panic grass
PARVIT	1	<i>Parthenocissus vitacea</i>	3	FACU	Nt W-Vine	Thicket creeper
PLAMAJ	0	<i>PLANTAGO MAJOR</i>	-1	FAC+	Ad P-Forb	Common plantain
PLARUG	0	<i>Plantago rugelii</i>	0	FAC	Nt A-Forb	Red-stalked plantain
POAPRA	0	<i>POA PRATENSIS</i>	1	FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4	<i>Polygonatum biflorum</i>	3	FACU	Nt P-Forb	Solomon's seal
PRUVIR	2	<i>Prunus virginiana</i>	1	FAC-	Nt Shrub	Choke cherry
QUEMAC	4	<i>Quercus macrocarpa</i>	1	FAC-	Nt Tree	Bur oak
RHUGLA	0	<i>Rhus glabra</i>	5	UPL	Nt Shrub	Smooth sumac
RUBOCC	1	<i>Rubus occidentalis</i>	5	UPL	Nt Shrub	Black raspberry
SAMCAN	1	<i>Sambucus canadensis</i>	4	FACU-	Nt Shrub	Elderberry
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt P-Grass	Little bluestem
SETFAB	0	<i>SETARIA FABERII</i>	2	FACU+	Ad A-Grass	Giant foxtail
SETGLA	0	<i>SETARIA GLAUCA</i>	0	FAC	Ad A-Grass	Yellow foxtail
SETVIR	0	<i>SETARIA VIRIDIS</i>	5	UPL	Ad A-Grass	Green foxtail
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt W-Vine	Greenbrier
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt P-Forb	Tall goldenrod
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt P-Grass	Indian grass
SPOVAG	1	<i>Sporobolus vaginiflorus</i>	5	UPL	Nt A-Grass	Sheathed rush grass
STISPA	6	<i>Stipa spartea</i>	5	UPL	Nt P-Grass	Porcupine grass
SYMOCC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt Shrub	Coralberry
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt P-Forb	Germander
THYPAS	0	<i>THYMELAEA PASSERINA</i>	5	UPL	Ad A-Forb	Sparrow weed
TOXRAD	0	<i>Toxicodendron radicans</i>	-1	FAC+	Nt W-Vine	Poison ivy
TRADUB	0	<i>TRAGOPOGON DUBIUS</i>	5	UPL	Ad B-Forb	Sandy goat's beard
TRIPEM	4	<i>Triosteum perfoliatum</i>	5	UPL	Nt P-Forb	Late horse gentian
VERTHA	0	<i>VERBASCUM THAPSUS</i>	5	UPL	Ad B-Forb	Common mullein
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt P-Forb	Hoary vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt P-Forb	Baldwin's ironweed
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt W-Vine	Riverbank grape
XANSTR	0	<i>XANTHIUM STRUMARIUM</i>	0	FAC	Ad A-Forb	Cocklebur

Fox Run Ridge Woods

3.2 acres; Timber; Map #64

FLORISTIC QUALITY DATA		Native		Adventive	
83 NATIVE SPECIES		83	87.4%	12	12.6%
95 Total Species		Tree 12	12.6%	Tree 1	1.1%
3.5 NATIVE MEAN C		Shrub 8	8.4%	Shrub 0	0.0%
3.1 W/Adventives		W-Vine 6	6.3%	W-Vine 0	0.0%
32.3 NATIVE FQI		H-Vine 0	0.0%	H-Vine 0	0.0%
30.2 W/Adventives		P-Forb 27	28.4%	P-Forb 1	1.1%
2.0 NATIVE MEAN W		B-Forb 5	5.3%	B-Forb 2	2.1%
2.0 W/Adventives		A-Forb 6	6.3%	A-Forb 3	3.2%
AVG: Fac. Upland (+)		P-Grass 11	11.6%	P-Grass 3	3.2%
		A-Grass 0	0.0%	A-Grass 2	2.1%
		P-Sedge 7	7.4%	P-Sedge 0	0.0%
		A-Sedge 0	0.0%	A-Sedge 0	0.0%
		Fern 1	1.1%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLALT	0 ALLANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANEVIR	4 Anemone virginiana	5 UPL	Nt P-Forb	Tall anemone
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ARACAN	7 Arabis canadensis	5 UPL	Nt B-Forb	Sickle pod
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBACK	10 Carex backii	1 FAC-	Nt P-Sedge	Northern grass sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPAR	6 Carex sparganioides	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CXSPRE	4 Carex sprengei	0 FAC	Nt P-Sedge	Long-beaked sedge
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CYSPRO	6 Cystopteris protrusa	4 FACU-	Nt Fern	Creeping fragile fern
DICCUC	7 Dicentra cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERIANN	0 Erigeron annuus	1 FAC-	Nt B-Forb	Annual fleabane
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCYA	0 EUPHORBIA CYATHOPHORA	5 UPL	Ad A-Forb	Wild poinsettia
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	3 Fraxinus pennsylvanica	-3 FACW	Nt Tree	Red ash
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALCIR	6 Galium circaeans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELANN	0 Helianthus annuus	1 FAC-	Nt A-Forb	Garden sunflower
HELHIR	5 Helianthus hirsutus	5 UPL	Nt P-Forb	Hispid sunflower
HELSTR	5 Helianthus strumosus	5 UPL	Nt P-Forb	Pale-leaved sunflower
HYDVIR	3 Hydrophyllum virginianum	-2 FACW-	Nt P-Forb	Virginia waterleaf
HYSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LACFLO	4 Lactuca floridana	1 FAC-	Nt B-Forb	Blue lettuce
LEEVIR	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
LITCAN	7 Lithospermum canescens	5 UPL	Nt P-Forb	Hoary puccoon
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MENCAN	5 Menispermum canadense	-1 FAC+	Nt W-Vine	Moonseed
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
MUHSCH	1 Muhlenbergia schreberi	0 FAC	Nt P-Grass	Nimblewill
MUHTEN	7 Muhlenbergia tenuiflora	5 UPL	Nt P-Grass	Slender satin grass
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam

PANOLS	5	<i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3	FACU	Nt	P-Grass	Scribner's panic grass
PARQUI	2	<i>Parthenocissus quinquefolia</i>	1	FAC-	Nt	W-Vine	Virginia creeper
PHRLEP	4	<i>Phryma leptostachya</i>	5	UPL	Nt	P-Forb	Lopseed
PILPUM	3	<i>Pilea pumila</i>	-3	FACW	Nt	A-Forb	Common clearweed
PLARUG	0	<i>Plantago rugelii</i>	0	FAC	Nt	A-Forb	Red-stalked plantain
POACOM	0	<i>POA COMPRESSA</i>	2	FACU+	Ad	P-Grass	Canadian blue grass
POAPRA	0	<i>POA PRATENSIS</i>	1	FAC-	Ad	P-Grass	Kentucky blue grass
POLBIF	4	<i>Polygonatum biflorum</i>	3	FACU	Nt	P-Forb	Solomon's seal
QUEMAC	4	<i>Quercus macrocarpa</i>	1	FAC-	Nt	Tree	Bur oak
RHUGLA	0	<i>Rhus glabra</i>	5	UPL	Nt	Shrub	Smooth sumac
RIBMIS	3	<i>Ribes missouriense</i>	5	UPL	Nt	Shrub	Wild gooseberry
RUBALL	2	<i>Rubus allegheniensis</i>	2	FACU+	Nt	Shrub	Common blackberry
RUBOCC	1	<i>Rubus occidentalis</i>	5	UPL	Nt	Shrub	Black raspberry
SAMCAN	1	<i>Sambucus canadensis</i>	4	FACU-	Nt	Shrub	Elderberry
SANCAS	6	<i>Sanicula canadensis</i>	2	FACU+	Nt	B-Forb	Black snakeroot
SCRMAR	4	<i>Scrophularia marilandica</i>	4	FACU-	Nt	P-Forb	Late figwort
SETGLA	0	<i>SETARIA GLAUCA</i>	0	FAC	Ad	A-Grass	Yellow foxtail
SETVIR	0	<i>SETARIA VIRIDIS</i>	5	UPL	Ad	A-Grass	Green foxtail
SMIECI	6	<i>Smilax ecirrhata</i>	5	UPL	Nt	P-Forb	Upright carrion flower
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SPHOB	8	<i>Sphenopholis obtusata</i> var. <i>obtusata</i>	0	FAC	Nt	P-Grass	Prairie wedge grass
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt	P-Forb	Germander
TILAME	5	<i>Tilia americana</i>	3	FACU	Nt	Tree	Basswood
TOXRAD	0	<i>Toxicodendron radicans</i>	-1	FAC+	Nt	W-Vine	Poison ivy
TRIPEM	4	<i>Triosteum perfoliatum</i>	5	UPL	Nt	P-Forb	Late horse gentian
ULMAME	2	<i>Ulmus americana</i>	-2	FACW-	Nt	Tree	American elm
ULMRUB	2	<i>Ulmus rubra</i>	0	FAC	Nt	Tree	Slippery elm
URTDIO	0	<i>Urtica dioica</i>	-1	FAC+	Nt	P-Forb	Stinging nettle
VERTHA	0	<i>VERBASCUM THAPSUS</i>	5	UPL	Ad	B-Forb	Common mullein
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOSOR	1	<i>Viola sororia</i>	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt	W-Vine	Riverbank grape
ZANAME	3	<i>Zanthoxylum americanum</i>	5	UPL	Nt	Shrub	Prickly ash

Gaura Ridge

1.2 acres; Loess Prairie; Map #48

Notes: The following conservative insects were collected here: *Atheas mimeticus*, *Kissingeria capitone*, *Plagiognathus amorphae*, and *Schinia lucens*.

FLORISTIC QUALITY DATA		Native		Adventive			
62	NATIVE SPECIES	Tree	2	3.0%	Tree	0	0.0%
67	Total Species	Shrub	7	10.4%	Shrub	0	0.0%
4.9	NATIVE MEAN C	W-Vine	1	1.5%	W-Vine	0	0.0%
4.5	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
38.5	NATIVE FQI	P-Forb	40	59.7%	P-Forb	0	0.0%
37.0	W/Adventives	B-Forb	1	1.5%	B-Forb	2	3.0%
3.7	NATIVE MEAN W	A-Forb	3	4.5%	A-Forb	1	1.5%
3.6	W/Adventives	P-Grass	7	10.4%	P-Grass	2	3.0%
AVG: Fac. Upland (-)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	1	1.5%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 <i>Agalinis aspera</i>	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 <i>Antennaria neglecta</i>	5 UPL	Nt P-Forb	Cat's feet
APOSIB	1 <i>Apocynum sibiricum</i>	-1 FAC+	Nt P-Forb	Indian hemp
ASCAMP	4 <i>Asclepias amplexicaulis</i>	5 UPL	Nt P-Forb	Sand milkweed
ASCTUB	6 <i>Asclepias tuberosa</i>	5 UPL	Nt P-Forb	Butterfly weed
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
ASTSER	10 <i>Aster sericeus</i>	5 UPL	Nt P-Forb	Silky aster
ASTLOT	10 <i>Astragalus lotiflorus</i>	5 UPL	Nt P-Forb	Lotus milk vetch
ASTMIS	8 <i>Astragalus missouriensis</i>	5 UPL	Nt P-Forb	Missouri milk vetch
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BOUHIR	7 <i>Bouteloua hirsuta</i>	5 UPL	Nt P-Grass	Hairy grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CACPLA	7 <i>Cacalia plantaginea</i>	0 FAC	Nt P-Forb	Prairie Indian plaintain
CALSER	9 <i>Calylophus serrulatus</i>	5 UPL	Nt Shrub	Toothed evening primrose
CXFEST	8 <i>Carex festucacea</i>	0 FAC	Nt P-Sedge	Fescue oval sedge
CEAHER	8 <i>Ceanothus herbaceus</i> var. <i>pubescens</i>	5 UPL	Nt Shrub	Redroot
CELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 <i>Desmanthus illinoensis</i>	1 FAC-	Nt P-Forb	Prairie mimosa
ECHANG	8 <i>Echinacea angustifolia</i>	5 UPL	Nt P-Forb	Purple coneflower
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
EUPMAR	0 <i>Euphorbia marginata</i>	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
GAUCOC	7 <i>Gaura coccinea</i>	5 UPL	Nt P-Forb	Scarlet gaura
HEDNIG	7 <i>Hedyotis nigricans</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
LACCAN	1 <i>Lactuca canadensis</i>	2 FACU+	Nt B-Forb	Wild lettuce
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8 <i>Liatris punctata</i>	5 UPL	Nt P-Forb	Dotted blazing star
LINRIG	7 <i>Linum rigidum</i>	5 UPL	Nt P-Forb	Stiff flax
LINSUL	7 <i>Linum sulcatum</i>	5 UPL	Nt P-Forb	Grooved yellow flax
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Skeletonweed
MEDLUP	0 <i>MEDICAGO LUPULINA</i>	1 FAC-	Ad A-Forb	Black medick
MELALB	0 <i>MELILOTUS ALBA</i>	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 <i>MELILOTUS OFFICINALIS</i>	3 FACU	Ad B-Forb	Yellow sweet clover
OXYLAM	8 <i>Oxytropis lambertii</i>	4 FACU-	Nt P-Forb	Locoweed
PANOLS	5 <i>Panicum oligosanthos</i> var. <i>scribnerianum</i>	3 FACU	Nt P-Grass	Scribner's panic grass
PENGRN	5 <i>Penstemon grandiflorus</i>	5 UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2 <i>Physalis heterophylla</i>	5 UPL	Nt P-Forb	Ground cherry
POAPRA	0 <i>POA PRATENSIS</i>	1 FAC-	Ad P-Grass	Kentucky blue grass
QUEMAC	4 <i>Quercus macrocarpa</i>	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 <i>Rhus glabra</i>	5 UPL	Nt Shrub	Smooth sumac
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem

SENPLA	3	Senecio plattensis	4	FACU-	Nt	P-Forb	Prairie ragwort
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt	P-Forb	Stiff goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
STISPA	6	Stipa spartea	5	UPL	Nt	P-Grass	Porcupine grass
STRLEI	7	Strophostyles leiosperma	5	UPL	Nt	A-Forb	Small wild bean
SYMOC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain

Gaura Ridge Addition

2.6 acres; Loess Prairie; Map #43

FLORISTIC QUALITY DATA		Native		Adventive	
76	NATIVE SPECIES	76	79.2%	20	20.8%
96	Total Species	Tree	2 2.1%	Tree	2 2.1%
3.3	NATIVE MEAN C	Shrub	7 7.3%	Shrub	0 0.0%
2.6	W/Adventives	W-Vine	1 1.0%	W-Vine	0 0.0%
28.9	NATIVE FQI	H-Vine	0 0.0%	H-Vine	0 0.0%
25.7	W/Adventives	P-Forb	41 42.7%	P-Forb	1 1.0%
3.3	NATIVE MEAN W	B-Forb	0 0.0%	B-Forb	3 3.1%
3.2	W/Adventives	A-Forb	10 10.4%	A-Forb	7 7.3%
AVG: Fac. Upland		P-Grass	11 11.5%	P-Grass	2 2.1%
		A-Grass	1 1.0%	A-Grass	5 5.2%
		P-Sedge	2 2.1%	P-Sedge	0 0.0%
		A-Sedge	0 0.0%	A-Sedge	0 0.0%
		Fern	1 1.0%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 Asclepias viridiflora	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
BELCHI	0 BELAMCANDA CHINENSIS	5 UPL	Ad P-Forb	Blackberry lily
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian plaintain
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex breviar	0 FAC	Nt P-Sedge	Plains oval sedge
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DATSTS	0 DATURA STRAMONIUM	5 UPL	Ad A-Forb	Jimsonweed
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
ECHCRU	0 ECHINOCHLOA CRUSGALLI	-3 FACW	Ad A-Grass	Barnyard grass
EQUJAE	6 Equisetum laevigatum	-3 FACW	Nt Fern	Smooth scouring rush
ERAGPOA	0 ERAGROSTIS POAEOIDES	5 UPL	Ad A-Grass	Low love grass
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
EREHIE	0 Erechites hieracifolia	3 FACU	Nt A-Forb	Fireweed
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 Euphorbia nutans	3 FACU	Nt A-Forb	Nodding spurge
EUPSPR	5 Euphorbia serpens	5 UPL	Nt A-Forb	Round-leaved spurge
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GAUCOC	7 Gaura coccinea	5 UPL	Nt P-Forb	Scarlet gaura
GRISPU	0 Grindelia squarrosa	3 FACU	Nt A-Forb	Gum plant
HEDNIG	7 Hedyotis nigricans	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELANN	0 Helianthus annuus	1 FAC-	Nt A-Forb	Garden sunflower
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LINSUL	7 Linum sulcatum	5 UPL	Nt P-Forb	Grooved yellow flax
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MIARNYC	0 Mirabilis nyctaginea	5 UPL	Nt P-Forb	Wild four o'clock
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MUHRAC	4 Muhlenbergia racemosa	-3 FACW	Nt P-Grass	Upland wild Timothy
OXYLAM	8 Oxytropis lambertii	4 FACU-	Nt P-Forb	Locoweed

PANCAP	0	<i>Panicum capillare</i>	0	FAC	Nt A-Grass	Old witch grass
PANOLS	5	<i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3	FACU	Nt P-Grass	Scribner's panic grass
PASSES	4	<i>Paspalum setaceum</i> var. <i>stramineum</i>	0	FAC	Nt P-Grass	Downy lens grass
PENGRN	5	<i>Penstemon grandiflorus</i>	5	UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2	<i>Physalis heterophylla</i>	5	UPL	Nt P-Forb	Ground cherry
PHYVIG	4	<i>Physalis virginiana</i>	5	UPL	Nt P-Forb	Ground cherry
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	Kentucky blue grass
PRUVIR	2	<i>Prunus virginiana</i>	1	FAC-	Nt Shrub	Choke cherry
RHUGLA	0	<i>Rhus glabra</i>	5	UPL	Nt Shrub	Smooth sumac
ROSARS	4	<i>Rosa arkansana</i> var. <i>suffulta</i>	5	UPL	Nt Shrub	Sunshine rose
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt P-Grass	Little bluestem
SENPLA	3	<i>Senecio plattensis</i>	4	FACU-	Nt P-Forb	Prairie ragwort
SETFAB	0	SETARIA FABERII	2	FACU+	Ad A-Grass	Giant foxtail
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad A-Grass	Yellow foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad A-Grass	Green foxtail
SISCAM	4	<i>Sisyrinchium campestre</i>	5	UPL	Nt P-Forb	Prairie blue-eyed grass
SOLAME	0	<i>Solanum americanum</i>	4	FACU-	Nt A-Forb	Black nightshade
SOLROS	0	SOLANUM ROSTRATUM	5	UPL	Ad A-Forb	Buffalo bur
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt P-Forb	Tall goldenrod
SOLMIS	5	<i>Solidago missouriensis</i>	5	UPL	Nt P-Forb	Missouri goldenrod
SOLNEM	4	<i>Solidago nemoralis</i>	5	UPL	Nt P-Forb	Field goldenrod
SOLRIG	4	<i>Solidago rigida</i>	4	FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt P-Grass	Indian grass
SPOASP	3	<i>Sporobolus asper</i>	5	UPL	Nt P-Grass	Rough dropseed
SPOCRY	3	<i>Sporobolus cryptandrus</i>	4	FACU-	Nt P-Grass	Sand dropseed
SYMOCC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt Shrub	Coralberry
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt P-Forb	Germander
THYPAS	0	THYMELAEA PASSERINA	5	UPL	Ad A-Forb	Sparrow weed
TRIFLA	0	<i>Tridens flavus</i>	5	UPL	Nt P-Grass	Purple top
TRIPEM	4	<i>Triosteum perfoliatum</i>	5	UPL	Nt P-Forb	Late horse gentian
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad Tree	Siberian elm
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad B-Forb	Common mullein
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt P-Forb	Hoary vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt P-Forb	Baldwin's ironweed
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt W-Vine	Riverbank grape

Goodman Ridge

1.3 acres; Loess Prairie; Map #10

FLORISTIC QUALITY DATA		Native		Adventive	
56	NATIVE SPECIES	56	93.3%	4	6.7%
60	Total Species	3	5.0%	0	0.0%
4.6	NATIVE MEAN C	6	10.0%	0	0.0%
4.3	W/Adventives	1	1.7%	0	0.0%
34.7	NATIVE FQI	0	0.0%	0	0.0%
33.6	W/Adventives	26	43.3%	0	0.0%
3.3	NATIVE MEAN W	2	3.3%	0	0.0%
3.3	W/Adventives	6	10.0%	2	3.3%
AVG: Fac. Upland		10	16.7%	0	0.0%
		0	0.0%	2	3.3%
		2	3.3%	0	0.0%
		0	0.0%	0	0.0%
		0	0.0%	0	0.0%

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 Aster oblongifolius	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CEAHER	8 Ceanothus herbaceus var. pubescens	5 UPL	Nt Shrub	Redroot
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DIGISC	0 DIGITARIA ISCHAEMUM	3 FACU	Ad A-Grass	Smooth crab grass
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
EREHIE	0 Erechites hieracifolia	3 FACU	Nt A-Forb	Fireweed
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPMAA	0 Euphorbia maculata	4 FACU-	Nt A-Forb	Carpet spurge
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HEDNIG	7 Hedyotis nigricans	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELANN	0 Helianthus annuus	1 FAC-	Nt A-Forb	Garden sunflower
HELRIE	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LEEVIK	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LIAASP	8 Liatris aspera	5 UPL	Nt P-Forb	Rough blazing star
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LINRIG	7 Linum rigidum	5 UPL	Nt P-Forb	Stiff flax
LINSUL	7 Linum sulcatum	5 UPL	Nt P-Forb	Grooved yellow flax
LITINC	5 Lithospermum incisum	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MUHCUS	10 Muhlenbergia cuspidata	5 UPL	Nt P-Grass	Prairie satin grass
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
OENBIE	0 Oenothera biennis	3 FACU	Nt B-Forb	Common evening primrose
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PANOLS	5 Panicum oligosanthos var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
ROSARS	4 Rosa arkansana var. suffulta	5 UPL	Nt Shrub	Sunshine rose
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SETVIR	0 SETARIA VIRIDIS	5 UPL	Ad A-Grass	Green foxtail
SOLNEM	4 Solidago nemoralis	5 UPL	Nt P-Forb	Field goldenrod
SOLRIG	4 Solidago rigida	4 FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
VERSTR	1 Verbena stricta	5 UPL	Nt P-Forb	Hoary vervain

VIOSOR 1 Viola sororia

1 FAC- Nt P-Forb Hairy blue violet

Great Horned Owl Prairie

0.2 acre; Loess Prairie; Map #38

FLORISTIC QUALITY DATA		Native		Adventive			
32	NATIVE SPECIES	Tree	3	9.1%	Tree	0	0.0%
33	Total Species	Shrub	3	9.1%	Shrub	0	0.0%
3.3	NATIVE MEAN C	W-Vine	3	9.1%	W-Vine	0	0.0%
3.2	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
18.6	NATIVE FQI	P-Forb	15	45.5%	P-Forb	0	0.0%
18.3	W/Adventives	B-Forb	1	3.0%	B-Forb	1	3.0%
3.1	NATIVE MEAN W	A-Forb	1	3.0%	A-Forb	0	0.0%
3.1	W/Adventives	P-Grass	5	15.2%	P-Grass	0	0.0%
AVG:	Fac. Upland	A-Grass	1	3.0%	A-Grass	0	0.0%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
CELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
EUPALT	2 <i>Eupatorium altissimum</i>	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
EUPMAA	0 <i>Euphorbia maculata</i>	4 FACU-	Nt A-Forb	Carpet spurge
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
GALCIR	6 <i>Galium circaeans</i>	4 FACU-	Nt P-Forb	Wild licorice
HELRIE	8 <i>Helianthus rigidus</i>	5 UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
MELOF	0 <i>MELILOTUS OFFICINALIS</i>	3 FACU	Ad B-Forb	Yellow sweet clover
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	5 UPL	Nt P-Grass	Prairie satin grass
PANVIR	5 <i>Panicum virgatum</i>	-1 FAC+	Nt A-Grass	Switch grass
PARVIT	1 <i>Parthenocissus vitacea</i>	3 FACU	Nt W-Vine	Thicket creeper
PEDARG	5 <i>Pediomelum argophyllum</i>	5 UPL	Nt P-Forb	Silvery scurfy pea
PHYVIG	4 <i>Physalis virginiana</i>	5 UPL	Nt P-Forb	Ground cherry
POPDEL	1 <i>Populus deltoides</i>	-1 FAC+	Nt Tree	Cottonwood
RHUGLA	0 <i>Rhus glabra</i>	5 UPL	Nt Shrub	Smooth sumac
SANCAS	6 <i>Sanicula canadensis</i>	2 FACU+	Nt B-Forb	Black snakeroot
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem
SOLALT	0 <i>Solidago altissima</i>	3 FACU	Nt P-Forb	Tall goldenrod
SOLRIG	4 <i>Solidago rigida</i>	4 FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4 <i>Sorghastrum nutans</i>	2 FACU+	Nt P-Grass	Indian grass
TRIFLA	0 <i>Tridens flavus</i>	5 UPL	Nt P-Grass	Purple top
VERSTR	1 <i>Verbena stricta</i>	5 UPL	Nt P-Forb	Hoary vervain
VITRIP	1 <i>Vitis riparia</i>	-2 FACW-	Nt W-Vine	Riverbank grape

Hidden Valley, East

13.9 acres; Valley; Map #35

Notes: The Hidden Valleys are the recipients of staggering flows of sheet water and the associated sediments that wash from the slopes of degraded timbered tracts and thickets. After a rain, the movements of rather large logs and various forms of fotsam and debris is impressive. The head-cutting and gulleying is profound. No amount of bioengineering or even reasonably priced engineering can remedy the situation until the slopes in the watershed are restored and rehabilitated. See also the notes under Back Gate Stream Valley.

FLORISTIC QUALITY DATA		Native	54	94.7%	Adventive	3	5.3%
54	NATIVE SPECIES	Tree	9	15.8%	Tree	1	1.8%
57	Total Species	Shrub	6	10.5%	Shrub	0	0.0%
3.1	NATIVE MEAN C	W-Vine	4	7.0%	W-Vine	0	0.0%
2.9	W/Adventives	H-Vine	1	1.8%	H-Vine	0	0.0%
22.6	NATIVE FQI	P-Forb	22	38.6%	P-Forb	0	0.0%
22.0	W/Adventives	B-Forb	0	0.0%	B-Forb	1	1.8%
1.1	NATIVE MEAN W	A-Forb	7	12.3%	A-Forb	0	0.0%
1.1	W/Adventives	P-Grass	3	5.3%	P-Grass	0	0.0%
AVG:	Faculative (-)	A-Grass	0	0.0%	A-Grass	1	1.8%
		P-Sedge	1	1.8%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	1.8%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACARHO	6 <i>Acalypha rhomboidea</i>	3 FACU	Nt A-Forb	Three-seeded mercury
ACENEG	0 <i>Acer negundo</i>	-2 FACW-	Nt Tree	Box elder
AGANEP	4 <i>Agastache nepetoides</i>	3 FACU	Nt P-Forb	Yellow giant hyssop
AGRPUB	4 <i>Agrimonia pubescens</i>	5 UPL	Nt P-Forb	Soft agrimony
ALLPET	0 <i>ALLIARIA PETIOLATA</i>	0 FAC	Ad B-Forb	Garlic mustard
AQUCAN	6 <i>Aquilegia canadensis</i>	1 FAC-	Nt P-Forb	Columbine
ARITRI	4 <i>Arisaema triphyllum</i>	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
BOTVIR	6 <i>Botrychium virginianum</i>	3 FACU	Nt Fern	Rattlesnake fern
CAMAME	4 <i>Campanula americana</i>	0 FAC	Nt A-Forb	Tall bellflower
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CARCOR	5 <i>Carya cordiformis</i>	0 FAC	Nt Tree	Bitternut hickory
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
CIRLUT	5 <i>Circaea lutetiana</i> var. <i>canadensis</i>	3 FACU	Nt P-Forb	Enchanter's nightshade
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DICCUC	7 <i>Dicentra cucullaria</i>	5 UPL	Nt P-Forb	Dutchman's breeches
ELLNYC	1 <i>Ellisia nyctelea</i>	-1 FAC+	Nt A-Forb	Aunt Lucy
EUPPUR	6 <i>Eupatorium purpureum</i>	0 FAC	Nt P-Forb	Purple Joe Pye weed
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 <i>Festuca obtusa</i>	2 FACU+	Nt P-Grass	Nodding fescue
GALAPA	1 <i>Galium aparine</i>	3 FACU	Nt A-Forb	Cleavers
GEUCAN	2 <i>Geum canadense</i>	0 FAC	Nt P-Forb	White avens
GLETRI	0 <i>Gleditsia triacanthos</i>	0 FAC	Nt Tree	Honey locust
GYMDIO	5 <i>Gymnocladus dioica</i>	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 <i>Hackelia virginiana</i>	1 FAC-	Nt P-Forb	Stickseed
JUGNIG	4 <i>Juglans nigra</i>	3 FACU	Nt Tree	Black walnut
JUNTEN	0 <i>Juncus tenuis</i>	0 FAC	Nt P-Forb	Path rush
LAPCAN	3 <i>Laportea canadensis</i>	-3 FACW	Nt P-Forb	Wood nettle
LEEVIR	6 <i>Leersia virginica</i>	-3 FACW	Nt P-Grass	White grass
MORALB	0 <i>MORUS ALBA</i>	0 FAC	Ad Tree	White mulberry
MUHFRO	3 <i>Muhlenbergia frondosa</i>	-3 FACW	Nt P-Grass	Common satin grass
OSMCLI	3 <i>Osmorhiza claytonii</i>	4 FACU-	Nt P-Forb	Hairy sweet cicely
OSMLON	5 <i>Osmorhiza longistylis</i>	4 FACU-	Nt P-Forb	Smooth sweet cicely
OSTVIR	5 <i>Ostrya virginiana</i>	4 FACU-	Nt Tree	Hop hornbeam
PARQUI	2 <i>Parthenocissus quinquefolia</i>	1 FAC-	Nt W-Vine	Virginia creeper
PHLDIV	5 <i>Phlox divaricata</i>	3 FACU	Nt P-Forb	Woodland phlox
PHRLEP	4 <i>Phryma leptostachya</i>	5 UPL	Nt P-Forb	Lopseed
PILPUM	3 <i>Pilea pumila</i>	-3 FACW	Nt A-Forb	Common clearweed
PLARUG	0 <i>Plantago rugelii</i>	0 FAC	Nt A-Forb	Red-stalked plantain
POLVIG	5 <i>Polygonum virginianum</i>	0 FAC	Nt P-Forb	Jumpseed
PRUVIR	2 <i>Prunus virginiana</i>	1 FAC-	Nt Shrub	Choke cherry
RANABO	0 <i>Ranunculus abortivus</i>	-4 FACW+	Nt A-Forb	Small-flowered crowfoot
RIBMIS	3 <i>Ribes missouriense</i>	5 UPL	Nt Shrub	Wild gooseberry
RUBOCC	1 <i>Rubus occidentalis</i>	5 UPL	Nt Shrub	Black raspberry
SAMCAN	1 <i>Sambucus canadensis</i>	4 FACU-	Nt Shrub	Elderberry
SCRMAR	4 <i>Scrophularia marilandica</i>	4 FACU-	Nt P-Forb	Late figwort
SETFAB	0 <i>SETARIA FABERII</i>	2 FACU+	Ad A-Grass	Giant foxtail
SICANG	2 <i>Sicyos angulatus</i>	-2 FACW-	Nt H-Vine	Bur cucumber
SMIHIS	4 <i>Smilax hispida</i>	0 FAC	Nt W-Vine	Greenbrier
SYMORB	0 <i>Symphoricarpos orbiculatus</i>	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 <i>Teucrium canadense</i>	-2 FACW-	Nt P-Forb	Germander

TILAME	5	<i>Tilia americana</i>	3	FACU	Nt Tree	Basswood
TOXRAD	0	<i>Toxicodendron radicans</i>	-1	FAC+	Nt W-Vine	Poison ivy
ULMAME	2	<i>Ulmus americana</i>	-2	FACW-	Nt Tree	American elm
URTDIO	0	<i>Urtica dioica</i>	-1	FAC+	Nt P-Forb	Stinging nettle
VIOPUP	5	<i>Viola pubescens</i>	4	FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1	<i>Viola sororia</i>	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt W-Vine	Riverbank grape

Hidden Valley, West

10.7 acres; Valley; Map #34

Notes: See notes under Hidden Valley, East

FLORISTIC QUALITY DATA		Native		Adventive			
41	NATIVE SPECIES	Tree	9	20.9%	Tree	1	2.3%
43	Total Species	Shrub	3	7.0%	Shrub	0	0.0%
3.0	NATIVE MEAN C	W-Vine	2	4.7%	W-Vine	0	0.0%
2.9	W/Adventives	H-Vine	1	2.3%	H-Vine	0	0.0%
19.5	NATIVE FQI	P-Forb	13	30.2%	P-Forb	0	0.0%
19.1	W/Adventives	B-Forb	0	0.0%	B-Forb	1	2.3%
0.6	NATIVE MEAN W	A-Forb	5	11.6%	A-Forb	0	0.0%
0.6	W/Adventives	P-Grass	6	14.0%	P-Grass	0	0.0%
AVG:	Faculative (-)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	1	2.3%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	2.3%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLPET	4 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
BOTVIR	6 Botrychium virginianum	3 FACU	Nt Fern	Rattlesnake fern
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
JUNTEN	0 Juncus tenuis	0 FAC	Nt P-Forb	Path rush
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LEEVI	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
MUHFR0	3 Muhlenbergia frondosa	-3 FACW	Nt P-Grass	Common satin grass
MUHSCH	1 Muhlenbergia schreberi	0 FAC	Nt P-Grass	Nimblewill
OSMLON	5 Osmorhiza longistylis	4 FACU-	Nt P-Forb	Smooth sweet cicely
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PILPUM	3 Pilea pumila	-3 FACW	Nt A-Forb	Common clearweed
PLARUG	0 Plantago rugelii	0 FAC	Nt A-Forb	Red-stalked plantain
POASYL	10 Poa sylvestris	0 FAC	Nt P-Grass	Woodland blue grass
POLVIG	5 Polygonum virginianum	0 FAC	Nt P-Forb	Jumpseed
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RANABO	0 Ranunculus abortivus	-4 FACW+	Nt A-Forb	Small-flowered crowfoot
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry
SCRMAR	4 Scrophularia marilandica	4 FACU-	Nt P-Forb	Late figwort
SICANG	2 Sicyos angulatus	-2 FACW-	Nt H-Vine	Bur cucumber
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
TILAME	5 Tilia americana	3 FACU	Nt Tree	Basswood
TOXRAD	0 Toxicodendron radicans	-1 FAC+	Nt W-Vine	Poison ivy
ULMAME	2 Ulmus americana	-2 FACW-	Nt Tree	American elm
URTDIO	0 Urtica dioica	-1 FAC+	Nt P-Forb	Stinging nettle
VIOPUP	5 Viola pubescens	4 FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1 Viola sororia	1 FAC-	Nt P-Forb	Hairy blue violet

High-Point Camp Ridge

20.5 acres; Timber; Map #32

Notes: This is the timbered ridge the projects east from the High Point Camp.

FLORISTIC QUALITY DATA		Native		Adventive			
38	NATIVE SPECIES	Tree	8	19.5%	Tree	1	2.4%
41	Total Species	Shrub	6	14.6%	Shrub	0	0.0%
4.0	NATIVE MEAN C	W-Vine	4	9.8%	W-Vine	0	0.0%
3.7	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
24.5	NATIVE FQI	P-Forb	7	17.1%	P-Forb	0	0.0%
23.6	W/Adventives	B-Forb	1	2.4%	B-Forb	2	4.9%
2.2	NATIVE MEAN W	A-Forb	2	4.9%	A-Forb	0	0.0%
2.1	W/Adventives	P-Grass	4	9.8%	P-Grass	0	0.0%
AVG: Fac. Upland (+)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	6	14.6%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
BROPUB	9 Bromus pubescens	2 FACU+	Nt P-Grass	Woodland brome
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBACK	10 Carex backii	1 FAC-	Nt P-Sedge	Northern grass sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPAR	6 Carex sparganioides	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CXSPRE	4 Carex sprengei	0 FAC	Nt P-Sedge	Long-beaked sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOB	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HELRIG	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
HYPSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PARPEN	3 Parietaria pensylvanica	3 FACU	Nt A-Forb	Pellitory
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RANABO	0 Ranunculus abortivus	-4 FACW+	Nt A-Forb	Small-flowered crowfoot
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SMISTE	5 Smilacina stellata	1 FAC-	Nt P-Forb	Starry false Solomon's seal
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SYMOCC	0 Symphoricarpos occidentalis	5 UPL	Nt Shrub	Wolfberry
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TOXRAD	0 Toxicodendron radicans	-1 FAC+	Nt W-Vine	Poison ivy
ZANAME	3 Zanthoxylum americanum	5 UPL	Nt Shrub	Prickly ash

Hohneke Addition

20.0 acres; Timber; Map #85

Notes: There are tracts of remnant timber here, but there are tracts of thicket as well, all overgrazed.

FLORISTIC QUALITY DATA		Native		Adventive			
127	NATIVE SPECIES	Tree	13	8.1%	Tree	2	1.2%
161	Total Species	Shrub	6	3.7%	Shrub	1	0.6%
3.1	NATIVE MEAN C	W-Vine	7	4.3%	W-Vine	0	0.0%
2.5	W/Adventives	H-Vine	1	0.6%	H-Vine	0	0.0%
35.3	NATIVE FQI	P-Forb	49	30.4%	P-Forb	5	3.1%
31.4	W/Adventives	B-Forb	5	3.1%	B-Forb	6	3.7%
2.2	NATIVE MEAN W	A-Forb	21	13.0%	A-Forb	10	6.2%
2.3	W/Adventives	P-Grass	9	5.6%	P-Grass	7	4.3%
AVG: Fac. Upland (+)		A-Grass	2	1.2%	A-Grass	3	1.9%
		P-Sedge	11	6.8%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	3	1.9%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACARHO	6 <i>Acalypha rhomboidea</i>	3 FACU	Nt A-Forb	Three-seeded mercury
ACHMIL	0 <i>Achillea millefolium</i> ssp. <i>lanulosa</i>	3 FACU	Nt P-Forb	Western yarrow
ADIPED	7 <i>Adiantum pedatum</i>	1 FAC-	Nt Fern	Northern maidenhair fern
AGANEP	4 <i>Agastache nepetoides</i>	3 FACU	Nt P-Forb	Yellow giant hyssop
AGRSMS	2 <i>Agropyron smithii</i>	2 FACU+	Nt P-Grass	Western wheat grass
AGRGIG	0 <i>AGROSTIS GIGANTEA</i>	-3 FACW	Ad P-Grass	Redtop
ALLPET	0 <i>ALLIARIA PETIOLATA</i>	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 <i>Ambrosia artemisiifolia</i>	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMBTRI	0 <i>Ambrosia trifida</i>	-1 FAC+	Nt A-Forb	Giant ragweed
AMPBRB	4 <i>Amphicarpaea bracteata</i>	0 FAC	Nt H-Vine	Hog peanut
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower
ANEVIR	4 <i>Anemone virginiana</i>	5 UPL	Nt P-Forb	Tall anemone
ANTNEG	2 <i>Antennaria neglecta</i>	5 UPL	Nt P-Forb	Cat's feet
APOSIB	1 <i>Apocynum sibiricum</i>	-1 FAC+	Nt P-Forb	Indian hemp
AQUCAN	6 <i>Aquilegia canadensis</i>	1 FAC-	Nt P-Forb	Columbine
ARACAN	7 <i>Arabis canadensis</i>	5 UPL	Nt B-Forb	Sickle pod
ARASHO	10 <i>Arabis shortii</i>	5 UPL	Nt B-Forb	Rock cress
ARIOLI	0 <i>Aristida oligantha</i>	5 UPL	Nt A-Grass	Plains three-awn grass
ASCSYR	0 <i>Asclepias syriaca</i>	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTSAG	6 <i>Aster sagittifolius</i>	5 UPL	Nt P-Forb	Arrow-leaved aster
BOTVIR	6 <i>Botrychium virginianum</i>	3 FACU	Nt Fern	Rattlesnake fern
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
BROTEC	0 <i>BROMUS TECTORUM</i>	5 UPL	Ad A-Grass	Downy chess
CANSAT	0 <i>CANNABIS SATIVA</i>	0 FAC	Ad A-Forb	Hemp
CAPBUR	0 <i>CAPSELLA BURSA-PASTORIS</i>	1 FAC-	Ad A-Forb	Shepherd's purse
CARNUT	0 <i>CARDUUS NUTANS</i>	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 <i>Carex artitecta</i>	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CXCEPP	5 <i>Carex cephalophora</i>	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXFEST	8 <i>Carex festucacea</i>	0 FAC	Nt P-Sedge	Fescue oval sedge
CXGRVG	1 <i>Carex gravida</i>	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXGRIS	4 <i>Carex grisea</i>	5 UPL	Nt P-Sedge	Gray sedge
CXLEAV	3 <i>Carex leavenworthii</i>	5 UPL	Nt P-Sedge	Dwarf bracted sedge
CXNORM	5 <i>Carex normalis</i>	-3 FACW	Nt P-Sedge	Spreading oval sedge
CXOLIC	6 <i>Carex oligocarpa</i>	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXPENP	6 <i>Carex pennsylvanica</i>	-4 FACW+	Nt P-Sedge	Pennsylvania oak sedge
CXROSE	7 <i>Carex rosea</i>	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
CERVUL	0 <i>CERASTIUM VULGATUM</i>	3 FACU	Ad P-Forb	Mouse-ear chickweed
CHEALB	0 <i>CHENOPODIUM ALBUM</i>	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 <i>Chenopodium hybridum</i>	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHEPRA	5 <i>Chenopodium pratericola</i>	5 UPL	Nt A-Forb	Plains goosefoot
CIRLUT	5 <i>Circaea lutetiana</i> var. <i>canadensis</i>	3 FACU	Nt P-Forb	Enchanter's nightshade
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
COMUMB	6 <i>Comandra umbellata</i>	3 FACU	Nt P-Forb	Bastard toadflax
COMCOM	0 <i>COMMELINA COMMUNIS</i>	0 FAC	Ad A-Forb	Common day flower
CONMAC	0 <i>CONIUM MACULATUM</i>	-3 FACW	Ad B-Forb	Poison hemlock
CONCAN	0 <i>Conyza canadensis</i>	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
CRYCAN	4 <i>Cryptotaenia canadensis</i>	0 FAC	Nt P-Forb	Honewort

CYNOFF	0	CYNOGLOSSUM OFFICINALE	5	UPL	Ad B-Forb	Hound's tongue
CYSPRO	6	Cystopteris protrusa	4	FACU-	Nt Fern	Creeping fragile fern
DACGLO	0	DACTYLIS GLOMERATA	3	FACU	Ad P-Grass	Orchard grass
DESPIB	1	Descurainia pinnata var. brachycarpa	5	UPL	Nt A-Forb	Tansy mustard
ELLYNYC	1	Ellisia nyctelea	-1	FAC+	Nt A-Forb	Aunt Lucy
ELYVIL	5	Elymus villosus	3	FACU	Nt P-Grass	Slender wild rye
ERIANN	0	Erigeron annuus	1	FAC-	Nt B-Forb	Annual fleabane
ERISTR	2	Erigeron strigosus	1	FAC-	Nt P-Forb	Daisy fleabane
EUPRUG	2	Eupatorium rugosum	3	FACU	Nt P-Forb	White snakeroot
EUPDEN	0	Euphorbia dentata	5	UPL	Nt A-Forb	Toothed spurge
EUFMAA	0	Euphorbia maculata	4	FACU-	Nt A-Forb	Carpet spurge
EUPMAR	0	Euphorbia marginata	3	FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0	Euphorbia nutans	3	FACU	Nt A-Forb	Nodding spurge
EUPSRP	5	Euphorbia serpens	5	UPL	Nt A-Forb	Round-leaved spurge
FESARU	0	FESTUCA ARUNDINACEA	2	FACU+	Ad P-Grass	Tall fescue
FESOBT	7	Festuca obtusa	2	FACU+	Nt P-Grass	Nodding fescue
FRAPEP	3	Fraxinus pennsylvanica	-3	FACW	Nt Tree	Red ash
FRAPEL	1	Fraxinus pennsylvanica var. lanceolata	-3	FACW	Nt Tree	Green ash
GALAPA	1	Galium aparine	3	FACU	Nt A-Forb	Cleavers
GALCIR	6	Galium circaeazans	4	FACU-	Nt P-Forb	Wild licorice
GALTRO	7	Galium triflorum	2	FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2	Geum canadense	0	FAC	Nt P-Forb	White avens
GLEHED	0	GLECHOMA HEDERACEA	4	FACU-	Ad P-Forb	Creeping Charlie
GLETRI	0	Gleditsia triacanthos	0	FAC	Nt Tree	Honey locust
GYMDIO	5	Gymnocladus dioica	5	UPL	Nt Tree	Kentucky coffee tree
HACVIR	0	Hackelia virginiana	1	FAC-	Nt P-Forb	Stickseed
HORPUS	0	HORDEUM PUSILLUM	0	FAC	Ad A-Grass	Little barley
HYDVIR	3	Hydrophyllum virginianum	-2	FACW-	Nt P-Forb	Virginia waterleaf
HYSPAT	5	Hystrix patula	5	UPL	Nt P-Grass	Bottlebrush grass
JUGNIG	4	Juglans nigra	3	FACU	Nt Tree	Black walnut
JUNVIR	1	Juniperus virginiana	3	FACU	Nt Tree	Red cedar
LACTAP	2	Lactuca tatarica ssp. pulchella	5	UPL	Nt P-Forb	Showy blue lettuce
LAPCAN	3	Laportea canadensis	-3	FACW	Nt P-Forb	Wood nettle
LEEVI	6	Leersia virginica	-3	FACW	Nt P-Grass	White grass
LEPVIR	0	Lepidium virginicum	4	FACU-	Nt A-Forb	Poor-man's pepper
LINVUL	0	LINARIA VULGARIS	5	UPL	Ad A-Forb	Butter & eggs
LINSUL	7	Linum sulcatum	5	UPL	Nt P-Forb	Grooved yellow flax
LITINC	5	Lithospermum incisum	5	UPL	Nt P-Forb	Fringed puccoon
LOBINF	2	Lobelia inflata	4	FACU-	Nt A-Forb	Indian tobacco
LONMAA	0	LONICERA MAACKII	5	UPL	Ad Shrub	Amur honeysuckle
LONPRO	7	Lonicera prolifera	5	UPL	Nt W-Vine	Wild honeysuckle
MENCAN	5	Menispermum canadense	-1	FAC+	Nt W-Vine	Moonseed
MONFIS	2	Monarda fistulosa	3	FACU	Nt P-Forb	Wild bergamot
MORALB	0	MORUS ALBA	0	FAC	Ad Tree	White mulberry
MORRUB	4	Morus rubra	1	FAC-	Nt Tree	Red mulberry
NEPCAT	0	NEPETA CATARIA	1	FAC-	Ad P-Forb	Catnip
OENBIE	0	Oenothera biennis	3	FACU	Nt B-Forb	Common evening primrose
OSMCLI	3	Osmorhiza claytonii	4	FACU-	Nt P-Forb	Hairy sweet cicely
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt Tree	Hop hornbeam
OXASTR	0	Oxalis stricta	3	FACU	Nt P-Forb	Tall wood sorrel
PANOLS	5	Panicum oligosanthos var. scribnerianum	3	FACU	Nt P-Grass	Scribner's panic grass
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt W-Vine	Virginia creeper
PASSES	4	Paspalum setaceum var. stramineum	0	FAC	Nt P-Grass	Downy lens grass
PHLPRA	0	PHLEUM PRATENSE	3	FACU	Ad P-Grass	Timothy
PHRLEP	4	Phryma leptostachya	5	UPL	Nt P-Forb	Lopseed
PHYVIG	4	Physalis virginiana	5	UPL	Nt P-Forb	Ground cherry
PILPUM	3	Pilea pumila	-3	FACW	Nt A-Forb	Common clearweed
PLARUG	0	Plantago rugelii	0	FAC	Nt A-Forb	Red-stalked plantain
POACOM	0	POA COMPRESSA	2	FACU+	Ad P-Grass	Canadian blue grass
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	Kentucky blue grass
POASYL	10	Poa sylvestris	0	FAC	Nt P-Grass	Woodland blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt P-Forb	Solomon's seal
POLPER	0	POLYGONUM PERSICARIA	-3	FACW	Ad A-Forb	Lady's thumb
POPDEL	1	Populus deltoides	-1	FAC+	Nt Tree	Cottonwood
PRUVUL	0	Prunella vulgaris var. lanceolata	0	FAC	Nt P-Forb	Self heal
RANABO	0	Ranunculus abortivus	-4	FACW+	Nt A-Forb	Small-flowered crowfoot
RIBMIS	3	Ribes missouriense	5	UPL	Nt Shrub	Wild gooseberry
RORPAL	7	Rorippa palustris	-5	OBL	Nt A-Forb	Marsh cress
RUBOCC	1	Rubus occidentalis	5	UPL	Nt Shrub	Black raspberry
RUDHIR	2	Rudbeckia hirta	3	FACU	Nt P-Forb	Black-eyed Susan
SANCAS	6	Sanicula canadensis	2	FACU+	Nt B-Forb	Black snakeroot
SCRMAR	4	Scrophularia marilandica	4	FACU-	Nt P-Forb	Late figwort
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad A-Grass	Green foxtail
SILSTE	4	Silene stellata	5	UPL	Nt P-Forb	Starry campion
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad A-Forb	Tall hedge mustard
SMIHIS	4	Smilax hispida	0	FAC	Nt W-Vine	Greenbrier
SOLCAR	0	Solanum carolinense	4	FACU-	Nt P-Forb	Horse nettle
SOLALT	0	Solidago altissima	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt P-Forb	Tall goldenrod
SPOVAG	1	Sporobolus vaginiflorus	5	UPL	Nt A-Grass	Sheathed rush grass
SYMOC	0	Symphoricarpos occidentalis	5	UPL	Nt Shrub	Wolfberry

SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
THYPAS	0	THYMELAEA PASSEERINA	5	UPL	Ad	A-Forb	Sparrow weed
TILAME	5	Tilia americana	3	FACU	Nt	Tree	Basswood
TORARV	0	TORILIS ARVENSIS	5	UPL	Ad	A-Forb	Hedge parsley
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
TRAPRA	0	TRAGOPOGON PRATENSIS	5	UPL	Ad	B-Forb	Common goat's beard
TRIREF	0	TRIFOLIUM REPENS	2	FACU+	Ad	P-Forb	White clover
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt	P-Forb	Late horse gentian
ULMAME	2	Ulmus americana	-2	FACW-	Nt	Tree	American elm
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad	Tree	Siberian elm
ULMRUB	2	Ulmus rubra	0	FAC	Nt	Tree	Slippery elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt	P-Forb	Stinging nettle
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VERARV	0	VERONICA ARVENSIS	5	UPL	Ad	A-Forb	Corn speedwell
VERPEG	0	Veronica peregrina	-4	FACW+	Nt	A-Forb	Purslane speedwell
VIOMIS	6	Viola missouriensis	-3	FACW	Nt	P-Forb	Missouri violet
VIOSOR	1	Viola sororia	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt	Shrub	Prickly ash

Hohneke Hill Pasture

4.8 acres; Pasture; Map #82

FLORISTIC QUALITY DATA		Native		Adventive			
45	NATIVE SPECIES	Tree	7	9.2%	Tree	3	3.9%
76	Total Species	Shrub	4	5.3%	Shrub	0	0.0%
2.4	NATIVE MEAN C	W-Vine	1	1.3%	W-Vine	0	0.0%
1.4	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
15.8	NATIVE FQI	P-Forb	15	19.7%	P-Forb	7	9.2%
12.2	W/Adventives	B-Forb	5	6.6%	B-Forb	7	9.2%
2.6	NATIVE MEAN W	A-Forb	9	11.8%	A-Forb	7	9.2%
2.8	W/Adventives	P-Grass	3	3.9%	P-Grass	4	5.3%
AVG: Fac. Upland		A-Grass	0	0.0%	A-Grass	3	3.9%
		P-Sedge	1	1.3%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLALT	0 ALLANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ARAHIR	8 Arabis hirsuta	5 UPL	Nt B-Forb	Hairy rock cress
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CONMAC	0 CONIUM MACULATUM	-3 FACW	Ad B-Forb	Poison hemlock
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CORVAR	0 CORONILLA VARIA	5 UPL	Ad P-Forb	Crown vetch
DACGLO	0 DACTYLIS GLOMERATA	3 FACU	Ad P-Grass	Orchard grass
ERIANN	0 Erigeron annuus	1 FAC-	Nt B-Forb	Annual fleabane
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPMAA	0 Euphorbia maculata	4 FACU-	Nt A-Forb	Carpet spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 Euphorbia nutans	3 FACU	Nt A-Forb	Nodding spurge
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GAUBIE	3 Gaura biennis	4 FACU-	Nt B-Forb	Biennial gaura
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HEDHIS	2 Hedeoma hispidum	5 UPL	Nt A-Forb	Rough pennyroyal
HELANN	0 Helianthus annuus	1 FAC-	Nt A-Forb	Garden sunflower
HELRIE	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
HORPUS	0 HORDEUM PUSILLUM	0 FAC	Ad A-Grass	Little barley
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LEOCAR	0 LEONURUS CARDIACA	5 UPL	Ad P-Forb	Motherwort
LEPDEN	0 Lepidium densiflorum	0 FAC	Nt A-Forb	Pepper cress
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LINVUL	0 LINARIA VULGARIS	5 UPL	Ad A-Forb	Butter & eggs
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
OENBIE	0 Oenothera biennis	3 FACU	Nt B-Forb	Common evening primrose
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PANOLS	5 Panicum oligosanthos var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PENGRN	5 Penstemon grandiflorus	5 UPL	Nt P-Forb	Large-flowered beard tongue
PHLPRA	0 PHELEUM PRATENSE	3 FACU	Ad P-Grass	Timothy
PLARUG	0 Plantago rugelii	0 FAC	Nt A-Forb	Red-stalked plantain
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
POTREC	0 POTENTILLA RECTA	5 UPL	Ad P-Forb	Sulphur cinquefoil
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
ROBPSE	0 ROBINIA PSEUDOACACIA	4 FACU-	Ad Tree	Black locust
RUMPAT	0 RUMEX PATIENTIA	5 UPL	Ad P-Forb	Patience dock
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SETGLA	0 SETARIA GLAUCA	0 FAC	Ad A-Grass	Yellow foxtail
SETVIR	0 SETARIA VIRIDIS	5 UPL	Ad A-Grass	Green foxtail
SISLOE	0 SISYMBRIUM LOESELII	5 UPL	Ad A-Forb	Tall hedge mustard
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLCAR	0 Solanum carolinense	4 FACU-	Nt P-Forb	Horse nettle

SOLROS	0 SOLANUM ROSTRATUM	5 UPL	Ad A-Forb	Buffalo bur
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0 Solidago canadensis	3 FACU	Nt P-Forb	Tall goldenrod
SYMOCC	0 Symphoricarpos occidentalis	5 UPL	Nt Shrub	Wolfberry
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TAROFF	0 TARAXACUM OFFICINALE	3 FACU	Ad P-Forb	Common dandelion
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
THYPAS	0 THYMELAEA PASSERINA	5 UPL	Ad A-Forb	Sparrow weed
TRADUB	0 TRAGOPOGON DUBIUS	5 UPL	Ad B-Forb	Sandy goat's beard
TRIFLA	0 Tridens flavus	5 UPL	Nt P-Grass	Purple top
TRIREP	0 TRIFOLIUM REPENS	2 FACU+	Ad P-Forb	White clover
VERTHA	0 VERBASCUM THAPSUS	5 UPL	Ad B-Forb	Common mullein
VERSTR	1 Verbena stricta	5 UPL	Nt P-Forb	Hoary vervain
VERURT	2 Verbena urticifolia	-1 FAC+	Nt P-Forb	White vervain
VERBAL	2 Vernonia baldwinii	5 UPL	Nt P-Forb	Baldwin's ironweed
VERARV	0 VERONICA ARVENSIS	5 UPL	Ad A-Forb	Corn speedwell
ZANAME	3 Zanthoxylum americanum	5 UPL	Nt Shrub	Prickly ash

Hohneke Point Ridge

24.3 acres; Timber; Map #65

Notes: In the western sector of this ridge, there is a rather nice example of extant but degraded interdigitation between aboriginal timber and loess prairie. This is the area that was designated as unit B in the Rosburg (1993) survey. It appears as though it may have been notably more open at that time. Plants shown in bold face type are known only from that original survey.

FLORISTIC QUALITY DATA		Native	111	86.0%	Adventive	18	14.0%
111	NATIVE SPECIES	Tree	9	7.0%	Tree	0	0.0%
129	Total Species	Shrub	10	7.8%	Shrub	0	0.0%
4.0	NATIVE MEAN C	W-Vine	3	2.3%	W-Vine	0	0.0%
3.4	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
42.0	NATIVE FQI	P-Forb	47	36.4%	P-Forb	2	1.6%
39.0	W/Adventives	B-Forb	4	3.1%	B-Forb	6	4.7%
2.6	NATIVE MEAN W	A-Forb	10	7.8%	A-Forb	4	3.1%
2.7	W/Adventives	P-Grass	13	10.1%	P-Grass	3	2.3%
AVG:	Fac. Upland	A-Grass	0	0.0%	A-Grass	3	2.3%
		P-Sedge	13	10.1%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	2	1.6%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACARHO	6 <i>Acalypha rhomboidea</i>	3 FACU	Nt A-Forb	Three-seeded mercury
ALLPET	0 <i>ALLIARIA PETIOLATA</i>	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 <i>Ambrosia artemisiifolia</i>	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 <i>Antennaria neglecta</i>	5 UPL	Nt P-Forb	Cat's feet
APOCAN	1 <i>Apocynum cannabinum</i>	0 FAC	Nt P-Forb	Indian hemp
AQUCAN	6 <i>Aquilegia canadensis</i>	1 FAC-	Nt P-Forb	Columbine
ARACAN	7 <i>Arabis canadensis</i>	5 UPL	Nt B-Forb	Sickle pod
ARCMIN	0 <i>ARCTIUM MINUS</i>	5 UPL	Ad B-Forb	Common burdock
ASCSYR	0 <i>Asclepias syriaca</i>	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
BOTVIR	6 <i>Botrychium virginianum</i>	3 FACU	Nt Fern	Rattlesnake fern
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CARNUT	0 <i>CARDUUS NUTANS</i>	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 <i>Carex artitecta</i>	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 <i>Carex brevior</i>	0 FAC	Nt P-Sedge	Plains oval sedge
CXFEST	8 <i>Carex festucacea</i>	0 FAC	Nt P-Sedge	Fescue oval sedge
CXGRVG	1 <i>Carex gravida</i>	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXHITC	8 <i>Carex hitchcockiana</i>	5 UPL	Nt P-Sedge	Hairy gray sedge
CXMEAD	9 <i>Carex meadii</i>	0 FAC	Nt P-Sedge	Mead's stiff sedge
CXNORM	5 <i>Carex normalis</i>	-3 FACW	Nt P-Sedge	Spreading oval sedge
CXOLIC	6 <i>Carex oligocarpa</i>	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXPENP	6 <i>Carex pensylvanica</i>	-4 FACW+	Nt P-Sedge	Pennsylvania oak sedge
CXROSE	7 <i>Carex rosea</i>	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPAR	6 <i>Carex sparganioides</i>	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CXSPRE	4 <i>Carex spengelii</i>	0 FAC	Nt P-Sedge	Long-beaked sedge
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
CHEALB	0 <i>CHENOPODIUM ALBUM</i>	1 FAC-	Ad A-Forb	Lamb's quarters
CHEPRA	5 <i>Chenopodium pratericola</i>	5 UPL	Nt A-Forb	Plains goosefoot
CIRLUT	5 <i>Circaea lutetiana</i> var. <i>canadensis</i>	3 FACU	Nt P-Forb	Enchanter's nightshade
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
CRYCAN	4 <i>Cryptotaenia canadensis</i>	0 FAC	Nt P-Forb	Honewort
CYSPRO	6 <i>Cystopteris protrusa</i>	4 FACU-	Nt Fern	Creeping fragile fern
DACGLO	0 <i>DACTYLIS GLOMERATA</i>	3 FACU	Ad P-Grass	Orchard grass
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
DICCCUC	7 <i>Dicentra cucullaria</i>	5 UPL	Nt P-Forb	Dutchman's breeches
DIGISC	0 <i>DIGITARIA ISCHAEMUM</i>	3 FACU	Ad A-Grass	Smooth crab grass
ELLNVC	1 <i>Ellisia nyctelea</i>	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYCAN	5 <i>Elymus canadensis</i>	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 <i>Elymus villosus</i>	3 FACU	Nt P-Grass	Slender wild rye
ERASPE	2 <i>Eragrostis spectabilis</i>	5 UPL	Nt P-Grass	Purple love grass
ERIANN	0 <i>Erigeron annuus</i>	1 FAC-	Nt B-Forb	Annual fleabane
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUOATR	7 <i>Euonymus atropurpureus</i>	1 FAC-	Nt Shrub	Wahoo

EUPRUG	2	Eupatorium rugosum	3	FACU	Nt	P-Forb	White snakeroot
EUPCYA	0	EUPHORBIA CYATHOPHORA	5	UPL	Ad	A-Forb	Wild poinsettia
FESOBT	7	Festuca obtusa	2	FACU+	Nt	P-Grass	Nodding fescue
FRAPPEL	1	Fraxinus pennsylvanica var. lanceolata	-3	FACW	Nt	Tree	Green ash
GALAPA	1	Galium aparine	3	FACU	Nt	A-Forb	Cleavers
GALCIR	6	Galium circaeazans	4	FACU-	Nt	P-Forb	Wild licorice
GALTRO	7	Galium triflorum	2	FACU+	Nt	P-Forb	Sweet-scented bedstraw
GEUCAN	2	Geum canadense	0	FAC	Nt	P-Forb	White avens
GLETRI	0	Gleditsia triacanthos	0	FAC	Nt	Tree	Honey locust
GYMDIO	5	Gymnocladus dioica	5	UPL	Nt	Tree	Kentucky coffee tree
HACVIR	0	Hackelia virginiana	1	FAC-	Nt	P-Forb	Stickseed
HEDHIS	2	Hedeoma hispidum	5	UPL	Nt	A-Forb	Rough pennyroyal
HEDNIG	7	Hedyotis nigricans	5	UPL	Nt	P-Forb	Narrow-leaved bluets
HELIRIG	8	Helianthus rigidus	5	UPL	Nt	P-Forb	Prairie sunflower
HELSTR	5	Helianthus strumosus	5	UPL	Nt	P-Forb	Pale-leaved sunflower
HYDVIR	3	Hydrophyllum virginianum	-2	FACW-	Nt	P-Forb	Virginia waterleaf
HYSPAT	5	Hystrix patula	5	UPL	Nt	P-Grass	Bottlebrush grass
JUNVIR	1	Juniperus virginiana	3	FACU	Nt	Tree	Red cedar
LACCAN	1	Lactuca canadensis	2	FACU+	Nt	B-Forb	Wild lettuce
LAPCAN	3	Laportea canadensis	-3	FACW	Nt	P-Forb	Wood nettle
LINSUL	7	Linum sulcatum	5	UPL	Nt	P-Forb	Grooved yellow flax
LITCAN	7	Lithospermum canescens	5	UPL	Nt	P-Forb	Hoary puccoon
LITINC	5	Lithospermum incisum	5	UPL	Nt	P-Forb	Fringed puccoon
LONPRO	7	Lonicera prolifera	5	UPL	Nt	W-Vine	Wild honeysuckle
MEDLUP	0	MEDICAGO LUPULINA	1	FAC-	Ad	A-Forb	Black medick
MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad	B-Forb	Yellow sweet clover
MENCAN	5	Menispermum canadense	-1	FAC+	Nt	W-Vine	Moonseed
MORRUB	4	Morus rubra	1	FAC-	Nt	Tree	Red mulberry
MUHCUS	10	Muhlenbergia cuspidata	5	UPL	Nt	P-Grass	Prairie satin grass
MUHMEX	5	Muhlenbergia mexicana	-3	FACW	Nt	P-Grass	Leafy satin grass
MUHRAC	4	Muhlenbergia racemosa	-3	FACW	Nt	P-Grass	Upland wild Timothy
MUHSCH	1	Muhlenbergia schreberi	0	FAC	Nt	P-Grass	Nimblewill
ONOMO	4	Onosmodium molle ssp. occidentale	5	UPL	Nt	P-Forb	False gromwell
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt	Tree	Hop hornbeam
PANOLS	5	Panicum oligosanthos var. scribnerianum	3	FACU	Nt	P-Grass	Scribner's panic grass
PARPEN	3	Parietaria pensylvanica	3	FACU	Nt	A-Forb	Pellitory
PEDARG	5	Pedimelum argophyllum	5	UPL	Nt	P-Forb	Silvery scurfy pea
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt	P-Forb	Large-flowered beard tongue
PHRLEP	4	Phryma leptostachya	5	UPL	Nt	P-Forb	Lopseed
PHYHET	2	Physalis heterophylla	5	UPL	Nt	P-Forb	Ground cherry
PHYVIG	4	Physalis virginiana	5	UPL	Nt	P-Forb	Ground cherry
PLARUG	0	Plantago rugelii	0	FAC	Nt	A-Forb	Red-stalked plantain
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt	P-Forb	Solomon's seal
PRUVIR	2	Prunus virginiana	1	FAC-	Nt	Shrub	Choke cherry
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
QUERUB	6	Quercus rubra	3	FACU	Nt	Tree	Northern red oak
RANABO	0	Ranunculus abortivus	-4	FACW+	Nt	A-Forb	Small-flowered crowfoot
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
RIBMIS	3	Ribes missouriense	5	UPL	Nt	Shrub	Wild gooseberry
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt	Shrub	Elderberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt	B-Forb	Black snakeroot
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad	A-Grass	Yellow foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad	A-Grass	Green foxtail
SILSTE	4	Silene stellata	5	UPL	Nt	P-Forb	Starry campion
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie false-eyed grass
SMISTE	5	Smilacina stellata	1	FAC-	Nt	P-Forb	Starry false Solomon's seal
SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt	P-Forb	Tall goldenrod
SPOCRY	3	Sporobolus cryptandrus	4	FACU-	Nt	P-Grass	Sand dropseed
SYMOC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
THYPAS	0	THYMELAEA PASSEERINA	5	UPL	Ad	A-Forb	Sparrow weed
TRADUB	0	TRAGOPOGON DUBIUS	5	UPL	Ad	B-Forb	Sandy goat's beard
TRIPRA	0	TRIFOLIUM PRATENSE	2	FACU+	Ad	P-Forb	Red clover
TRIREP	0	TRIFOLIUM REPENS	2	FACU+	Ad	P-Forb	White clover
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt	P-Forb	Late horse gentian
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VICAMA	8	Vicia americana	5	UPL	Nt	A-Forb	Vetch
VIOPEF	8	Viola pedatifida	4	FACU-	Nt	P-Forb	Prairie violet
VIOPOP	5	Viola pubescens	4	FACU-	Nt	P-Forb	Downy yellow violet
VIOSOR	1	Viola sororia	1	FAC-	Nt	P-Forb	Hairy blue violet
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt	Shrub	Prickly ash

Hohneke Stream Flats and Farm Pond

2.6 acres; Wetland; Map #83

Notes: These stream flats area supplied with an enormous amount of water that washes from the degraded slopes of Boardwalk Ridge and its associated ridges. Survey units in the surface watershed include the Hohneke tracts, including about 5 acres of the Hohneke Addition, the Boy Scout Clearing, Bulldozed Valley (east face), Fox Run Ridge Woods, most of the Lodge Landscape, Undifferentiated tracts 91 and 93, Wildflower Wander, Campground Roadside Reconstruction, Campground, and Campground Reconstruction. These areas comprise about 191 acres of surface upon which rain falls, much of it quite degraded. The potential volumes are about 75% of those described for the Back Gate Stream Valley, which see. There is a well established colony of the innocuous but adventive species, *Duchesnea indica*, in the flats, a plant not yet in the Iowa data base.

FLORISTIC QUALITY DATA		Native		Adventive			
32	NATIVE SPECIES	Tree	3	7.3%	Tree	1	2.4%
41	Total Species	Shrub	2	4.9%	Shrub	1	2.4%
2.6	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
2.0	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
14.7	NATIVE FQI	P-Forb	12	29.3%	P-Forb	3	7.3%
13.0	W/Adventives	B-Forb	0	0.0%	B-Forb	1	2.4%
-0.3	NATIVE MEAN W	A-Forb	10	24.4%	A-Forb	2	4.9%
0.3	W/Adventives	P-Grass	3	7.3%	P-Grass	1	2.4%
AVG:	Faculative	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	1	2.4%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	2.4%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACARHO	6 <i>Acalypha rhomboidea</i>	3 FACU	Nt A-Forb	Three-seeded mercury
AILALT	0 <i>AILANTHUS ALTISSIMA</i>	5 UPL	Ad Tree	Tree of heaven
AMBART	0 <i>Ambrosia artemisiifolia</i>	3 FACU	Nt A-Forb	Common ragweed
ARCMIN	0 <i>ARCTIUM MINUS</i>	5 UPL	Ad B-Forb	Common burdock
BOECYC	5 <i>Boehmeria cylindrica</i>	-5 OBL	Nt P-Forb	Rough false nettle
CAMAME	4 <i>Campanula americana</i>	0 FAC	Nt A-Forb	Tall bellflower
CXGRIS	4 <i>Carex grisea</i>	5 UPL	Nt P-Sedge	Gray sedge
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
COMCOM	0 <i>COMMELINA COMMUNIS</i>	0 FAC	Ad A-Forb	Common day flower
CONCAN	0 <i>Conyza canadensis</i>	1 FAC-	Nt A-Forb	Horseweed
CRYCAN	4 <i>Cryptotaenia canadensis</i>	0 FAC	Nt P-Forb	Honewort
CYSPRO	6 <i>Cystopteris protrusa</i>	4 FACU-	Nt Fern	Creeping fragile fern
ECLALB	0 <i>Eclipta alba</i>	-3 FACW	Nt A-Forb	Yerba de Tajo
FESARU	0 <i>FESTUCA ARUNDINACEA</i>	2 FACU+	Ad P-Grass	Tall fescue
GLEHED	0 <i>GLECHOMA HEDERACEA</i>	4 FACU-	Ad P-Forb	Creeping Charlie
GLETRI	0 <i>Gleditsia triacanthos</i>	0 FAC	Nt Tree	Honey locust
GLYSTR	5 <i>Glyceria striata</i>	-5 OBL	Nt P-Grass	Fowl manna grass
HYDVIR	3 <i>Hydrophyllum virginianum</i>	-2 FACW-	Nt P-Forb	Virginia waterleaf
LAPCAN	3 <i>Laportea canadensis</i>	-3 FACW	Nt P-Forb	Wood nettle
LEEVIR	6 <i>Leersia virginica</i>	-3 FACW	Nt P-Grass	White grass
LEMMIR	3 <i>Lemna minor</i>	-5 OBL	Nt A-Forb	Duckweed
MUHSC	1 <i>Muhlenbergia schreberi</i>	0 FAC	Nt P-Grass	Nimblewill
PILPUM	3 <i>Pilea pumila</i>	-3 FACW	Nt A-Forb	Common clearweed
PLARUG	0 <i>Plantago rugelii</i>	0 FAC	Nt A-Forb	Red-stalked plantain
POLPER	0 <i>POLYGONUM PERSICARIA</i>	-3 FACW	Ad A-Forb	Lady's thumb
POLPUN	4 <i>Polygonum punctatum</i>	-5 OBL	Nt A-Forb	Water smartweed
POLVIG	5 <i>Polygonum virginianum</i>	0 FAC	Nt P-Forb	Jumpseed
POPDEL	1 <i>Populus deltoides</i>	-1 FAC+	Nt Tree	Cottonwood
PRUVUL	0 <i>Prunella vulgaris var. lanceolata</i>	0 FAC	Nt P-Forb	Self heal
ROSMUL	0 <i>ROSA MULTIFLORA</i>	3 FACU	Ad Shrub	Multiflora rose
RUBOCC	1 <i>Rubus occidentalis</i>	5 UPL	Nt Shrub	Black raspberry
SCRMAR	4 <i>Scrophularia marilandica</i>	4 FACU-	Nt P-Forb	Late figwort
SOLGIG	3 <i>Solidago gigantea</i>	-3 FACW	Nt P-Forb	Smooth goldenrod
SPIPOL	6 <i>Spirodela polyrhiza</i>	-5 OBL	Nt A-Forb	Greater duckweed
SYMORB	0 <i>Symphoricarpos orbiculatus</i>	3 FACU	Nt Shrub	Coralberry
TAROFF	0 <i>TARAXACUM OFFICINALE</i>	3 FACU	Ad P-Forb	Common dandelion
TRIREF	0 <i>TRIFOLIUM REPENS</i>	2 FACU+	Ad P-Forb	White clover
URTDIO	0 <i>Urtica dioica</i>	-1 FAC+	Nt P-Forb	Stinging nettle
VERSTR	1 <i>Verbena stricta</i>	5 UPL	Nt P-Forb	Hoary vervain
VERURT	2 <i>Verbena urticifolia</i>	-1 FAC+	Nt P-Forb	White vervain
VIOSOR	1 <i>Viola sororia</i>	1 FAC-	Nt P-Forb	Hairy blue violet

Hohneke Valley Pasture

36.7 acres; Pasture; Map #84

Notes: The adventive species, *Ampelamus albidus*, is here, but not in the Iowa data base.

FLORISTIC QUALITY DATA		Native		Adventive			
50	NATIVE SPECIES	Tree	8	11.4%	Tree	2	2.9%
70	Total Species	Shrub	5	7.1%	Shrub	0	0.0%
2.2	NATIVE MEAN C	W-Vine	5	7.1%	W-Vine	0	0.0%
1.6	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
15.6	NATIVE FQI	P-Forb	17	24.3%	P-Forb	3	4.3%
13.1	W/Adventives	B-Forb	1	1.4%	B-Forb	5	7.1%
2.1	NATIVE MEAN W	A-Forb	8	11.4%	A-Forb	1	1.4%
2.2	W/Adventives	P-Grass	4	5.7%	P-Grass	5	7.1%
AVG: Fac. Upland (+)		A-Grass	0	0.0%	A-Grass	4	5.7%
		P-Sedge	2	2.9%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACARHO	6 <i>Acalypha rhomboidea</i>	3 FACU	Nt A-Forb	Three-seeded mercury
AILALT	0 <i>AILANTHUS ALTISSIMA</i>	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 <i>ALLIARIA PETIOLATA</i>	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 <i>Ambrosia artemisiifolia</i>	3 FACU	Nt A-Forb	Common ragweed
ARCMIN	0 <i>ARCTIUM MINUS</i>	5 UPL	Ad B-Forb	Common burdock
BARVUL	0 <i>BARBAREA VULGARIS</i>	0 FAC	Ad B-Forb	Yellow rocket
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CANSAT	0 <i>CANNABIS SATIVA</i>	0 FAC	Ad A-Forb	Hemp
CARNUT	0 <i>CARDUUS NUTANS</i>	5 UPL	Ad B-Forb	Musk thistle
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CXROSE	7 <i>Carex rosea</i>	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CARCOR	5 <i>Carya cordiformis</i>	0 FAC	Nt Tree	Bitternut hickory
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
CONCAN	0 <i>Conyza canadensis</i>	1 FAC-	Nt A-Forb	Horseweed
DACGLO	0 <i>DACTYLIS GLOMERATA</i>	3 FACU	Ad P-Grass	Orchard grass
DIGISC	0 <i>DIGITARIA ISCHAEMUM</i>	3 FACU	Ad A-Grass	Smooth crab grass
ELYVIL	5 <i>Elymus villosus</i>	3 FACU	Nt P-Grass	Slender wild rye
ERACIL	0 <i>ERAGROSTIS CILIANENSIS</i>	3 FACU	Ad A-Grass	Stink grass
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
EUPMAA	0 <i>Euphorbia maculata</i>	4 FACU-	Nt A-Forb	Carpet spurge
EUPMAR	0 <i>Euphorbia marginata</i>	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 <i>Euphorbia nutans</i>	3 FACU	Nt A-Forb	Nodding spurge
FESARU	0 <i>FESTUCA ARUNDINACEA</i>	2 FACU+	Ad P-Grass	Tall fescue
FESOBT	7 <i>Festuca obtusa</i>	2 FACU+	Nt P-Grass	Nodding fescue
GALCIR	6 <i>Galium circaezans</i>	4 FACU-	Nt P-Forb	Wild licorice
GEUCAN	2 <i>Geum canadense</i>	0 FAC	Nt P-Forb	White avens
GLETRI	0 <i>Gleditsia triacanthos</i>	0 FAC	Nt Tree	Honey locust
HACVIR	0 <i>Hackelia virginiana</i>	1 FAC-	Nt P-Forb	Stickseed
HYDVIR	3 <i>Hydrophyllum virginianum</i>	-2 FACW-	Nt P-Forb	Virginia waterleaf
JUGNIG	4 <i>Juglans nigra</i>	3 FACU	Nt Tree	Black walnut
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LEOCAR	0 <i>LEONURUS CARDIACA</i>	5 UPL	Ad P-Forb	Motherwort
LOBINF	2 <i>Lobelia inflata</i>	4 FACU-	Nt A-Forb	Indian tobacco
MENCAN	5 <i>Menispermum canadense</i>	-1 FAC+	Nt W-Vine	Moonseed
MORALB	0 <i>MORUS ALBA</i>	0 FAC	Ad Tree	White mulberry
MUHSCH	1 <i>Muhlenbergia schreberi</i>	0 FAC	Nt P-Grass	Nimblewill
NEPCAT	0 <i>NEPETA CATARIA</i>	1 FAC-	Ad P-Forb	Catnip
OSTVIR	5 <i>Ostrya virginiana</i>	4 FACU-	Nt Tree	Hop hornbeam
OXADIL	0 <i>Oxalis dillenii</i>	5 UPL	Nt P-Forb	Common wood sorrel
PARVIT	1 <i>Parthenocissus vitacea</i>	3 FACU	Nt W-Vine	Thicket creeper
PHLPRA	0 <i>PHLEUM PRATENSE</i>	3 FACU	Ad P-Grass	Timothy
PHRLEP	4 <i>Phryma leptostachya</i>	5 UPL	Nt P-Forb	Lopseed
PLARUG	0 <i>Plantago rugelii</i>	0 FAC	Nt A-Forb	Red-stalked plantain
POAPRA	0 <i>POA PRATENSIS</i>	1 FAC-	Ad P-Grass	Kentucky blue grass
QUEMAC	4 <i>Quercus macrocarpa</i>	1 FAC-	Nt Tree	Bur oak
RIBMIS	3 <i>Ribes missouriense</i>	5 UPL	Nt Shrub	Wild gooseberry
SAMCAN	1 <i>Sambucus canadensis</i>	4 FACU-	Nt Shrub	Elderberry
SANCAS	6 <i>Sanicula canadensis</i>	2 FACU+	Nt B-Forb	Black snakeroot
SCRMAR	4 <i>Scrophularia marilandica</i>	4 FACU-	Nt P-Forb	Late figwort
SETGLA	0 <i>SETARIA GLAUCA</i>	0 FAC	Ad A-Grass	Yellow foxtail
SETVIR	0 <i>SETARIA VIRIDIS</i>	5 UPL	Ad A-Grass	Green foxtail
SMIHIS	4 <i>Smilax hispida</i>	0 FAC	Nt W-Vine	Greenbrier
SOLCAR	0 <i>Solanum carolinense</i>	4 FACU-	Nt P-Forb	Horse nettle
SOLALT	0 <i>Solidago altissima</i>	3 FACU	Nt P-Forb	Tall goldenrod
SYMOC	0 <i>Symphoricarpos occidentalis</i>	5 UPL	Nt Shrub	Wolfberry

SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt P-Forb	Germander
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt W-Vine	Poison ivy
TRIFLA	0	Tridens flavus	5	UPL	Nt P-Grass	Purple top
TRIREF	0	TRIFOLIUM REPENS	2	FACU+	Ad P-Forb	White clover
ULMAME	2	Ulmus americana	-2	FACW-	Nt Tree	American elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt P-Forb	Stinging nettle
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt P-Forb	Baldwin's ironweed
VIOSOR	1	Viola sororia	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt W-Vine	Riverbank grape
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt Shrub	Prickly ash

Juniper Ridge

12.1 acres; Loess Prairie; Map #40

Notes: The following conservative insects were collected here: *Atheas mimeticus*, *Bombus fraternus*, *Longitarsus subrufus*, *Meligethes saevus*, *Neivamyrmex opacithorax*, and *Saxinus omogera*.

FLORISTIC QUALITY DATA		Native		Adventive			
107	NATIVE SPECIES	Tree	2	1.6%	Tree	2	1.6%
124	Total Species	Shrub	9	7.3%	Shrub	0	0.0%
4.2	NATIVE MEAN C	W-Vine	3	2.4%	W-Vine	0	0.0%
3.6	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
43.2	NATIVE FQI	P-Forb	60	48.4%	P-Forb	2	1.6%
40.1	W/Adventives	B-Forb	1	0.8%	B-Forb	3	2.4%
3.6	NATIVE MEAN W	A-Forb	11	8.9%	A-Forb	7	5.6%
3.5	W/Adventives	P-Grass	13	10.5%	P-Grass	2	1.6%
AVG: Fac. Upland (-)		A-Grass	0	0.0%	A-Grass	1	0.8%
		P-Sedge	7	5.6%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	0.8%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACHMIL	0 Achillea millefolium ssp. lanulosa	3 FACU	Nt P-Forb	Western yarrow
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
APOSIB	1 Apocynum sibiricum	-1 FAC+	Nt P-Forb	Indian hemp
ARAHIR	8 Arabis hirsuta	5 UPL	Nt B-Forb	Hairy rock cress
ARTLUD	2 Artemisia ludoviciana	5 UPL	Nt P-Forb	White sage
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 Aster oblongifolius	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
ASTCRA	9 Astragalus crassicaarpus	5 UPL	Nt P-Forb	Ground plum
ASTLOT	10 Astragalus lotiflorus	5 UPL	Nt P-Forb	Lotus milk vetch
ASTMIS	8 Astragalus missouriensis	5 UPL	Nt P-Forb	Missouri milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BOUHIR	7 Bouteloua hirsuta	5 UPL	Nt P-Grass	Hairy grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
BROJAP	0 BROMUS JAPONICUS	3 FACU	Ad A-Grass	Japanese chess
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian plaitain
CALSER	9 Calylophus serrulatus	5 UPL	Nt Shrub	Toothed evening primrose
CALSEP	0 Calystegia sepium	0 FAC	Nt P-Forb	Hedge bindweed
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CAPBUR	0 CAPSELLA BURSA-PASTORIS	1 FAC-	Ad A-Forb	Shepherd's purse
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXGRIS	4 Carex grisea	5 UPL	Nt P-Sedge	Gray sedge
CXMEAD	9 Carex meadii	0 FAC	Nt P-Sedge	Mead's stiff sedge
CXMUHM	5 Carex muhlenbergii	5 UPL	Nt P-Sedge	Sand bracted sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRUND	10 Cirsium undulatum	1 FAC-	Nt P-Forb	Wavy-leaved thistle
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESPIB	1 Descurainia pinnata var. brachycarpa	5 UPL	Nt A-Forb	Tansy mustard
DESSOP	0 DESCURAINIA SOPHIA	5 UPL	Ad A-Forb	Flixweed
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DESILE	5 Desmodium illinoense	5 UPL	Nt P-Forb	Illinois tick trefoil
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
EQUJAE	6 Equisetum laevigatum	-3 FACW	Nt Fern	Smooth scouring rush
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane

EUPALT	2	<i>Eupatorium altissimum</i>	3	FACU	Nt P-Forb	Tall boneset
EUPRUG	2	<i>Eupatorium rugosum</i>	3	FACU	Nt P-Forb	White snakeroot
EUPDEN	0	<i>Euphorbia dentata</i>	5	UPL	Nt A-Forb	Toothed spurge
EUPMAR	0	<i>Euphorbia marginata</i>	3	FACU	Nt A-Forb	Snow-on-the-mountain
EUPSPA	5	<i>Euphorbia spathulata</i>	5	UPL	Nt A-Forb	Spatula spurge
FRAPEL	1	<i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3	FACW	Nt Tree	Green ash
GAUCOC	7	<i>Gaura coccinea</i>	5	UPL	Nt P-Forb	Scarlet gaura
GRISPU	0	<i>Grindelia squarrosa</i>	3	FACU	Nt A-Forb	Gum plant
HACVIR	0	<i>Hackelia virginiana</i>	1	FAC-	Nt P-Forb	Stickseed
HEDHIS	2	<i>Hedeoma hispidum</i>	5	UPL	Nt A-Forb	Rough pennyroyal
JUNVIR	1	<i>Juniperus virginiana</i>	3	FACU	Nt Tree	Red cedar
KOEMAC	7	<i>Koeleria macrantha</i>	5	UPL	Nt P-Grass	June grass
LEPDEN	0	<i>Lepidium densiflorum</i>	0	FAC	Nt A-Forb	Pepper cress
LESCAP	3	<i>Lespedeza capitata</i>	3	FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8	<i>Liatris punctata</i>	5	UPL	Nt P-Forb	Dotted blazing star
LINRIG	7	<i>Linum rigidum</i>	5	UPL	Nt P-Forb	Stiff flax
LINSUL	7	<i>Linum sulcatum</i>	5	UPL	Nt P-Forb	Grooved yellow flax
LITINC	5	<i>Lithospermum incisum</i>	5	UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7	<i>Lygodesmia juncea</i>	5	UPL	Nt P-Forb	Skeletonweed
MEDLUP	0	<i>MEDICAGO LUPULINA</i>	1	FAC-	Ad A-Forb	Black medick
MELALB	0	<i>MELILOTUS ALBA</i>	3	FACU	Ad B-Forb	White sweet clover
MELOFC	0	<i>MELILOTUS OFFICINALIS</i>	3	FACU	Ad B-Forb	Yellow sweet clover
MONFIS	2	<i>Monarda fistulosa</i>	3	FACU	Nt P-Forb	Wild bergamot
MORALB	0	<i>MORUS ALBA</i>	0	FAC	Ad Tree	White mulberry
MUHCUS	10	<i>Muhlenbergia cuspidata</i>	5	UPL	Nt P-Grass	Prairie satin grass
NEPCAT	0	<i>NEPETA CATARIA</i>	1	FAC-	Ad P-Forb	Catnip
ONOMO	4	<i>Onosmodium molle</i> ssp. <i>occidentale</i>	5	UPL	Nt P-Forb	False gromwell
OXAVID	7	<i>Oxalis violacea</i>	5	UPL	Nt P-Forb	Violet wood sorrel
OXYLAM	8	<i>Oxytropis lambertii</i>	4	FACU-	Nt P-Forb	Locoweed
PANOLS	5	<i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3	FACU	Nt P-Grass	Scribner's panic grass
PANWIL	7	<i>Panicum wilcoxianum</i>	5	UPL	Nt P-Grass	Wilcox's panic grass
PEDARG	5	<i>Pedimelum argophyllum</i>	5	UPL	Nt P-Forb	Silvery scurfy pea
PEDESC	8	<i>Pedimelum esculentum</i>	5	UPL	Nt P-Forb	Prairie turnip
PENGRN	5	<i>Penstemon grandiflorus</i>	5	UPL	Nt P-Forb	Large-flowered beard tongue
PHYLON	0	<i>Physalis longifolia</i>	5	UPL	Nt P-Forb	Tall ground cherry
PHYVIG	4	<i>Physalis virginiana</i>	5	UPL	Nt P-Forb	Ground cherry
PLAPAT	2	<i>Plantago patagonica</i>	5	UPL	Nt A-Forb	Woolly plantain
POAPRA	0	<i>POA PRATENSIS</i>	1	FAC-	Ad P-Grass	Kentucky blue grass
RATCOL	4	<i>Ratibida columnifera</i>	5	UPL	Nt P-Forb	Long-headed coneflower
RHUGLA	0	<i>Rhus glabra</i>	5	UPL	Nt Shrub	Smooth sumac
RIBMIS	3	<i>Ribes missouriense</i>	5	UPL	Nt Shrub	Wild gooseberry
ROSARS	4	<i>Rosa arkansana</i> var. <i>suffulta</i>	5	UPL	Nt Shrub	Sunshine rose
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt P-Grass	Little bluestem
SENPLA	3	<i>Senecio plattensis</i>	4	FACU-	Nt P-Forb	Prairie ragwort
SISLOE	0	<i>SISYMBRIUM LOESELII</i>	5	UPL	Ad A-Forb	Tall hedge mustard
SISCAM	4	<i>Sisyrinchium campestre</i>	5	UPL	Nt P-Forb	Prairie blue-eyed grass
SOLCAR	0	<i>Solanum carolinense</i>	4	FACU-	Nt P-Forb	Horse nettle
SOLROS	0	<i>SOLANUM ROSTRATUM</i>	5	UPL	Ad A-Forb	Buffalo bur
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt P-Forb	Tall goldenrod
SOLMIS	5	<i>Solidago missouriensis</i>	5	UPL	Nt P-Forb	Missouri goldenrod
SOLNEM	4	<i>Solidago nemoralis</i>	5	UPL	Nt P-Forb	Field goldenrod
SOLRIG	4	<i>Solidago rigida</i>	4	FACU-	Nt P-Forb	Stiff goldenrod
SOLSPE	7	<i>Solidago speciosa</i>	5	UPL	Nt P-Forb	Showy goldenrod
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt P-Grass	Indian grass
SPOASP	3	<i>Sporobolus asper</i>	5	UPL	Nt P-Grass	Rough dropseed
STISPA	6	<i>Stipa spartea</i>	5	UPL	Nt P-Grass	Porcupine grass
SYMOCC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt Shrub	Coralberry
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt P-Forb	Germander
THYPAS	0	<i>THYMELAEA PASSERINA</i>	5	UPL	Ad A-Forb	Sparrow weed
TOXRAD	0	<i>Toxicodendron radicans</i>	-1	FAC+	Nt W-Vine	Poison ivy
TRIFLA	0	<i>Tridens flavus</i>	5	UPL	Nt P-Grass	Purple top
TRIPRA	0	<i>TRIFOLIUM PRATENSE</i>	2	FACU+	Ad P-Forb	Red clover
ULMPUM	0	<i>ULMUS PUMILA</i>	5	UPL	Ad Tree	Siberian elm
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt P-Forb	Hoary vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt P-Forb	Baldwin's ironweed
VIOPEF	8	<i>Viola pedatifida</i>	4	FACU-	Nt P-Forb	Prairie violet
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt W-Vine	Riverbank grape
ZANAME	3	<i>Zanthoxylum americanum</i>	5	UPL	Nt Shrub	Prickly ash

Leisure Ridge

9.7 acres; Timber; Map #33

FLORISTIC QUALITY DATA		Native		Adventive			
69	NATIVE SPECIES	Tree	9	12.3%	Tree	1	1.4%
73	Total Species	Shrub	8	11.0%	Shrub	0	0.0%
3.7	NATIVE MEAN C	W-Vine	7	9.6%	W-Vine	0	0.0%
3.5	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
30.6	NATIVE FQI	P-Forb	24	32.9%	P-Forb	1	1.4%
29.7	W/Adventives	B-Forb	1	1.4%	B-Forb	1	1.4%
2.0	NATIVE MEAN W	A-Forb	7	9.6%	A-Forb	1	1.4%
1.9	W/Adventives	P-Grass	6	8.2%	P-Grass	0	0.0%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	5	6.8%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	2	2.7%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ADIPEP	7 Adiantum pedatum	1 FAC-	Nt Fern	Northern maidenhair fern
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXGRIS	4 Carex grisea	5 UPL	Nt P-Sedge	Gray sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXSPRE	4 Carex sprengei	0 FAC	Nt P-Sedge	Long-beaked sedge
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CHESTA	6 Chenopodium standleyanum	5 UPL	Nt A-Forb	Woodland goosefoot
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CYSPRO	6 Cystopteris protrusa	4 FACU-	Nt Fern	Creeping fragile fern
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPPUR	6 Eupatorium purpureum	0 FAC	Nt P-Forb	Purple Joe Pye weed
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALCIR	6 Galium circaeazans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HYSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LEEVIR	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
LONDIG	10 Lonicera dioica var. glaucescens	5 UPL	Nt W-Vine	Wild honeysuckle
MENCAN	5 Menispermum canadense	-1 FAC+	Nt W-Vine	Moonseed
MONUNI	7 Monotropa uniflora	3 FACU	Nt P-Forb	Indian pipe
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
MUHTEN	7 Muhlenbergia tenuiflora	5 UPL	Nt P-Grass	Slender satin grass
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
OSMLON	5 Osmorhiza longistylis	4 FACU-	Nt P-Forb	Smooth sweet cicely
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
PILPUM	3 Pilea pumila	-3 FACW	Nt A-Forb	Common clearweed
PLARUG	0 Plantago rugelii	0 FAC	Nt A-Forb	Red-stalked plantain
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
PRUVIR	2 Prunus virginiana	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry

SANCAN	7	<i>Sanguinaria canadensis</i>	4	FACU-	Nt P-Forb	Bloodroot
SANCAS	6	<i>Sanicula canadensis</i>	2	FACU+	Nt B-Forb	Black snakeroot
SCRMAR	4	<i>Scrophularia marilandica</i>	4	FACU-	Nt P-Forb	Late figwort
SMIECI	6	<i>Smilax ecirrhata</i>	5	UPL	Nt P-Forb	Upright carrion flower
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt W-Vine	Greenbrier
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt Shrub	Coralberry
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt P-Forb	Germander
TOXRAD	0	<i>Toxicodendron radicans</i>	-1	FAC+	Nt W-Vine	Poison ivy
URTDIO	0	<i>Urtica dioica</i>	-1	FAC+	Nt P-Forb	Stinging nettle
VERURT	2	<i>Verbena urticifolia</i>	-1	FAC+	Nt P-Forb	White vervain
VIOPUP	5	<i>Viola pubescens</i>	4	FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1	<i>Viola sororia</i>	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt W-Vine	Riverbank grape
ZANAME	3	<i>Zanthoxylum americanum</i>	5	UPL	Nt Shrub	Prickly ash

Lindsey's Ridge

9.3 acres; Timber; Map #24

FLORISTIC QUALITY DATA		Native		Adventive			
39	NATIVE SPECIES	Tree	7	17.5%	Tree	0	0.0%
40	Total Species	Shrub	5	12.5%	Shrub	0	0.0%
3.5	NATIVE MEAN C	W-Vine	5	12.5%	W-Vine	0	0.0%
3.4	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
21.6	NATIVE FQI	P-Forb	15	37.5%	P-Forb	0	0.0%
21.3	W/Adventives	B-Forb	0	0.0%	B-Forb	1	2.5%
1.5	NATIVE MEAN W	A-Forb	2	5.0%	A-Forb	0	0.0%
1.5	W/Adventives	P-Grass	2	5.0%	P-Grass	0	0.0%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	3	7.5%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXSPRE	4 Carex sprengelii	0 FAC	Nt P-Sedge	Long-beaked sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DICCUC	7 Dicentra cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
ELLNVC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FRAPEP	3 Fraxinus pennsylvanica	-3 FACW	Nt Tree	Red ash
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaeazans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
MENCAN	5 Menispermum canadense	-1 FAC+	Nt W-Vine	Moonseed
OSMCLI	3 Osmorhiza claytonii	4 FACU-	Nt P-Forb	Hairy sweet cicely
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PHLDIV	5 Phlox divaricata	3 FACU	Nt P-Forb	Woodland phlox
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
PRUVIR	2 Prunus virginiana	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
SILSTE	4 Silene stellata	5 UPL	Nt P-Forb	Starry campion
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLRIG	4 Solidago rigida	4 FACU-	Nt P-Forb	Stiff goldenrod
STATRI	7 Staphylea trifolia	0 FAC	Nt Shrub	Bladdernut
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
TILAME	5 Tilia americana	3 FACU	Nt Tree	Basswood
TOXRAD	0 Toxicodendron radicans	-1 FAC+	Nt W-Vine	Poison ivy
VIOPOP	5 Viola pubescens	4 FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1 Viola sororia	1 FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape
ZANAME	3 Zanthoxylum americanum	5 UPL	Nt Shrub	Prickly ash

Lodge Landscape

1.0 acre; Reconstruction; Map #55

Notes: *Physalis angulata*, and introduced species, is occasional, but not in Iowa data base; also adventive here is *Ampelamus albidus*, not in the Iowa data base.

FLORISTIC QUALITY DATA		Native		Adventive			
89	NATIVE SPECIES	Tree	9	7.0%	Tree	2	1.6%
128	Total Species	Shrub	6	4.7%	Shrub	0	0.0%
2.7	NATIVE MEAN C	W-Vine	4	3.1%	W-Vine	0	0.0%
1.9	W/Adventives	H-Vine	1	0.8%	H-Vine	0	0.0%
25.2	NATIVE FQI	P-Forb	32	25.0%	P-Forb	6	4.7%
21.0	W/Adventives	B-Forb	1	0.8%	B-Forb	8	6.3%
2.2	NATIVE MEAN W	A-Forb	20	15.6%	A-Forb	12	9.4%
2.3	W/Adventives	P-Grass	14	10.9%	P-Grass	4	3.1%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	7	5.5%
		P-Sedge	2	1.6%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
ACARHO	6 Acalypha rhomboidea	3 FACU	Nt A-Forb	Three-seeded mercury
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
AILALT	0 AILANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBTRI	0 Ambrosia trifida	-1 FAC+	Nt A-Forb	Giant ragweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANEVIR	4 Anemone virginiana	5 UPL	Nt P-Forb	Tall anemone
APOSIB	1 Apocynum sibiricum	-1 FAC+	Nt P-Forb	Indian hemp
ARCMIN	0 ARCTIUM MINUS	5 UPL	Ad B-Forb	Common burdock
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTPIL	0 Aster pilosus	4 FACU-	Nt P-Forb	Hairy aster
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
BUCDAC	7 Buchloe dactyloides	4 FACU-	Nt P-Grass	Buffalo grass
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CAPBUR	0 CAPSELLA BURSA-PASTORIS	1 FAC-	Ad A-Forb	Shepherd's purse
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHESTA	6 Chenopodium standleyanum	5 UPL	Nt A-Forb	Woodland goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRVUL	0 CIRSIUM VULGARE	4 FACU-	Ad B-Forb	Bull thistle
COMCOM	0 COMMELINA COMMUNIS	0 FAC	Ad A-Forb	Common day flower
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CORVAR	0 CORONILLA VARIA	5 UPL	Ad P-Forb	Crown vetch
DACGLV	0 DACTYLIS GLOMERATA	3 FACU	Ad P-Grass	Orchard grass
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESPIB	1 Descurainia pinnata var. brachycarpa	5 UPL	Nt A-Forb	Tansy mustard
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DIGISC	0 DIGITARIA ISCHAEMUM	3 FACU	Ad A-Grass	Smooth crab grass
DIGSAN	0 DIGITARIA SANGUINALIS	3 FACU	Ad A-Grass	Common crab grass
ECHCRU	0 ECHINOCHLOA CRUSGALLI	-3 FACW	Ad A-Grass	Barnyard grass
ELLNVC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
ERIPHI	2 Erigeron philadelphicus	-3 FACW	Nt P-Forb	Fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCYA	0 EUPHORBIA CYATHOPHORA	5 UPL	Ad A-Forb	Wild poinsettia
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAA	0 Euphorbia maculata	4 FACU-	Nt A-Forb	Carpet spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 Euphorbia nutans	3 FACU	Nt A-Forb	Nodding spurge
FESARU	0 FESTUCA ARUNDINACEA	2 FACU+	Ad P-Grass	Tall fescue

FESOBT	7	<i>Festuca obtusa</i>	2	FACU+	Nt	P-Grass	Nodding fescue
FRAPEL	1	<i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3	FACW	Nt	Tree	Green ash
GALAPA	1	<i>Galium aparine</i>	3	FACU	Nt	A-Forb	Cleavers
GALTRO	7	<i>Galium triflorum</i>	2	FACU+	Nt	P-Forb	Sweet-scented bedstraw
GYMDIO	5	<i>Gymnocladus dioica</i>	5	UPL	Nt	Tree	Kentucky coffee tree
HELHIR	5	<i>Helianthus hirsutus</i>	5	UPL	Nt	P-Forb	Hispid sunflower
HELHEL	4	<i>Heliopsis helianthoides</i>	5	UPL	Nt	P-Forb	False sunflower
HYPSPAT	5	<i>Hystrix patula</i>	5	UPL	Nt	P-Grass	Bottlebrush grass
KOEMAC	7	<i>Koeleria macrantha</i>	5	UPL	Nt	P-Grass	June grass
LACCAN	1	<i>Lactuca canadensis</i>	2	FACU+	Nt	B-Forb	Wild lettuce
LACSER	0	<i>LACTUCA SERRIOLA</i>	0	FAC	Ad	B-Forb	Prickly lettuce
LEEVIR	6	<i>Leersia virginica</i>	-3	FACW	Nt	P-Grass	White grass
LEPDEN	0	<i>Lepidium densiflorum</i>	0	FAC	Nt	A-Forb	Pepper cress
MEDLUP	0	<i>MEDICAGO LUPULINA</i>	1	FAC-	Ad	A-Forb	Black medick
MELALB	0	<i>MELILOTUS ALBA</i>	3	FACU	Ad	B-Forb	White sweet clover
MELOFC	0	<i>MELILOTUS OFFICINALIS</i>	3	FACU	Ad	B-Forb	Yellow sweet clover
MORALB	0	<i>MORUS ALBA</i>	0	FAC	Ad	Tree	White mulberry
MORRUB	4	<i>Morus rubra</i>	1	FAC-	Nt	Tree	Red mulberry
MUHFXO	3	<i>Muhlenbergia frondosa</i>	-3	FACW	Nt	P-Grass	Common satin grass
MUHMEX	5	<i>Muhlenbergia mexicana</i>	-3	FACW	Nt	P-Grass	Leafy satin grass
MUHSCH	1	<i>Muhlenbergia schreberi</i>	0	FAC	Nt	P-Grass	Nimblewill
NEPCAT	0	<i>NEPETA CATARIA</i>	1	FAC-	Ad	P-Forb	Catnip
OSTVIR	5	<i>Ostrya virginiana</i>	4	FACU-	Nt	Tree	Hop hornbeam
OXASTR	0	<i>Oxalis stricta</i>	3	FACU	Nt	P-Forb	Tall wood sorrel
PARPEN	3	<i>Parietaria pensylvanica</i>	3	FACU	Nt	A-Forb	Pellitory
PARQUI	2	<i>Parthenocissus quinquefolia</i>	1	FAC-	Nt	W-Vine	Virginia creeper
PHRLEP	4	<i>Phryma leptostachya</i>	5	UPL	Nt	P-Forb	Lopseed
PHYHET	2	<i>Physalis heterophylla</i>	5	UPL	Nt	P-Forb	Ground cherry
PILPUM	3	<i>Pilea pumila</i>	-3	FACW	Nt	A-Forb	Common clearweed
PLAMAJ	0	<i>PLANTAGO MAJOR</i>	-1	FAC+	Ad	P-Forb	Common plantain
PLARUG	0	<i>Plantago rugelii</i>	0	FAC	Nt	A-Forb	Red-stalked plantain
POAANN	0	<i>POA ANNUA</i>	1	FAC-	Ad	A-Grass	Annual blue grass
POAPRA	0	<i>POA PRATENSIS</i>	1	FAC-	Ad	P-Grass	Kentucky blue grass
POLBIF	4	<i>Polygonatum biflorum</i>	3	FACU	Nt	P-Forb	Solomon's seal
POPDEL	1	<i>Populus deltoides</i>	-1	FAC+	Nt	Tree	Cottonwood
QUEMAC	4	<i>Quercus macrocarpa</i>	1	FAC-	Nt	Tree	Bur oak
RHUGLA	0	<i>Rhus glabra</i>	5	UPL	Nt	Shrub	Smooth sumac
RUBOCC	1	<i>Rubus occidentalis</i>	5	UPL	Nt	Shrub	Black raspberry
RUDHIR	2	<i>Rudbeckia hirta</i>	3	FACU	Nt	P-Forb	Black-eyed Susan
RUMPAT	0	<i>RUMEX PATIENTIA</i>	5	UPL	Ad	P-Forb	Patience dock
SAMCAN	1	<i>Sambucus canadensis</i>	4	FACU-	Nt	Shrub	Elderberry
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt	P-Grass	Little bluestem
SCRMAR	4	<i>Scrophularia marilandica</i>	4	FACU-	Nt	P-Forb	Late figwort
SETFAB	0	<i>SETARIA FABERII</i>	2	FACU+	Ad	A-Grass	Giant foxtail
SETGLA	0	<i>SETARIA GLAUCA</i>	0	FAC	Ad	A-Grass	Yellow foxtail
SETVIR	0	<i>SETARIA VIRIDIS</i>	5	UPL	Ad	A-Grass	Green foxtail
SICANG	2	<i>Sicyos angulatus</i>	-2	FACW-	Nt	H-Vine	Bur cucumber
SISLOE	0	<i>SISYMBRIUM LOESELII</i>	5	UPL	Ad	A-Forb	Tall hedge mustard
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt	W-Vine	Greenbrier
SOLAME	0	<i>Solanum americanum</i>	4	FACU-	Nt	A-Forb	Black nightshade
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLRIG	4	<i>Solidago rigida</i>	4	FACU-	Nt	P-Forb	Stiff goldenrod
SONOLE	0	<i>SONCHUS OLERACEUS</i>	3	FACU	Ad	A-Forb	Store-front sow thistle
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt	P-Grass	Indian grass
SYMOC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	<i>TARAXACUM OFFICINALE</i>	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt	P-Forb	Germander
THLARV	0	<i>THLASPI ARVENSE</i>	5	UPL	Ad	A-Forb	Penny cress
TRAOHI	4	<i>Tradescantia hiensis</i>	2	FACU+	Nt	P-Forb	Common spiderwort
TRIREP	0	<i>TRIFOLIUM REPENS</i>	2	FACU+	Ad	P-Forb	White clover
ULMAME	2	<i>Ulmus americana</i>	-2	FACW-	Nt	Tree	American elm
ULMRUB	2	<i>Ulmus rubra</i>	0	FAC	Nt	Tree	Slippery elm
URTDIO	0	<i>Urtica dioica</i>	-1	FAC+	Nt	P-Forb	Stinging nettle
VERTHA	0	<i>VERBASCUM THAPSUS</i>	5	UPL	Ad	B-Forb	Common mullein
VERBRA	0	<i>Verbena bracteata</i>	3	FACU	Nt	A-Forb	Creeping vervain
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	<i>Verbena urticifolia</i>	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
VERARV	0	<i>VERONICA ARVENSIS</i>	5	UPL	Ad	A-Forb	Corn speedwell
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt	W-Vine	Riverbank grape
XANSTR	0	<i>XANTHIUM STRUMARIUM</i>	0	FAC	Ad	A-Forb	Cocklebur
ZIZAUR	6	<i>Zizia aurea</i>	-1	FAC+	Nt	P-Forb	Golden alexanders

Lodge Parking Thicket

1.4 acres; Thicket; Map #78

FLORISTIC QUALITY DATA		Native		Adventive			
44	NATIVE SPECIES	Tree	10	78.6%	Tree	12	21.4%
56	Total Species	Shrub	4	7.1%	Shrub	0	0.0%
2.9	NATIVE MEAN C	W-Vine	2	3.6%	W-Vine	0	0.0%
2.3	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
19.0	NATIVE FQI	P-Forb	18	32.1%	P-Forb	2	3.6%
16.8	W/Adventives	B-Forb	4	7.1%	B-Forb	3	5.4%
2.3	NATIVE MEAN W	A-Forb	3	5.4%	A-Forb	1	1.8%
2.4	W/Adventives	P-Grass	3	5.4%	P-Grass	2	3.6%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	2	3.6%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLALT	0 ALLANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
ANEVIR	4 Anemone virginiana	5 UPL	Nt P-Forb	Tall anemone
APOCAN	1 Apocynum cannabinum	0 FAC	Nt P-Forb	Indian hemp
ARCMIN	0 ARCTIUM MINUS	5 UPL	Ad B-Forb	Common burdock
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPSPA	5 Euphorbia spathulata	5 UPL	Nt A-Forb	Spatula spurge
FESARU	0 FESTUCA ARUNDINACEA	2 FACU+	Ad P-Grass	Tall fescue
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELPEP	0 HELIANTHUS PETIOLARIS	5 UPL	Ad A-Forb	Petioled sunflower
HYSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LACFLO	4 Lactuca floridana	1 FAC-	Nt B-Forb	Blue lettuce
LACTAP	2 Lactuca tatarica ssp. pulchella	5 UPL	Nt P-Forb	Showy blue lettuce
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LEOCAR	0 LEONURUS CARDIACA	5 UPL	Ad P-Forb	Motherwort
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
OENBIE	0 Oenothera biennis	3 FACU	Nt B-Forb	Common evening primrose
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SETGLA	0 SETARIA GLAUCA	0 FAC	Ad A-Grass	Yellow foxtail
SETVIR	0 SETARIA VIRIDIS	5 UPL	Ad A-Grass	Green foxtail
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0 Solidago canadensis	3 FACU	Nt P-Forb	Tall goldenrod
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
TRIPEM	4 Triosteum perfoliatum	5 UPL	Nt P-Forb	Late horse gentian
ULMAME	2 Ulmus americana	-2 FACW-	Nt Tree	American elm
ULMRUB	2 Ulmus rubra	0 FAC	Nt Tree	Slippery elm
VERURT	2 Verbena urticifolia	-1 FAC+	Nt P-Forb	White vervain
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape
ZANAME	3 Zanthoxylum americanum	5 UPL	Nt Shrub	Prickly ash

Lodge Prairie

0.2 acre; Loess Prairie; Map #54

Notes: Some of the native prairie species may have been planted here.

FLORISTIC QUALITY DATA		Native		Adventive			
61	NATIVE SPECIES	Tree	3	4.6%	Tree	0	0.0%
65	Total Species	Shrub	7	10.8%	Shrub	0	0.0%
3.4	NATIVE MEAN C	W-Vine	3	4.6%	W-Vine	0	0.0%
3.2	W/Adventives	H-Vine	1	1.5%	H-Vine	0	0.0%
26.4	NATIVE FQI	P-Forb	31	47.7%	P-Forb	2	3.1%
25.6	W/Adventives	B-Forb	1	1.5%	B-Forb	1	1.5%
3.2	NATIVE MEAN W	A-Forb	4	6.2%	A-Forb	1	1.5%
3.2	W/Adventives	P-Grass	8	12.3%	P-Grass	0	0.0%
AVG: Fac. Upland		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	3	4.6%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTMIS	8 Astragalus missouriensis	5 UPL	Nt P-Forb	Missouri milk vetch
BAPLAC	6 Baptisia lactea	3 FACU	Nt P-Forb	White wild indigo
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORPAL	7 Coreopsis palmata	5 UPL	Nt P-Forb	Prairie coreopsis
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CORVAR	0 CORONILLA VARIA	5 UPL	Ad P-Forb	Crown vetch
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
HUMLUP	3 Humulus lupulus	3 FACU	Nt H-Vine	Common hops
KOEMAC	7 Koeleria macrantha	5 UPL	Nt P-Grass	June grass
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
OXASTR	0 Oxalis stricta	3 FACU	Nt P-Forb	Tall wood sorrel
PANOLS	5 Panicum oligosanthes var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PARVIT	1 Parthenocissus vitacea	3 FACU	Nt W-Vine	Thicket creeper
PENGRN	5 Penstemon grandiflorus	5 UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2 Physalis heterophylla	5 UPL	Nt P-Forb	Ground cherry
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RATPIN	4 Ratibida pinnata	5 UPL	Nt P-Forb	Gray-headed coneflower
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
ROSARS	4 Rosa arkansana var. suffulta	5 UPL	Nt Shrub	Sunshine rose
RUDHIR	2 Rudbeckia hirta	3 FACU	Nt P-Forb	Black-eyed Susan
RUMPAT	0 RUMEX PATIENTIA	5 UPL	Ad P-Forb	Patience dock
SAMCAN	1 Sambucus canadensis	4 FACU-	Nt Shrub	Elderberry
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SISCAM	4 Sisyrinchium campestre	5 UPL	Nt P-Forb	Prairie blue-eyed grass
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0 Solidago canadensis	3 FACU	Nt P-Forb	Tall goldenrod
SOLMIS	5 Solidago missouriensis	5 UPL	Nt P-Forb	Missouri goldenrod
SOLNEM	4 Solidago nemoralis	5 UPL	Nt P-Forb	Field goldenrod
SOLRIG	4 Solidago rigida	4 FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SPOASP	3 Sporobolus asper	5 UPL	Nt P-Grass	Rough dropseed

STRLEI	7	<i>Strophostyles leiosperma</i>	5	UPL	Nt	A-Forb	Small wild bean
SYMOC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt	P-Forb	Germander
TRAOHI	4	<i>Tradescantia ohiensis</i>	2	FACU+	Nt	P-Forb	Common spiderwort
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt	P-Forb	Hoary vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
XANSTR	0	<i>XANTHIUM STRUMARIUM</i>	0	FAC	Ad	A-Forb	Cocklebur
ZIZAUR	6	<i>Zizia aurea</i>	-1	FAC+	Nt	P-Forb	Golden alexanders

Lost Prairie

0.2 acre; Loess Prairie; Map #18

FLORISTIC QUALITY DATA		Native		Adventive			
33	NATIVE SPECIES	Tree	2	5.9%	Tree	0	0.0%
34	Total Species	Shrub	3	8.8%	Shrub	0	0.0%
3.9	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
3.8	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
22.6	NATIVE FQI	P-Forb	20	58.8%	P-Forb	0	0.0%
22.3	W/Adventives	B-Forb	0	0.0%	B-Forb	1	2.9%
3.2	NATIVE MEAN W	A-Forb	3	8.8%	A-Forb	0	0.0%
3.2	W/Adventives	P-Grass	3	8.8%	P-Grass	0	0.0%
AVG:	Fac. Upland	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	1	2.9%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	2.9%			

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10	Agalinis aspera	5	UPL	Nt A-Forb	Rough false foxglove
ANDGER	4	Andropogon gerardii	1	FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7	Anemone cylindrica	5	UPL	Nt P-Forb	"Windflower
ASTAZU	7	Aster azureus	5	UPL	Nt P-Forb	Sky-blue aster
ASTERI	3	Aster ericoides	4	FACU-	Nt P-Forb	Heath aster
ASTCAN	4	Astragalus canadensis	-1	FAC+	Nt P-Forb	Canadian milk vetch
BRIEUP	5	Brickellia eupatorioides	5	UPL	Nt P-Forb	False boneset
CXBLAN	2	Carex blanda	0	FAC	Nt P-Sedge	Common wood sedge
CEAHER	8	Ceanothus herbaceus var. pubescens	5	UPL	Nt Shrub	Redroot
CHAFAS	1	Chamaecrista fasciculata	4	FACU-	Nt A-Forb	Partridge pea
CIRALT	4	Cirsium altissimum	5	UPL	Nt P-Forb	Tall thistle
COMUMB	6	Comandra umbellata	3	FACU	Nt P-Forb	Bastard toadflax
CORDRU	4	Cornus drummondii	0	FAC	Nt Shrub	Rough-leaved dogwood
DALPUR	8	Dalea purpurea	5	UPL	Nt P-Forb	Purple prairie clover
EQULAE	6	Equisetum laevigatum	-3	FACW	Nt Fern	Smooth scouring rush
ERISTR	2	Erigeron strigosus	1	FAC-	Nt P-Forb	Daisy fleabane
EUPCOR	3	Euphorbia corollata	5	UPL	Nt P-Forb	Flowering spurge
EUPMAR	0	Euphorbia marginata	3	FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1	Fraxinus pennsylvanica var. lanceolata	-3	FACW	Nt Tree	Green ash
HEDNIG	7	Hedyotis nigricans	5	UPL	Nt P-Forb	Narrow-leaved bluets
JUNVIR	1	Juniperus virginiana	3	FACU	Nt Tree	Red cedar
LESCAP	3	Lespedeza capitata	3	FACU	Nt P-Forb	Round-headed bush clover
LYGJUN	7	Lygodesmia juncea	5	UPL	Nt P-Forb	Skeletonweed
MELALB	0	MELILOTUS ALBA	3	FACU	Ad B-Forb	White sweet clover
MONFIS	2	Monarda fistulosa	3	FACU	Nt P-Forb	Wild bergamot
RATPIN	4	Ratibida pinnata	5	UPL	Nt P-Forb	Gray-headed coneflower
RHUGLA	0	Rhus glabra	5	UPL	Nt Shrub	Smooth sumac
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt P-Grass	Little bluestem
SOLALT	0	Solidago altissima	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt P-Forb	Tall goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt P-Forb	Field goldenrod
SOLSPE	7	Solidago speciosa	5	UPL	Nt P-Forb	Showy goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt P-Grass	Indian grass
VERSTR	1	Verbena stricta	5	UPL	Nt P-Forb	Hoary vervain

Mary & Alex Ridges 22.2 acres; Timber; Map #53

Notes: These sibling ridges are nearly the same shape; one large and one small. They represent the western slopes of the Badger Ridge prairie complex.

FLORISTIC QUALITY DATA		Native		Adventive			
83	NATIVE SPECIES	Tree	11	11.8%	Tree	2	2.2%
93	Total Species	Shrub	6	6.5%	Shrub	0	0.0%
3.6	NATIVE MEAN C	W-Vine	6	6.5%	W-Vine	0	0.0%
3.2	W/Adventives	H-Vine	1	1.1%	H-Vine	0	0.0%
32.9	NATIVE FQI	P-Forb	30	32.3%	P-Forb	1	1.1%
31.1	W/Adventives	B-Forb	1	1.1%	B-Forb	4	4.3%
2.3	NATIVE MEAN W	A-Forb	8	8.6%	A-Forb	2	2.2%
2.3	W/Adventives	P-Grass	8	8.6%	P-Grass	1	1.1%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	10	10.8%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	2	2.2%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLALT	0 AILANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
ANEVIR	4 Anemone virginiana	5 UPL	Nt P-Forb	Tall anemone
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
BOTVIR	6 Botrychium virginianum	3 FACU	Nt Fern	Rattlesnake fern
BROPUB	9 Bromus pubescens	2 FACU+	Nt P-Grass	Woodland brome
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBACK	10 Carex backii	1 FAC-	Nt P-Sedge	Northern grass sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXGRIS	4 Carex grisea	5 UPL	Nt P-Sedge	Gray sedge
CXHITC	8 Carex hitchcockiana	5 UPL	Nt P-Sedge	Hairy gray sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPAR	6 Carex sparganioides	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CXSPRE	4 Carex spengelii	0 FAC	Nt P-Sedge	Long-beaked sedge
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CYSPRO	6 Cystopteris protrusa	4 FACU-	Nt Fern	Creeping fragile fern
DESPIB	1 Descurainia pinnata var. brachycarpa	5 UPL	Nt A-Forb	Tansy mustard
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DESGLU	5 Desmodium glutinosum	5 UPL	Nt P-Forb	Pointed tick trefoil
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELHIR	5 Helianthus hirsutus	5 UPL	Nt P-Forb	Hispid sunflower
HUMLUP	3 Humulus lupulus	3 FACU	Nt H-Vine	Common hops
HYSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACSER	0 LACTUCA SERRIOLA	0 FAC	Ad B-Forb	Prickly lettuce
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LEEVIR	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MENCAN	5 Menispermum canadense	-1 FAC+	Nt W-Vine	Moonseed

MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
OSMCLI	3 Osmorhiza claytonii	4 FACU-	Nt P-Forb	Hairy sweet cicely
OSMLON	5 Osmorhiza longistylis	4 FACU-	Nt P-Forb	Smooth sweet cicely
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PANOLS	5 Panicum oligosanthes var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PARPEN	3 Parietaria pensylvanica	3 FACU	Nt A-Forb	Pellitory
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
PLARUG	0 Plantago rugelii	0 FAC	Nt A-Forb	Red-stalked plantain
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RANABO	0 Ranunculus abortivus	-4 FACW+	Nt A-Forb	Small-flowered crowfoot
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SILSTE	4 Silene stellata	5 UPL	Nt P-Forb	Starry campion
SMIECI	6 Smilax ecirrhata	5 UPL	Nt P-Forb	Upright carrion flower
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SPHOBO	8 Sphenopholis obtusata var. obtusata	0 FAC	Nt P-Grass	Prairie wedge grass
SYMOC	0 Symphoricarpos occidentalis	5 UPL	Nt Shrub	Wolfberry
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
TILAME	5 Tilia americana	3 FACU	Nt Tree	Basswood
TOXRAD	0 Toxicodendron radicans	-1 FAC+	Nt W-Vine	Poison ivy
TRADUB	0 TRAGOPOGON DUBIUS	5 UPL	Ad B-Forb	Sandy goat's beard
TRIPEM	4 Triosteum perfoliatum	5 UPL	Nt P-Forb	Late horse gentian
ULMAME	2 Ulmus americana	-2 FACW-	Nt Tree	American elm
URTDIO	0 Urtica dioica	-1 FAC+	Nt P-Forb	Stinging nettle
VERSTR	1 Verbena stricta	5 UPL	Nt P-Forb	Hoary vervain
VERBAL	2 Vernonia baldwinii	5 UPL	Nt P-Forb	Baldwin's ironweed
VIOPUP	5 Viola pubescens	4 FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1 Viola sororia	1 FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape

McKenzie Research Ridge, North

2.7 acres; Timber; Map #62

Notes: This ridge is a nice example of extant but degraded interdigitation between aboriginal timber and loess prairie. The timber lies prevailing on the north face, the prairie on the south. This area comprises units #2 & A in the Rosburg (1993) survey. It appears as though it may have been notably more open at that time. Plants shown in bold face type are known only from that original survey.

FLORISTIC QUALITY DATA		Native	98	89.1%	Adventive	12	10.9%
98	NATIVE SPECIES	Tree	11	10.0%	Tree	0	0.0%
110	Total Species	Shrub	7	6.4%	Shrub	0	0.0%
3.5	NATIVE MEAN C	W-Vine	6	5.5%	W-Vine	0	0.0%
3.1	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
34.9	NATIVE FQI	P-Forb	37	33.6%	P-Forb	2	1.8%
32.9	W/Adventives	B-Forb	3	2.7%	B-Forb	3	2.7%
2.5	NATIVE MEAN W	A-Forb	10	9.1%	A-Forb	3	2.7%
2.4	W/Adventives	P-Grass	15	13.6%	P-Grass	2	1.8%
AVG:	Fac. Upland (+)	A-Grass	1	0.9%	A-Grass	2	1.8%
		P-Sedge	8	7.3%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
APOCAN	1 Apocynum cannabinum	0 FAC	Nt P-Forb	Indian hemp
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ARACAN	7 Arabis canadensis	5 UPL	Nt B-Forb	Sickle pod
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTLOT	10 Astragalus lotiflorus	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXCEPP	5 Carex cephalophora	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXHELI	6 Carex heliophila	5 UPL	Nt P-Sedge	Western oak sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CHESTA	6 Chenopodium standleyanum	5 UPL	Nt A-Forb	Woodland goosefoot
CINARU	4 Cinna arundinacea	-3 FACW	Nt P-Grass	Wood reed
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DICCUC	7 Dicentra cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
DIGISC	0 DIGITARIA ISCHAEMUM	3 FACU	Ad A-Grass	Smooth crab grass
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
ELYVIR	3 Elymus virginicus	-2 FACW-	Nt P-Grass	Virginia wild rye
EREHIE	0 Erechites hieracifolia	3 FACU	Nt A-Forb	Fireweed
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCYA	0 EUPHORBIA CYATHOPHORA	5 UPL	Ad A-Forb	Wild poinsettia
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPSPA	5 Euphorbia spathulata	5 UPL	Nt A-Forb	Spatula spurge
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash

GALCIR	6	Galium circaezans	4	FACU-	Nt	P-Forb	Wild licorice
GALTRO	7	Galium triflorum	2	FACU+	Nt	P-Forb	Sweet-scented bedstraw
GLETRI	0	Gleditsia triacanthos	0	FAC	Nt	Tree	Honey locust
HELSTR	5	Helianthus strumosus	5	UPL	Nt	P-Forb	Pale-leaved sunflower
HYPSPAT	5	Hystrix patula	5	UPL	Nt	P-Grass	Bottlebrush grass
JUNVIR	1	Juniperus virginiana	3	FACU	Nt	Tree	Red cedar
LACCAN	1	Lactuca canadensis	2	FACU+	Nt	B-Forb	Wild lettuce
LACTAP	2	Lactuca tatarica ssp. pulchella	5	UPL	Nt	P-Forb	Showy blue lettuce
LEEVIR	6	Leersia virginica	-3	FACW	Nt	P-Grass	White grass
LITCAN	7	Lithospermum canescens	5	UPL	Nt	P-Forb	Hoary puccoon
LITINC	5	Lithospermum incisum	5	UPL	Nt	P-Forb	Fringed puccoon
LONPRO	7	Lonicera prolifera	5	UPL	Nt	W-Vine	Wild honeysuckle
MEDLUP	0	MEDICAGO LUPULINA	1	FAC-	Ad	A-Forb	Black medick
MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad	B-Forb	Yellow sweet clover
MORRUB	4	Morus rubra	1	FAC-	Nt	Tree	Red mulberry
MUHFO	3	Muhlenbergia frondosa	-3	FACW	Nt	P-Grass	Common satin grass
MUHME	5	Muhlenbergia mexicana	-3	FACW	Nt	P-Grass	Leafy satin grass
MUHRAC	4	Muhlenbergia racemosa	-3	FACW	Nt	P-Grass	Upland wild Timothy
ONOMO	4	Onosmodium molle ssp. occidentale	5	UPL	Nt	P-Forb	False gromwell
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt	Tree	Hop hornbeam
OXASTR	0	Oxalis stricta	3	FACU	Nt	P-Forb	Tall wood sorrel
PANCAP	0	Panicum capillare	0	FAC	Nt	A-Grass	Old witch grass
PANOLS	5	Panicum oligosanthos var. scribnerianum	3	FACU	Nt	P-Grass	Scribner's panic grass
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt	W-Vine	Virginia creeper
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt	P-Forb	Large-flowered beard tongue
PHRLEP	4	Phryma leptostachya	5	UPL	Nt	P-Forb	Lopseed
PHYHET	2	Physalis heterophylla	5	UPL	Nt	P-Forb	Ground cherry
PHYVIG	4	Physalis virginiana	5	UPL	Nt	P-Forb	Ground cherry
PLAMAJ	0	PLANTAGO MAJOR	-1	FAC+	Ad	P-Forb	Common plantain
PLARUG	0	Plantago rugelii	0	FAC	Nt	A-Forb	Red-stalked plantain
POACOM	0	POA COMPRESSA	2	FACU+	Ad	P-Grass	Canadian blue grass
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt	P-Forb	Solomon's seal
PRUVIR	2	Prunus virginiana	1	FAC-	Nt	Shrub	Choke cherry
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
QUERUB	6	Quercus rubra	3	FACU	Nt	Tree	Northern red oak
RANABO	0	Ranunculus abortivus	-4	FACW+	Nt	A-Forb	Small-flowered crowfoot
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
RIBMIS	3	Ribes missouriense	5	UPL	Nt	Shrub	Wild gooseberry
RUBOCC	1	Rubus occidentalis	5	UPL	Nt	Shrub	Black raspberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt	B-Forb	Black snakeroot
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SETFAB	0	SETARIA FABERII	2	FACU+	Ad	A-Grass	Giant foxtail
SMIRAC	4	Smilacina racemosa	3	FACU	Nt	P-Forb	False Solomon's seal
SMISTE	5	Smilacina stellata	1	FAC-	Nt	P-Forb	Starry false Solomon's seal
SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt	P-Forb	Tall goldenrod
SPOCRY	3	Sporobolus cryptandrus	4	FACU-	Nt	P-Grass	Sand dropseed
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
TILAME	5	Tilia americana	3	FACU	Nt	Tree	Basswood
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
TRADUB	0	TRAGOPOGON DUBIUS	5	UPL	Ad	B-Forb	Sandy goat's beard
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt	P-Forb	Late horse gentian
ULMRUB	2	Ulmus rubra	0	FAC	Nt	Tree	Slippery elm
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOSOR	1	Viola sororia	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

McKenzie Research Ridge, South

0.9 acres; Timber; Map #26

FLORISTIC QUALITY DATA		Native		Adventive			
45	NATIVE SPECIES	Tree	7	14.3%	Tree	0	0.0%
49	Total Species	Shrub	4	8.2%	Shrub	0	0.0%
3.4	NATIVE MEAN C	W-Vine	2	4.1%	W-Vine	0	0.0%
3.1	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
23.0	NATIVE FQI	P-Forb	17	34.7%	P-Forb	1	2.0%
22.0	W/Adventives	B-Forb	1	2.0%	B-Forb	0	0.0%
1.9	NATIVE MEAN W	A-Forb	5	10.2%	A-Forb	0	0.0%
1.9	W/Adventives	P-Grass	4	8.2%	P-Grass	2	4.1%
AVG: Fac. Upland (+)		A-Grass	0	0.0%	A-Grass	1	2.0%
		P-Sedge	5	10.2%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMBTRI	0 Ambrosia trifida	-1 FAC+	Nt A-Forb	Giant ragweed
AMEARB	8 Amelanchier arborea	3 FACU	Nt Tree	Serviceberry
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPRE	4 Carex sprengeii	0 FAC	Nt P-Sedge	Long-beaked sedge
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHESTA	6 Chenopodium standleyanum	5 UPL	Nt A-Forb	Woodland goosefoot
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DICCCUC	7 Dicentra cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELTUB	0 Helianthus tuberosus	0 FAC	Nt P-Forb	Jerusalem artichoke
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
MUHRAC	4 Muhlenbergia racemosa	-3 FACW	Nt P-Grass	Upland wild Timothy
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
PHYLON	0 Physalis longifolia	5 UPL	Nt P-Forb	Tall ground cherry
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
PRUVIR	2 Prunus virginiana	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SETGLA	0 SETARIA GLAUCA	0 FAC	Ad A-Grass	Yellow foxtail
SOLGIG	3 Solidago gigantea	-3 FACW	Nt P-Forb	Smooth goldenrod
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
VERURT	2 Verbena urticifolia	-1 FAC+	Nt P-Forb	White vervain
VERBAL	2 Vernonia baldwinii	5 UPL	Nt P-Forb	Baldwin's ironweed
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape

Meador Ridge Pasture

7.6; Pasture; Map #42

Notes: This is the area that was designated as unit F in the Rosburg (1993) survey. Plants shown in bold face type are known only from that original survey.

FLORISTIC QUALITY DATA		Native		Adventive			
77	NATIVE SPECIES	Tree	1	1.1%	Tree	2	2.1%
94	Total Species	Shrub	4	4.3%	Shrub	0	0.0%
4.0	NATIVE MEAN C	W-Vine	2	2.1%	W-Vine	0	0.0%
3.3	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
35.3	NATIVE FQI	P-Forb	41	43.6%	P-Forb	1	1.1%
32.0	W/Adventives	B-Forb	1	1.1%	B-Forb	5	5.3%
3.6	NATIVE MEAN W	A-Forb	9	9.6%	A-Forb	4	4.3%
3.5	W/Adventives	P-Grass	11	11.7%	P-Grass	2	2.1%
AVG: Fac. Upland (-)		A-Grass	2	2.1%	A-Grass	3	3.2%
		P-Sedge	5	5.3%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	1.1%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACHMIL	0 Achillea millefolium ssp. lanulosa	3 FACU	Nt P-Forb	Western yarrow
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
ARIOLI	0 Aristida oligantha	5 UPL	Nt A-Grass	Plains three-awn grass
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 Aster oblongifolius	5 UPL	Nt P-Forb	Aromatic aster
ASTCRA	9 Astragalus crassicaarpus	5 UPL	Nt P-Forb	Ground plum
ASTLOT	10 Astragalus lotiflorus	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BOUHIR	7 Bouteloua hirsuta	5 UPL	Nt P-Grass	Hairy grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian plaintain
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXMEAD	9 Carex meadii	0 FAC	Nt P-Sedge	Mead's stiff sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CIRUND	10 Cirsium undulatum	1 FAC-	Nt P-Forb	Wavy-leaved thistle
CIRVUL	0 CIRSIUM VULGARE	4 FACU-	Ad B-Forb	Bull thistle
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
EQULAE	6 Equisetum laevigatum	-3 FACW	Nt Fern	Smooth scouring rush
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPMAA	0 Euphorbia maculata	4 FACU-	Nt A-Forb	Carpet spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 Euphorbia nutans	3 FACU	Nt A-Forb	Nodding spurge
EUPSRP	5 Euphorbia serpens	5 UPL	Nt A-Forb	Round-leaved spurge
GRISPU	0 Grindelia squarrosa	3 FACU	Nt A-Forb	Gum plant
HEDHIS	2 Hedeoma hispidum	5 UPL	Nt A-Forb	Rough pennyroyal
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LINRIG	7 Linum rigidum	5 UPL	Nt P-Forb	Stiff flax
LINSUL	7 Linum sulcatum	5 UPL	Nt P-Forb	Grooved yellow flax
LITINC	5 Lithospermum incisum	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MEDSAT	0 MEDICAGO SATIVA	5 UPL	Ad P-Forb	Alfalfa
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover

MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad B-Forb	Yellow sweet clover
MORALB	0	MORUS ALBA	0	FAC	Ad Tree	White mulberry
MUHCUS	10	Muhlenbergia cuspidata	5	UPL	Nt P-Grass	Prairie satin grass
OENBIE	0	Oenothera biennis	3	FACU	Nt B-Forb	Common evening primrose
ONOMOO	4	Onosmodium molle ssp. occidentale	5	UPL	Nt P-Forb	False gromwell
OXYLAM	8	Oxytropis lambertii	4	FACU-	Nt P-Forb	Locoweed
PANCAP	0	Panicum capillare	0	FAC	Nt A-Grass	Old witch grass
PANOLS	5	Panicum oligosanthes var. scribnerianum	3	FACU	Nt P-Grass	Scribner's panic grass
PANWIL	7	Panicum wilcoxianum	5	UPL	Nt P-Grass	Wilcox's panic grass
PASSES	4	Paspalum setaceum var. stramineum	0	FAC	Nt P-Grass	Downy lens grass
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt P-Forb	Large-flowered beard tongue
PHYVIG	4	Physalis virginiana	5	UPL	Nt P-Forb	Ground cherry
PLAPAT	2	Plantago patagonica	5	UPL	Nt A-Forb	Woolly plantain
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	Kentucky blue grass
RATCOL	4	Ratibida columnifera	5	UPL	Nt P-Forb	Long-headed coneflower
RUBOCC	1	Rubus occidentalis	5	UPL	Nt Shrub	Black raspberry
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt P-Grass	Little bluestem
SENPLA	3	Senecio plattensis	4	FACU-	Nt P-Forb	Prairie ragwort
SETFAB	0	SETARIA FABERII	2	FACU+	Ad A-Grass	Giant foxtail
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad A-Grass	Yellow foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad A-Grass	Green foxtail
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt P-Forb	Prairie blue-eyed grass
SOLCAR	0	Solanum carolinense	4	FACU-	Nt P-Forb	Horse nettle
SOLROS	0	SOLANUM ROSTRATUM	5	UPL	Ad A-Forb	Buffalo bur
SOLALT	0	Solidago altissima	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt P-Forb	Tall goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt P-Forb	Field goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt P-Forb	Stiff goldenrod
SPOASP	3	Sporobolus asper	5	UPL	Nt P-Grass	Rough dropseed
STRLEI	7	Strophostyles leiosperma	5	UPL	Nt A-Forb	Small wild bean
SYMOC	0	Symphoricarpos occidentalis	5	UPL	Nt Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt P-Forb	Germander
THYPAS	0	THYMELAEA PASSERINA	5	UPL	Ad A-Forb	Sparrow weed
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt W-Vine	Poison ivy
TRAPRA	0	TRAGOPOGON PRATENSIS	5	UPL	Ad B-Forb	Common goat's beard
TRIFLA	0	Tridens flavus	5	UPL	Nt P-Grass	Purple top
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad Tree	Siberian elm
VERSTR	1	Verbena stricta	5	UPL	Nt P-Forb	Hoary vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt P-Forb	Baldwin's ironweed
VIOPEF	8	Viola pedatifida	4	FACU-	Nt P-Forb	Prairie violet

Munchkin Prairie

0.8 acre; Loess Prairie; Map #49

Notes: This very high-quality tract of loess prairie gets its name from the curiously dwarfed nature of the plants.

FLORISTIC QUALITY DATA		Native		Adventive			
38	NATIVE SPECIES	Tree	0	0.0%	Tree	0	0.0%
38	Total Species	Shrub	1	2.6%	Shrub	0	0.0%
6.1	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
6.1	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
37.5	NATIVE FQI	P-Forb	30	78.9%	P-Forb	0	0.0%
37.5	W/Adventives	B-Forb	1	2.6%	B-Forb	0	0.0%
4.2	NATIVE MEAN W	A-Forb	0	0.0%	A-Forb	0	0.0%
4.2	W/Adventives	P-Grass	6	15.8%	P-Grass	0	0.0%
AVG: Fac. Upland (-)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ANDGER	4 Andropogon gerardii	1 FACU-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ASCHIR	5 Asclepias hirtella	5 UPL	Nt P-Forb	Tall green milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 Aster oblongifolius	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
ASTLOT	10 Astragalus lotiflorus	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
CARPEN	4 Cardamine pensylvanica	-4 FACW+	Nt B-Forb	Pennsylvanit bitter cress
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
HEDNIG	7 Hedyotis nigricans	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELRIG	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LINSUL	7 Linum sulcatum	5 UPL	Nt P-Forb	Grooved yellow flax
LITINC	5 Lithospermum incisum	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MUHCUS	10 Muhlenbergia cuspidata	5 UPL	Nt P-Grass	Prairie satin grass
OXYLAM	8 Oxytropis lambertii	4 FACU-	Nt P-Forb	Locoweed
PANOLS	5 Panicum oligosanthos var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PEDESC	8 Pedimelum esculentum	5 UPL	Nt P-Forb	Prairie turnip
PENGRN	5 Penstemon grandiflorus	5 UPL	Nt P-Forb	Large-flowered beard tongue
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SILLAC	7 Silphium laciniatum	4 FACU-	Nt P-Forb	Compass plant
SISCAM	4 Sisyrinchium campestre	5 UPL	Nt P-Forb	Prairie blue-eyed grass
SOLMIS	5 Solidago missouriensis	5 UPL	Nt P-Forb	Missouri goldenrod
SOLNEM	4 Solidago nemoralis	5 UPL	Nt P-Forb	Field goldenrod
SOLRIG	4 Solidago rigida	4 FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass

Old Field Reconstruction, Central 4.7 acres; Reconstruction; Map #20

Notes: The following prairie-conservative insects were collected here: *Xeromelecta interrupta*.

FLORISTIC QUALITY DATA		Native		Adventive			
68	NATIVE SPECIES	Tree	5	6.0%	Tree	3	3.6%
83	Total Species	Shrub	4	4.8%	Shrub	0	0.0%
2.9	NATIVE MEAN C	W-Vine	3	3.6%	W-Vine	0	0.0%
2.4	W/Adventives	H-Vine	1	1.2%	H-Vine	0	0.0%
23.8	NATIVE FQI	P-Forb	31	37.3%	P-Forb	1	1.2%
21.5	W/Adventives	B-Forb	2	2.4%	B-Forb	4	4.8%
1.6	NATIVE MEAN W	A-Forb	6	7.2%	A-Forb	3	3.6%
1.8	W/Adventives	P-Grass	13	15.7%	P-Grass	3	3.6%
AVG:	Fac. Upland (+)	A-Grass	1	1.2%	A-Grass	1	1.2%
		P-Sedge	2	2.4%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	Box elder
ACHMIL	0 Achillea millefolium ssp. lanulosa	3 FACU	Nt P-Forb	Western yarrow
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
AGRSMS	2 Agropyron smithii	2 FACU+	Nt P-Grass	Western wheat grass
AILALT	0 ATLANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBTRI	0 Ambrosia trifida	-1 FAC+	Nt A-Forb	Giant ragweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ARTLUD	2 Artemisia ludoviciana	5 UPL	Nt P-Forb	White sage
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASTLAE	7 Aster laevis	5 UPL	Nt P-Forb	Smooth blue aster
ASTLAN	4 Aster lanceolatus	-5 OBL	Nt P-Forb	Panicked aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CACATR	5 Cacalia atriplicifolia	5 UPL	Nt P-Forb	Indian plaintain
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRARV	0 CIRSIUM ARVENSE	3 FACU	Ad P-Forb	Field thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
ELYVIR	3 Elymus virginicus	-2 FACW-	Nt P-Grass	Virginia wild rye
ERIANN	0 Erigeron annuus	1 FAC-	Nt B-Forb	Annual fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPSER	2 Eupatorium serotinum	-1 FAC+	Nt P-Forb	Late boneset
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAVIR	3 Fragaria virginiana	1 FAC-	Nt P-Forb	Wild strawberry
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
HELTRIG	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
HORJUB	0 Hordeum jubatum	-1 FAC+	Nt P-Grass	Squirrel-tail barley
KOEMAC	7 Koeleria macrantha	5 UPL	Nt P-Grass	June grass
LEEORY	2 Leersia oryzoides	-5 OBL	Nt P-Grass	Rice cut grass
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MONFIS	2 Monarda fistulosa	3 FACU	Nt P-Forb	Wild bergamot
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
PANVIR	5 Panicum virgatum	-1 FAC+	Nt A-Grass	Switch grass
PHAARU	0 PHALARIS ARUNDINACEA	-4 FACW+	Ad P-Grass	Reed canary grass
PILPUM	3 Pilea pumila	-3 FACW	Nt A-Forb	Common clearweed
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
POLSCN	2 Polygonum scandens	0 FAC	Nt H-Vine	Climbing false buckwheat
POPDEL	1 Populus deltoides	-1 FAC+	Nt Tree	Cottonwood
POTARU	8 Potentilla arguta	4 FACU-	Nt P-Forb	Prairie cinquefoil
RATCOL	4 Ratibida columnifera	5 UPL	Nt P-Forb	Long-headed coneflower
RATPIN	4 Ratibida pinnata	5 UPL	Nt P-Forb	Gray-headed coneflower

RIBMIS	3	Ribes missouriense	5	UPL	Nt Shrub	Wild gooseberry
RUDHIR	2	Rudbeckia hirta	3	FACU	Nt P-Forb	Black-eyed Susan
SALAMY	3	Salix amygdaloides	-3	FACW	Nt Tree	Peach-leaved willow
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt Shrub	Elderberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt B-Forb	Black snakeroot
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt P-Grass	Little bluestem
SETFAB	0	SETARIA FABERII	2	FACU+	Ad A-Grass	Giant foxtail
SILINT	4	Silphium integrifolium	5	UPL	Nt P-Forb	Rosin weed
SILPER	1	Silphium perfoliatum	-2	FACW-	Nt P-Forb	Cup plant
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad A-Forb	Tall hedge mustard
SOLALT	0	Solidago altissima	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt P-Forb	Tall goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt P-Grass	Indian grass
SPHOB	8	Sphenopholis obtusata var. obtusata	0	FAC	Nt P-Grass	Prairie wedge grass
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt Shrub	Coralberry
THLARV	0	THLASPI ARVENSE	5	UPL	Ad A-Forb	Penny cress
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt W-Vine	Poison ivy
ULMAME	2	Ulmus americana	-2	FACW-	Nt Tree	American elm
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad Tree	Siberian elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt P-Forb	Stinging nettle
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt P-Forb	Baldwin's ironweed
VERPEG	0	Veronica peregrina	-4	FACW+	Nt A-Forb	Purslane speedwell
VIOSOR	1	Viola sororia	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt W-Vine	Riverbank grape

Old Field Reconstruction, Complex

26.5 acres; Reconstruction; Map #21

FLORISTIC QUALITY DATA		Native		Adventive			
91	NATIVE SPECIES	Tree	5	4.3%	Tree	3	2.6%
115	Total Species	Shrub	6	5.2%	Shrub	0	0.0%
3.1	NATIVE MEAN C	W-Vine	3	2.6%	W-Vine	0	0.0%
2.5	W/Adventives	H-Vine	1	0.9%	H-Vine	0	0.0%
30.0	NATIVE FQI	P-Forb	48	41.7%	P-Forb	1	0.9%
26.7	W/Adventives	B-Forb	2	1.7%	B-Forb	6	5.2%
1.9	NATIVE MEAN W	A-Forb	8	7.0%	A-Forb	6	5.2%
1.9	W/Adventives	P-Grass	13	11.3%	P-Grass	3	2.6%
AVG: Fac. Upland (+)		A-Grass	0	0.0%	A-Grass	5	4.3%
		P-Sedge	5	4.3%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	Box elder
ACHMIL	0 Achillea millefolium ssp. lanulosa	3 FACU	Nt P-Forb	Western yarrow
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
AILALT	0 AILANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ARTLUD	2 Artemisia ludoviciana	5 UPL	Nt P-Forb	White sage
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTLAE	7 Aster laevis	5 UPL	Nt P-Forb	Smooth blue aster
ASTLAN	4 Aster lanceolatus	-5 OBL	Nt P-Forb	Panicled aster
ASTCAN	4 Astragalus canadensis	-1 FAC+	Nt P-Forb	Canadian milk vetch
BARVUL	0 BARBAREA VULGARIS	0 FAC	Ad B-Forb	Yellow rocket
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CACATR	5 Cacalia atriplicifolia	5 UPL	Nt P-Forb	Indian plaintain
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXBICK	10 Carex bicknellii	1 FAC-	Nt P-Sedge	Bicknell's sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRARV	0 CIRSIUM ARVENSE	3 FACU	Ad P-Forb	Field thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 Dalea candida	5 UPL	Nt P-Forb	White prairie clover
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DESPIB	1 Descurainia pinnata var. brachycarpa	5 UPL	Nt A-Forb	Tansy mustard
DESCAD	6 Desmodium canadense	1 FAC-	Nt P-Forb	Showy tick trefoil
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIR	3 Elymus virginicus	-2 FACW-	Nt P-Grass	Virginia wild rye
ERIANN	0 Erigeron annuus	1 FAC-	Nt B-Forb	Annual fleabane
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
ERIVIL	0 ERIOCHLOA VILLOSA	0 FAC	Ad A-Grass	Cup grass
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPSER	2 Eupatorium serotinum	-1 FAC+	Nt P-Forb	Late boneset
EUPNOT	0 Euphorbia nutans	3 FACU	Nt A-Forb	Nodding spurge
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAVIR	3 Fragaria virginiana	1 FAC-	Nt P-Forb	Wild strawberry
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
HELRIG	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
HORJUB	0 Hordeum jubatum	-1 FAC+	Nt P-Grass	Squirrel-tail barley
HORPUS	0 HORDEUM PUSILLUM	0 FAC	Ad A-Grass	Little barley
IPOHED	0 IPOMOEA HEDERACEA	0 FAC	Ad A-Forb	Ivy-leaved morning glory

KOEMAC	7	Koeleria macrantha	5	UPL	Nt P-Grass	June grass
LEEORY	2	Leersia oryzoides	-5	OBL	Nt P-Grass	Rice cut grass
LESCAP	3	Lespedeza capitata	3	FACU	Nt P-Forb	Round-headed bush clover
LIAPYC	6	Liatris pycnostachya	1	FAC-	Nt P-Forb	Prairie blazing star
LOBSIP	3	Lobelia siphilitica	-4	FACW+	Nt P-Forb	Great blue lobelia
MEDLUP	0	MEDICAGO LUPULINA	1	FAC-	Ad A-Forb	Black medick
MELALB	0	MELILOTUS ALBA	3	FACU	Ad B-Forb	White sweet clover
MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad B-Forb	Yellow sweet clover
MONFIS	2	Monarda fistulosa	3	FACU	Nt P-Forb	Wild bergamot
MORALB	0	MORUS ALBA	0	FAC	Ad Tree	White mulberry
OXASTR	0	Oxalis stricta	3	FACU	Nt P-Forb	Tall wood sorrel
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt P-Forb	Large-flowered beard tongue
PHAARU	0	PHALARIS ARUNDINACEA	-4	FACW+	Ad P-Grass	Reed canary grass
PILPUM	3	Pilea pumila	-3	FACW	Nt A-Forb	Common clearweed
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	Kentucky blue grass
POLSCN	2	Polygonum scandens	0	FAC	Nt H-Vine	Climbing false buckwheat
POPDEL	1	Populus deltoides	-1	FAC+	Nt Tree	Cottonwood
POTARU	8	Potentilla arguta	4	FACU-	Nt P-Forb	Prairie cinquefoil
RATCOL	4	Ratibida columnifera	5	UPL	Nt P-Forb	Long-headed coneflower
RATPIN	4	Ratibida pinnata	5	UPL	Nt P-Forb	Gray-headed coneflower
RHUGLA	0	Rhus glabra	5	UPL	Nt Shrub	Smooth sumac
RIBMIS	3	Ribes missouriense	5	UPL	Nt Shrub	Wild gooseberry
RUDHIR	2	Rudbeckia hirta	3	FACU	Nt P-Forb	Black-eyed Susan
SALAMY	3	Salix amygdaloides	-3	FACW	Nt Tree	Peach-leaved willow
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt Shrub	Elderberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt B-Forb	Black snakeroot
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt P-Grass	Little bluestem
SETFAB	0	SETARIA FABERII	2	FACU+	Ad A-Grass	Giant foxtail
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad A-Grass	Yellow foxtail
SETVER	0	SETARIA VERTICILLATA	0	FAC	Ad A-Grass	Bristly foxtail
SILINT	4	Silphium integrifolium	5	UPL	Nt P-Forb	Rosin weed
SILPER	1	Silphium perfoliatum	-2	FACW-	Nt P-Forb	Cup plant
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad A-Forb	Tall hedge mustard
SOLALT	0	Solidago altissima	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt P-Forb	Tall goldenrod
SOLGIG	3	Solidago gigantea	-3	FACW	Nt P-Forb	Smooth goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt P-Grass	Indian grass
SPHOBM	4	Sphenopholis obtusata var. major	0	FAC	Nt P-Grass	Slender wedge grass
SPHOB	8	Sphenopholis obtusata var. obtusata	0	FAC	Nt P-Grass	Prairie wedge grass
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt P-Forb	Germander
THLARV	0	THLASPI ARVENSE	5	UPL	Ad A-Forb	Penny cress
THYPAS	0	THYMELAEA PASSERINA	5	UPL	Ad A-Forb	Sparrow weed
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt W-Vine	Poison ivy
TRIFLA	0	Tridens flavus	5	UPL	Nt P-Grass	Purple top
ULMAME	2	Ulmus americana	-2	FACW-	Nt Tree	American elm
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad Tree	Siberian elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt P-Forb	Stinging nettle
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt P-Forb	Baldwin's ironweed
VERPEG	0	Veronica peregrina	-4	FACW+	Nt A-Forb	Purslane speedwell
VIOSOR	1	Viola sororia	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt W-Vine	Riverbank grape

Pond Ridge

16.1 acres; Loess Prairie; Map #16

Notes: It would appear that prothalli of terricolous lichens are forming among poplations of moss, *Weissia controversa*, which is a good developmental indicator. Though still a little depauperate, area has recovered remarkably well from the bulldozing it received several decades ago. There must have been little else around at the time other than loess prairie.

FLORISTIC QUALITY DATA		Native		Adventive			
46	NATIVE SPECIES	Tree	1	2.1%	Tree	0	0.0%
47	Total Species	Shrub	5	10.6%	Shrub	0	0.0%
5.2	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
5.1	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
35.5	NATIVE FQI	P-Forb	31	66.0%	P-Forb	0	0.0%
35.2	W/Adventives	B-Forb	0	0.0%	B-Forb	1	2.1%
4.3	NATIVE MEAN W	A-Forb	4	8.5%	A-Forb	0	0.0%
4.3	W/Adventives	P-Grass	5	10.6%	P-Grass	0	0.0%
AVG:	Fac. Upland (-)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 <i>Agalinis aspera</i>	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANTNEG	2 <i>Antennaria neglecta</i>	5 UPL	Nt P-Forb	Cat's feet
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTMIS	8 <i>Astragalus missouriensis</i>	5 UPL	Nt P-Forb	Missouri milk vetch
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
CEAHER	8 <i>Ceanothus herbaceus</i> var. <i>pubescens</i>	5 UPL	Nt Shrub	Redroot
CHAFAS	1 <i>Chamaecrista fasciculata</i>	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
COMUMB	6 <i>Comandra umbellata</i>	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 <i>Dalea candida</i>	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
ECHANG	8 <i>Echinacea angustifolia</i>	5 UPL	Nt P-Forb	Purple coneflower
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
EUPMAR	0 <i>Euphorbia marginata</i>	3 FACU	Nt A-Forb	Snow-on-the-mountain
HEDHIS	2 <i>Hedeoma hispidum</i>	5 UPL	Nt A-Forb	Rough pennyroyal
HEDNIG	7 <i>Hedyotis nigricans</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELRIG	8 <i>Helianthus rigidus</i>	5 UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LIAASP	8 <i>Liatris aspera</i>	5 UPL	Nt P-Forb	Rough blazing star
LINRIG	7 <i>Linum rigidum</i>	5 UPL	Nt P-Forb	Stiff flax
LITCAN	7 <i>Lithospermum canescens</i>	5 UPL	Nt P-Forb	Hoary puccoon
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Skeletonweed
MELALB	0 <i>MELILOTUS ALBA</i>	3 FACU	Ad B-Forb	White sweet clover
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	5 UPL	Nt P-Grass	Prairie satin grass
PENGRN	5 <i>Penstemon grandiflorus</i>	5 UPL	Nt P-Forb	Large-flowered beard tongue
RATCOL	4 <i>Ratibida columnifera</i>	5 UPL	Nt P-Forb	Long-headed coneflower
RATPIN	4 <i>Ratibida pinnata</i>	5 UPL	Nt P-Forb	Gray-headed coneflower
ROSARS	4 <i>Rosa arkansana</i> var. <i>suffulta</i>	5 UPL	Nt Shrub	Sunshine rose
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem
SILLAC	7 <i>Silphium laciniatum</i>	4 FACU-	Nt P-Forb	Compass plant
SISCAM	4 <i>Sisyrinchium campestre</i>	5 UPL	Nt P-Forb	Prairie blue-eyed grass
SOLNEM	4 <i>Solidago nemoralis</i>	5 UPL	Nt P-Forb	Field goldenrod
SOLRIG	4 <i>Solidago rigida</i>	4 FACU-	Nt P-Forb	Stiff goldenrod
SOLSPE	7 <i>Solidago speciosa</i>	5 UPL	Nt P-Forb	Showy goldenrod
SORNUT	4 <i>Sorghastrum nutans</i>	2 FACU+	Nt P-Grass	Indian grass
SYMOCC	0 <i>Symphoricarpos occidentalis</i>	5 UPL	Nt Shrub	Wolfberry

Pond Ridge Clearing, 2010, 1st Year

2.0 acres; Clearing; Map #17

Notes: This of thicket was cleared of brush in the summer of 2010. Herbicide was not applied.

FLORISTIC QUALITY DATA		Native		Adventive			
21	NATIVE SPECIES	Tree	3	12.5%	Tree	1	4.2%
24	Total Species	Shrub	6	25.0%	Shrub	0	0.0%
2.2	NATIVE MEAN C	W-Vine	4	16.7%	W-Vine	0	0.0%
1.9	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
10.0	NATIVE FQI	P-Forb	5	20.8%	P-Forb	0	0.0%
9.4	W/Adventives	B-Forb	0	0.0%	B-Forb	1	4.2%
2.4	NATIVE MEAN W	A-Forb	0	0.0%	A-Forb	1	4.2%
2.4	W/Adventives	P-Grass	3	12.5%	P-Grass	0	0.0%
AVG:	Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SYMOC	0 Symphoricarpos occidentalis	5 UPL	Nt Shrub	Wolfberry
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
ULMAME	2 Ulmus americana	-2 FACW-	Nt Tree	American elm
VERBAL	2 Vernonia baldwinii	5 UPL	Nt P-Forb	Baldwin's ironweed
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape

Pond Ridge Clearing, 2011, 2nd Year

2.0 acres; Clearing; Map #17

Note: In the second growing season following thicket clearing, native species richness nearly doubled, and the Floristic Quality Index rose from 10 to 15.

FLORISTIC QUALITY DATA		Native		Adventive			
37	NATIVE SPECIES	Tree	3	6.7%	Tree	0	0.0%
45	Total Species	Shrub	7	15.6%	Shrub	1	2.2%
2.5	NATIVE MEAN C	W-Vine	2	4.4%	W-Vine	0	0.0%
2.0	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
15.0	NATIVE FQI	P-Forb	13	28.9%	P-Forb	1	2.2%
13.6	W/Adventives	B-Forb	1	2.2%	B-Forb	1	2.2%
2.4	NATIVE MEAN W	A-Forb	6	13.3%	A-Forb	2	4.4%
2.5	W/Adventives	P-Grass	4	8.9%	P-Grass	0	0.0%
AVG:	Fac. Upland (+)	A-Grass	1	2.2%	A-Grass	3	6.7%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
BELCHI	0 BELAMCANDA CHINENSIS	5 UPL	Ad P-Forb	Blackberry lily
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
EREHIE	0 Erechites hieracifolia	3 FACU	Nt A-Forb	Fireweed
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELRIg	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LONMAA	0 LONICERA MAACKII	5 UPL	Ad Shrub	Amur honeysuckle
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
MUHRAC	4 Muhlenbergia racemosa	-3 FACW	Nt P-Grass	Upland wild Timothy
PANCAP	0 Panicum capillare	0 FAC	Nt A-Grass	Old witch grass
POLPER	0 POLYGONUM PERSICARIA	-3 FACW	Ad A-Forb	Lady's thumb
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
ROSARS	4 Rosa arkansana var. suffulta	5 UPL	Nt Shrub	Sunshine rose
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SETFAB	0 SETARIA FABERII	2 FACU+	Ad A-Grass	Giant foxtail
SETGLA	0 SETARIA GLAUCA	0 FAC	Ad A-Grass	Yellow foxtail
SETVIR	0 SETARIA VIRIDIS	5 UPL	Ad A-Grass	Green foxtail
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLAME	0 Solanum americanum	4 FACU-	Nt A-Forb	Black nightshade
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0 Solidago canadensis	3 FACU	Nt P-Forb	Tall goldenrod
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SYMOC	0 Symphoricarpos occidentalis	5 UPL	Nt Shrub	Wolfberry
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
VERSTR	1 Verbena stricta	5 UPL	Nt P-Forb	Hoary vervain
VERBAL	2 Vernonia baldwinii	5 UPL	Nt P-Forb	Baldwin's ironweed
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape

Rahel's Easement

10.6 acres; Loess Prairie; Map #14

Notes: The terricolous lichen, *Catapyrenium lachneum*, is occasional on the more stable soils.

FLORISTIC QUALITY DATA		Native		Adventive	
62	NATIVE SPECIES	Tree	1 1.5%	Tree	1 1.5%
68	Total Species	Shrub	3 4.4%	Shrub	0 0.0%
4.3	NATIVE MEAN C	W-Vine	1 1.5%	W-Vine	0 0.0%
3.9	W/Adventives	H-Vine	0 0.0%	H-Vine	0 0.0%
33.9	NATIVE FQI	P-Forb	38 55.9%	P-Forb	0 0.0%
32.4	W/Adventives	B-Forb	2 2.9%	B-Forb	1 1.5%
4.0	NATIVE MEAN W	A-Forb	6 8.8%	A-Forb	1 1.5%
3.9	W/Adventives	P-Grass	8 11.8%	P-Grass	2 2.9%
AVG:	Fac. Upland (-)	A-Grass	1 1.5%	A-Grass	1 1.5%
		P-Sedge	1 1.5%	P-Sedge	0 0.0%
		A-Sedge	0 0.0%	A-Sedge	0 0.0%
		Fern	1 1.5%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
ARAHIR	8 Arabis hirsuta	5 UPL	Nt B-Forb	Hairy rock cress
ARIOLI	0 Aristida oligantha	5 UPL	Nt A-Grass	Plains three-awn grass
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 Asclepias viridiflora	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
ASTCRA	9 Astragalus crassicaucus	5 UPL	Nt P-Forb	Ground plum
ASTMIS	8 Astragalus missouriensis	5 UPL	Nt P-Forb	Missouri milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BOUHIR	7 Bouteloua hirsuta	5 UPL	Nt P-Grass	Hairy grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CIRUND	10 Cirsium undulatum	1 FAC-	Nt P-Forb	Wavy-leaved thistle
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
EQUALAE	6 Equisetum laevigatum	-3 FACW	Nt Fern	Smooth scouring rush
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAA	0 Euphorbia maculata	4 FACU-	Nt A-Forb	Carpet spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GAUCOC	7 Gaura coccinea	5 UPL	Nt P-Forb	Scarlet gaura
GRISPU	0 Grindelia squarrosa	3 FACU	Nt A-Forb	Gum plant
HEDHIS	2 Hedeoma hispidum	5 UPL	Nt A-Forb	Rough pennyroyal
HEDNIG	7 Hedyotis nigricans	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LINRIG	7 Linum rigidum	5 UPL	Nt P-Forb	Stiff flax
LITINC	5 Lithospermum incisum	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
OENBIE	0 Oenothera biennis	3 FACU	Nt B-Forb	Common evening primrose
ONOMO	4 Onosmodium molle ssp. occidentale	5 UPL	Nt P-Forb	False gromwell
OXYLAM	8 Oxytropis lambertii	4 FACU-	Nt P-Forb	Locoweed
PANOLS	5 Panicum oligosanthes var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PENGRN	5 Penstemon grandiflorus	5 UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2 Physalis heterophylla	5 UPL	Nt P-Forb	Ground cherry
PHYLON	0 Physalis longifolia	5 UPL	Nt P-Forb	Tall ground cherry
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac

SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad	A-Grass	Yellow foxtail
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt	P-Forb	Stiff goldenrod
SPOASP	3	Sporobolus asper	5	UPL	Nt	P-Grass	Rough dropseed
TRIFLA	0	Tridens flavus	5	UPL	Nt	P-Grass	Purple top
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad	Tree	Siberian elm
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed

Rahel's Impoundment & Marsh

23.9 acres; Wetland; Map #19

Notes: Now and impoundment with marshes in the immediate purlieus, this area was in agriculture well into the 1960's. It is said that it is spring-fed, but there is no base-flow across the dam. If it is spring-fed, the artesian flow may not be enough to keep up with the enormous evaporation rate of the impoundment, the volume of evaporation upon which probably exceeds the rainfall. Certainly, a portion of the water is from the ambient watershed, but such surface waters must be diminishing as a result of the progressively more successful prairie reconstruction that is going on in the valleys between the ridges. Included in the watershed are Rahel's Reconstruction, Great Horned Owl Prairie, Cottonwood Prairie, about 4 acres of Juniper Ridge and another 4 acres nearby, Few-forb Prairie, Pond Ridge, Lost Prairie, Pond Ridge Thicket and clearing, the crescent ridge complex, Amorphia Ridge, Badadditood Ridge, about 10 acres of Rahel's Thicket, the Old Field Reconstructions, Badger Bowl, Badger Camp, and another 5 acres nearby. These areas represent a surface watershed of about 210 acres, about 80% the size of that described for the Back Gate Stream Valley, which see.

FLORISTIC QUALITY DATA		Native		Adventive			
61	NATIVE SPECIES	Tree	6	8.5%	Tree	1	1.4%
71	Total Species	Shrub	7	9.9%	Shrub	0	0.0%
2.6	NATIVE MEAN C	W-Vine	3	4.2%	W-Vine	0	0.0%
2.2	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
20.2	NATIVE FQI	P-Forb	28	39.4%	P-Forb	3	4.2%
18.8	W/Adventives	B-Forb	0	0.0%	B-Forb	3	4.2%
-0.6	NATIVE MEAN W	A-Forb	7	9.9%	A-Forb	1	1.4%
-0.5	W/Adventives	P-Grass	3	4.2%	P-Grass	2	2.8%
AVG: Faculative (+)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	5	7.0%	P-Sedge	0	0.0%
		A-Sedge	1	1.4%	A-Sedge	0	0.0%
		Fern	1	1.4%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	Box elder
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBTRI	0 Ambrosia trifida	-1 FAC+	Nt A-Forb	Giant ragweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ARTLUD	2 Artemisia ludoviciana	5 UPL	Nt P-Forb	White sage
ASCINC	4 Asclepias incarnata	-5 OBL	Nt P-Forb	Swamp milkweed
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASTLAN	4 Aster lanceolatus	-5 OBL	Nt P-Forb	Panicled aster
CACATR	5 Cacalia atriplicifolia	5 UPL	Nt P-Forb	Indian plintain
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXCRIS	5 Carex cristatella	-4 FACW+	Nt P-Sedge	Crested oval sedge
CERDEM	0 Ceratophyllum demersum	-5 OBL	Nt P-Forb	Coontail
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRARV	0 CIRSIUM ARVENSE	3 FACU	Ad P-Forb	Field thistle
CIRVUL	0 CIRSIUM VULGARE	4 FACU-	Ad B-Forb	Bull thistle
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CYPERY	2 Cyperus erythrorhizos	-5 OBL	Nt A-Sedge	Red-rooted nut sedge
DESILE	5 Desmodium illinoense	5 UPL	Nt P-Forb	Illinois tick trefoil
ELESMA	6 Eleocharis smallii	-5 OBL	Nt P-Sedge	Marsh spike rush
EQUHYE	1 Equisetum hyemale	-2 FACW-	Nt Fern	Common scouring rush
EREHIE	0 Erechites hieracifolia	3 FACU	Nt A-Forb	Fireweed
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FRAVIR	3 Fragaria virginiana	1 FAC-	Nt P-Forb	Wild strawberry
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELIRIG	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
HETDUB	10 Heteranthera dubia	-5 OBL	Nt P-Forb	Water star grass
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LEMMIR	3 Lemna minor	-5 OBL	Nt A-Forb	Duckweed
LYCAME	4 Lycopodium americanus	-5 OBL	Nt P-Forb	Common water horehound
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MONFIS	2 Monarda fistulosa	3 FACU	Nt P-Forb	Wild bergamot
PHAARU	0 PHALARIS ARUNDINACEA	-4 FACW+	Ad P-Grass	Reed canary grass
PHRAUS	0 Phragmites australis	-4 FACW+	Nt P-Grass	Common reed
PLARUG	0 Plantago rugelii	0 FAC	Nt A-Forb	Red-stalked plantain
POAPRA	0 POA PRATENSIS	1 FAC-	Ad P-Grass	Kentucky blue grass
POLAME	3 Polygonum amphibium var. emersum	-5 OBL	Nt P-Forb	Water heartsease

POLLAP	0	Polygonum lapathifolium	-4	FACW+	Nt	A-Forb	Heartsease
POPDEL	1	Populus deltoides	-1	FAC+	Nt	Tree	Cottonwood
POTNOD	7	Potamogeton nodosus	-5	OBL	Nt	P-Forb	American pondweed
POTPEC	3	Potamogeton pectinatus	-5	OBL	Nt	P-Forb	Sago pondweed
RATPIN	4	Ratibida pinnata	5	UPL	Nt	P-Forb	Gray-headed coneflower
RIBMIS	3	Ribes missouriense	5	UPL	Nt	Shrub	Wild gooseberry
RUBOCC	1	Rubus occidentalis	5	UPL	Nt	Shrub	Black raspberry
SALALB	0	SALIX ALBA	-3	FACW	Ad	Tree	White willow
SALAMY	3	Salix amygdaloides	-3	FACW	Nt	Tree	Peach-leaved willow
SALERI	3	Salix eriocephala	-4	FACW+	Nt	Shrub	Heart-leaved willow
SALEXI	0	Salix exigua ssp. Interior	-5	OBL	Nt	Shrub	Sandbar willow
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt	Shrub	Elderberry
SCIFLU	5	Scirpus fluviatilis	-5	OBL	Nt	P-Sedge	River bulrush
SCIVAC	3	Scirpus validus var. creber	-5	OBL	Nt	P-Sedge	Soft-stemmed bulrush
SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	Solidago gigantea	-3	FACW	Nt	P-Forb	Smooth goldenrod
SPHOBM	4	Sphenopholis obtusata var. major	0	FAC	Nt	P-Grass	Slender wedge grass
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
TYPGLA	0	TYPHA X GLAUCA	-5	OBL	Ad	P-Forb	Hybrid cattail
ULMAME	2	Ulmus americana	-2	FACW-	Nt	Tree	American elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt	P-Forb	Stinging nettle
VERHAS	3	Verbena hastata	-4	FACW+	Nt	P-Forb	Blue vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

Rahel's Knob

7.1 acres; Loess Prairie; Map #13

FLORISTIC QUALITY DATA		Native		Adventive	
70	NATIVE SPECIES	70	79.5%	18	20.5%
88	Total Species	Tree	3 3.4%	Tree	2 2.3%
3.2	NATIVE MEAN C	Shrub	6 6.8%	Shrub	0 0.0%
2.6	W/Adventives	W-Vine	4 4.5%	W-Vine	0 0.0%
26.9	NATIVE FQI	H-Vine	0 0.0%	H-Vine	0 0.0%
24.0	W/Adventives	P-Forb	36 40.9%	P-Forb	1 1.1%
3.2	NATIVE MEAN W	B-Forb	2 2.3%	B-Forb	3 3.4%
3.2	W/Adventives	A-Forb	9 10.2%	A-Forb	5 5.7%
AVG: Fac. Upland		P-Grass	8 9.1%	P-Grass	4 4.5%
		A-Grass	2 2.3%	A-Grass	3 3.4%
		P-Sedge	0 0.0%	P-Sedge	0 0.0%
		A-Sedge	0 0.0%	A-Sedge	0 0.0%
		Fern	0 0.0%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
APOSIB	1 Apocynum sibiricum	-1 FAC+	Nt P-Forb	Indian hemp
ARAHIR	8 Arabis hirsuta	5 UPL	Nt B-Forb	Hairy rock cress
ARIOLI	0 Aristida oligantha	5 UPL	Nt A-Grass	Plains three-awn grass
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORNIT	0 CORISPERMUM NITIDUM	5 UPL	Ad A-Forb	Small bugseed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CORVAR	0 CORONILLA VARIA	5 UPL	Ad P-Forb	Crown vetch
DACGLO	0 DACTYLIS GLOMERATA	3 FACU	Ad P-Grass	Orchard grass
DALCAN	10 Dalea candida	5 UPL	Nt P-Forb	White prairie clover
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DESCAD	6 Desmodium canadense	1 FAC-	Nt P-Forb	Showy tick trefoil
DESILE	5 Desmodium illinoense	5 UPL	Nt P-Forb	Illinois tick trefoil
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAA	0 Euphorbia maculata	4 FACU-	Nt A-Forb	Carpet spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPNUT	0 Euphorbia nutans	3 FACU	Nt A-Forb	Nodding spurge
EUPSPA	5 Euphorbia spathulata	5 UPL	Nt A-Forb	Spatula spurge
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GRISPU	0 Grindelia squarrosa	3 FACU	Nt A-Forb	Gum plant
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELHEL	4 Heliopsis helianthoides	5 UPL	Nt P-Forb	False sunflower
HORPUS	0 HORDEUM PUSILLUM	0 FAC	Ad A-Grass	Little barley
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LINRIG	7 Linum rigidum	5 UPL	Nt P-Forb	Stiff flax
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MUHMEP	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
PANCAP	0 Panicum capillare	0 FAC	Nt A-Grass	Old witch grass
PANOLS	5 Panicum oligosanthes var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PARVIT	1 Parthenocissus vitacea	3 FACU	Nt W-Vine	Thicket creeper
PEDARG	5 Pedicelium argophyllum	5 UPL	Nt P-Forb	Silvery scurvy pea
PHAARU	0 PHALARIS ARUNDINACEA	-4 FACW+	Ad P-Grass	Reed canary grass

PHYHET	2	<i>Physalis heterophylla</i>	5	UPL	Nt	P-Forb	Ground cherry
PHYLON	0	<i>Physalis longifolia</i>	5	UPL	Nt	P-Forb	Tall ground cherry
PHYVIG	4	<i>Physalis virginiana</i>	5	UPL	Nt	P-Forb	Ground cherry
POAPRA	0	<i>POA PRATENSIS</i>	1	FAC-	Ad	P-Grass	Kentucky blue grass
RATPIN	4	<i>Ratibida pinnata</i>	5	UPL	Nt	P-Forb	Gray-headed coneflower
RHUGLA	0	<i>Rhus glabra</i>	5	UPL	Nt	Shrub	Smooth sumac
ROSARS	4	<i>Rosa arkansana</i> var. <i>suffulta</i>	5	UPL	Nt	Shrub	Sunshine rose
RUDHIR	2	<i>Rudbeckia hirta</i>	3	FACU	Nt	P-Forb	Black-eyed Susan
SALKAL	0	<i>SALSOLA KALI</i>	3	FACU	Ad	A-Forb	Russian thistle
SANCAS	6	<i>Sanicula canadensis</i>	2	FACU+	Nt	B-Forb	Black snakeroot
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt	P-Grass	Little bluestem
SETGLA	0	<i>SETARIA GLAUCA</i>	0	FAC	Ad	A-Grass	Yellow foxtail
SETVIR	0	<i>SETARIA VIRIDIS</i>	5	UPL	Ad	A-Grass	Green foxtail
SISLOE	0	<i>SISYMBRIUM LOESELII</i>	5	UPL	Ad	A-Forb	Tall hedge mustard
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLRIG	4	<i>Solidago rigida</i>	4	FACU-	Nt	P-Forb	Stiff goldenrod
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt	P-Grass	Indian grass
SPOASP	3	<i>Sporobolus asper</i>	5	UPL	Nt	P-Grass	Rough dropseed
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
THYPAS	0	<i>THYMELAEA PASSERINA</i>	5	UPL	Ad	A-Forb	Sparrow weed
ULMPUM	0	<i>ULMUS PUMILA</i>	5	UPL	Ad	Tree	Siberian elm
VERTHA	0	<i>VERBASCUM THAPSUS</i>	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	<i>Verbena urticifolia</i>	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOPEF	8	<i>Viola pedatifida</i>	4	FACU-	Nt	P-Forb	Prairie violet
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt	W-Vine	Riverbank grape
ZANAME	3	<i>Zanthoxylum americanum</i>	5	UPL	Nt	Shrub	Prickly ash

Rahel's Knob, Herbicided Thicket

0.2 acre; Clearing; Map #12

Notes: This was a thicket of *Cornus drummondii*, which recently had been herbicided.

FLORISTIC QUALITY DATA		Native		Adventive			
21	NATIVE SPECIES	Tree	2	8.7%	Tree	0	0.0%
23	Total Species	Shrub	5	21.7%	Shrub	0	0.0%
3.9	NATIVE MEAN C	W-Vine	1	4.3%	W-Vine	0	0.0%
3.6	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
17.9	NATIVE FQI	P-Forb	9	39.1%	P-Forb	0	0.0%
17.1	W/Adventives	B-Forb	0	0.0%	B-Forb	0	0.0%
3.1	NATIVE MEAN W	A-Forb	0	0.0%	A-Forb	1	4.3%
3.3	W/Adventives	P-Grass	4	17.4%	P-Grass	1	4.3%
AVG: Fac. Upland		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 Dalea candida	5 UPL	Nt P-Forb	White prairie clover
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
PANOLS	5 Panicum oligosanthos var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass
PHYVIG	4 Physalis virginiana	5 UPL	Nt P-Forb	Ground cherry
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
ROSARS	4 Rosa arkansana var. suffulta	5 UPL	Nt Shrub	Sunshine rose
SCHSCO	5 Schizachyrium scoparium	4 FACU-	Nt P-Grass	Little bluestem
SORNUT	4 Sorghastrum nutans	2 FACU+	Nt P-Grass	Indian grass
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
VERBAL	2 Vernonia baldwinii	5 UPL	Nt P-Forb	Baldwin's ironweed
VIOPEF	8 Viola pedatifida	4 FACU-	Nt P-Forb	Prairie violet
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape

Rahele's Knob, Mowed Thicket

0.2 acres; Clearing; Map #11

Notes: This was a thicket of *Cornus drummondii*, which recently had been mowed, but not herbicided.

FLORISTIC QUALITY DATA		Native		Adventive			
15	NATIVE SPECIES	Tree	3	17.6%	Tree	0	0.0%
17	Total Species	Shrub	4	23.5%	Shrub	0	0.0%
1.9	NATIVE MEAN C	W-Vine	4	23.5%	W-Vine	0	0.0%
1.7	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
7.5	NATIVE FQI	P-Forb	4	23.5%	P-Forb	0	0.0%
7.0	W/Adventives	B-Forb	0	0.0%	B-Forb	0	0.0%
2.2	NATIVE MEAN W	A-Forb	0	0.0%	A-Forb	0	0.0%
2.3	W/Adventives	P-Grass	0	0.0%	P-Grass	2	11.8%
AVG: Fac. Upland (+)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
GLETRI	0 <i>Gleditsia triacanthos</i>	0 FAC	Nt Tree	Honey locust
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
PARVIT	1 <i>Parthenocissus vitacea</i>	3 FACU	Nt W-Vine	Thicket creeper
PHYLON	0 <i>Physalis longifolia</i>	5 UPL	Nt P-Forb	Tall ground cherry
POAPRA	0 <i>POA PRATENSIS</i>	1 FAC-	Ad P-Grass	Kentucky blue grass
SMIHIS	4 <i>Smilax hispida</i>	0 FAC	Nt W-Vine	Greenbrier
SOLALT	0 <i>Solidago altissima</i>	3 FACU	Nt P-Forb	Tall goldenrod
SYMORB	0 <i>Symphoricarpos orbiculatus</i>	3 FACU	Nt Shrub	Coralberry
VERBAL	2 <i>Vernonia baldwinii</i>	5 UPL	Nt P-Forb	Baldwin's ironweed
VITRIP	1 <i>Vitis riparia</i>	-2 FACW-	Nt W-Vine	Riverbank grape
ZANAME	3 <i>Zanthoxylum americanum</i>	5 UPL	Nt Shrub	Prickly ash

Rahel's Prairie

9.7 acres; Loess Prairie; Map #5

Notes: There is a rare form of *Liatris asper*, close to which it grows, in which the heads are on elongate peduncles, rather densely disposed in a terminal raceme; it is evocative of *Liatris scariosa*, but the phyllaries are identical to the former. The inclusion of *Spiranthes magnicamporum* is on the basis of a letter from Chuck Scheviak, who noted it here. This prairie is well invested with terricolous lichens, mainly *Psora decipiens*, *Heppia adglutiata*, and *Catapyrenium lachneum*. The following conservative insects were collected here: *Isotrilobus erratica*, *Lasioglossum achilleae*, *Lopidea teton*, and *Plagiognathus amorphae*.

FLORISTIC QUALITY DATA		Native	76	93.8%	Adventive	5	6.2%
76	NATIVE SPECIES	Tree	3	3.7%	Tree	1	1.2%
81	Total Species	Shrub	8	9.9%	Shrub	0	0.0%
5.2	NATIVE MEAN C	W-Vine	2	2.5%	W-Vine	0	0.0%
4.9	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
45.4	NATIVE FQI	P-Forb	48	59.3%	P-Forb	0	0.0%
44.0	W/Adventives	B-Forb	0	0.0%	B-Forb	1	1.2%
3.5	NATIVE MEAN W	A-Forb	3	3.7%	A-Forb	0	0.0%
3.4	W/Adventives	P-Grass	11	13.6%	P-Grass	3	3.7%
AVG: Fac. Upland (-)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	1.2%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 <i>Agalinis aspera</i>	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower"
ANTNEG	2 <i>Antennaria neglecta</i>	5 UPL	Nt P-Forb	Cat's feet
ASCAMP	4 <i>Asclepias amplexicaulis</i>	5 UPL	Nt P-Forb	Sand milkweed
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
ASTLAE	7 <i>Aster laevis</i>	5 UPL	Nt P-Forb	Smooth blue aster
ASTOBL	10 <i>Aster oblongifolius</i>	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 <i>Aster sericeus</i>	5 UPL	Nt P-Forb	Silky aster
ASTCRA	9 <i>Astragalus crassicaarpus</i>	5 UPL	Nt P-Forb	Ground plum
ASTMIS	8 <i>Astragalus missouriensis</i>	5 UPL	Nt P-Forb	Missouri milk vetch
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CACPLA	7 <i>Cacalia plantaginea</i>	0 FAC	Nt P-Forb	Prairie Indian plaintain
CEAHER	8 <i>Ceanothus herbaceus</i> var. <i>pubescens</i>	5 UPL	Nt Shrub	Redroot
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
CIRUND	10 <i>Cirsium undulatum</i>	1 FAC-	Nt P-Forb	Wavy-leaved thistle
COMUMB	6 <i>Comandra umbellata</i>	3 FACU	Nt P-Forb	Bastard toadflax
CONCAN	0 <i>Conyza canadensis</i>	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 <i>Dalea candida</i>	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
DESILE	5 <i>Desmodium illinoense</i>	5 UPL	Nt P-Forb	Illinois tick trefoil
ECHANG	8 <i>Echinacea angustifolia</i>	5 UPL	Nt P-Forb	Purple coneflower
EQULAE	6 <i>Equisetum laevigatum</i>	-3 FACW	Nt Fern	Smooth scouring rush
ERASPE	2 <i>Eragrostis spectabilis</i>	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
HEDNIG	7 <i>Hedyotis nigricans</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELRIG	8 <i>Helianthus rigidus</i>	5 UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LIAASP	8 <i>Liatris aspera</i>	5 UPL	Nt P-Forb	Rough blazing star
LIAPUN	8 <i>Liatris punctata</i>	5 UPL	Nt P-Forb	Dotted blazing star
LINRIG	7 <i>Linum rigidum</i>	5 UPL	Nt P-Forb	Stiff flax
LINSUL	7 <i>Linum sulcatum</i>	5 UPL	Nt P-Forb	Grooved yellow flax
LITINC	5 <i>Lithospermum incisum</i>	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Skeletonweed
MELOFC	0 <i>MELILOTUS OFFICINALIS</i>	3 FACU	Ad B-Forb	Yellow sweet clover
MORALB	0 <i>MORUS ALBA</i>	0 FAC	Ad Tree	White mulberry
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	5 UPL	Nt P-Grass	Prairie satin grass
MUHRAC	4 <i>Muhlenbergia racemosa</i>	-3 FACW	Nt P-Grass	Upland wild Timothy

NOTCUS	8	Nothocalais cuspidata	5	UPL	Nt	P-Forb	Prairie dandelion
OXYLAM	8	Oxytropis lambertii	4	FACU-	Nt	P-Forb	Locoweed
PANOLS	5	Panicum oligosanthes var. scribnerianum	3	FACU	Nt	P-Grass	Scribner's panic grass
PARVIT	1	Parthenocissus vitacea	3	FACU	Nt	W-Vine	Thicket creeper
PEDESC	8	Pediomelum esculentum	5	UPL	Nt	P-Forb	Prairie turnip
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt	P-Forb	Large-flowered beard tongue
POACOM	0	POA COMPRESSA	2	FACU+	Ad	P-Grass	Canadian blue grass
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt	P-Forb	Solomon's seal
POPDEL	1	Populus deltoides	-1	FAC+	Nt	Tree	Cottonwood
PRUVIR	2	Prunus virginiana	1	FAC-	Nt	Shrub	Choke cherry
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
ROSARS	4	Rosa arkansana var. suffulta	5	UPL	Nt	Shrub	Sunshine rose
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SENPLA	3	Senecio plattensis	4	FACU-	Nt	P-Forb	Prairie ragwort
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
SOLSPE	7	Solidago speciosa	5	UPL	Nt	P-Forb	Showy goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
SPHOB	8	Sphenopholis obtusata var. obtusata	0	FAC	Nt	P-Grass	Prairie wedge grass
SPIMAG	4	Spiranthes magnicamporum	-3	FACW	Nt	P-Forb	Great plains ladies' tresses
SPOASP	3	Sporobolus asper	5	UPL	Nt	P-Grass	Rough dropseed
STISPA	6	Stipa spartea	5	UPL	Nt	P-Grass	Porcupine grass
STRLEI	7	Strophostyles leiosperma	5	UPL	Nt	A-Forb	Small wild bean
SYMOCC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

Rahel's Reconstruction

51.9 acres; Reconstruction; Map #6

Notes: The hybrid between *Verbena stricta* and *Verbena urticifolia*, *Verbena x illicita*, grows with both parents just east of the Below-the-dam Wetland. The plant listed here as *Corispermum nitidum* is actually *Corispermum americanum*, which is not in the Iowa Database. The plant listed as *Desmodium paniculatum* is more closely aligned with *Desmodium perplexum*, a species not recognized by most Iowa botanists.

FLORISTIC QUALITY DATA		Native		Adventive			
52	NATIVE SPECIES	Tree	4	5.4%	Tree	2	2.7%
74	Total Species	Shrub	2	2.7%	Shrub	0	0.0%
2.6	NATIVE MEAN C	W-Vine	2	2.7%	W-Vine	0	0.0%
1.8	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
18.9	NATIVE FQI	P-Forb	28	37.8%	P-Forb	2	2.7%
15.8	W/Adventives	B-Forb	1	1.4%	B-Forb	5	6.8%
1.8	NATIVE MEAN W	A-Forb	6	8.1%	A-Forb	5	6.8%
2.1	W/Adventives	P-Grass	8	10.8%	P-Grass	2	2.7%
AVG:	Fac. Upland (+)	A-Grass	1	1.4%	A-Grass	6	8.1%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	Box elder
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
AGRREER	0 AGROPYRON REPENS	3 FACU	Ad P-Grass	Quack grass
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTLAE	7 Aster laevis	5 UPL	Nt P-Forb	Smooth blue aster
ASTLAN	4 Aster lanceolatus	-5 OBL	Nt P-Forb	Panicled aster
BARVUL	0 BARBAREA VULGARIS	0 FAC	Ad B-Forb	Yellow rocket
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
BROJAP	0 BROMUS JAPONICUS	3 FACU	Ad A-Grass	Japanese chess
BROTEC	0 BROMUS TECTORUM	5 UPL	Ad A-Grass	Downy chess
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHAFAS	1 Chamaecrista fasciculata	4 FACU-	Nt A-Forb	Partridge pea
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRARV	0 CIRSIUM ARVENSE	3 FACU	Ad P-Forb	Field thistle
CIRVUL	0 CIRSIUM VULGARE	4 FACU-	Ad B-Forb	Bull thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORNIT	0 CORISPERMUM NITIDUM	5 UPL	Ad A-Forb	Small bugseed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DESCAD	6 Desmodium canadense	1 FAC-	Nt P-Forb	Showy tick trefoil
DESPAN	8 Desmodium paniculatum	3 FACU	Nt P-Forb	Panicled tick trefoil
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIR	3 Elymus virginicus	-2 FACW-	Nt P-Grass	Virginia wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPSER	2 Eupatorium serotinum	-1 FAC+	Nt P-Forb	Late boneset
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HEDHIS	2 Hedeoma hispidum	5 UPL	Nt A-Forb	Rough pennyroyal
HELHEL	4 Helianthus helianthoides	5 UPL	Nt P-Forb	False sunflower
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LOBSIP	3 Lobelia siphilitica	-4 FACW+	Nt P-Forb	Great blue lobelia
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MONFIS	2 Monarda fistulosa	3 FACU	Nt P-Forb	Wild bergamot
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
PANVIR	5 Panicum virgatum	-1 FAC+	Nt A-Grass	Switch grass
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRAUS	0 Phragmites australis	-4 FACW+	Nt P-Grass	Common reed
POPDEL	1 Populus deltoides	-1 FAC+	Nt Tree	Cottonwood
RATCOL	4 Ratibida columnifera	5 UPL	Nt P-Forb	Long-headed coneflower
RATPIN	4 Ratibida pinnata	5 UPL	Nt P-Forb	Gray-headed coneflower

RUDHIR	2	Rudbeckia hirta	3	FACU	Nt	P-Forb	Black-eyed Susan
SALKAL	0	SALSOLA KALI	3	FACU	Ad	A-Forb	Russian thistle
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SCRMAR	4	Scrophularia marilandica	4	FACU-	Nt	P-Forb	Late figwort
SETFAB	0	SETARIA FABERII	2	FACU+	Ad	A-Grass	Giant foxtail
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad	A-Grass	Yellow foxtail
SETVER	0	SETARIA VERTICILLATA	0	FAC	Ad	A-Grass	Bristly foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad	A-Grass	Green foxtail
SILINT	4	Silphium integrifolium	5	UPL	Nt	P-Forb	Rosin weed
SILPER	1	Silphium perfoliatum	-2	FACW-	Nt	P-Forb	Cup plant
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad	A-Forb	Tall hedge mustard
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt	P-Forb	Tall goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
TRIFLA	0	Tridens flavus	5	UPL	Nt	P-Grass	Purple top
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad	Tree	Siberian elm
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

Rayburn's Knob

3.1 acres; Loess Prairie; Map #41

Notes: This prairie is remarkably depauperate in leguminous plants.

FLORISTIC QUALITY DATA		Native		Adventive			
71	NATIVE SPECIES	Tree	2	2.3%	Tree	1	1.1%
87	Total Species	Shrub	4	4.6%	Shrub	0	0.0%
4.1	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
3.3	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
34.5	NATIVE FQI	P-Forb	42	48.3%	P-Forb	2	2.3%
31.2	W/Adventives	B-Forb	0	0.0%	B-Forb	4	4.6%
3.4	NATIVE MEAN W	A-Forb	5	5.7%	A-Forb	5	5.7%
3.3	W/Adventives	P-Grass	11	12.6%	P-Grass	4	4.6%
AVG:	Fac. Upland	A-Grass	1	1.1%	A-Grass	0	0.0%
		P-Sedge	5	5.7%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	1.1%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACHMIL	0 Achillea millefolium ssp. lanulosa	3 FACU	Nt P-Forb	Western yarrow
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
ARIOLI	0 Aristida oligantha	5 UPL	Nt A-Grass	Plains three-awn grass
ASCINC	4 Asclepias incarnata	-5 OBL	Nt P-Forb	Swamp milkweed
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 Asclepias viridiflora	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 Aster oblongifolius	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BOUHIR	7 Bouteloua hirsuta	5 UPL	Nt P-Grass	Hairy grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian plaintain
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXMEAD	9 Carex meadii	0 FAC	Nt P-Sedge	Mead's stiff sedge
CIRUND	10 Cirsium undulatum	1 FAC-	Nt P-Forb	Wavy-leaved thistle
CONARV	0 CONVULVULUS ARVENSIS	5 UPL	Ad P-Forb	Creeping Jenny
CYNOFF	0 CYNOGLOSSUM OFFICINALE	5 UPL	Ad B-Forb	Hound's tongue
DACGLO	0 DACTYLIS GLOMERATA	3 FACU	Ad P-Grass	Orchard grass
DESSOP	0 DESCURAINIA SOPHIA	5 UPL	Ad A-Forb	Flixweed
ECHANG	8 Echinacea angustifolia	5 UPL	Nt P-Forb	Purple coneflower
EQULAE	6 Equisetum laevigatum	-3 FACW	Nt Fern	Smooth scouring rush
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAVIR	3 Fragaria virginiana	1 FAC-	Nt P-Forb	Wild strawberry
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GRISPU	0 Grindelia squarrosa	3 FACU	Nt A-Forb	Gum plant
HELANN	0 Helianthus annuus	1 FAC-	Nt A-Forb	Garden sunflower
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LINRIG	7 Linum rigidum	5 UPL	Nt P-Forb	Stiff flax
LITINC	5 Lithospermum incisum	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MEDLUP	0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	Black medick
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MONFIS	2 Monarda fistulosa	3 FACU	Nt P-Forb	Wild bergamot
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MUHCUS	10 Muhlenbergia cuspidata	5 UPL	Nt P-Grass	Prairie satin grass
NEPCAT	0 NEPETA CATARIA	1 FAC-	Ad P-Forb	Catnip
NOTCUS	8 Nothocalais cuspidata	5 UPL	Nt P-Forb	Prairie dandelion

ONOMOO	4	<i>Onosmodium molle</i> ssp. <i>occidentale</i>	5	UPL	Nt	P-Forb	False gromwell
OXYLAM	8	<i>Oxytropis lambertii</i>	4	FACU-	Nt	P-Forb	Locoweed
PANOLS	5	<i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3	FACU	Nt	P-Grass	Scribner's panic grass
PANWIL	7	<i>Panicum wilcoxianum</i>	5	UPL	Nt	P-Grass	Wilcox's panic grass
PASSES	4	<i>Paspalum setaceum</i> var. <i>stramineum</i>	0	FAC	Nt	P-Grass	Downy lens grass
PEDESC	8	<i>Pediomelum esculentum</i>	5	UPL	Nt	P-Forb	Prairie turnip
PENGRN	5	<i>Penstemon grandiflorus</i>	5	UPL	Nt	P-Forb	Large-flowered beard tongue
PHYVIG	4	<i>Physalis virginiana</i>	5	UPL	Nt	P-Forb	Ground cherry
PLAPAT	2	<i>Plantago patagonica</i>	5	UPL	Nt	A-Forb	Woolly plantain
POACOM	0	POA COMPRESSA	2	FACU+	Ad	P-Grass	Canadian blue grass
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
RATCOL	4	<i>Ratibida columnifera</i>	5	UPL	Nt	P-Forb	Long-headed coneflower
RUDHIR	2	<i>Rudbeckia hirta</i>	3	FACU	Nt	P-Forb	Black-eyed Susan
SCHSCO	5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt	P-Grass	Little bluestem
SENPLA	3	<i>Senecio plattensis</i>	4	FACU-	Nt	P-Forb	Prairie ragwort
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad	A-Forb	Tall hedge mustard
SISCAM	4	<i>Sisyrinchium campestre</i>	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SOLCAR	0	<i>Solanum carolinense</i>	4	FACU-	Nt	P-Forb	Horse nettle
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt	P-Forb	Tall goldenrod
SOLNEM	4	<i>Solidago nemoralis</i>	5	UPL	Nt	P-Forb	Field goldenrod
SOLRIG	4	<i>Solidago rigida</i>	4	FACU-	Nt	P-Forb	Stiff goldenrod
SORNUT	4	<i>Sorghastrum nutans</i>	2	FACU+	Nt	P-Grass	Indian grass
SPOASP	3	<i>Sporobolus asper</i>	5	UPL	Nt	P-Grass	Rough dropseed
SYMOCC	0	<i>Symphoricarpos occidentalis</i>	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt	P-Forb	Germander
THYPAS	0	THYMELAEA PASSERINA	5	UPL	Ad	A-Forb	Sparrow weed
VERSTR	1	<i>Verbena stricta</i>	5	UPL	Nt	P-Forb	Hoary vervain
VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOPEF	8	<i>Viola pedatifida</i>	4	FACU-	Nt	P-Forb	Prairie violet
ZANAME	3	<i>Zanthoxylum americanum</i>	5	UPL	Nt	Shrub	Prickly ash

Satin Grass Bluff

0.3 acres; Loess Prairie; Map #22

FLORISTIC QUALITY DATA		Native		Adventive			
39	NATIVE SPECIES	Tree	4	9.8%	Tree	0	0.0%
41	Total Species	Shrub	7	17.1%	Shrub	0	0.0%
4.8	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
4.6	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
29.9	NATIVE FQI	P-Forb	21	51.2%	P-Forb	0	0.0%
29.2	W/Adventives	B-Forb	0	0.0%	B-Forb	1	2.4%
3.6	NATIVE MEAN W	A-Forb	3	7.3%	A-Forb	0	0.0%
3.7	W/Adventives	P-Grass	4	9.8%	P-Grass	0	0.0%
AVG: Fac. Upland (-)		A-Grass	0	0.0%	A-Grass	1	2.4%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 <i>Agalinis aspera</i>	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
APOCAN	1 <i>Apocynum cannabinum</i>	0 FAC	Nt P-Forb	Indian hemp
ASTOBL	10 <i>Aster oblongifolius</i>	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 <i>Aster sericeus</i>	5 UPL	Nt P-Forb	Silky aster
ASTLOT	10 <i>Astragalus lotiflorus</i>	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
CEAHER	8 <i>Ceanothus herbaceus</i> var. <i>pubescens</i>	5 UPL	Nt Shrub	Redroot
CELOCC	2 <i>Celtis occidentalis</i>	1 FAC-	Nt Tree	Hackberry
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPDEN	0 <i>Euphorbia dentata</i>	5 UPL	Nt A-Forb	Toothed spurge
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
GAUCOC	7 <i>Gaura coccinea</i>	5 UPL	Nt P-Forb	Scarlet gaura
HEDNIG	7 <i>Hedyotis nigricans</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELIRIG	8 <i>Helianthus rigidus</i>	5 UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LINRIG	7 <i>Linum rigidum</i>	5 UPL	Nt P-Forb	Stiff flax
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Skeletonweed
MELALB	0 <i>MELILOTUS ALBA</i>	3 FACU	Ad B-Forb	White sweet clover
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	5 UPL	Nt P-Grass	Prairie satin grass
PANOLS	5 <i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3 FACU	Nt P-Grass	Scribner's panic grass
PEDARG	5 <i>Pediomelum argophyllum</i>	5 UPL	Nt P-Forb	Silvery scurfy pea
QUEMAC	4 <i>Quercus macrocarpa</i>	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 <i>Rhus glabra</i>	5 UPL	Nt Shrub	Smooth sumac
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem
SETVIR	0 <i>SETARIA VIRIDIS</i>	5 UPL	Ad A-Grass	Green foxtail
SOLALT	0 <i>Solidago altissima</i>	3 FACU	Nt P-Forb	Tall goldenrod
SOLRIG	4 <i>Solidago rigida</i>	4 FACU-	Nt P-Forb	Stiff goldenrod
STRLEI	7 <i>Strophostyles leiosperma</i>	5 UPL	Nt A-Forb	Small wild bean
SYMOC	0 <i>Symphoricarpos occidentalis</i>	5 UPL	Nt Shrub	Wolfberry
SYMOR	0 <i>Symphoricarpos orbiculatus</i>	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 <i>Teucrium canadense</i>	-2 FACW-	Nt P-Forb	Germander
VERSTR	1 <i>Verbena stricta</i>	5 UPL	Nt P-Forb	Hoary vervain
VERBAL	2 <i>Vernonia baldwinii</i>	5 UPL	Nt P-Forb	Baldwin's ironweed
ZANAME	3 <i>Zanthoxylum americanum</i>	5 UPL	Nt Shrub	Prickly ash

Southwest Hill Prairie

3.6 acres; Loess Prairie; Map #23

Notes: This is a beautiful bluff prairie, but it is nearly lost to Rough-leaved Dogwood and Prickly Ash. We visited it only in April of 2010, so most of the records are from Rosburgs (1993) survey, in which it is designated unit I; plants in bold face type are were noted only during the that survey. This is one of two locations for *Calamovilfa longifolia*, the other being at Yucca Ridge.

FLORISTIC QUALITY DATA		Native	53	100.0%	Adventive	0	0.0%
53	NATIVE SPECIES	Tree	3	5.7%	Tree	0	0.0%
53	Total Species	Shrub	9	17.0%	Shrub	0	0.0%
5.1	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
5.1	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
37.1	NATIVE FQI	P-Forb	31	58.5%	P-Forb	0	0.0%
37.1	W/Adventives	B-Forb	0	0.0%	B-Forb	0	0.0%
4.0	NATIVE MEAN W	A-Forb	0	0.0%	A-Forb	0	0.0%
4.0	W/Adventives	P-Grass	9	17.0%	P-Grass	0	0.0%
AVG: Fac. Upland (-)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	1	1.9%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
ASTSER	10 <i>Aster sericeus</i>	5 UPL	Nt P-Forb	Silky aster
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
CALLON	7 <i>Calamovilfa longifolia</i>	5 UPL	Nt P-Grass	Prairie sand reed grass
CXHELI	6 <i>Carex heliophila</i>	5 UPL	Nt P-Sedge	Western oak sedge
CEAHER	8 <i>Ceanothus herbaceus</i> var. <i>pubescens</i>	5 UPL	Nt Shrub	Redroot
COMUMB	6 <i>Comandra umbellata</i>	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
GAUCOC	7 <i>Gaura coccinea</i>	5 UPL	Nt P-Forb	Scarlet gaura
HEDNIG	7 <i>Hedyotis nigricans</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELRIg	8 <i>Helianthus rigidus</i>	5 UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
KOEMAC	7 <i>Koeleria macrantha</i>	5 UPL	Nt P-Grass	June grass
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LIAASP	8 <i>Liatris aspera</i>	5 UPL	Nt P-Forb	Rough blazing star
LINSUL	7 <i>Linum sulcatum</i>	5 UPL	Nt P-Forb	Grooved yellow flax
LITCAN	7 <i>Lithospermum canescens</i>	5 UPL	Nt P-Forb	Hoary puccoon
LITINC	5 <i>Lithospermum incisum</i>	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Skeletonweed
MONFIS	2 <i>Monarda fistulosa</i>	3 FACU	Nt P-Forb	Wild bergamot
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	5 UPL	Nt P-Grass	Prairie satin grass
OSTVIR	5 <i>Ostrya virginiana</i>	4 FACU-	Nt Tree	Hop hornbeam
PANOLS	5 <i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3 FACU	Nt P-Grass	Scribner's panic grass
PEDARG	5 <i>Pediomelum argophyllum</i>	5 UPL	Nt P-Forb	Silvery scurfy pea
PEDESC	8 <i>Pediomelum esculentum</i>	5 UPL	Nt P-Forb	Prairie turnip
PENGRN	5 <i>Penstemon grandiflorus</i>	5 UPL	Nt P-Forb	Large-flowered beard tongue
PHYHET	2 <i>Physalis heterophylla</i>	5 UPL	Nt P-Forb	Ground cherry
PRUVIR	2 <i>Prunus virginiana</i>	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 <i>Quercus macrocarpa</i>	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 <i>Rhus glabra</i>	5 UPL	Nt Shrub	Smooth sumac
ROSARS	4 <i>Rosa arkansana</i> var. <i>suffulta</i>	5 UPL	Nt Shrub	Sunshine rose
SALHUM	8 <i>Salix humilis</i>	3 FACU	Nt Shrub	Prairie willow
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem
SISCAM	4 <i>Sisyrinchium campestre</i>	5 UPL	Nt P-Forb	Prairie blue-eyed grass
SOLMIS	5 <i>Solidago missouriensis</i>	5 UPL	Nt P-Forb	Missouri goldenrod
SOLRIG	4 <i>Solidago rigida</i>	4 FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4 <i>Sorghastrum nutans</i>	2 FACU+	Nt P-Grass	Indian grass
STISPA	6 <i>Stipa spartea</i>	5 UPL	Nt P-Grass	Porcupine grass
SYMORB	0 <i>Symphoricarpos orbiculatus</i>	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 <i>Teucrium canadense</i>	-2 FACW-	Nt P-Forb	Germander
VERSTR	1 <i>Verbena stricta</i>	5 UPL	Nt P-Forb	Hoary vervain

VERBAL	2	<i>Vernonia baldwinii</i>	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOPEF	8	<i>Viola pedatifida</i>	4	FACU-	Nt	P-Forb	Prairie violet
ZANAME	3	<i>Zanthoxylum americanum</i>	5	UPL	Nt	Shrub	Prickly ash

Top-of-the-World Prairie

1.4 acres; Loess Prairie; Map #9

Notes: View from here is spectacular. The terricolous lichens, *Catapyrenium lachneum* and *Psora decipiens* grow on stable interstitial soil openings. This is the area that was included, along with the western portion of Amorpha ridge, in survey unit N in the Rosburg (1993) report. The plants shown in bold face type were not noted either for here or for Amorpha Ridge during this contemporary survey.

FLORISTIC QUALITY DATA		Native	62	100.0%	Adventive	0	0.0%
62	NATIVE SPECIES	Tree	2	3.2%	Tree	0	0.0%
62	Total Species	Shrub	5	8.1%	Shrub	0	0.0%
5.2	NATIVE MEAN C	W-Vine	2	3.2%	W-Vine	0	0.0%
5.2	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
41.1	NATIVE FQI	P-Forb	38	61.3%	P-Forb	0	0.0%
41.1	W/Adventives	B-Forb	2	3.2%	B-Forb	0	0.0%
3.6	NATIVE MEAN W	A-Forb	1	1.6%	A-Forb	0	0.0%
3.6	W/Adventives	P-Grass	9	14.5%	P-Grass	0	0.0%
AVG: Fac. Upland (-)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	2	3.2%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	1.6%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 <i>Agalinis aspera</i>	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower"
ANEVIR	4 <i>Anemone virginiana</i>	5 UPL	Nt P-Forb	Tall anemone
ANTNEG	2 <i>Antennaria neglecta</i>	5 UPL	Nt P-Forb	Cat's feet
ARAHIR	8 <i>Arabis hirsuta</i>	5 UPL	Nt B-Forb	Hairy rock cress
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
ASTLAE	7 <i>Aster laevis</i>	5 UPL	Nt P-Forb	Smooth blue aster
ASTSER	10 <i>Aster sericeus</i>	5 UPL	Nt P-Forb	Silky aster
ASTLOT	10 <i>Astragalus lotiflorus</i>	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
CACPLA	7 <i>Cacalia plantaginea</i>	0 FAC	Nt P-Forb	Prairie Indian plaintain
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CXFEST	8 <i>Carex festucacea</i>	0 FAC	Nt P-Sedge	Fescue oval sedge
CEAHER	8 <i>Ceanothus herbaceus</i> var. <i>pubescens</i>	5 UPL	Nt Shrub	Redroot
CELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
COMUMB	6 <i>Comandra umbellata</i>	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 <i>Dalea candida</i>	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
ELYCAN	5 <i>Elymus canadensis</i>	1 FAC-	Nt P-Grass	Canada wild rye
EQULAE	6 <i>Equisetum laevigatum</i>	-3 FACW	Nt Fern	Smooth scouring rush
ERASPE	2 <i>Eragrostis spectabilis</i>	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
GAUCOC	7 <i>Gaura coccinea</i>	5 UPL	Nt P-Forb	Scarlet gaura
HEDNIG	7 <i>Hedyotis nigricans</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELHIR	5 <i>Helianthus hirsutus</i>	5 UPL	Nt P-Forb	Hispid sunflower
HELRIE	8 <i>Helianthus rigidus</i>	5 UPL	Nt P-Forb	Prairie sunflower
JUNVIR	1 <i>Juniperus virginiana</i>	3 FACU	Nt Tree	Red cedar
LIAASP	8 <i>Liatris aspera</i>	5 UPL	Nt P-Forb	Rough blazing star
LINRIG	7 <i>Linum rigidum</i>	5 UPL	Nt P-Forb	Stiff flax
LITINC	5 <i>Lithospermum incisum</i>	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Skeletonweed
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	5 UPL	Nt P-Grass	Prairie satin grass
OENBIE	0 <i>Oenothera biennis</i>	3 FACU	Nt B-Forb	Common evening primrose
OXYLAM	8 <i>Oxytropis lambertii</i>	4 FACU-	Nt P-Forb	Locoweed
PANOLS	5 <i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3 FACU	Nt P-Grass	Scribner's panic grass
PANWIL	7 <i>Panicum wilcoxianum</i>	5 UPL	Nt P-Grass	Wilcox's panic grass
PEDARG	5 <i>Pedimelum argophyllum</i>	5 UPL	Nt P-Forb	Silvery scurfy pea
PENGRN	5 <i>Penstemon grandiflorus</i>	5 UPL	Nt P-Forb	Large-flowered beard tongue
QUEMAC	4 <i>Quercus macrocarpa</i>	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 <i>Rhus glabra</i>	5 UPL	Nt Shrub	Smooth sumac

SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SOLMIS	5	Solidago missouriensis	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt	P-Forb	Stiff goldenrod
SPOCRY	3	Sporobolus cryptandrus	4	FACU-	Nt	P-Grass	Sand dropseed
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VIOPEF	8	Viola pedatifida	4	FACU-	Nt	P-Forb	Prairie violet
VIOSOR	1	Viola sororia	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

Wavy-leaved Thistle Nose

0.4 acres; Loess Prairie; Map #50

Notes: The plant called *Panicum villosissimum* may be *Panicum malacophyllum*.

FLORISTIC QUALITY DATA		Native		Adventive			
76	NATIVE SPECIES	Tree	5	6.0%	Tree	1	1.2%
83	Total Species	Shrub	5	6.0%	Shrub	0	0.0%
4.4	NATIVE MEAN C	W-Vine	2	2.4%	W-Vine	0	0.0%
4.0	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
38.3	NATIVE FQI	P-Forb	43	51.8%	P-Forb	0	0.0%
36.7	W/Adventives	B-Forb	1	1.2%	B-Forb	2	2.4%
3.3	NATIVE MEAN W	A-Forb	7	8.4%	A-Forb	1	1.2%
3.2	W/Adventives	P-Grass	12	14.5%	P-Grass	1	1.2%
AVG: Fac. Upland		A-Grass	1	1.2%	A-Grass	2	2.4%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 Aster oblongifolius	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
ASTLOT	10 Astragalus lotiflorus	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BOUHIR	7 Bouteloua hirsuta	5 UPL	Nt P-Grass	Hairy grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian plaitain
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CEAHER	8 Ceanothus herbaceus var. pubescens	5 UPL	Nt Shrub	Redroot
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRUND	10 Cirsium undulatum	1 FAC-	Nt P-Forb	Wavy-leaved thistle
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DALCAN	10 Dalea candida	5 UPL	Nt P-Forb	White prairie clover
DALENN	10 Dalea enneandra	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 Dalea purpurea	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DESILS	4 Desmanthus illinoensis	1 FAC-	Nt P-Forb	Prairie mimosa
DESILE	5 Desmodium illinoense	5 UPL	Nt P-Forb	Illinois tick trefoil
ERASPE	2 Eragrostis spectabilis	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 Erigeron strigosus	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPCOR	3 Euphorbia corollata	5 UPL	Nt P-Forb	Flowering spurge
EUPDEN	0 Euphorbia dentata	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 Euphorbia marginata	3 FACU	Nt A-Forb	Snow-on-the-mountain
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
HELANN	0 Helianthus annuus	1 FAC-	Nt A-Forb	Garden sunflower
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LIAPUN	8 Liatris punctata	5 UPL	Nt P-Forb	Dotted blazing star
LINSUL	7 Linum sulcatum	5 UPL	Nt P-Forb	Grooved yellow flax
LITINC	5 Lithospermum incisum	5 UPL	Nt P-Forb	Fringed puccoon
LYGJUN	7 Lygodesmia juncea	5 UPL	Nt P-Forb	Skeletonweed
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MUHCUS	10 Muhlenbergia cuspidata	5 UPL	Nt P-Grass	Prairie satin grass
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
MUHRAC	4 Muhlenbergia racemosa	-3 FACW	Nt P-Grass	Upland wild Timothy
ONOMOH	4 Onosmodium molle ssp. hispidissimum	5 UPL	Nt P-Forb	False gromwell
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PANCAP	0 Panicum capillare	0 FAC	Nt A-Grass	Old witch grass
PANIMP	3 Panicum implicatum	1 FAC-	Nt P-Grass	Old field panic grass
PANOLS	5 Panicum oligosanthos var. scribnerianum	3 FACU	Nt P-Grass	Scribner's panic grass

PENGRN	5	Penstemon grandiflorus	5	UPL	Nt	P-Forb	Large-flowered beard tongue
PHYVIG	4	Physalis virginiana	5	UPL	Nt	P-Forb	Ground cherry
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
RATCOL	4	Ratibida columnifera	5	UPL	Nt	P-Forb	Long-headed coneflower
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SCULEO	7	Scutellaria leonardii	3	FACU	Nt	P-Forb	Small skullcap
SENPLA	3	Senecio plattensis	4	FACU-	Nt	P-Forb	Prairie ragwort
SETFAB	0	SETARIA FABERII	2	FACU+	Ad	A-Grass	Giant foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad	A-Grass	Green foxtail
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt	P-Forb	Tall goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt	P-Forb	Stiff goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
SPHOBO	8	Sphenopholis obtusata var. obtusata	0	FAC	Nt	P-Grass	Prairie wedge grass
STRLEI	7	Strophostyles leiosperma	5	UPL	Nt	A-Forb	Small wild bean
SYMOCC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
ULMAME	2	Ulmus americana	-2	FACW-	Nt	Tree	American elm
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad	Tree	Siberian elm
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape

West Ridge Prairie, North

6.5 acres; Loess Prairie; Map #28

Notes: This beautiful belvedere that overlooks the Missouri River Valley was designated as unit H in the Rosburg (1993) survey. Plants shown in bold face type are known only from that survey. Rosburg also surveyed a small prairie that was shading out even then, which lies at the end of Three-Prairie Ridge. He noted 29 native species with a Mean C of 4.0 and a Floristic Quality Index of 21.

FLORISTIC QUALITY DATA		Native	103	90.4%	Adventive	11	9.6%
103	NATIVE SPECIES	Tree	7	6.1%	Tree	2	1.8%
114	Total Species	Shrub	7	6.1%	Shrub	0	0.0%
4.2	NATIVE MEAN C	W-Vine	5	4.4%	W-Vine	0	0.0%
3.8	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
42.4	NATIVE FQI	P-Forb	52	45.6%	P-Forb	2	1.8%
40.3	W/Adventives	B-Forb	2	1.8%	B-Forb	2	1.8%
3.2	NATIVE MEAN W	A-Forb	9	7.9%	A-Forb	1	0.9%
3.2	W/Adventives	P-Grass	15	13.2%	P-Grass	2	1.8%
AVG: Fac. Upland		A-Grass	1	0.9%	A-Grass	2	1.8%
		P-Sedge	5	4.4%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AMBART	0 <i>Ambrosia artemisiifolia</i>	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 <i>Amorpha canescens</i>	5 UPL	Nt Shrub	Lead plant
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower
ANEVIR	4 <i>Anemone virginiana</i>	5 UPL	Nt P-Forb	Tall anemone
APOCAN	1 <i>Apocynum cannabinum</i>	0 FAC	Nt P-Forb	Indian hemp
ARAHIR	8 <i>Arabis hirsuta</i>	5 UPL	Nt B-Forb	Hairy rock cress
ASCSYR	0 <i>Asclepias syriaca</i>	5 UPL	Nt P-Forb	Common milkweed
ASCTUB	6 <i>Asclepias tuberosa</i>	5 UPL	Nt P-Forb	Butterfly weed
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 <i>Asclepias viridiflora</i>	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 <i>Aster oblongifolius</i>	5 UPL	Nt P-Forb	Aromatic aster
ASTSAG	6 <i>Aster sagittifolius</i>	5 UPL	Nt P-Forb	Arrow-leaved aster
ASTLOT	10 <i>Astragalus lotiflorus</i>	5 UPL	Nt P-Forb	Lotus milk vetch
BELCHI	0 <i>BELAMCANDA CHINENSIS</i>	5 UPL	Ad P-Forb	Blackberry lily
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	False boneset
BROINE	0 <i>BROMUS INERMIS</i>	5 UPL	Ad P-Grass	Smooth brome
CXARTI	8 <i>Carex artitecta</i>	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBACK	10 <i>Carex backii</i>	1 FAC-	Nt P-Sedge	Northern grass sedge
CXBLAN	2 <i>Carex blanda</i>	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 <i>Carex brevior</i>	0 FAC	Nt P-Sedge	Plains oval sedge
CXPENP	6 <i>Carex pennsylvanica</i>	-4 FACW+	Nt P-Sedge	Pennsylvania oak sedge
CELSCA	1 <i>Celastrus scandens</i>	3 FACU	Nt W-Vine	Bittersweet
CHEPRA	5 <i>Chenopodium pratericola</i>	5 UPL	Nt A-Forb	Plains goosefoot
CIRALT	4 <i>Cirsium altissimum</i>	5 UPL	Nt P-Forb	Tall thistle
COMUMB	6 <i>Comandra umbellata</i>	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
DESPIB	1 <i>Descurainia pinnata</i> var. <i>brachycarpa</i>	5 UPL	Nt A-Forb	Tansy mustard
ECHANG	8 <i>Echinacea angustifolia</i>	5 UPL	Nt P-Forb	Purple coneflower
ELYCAN	5 <i>Elymus canadensis</i>	1 FAC-	Nt P-Grass	Canada wild rye
ERASPE	2 <i>Eragrostis spectabilis</i>	5 UPL	Nt P-Grass	Purple love grass
ERISTR	2 <i>Erigeron strigosus</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPALT	2 <i>Eupatorium altissimum</i>	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 <i>Eupatorium rugosum</i>	3 FACU	Nt P-Forb	White snakeroot
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
EUPDEN	0 <i>Euphorbia dentata</i>	5 UPL	Nt A-Forb	Toothed spurge
EUPMAR	0 <i>Euphorbia marginata</i>	3 FACU	Nt A-Forb	Snow-on-the-mountain
EUPSPA	5 <i>Euphorbia spathulata</i>	5 UPL	Nt A-Forb	Spatula spurge
FRAPEP	3 <i>Fraxinus pennsylvanica</i>	-3 FACW	Nt Tree	Red ash
FRAPEL	1 <i>Fraxinus pennsylvanica</i> var. <i>lanceolata</i>	-3 FACW	Nt Tree	Green ash
GAUCOC	7 <i>Gaura coccinea</i>	5 UPL	Nt P-Forb	Scarlet gaura
GLETRI	0 <i>Gleditsia triacanthos</i>	0 FAC	Nt Tree	Honey locust
HEDHIS	2 <i>Hedeoma hispidum</i>	5 UPL	Nt A-Forb	Rough pennyroyal

HEDNIG	7	Hedyotis nigricans	5	UPL	Nt	P-Forb	Narrow-leaved bluets
HELHIR	5	Helianthus hirsutus	5	UPL	Nt	P-Forb	Hispid sunflower
HELIRIG	8	Helianthus rigidus	5	UPL	Nt	P-Forb	Prairie sunflower
JUNVIR	1	Juniperus virginiana	3	FACU	Nt	Tree	Red cedar
LESCAP	3	Lespedeza capitata	3	FACU	Nt	P-Forb	Round-headed bush clover
LIAASP	8	Liatris aspera	5	UPL	Nt	P-Forb	Rough blazing star
LIAPUN	8	Liatris punctata	5	UPL	Nt	P-Forb	Dotted blazing star
LINRIG	7	Linum rigidum	5	UPL	Nt	P-Forb	Stiff flax
LITCAN	7	Lithospermum canescens	5	UPL	Nt	P-Forb	Hoary puccoon
LITINC	5	Lithospermum incisum	5	UPL	Nt	P-Forb	Fringed puccoon
LYGJUN	7	Lygodesmia juncea	5	UPL	Nt	P-Forb	Skeletonweed
MEDLUP	0	MEDICAGO LUPULINA	1	FAC-	Ad	A-Forb	Black medick
MELALB	0	MELILOTUS ALBA	3	FACU	Ad	B-Forb	White sweet clover
MELOFC	0	MELILOTUS OFFICINALIS	3	FACU	Ad	B-Forb	Yellow sweet clover
MONFIS	2	Monarda fistulosa	3	FACU	Nt	P-Forb	Wild bergamot
MORALB	0	MORUS ALBA	0	FAC	Ad	Tree	White mulberry
MUHCUS	10	Muhlenbergia cuspidata	5	UPL	Nt	P-Grass	Prairie satin grass
MUHMEX	5	Muhlenbergia mexicana	-3	FACW	Nt	P-Grass	Leafy satin grass
MUHRAC	4	Muhlenbergia racemosa	-3	FACW	Nt	P-Grass	Upland wild Timothy
OENBIE	0	Oenothera biennis	3	FACU	Nt	B-Forb	Common evening primrose
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt	Tree	Hop hornbeam
PANOLS	5	Panicum oligosanthes var. scribnerianum	3	FACU	Nt	P-Grass	Scribner's panic grass
PANVIR	5	Panicum virgatum	-1	FAC+	Nt	A-Grass	Switch grass
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt	W-Vine	Virginia creeper
PEDARG	5	Pediomelum argophyllum	5	UPL	Nt	P-Forb	Silvery scurfy pea
PEDESC	8	Pediomelum esculentum	5	UPL	Nt	P-Forb	Prairie turnip
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt	P-Forb	Large-flowered beard tongue
PHYHET	2	Physalis heterophylla	5	UPL	Nt	P-Forb	Ground cherry
PLAMAJ	0	PLANTAGO MAJOR	-1	FAC+	Ad	P-Forb	Common plantain
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
POLVER	7	Polygala verticillata	5	UPL	Nt	A-Forb	Whorled milkwort
POLBIF	4	Polygonatum biflorum	3	FACU	Nt	P-Forb	Solomon's seal
POPDEL	1	Populus deltoides	-1	FAC+	Nt	Tree	Cottonwood
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
RATPIN	4	Ratibida pinnata	5	UPL	Nt	P-Forb	Gray-headed coneflower
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
ROSARS	4	Rosa arkansana var. suffulta	5	UPL	Nt	Shrub	Sunshine rose
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad	A-Grass	Yellow foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad	A-Grass	Green foxtail
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	Solidago gigantea	-3	FACW	Nt	P-Forb	Smooth goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt	P-Forb	Stiff goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
SPHOBO	8	Sphenopholis obtusata var. obtusata	0	FAC	Nt	P-Grass	Prairie wedge grass
SPOASP	3	Sporobolus asper	5	UPL	Nt	P-Grass	Rough dropseed
SPOCRY	3	Sporobolus cryptandrus	4	FACU-	Nt	P-Grass	Sand dropseed
STISPA	6	Stipa spartea	5	UPL	Nt	P-Grass	Porcupine grass
STRLEI	7	Strophostyles leiosperma	5	UPL	Nt	A-Forb	Small wild bean
SYMOCC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
TRIFLA	0	Tridens flavus	5	UPL	Nt	P-Grass	Purple top
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad	Tree	Siberian elm
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt	Shrub	Prickly ash

West Ridge Prairie, South

6.2 acres; Loess Prairie; Map #27

Notes: The soil is well invested with *Catapyrenium lachneum*, but Eurasian earthworms were noted as well! The absence of *Helianthus rigidus* is not because we have not looked for it or failed to note it. The following conservative insects were collected here: *Neivamyrmex opacithorax* and *Pheidole tysoni*.

FLORISTIC QUALITY DATA		Native		Adventive	
75	NATIVE SPECIES	75	92.6%	6	7.4%
81	Total Species	5	6.2%	1	1.2%
4.5	NATIVE MEAN C	6	7.4%	0	0.0%
4.2	W/Adventives	1	1.2%	0	0.0%
39.0	NATIVE FQI	0	0.0%	0	0.0%
37.6	W/Adventives	45	55.6%	0	0.0%
3.7	NATIVE MEAN W	0	0.0%	2	2.5%
3.5	W/Adventives	4	4.9%	1	1.2%
AVG: Fac. Upland (-)		12	14.8%	1	1.2%
		0	0.0%	1	1.2%
		2	2.5%	0	0.0%
		0	0.0%	0	0.0%
		0	0.0%	0	0.0%

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGAASP	10 <i>Agalinis aspera</i>	5 UPL	Nt A-Forb	Rough false foxglove
AMBART	0 <i>Ambrosia artemisiifolia</i>	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 <i>Ambrosia psilostachya</i>	1 FAC-	Nt P-Forb	Western ragweed
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower"
ASCSYR	0 <i>Asclepias syriaca</i>	5 UPL	Nt P-Forb	Common milkweed
ASCTUB	6 <i>Asclepias tuberosa</i>	5 UPL	Nt P-Forb	Butterfly weed
ASCVIF	6 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Green milkweed
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Sky-blue aster
ASTOBL	10 <i>Aster oblongifolius</i>	5 UPL	Nt P-Forb	Heath aster
ASTLOT	10 <i>Astragalus lotiflorus</i>	5 UPL	Nt P-Forb	Aromatic aster
ASTMIS	8 <i>Astragalus missouriensis</i>	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Missouri milk vetch
BRIEUP	5 <i>Brickellia eupatorioides</i>	5 UPL	Nt P-Forb	Side-oats grama
CXARTI	8 <i>Carex artitecta</i>	5 UPL	Nt P-Sedge	False boneset
CXBLAN	2 <i>Carex blanda</i>	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CELSCA	1 <i>Celastrus scandens</i>	0 FAC	Nt P-Sedge	Common wood sedge
CELOCC	2 <i>Celtis occidentalis</i>	3 FACU	Nt W-Vine	Bittersweet
CIRALT	4 <i>Cirsium altissimum</i>	1 FAC-	Nt Tree	Hackberry
CORDRU	4 <i>Cornus drummondii</i>	5 UPL	Nt P-Forb	Tall thistle
DALCAN	10 <i>Dalea candida</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	White prairie clover
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Sailpod dalea
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Purple prairie clover
DESILS	4 <i>Desmanthus illinoensis</i>	5 UPL	Nt P-Forb	Prairie larkspur
ELYCAN	5 <i>Elymus canadensis</i>	1 FAC-	Nt P-Forb	Prairie mimosa
ELYVIL	5 <i>Elymus villosus</i>	1 FAC-	Nt P-Grass	Canada wild rye
ERASPE	2 <i>Eragrostis spectabilis</i>	3 FACU	Nt P-Grass	Slender wild rye
ERISTR	2 <i>Erigeron strigosus</i>	5 UPL	Nt P-Grass	Purple love grass
EUPCOR	3 <i>Euphorbia corollata</i>	1 FAC-	Nt P-Forb	Daisy fleabane
EUPDEN	0 <i>Euphorbia dentata</i>	5 UPL	Nt P-Forb	Flowering spurge
EUPMAR	0 <i>Euphorbia marginata</i>	5 UPL	Nt A-Forb	Toothed spurge
FRAPEP	3 <i>Fraxinus pennsylvanica</i>	3 FACU	Nt A-Forb	Snow-on-the-mountain
HEDNIG	7 <i>Hedyotis nigricans</i>	-3 FACW	Nt Tree	Red ash
HELHIR	5 <i>Helianthus hirsutus</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
JUNVIR	1 <i>Juniperus virginiana</i>	5 UPL	Nt P-Forb	Hispid sunflower
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt Tree	Red cedar
LIAPUN	8 <i>Liatris punctata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LINRIG	7 <i>Linum rigidum</i>	5 UPL	Nt P-Forb	Dotted blazing star
LINSUL	7 <i>Linum sulcatum</i>	5 UPL	Nt P-Forb	Stiff flax
LITINC	5 <i>Lithospermum incisum</i>	5 UPL	Nt P-Forb	Grooved yellow flax
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Fringed puccoon
MEDLUP	0 <i>MEDICAGO LUPULINA</i>	5 UPL	Nt P-Forb	Skeletonweed
MELALB	0 <i>MELILOTUS ALBA</i>	1 FAC-	Ad A-Forb	Black medick
MELOFC	0 <i>MELILOTUS OFFICINALIS</i>	3 FACU	Ad B-Forb	White sweet clover
MORALB	0 <i>MORUS ALBA</i>	3 FACU	Ad B-Forb	Yellow sweet clover
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	0 FAC	Ad Tree	White mulberry
MUHRAC	4 <i>Muhlenbergia racemosa</i>	5 UPL	Nt P-Grass	Prairie satin grass
OXYLAM	8 <i>Oxytropis lambertii</i>	-3 FACW	Nt P-Grass	Upland wild Timothy
PANOLS	5 <i>Panicum oligosanthos</i> var. <i>scribnerianum</i>	4 FACU-	Nt P-Forb	Locoweed
PEDESC	8 <i>Pedimelum esculentum</i>	3 FACU	Nt P-Grass	Scribner's panic grass
		5 UPL	Nt P-Forb	Prairie turnip

PENGRN	5	Penstemon grandiflorus	5	UPL	Nt	P-Forb	Large-flowered beard tongue
PHRLEP	4	Phryma leptostachya	5	UPL	Nt	P-Forb	Lopseed
PHYHET	2	Physalis heterophylla	5	UPL	Nt	P-Forb	Ground cherry
POAPRA	0	POA PRATENSIS	1	FAC-	Ad	P-Grass	Kentucky blue grass
POPDEL	1	Populus deltoides	-1	FAC+	Nt	Tree	Cottonwood
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
ROSARS	4	Rosa arkansana var. suffulta	5	UPL	Nt	Shrub	Sunshine rose
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SETFAB	0	SETARIA FABERII	2	FACU+	Ad	A-Grass	Giant foxtail
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SMIECI	6	Smilax ecirrhata	5	UPL	Nt	P-Forb	Upright carrion flower
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	Solidago gigantea	-3	FACW	Nt	P-Forb	Smooth goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt	P-Forb	Stiff goldenrod
SOLSPE	7	Solidago speciosa	5	UPL	Nt	P-Forb	Showy goldenrod
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
SPOASP	3	Sporobolus asper	5	UPL	Nt	P-Grass	Rough dropseed
STISPA	6	Stipa spartea	5	UPL	Nt	P-Grass	Porcupine grass
SYMOC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VIOPEF	8	Viola pedatifida	4	FACU-	Nt	P-Forb	Prairie violet
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt	Shrub	Prickly ash

West Ridge Thicket

11.0 acres; Thicket; Map #15

FLORISTIC QUALITY DATA	Native	51	91.1%	Adventive	5	8.9%
51 NATIVE SPECIES	Tree	10	17.9%	Tree	2	3.6%
56 Total Species	Shrub	7	12.5%	Shrub	0	0.0%
2.9 NATIVE MEAN C	W-Vine	5	8.9%	W-Vine	0	0.0%
2.7 W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
21.0 NATIVE FQI	P-Forb	18	32.1%	P-Forb	0	0.0%
20.0 W/Adventives	B-Forb	1	1.8%	B-Forb	2	3.6%
1.8 NATIVE MEAN W	A-Forb	4	7.1%	A-Forb	1	1.8%
1.8 W/Adventives	P-Grass	3	5.4%	P-Grass	0	0.0%
AVG: Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	0	0.0%
	P-Sedge	3	5.4%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	A-Sedge	0	0.0%
	Fern	0	0.0%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ACESAI	1 Acer saccharinum	-3 FACW	Nt Tree	Silver maple
AILALT	0 AILANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXNORM	5 Carex normalis	-3 FACW	Nt P-Sedge	Spreading oval sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CHESTA	6 Chenopodium standleyanum	5 UPL	Nt A-Forb	Woodland goosefoot
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FRAPEP	3 Fraxinus pennsylvanica	-3 FACW	Nt Tree	Red ash
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HYPSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MUHMEX	5 Muhlenbergia mexicana	-3 FACW	Nt P-Grass	Leafy satin grass
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
PILPUM	3 Pilea pumila	-3 FACW	Nt A-Forb	Common clearweed
PRUVIR	2 Prunus virginiana	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry
RUBOCC	1 Rubus occidentalis	5 UPL	Nt Shrub	Black raspberry
SANCAS	6 Sanicula canadensis	2 FACU+	Nt B-Forb	Black snakeroot
SCRMAR	4 Scrophularia marilandica	4 FACU-	Nt P-Forb	Late figwort
SMIHIS	4 Smilax hispida	0 FAC	Nt W-Vine	Greenbrier
SOLALT	0 Solidago altissima	3 FACU	Nt P-Forb	Tall goldenrod
SYMORB	0 Symphoricarpos orbiculatus	3 FACU	Nt Shrub	Coralberry
TEUCAN	4 Teucrium canadense	-2 FACW-	Nt P-Forb	Germander
TILAME	5 Tilia americana	3 FACU	Nt Tree	Basswood
TOXRAD	0 Toxicodendron radicans	-1 FAC+	Nt W-Vine	Poison ivy
TRIPEM	4 Triosteum perfoliatum	5 UPL	Nt P-Forb	Late horse gentian
ULMRUB	2 Ulmus rubra	0 FAC	Nt Tree	Slippery elm
URTDIO	0 Urtica dioica	-1 FAC+	Nt P-Forb	Stinging nettle
VERURT	2 Verbena urticifolia	-1 FAC+	Nt P-Forb	White vervain
VERBAL	2 Vernonia baldwinii	5 UPL	Nt P-Forb	Baldwin's ironweed
VIOSOR	1 Viola sororia	1 FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1 Vitis riparia	-2 FACW-	Nt W-Vine	Riverbank grape
ZANAME	3 Zanthoxylum americanum	5 UPL	Nt Shrub	Prickly ash

West Ridge Valley

9.3 acres; Loess Prairie; Map #25

Notes: This is the area includes the area that was designated unit #5 in the Rosburg (1993) survey. Plants shown in bold face type are known only from that original survey.

FLORISTIC QUALITY DATA	Native	69	87.3%	Adventive	10	12.7%
69 NATIVE SPECIES	Tree	12	15.2%	Tree	2	2.5%
79 Total Species	Shrub	7	8.9%	Shrub	0	0.0%
2.9 NATIVE MEAN C	W-Vine	3	3.8%	W-Vine	0	0.0%
2.6 W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
24.4 NATIVE FQI	P-Forb	31	39.2%	P-Forb	1	1.3%
22.8 W/Adventives	B-Forb	2	2.5%	B-Forb	2	2.5%
1.7 NATIVE MEAN W	A-Forb	6	7.6%	A-Forb	3	3.8%
1.7 W/Adventives	P-Grass	6	7.6%	P-Grass	1	1.3%
AVG: Fac. Upland (+)	A-Grass	0	0.0%	A-Grass	1	1.3%
	P-Sedge	1	1.3%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	A-Sedge	0	0.0%
	Fern	1	1.3%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
AILALT	0 AILANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBTRI	0 Ambrosia trifida	-1 FAC+	Nt A-Forb	Giant ragweed
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANEVIR	4 Anemone virginiana	5 UPL	Nt P-Forb	Tall anemone
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
CACATR	5 Cacalia atriplicifolia	5 UPL	Nt P-Forb	Indian plaintain
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CHEALB	0 CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	Lamb's quarters
CHEHYB	0 Chenopodium hybridum	5 UPL	Nt A-Forb	Maple-leaved goosefoot
CINARU	4 Cinna arundinacea	-3 FACW	Nt P-Grass	Wood reed
CIRALT	4 Cirsium altissimum	5 UPL	Nt P-Forb	Tall thistle
CIRARV	0 CIRSIUM ARVENSE	3 FACU	Ad P-Forb	Field thistle
CONMAC	0 CONIUM MACULATUM	-3 FACW	Ad B-Forb	Poison hemlock
CONCAN	0 Conyza canadensis	1 FAC-	Nt A-Forb	Horseweed
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CYSFRA	10 Cystopteris fragilis	4 FACU-	Nt Fern	Fragile fern
ELLNVC	1 Ellisia nyctelea	-1 FAC+	Nt A-Forb	Aunt Lucy
ERIANN	0 Erigeron annuus	1 FAC-	Nt B-Forb	Annual fleabane
EUPALT	2 Eupatorium altissimum	3 FACU	Nt P-Forb	Tall boneset
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaezans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HELRIE	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
JUGNIG	4 Juglans nigra	3 FACU	Nt Tree	Black walnut
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LEEVR	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
MORALB	0 MORUS ALBA	0 FAC	Ad Tree	White mulberry
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
MUHFRO	3 Muhlenbergia frondosa	-3 FACW	Nt P-Grass	Common satin grass
MUHSCH	1 Muhlenbergia schreberi	0 FAC	Nt P-Grass	Nimblewill
OSMCLI	3 Osmorhiza claytonii	4 FACU-	Nt P-Forb	Hairy sweet cicely
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
OXASTR	0 Oxalis stricta	3 FACU	Nt P-Forb	Tall wood sorrel
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHLDIV	5 Phlox divaricata	3 FACU	Nt P-Forb	Woodland phlox
PHYAME	0 Phytolacca americana	1 FAC-	Nt P-Forb	Pokeweed
PLARUG	0 Plantago rugelii	0 FAC	Nt A-Forb	Red-stalked plantain
POLVIG	5 Polygonum virginianum	0 FAC	Nt P-Forb	Jumpseed

POPDEL	1	<i>Populus deltoides</i>	-1	FAC+	Nt Tree	Cottonwood
QUEMAC	4	<i>Quercus macrocarpa</i>	1	FAC-	Nt Tree	Bur oak
RATPIN	4	<i>Ratibida pinnata</i>	5	UPL	Nt P-Forb	Gray-headed coneflower
RIBMIS	3	<i>Ribes missouriense</i>	5	UPL	Nt Shrub	Wild gooseberry
RUBOCC	1	<i>Rubus occidentalis</i>	5	UPL	Nt Shrub	Black raspberry
SAMCAN	1	<i>Sambucus canadensis</i>	4	FACU-	Nt Shrub	Elderberry
SANCAS	6	<i>Sanicula canadensis</i>	2	FACU+	Nt B-Forb	Black snakeroot
SCRMAR	4	<i>Scrophularia marilandica</i>	4	FACU-	Nt P-Forb	Late figwort
SETFAB	0	<i>SETARIA FABERII</i>	2	FACU+	Ad A-Grass	Giant foxtail
SILINT	4	<i>Silphium integrifolium</i>	5	UPL	Nt P-Forb	Rosin weed
SISLOE	0	<i>SISYMBRIUM LOESELII</i>	5	UPL	Ad A-Forb	Tall hedge mustard
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt P-Forb	Tall goldenrod
SOLCAN	0	<i>Solidago canadensis</i>	3	FACU	Nt P-Forb	Tall goldenrod
SOLGIG	3	<i>Solidago gigantea</i>	-3	FACW	Nt P-Forb	Smooth goldenrod
STATRI	7	<i>Staphylea trifolia</i>	0	FAC	Nt Shrub	Bladdernut
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt Shrub	Coralberry
TEUCAN	4	<i>Teucrium canadense</i>	-2	FACW-	Nt P-Forb	Germander
TILAME	5	<i>Tilia americana</i>	3	FACU	Nt Tree	Basswood
TOXRAD	0	<i>Toxicodendron radicans</i>	-1	FAC+	Nt W-Vine	Poison ivy
ULMAME	2	<i>Ulmus americana</i>	-2	FACW-	Nt Tree	American elm
ULMRUB	2	<i>Ulmus rubra</i>	0	FAC	Nt Tree	Slippery elm
URTDIO	0	<i>Urtica dioica</i>	-1	FAC+	Nt P-Forb	Stinging nettle
VERURT	2	<i>Verbena urticifolia</i>	-1	FAC+	Nt P-Forb	White vervain
VIOPUP	5	<i>Viola pubescens</i>	4	FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1	<i>Viola sororia</i>	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt W-Vine	Riverbank grape
ZANAME	3	<i>Zanthoxylum americanum</i>	5	UPL	Nt Shrub	Prickly ash

Wildflower Wander

20.9 acres; Timber; Map #67

Notes: The plant listed here as *Smilax lasioneura* is actually *Smilax illinoensis*, which is not in the Iowa data base.

FLORISTIC QUALITY DATA		Native		Adventive	
73	NATIVE SPECIES	73	94.8%	4	5.2%
77	Total Species	10	13.0%	0	0.0%
3.9	NATIVE MEAN C	7	9.1%	0	0.0%
3.7	W/Adventives	1	1.3%	0	0.0%
33.1	NATIVE FQI	26	33.8%	0	0.0%
32.3	W/Adventives	2	2.6%	3	3.9%
2.0	NATIVE MEAN W	4	5.2%	0	0.0%
2.0	W/Adventives	5	6.5%	1	1.3%
AVG: Fac. Upland (+)		0	0.0%	0	0.0%
		8	10.4%	0	0.0%
		0	0.0%	0	0.0%
		3	3.9%		

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
BOTVIR	6 Botrychium virginianum	3 FACU	Nt Fern	Rattlesnake fern
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXGRAS	10 Carex gracilescens	5 UPL	Nt P-Sedge	Slender wood sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXHITC	8 Carex hitchcockiana	5 UPL	Nt P-Sedge	Hairy gray sedge
CXNORM	5 Carex normalis	-3 FACW	Nt P-Sedge	Spreading oval sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPRE	4 Carex sprengelii	0 FAC	Nt P-Sedge	Long-beaked sedge
CARCOR	5 Carya cordiformis	0 FAC	Nt Tree	Bitternut hickory
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CELOCC	2 Celtis occidentalis	1 FAC-	Nt Tree	Hackberry
CIRLUT	5 Circaea lutetiana var. canadensis	3 FACU	Nt P-Forb	Enchanter's nightshade
CLEVIR	2 Clematis virginiana	0 FAC	Nt W-Vine	Virgin's bower
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
CYSPRO	6 Cystopteris protrusa	4 FACU-	Nt Fern	Creeping fragile fern
DESGLU	5 Desmodium glutinosum	5 UPL	Nt P-Forb	Pointed tick trefoil
DICCCUC	7 Dicentra cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
DRYCAR	10 Dryopteris carthusiana	5 UPL	Nt Fern	Spinulose wood fern
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
GALAPA	1 Galium aparine	3 FACU	Nt A-Forb	Cleavers
GALCIR	6 Galium circaeans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
GEUCAN	2 Geum canadense	0 FAC	Nt P-Forb	White avens
GLETRI	0 Gleditsia triacanthos	0 FAC	Nt Tree	Honey locust
GYMDIO	5 Gymnocladus dioica	5 UPL	Nt Tree	Kentucky coffee tree
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HYDVIR	3 Hydrophyllum virginianum	-2 FACW-	Nt P-Forb	Virginia waterleaf
HYSPAT	5 Hystrix patula	5 UPL	Nt P-Grass	Bottlebrush grass
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LACCAN	1 Lactuca canadensis	2 FACU+	Nt B-Forb	Wild lettuce
LAPCAN	3 Laportea canadensis	-3 FACW	Nt P-Forb	Wood nettle
LEEVIR	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
MELOFC	0 MELILOTUS OFFICINALIS	3 FACU	Ad B-Forb	Yellow sweet clover
MENCAN	5 Menispermum canadense	-1 FAC+	Nt W-Vine	Moonseed
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
OSMCLI	3 Osmorhiza claytonii	4 FACU-	Nt P-Forb	Hairy sweet cicely
OSMLON	5 Osmorhiza longistylis	4 FACU-	Nt P-Forb	Smooth sweet cicely
OSTVIR	5 Ostrya virginiana	4 FACU-	Nt Tree	Hop hornbeam
PARQUI	2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	Virginia creeper
PHRLEP	4 Phryma leptostachya	5 UPL	Nt P-Forb	Lopseed
PILPUM	3 Pilea pumila	-3 FACW	Nt A-Forb	Common clearweed
POACOM	0 POA COMPRESSA	2 FACU+	Ad P-Grass	Canadian blue grass
POASYL	10 Poa sylvestris	0 FAC	Nt P-Grass	Woodland blue grass
POLBIF	4 Polygonatum biflorum	3 FACU	Nt P-Forb	Solomon's seal
PRUVIR	2 Prunus virginiana	1 FAC-	Nt Shrub	Choke cherry
QUEMAC	4 Quercus macrocarpa	1 FAC-	Nt Tree	Bur oak
RANABO	0 Ranunculus abortivus	-4 FACW+	Nt A-Forb	Small-flowered crowfoot
RHUGLA	0 Rhus glabra	5 UPL	Nt Shrub	Smooth sumac
RIBMIS	3 Ribes missouriense	5 UPL	Nt Shrub	Wild gooseberry

RUBOCC	1	<i>Rubus occidentalis</i>	5	UPL	Nt Shrub	Black raspberry
SANCAN	7	<i>Sanguinaria canadensis</i>	4	FACU-	Nt P-Forb	Bloodroot
SANCAS	6	<i>Sanicula canadensis</i>	2	FACU+	Nt B-Forb	Black snakeroot
SILSTE	4	<i>Silene stellata</i>	5	UPL	Nt P-Forb	Starry campion
SMISTE	5	<i>Smilacina stellata</i>	1	FAC-	Nt P-Forb	Starry false Solomon's seal
SMIECI	6	<i>Smilax ecirrhata</i>	5	UPL	Nt P-Forb	Upright carrion flower
SMIHIS	4	<i>Smilax hispida</i>	0	FAC	Nt W-Vine	Greenbrier
SMILAS	5	<i>Smilax lasioneura</i>	0	FAC	Nt H-Vine	Common carrion flower
SOLALT	0	<i>Solidago altissima</i>	3	FACU	Nt P-Forb	Tall goldenrod
STATRI	7	<i>Staphylea trifolia</i>	0	FAC	Nt Shrub	Bladdernut
SYMORB	0	<i>Symphoricarpos orbiculatus</i>	3	FACU	Nt Shrub	Coralberry
THADIO	8	<i>Thalictrum dioicum</i>	2	FACU+	Nt P-Forb	Early meadow rue
TILAME	5	<i>Tilia americana</i>	3	FACU	Nt Tree	Basswood
TOXRAD	0	<i>Toxicodendron radicans</i>	-1	FAC+	Nt W-Vine	Poison ivy
TRIPEM	4	<i>Triosteum perfoliatum</i>	5	UPL	Nt P-Forb	Late horse gentian
ULMAME	2	<i>Ulmus americana</i>	-2	FACW-	Nt Tree	American elm
URTDIO	0	<i>Urtica dioica</i>	-1	FAC+	Nt P-Forb	Stinging nettle
VERTHA	0	<i>VERBASCUM THAPSUS</i>	5	UPL	Ad B-Forb	Common mullein
VIOPUP	5	<i>Viola pubescens</i>	4	FACU-	Nt P-Forb	Downy yellow violet
VIOSOR	1	<i>Viola sororia</i>	1	FAC-	Nt P-Forb	Hairy blue violet
VITRIP	1	<i>Vitis riparia</i>	-2	FACW-	Nt W-Vine	Riverbank grape

Yucca Ridge

0.5 acre; Loess Prairie; Map #31

Notes: *Carex backii* listed here is a place holder for *Carex saximontana*, which is not in the Iowa database. *Viola subsinuata*, see here, also is not in the Iowa database. Bedevilled by *Melilotus alba* and shrubs, this is one of only two ridges where we have seen or had reports of *Calamovilfa longifolia* and *Yucca glauca*. The following conservative insects were collected here: *Hypoponera opacior* and *Neivamyrmex nigrescens*.

FLORISTIC QUALITY DATA		Native		88.6%		Adventive		10		11.4%	
78	NATIVE SPECIES	Tree	7	8.0%	Tree	1	1.1%				
88	Total Species	Shrub	7	8.0%	Shrub	0	0.0%				
4.2	NATIVE MEAN C	W-Vine	6	6.8%	W-Vine	0	0.0%				
3.7	W/Adventives	H-Vine	1	1.1%	H-Vine	0	0.0%				
37.1	NATIVE FQI	P-Forb	32	36.4%	P-Forb	0	0.0%				
35.0	W/Adventives	B-Forb	1	1.1%	B-Forb	3	3.4%				
2.6	NATIVE MEAN W	A-Forb	3	3.4%	A-Forb	2	2.3%				
2.6	W/Adventives	P-Grass	13	14.8%	P-Grass	1	1.1%				
AVG: Fac. Upland		A-Grass	0	0.0%	A-Grass	3	3.4%				
		P-Sedge	8	9.1%	P-Sedge	0	0.0%				
		A-Sedge	0	0.0%	A-Sedge	0	0.0%				
		Fern	0	0.0%							

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
APOSIB	1 Apocynum sibiricum	-1 FAC+	Nt P-Forb	Indian hemp
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BROJAP	0 BROMUS JAPONICUS	3 FACU	Ad A-Grass	Japanese chess
CALLON	7 Calamovilfa longifolia	5 UPL	Nt P-Grass	Prairie sand reed grass
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBACK	10 Carex backii	1 FAC-	Nt P-Sedge	Northern grass sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXHITC	8 Carex hitchcockiana	5 UPL	Nt P-Sedge	Hairy gray sedge
CXPENP	6 Carex pensylvanica	-4 FACW+	Nt P-Sedge	Pennsylvania oak sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPRE	4 Carex sprengei	0 FAC	Nt P-Sedge	Long-beaked sedge
CELSCA	1 Celastrus scandens	3 FACU	Nt W-Vine	Bittersweet
CHEPRA	5 Chenopodium pratericola	5 UPL	Nt A-Forb	Plains goosefoot
COMUMB	6 Comandra umbellata	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 Cornus drummondii	0 FAC	Nt Shrub	Rough-leaved dogwood
DELVIR	7 Delphinium virescens	5 UPL	Nt P-Forb	Prairie larkspur
DICCUC	7 Dicentra cucullaria	5 UPL	Nt P-Forb	Dutchman's breeches
DIGISC	0 DIGITARIA ISCHAEMUM	3 FACU	Ad A-Grass	Smooth crab grass
ELYCAN	5 Elymus canadensis	1 FAC-	Nt P-Grass	Canada wild rye
ELYVIL	5 Elymus villosus	3 FACU	Nt P-Grass	Slender wild rye
EUPRUG	2 Eupatorium rugosum	3 FACU	Nt P-Forb	White snakeroot
EUPCYA	0 EUPHORBIA CYATHOPHORA	5 UPL	Ad A-Forb	Wild poinsettia
FESOBT	7 Festuca obtusa	2 FACU+	Nt P-Grass	Nodding fescue
FRAPEL	1 Fraxinus pennsylvanica var. lanceolata	-3 FACW	Nt Tree	Green ash
GALCIR	6 Galium circaeans	4 FACU-	Nt P-Forb	Wild licorice
GALTRO	7 Galium triflorum	2 FACU+	Nt P-Forb	Sweet-scented bedstraw
HACVIR	0 Hackelia virginiana	1 FAC-	Nt P-Forb	Stickseed
HEDHIS	2 Hedeoma hispidum	5 UPL	Nt A-Forb	Rough pennyroyal
HELRIG	8 Helianthus rigidus	5 UPL	Nt P-Forb	Prairie sunflower
HUMLUP	3 Humulus lupulus	3 FACU	Nt H-Vine	Common hops
JUNVIR	1 Juniperus virginiana	3 FACU	Nt Tree	Red cedar
LEEVIR	6 Leersia virginica	-3 FACW	Nt P-Grass	White grass
LESCAP	3 Lespedeza capitata	3 FACU	Nt P-Forb	Round-headed bush clover
LINRIG	7 Linum rigidum	5 UPL	Nt P-Forb	Stiff flax
LITINC	5 Lithospermum incisum	5 UPL	Nt P-Forb	Fringed puccoon
MELALB	0 MELILOTUS ALBA	3 FACU	Ad B-Forb	White sweet clover
MENCAN	5 Menispermum canadense	-1 FAC+	Nt W-Vine	Moonseed
MORRUB	4 Morus rubra	1 FAC-	Nt Tree	Red mulberry
MUHCUS	10 Muhlenbergia cuspidata	5 UPL	Nt P-Grass	Prairie satin grass
MUHRAC	4 Muhlenbergia racemosa	-3 FACW	Nt P-Grass	Upland wild Timothy

MUHSCH	1	Muhlenbergia schreberi	0	FAC	Nt P-Grass	Nimblewill
MUHSOB	7	Muhlenbergia sobolifera	5	UPL	Nt P-Grass	Rock satin grass
OSMCLI	3	Osmorhiza claytonii	4	FACU-	Nt P-Forb	Hairy sweet cicely
OSTVIR	5	Ostrya virginiana	4	FACU-	Nt Tree	Hop hornbeam
PANOLS	5	Panicum oligosanthes var. scribnerianum	3	FACU	Nt P-Grass	Scribner's panic grass
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt W-Vine	Virginia creeper
PEDARG	5	Pedimelum argophyllum	5	UPL	Nt P-Forb	Silvery scurfy pea
PENGRN	5	Penstemon grandiflorus	5	UPL	Nt P-Forb	Large-flowered beard tongue
PHRLEP	4	Phryma leptostachya	5	UPL	Nt P-Forb	Lopseed
PHYHET	2	Physalis heterophylla	5	UPL	Nt P-Forb	Ground cherry
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	Kentucky blue grass
POLBIF	4	Polygonatum biflorum	3	FACU	Nt P-Forb	Solomon's seal
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt Tree	Bur oak
QUERUB	6	Quercus rubra	3	FACU	Nt Tree	Northern red oak
RHUGLA	0	Rhus glabra	5	UPL	Nt Shrub	Smooth sumac
ROSARS	4	Rosa arkansana var. suffulta	5	UPL	Nt Shrub	Sunshine rose
RUBOCC	1	Rubus occidentalis	5	UPL	Nt Shrub	Black raspberry
SANCAS	6	Sanicula canadensis	2	FACU+	Nt B-Forb	Black snakeroot
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt P-Grass	Little bluestem
SCRMAR	4	Scrophularia marilandica	4	FACU-	Nt P-Forb	Late figwort
SETFAB	0	SETARIA FABERII	2	FACU+	Ad A-Grass	Giant foxtail
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt P-Forb	Prairie blue-eyed grass
SMIHIS	4	Smilax hispida	0	FAC	Nt W-Vine	Greenbrier
SOLALT	0	Solidago altissima	3	FACU	Nt P-Forb	Tall goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt P-Forb	Missouri goldenrod
SYMOC	0	Symphoricarpos occidentalis	5	UPL	Nt Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt Shrub	Coralberry
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt P-Forb	Germander
TILAME	5	Tilia americana	3	FACU	Nt Tree	Basswood
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt W-Vine	Poison ivy
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt P-Forb	Late horse gentian
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad Tree	Siberian elm
VERSTR	1	Verbena stricta	5	UPL	Nt P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt P-Forb	White vervain
VITRIP	1	Vitis riparia	-2	FACW-	Nt W-Vine	Riverbank grape
YUCGLA	10	Yucca glauca	5	UPL	Nt P-Forb	Soapweed

Comprehensive Vascular Flora of the Hitchcock Nature Center

Notes: *Cacalia atriplicifolia* may have been panted as well as *Desmodium canadense*, *Potentilla arguta*, *Rudbicka hirta*, and *Ratibida pinnata*. *Carex backii* here is listed as a place holder for *Carex saximontana*. *Ampelamus albidus* is not in the Iowa data base. The hybrid between *Verbena stricta* and *Verbena urticifolia*, *Verbena x illicita*, grows with both parents just east of the Below-the-dam Wetland. The plant listed here as *Corispermum nitidum* is actually *Corispermum americanum*. The plant listed as *Desmodium paniculatum* is more closely aligned with *Desmodium perplexum*. The plant listed as *Setaria italica* is actually *Setaria viridis* var. *magna*. There is a well established population of *Duchesnea indica* in the Hohnke Stream Flats, but it is not in the Iowa data base. The plant listed as *Rhamnus cathartica* is actually *Rhamnus japonica*.

Lichens noted include *Caloplaca holocarpa*, *Caloplaca microphyllina*, *Candelaria concolor*, *Cladonia peziziformis*, *Heppia adglutinata*, *Opegrapha atra*, *Parmelia sulcata*, *Phaeophyscia cernoborskyi*, *Phaeophyscia ciliata*, *Phaeophyscia hirtella*, *Physcia aipolia*, *Physcia millegrana*, *Physcia stellaris*, *Physciella chloantha*, *Physconia leucoleptes*, *Placidium squamulosum*, *Psora decipiens*, *Teloschistes chrysophthalmus*, *Trapeliopsis granulosa*, and *Xanthoria fallax*. Also on soil are the mosses, *Weissia controversa* and *Fissidens* sp.

FLORISTIC QUALITY DATA	Native	385	79.2%	Adventive	101	20.8%
385 NATIVE SPECIES	Tree	20	4.1%	Tree	5	1.0%
486 Total Species	Shrub	20	4.1%	Shrub	5	1.0%
4.1 NATIVE MEAN C	W-Vine	9	1.9%	W-Vine	2	0.4%
3.3 W/Adventives	H-Vine	6	1.2%	H-Vine	0	0.0%
80.6 NATIVE FQI	P-Forb	179	36.8%	P-Forb	20	4.1%
71.7 W/Adventives	B-Forb	10	2.1%	B-Forb	13	2.7%
1.7 NATIVE MEAN W	A-Forb	51	10.5%	A-Forb	30	6.2%
1.9 W/Adventives	P-Grass	44	9.1%	P-Grass	9	1.9%
AVG: Fac. Upland (+)	A-Grass	6	1.2%	A-Grass	17	3.5%
	P-Sedge	30	6.2%	P-Sedge	0	0.0%
	A-Sedge	1	0.2%	A-Sedge	0	0.0%
	Fern	9	1.9%			

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0 ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	Buttonweed
ACARHO	6 Acalypha rhomboidea	3 FACU	Nt A-Forb	Three-seeded mercury
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	Box elder
ACHMIL	0 Achillea millefolium ssp. lanulosa	3 FACU	Nt P-Forb	Western yarrow
ADIPED	7 Adiantum pedatum	1 FAC-	Nt Fern	Northern maidenhair fern
AGAASP	10 Agalinis aspera	5 UPL	Nt A-Forb	Rough false foxglove
AGANEP	4 Agastache nepetoides	3 FACU	Nt P-Forb	Yellow giant hyssop
AGRGRY	3 Agrimonia gryposepala	2 FACU+	Nt P-Forb	Tall agrimony
AGRSMS	2 Agropyron smithii	2 FACU+	Nt P-Grass	Western wheat grass
AILALT	0 ATLANTHUS ALTISSIMA	5 UPL	Ad Tree	Tree of heaven
ALLPET	0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	Garlic mustard
ALLCAC	6 Allium canadense	3 FACU	Nt P-Forb	Wild onion
AMARET	0 AMARANTHUS RETROFLEXUS	2 FACU+	Ad A-Forb	Pigweed
AMATUB	0 Amaranthus tuberculatus	-5 OBL	Nt A-Forb	Water hemp
AMBART	0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	Common ragweed
AMBPSI	2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	Western ragweed
AMBTRI	0 Ambrosia trifida	-1 FAC+	Nt A-Forb	Giant ragweed
AMEARB	8 Amelanchier arborea	3 FACU	Nt Tree	Serviceberry
AMMCO	4 Ammannia coccinea	-5 OBL	Nt A-Forb	Toothcup
AMOCAN	8 Amorpha canescens	5 UPL	Nt Shrub	Lead plant
AMOFRF	5 Amorpha fruticosa	-4 FACW+	Nt Shrub	Indigo bush
AMPBRB	4 Amphicarpaea bracteata	0 FAC	Nt H-Vine	Hog peanut
ANDGER	4 Andropogon gerardii	1 FAC-	Nt P-Grass	Big bluestem grass
ANECAN	2 Anemone canadensis	-3 FACW	Nt P-Forb	Canada anemone
ANECYL	7 Anemone cylindrica	5 UPL	Nt P-Forb	"Windflower
ANEVIR	4 Anemone virginiana	5 UPL	Nt P-Forb	Tall anemone
ANTNEG	2 Antennaria neglecta	5 UPL	Nt P-Forb	Cat's feet

APOCAN	1 Apocynum cannabinum	0 FAC	Nt P-Forb	Indian hemp
APOSIB	1 Apocynum sibiricum	-1 FAC+	Nt P-Forb	Indian hemp
AQUCAN	6 Aquilegia canadensis	1 FAC-	Nt P-Forb	Columbine
ARACAN	7 Arabis canadensis	5 UPL	Nt B-Forb	Sickle pod
ARAHIR	8 Arabis hirsuta	5 UPL	Nt B-Forb	Hairy rock cress
ARASHO	10 Arabis shortii	5 UPL	Nt B-Forb	Rock cress
ARCMIN	0 ARCTIUM MINUS	5 UPL	Ad B-Forb	Common burdock
ARASER	0 ARENARIA SERPYLLIFOLIA	0 FAC	Ad A-Forb	Thyme-leaved sandwort
ARITRI	4 Arisaema triphyllum	-2 FACW-	Nt P-Forb	Jack-in-the-pulpit
ARIOLI	0 Aristida oligantha	5 UPL	Nt A-Grass	Plains three-awn grass
ARTLUD	2 Artemisia ludoviciana	5 UPL	Nt P-Forb	White sage
ASCAMP	4 Asclepias amplexicaulis	5 UPL	Nt P-Forb	Sand milkweed
ASCINC	4 Asclepias incarnata	-5 OBL	Nt P-Forb	Swamp milkweed
ASCUL	7 Asclepias sullivantii	5 UPL	Nt P-Forb	Prairie milkweed
ASCSYR	0 Asclepias syriaca	5 UPL	Nt P-Forb	Common milkweed
ASCTUB	6 Asclepias tuberosa	5 UPL	Nt P-Forb	Butterfly weed
ASCVER	0 Asclepias verticillata	5 UPL	Nt P-Forb	Whorled milkweed
ASCVIF	6 Asclepias viridiflora	5 UPL	Nt P-Forb	Green milkweed
ASTAZU	7 Aster azureus	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 Aster ericoides	4 FACU-	Nt P-Forb	Heath aster
ASTLAE	7 Aster laevis	5 UPL	Nt P-Forb	Smooth blue aster
ASTLAN	4 Aster lanceolatus	-5 OBL	Nt P-Forb	Panicled aster
ASTLAT	4 Aster lateriflorus	-2 FACW-	Nt P-Forb	Side-flowering aster
ASTOBL	10 Aster oblongifolius	5 UPL	Nt P-Forb	Aromatic aster
ASTONT	3 Aster ontarionis	0 FAC	Nt P-Forb	Ontario aster
ASTPIL	0 Aster pilosus	4 FACU-	Nt P-Forb	Hairy aster
ASTSAG	6 Aster sagittifolius	5 UPL	Nt P-Forb	Arrow-leaved aster
ASTSER	10 Aster sericeus	5 UPL	Nt P-Forb	Silky aster
ASTCAN	4 Astragalus canadensis	-1 FAC+	Nt P-Forb	Canadian milk vetch
ASTCRA	9 Astragalus crassicaarpus	5 UPL	Nt P-Forb	Ground plum
ASTLOT	10 Astragalus lotiflorus	5 UPL	Nt P-Forb	Lotus milk vetch
ASTMIS	8 Astragalus missouriensis	5 UPL	Nt P-Forb	Missouri milk vetch
BAPLAC	6 Baptisia lactea	3 FACU	Nt P-Forb	White wild indigo
BELCHI	0 BELAMCANDA CHINENSIS	5 UPL	Ad P-Forb	Blackberry lily
BIDFRD	3 Bidens frondosa	-3 FACW	Nt A-Forb	Beggar ticks
BOECYC	5 Boehmeria cylindrica	-5 OBL	Nt P-Forb	Rough false nettle
BOTVIR	6 Botrychium virginianum	3 FACU	Nt Fern	Rattlesnake fern
BOUCUR	6 Bouteloua curtipendula	5 UPL	Nt P-Grass	Side-oats grama
BOUGRA	8 Bouteloua gracilis	5 UPL	Nt P-Grass	Blue grama
BOUHIR	7 Bouteloua hirsuta	5 UPL	Nt P-Grass	Hairy grama
BRIEUP	5 Brickellia eupatorioides	5 UPL	Nt P-Forb	False boneset
BROCOM	0 BROMUS COMMUTATUS	5 UPL	Ad A-Grass	Hairy chess
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	Smooth brome
BROJAP	0 BROMUS JAPONICUS	3 FACU	Ad A-Grass	Japanese chess
BROPUB	9 Bromus pubescens	2 FACU+	Nt P-Grass	Woodland brome
BROTEC	0 BROMUS TECTORUM	5 UPL	Ad A-Grass	Downy chess
BUCDAC	7 Buchloe dactyloides	4 FACU-	Nt P-Grass	Buffalo grass
CACATR	5 Cacalia atriplicifolia	5 UPL	Nt P-Forb	Indian pliantain
CACPLA	7 Cacalia plantaginea	0 FAC	Nt P-Forb	Prairie Indian pliantain
CALLON	7 Calamovilfa longifolia	5 UPL	Nt P-Grass	Prairie sand reed grass
CALSER	9 Calylophus serrulatus	5 UPL	Nt Shrub	Toothed evening primrose
CALSEP	0 Calystegia sepium	0 FAC	Nt P-Forb	Hedge bindweed
CAMAME	4 Campanula americana	0 FAC	Nt A-Forb	Tall bellflower
CAMRAD	0 CAMPSIS RADICANS	0 FAC	Ad W-Vine	Trumpet creeper
CANSAT	0 CANNABIS SATIVA	0 FAC	Ad A-Forb	Hemp
CAPBUR	0 CAPSELLA BURSA-PASTORIS	1 FAC-	Ad A-Forb	Shepherd's purse
CARNUT	0 CARDUUS NUTANS	5 UPL	Ad B-Forb	Musk thistle
CXARTI	8 Carex artitecta	5 UPL	Nt P-Sedge	Blunt-scaled oak sedge
CXBACK	10 Carex backii	1 FAC-	Nt P-Sedge	Northern grass sedge
CXBICK	10 Carex bicknellii	1 FAC-	Nt P-Sedge	Bicknell's sedge
CXBLAN	2 Carex blanda	0 FAC	Nt P-Sedge	Common wood sedge
CXBREV	4 Carex brevior	0 FAC	Nt P-Sedge	Plains oval sedge
CXCEPP	5 Carex cephalophora	3 FACU	Nt P-Sedge	Short-headed bracted sedge
CXFEST	8 Carex festucacea	0 FAC	Nt P-Sedge	Fescue oval sedge
CXGRAS	10 Carex gracilescens	5 UPL	Nt P-Sedge	Slender wood sedge
CXGRVG	1 Carex gravida	5 UPL	Nt P-Sedge	Long-awned bracted sedge
CXGRIS	4 Carex grisea	5 UPL	Nt P-Sedge	Gray sedge
CXHELI	6 Carex heliophila	5 UPL	Nt P-Sedge	Western oak sedge
CXHITC	8 Carex hitchcockiana	5 UPL	Nt P-Sedge	Hairy gray sedge
CXLEAV	3 Carex leavenworthii	5 UPL	Nt P-Sedge	Dwarf bracted sedge
CXMEAD	9 Carex meadii	0 FAC	Nt P-Sedge	Mead's stiff sedge
CXMOLE	2 Carex molesta	0 FAC	Nt P-Sedge	Field oval sedge
CXMUHM	5 Carex muhlenbergii	5 UPL	Nt P-Sedge	Sand bracted sedge
CXNORM	5 Carex normalis	-3 FACW	Nt P-Sedge	Spreading oval sedge
CXOLIC	6 Carex oligocarpa	5 UPL	Nt P-Sedge	Few-fruited gray sedge
CXPELL	4 Carex pellita	-5 OBL	Nt P-Sedge	Broad-leaved woolly sedge
CXPENP	6 Carex pensylvanica	-4 FACW+	Nt P-Sedge	Pennsylvania oak sedge
CXROSE	7 Carex rosea	5 UPL	Nt P-Sedge	Curly-styled wood sedge
CXSPAR	6 Carex sparganioides	0 FAC	Nt P-Sedge	Loose-headed bracted sedge
CXSPRE	4 Carex sprengelii	0 FAC	Nt P-Sedge	Long-beaked sedge
CXTENE	8 Carex tenera	-1 FAC+	Nt P-Sedge	Narrow-leaved oval sedge

CXVULP	3	Carex vulpinoidea	-5	OBL	Nt	P-Sedge	Brown fox sedge
CARCOR	5	Carya cordiformis	0	FAC	Nt	Tree	Bitternut hickory
CASMAR	5	Cassia marilandica	-3	FACW	Nt	P-Forb	Wild senna
CEAHER	8	Ceanothus herbaceus var. pubescens	5	UPL	Nt	Shrub	Redroot
CELOBE	0	CELASTRUS ORBICULATUS	5	UPL	Ad	W-Vine	Round-leaved bittersweet
CELSCA	1	Celastrus scandens	3	FACU	Nt	W-Vine	Bittersweet
CELOCC	2	Celtis occidentalis	1	FAC-	Nt	Tree	Hackberry
CERDEM	0	Ceratophyllum demersum	-5	OBL	Nt	P-Forb	Coontail
CHAFAS	1	Chamaecrista fasciculata	4	FACU-	Nt	A-Forb	Partridge pea
CHEALB	0	CHENOPODIUM ALBUM	1	FAC-	Ad	A-Forb	Lamb's quarters
CHEHYB	0	Chenopodium hybridum	5	UPL	Nt	A-Forb	Maple-leaved goosefoot
CHEPRA	5	Chenopodium pratericola	5	UPL	Nt	A-Forb	Plains goosefoot
CHESTA	6	Chenopodium standleyanum	5	UPL	Nt	A-Forb	Woodland goosefoot
CINARU	4	Cinna arundinacea	-3	FACW	Nt	P-Grass	Wood reed
CIRLUT	5	Circaea lutetiana var. canadensis	3	FACU	Nt	P-Forb	Enchanter's nightshade
CIRALT	4	Cirsium altissimum	5	UPL	Nt	P-Forb	Tall thistle
CIRARV	0	CIRSIIUM ARVENSE	3	FACU	Ad	P-Forb	Field thistle
CIRDIS	1	Cirsium discolor	5	UPL	Nt	B-Forb	Pasture thistle
CIRUND	10	Cirsium undulatum	1	FAC-	Nt	P-Forb	Wavy-leaved thistle
CIRVUL	0	CIRSIIUM VULGARE	4	FACU-	Ad	B-Forb	Bull thistle
CLAVIR	4	Claytonia virginica	3	FACU	Nt	P-Forb	Spring beauty
CLEVIR	2	Clematis virginiana	0	FAC	Nt	W-Vine	Virgin's bower
COMUMB	6	Comandra umbellata	3	FACU	Nt	P-Forb	Bastard toadflax
COMCOM	0	COMMELINA COMMUNIS	0	FAC	Ad	A-Forb	Common day flower
CONMAC	0	CONIUM MACULATUM	-3	FACW	Ad	B-Forb	Poison hemlock
CONARV	0	CONVOLVULUS ARVENSIS	5	UPL	Ad	P-Forb	Creeping Jenny
CONCAN	0	Conyza canadensis	1	FAC-	Nt	A-Forb	Horseweed
CORPAL	7	Coreopsis palmata	5	UPL	Nt	P-Forb	Prairie coreopsis
CORNIT	0	CORISPERMUM NITIDUM	5	UPL	Ad	A-Forb	Small bugseed
CORDRU	4	Cornus drummondii	0	FAC	Nt	Shrub	Rough-leaved dogwood
CORVAR	0	CORONILLA VARIA	5	UPL	Ad	P-Forb	Crown vetch
CROSAG	6	Crotalaria sagittalis	5	UPL	Nt	A-Forb	Rattlebox
CRYCAN	4	Cryptotaenia canadensis	0	FAC	Nt	P-Forb	Honewort
CYNOFF	0	CYNOGLOSSUM OFFICINALE	5	UPL	Ad	B-Forb	Hound's tongue
CYPERY	2	Cyperus erythrorhizos	-5	OBL	Nt	A-Sedge	Red-rooted nut sedge
CYPESC	0	Cyperus esculentus	-3	FACW	Nt	P-Sedge	Yellow nut grass
CYSPRO	6	Cystopteris protrusa	4	FACU-	Nt	Fern	Creeping fragile fern
DACGL0	0	DACTYLIS GLOMERATA	3	FACU	Ad	P-Grass	Orchard grass
DALCAN	10	Dalea candida	5	UPL	Nt	P-Forb	White prairie clover
DALENN	10	Dalea enneandra	5	UPL	Nt	P-Forb	Sailpod dalea
DALLEP	6	Dalea leporina	5	UPL	Nt	A-Forb	Foxtail dalea
DALPUR	8	Dalea purpurea	5	UPL	Nt	P-Forb	Purple prairie clover
DATSTS	0	DATURA STRAMONIUM	5	UPL	Ad	A-Forb	Jimsonweed
DAUCAR	0	DAUCUS CAROTA	5	UPL	Ad	B-Forb	Queen Anne's lace
DELVIR	7	Delphinium virescens	5	UPL	Nt	P-Forb	Prairie larkspur
DESPIB	1	Descurainia pinnata var. brachycarpa	5	UPL	Nt	A-Forb	Tansy mustard
DESSOP	0	DESCURAINIA SOPHIA	5	UPL	Ad	A-Forb	Flixweed
DESILS	4	Desmanthus illinoensis	1	FAC-	Nt	P-Forb	Prairie mimosa
DESCAD	6	Desmodium canadense	1	FAC-	Nt	P-Forb	Showy tick trefoil
DESGLU	5	Desmodium glutinosum	5	UPL	Nt	P-Forb	Pointed tick trefoil
DESILE	5	Desmodium illinoense	5	UPL	Nt	P-Forb	Illinois tick trefoil
DESPAN	8	Desmodium paniculatum	3	FACU	Nt	P-Forb	Panicled tick trefoil
DIAAME	6	Diarrhena americana	-3	FACW	Nt	P-Grass	Beak grass
DICCCUC	7	Dicentra cucullaria	5	UPL	Nt	P-Forb	Dutchman's breeches
DIGISC	0	DIGITARIA ISCHAEMUM	3	FACU	Ad	A-Grass	Smooth crab grass
DIGSAN	0	DIGITARIA SANGUINALIS	3	FACU	Ad	A-Grass	Common crab grass
DIOTER	2	Diodia teres	3	FACU	Nt	A-Forb	Buttonweed
DIOVIL	5	Dioscorea villosa	1	FAC-	Nt	H-Vine	Wild yam
DRYCAR	10	Dryopteris carthusiana	5	UPL	Nt	Fern	Spinulose wood fern
ECHANG	8	Echinacea angustifolia	5	UPL	Nt	P-Forb	Purple coneflower
ECHCRU	0	ECHINOCHLOA CRUSGALLI	-3	FACW	Ad	A-Grass	Barnyard grass
ECHMUR	2	Echinochloa muricata	-5	OBL	Nt	A-Grass	Spiny barnyard grass
ECLALB	0	Eclipta alba	-3	FACW	Nt	A-Forb	Yerba de Tajo
ELAANG	0	ELAEAGNUS ANGUSTIFOLIA	4	FACU-	Ad	Shrub	Russian olive
ELAUMB	0	ELAEAGNUS UMBELLATA	5	UPL	Ad	Shrub	Autumn olive
ELESMA	6	Eleocharis smallii	-5	OBL	Nt	P-Sedge	Marsh spike rush
ELBIND	0	ELEUSINE INDICA	3	FACU	Ad	A-Grass	Goose grass
ELLNVC	1	Ellisia nyctelea	-1	FAC+	Nt	A-Forb	Aunt Lucy
ELYCAN	5	Elymus canadensis	1	FAC-	Nt	P-Grass	Canada wild rye
ELYRIP	5	Elymus riparius	-3	FACW	Nt	P-Grass	Riverbank wild rye
ELYVIL	5	Elymus villosus	3	FACU	Nt	P-Grass	Slender wild rye
ELYVIR	3	Elymus virginicus	-2	FACW-	Nt	P-Grass	Virginia wild rye
EQUARV	0	Equisetum arvense	0	FAC	Nt	Fern	Common horsetail
EQUHYE	1	Equisetum hyemale	-2	FACW-	Nt	Fern	Common scouring rush
EQUFAE	6	Equisetum laevigatum	-3	FACW	Nt	Fern	Smooth scouring rush
EQUFER	1	Equisetum X ferrissii	-3	FACW	Nt	Fern	Hybrid scouring rush
ERACIL	0	ERAGROSTIS CILIANENSIS	3	FACU	Ad	A-Grass	Stink grass
ERAPOA	0	ERAGROSTIS POAEOIDES	5	UPL	Ad	A-Grass	Low love grass
ERASPE	2	Eragrostis spectabilis	5	UPL	Nt	P-Grass	Purple love grass
EREHIE	0	Erechtites hieracifolia	3	FACU	Nt	A-Forb	Fireweed
ERIANN	0	Erigeron annuus	1	FAC-	Nt	B-Forb	Annual fleabane

ERIPHI	2	Erigeron philadelphicus	-3	FACW	Nt	P-Forb	Fleabane
ERISTR	2	Erigeron strigosus	1	FAC-	Nt	P-Forb	Daisy fleabane
ERIVIL	0	ERIOCHLOA VILLOSA	0	FAC	Ad	A-Grass	Cup grass
ERYREP	0	ERYSIMUM REPANDUM	5	UPL	Ad	A-Forb	Treacle mustard
ERYALB	6	Erythronium albidum	5	UPL	Nt	P-Forb	White trout lily
EUOATR	7	Euonymus atropurpureus	1	FAC-	Nt	Shrub	Wahoo
EUPALT	2	Eupatorium altissimum	3	FACU	Nt	P-Forb	Tall boneset
EUPPUR	6	Eupatorium purpureum	0	FAC	Nt	P-Forb	Purple Joe Pye weed
EUPRUG	2	Eupatorium rugosum	3	FACU	Nt	P-Forb	White snakeroot
EUPCOR	3	Euphorbia corollata	5	UPL	Nt	P-Forb	Flowering spurge
EUPCYA	0	EUPHORBIA CYATHOPHORA	5	UPL	Ad	A-Forb	Wild poinsettia
EUPDEN	0	Euphorbia dentata	5	UPL	Nt	A-Forb	Toothed spurge
EUPESU	0	EUPHORBIA ESULA	5	UPL	Ad	P-Forb	Leafy spurge
EUPMAA	0	Euphorbia maculata	4	FACU-	Nt	A-Forb	Carpet spurge
EUPMAR	0	Euphorbia marginata	3	FACU	Nt	A-Forb	Snow-on-the-mountain
EUPNUT	0	Euphorbia nutans	3	FACU	Nt	A-Forb	Nodding spurge
EUPSRP	5	Euphorbia serpens	5	UPL	Nt	A-Forb	Round-leaved spurge
EUPSPA	5	Euphorbia spathulata	5	UPL	Nt	A-Forb	Spatula spurge
FESARU	0	FESTUCA ARUNDINACEA	2	FACU+	Ad	P-Grass	Tall fescue
FESOBT	7	Festuca obtusa	2	FACU+	Nt	P-Grass	Nodding fescue
FRAVIR	3	Fragaria virginiana	1	FAC-	Nt	P-Forb	Wild strawberry
FRAPEP	3	Fraxinus pennsylvanica	-3	FACW	Nt	Tree	Red ash
FRAPEL	1	Fraxinus pennsylvanica var. lanceolata	-3	FACW	Nt	Tree	Green ash
GALSPE	4	Galearis spectabilis	5	UPL	Nt	P-Forb	Showy orchis
GALAPA	1	Galium aparine	3	FACU	Nt	A-Forb	Cleavers
GALCIR	6	Galium circaeans	4	FACU-	Nt	P-Forb	Wild licorice
GALOBT	7	Galium obtusum	-4	FACW+	Nt	P-Forb	Wild madder
GALTRO	7	Galium triflorum	2	FACU+	Nt	P-Forb	Sweet-scented bedstraw
GAUBIE	3	Gaura biennis	4	FACU-	Nt	B-Forb	Biennial gaura
GAUCOC	7	Gaura coccinea	5	UPL	Nt	P-Forb	Scarlet gaura
GEUCAN	2	Geum canadense	0	FAC	Nt	P-Forb	White avens
GLEHED	0	GLECHOMA HEDERACEA	4	FACU-	Ad	P-Forb	Creeping Charlie
GLETRI	0	Gleditsia triacanthos	0	FAC	Nt	Tree	Honey locust
GLYSTR	5	Glyceria striata	-5	OBL	Nt	P-Grass	Fowl manna grass
GRISPU	0	Grindelia squarrosa	3	FACU	Nt	A-Forb	Gum plant
GYMDIO	5	Gymnocladus dioica	5	UPL	Nt	Tree	Kentucky coffee tree
HACVIR	0	Hackelia virginiana	1	FAC-	Nt	P-Forb	Stickseed
HAPSPI	8	Haplopappus spinulosus	-5	OBL	Nt	P-Forb	Cut-leaved iron plant
HEDHIS	2	Hedeoma hispidum	5	UPL	Nt	A-Forb	Rough pennyroyal
HEDNIG	7	Hedyotis nigricans	5	UPL	Nt	P-Forb	Narrow-leaved bluets
HELANN	0	Helianthus annuus	1	FAC-	Nt	A-Forb	Garden sunflower
HELHIR	5	Helianthus hirsutus	5	UPL	Nt	P-Forb	Hispid sunflower
HELMAX	4	Helianthus maximiliani	5	UPL	Nt	P-Forb	Maximilian's sunflower
HELPEP	0	HELIANTHUS PETIOLARIS	5	UPL	Ad	A-Forb	Petioled sunflower
HELRIE	8	Helianthus rigidus	5	UPL	Nt	P-Forb	Prairie sunflower
HELSTR	5	Helianthus strumosus	5	UPL	Nt	P-Forb	Pale-leaved sunflower
HELTUB	0	Helianthus tuberosus	0	FAC	Nt	P-Forb	Jerusalem artichoke
HELHEL	4	Heliopsis helianthoides	5	UPL	Nt	P-Forb	False sunflower
HESMAT	0	HESPERIS MATRONALIS	5	UPL	Ad	P-Forb	Dame's rocket
HETDUB	10	Heteranthera dubia	-5	OBL	Nt	P-Forb	Water star grass
HOLLAN	0	HOLCUS LANATUS	4	FACU-	Ad	P-Grass	Velvet grass
HORJUB	0	Hordeum jubatum	-1	FAC+	Nt	P-Grass	Squirrel-tail barley
HORPUS	0	HORDEUM PUSILLUM	0	FAC	Ad	A-Grass	Little barley
HUMLUP	3	Humulus lupulus	3	FACU	Nt	H-Vine	Common hops
HYDVIR	3	Hydrophyllum virginianum	-2	FACW-	Nt	P-Forb	Virginia waterleaf
HYPPER	0	HYPERICUM PERFORATUM	5	UPL	Ad	P-Forb	Common St. John's wort
HYSPAT	5	Hystrix patula	5	UPL	Nt	P-Grass	Bottlebrush grass
IMPPAL	5	Impatiens pallida	-3	FACW	Nt	A-Forb	Pale touch-me-not
IPOHED	0	IPOMOEAE HEDERACEA	0	FAC	Ad	A-Forb	Ivy-leaved morning glory
IPOPUR	0	IPOMOEAE PURPUREA	4	FACU-	Ad	A-Forb	Annual morning glory
JUGNIG	4	Juglans nigra	3	FACU	Nt	Tree	Black walnut
JUNDUD	2	Juncus dudleyi	0	FAC	Nt	P-Forb	Dudley's rush
JUNTEN	0	Juncus tenuis	0	FAC	Nt	P-Forb	Path rush
JUNVIR	1	Juniperus virginiana	3	FACU	Nt	Tree	Red cedar
KOEMAC	7	Koeleria macrantha	5	UPL	Nt	P-Grass	June grass
LACCAN	1	Lactuca canadensis	2	FACU+	Nt	B-Forb	Wild lettuce
LACFLO	4	Lactuca floridana	1	FAC-	Nt	B-Forb	Blue lettuce
LACSER	0	LACTUCA SERRIOLA	0	FAC	Ad	B-Forb	Prickly lettuce
LACTAP	2	Lactuca tatarica ssp. pulchella	5	UPL	Nt	P-Forb	Showy blue lettuce
LAMAMP	0	LAMIUM AMPLEXICAULE	5	UPL	Ad	A-Forb	Henbit
LAPCAN	3	Laportea canadensis	-3	FACW	Nt	P-Forb	Wood nettle
LEEORY	2	Leersia oryzoides	-5	OBL	Nt	P-Grass	Rice cut grass
LEEVIR	6	Leersia virginica	-3	FACW	Nt	P-Grass	White grass
LEMMIR	3	Lemna minor	-5	OBL	Nt	A-Forb	Duckweed
LEOCAR	0	LEONURUS CARDIACA	5	UPL	Ad	P-Forb	Motherwort
LEPCAM	0	LEPIDIDIUM CAMPESTRE	5	UPL	Ad	B-Forb	Field cress
LEPDEN	0	Lepidium densiflorum	0	FAC	Nt	A-Forb	Pepper cress
LEPVIR	0	Lepidium virginicum	4	FACU-	Nt	A-Forb	Poor-man's pepper
LESCAP	3	Lespedeza capitata	3	FACU	Nt	P-Forb	Round-headed bush clover
LIAASP	8	Liatris aspera	5	UPL	Nt	P-Forb	Rough blazing star
LIAPUN	8	Liatris punctata	5	UPL	Nt	P-Forb	Dotted blazing star

LIAPYC	6	<i>Liatris pycnostachya</i>	1	FAC-	Nt	P-Forb	Prairie blazing star
LILMIC	6	<i>Lilium michiganense</i>	-1	FAC+	Nt	P-Forb	Michigan lily
LINVUL	0	<i>LINARIA VULGARIS</i>	5	UPL	Ad	A-Forb	Butter & eggs
LINRIG	7	<i>Linum rigidum</i>	5	UPL	Nt	P-Forb	Stiff flax
LINSUL	7	<i>Linum sulcatum</i>	5	UPL	Nt	P-Forb	Grooved yellow flax
LITCAN	7	<i>Lithospermum canescens</i>	5	UPL	Nt	P-Forb	Hoary puccoon
LITINC	5	<i>Lithospermum incisum</i>	5	UPL	Nt	P-Forb	Fringed puccoon
LOBINF	2	<i>Lobelia inflata</i>	4	FACU-	Nt	A-Forb	Indian tobacco
LOBSIP	3	<i>Lobelia siphilitica</i>	-4	FACW+	Nt	P-Forb	Great blue lobelia
LOBSPI	6	<i>Lobelia spicata</i>	0	FAC	Nt	P-Forb	Spiked lobelia
LOLPER	0	<i>LOLIUM PERENNE</i>	3	FACU	Ad	P-Grass	Perennial rye grass
LONMAA	0	<i>LONICERA MAACKII</i>	5	UPL	Ad	Shrub	Amur honeysuckle
LONPRO	7	<i>Lonicera prolifera</i>	5	UPL	Nt	W-Vine	Wild honeysuckle
LYCAME	4	<i>Lycopus americanus</i>	-5	OBL	Nt	P-Forb	Common water horehound
LYGJUN	7	<i>Lygodesmia juncea</i>	5	UPL	Nt	P-Forb	Skeletonweed
LYSCIL	4	<i>Lysimachia ciliata</i>	-3	FACW	Nt	P-Forb	Fringed loosestrife
MEDLUP	0	<i>MEDICAGO LUPULINA</i>	1	FAC-	Ad	A-Forb	Black medick
MELALB	0	<i>MELILOTUS ALBA</i>	3	FACU	Ad	B-Forb	White sweet clover
MELOFC	0	<i>MELILOTUS OFFICINALIS</i>	3	FACU	Ad	B-Forb	Yellow sweet clover
MENCAN	5	<i>Menispermum canadense</i>	-1	FAC+	Nt	W-Vine	Moonseed
MIARNYC	0	<i>Mirabilis nyctaginea</i>	5	UPL	Nt	P-Forb	Wild four o'clock
MISSAC	0	<i>MISCANTHUS SACCHARIFLORUS</i>	5	UPL	Ad	P-Grass	Plume grass
MONFIS	2	<i>Monarda fistulosa</i>	3	FACU	Nt	P-Forb	Wild bergamot
MONUNI	7	<i>Monotropa uniflora</i>	3	FACU	Nt	P-Forb	Indian pipe
MORALB	0	<i>MORUS ALBA</i>	0	FAC	Ad	Tree	White mulberry
MORRUB	4	<i>Morus rubra</i>	1	FAC-	Nt	Tree	Red mulberry
MUHCUS	10	<i>Muhlenbergia cuspidata</i>	5	UPL	Nt	P-Grass	Prairie satin grass
MUHFRO	3	<i>Muhlenbergia frondosa</i>	-3	FACW	Nt	P-Grass	Common satin grass
MUHMEX	5	<i>Muhlenbergia mexicana</i>	-3	FACW	Nt	P-Grass	Leafy satin grass
MUHRAC	4	<i>Muhlenbergia racemosa</i>	-3	FACW	Nt	P-Grass	Upland wild Timothy
MUHSCH	1	<i>Muhlenbergia schreberi</i>	0	FAC	Nt	P-Grass	Nimblewill
MUHSYL	7	<i>Muhlenbergia sylvatica</i>	-3	FACW	Nt	P-Grass	Woodland satin grass
MUHTEN	7	<i>Muhlenbergia tenuiflora</i>	5	UPL	Nt	P-Grass	Slender satin grass
NEPCAT	0	<i>NEPETA CATARIA</i>	1	FAC-	Ad	P-Forb	Catnip
NOTCUS	8	<i>Nothocalais cuspidata</i>	5	UPL	Nt	P-Forb	Prairie dandelion
OENBIE	0	<i>Oenothera biennis</i>	3	FACU	Nt	B-Forb	Common evening primrose
ONOMOO	4	<i>Onosmodium molle</i> ssp. <i>occidentale</i>	5	UPL	Nt	P-Forb	False gromwell
OSMCLI	3	<i>Osmorhiza claytonii</i>	4	FACU-	Nt	P-Forb	Hairy sweet cicely
OSMLON	5	<i>Osmorhiza longistylis</i>	4	FACU-	Nt	P-Forb	Smooth sweet cicely
OSMCLN	7	<i>Osmunda claytoniana</i>	-1	FAC+	Nt	Fern	Interrupted fern
OSTVIR	5	<i>Ostrya virginiana</i>	4	FACU-	Nt	Tree	Hop hornbeam
OXADIL	0	<i>Oxalis dillenii</i>	5	UPL	Nt	P-Forb	Common wood sorrel
OXASTR	0	<i>Oxalis stricta</i>	3	FACU	Nt	P-Forb	Tall wood sorrel
OXAVIO	7	<i>Oxalis violacea</i>	5	UPL	Nt	P-Forb	Violet wood sorrel
OXYLAM	8	<i>Oxytropis lambertii</i>	4	FACU-	Nt	P-Forb	Locoweed
PANCAP	0	<i>Panicum capillare</i>	0	FAC	Nt	A-Grass	Old witch grass
PANDIC	0	<i>Panicum dichotomiflorum</i>	-2	FACW-	Nt	A-Grass	Knee grass
PANIMP	3	<i>Panicum implicatum</i>	1	FAC-	Nt	P-Grass	Old field panic grass
PANOLS	5	<i>Panicum oligosanthes</i> var. <i>scribnerianum</i>	3	FACU	Nt	P-Grass	Scribner's panic grass
PANVIR	5	<i>Panicum virgatum</i>	-1	FAC+	Nt	A-Grass	Switch grass
PANWIL	7	<i>Panicum wilcoxianum</i>	5	UPL	Nt	P-Grass	Wilcox's panic grass
PARPEN	3	<i>Parietaria pensylvanica</i>	3	FACU	Nt	A-Forb	Pellitory
PARQUI	2	<i>Parthenocissus quinquefolia</i>	1	FAC-	Nt	W-Vine	Virginia creeper
PARVIT	1	<i>Parthenocissus vitacea</i>	3	FACU	Nt	W-Vine	Thicket creeper
PASSES	4	<i>Paspalum setaceum</i> var. <i>stramineum</i>	0	FAC	Nt	P-Grass	Downy lens grass
PEDARG	5	<i>Pedimelum argophyllum</i>	5	UPL	Nt	P-Forb	Silvery scurvy pea
PEDESC	8	<i>Pedimelum esculentum</i>	5	UPL	Nt	P-Forb	Prairie turnip
PENDIG	4	<i>Penstemon digitalis</i>	1	FAC-	Nt	P-Forb	Foxglove beard tongue
PENGRN	5	<i>Penstemon grandiflorus</i>	5	UPL	Nt	P-Forb	Large-flowered beard tongue
PHAARU	0	<i>PHALARIS ARUNDINACEA</i>	-4	FACW+	Ad	P-Grass	Reed canary grass
PHLDIV	5	<i>Phlox divaricata</i>	3	FACU	Nt	P-Forb	Woodland phlox
PHRAUS	0	<i>Phragmites australis</i>	-4	FACW+	Nt	P-Grass	Common reed
PHRLEP	4	<i>Phryma leptostachya</i>	5	UPL	Nt	P-Forb	Lopseed
PHYHET	2	<i>Physalis heterophylla</i>	5	UPL	Nt	P-Forb	Ground cherry
PHYLON	0	<i>Physalis longifolia</i>	5	UPL	Nt	P-Forb	Tall ground cherry
PHYVIG	4	<i>Physalis virginiana</i>	5	UPL	Nt	P-Forb	Ground cherry
PHYAME	0	<i>Phytolacca americana</i>	1	FAC-	Nt	P-Forb	Pokeweed
PILPUM	3	<i>Pilea pumila</i>	-3	FACW	Nt	A-Forb	Common clearweed
PLAMAJ	0	<i>PLANTAGO MAJOR</i>	-1	FAC+	Ad	P-Forb	Common plantain
PLAPAT	2	<i>Plantago patagonica</i>	5	UPL	Nt	A-Forb	Woolly plantain
PLARUG	0	<i>Plantago rugelii</i>	0	FAC	Nt	A-Forb	Red-stalked plantain
POAANN	0	<i>POA ANNUA</i>	1	FAC-	Ad	A-Grass	Annual blue grass
POACOM	0	<i>POA COMPRESSA</i>	2	FACU+	Ad	P-Grass	Canadian blue grass
POAPRA	0	<i>POA PRATENSIS</i>	1	FAC-	Ad	P-Grass	Kentucky blue grass
POASYL	10	<i>Poa sylvestris</i>	0	FAC	Nt	P-Grass	Woodland blue grass
POLVER	7	<i>Polygala verticillata</i>	5	UPL	Nt	A-Forb	Whorled milkwort
POLBIF	4	<i>Polygonatum biflorum</i>	3	FACU	Nt	P-Forb	Solomon's seal
POLAME	3	<i>Polygonum amphibium</i> var. <i>emersum</i>	-5	OBL	Nt	P-Forb	Water heartsease
POLAVI	0	<i>POLYGONUM AVICULARE</i>	1	FAC-	Ad	A-Forb	Common knotweed
POLLAP	0	<i>Polygonum lapathifolium</i>	-4	FACW+	Nt	A-Forb	Heartsease
POLPEN	0	<i>Polygonum pensylvanicum</i>	-4	FACW+	Nt	A-Forb	Pinkweed

POLPER	0	POLYGONUM PERSICARIA	-3	FACW	Ad	A-Forb	Lady's thumb
POLPUN	4	Polygonum punctatum	-5	OBL	Nt	A-Forb	Water smartweed
POLSCN	2	Polygonum scandens	0	FAC	Nt	H-Vine	Climbing false buckwheat
POLVIG	5	Polygonum virginianum	0	FAC	Nt	P-Forb	Jumpseed
POPDEL	1	Populus deltoides	-1	FAC+	Nt	Tree	Cottonwood
POTNOD	7	Potamogeton nodosus	-5	OBL	Nt	P-Forb	American pondweed
POTPEC	3	Potamogeton pectinatus	-5	OBL	Nt	P-Forb	Sago pondweed
POTARU	8	Potentilla arguta	4	FACU-	Nt	P-Forb	Prairie cinquefoil
POTREC	0	POTENTILLA RECTA	5	UPL	Ad	P-Forb	Sulphur cinquefoil
PREALB	7	Prenanthes alba	3	FACU	Nt	P-Forb	White lettuce
PRUVUL	0	Prunella vulgaris var. lanceolata	0	FAC	Nt	P-Forb	Self heal
PRUAMA	2	Prunus americana	5	UPL	Nt	Tree	Smooth wild plum
PRUVIR	2	Prunus virginiana	1	FAC-	Nt	Shrub	Choke cherry
QUEMAC	4	Quercus macrocarpa	1	FAC-	Nt	Tree	Bur oak
QUERUB	6	Quercus rubra	3	FACU	Nt	Tree	Northern red oak
RANABO	0	Ranunculus abortivus	-4	FACW+	Nt	A-Forb	Small-flowered crowfoot
RATCOL	4	Ratibida columnifera	5	UPL	Nt	P-Forb	Long-headed coneflower
RATPIN	4	Ratibida pinnata	5	UPL	Nt	P-Forb	Gray-headed coneflower
RHACAT	0	RHAMNUS CATHARTICA	3	FACU	Ad	Shrub	Common buckthorn
RHUGLA	0	Rhus glabra	5	UPL	Nt	Shrub	Smooth sumac
RIBMIS	3	Ribes missouriense	5	UPL	Nt	Shrub	Wild gooseberry
ROBPSE	0	ROBINIA PSEUDOACACIA	4	FACU-	Ad	Tree	Black locust
RORPAL	7	Rorippa palustris	-5	OBL	Nt	A-Forb	Marsh cress
ROSARS	4	Rosa arkansana var. suffulta	5	UPL	Nt	Shrub	Sunshine rose
ROSMUL	0	ROSA MULTIFLORA	3	FACU	Ad	Shrub	Multiflora rose
ROTRAM	6	Rotala ramosior	-5	OBL	Nt	A-Forb	Toothcup
RUBALL	2	Rubus allegheniensis	2	FACU+	Nt	Shrub	Common blackberry
RUBOCC	1	Rubus occidentalis	5	UPL	Nt	Shrub	Black raspberry
RUDHIR	2	Rudbeckia hirta	3	FACU	Nt	P-Forb	Black-eyed Susan
RUDLAC	4	Rudbeckia laciniata	-4	FACW+	Nt	P-Forb	Wild golden glow
RUMALT	0	Rumex altissimus	4	FACU-	Nt	P-Forb	Pale dock
RUMCRI	0	RUMEX CRISPLUS	-1	FAC+	Ad	P-Forb	Curly dock
RUMOBT	0	RUMEX OBTUSIFOLIUS	-3	FACW	Ad	P-Forb	Bitter dock
RUMPAT	0	RUMEX PATIENTIA	5	UPL	Ad	P-Forb	Patience dock
SALALB	0	SALIX ALBA	-3	FACW	Ad	Tree	White willow
SALAMY	3	Salix amygdaloides	-3	FACW	Nt	Tree	Peach-leaved willow
SALERI	3	Salix eriocephala	-4	FACW+	Nt	Shrub	Heart-leaved willow
SALEXI	0	Salix exigua ssp. Interior	-5	OBL	Nt	Shrub	Sandbar willow
SALHUM	8	Salix humilis	3	FACU	Nt	Shrub	Prairie willow
SALKAL	0	SALSOLA KALI	3	FACU	Ad	A-Forb	Russian thistle
SAMCAN	1	Sambucus canadensis	4	FACU-	Nt	Shrub	Elderberry
SANCAN	7	Sanguinaria canadensis	4	FACU-	Nt	P-Forb	Bloodroot
SANCAS	6	Sanicula canadensis	2	FACU+	Nt	B-Forb	Black snakeroot
SANGRE	5	Sanicula gregaria	-1	FAC+	Nt	P-Forb	Common snakeroot
SCHSCO	5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	Little bluestem
SCIATR	1	Scirpus atrovirens	-5	OBL	Nt	P-Sedge	Dark green rush
SCIFLU	5	Scirpus fluviatilis	-5	OBL	Nt	P-Sedge	River bulrush
SCIVAC	3	Scirpus validus var. creber	-5	OBL	Nt	P-Sedge	Soft-stemmed bulrush
SCRMAR	4	Scrophularia marilandica	4	FACU-	Nt	P-Forb	Late figwort
SCULEO	7	Scutellaria leonardii	3	FACU	Nt	P-Forb	Small skullcap
SENPAU	5	Senecio pauperculus	-1	FAC+	Nt	P-Forb	Prairie ragwort
SENPLA	3	Senecio plattensis	4	FACU-	Nt	P-Forb	Prairie ragwort
SETFAB	0	SETARIA FABERII	2	FACU+	Ad	A-Grass	Giant foxtail
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad	A-Grass	Yellow foxtail
SETITA	0	SETARIA ITALICA	3	FACU	Ad	A-Grass	Foxtail millet
SETVER	0	SETARIA VERTICILLATA	0	FAC	Ad	A-Grass	Bristly foxtail
SETVIR	0	SETARIA VIRIDIS	5	UPL	Ad	A-Grass	Green foxtail
SICANG	2	Sicyos angulatus	-2	FACW-	Nt	H-Vine	Bur cucumber
SILSTE	4	Silene stellata	5	UPL	Nt	P-Forb	Starry campion
SILINT	4	Silphium integrifolium	5	UPL	Nt	P-Forb	Rosin weed
SILLAC	7	Silphium laciniatum	4	FACU-	Nt	P-Forb	Compass plant
SILPER	1	Silphium perfoliatum	-2	FACW-	Nt	P-Forb	Cup plant
SISLOE	0	SISYMBRIUM LOESELII	5	UPL	Ad	A-Forb	Tall hedge mustard
SISCAM	4	Sisyrinchium campestre	5	UPL	Nt	P-Forb	Prairie blue-eyed grass
SMIRAC	4	Smilacina racemosa	3	FACU	Nt	P-Forb	False Solomon's seal
SMISTE	5	Smilacina stellata	1	FAC-	Nt	P-Forb	Starry false Solomon's seal
SMIECI	6	Smilax ecirrhata	5	UPL	Nt	P-Forb	Upright carrion flower
SMIHIS	4	Smilax hispida	0	FAC	Nt	W-Vine	Greenbrier
SMILAS	5	Smilax lasioneura	0	FAC	Nt	H-Vine	Common carrion flower
SOLAME	0	Solanum americanum	4	FACU-	Nt	A-Forb	Black nightshade
SOLCAR	0	Solanum carolinense	4	FACU-	Nt	P-Forb	Horse nettle
SOLROS	0	SOLANUM ROSTRATUM	5	UPL	Ad	A-Forb	Buffalo bur
SOLALT	0	Solidago altissima	3	FACU	Nt	P-Forb	Tall goldenrod
SOLCAN	0	Solidago canadensis	3	FACU	Nt	P-Forb	Tall goldenrod
SOLGIG	3	Solidago gigantea	-3	FACW	Nt	P-Forb	Smooth goldenrod
SOLMIS	5	Solidago missouriensis	5	UPL	Nt	P-Forb	Missouri goldenrod
SOLNEM	4	Solidago nemoralis	5	UPL	Nt	P-Forb	Field goldenrod
SOLRIG	4	Solidago rigida	4	FACU-	Nt	P-Forb	Stiff goldenrod
SOLSPE	7	Solidago speciosa	5	UPL	Nt	P-Forb	Showy goldenrod
SONARV	0	SONCHUS ARVENSIS	1	FAC-	Ad	P-Forb	Perennial sow thistle
SONASP	0	SONCHUS ASPER	0	FAC	Ad	A-Forb	Spiny-leaved sow thistle

SONOLE	0	SONCHUS OLERACEUS	3	FACU	Ad	A-Forb	Store-front sow thistle
SORNUT	4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	Indian grass
SPAPEC	4	Spartina pectinata	-4	FACW+	Nt	P-Grass	Prairie cord grass
SPHOBM	4	Sphenopholis obtusata var. major	0	FAC	Nt	P-Grass	Slender wedge grass
SPHOBO	8	Sphenopholis obtusata var. obtusata	0	FAC	Nt	P-Grass	Prairie wedge grass
SPIMAG	4	Spiranthes magnicamporum	-3	FACW	Nt	P-Forb	Great plains ladies' tresses
SPOASP	3	Sporobolus asper	5	UPL	Nt	P-Grass	Rough dropseed
SPOCRY	3	Sporobolus cryptandrus	4	FACU-	Nt	P-Grass	Sand dropseed
SPOVAG	1	Sporobolus vaginiflorus	5	UPL	Nt	A-Grass	Sheathed rush grass
STATRI	7	Staphylea trifolia	0	FAC	Nt	Shrub	Bladdernut
STISPA	6	Stipa spartea	5	UPL	Nt	P-Grass	Porcupine grass
STRLEI	7	Strophostyles leiosperma	5	UPL	Nt	A-Forb	Small wild bean
SYMOC	0	Symphoricarpos occidentalis	5	UPL	Nt	Shrub	Wolfberry
SYMORB	0	Symphoricarpos orbiculatus	3	FACU	Nt	Shrub	Coralberry
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad	P-Forb	Common dandelion
TEUCAN	4	Teucrium canadense	-2	FACW-	Nt	P-Forb	Germander
THADAD	4	Thalictrum dasycarpum	-2	FACW-	Nt	P-Forb	Purple meadow rue
THADIO	8	Thalictrum dioicum	2	FACU+	Nt	P-Forb	Early meadow rue
THLARV	0	THLASPI ARVENSE	5	UPL	Ad	A-Forb	Penny cress
THYPAS	0	THYMEIAEA PASSERINA	5	UPL	Ad	A-Forb	Sparrow weed
TILAME	5	Tilia americana	3	FACU	Nt	Tree	Basswood
TORARV	0	TORILIS ARVENSIS	5	UPL	Ad	A-Forb	Hedge parsley
TOXRAD	0	Toxicodendron radicans	-1	FAC+	Nt	W-Vine	Poison ivy
TRAOHI	4	Tradescantia ohiensis	2	FACU+	Nt	P-Forb	Common spiderwort
TRADUB	0	TRAGOPOGON DUBIUS	5	UPL	Ad	B-Forb	Sandy goat's beard
TRIFLA	0	Tridens flavus	5	UPL	Nt	P-Grass	Purple top
TRIPRA	0	TRIFOLIUM PRATENSE	2	FACU+	Ad	P-Forb	Red clover
TRIREP	0	TRIFOLIUM REPENS	2	FACU+	Ad	P-Forb	White clover
TRIPEM	4	Triosteum perfoliatum	5	UPL	Nt	P-Forb	Late horse gentian
TYPGLA	0	TYPHA X GLAUCA	-5	OBL	Ad	P-Forb	Hybrid cattail
ULMAME	2	Ulmus americana	-2	FACW-	Nt	Tree	American elm
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad	Tree	Siberian elm
ULMRUB	2	Ulmus rubra	0	FAC	Nt	Tree	Slippery elm
URTDIO	0	Urtica dioica	-1	FAC+	Nt	P-Forb	Stinging nettle
VERTHA	0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	Common mullein
VERBRA	0	Verbena bracteata	3	FACU	Nt	A-Forb	Creeping vervain
VERHAS	3	Verbena hastata	-4	FACW+	Nt	P-Forb	Blue vervain
VERSTR	1	Verbena stricta	5	UPL	Nt	P-Forb	Hoary vervain
VERURT	2	Verbena urticifolia	-1	FAC+	Nt	P-Forb	White vervain
VERALT	4	Verbesina alternifolia	-3	FACW	Nt	P-Forb	Wingstem
VERBAL	2	Vernonia baldwinii	5	UPL	Nt	P-Forb	Baldwin's ironweed
VERFAS	1	Vernonia fasciculata	-3	FACW	Nt	P-Forb	Ironweed
VERARV	0	VERONICA ARVENSIS	5	UPL	Ad	A-Forb	Corn speedwell
VERPEG	0	Veronica peregrina	-4	FACW+	Nt	A-Forb	Purshlane speedwell
VICAMA	8	Vicia americana	5	UPL	Nt	A-Forb	Vetch
VIOMIS	6	Viola missouriensis	-3	FACW	Nt	P-Forb	Missouri violet
VIOPEF	8	Viola pedatifida	4	FACU-	Nt	P-Forb	Prairie violet
VIOPOP	5	Viola pubescens	4	FACU-	Nt	P-Forb	Downy yellow violet
VIOSOR	1	Viola sororia	1	FAC-	Nt	P-Forb	Hairy blue violet
VITRIP	1	Vitis riparia	-2	FACW-	Nt	W-Vine	Riverbank grape
XANSTR	0	XANTHIUM STRUMARIUM	0	FAC	Ad	A-Forb	Cocklebur
YUCGLA	10	Yucca glauca	5	UPL	Nt	P-Forb	Soapweed
ZANAME	3	Zanthoxylum americanum	5	UPL	Nt	Shrub	Prickly ash
ZIZAUR	6	Zizia aurea	-1	FAC+	Nt	P-Forb	Golden alexanders

In this annotated catalogue of the insects of the Hitchcock Nature Center, the following abbreviations are used:

A = adventive

G = generalist

P = prairie

PT = facultative to prairie and timber

T = timber

! = very conservative or of significant range extension

Diptera

Agromyzidae

- T *Liriomyza eupatoriella* **Spencer** The larvae of this species create elongate, sinuous, serpentine leaf mines to the foliage of *Eupatorium rugosum* throughout the preserve.

Cecidomyidae

- T *Cecidomyia spiniformis* (**Patt.**) This species causes pyramidal, spine-tipped yellowish galls on the abaxial leaf surface of *Celtis occidentalis* throughout the preserve.
- T *Contarinia verrucicola* (**Osten Sacken**) This species causes low, globose foliar galls expressed on both leaf surfaces of *Tilia americana* throughout the preserve.

Coleoptera

Anthicidae

- G *Anthicus cervinus* **LaFerte** *Amorpha canescens* (♀)
Amorpha Ridge

Anthribidae

- G ***Trigonorhinus tomentosus* (Say)** Host: *Ambrosia*. The adults of this species were common on *Ambrosia psilostachya*. The adults consume the pollen and oviposit in the staminate inflorescences. The larvae hatch and mine into the stem. (Valentine, 1998). This is a common species on flowering *Ambrosia psilostachya* and *Ambrosia artemisiifolia elatior* throughout the Midwest.
Badger Ridge

Attelabidae

- G ***Eugnamptus angustatus* (Herbst)** The adults of this species were common on the foliage of *Juglans nigra* where they caused extensive shot hole damage and scrapings to the foliage. The larvae mine the leaves.
West Ridge

- P ***Haplorhynchites aeneus* (Boheman)** Host: *Silphium* and *Helianthus*. This was a common species on *Helianthus annuus*, *Helianthus rigidus*, *Helianthus hirsutus*, and *Silphium perfoliatum* throughout the property. *Silphium perfoliatum*, however, grows in the Old Field Reconstruction areas. Adult females partially sever the flowering peduncle and lay eggs in the wilted corolla. The larvae develop on the flowering parts, drop to the ground and pupate in the soil.

Brachypteridae

- G ***Kateretes pennatus* (Murray)** This species was common in the fresh inflorescences of *Sambucus canadensis*.
Area behind the cabin

Brentidae

- P ***Kissingeria capitone* (Kissinger)** This prairie conservative weevil is occasional on the inflorescences of *Dalea purpurea*, its host, throughout the preserve complex. The adults occur on the flowering spike before anthesis in late May/early June and continue to be present until the plant is no longer in bloom (late July). The larvae develop in the legumes. One female was collected from the inflorescences of *Oxytropis lambertii* at Juniper Ridge Prairie.
Amorpha Ridge, Badger Ridge, Bouteloua Ridge, Crescent Ridge(s), Gaura Ridge, Rahel's Prairie, Top of the World Prairie

P ***Trichapion modicum* (Kissinger)** This diminutive weevil breeds in the inflorescences of *Amorpha canescens*: its host. The larvae develop in the legumes. According to Kissinger (1968), this species was unknown from Iowa. The insect is conservative to dry-mesic prairie throughout its geographic range, and especially in those prairies that have developed on sandy soil. The adults occur on the tightly budded inflorescences the last week of May and breed on the plant from that time to July and early August when flowering ceases. It is extremely rare at Hitchcock Nature Center, where it was collected at Bouteloua Ridge in 2010 and Rahel's prairie in 2010 and 2011, even though enthusiastic sampling of the plant occurred throughout the preserve complex for three years in a row. In northern Illinois (Cook County), it occurs commonly on Lead Plant in an annually burned prairie.

P ***Trichapion tenuirostrum* (Smith)** Host: *Dalea*. Several males and females were collected from the inflorescences of *Dalea purpurea*. This is a rare species in the state of Iowa and throughout the Midwest. It is conservative to prairie remnants.
Bouteloua Ridge

Bruchidae

P ***Acanthoscelides compressicornis* (Schaeffer)** Host: *Desmanthus*. One male and two females were collected from *Desmanthus illinoensis*.
Badger Ridge

P ***Acanthoscelides longistilis* (Horn)** Host: *Lespedeza*, *Desmodium*. One adult was collected from *Lespedeza capitata*.
Badger Ridge

P ***Acanthoscelides seminulum* (Horn)** Host: *Dalea*. This species visits the inflorescences of other plant species at Hitchcock Nature Center such as, *Ambrosia psilostachya*, *Amorpha canescens*, *Echinacea angustifolia*, *Euphorbia corollata*, *Lespedeza capitata*, *Oxytropis lambertii*, *Rhus glabra*, and *Vernonia baldwinii*. For *Echinacea angustifolia*, the 1.3-2.1 mm long adults wedge their bodies between the tightly packed disc florets.
Badger Camp Prairie, Badger Ridge, Bouteloua Ridge, Crescent ridges, Gaura Ridge, Juniper Ridge, Rahel's Prairie

Buprestidae

P ***Agrilus parvus* Saunders** This species was collected from the foliage of *Amorpha canescens*, its host.
Bouteloua Ridge

G ***Acmaeodera pulchella* (Herbst)** One female was collected from inflorescences of *Amorpha canescens* and *Dalea purpurea*. This is a common species throughout the Midwest.
Crescent Ridge(s), Rahel's Prairie

- G *Acmaeodera tubulus* (Fabricius) This species occurs on the inflorescences of many plants. At Hitchcock it has been collected from *Erigeron strigosus*, *Penstemon grandiflorus*, and *Sisyrinchium campestre*.
Badger Ridge, Top of the World Prairie, Wavy-leaved Thistle Prairie
- PT *Brachys aerosus* Melsheimer Host: *Quercus*. One was collected from *Quercus macrocarpa*.
Hohneke North
- P *Pachyschelus laevigatus* Say This species occurs on the foliage of *Lespedeza capitata*, its host, and creates irregularly shaped scrapings to the leaves. Several males and females were collected.
Bouteloua Ridge, Rahel's Prairie

Cantharidae

- G *Chauliognathus marginatus* Fabricius This species was abundant on the inflorescences of *Rhus glabra* and several species of *Helianthus* throughout the property.
- G *Chauliognathus pennsylvanicus* (DeGeer) The adults of this species were abundant on the inflorescences of many species in the *Asteraceae* throughout the preserve, especially on the genera, *Cirsium* and *Solidago*. It also occurred redundantly on the blooms of *Agalinis aspera*, *Amorpha canescens*, *Asclepias tuberosa*, *Cirsium altissimum*, *Hedyotis nigricans*, *Helianthus hirsutus*, and *Nepeta cataria*.

Carabidae

- P *Cicindela limbalis* Klug One adult (red phase) was collected from a sunny footpath on the margin of Badger Ridge Prairie.
- P *Cicindela punctulata* Olivier This species was common on the sunny footpaths adjacent to the prairie.
Badger Ridge, Gaura Ridge
- P *Cylindera celeripes* (LeConte) Several specimens were collected of this extremely rare tiger beetle on 5 & 13 JUL 2008, on the Badger Ridge Trail, "on sparsely vegetated 2-track through loess hilltop prairie" (MacRae and Brown, 2011).

Cerambycidae

- G *Cyrtophorus verrucosus* (Olivier) A female of this ant-like long-horned beetle was collected from the inflorescences of *Cornus drummondii*. One of the larval hosts of this species is wood of the genus *Cornus*.
West Ridge
- G *Euderces picipes* (Fabricius) The adults visited the inflorescences of the following species:

Amorpha canescens and *Cornus drummondii*. The adults resemble slightly the morphology of ants in the genus *Camponotus* and some of the larger species in the genus *Formica*.
Bouteloua Ridge, West Ridge

G ***Molorchus bimaculatus* Say** Host: larvae develop in dead branches of numerous hardwoods of the following genera: *Acer*, *Carya*, *Celtis*, *Crataegus*, *Juglans*, *Quercus*, and *Rhus*. One adult was collected from the inflorescences of *Comandra umbellata* (2 MAY 2010).
Top of the World Prairie

PT ***Strangalia famelica solitaria* Haldeman** Host: larval host is the genus *Quercus* on the property. One male was collected from the inflorescences of *Amorpha canescens*.
Gaura Ridge

P ***!Typocerus octonotatus* (Haldeman)** Host: The larvae are borers in native prairie grasses such as those species in the following genera: *Andropogon*, *Schizachyrium*, *Sorghastrum*, and *Sporobolus*. The adults visit the corollas of numerous prairie forbs. One female was collected from the inflorescences of *Echinacea angustifolia* (11 JUN 2010) and another from *Dalea purpurea* (24 JUN 2012).
Badger Ridge, Bouteloua Ridge

Chrysomelidae

P ***Anomoea laticlavata* (Forster)** This species is occasional on the foliage and inflorescences of *Amorpha canescens*, its host.
Amorpha Ridge, Bouteloua Ridge

P ***!Bassareus lituratus* (Fabricius)** This species was occasional on the foliage of *Lespedeza capitata*.
Crescent Ridge Central, Rayburn's Knob

PT ***Brachypnoea tristis* (Olivier)** This species was common on the foliage of *Amorpha canescens* throughout the growing season. Several mating pairs were collected from the foliage of *Cornus drummondii*; the foliage with shot-hole damage. Occasionally it visits the inflorescences of *Monarda fistulosa*, *Sisyrinchium campestre* and *Lithospermum canescens*, and also creates shot hole markings to the fresh ligules of *Rosa suffulta*.
Badger Ridge, Bouteloua Ridge, Central Ridge West, Crescent Ridges, Juniper Ridge, Lodge Prairie, Rahel's Prairie, South Reconstruction Unit

P ***Brachypnoea puncticollis* (Say)** This species was common on the foliage and inflorescences of *Amorpha canescens*.
Bouteloua Ridge, Rahel's Prairie, Rayburn's Knob

PT ***Cerotoma trifurcata* (Forster)** Host: *Fabaceae*. This species was collected from the foliage of *Desmodium canadense* and *Lespedeza capitata* causing shot-holes.
Bouteloua Ridge, Gaura Ridge, Juniper Ridge

G ***Chelymorpha cassidea* (Fabricius)** Host: *Calystegia*. This species was collected from the

foliage of *Calystegia sepia*. There were extensive shot-hole damage to the foliage.
Area behind the cabin

- G ***Chrysochus auratus* (Fabricius)** Host: *Apocynum*. This species was common on the foliage of *Apocynum cannabinum*.
Restoration prairie area adjacent to drive leading to nature center
- P ***Colaspis brunnea* (Fabricius)** Associates with the *Fabaceae*. This species was common on *Amorpha canescens* and *Dalea purpurea*.
Badger Ridge, Crescent Ridge(s), Gaura Ridge, Rahel's Prairie
- P ***Coleothorpa axillaris axillaris* (LeConte)** *Amorpha canescens* (1♀). This is a western beetle heretofore unknown from Iowa.
Bouteloua Ridge
- P ***Cryptocephalus mucoreus* LeConte** Host: *Rhus*. One ♀ was collected from the inflorescences of *Rhus glabra* (11 JUN 2010).
Bouteloua Ridge
- P ***Cryptocephalus quadruplex* Newman** This species was frequent on the foliage and inflorescences of *Rhus glabra*.
Bouteloua Ridge, Rayburn's Knob
- G ***Diabrotica barberi* Smith & Lawrence** Host: larvae feed on grass roots. The adults of this species were often in the corollas of *Helianthus annuus* and *Cirsium altissimum* throughout the property.
- P ***Diabrotica cristata* (Harris)** Host: larvae feed on grass roots. The adults of this species were common in the inflorescences of *Amorpha canescens*, *Asclepias syriaca*, *Dalea purpurea*, *Penstemon grandiflorus*, and *Rudbeckia hirta*.
Badger Ridge, Crescent Ridge(s), *de novo* restoration units
- G ***Diabrotica undecimpunctata* Mannerheim** Adults of this species were common on the inflorescences of *Cirsium altissimum*, *Cirsium discolor*, *Solidago altissima*, *Solidago canadensis*, *Solidago missouriensis*, and the foliage of *Ambrosia trifida* throughout the property.
- P ***Longitarsus subrufus* LeConte** Host: *Onosmodium*. This species was common on the foliage of *Onosmodium molle* and associating with *Meligethes saevus* (*Nitidulidae*), which see.
Badger Camp Prairie, Juniper Ridge
- P ***Luperaltica nigripalpis* (LeConte)** This species was frequent in the inflorescences of *Cirsium altissimum*, *Helianthus rigidus*, and *Solidago nemoralis*.
Badger Camp Prairie, Badger Ridge

- G ***Margaridisa atriventris* (Melsheimer)** Host: *Acalypha*. The adults and larvae of this species were common on the foliage of *Acalypha rhomboidea* causing circular shot-hole damage to the foliage. This is a common, but secretive species throughout the Midwest.
Remnant timber area adjacent to staff barn
- P ***!Metrioidea convexa* (Blake)** One female was collected of this uncommon prairie conservative species from the inflorescences of *Helianthus rigidus*. Many males and females were collected from the inflorescences of *Amorpha canescens*.
Badger Camp Prairie, Juniper Ridge
- P ***Ophraella communis* LeSage** Host: *Ambrosia* This species was common on *Ambrosia psilostachya*. It is a common species in prairie remnants, not in old fields where its host plant also occurs. It also occurs on *Ambrosia artemisiifolia elatior* in Illinois and Wisconsin.
Badger Ridge
- G ***!Orthaltica melina* Horn** Host: *Rhus* and *Toxicodendron*. This beautiful, golden-brown species can be common on the foliage and inflorescences of *Rhus glabra*. There are no records in the literature of its occurrence in Iowa. The adults visit the inflorescences of prairie plants in the vicinity of the host plant, such as *Amorpha canescens*.
Badger Camp Prairie, Bouteloua Ridge
- P ***!Pachybrachis othonus* (Say)** Host: Fabaceae. This species was collected from *Oxytropis lambertii* (13 JUN 2010), *Dalea purpurea* (24 JUN 2012), and one sitting record on *Gaura coccinea*.
Crescent Ridge(s), Juniper Ridge
- P ***Pachybrachis peccans* Suffrian** Many males and females were collected from *Dalea purpurea* while in flower, but not in the inflorescences (24 JUN 2012).
Crescent Ridge(s)
- P ***Psylliodes punctulatus* Melsheimer** This species was abundant on the foliage of *Cannabis sativa* where it caused numerous, minute linear scrapings to the leaves (2 SEP 2011).
Juniper Ridge (at the base of the prairie ridge)
- P ***!Saxinus omogera* Lacordaire** This species occurred regularly on *Amorpha canescens*.
Bouteloua Ridge, Juniper Ridge
- G ***Zygogramma suturalis* (Fabricius)** Host: *Ambrosia*. This species was occasional on *Ambrosia psilostachya*. This is a common species on *Ambrosia* throughout the Midwest.
Badger Ridge, Top of the World Prairie
- P ***Trirhabda borealis* Blake** Host: *Solidago* and *Euthamia*. Two adults were collected from remnant prairie.
West Ridge Prairie

Cleridae

- G ***Enoclerus rosmarus* (Say)** This species occurred in the inflorescences of *Helianthus hirsutus*.
Area behind the cabin
- P ***Isohydnocera tabida* (LeConte)** Several adults were collected from *Amorpha canescens*.
Bouteloua Ridge, Rahel's Prairie

Coccinellidae

- G ***Brachiacantha felina* (Fabricius)** This species was common on the inflorescences of *Asclepias syriaca* and *Asclepias tuberosa*.
Area next to barn, Badger Ridge, West Ridge
- G ***Cycloneda munda* (Say)** This species was common on the inflorescences of *Asclepias syriaca* and *Silphium integrifolium deamii*.
Open area adjacent to barn
- G ***Hippodamia convergens* Guerin-Meneville** This species was common on the inflorescences of *Amorpha canescens* and *Asclepias syriaca*.
Open area adjacent to barn, Juniper Ridge

Curculionidae

- A ***Calomycterus setarius* Roelofs** Native to Japan, the larvae are known to feed on the roots of many species, such as *Aster*, *Lespedeza*, *Desmodium*, and *Solidago*. The adults were common on a multitude of plants throughout the property, but most notably on the following species: *Ambrosia psilostachya*, *Desmanthus illinoensis*, *Helianthus hirsutus*, and *Lespedeza capitata*. This insect is parthenogenetic and flightless.
- P ***Centrinopus helvinus* Casey** One female was collected from the inflorescences of *Zizia aurea*.
Prairie Reconstruction in front of watchman residence
- A ***Orchestes alni* (L.)** This species is native to Europe and was first recorded in 2003 from the upper Midwest. The adults cause extensive shot hole damage to the foliage of *Ulmus pumila*, its host at Hitchcock Nature Center. The larvae mine the leaves. It occurs throughout the preserve complex. The adults often visit the inflorescences of *Amorpha canescens*.
- G ***Madarellus undulatus* (Say)** One male was collected from the inflorescences of *Rhus glabra*.
Badger Ridge
- G ***Pheloconus cribricollis* (Say)** One adult was collected from *Ambrosia psilostachya*.
Badger Camp Prairie

- A *Rhinusa tetra* (Fabricius) Host: *Verbascum*. Several adults were collected from the inflorescences of *Verbascum thapsus*. The larvae of this locally common European species feed on the seeds.
Bouteloua Ridge
- G *Rhodobaenus tredecimpunctatus* (Illiger) Host: *Helianthus*, *Ambrosia*. One male was collected from the outer stem surface of *Helianthus annuus*.
Badger Ridge
- G *Sibariops confusus* (Boheman) One male was collected from the inflorescences of *Comandra umbellata* (2 MAY2010). This species typically occurs in wet prairie.
Top of the World Prairie
- G *Smicronyx corniculatus* (Fahraeus) Host: *Ambrosia*. This species was occasional on *Ambrosia psilostachya*.
Badge Camp Prairie
- G *Smicronyx ovipennis* LeConte Host: *Ambrosia*. This species was occasional on *Ambrosia psilostachya*.
Badger Camp Prairie, Badger Ridge, Gaura Ridge

Dermestidae

- G *Cryptorhopalum triste* LeConte This is a common species in flowers throughout the property on the following species: *Achillea millefolium*, *Amorpha canescens*, *Cirsium altissimum*, *Comandra umbellata*, *Cornus drummondii*, *Lithospermum canescens*, and *Senecio plattensis*.
Top of the World Prairie, Badger Ridge, Juniper Ridge, Rahel's Prairie

Lycidae

- PT *Calopteron terminale* (Say) One adult was collected from an *Andropogon gerardii* culm.
Bouteloua Ridge

Meloidae

- G *Epicauta atrata* (Fabricius) *Amorpha canescens* (2♀).
Rahel's Prairie
- G *Epicauta cinerea* (Forster) One female (cinereous form) was collected while sweep netting.
Juniper Ridge
- G *Epicauta funebris* Horn This species (cinereous form), like *Epicauta pennsylvanica*, was collected from *Silphium perfoliatum* completely defoliating it. The frass of this species rolled down the blade and collected inside the cavity formed between the perfoliate leaves.

South Reconstruction Unit

- G ***Epicauta obesa* (Chevrolat)** One female (cinereous form) was collected from the inflorescences of *Kuhnia eupatorioides corymbulosa*.
Badger Ridge
- G ***Epicauta pennsylvanica* (DeGeer)** This species was locally abundant on the inflorescences of all *Solidago* species on the property, but also visited the inflorescences of *Cirsium altissimum*. It also was collected at Below the Dam Wetland defoliating *Silphium perfoliatum* and consuming the fresh ligules.

Mordellidae

- P ***!Isotrilophus erratica* (Smith)** One male was collected from the inflorescences of *Amorpha canescens*. This tiny tumbling flower beetle is a rare species of prairies.
Rahel's Prairie
- G ***Hoshihananomia octopunctata* (Fabricius)** This species was occasional in the inflorescences of *Verbascum thapsus*.
Lodge Woods
- G ***Mordella atrata* Melsheimer** This species was common in the inflorescences of *Rhus glabra* and *Echinacea angustifolia* (11 JUN 2010).
Bouteloua Ridge, Badger Ridge
- G ***Mordella marginata* Melsheimer** This species is often abundant in the inflorescences of the following plants on the property: *Amorpha canescens*, *Cornus drummondii*, *Dalea purpurea*, *Nepeta cataria*, and *Rhus glabra*.
Amorpha Ridge, Bouteloua Ridge, Badger Camp Prairie, Badger Ridge, Crescent ridges, Gaura Ridge, Juniper Ridge, Rahel's Prairie
- P ***Mordellina pustulata* (Melsheimer)** This species was swept from prairie vegetation. It has been reared from the stems of multiple species in the *Asteraceae*. See Lisberg & Young, (2003) for more species from which it has been reared.
Juniper Ridge
- P ***Mordellistena cervicalis* LeConte** Two were collected from the inflorescences of *Senecio plattensis*. This species occurs on the inflorescences of many species in the *Asteraceae* throughout its geographic range.
Rayburn's Knob
- P ***Mordellistena divisa* LeConte** One male was collected from the disc florets of *Helianthus annuus*. This species breeds in the inflorescences of many species in the genus, *Helianthus* throughout its geographic range. It mainly occurs in prairie remnants.

Wavy-leaved Thistle Prairie

- P ***Mordellistena liturata* (Melsheimer)** One female was collected from the inflorescences of *Cornus drummondii*. This species mainly occurs in prairie remnants. It has not been recorded from the state of Iowa.

West Ridge

- P ***Mordellistena morula* LeConte** This species was collected from the inflorescences of *Oxytropis lambertii*, *Pedimelum esculentum*, and *Senecio plattensis*.

Juniper Ridge, Maedor Prairie

Melyridae

- P ***Attalus terminalis* (Erichson)** *Amorpha canescens* (1 ♂, 2 ♀). This species was a frequent visitor to Lead Plant flowers.

Amorpha Ridge

- P ***Malachius erichsonii* (LeConte)** A male and female were collected from the inflorescences of *Cornus drummondii* and *Sambucus canadensis*. This is an uncommon species throughout the Midwest.

Open area behind cabin, West Ridge

Nitidulidae

- G ***Carpophilus brachypterus* (Say)** This is a common species in flowers. It was collected from *Amorpha canescens* and *Comandra umbellata*

Top of the World Prairie, Rahel's Prairie

- P ***Meligethes saevus* LeConte** Host: *Onosmodium molle*. This species was common on the fresh inflorescences and foliage of *Onosmodium molle* in early July. At Juniper Ridge, on 28 MAY 2011, the adults were a common attendant to the damaged bud tissue caused by the ant, *Prenolepis imparis*, out of which was flowing vascular fluid.

Badger Camp Prairie, Juniper Ridge, Rayburn's Knob

Ripiphoridae

- P ***Macrosiagon limbata* Fabricius** Occasional in the inflorescences of *Cacalia plantaginea*.

Crescent Ridge(s)

Scarabaeidae

- G ***Euphoria sepulcralis* Fabricius** Throughout the property, this species was commonly seen with its head down, deeply burrowed into the inflorescences of *Cirsium altissimum*.

P *Onthophagus pennsylvanicus* **Harold** This species was beaten from *Pedimelum esculentum*.
Top of the World Prairie, Rahel's Prairie

G *Trichiotinus piger* (**Fabricius**) The species was collected from the inflorescences of *Sambucus canadensis* and *Amorpha canescens*.
Amorpha Ridge, Area behind the cabin

Scraptiidae

PT *Anaspis rufa* **Say** One male was collected from the inflorescences of *Cornus drummondii*. This species is very uncommon throughout the Midwest.
West Ridge

PT *Pentaria trifasciata* (**Melsheimer**) *Amorpha canescens* (6 ♀), *Cornus drummondii* (1 ♀). This is an uncommon species throughout the Midwest.
Amorpha Ridge, Gaura Ridge, West Ridge

Hemiptera

Alydidae

- P *Alydus eurinus* (Say) Host: *Cassia*, *Desmanthus*, *Lespedeza*. Several adults and nymphs were collected from *Desmanthus illinoensis*.
Badger Ridge
- P *Alydus pilosulus* Herrich-Schaeffer Host: *Dalea*, *Desmanthus*, *Lespedeza*. One adult and nymph were collected from *Desmanthus illinoensis*. One adult was collected from *Dalea enneandra*, and this species was abundant on *Amorpha canescens* and *Dalea purpurea*.
Badger Ridge, Crescent Ridge(s), Rahel's Prairie

Anthocoridae

- PT *Orius insidiosus* (Say) This is a common predatory insect in the inflorescences and on the foliage of many plants at Hitchcock Nature Center. It occurs on just about every flowering plant on the property. It preys upon thrips, aphids, and the eggs of other insects.

Berytidae

- G *Jalysus wickhami* VanDuzee A male and female were collected while sweep netting. This is a common insect throughout the Midwest and most often occurring on species in the *Onagraceae*.
Remnant timber adjacent to staff barn

Caliscelidae

- P *Bruchomorpha dorsata* Fitch Host: *Andropogon*. One female collected while sweeping prairie vegetation.
Crescent Ridge(s)

Cicadidae

- P *Tibicen dorsatus* (Say) In August and September, the males of this colorful species perch and sing on the upper portion of tall prairie grasses, such as *Andropogon gerardii* or *Sorghastrum nutans*, in all of the prairies throughout the property. Occasionally it aggregates on the branches of *Quercus macrocarpa* in the middle of the prairie. This is a rare cicada in the state of Iowa and is conservative to prairie remnants.

Cicadellidae

- P ***Xestocephalus brunneus* VanDuzee** This species was common on *Amorpha canescens* (13 JUN 2010). According to Andy Hamilton (pers. comm.), the nymphs have been collected from ant nests.
Rahel's Prairie

Cydnidae

- G ***Sehirus cinctus* (Palisot de Beauvois)** Host: frequent on species in the Lamiaceae. Swept from prairie vegetation.
Badger Ridge

Coreidae

- PT ***Anasa repetita* Heidemann** Two males were collected from the foliage of its host, *Sicyos angulatus*. This is a new record for the state of Iowa.
Open woodland edge near barn

Cymidae

- P ***Cymus angustatus* Stal** Host: *Cyperaceae*. One female was collected from a spikelet of *Carex muhlenbergii*.
Rayburn's Knob

Derbidae

- P ***Cedusa vulgaris* (Fitch)** One male was collected from *Amorpha canescens*.
Rahel's Prairie

Lygaeidae

- G ***Lygaeus kalmii* Stal** Host: *Asclepias*. This species was common on *Asclepias syriaca* and *Asclepias viridiflora*.
Amorpha Ridge, Raburn's Knob
- G ***Lygaeus turcicus* Fabricius** Host: *Heliopsis helianthoides*. The adults and nymphs of this species were common in the inflorescences of *Heliopsis helianthoides* throughout the property.
- G ***Neortholomus scolopax* (Say)** One male was collected from the inflorescences of *Rudbeckia hirta*. This insect breeds on numerous species in the *Asteraceae* throughout the Midwest.
Cottonwood Prairie

G ***Oncopeltus fasciatus* (Dallas)** Host: *Asclepias*. This species was common on *Asclepias syriaca*.
Juniper Ridge

Membracidae

PT ***Acutalis tartarea* (Say)** Several adults of this species were beaten from *Ambrosia trifida*.
Remnant woodland adjacent to Barn

G ***Campylenchia latipes* (Say)** The adults of this insect occurred on the inflorescences of *Amorpha canescens*.
Juniper Ridge

G ***Ceresa lutea* (Walker)** One male was collected while sweeping prairie vegetation.
Juniper Ridge

PT ***Enchenopa binotata* (Say)** This species was occasional on the twigs and foliage of *Ceanothus herbaceus pubescens*.
Top of the World Prairie

PT ***Entylia bactriana* Germar** Small aggregations of this species were common on the ventral midrib of *Ambrosia trifida*, one of its plant hosts, and tended by the ant, *Prenolepis imparis*. This species often is ant attended. It also was common on the ventral midrib of *Cirsium altissimum*.
Remnant woodland adjacent to Barn, Old Field Reconstruction Central

G ***Micrutalis calva* (Say)** The adults of this insect have been collected from the inflorescences and stems of *Ambrosia psilostachya*, *Amorpha canescens*, and *Vernonia baldwinii*.
Badger Ridge, Bouteloua Ridge

G ***Publilia concava* (Say)** Host: *Ambrosia*, *Aster*, *Eupatorium*. The aggregations of this species were common on the ventral midrib and upper stems of *Ambrosia psilostachya*, *Eupatorium rugosum*, and *Aster sagittifolius*.
Badger Ridge, Fern Buffs

G ***Publilia reticulata* (Van Duzee)** Host: *Vernonia*. This insect was common on the upper stems of numerous *Vernonia baldwinii* throughout the property and often tended by the following ants: *Camponotus pennsylvanicus* and *Formica dolosa*. The latter ant occurs only in remnant prairie on the property.

PT ***Stictocephala bisonia* Kopp & Yonke** The adults of this species were collected from *Ambrosia trifida*, one of its host plants.
Remnant woodland adjacent to Barn

- P ***Vanduzea triguttata* (Burmeister)** A mating pair was collected from the foliage of *Amorpha canescens*, one of its hosts. In another portion of the prairie, the adults of this species occurred on the stem of *Lespedeza capitata* just below the inflorescences and tended usually by the following ants: *Camponotus pennsylvanicus* and *Formica subsericea*. The colonies of this species also were common on the upper stems, just below the inflorescences of *Dalea purpurea*. These aggregations were tended by these ants, but on separate plants: *Formica subsericea* and *Crematogaster cerasi*.
Badger Ridge, Bouteloua Ridge

Miridae

- A ***Adelphocoris lineolatus* (Goeze)** One male of this European species was collected from the inflorescences of *Coronilla varia*, one of its hosts in the *Fabaceae*.
Lodge Prairie
- G ***Adelphocoris rapidus* (Say)** One male and several nymphs were collected from *Ambrosia psilostachya*.
Gaura Ridge
- G ***Chlamydatus suavis* (Reuter)** Host: *Ambrosia*. One male was collected from *Ambrosia psilostachya*.
Badger Camp Prairie
- G ***Halticus bractatus* (Say)** Adults and nymphs of this plant bug were common on *Ambrosia psilostachya*.
Badger Ridge, Gaura Ridge
- P ***Lopidea confluenta* (Say)** One female was collected from the inflorescences of *Amorpha canescens*.
Gaura Ridge
- P ***Lopidea media* (Say)** A male and female were collected from the inflorescences of *Sambucus canadensis*.
Open area behind the cabin
- P ***Lopidea teton* Knight** Host: *Astragalus*. Four males (12 JUN 2010) were collected from the foliage of several *Astragalus crassicaarpus* plants. This beautiful species is conservative to prairie remnants and is rare throughout its geographic range, despite the ubiquity of the genus *Astragalus* in prairie.
Rahle's Prairie

- G *Lygus lineolaris* (Palisot) This ubiquitous, native plant bug commonly occurred in the inflorescences of both *Cirsium altissimum* and *Rudbeckia hirta* throughout the property. It also was common on the foliage of *Ambrosia psilostachya*.
- P *!Neurocolpus brevicornis* Henry and Kim Several males and females were collected on the inflorescences of *Amorpha canescens*. This distinctive species was unknown from Iowa until it was collected at the Rahel's Prairie (13 JUN 2010). In Pennsylvania, it also has been collected from *Amorpha canescens*, Henry and Kim (1984).
- P *!Plagiognathus amorphae* (Knight) This very rare prairie species, which has a predilection for sandy soils, occurs on its host, *Amorpha canescens*, in scattered locations throughout the Hitchcock property. It is sensitive to the effects of fire, becoming scarce to absent the following growing season after a burn. The adults are present on their host plant around the first week of June when the plant has tight flower buds then disappear just after flowering. Females lay their eggs in the green wood of Lead Plant. The egg overwinters.
Badger Camp Prairie, Bouteloua Ridge, Gaura Ridge, Juniper Ridge, Amorpha Ridge, Crescent ridges, Rahel's Prairie
- G *Plagiognathus politus* Uhler The adults of this species were common in the inflorescences of *Cirsium discolor* and on the foliage of *Ambrosia trifida* and *Ambrosia psilostachya*. This is a ubiquitous native plant bug throughout its geographic range. It typically occurs on inflorescences in the *Asteraceae*.
Badger Camp Prairie, Remnant woodland adjacent to the Barn, Below the Dam Wetland
- P *!Schaffneria pilophoroides* (Knight) One female was collected of this rare species at the summit of a prairie ridge at the Maedor Prairie, exposed on the soil (28 MAY 2011). This is the first time that this species has been collected in Iowa.

Nabidae

- G *Nabis roseipennis* Reuter This species was frequent on the inflorescences of *Amorpha canescens*.
Gaura Ridge, Wavy-leaved Thistle Prairie

Psyllidae

- T *Pachypsylla celtidismamma* Riley This species forms a wide, cylindrical, coarse gall on abaxial leaf surfaces of *Celtis occidentalis* throughout the preserve.
- T *Pachypsylla celtidisvesicula* Riley This species forms a nipped blister leaf gall on *Celtis occidentalis* throughout the preserve.

Reduviidae

- G *Sinea diadema* (**Fabricius**) One male was collected while sweeping prairie vegetation. It is predatory on other insects. According to Henry and Froeschner (1988), this species has not been collected from the state of Iowa.
Juniper Ridge
- G *Pselliopus cinctus* (**Fabricius**) One male was collected from *Ambrosia psilostachya*. This insect is predatory on other insects.
Badger Camp Prairie
- G *Zelus exsanguis* (**Stal**) One male was collected from the inflorescences of *Cornus drummondii*. This is a relatively common species throughout North America. It is predatory on other insects.
West Ridge

Rhopalidae

- G *Harmostes reflexulus* (**Say**) This is a common species on the inflorescences of those plants in the *Asteraceae* throughout the preserve, especially on the genus *Solidago*.

Thyreocoridae

- G *Corimelaena lateralis* (**Fabricius**) The adults of this species breed in the inflorescences of many native species in the *Apiaceae*. At Hitchcock, adults and nymphs were common in the inflorescences of *Sanicula canadensis*. It visits the inflorescences of *Cacalia plantaginea*.
Crescent Ridge(s), Lodge Parking Woods
- G *Corimelaena pulicaria* (**Germar**) The adults of this species were frequent in the inflorescences of *Hedyotis nigricans*.
Top of the World Prairie

Tingidae

- P *Atheas mimeticus* **Heidemann** Numerous males and females were collected from its host, *Dalea purpurea*, when the plant was in anthesis, especially in unburned prairie. Two males and two females also were collected from *Ambrosia psilostachya*. This is a rare species of prairie remnants in Iowa.
Badger Camp Prairie, Badger Ridge, Bouteloua Ridge, Crescent Ridge (s), Gaura Ridge, Juniper Ridge

Hymenoptera

Formicidae

(Ants)

Dolichoderinae

- P ***Dorymyrmex grandulus* (Forel)** This species often nested in the root-zone of prairie grasses, such as *Bouteloua curtipendula*. The nest entrance was often in open soil adjacent to the tussock. On level ground at the summit of a prairie ridge, the crater soil nests of this species were frequent and often in close proximity to crater nests of *Forelius pruinosus*, which see. The workers often visit the inflorescences of many prairie plants such as *Amorpha canescens*, *Comandra umbellata*, *Dalea purpurea*, and the extra-floral glands of *Chamaecrista fasciculata*. This species is obligate to sandy soils throughout its geographic range. It is conservative to prairie remnants.
Badger Ridge, West Ridge, Top of the World Prairie
- G ***Dorymyrmex smithi* Cole** This species was common throughout the preserve complex in open, well drained habitats. Its nests occurred in foot trails, prairie, and open sections devoid of grass in lawns. It builds a crater nest that has a crescent shaped accumulation of soil that surrounds the 5 mm entrance. It is very similar to the type created by *Forelius pruinosus*. The workers often occur in the inflorescences of many prairie plants such as: *Amorpha canescens*, *Comandra umbellata*, and *Dalea purpurea*.
Common throughout the preserve in open ground
- P ***Forelius pruinosus* (Roger)** This species occurred commonly throughout the property in prairie. It is a deep soil nesting species of xeric grasslands/prairies throughout the Midwest. It has a predilection for sandy or silty soils with a dominant sand composition. It is common throughout the Iowa Loess Hills. It is spotty, however, throughout the rest of the state. The nest consists of a crater mound with a crescent-shaped soil buildup that partially surrounds the 1 cm diameter entrance. The nest frequently occurred in soil inhabited by the terricolous lichen, *Catapyrenium lachneum*. Occasionally, it was embedded deeply into the root-zone of a grass tussock such as, *Bouteloua curtipendula* and *Schizachyrium scoparium*, and the transverse nest entrance wedged into the side of the tussock. It often is adjacent to nests of *Dorymyrmex grandulus* and *Dorymyrmex smithi*. A midden pile adjacent to one nest had two carcasses of the army ant, *Neivamyrmex nigrescens*. The workers are common at the preserve on the inflorescences of many prairie plants of the following species: *Amorpha canescens*, *Comandra umbellata*, *Dalea purpurea*, *Echinacea angustifolia*, and *Lespedeza capitata*. It is common on the extra-floral glands of *Desmanthus illinoensis*.
Bouteloua Ridge, Crescent ridges, Top of the World Prairie, Yucca Ridge, West Ridge, Badger Hill, Badger Ridge, Badger Camp Prairie, Rahel's Prairie

Ecitoninae

- P ***Neivamyrmex nigrescens* (Cresson)** Several workers were collected from a raiding bivouac, in the nest *Temnothorax pergandei*, which see. The time was 3:30 p.m., just after a hard rain, 65-degrees Fahrenheit, and the humidity was ninety-percent (2 MAY 2010). This is a rare species in the state of Iowa, collected only in the Loess Hills, in remnant prairie.
Yucca Ridge
- P ***Neivamyrmex opacithorax* (Emery)** A tight aggregation of approximately 30 workers of this beautiful ant species occurred on the soil surface, beneath a fallen, last season's *Quercus macrocarpa* leaf at West Ridge Prairie South. The workers were very still and resembled golden drops on the damp, dark loess soil. The weather conditions were identical to that described in the *Neivamyrmex nigrescens* treatment (2 MAY 2010). Another nest was sampled at the apex of Juniper Ridge (28 MAY 2011) and consisted of an ovate, 5 cm diameter upwelling of soil, with a 1 cm diameter, circular entrance hole. The nest was ensconced in the root-zone of *Pediomelum esculentum*, and the soil upwelling surrounded the base of this plant.
Buren (1944) recorded this species from Iowa, but that collection is lost. Watkins (1985) was unsure if *Neivamyrmex opacithorax* occurred in the state and placed a question mark on Iowa for its distribution. This collection reinstates the fact that indeed this rare ant does exist in Iowa.
Juniper Ridge, West Ridge Prairie South

Formicinae

- PT ***Brachymyrmex depilis* Emery** A shallow soil nest occurred in stable, lichenized soil that consisted of the following lichen species: *Catapyrenium lachneum*, *Heppia adglutinata*, and *Psora decipiens*. This nest was adjacent to a soil nest of *Crematogaster missouriensis*, which see (1 MAY 2010). This ant is conservative to habitats with well developed organic-rich soil where it builds its shallow nests. It is locally uncommon throughout the Midwest and occurs mainly in remnant prairie and open oak woodland.
Munchkin Prairie
- P ***Camponotus americanus* Mayr** This species was common in the remnant prairie areas on the property. It nests deeply in soil, in the root-zone of graminoids and forbs, especially in the former. It also visits the extra-floral trichomes on the petioles of *Helianthus annuus* at Hitchcock
Badger Ridge, Bouteloua Ridge, Crescent Ridges, Gaura Ridge, West Ridge
- G ***Camponotus pennsylvanicus* DeGeer** Two workers were collected from the inflorescences of *Rhus glabra* (11 JUN 2010). One worker was collected from the soil (1 MAY 2010). This species commonly attended aggregations of the membracid, *Publilia reticulata*, on *Vernonia baldwinii*.
Bouteloua Ridge, Juniper Ridge, Chute Woods

- T ***Camponotus subbarbatus* Emery** One worker was collected from remnant dry-mesic woodland adjacent to the staff headquarters.
- G ***Formica argentea* Wheeler** One worker was collected from the inflorescences of *Nepeta cataria*. This is a common mound building species throughout the Midwest, especially in xeric habitats.
Badger Camp Prairie
- G ***Formica incerta* Buren** Two workers were collected and not associated with a nest. This species is ubiquitous throughout the Midwest in dry-mesic prairie, oak savanna, and dry-mesic old field. It builds a crater mound nest in soil, usually in the root-zone of graminoids, occasionally forbs.
West Ridge
- P ***Formica dolosa* Buren** This species was frequent throughout the preserve in high quality dry-mesic prairie and nested prevalingly in perennial prairie grass tussocks, such as *Andropogon gerardii* and *Schizachyrium scoparium*. One nest occurred inside a decomposed, desiccated, burned stump that also contained a nest of *Crematogaster cerasi*. The nest continued into the soil adjacent to the stump. One recorded nest was embedded in the root-zone of a massive, 0.5 m diameter, *Andropogon gerardii* tussock, which grew on a steep, west-facing slope. The nest entrance consisted of a 1 cm wide transverse opening set at an oblique angle in the partially exposed grass tussock root-zone (Badger Ridge, 2 MAY 2010). Another nest at the Maedor prairie consisted of a massive, 1 meter diameter, low, 5-7 cm high mound nest that was embedded in the root-zone of both *Schizachyrium scoparium* and *Oxytropis lambertii*. This nest had multiple transverse-shaped entrances that were 1.5-2 cm in diameter.
On occasion, workers tended aggregations of the membracid, *Publilia reticulata*, on its host, *Vernonia baldwinii*. It was a frequent visitor to the inflorescences of *Amorpha canescens* and *Asclepias viridiflora* for nectar. This is a prairie and savanna species throughout the Midwest. It mainly occurs in natural area remnants and appears to be obligate to sandy soils throughout its geographic range.
Badger Ridge, Juniper Ridge, Maedor Prairie, West Ridge, Rahel's Prairie
- G ***Formica subsericea* Say** This is a common species throughout the preserve. In a disturbed, degraded area, on level ground, at the summit of a prairie ridge, several mound nests occurred that were 0.5 meters x .15 m tall. Several of the nests surrounded an *Andropogon gerardii* tussock. Each nest consisted of loose, moist soil that was decorated shallowly on its outer surface with desiccated remains of last season's plants. This is a ubiquitous ant species throughout the Midwest. It occurs in remnant and *de novo* natural areas, whether open or closed. There must, however, be ample sunlight if it occurs in *de novo* wooded areas. Workers were common visitors to the extra-floral glands of *Desmanthus illinoensis*.
Chute Woods, Central West Ridge, Central Reconstruction area
- G ***Lasius neoniger* Emery** This is a common species throughout the preserve. It builds small crater mound nests in open areas, whether remnant or *de novo*.

P *Nylanderia arenivaga* (Wheeler) Several workers of this species were collected in prairie, a nest was not observed. This is a rare species in Iowa, restricted to the Loess Hills. Outside of Iowa, it is uncommon, in deep sand, such as dune and swale prairie. Where it does occur, it most often is encountered in the nocturnal hours. At Hitchcock, however, it was collected in the mid afternoon shade cast by a nearby hedgerow, on a 90-degree sunny day.
Crescent Ridge Central

P *Nylanderia parvula* (Mayr) One worker was collected from *Ambrosia psilostachya*. This ant is conservative to dry-mesic prairie remnants and the interstitial prairie openings in oak savanna. It nests in soil in the root-zone of native graminoids. It very rarely occurs in old fields in the Midwest and only if the area occurs adjacent to a remnant natural area and/or the old field contains native graminoids.
Badger Camp Prairie

G *Prenolepis imparis* (Say) A soil nest was collected beneath a stage-3, pole-size fallen tree with the ant, *Ponera pennsylvanica*. The workers commonly tended small aggregations of *Entylia bactriana* that occurred on the ventral midrib of *Ambrosia trifida*. It also was common on the inflorescences of *Onosmodium molle* at Juniper Ridge (28 MAY 2011) chewing through the tight flower buds, which caused blackening to the plant tissue. This damaged area wept fluid and attracted many individuals of the following insects: *Crematogaster missouriensis* (Formicidae/Myrmicinae) and *Meligethes saevus* (Nitidulidae). This is a common species of woodland, whether remnant or *de novo*, and in moist gardens or lawns, occasionally in mesic prairie throughout the Midwest. It is a deep soil nesting species that builds small crater mound nests. The workers are common on the vegetation of many plants during the growing season when the ambient air temperature is benign.
Fern Ridge, Juniper Ridge, Chute Woods, Remnant woodland adjacent to Barn

Myrmicinae

T *Aphaenogaster rudis* Enzmann A deep soil nest occurred in moist organic soil and decomposed leaf litter near the base of a wooded bluff (2 MAY 2010). This species also was collected frequently from leaf litter sifting. This is a common species of remnant woodland throughout the Midwest.
Boardwalk Ridge, Entry Road Woods North, Fern Ridge

- P ***Aphaenogaster treatae* Forel** This species is relatively common in prairie at the Hitchcock property. It nests deeply in the root-zone of prairie grasses such as, *Andropogon gerardii* and *Schizachyrium scoparium*, and rarely in the root-zone of adventive graminoids such as, *Bromus inermis*. On the side of the grass tussock where it nests, there is often a large 2-3 cm wide transverse opening to the nest interior. Throughout its geographic range, this species has a predilection for sandy soils. In the state of Iowa, its distribution is disjunct. It nests in loess soils throughout the Loess Hills and in the eastern portion of the state, in sandy prairie along the Mississippi River. Throughout the Midwest, it is conservative to sand prairie and sandy Black Oak savanna. It is occasional in sandy, >40-year old post-agriculture field if that location has *Schizachyrium scoparium* growing in it, or if it occurs adjacent to a remnant natural area.
Badger Ridge, Crescent Ridge(s), Juniper Ridge, Rayburn's Knob
- G ***Crematogaster cerasi* Emery** This is a common species on the preserve where it nests in desiccated wood, especially Red Cedar stumps. The nest galleries often penetrate into the soil. One stump that contained a nest also was occupied by *Formica dolosa*, which see (1 MAY 2010). The workers visit the inflorescences of the following plants on the property: *Rhus glabra*, *Sambucus canadensis*, and the extra-floral glands of *Desmanthus illinoensis*. Area behind the cabin, Bouteloua Ridge, Badger Ridge, Juniper Ridge
- P ***Crematogaster lineolata* (Say)** The shallow soil nests of this species are often beneath small pieces of burned wood in prairie, and rarely exposed without cover. Occasionally the nests are embedded in the root-zone of prairie graminoids such as *Bouteloua curtipendula* and *Schizachyrium scoparium*. The workers visit the inflorescences of many prairie flowers such as: *Amorpha canescens*, *Comandra umbellata*, and the extra-floral glands of *Desmanthus illinoensis*.
Bouteloua Ridge, Top of the World Prairie, Yucca Ridge, West Ridge
- P ***Crematogaster missouriensis* Emery** In the state of Iowa, this species occurs only in the Loess Hills. It can be common, however, where it occurs. Its soil nests are redundantly in stable, lichenized soil that consist of one or a combination of the following lichen species: *Catapyrenium lachneum*, *Psora decipiens*, and *Heppia adglutinata*. The nests are often deep and externally there is a scattering or upwelling of loose soil around the 3-4 mm nest entrance; occasionally there is a narrow turret-like upwelling. The nests sometimes occur in the root-zone of *Schizachyrium scoparium* and *Hedyotis nigricans*. Its nests often are adjacent to another ant species, *Brachymyrmex depilis*, which see. The workers visit the inflorescences of *Amorpha canescens*, *Asclepias viridiflora*, *Comandra umbellata*, *Echinacea angustifolia*, *Gaura coccinea*, *Onosmodium molle*, *Oxytropis lambertii*, *Rhus glabra*, and the extra-floral glands of *Desmanthus illinoensis*.
Bouteloua Ridge, Badger Ridge, Crescent Ridges, Juniper Ridge, Rahel's Prairie

- P ***Monomorium minimum* (Buckley)** The crater mound nests of this species were common in prairie, occasionally in lawn throughout the property. The circular entrance hole to the nest is minute and 0.5 mm in diameter. The ant, *Solenopsis molesta*, occasionally nests near this species. The workers often visit the inflorescences of prairie wildflowers such as: *Agalinis aspera*, *Amorpha canescens*, *Ceanothus herbaceus pubescens*, and *Comandra umbellata*. Badger Ridge, Juniper Ridge, Meador Prairie, Top of the World Prairie,
- T ***Myrmica punctiventris* Roger** This species was commonly collected from leaf litter sifting in mesic remnant woodland. It often occurred in accumulated leaf litter and thick organic matter in wood hollows, such as those of *Quercus macrocarpa*. Boardwalk Ridge, Entry Road Woods, North
- P ***Pheidole pilifera* (Roger)** A deep soil nest of this species occurred in the root-zone of *Schizachyrium scoparium* (2 MAY 2010). This species occurs in sandy, dry-mesic prairie remnants throughout the Midwest. West Ridge, Top of the World Prairie,
- P ***Pheidole tysoni* Forel** A nest of this very uncommon ant occurred in the root-zone of *Schizachyrium scoparium*, with a small nest of *Hyponera opacior* that was immediately adjacent to it. Another nest occurred adjacent to a water pump of a cabin on one side of the property. This species is very rare in the state of Iowa. The Hitchcock Nature Center is the only known location for the state. Crescent Ridge Central, Campground
- G ***Solenopsis molesta* (Say)** This extremely minute yellowish ant was common in prairie and juniper laden semi-open areas. It nests shallowly in soil where its galleries penetrate inside the nests of other ants to steal their provisions. It often nests in mounds of *Formica subsericea*, and associates with the nests of *Formica dolosa*, *Dorymyrmex grandulus*, *Dorymyrmex smithi*, and *Monomorium minimum*. A nest in the Great Horned Owl Prairie was in decomposed wood of a fallen *Fraxinus pennsylvanica lanceolata* branch that blew into the prairie. This latter nesting circumstance was rare and unusual.
- T ***Stenamma diecki* Emery** Two workers were collected from moist leaf litter. This is an uncommonly collected ant of remnant mesic woodland throughout the Midwest. It is rare in the state of Iowa. Boardwalk Ridge, Entry Road Woods North
- T ***Stenamma schmittii* Wheeler** One worker was collected while sifting leaf litter. This is an uncommon, remnant woodland dependant ant species throughout the Midwest. It is rare in the state of Iowa. Boardwalk Ridge

T *Temnothorax curvispinosus* (Mayr) Several workers were collected from a leaf litter sample. This is a common species throughout the state of Iowa, in remnant woodland. It often nests in the interior of >1-year old acorns and other tree nuts.
Boardwalk Ridge, Hohneke North

G *Temnothorax pergandei* (Emery) A massive, 1-meter diameter soil nest occurred just below the lip of a steep slope, in remnant dry-mesic prairie. The nest had multiple, 2-3 mm in diameter entrance/exit holes that at the time of collection were trespassed by another ant species, *Neivamyrmex nigrescens*, which see (2 MAY 2010). The workers often visit the inflorescences of *Amorpha canescens* on the property.
This species can be locally common where it does occur, but for the state of Iowa, its distribution is spotty.
Crescent Ridges, Rahel's Prairie, Yucca Ridge

Ponerinae

P *Hypoponera opacior* (Forel) This species nests at or near the summit of the prominent loess hill prairies at the Hitchcock Nature Center. The nests are small and occur in shallow soil, most often in lichenized soil. Rarely is the nest embedded in the root-zone of a plant. This is a rare species in the state of Iowa. It occurs in remnant prairie throughout the loess hills and once in dry-mesic annually burned woodland in Decatur County, Iowa, in Illinoisan Till Plain.
Crescent Ridge Central, Badger Ridge, Juniper Ridge, Yucca Ridge

T *Ponera pennsylvanica* Buckley A shallow soil nest occurred beneath a stage-3, pole size fallen tree with the ant, *Prenolepis imparis*. It also was common while doing leaf litter sifting
Boardwalk Ridge, Chute Woods

Hymenoptera (continued)
(Bees)

Andrenidae

- PT ***Andrena brevipalpis* Cockerell** Polylectic. *Zizia aurea* (1♂). This is a locally common vernal bee species
Lodge Prairie
- PT ***Andrena carlini* Cockerell** Polylectic. *Comandra umbellata* (1♀). This is a locally common vernal bee species.
Badger Ridge
- G ***Andrena brevipalpis* Cockerell** Polylectic. *Rhus glabra* (1♂).
Badger Ridge
- PT ***Andrena cressonii* Robertson** Polylectic. One female was collected from the inflorescences of *Zizia aurea*. This is a locally common vernal bee species.
Prairie reconstruction in front of resident watchman's house
- PT ***Andrena vicina* (Smith)** Polylectic. *Alliaria petiolata* (2♀), *Comandra umbellata* (8♂), *Rhus glabra* (5♂, 2♀), *Taraxacum officinale* (1♀). This is a common vernal bee species.
Bouteloua Ridge, Top of the World Prairie, Badger Ridge, Chute Woods, Fern Ridge, open lawn adjacent to barn
- G ***Andrena hippotes* Robertson** Polylectic. *Rhus glabra* (♀). This is a common vernal bee species.
Bouteloua Ridge
- P ***Andrena integra* Smith** Females are oligolectic on *Cornus* pollen, but will visit other flowers. *Rhus glabra* (2♀). Rare in Iowa and a state record.
Bouteloua Ridge
- G ***Andrena nasonii* Robertson** Polylectic. *Taraxacum officinale* (1 ♀), *Zizia aurea* (3 ♀). This is a very common vernal bee species.
Open lawn adjacent to barn, prairie Reconstruction in front of resident watchman's house
- G ***Andrena nubecula* Smith** Females are oligolectic pollen of *Solidago* and *Aster*. *Solidago canadensis* (2♀). This is a common species of mid to late summer.
Old Field Reconstruction Central
- G ***Andrena simplex* Smith** Females are oligolectic on pollen of *Solidago* and *Aster*. *Solidago*

canadensis (1♂). This is a locally common bee species of mid to late summer.
Old Field Reconstruction Central

P ***Calliopsis andreniformis* Smith** Polylectic. *Amorpha canescens* (1♂), *Medicago lupulina* (1♂).
Badger Ridge, lawn behind the cabins

P ***Perdita albipennis* Cresson** Females are oligolectic on the pollen of *Helianthus*. One male of this uncommon bee was collected from the inflorescences of *Silphium perfoliatum*.
South Reconstruction Unit

P ***Protandrena bancrofti* Dunning** Polylectic. *Amorpha canescen* (3 ♂)
Gaura Ridge

P ***Protandrena cockerelli* Dunning** Polylectic, but this species was common on the inflorescences of *Asclepias viridiflora* (3 ♀) on 8 & 10 JUL 2011.
Badger Ridge, Crescent Ridge(s)

P ***Pseudopanurgus albitarsis* Cresson** Females are oligolectic on pollen of the *Asteraceae*. The males and females of this prairie conservative species were redundant on the inflorescences of *Echinacea angustifolia*, *Helianthus hirsutus*, *Helianthus rigidus*, and *Rudbeckia hirta*.
Badger Camp Prairie, Badger Ridge, Cottonwood Prairie, Juniper Ridge

P ***Pseudopanurgus nebrascensis* (Crawford)** Females are oligolectic on pollen of *Aster* and *Solidago*. *Solidago canadensis* (1♂). This species is obligate to sandy soils throughout its geographic range.
Badger Ridge

P ***Pseudopanurgus rugosus* (Robertson)** Females are oligolectic on pollen of *Helianthus*. The females of this species have been collected from the following sunflowers on the property: *Helianthus annuus*, *Helianthus hirsutus*, and *Helianthus rigidus*.
Badger Camp Prairie, Badger Ridge

Colletidae

P ***Colletes simulans* Cresson** Females are oligolectic on pollen in the *Asteraceae*. *Solidago canadensis* (13♀, 1♂)
Badger Ridge, Old Field Reconstruction Central

P ***Colletes susannae* Swenk** Females are oligolectic on pollen from the genus *Dalea*. *Dalea purpurea* (4♀, 2♂) loaded with its pollen.
Badger Ridge, Crescent Ridge(s), Juniper Ridge

P ***Hylaeus mesillae* (Cockerell)** Polylectic. *Amorpha canescens* (2♀), *Dalea purpurea* (6♀), *Nepeta cataria* (1♂), *Solidago canadensis* (2♀), *Zizia aurea* (2♂, 1♀)
Badger Camp Prairie, Badger Ridge, Bouteloua Ridge, Crescent Ridge(s), Lodge Prairie, Prairie Reconstruction in front of watchman's residence, Rahel's Prairie

P ***Hylaeus modestus* group** Polylectic. *Rhus glabra* (5♀)
Bouteloua Ridge

Apidae

P ***Anthophora walshii* Cresson** Polylectic. *Cirsium altissimum* (1♀, 1♂), *Liatris punctata* (1♀).
Below the Dam Wetland, Crescent Ridge Central

A ***Apis mellifera* Linnaeus** Polylectic. *Dalea purpurea* This introduced species is relatively common throughout the property visiting the inflorescences of numerous plant species, but in no way abundant. The native bees are far more populous than this species.

P ***Bombus auricomus* (Robertson)** Polylectic. This robust bee was a common visitor to the inflorescences of *Monarda fistulosa*, but also was recorded visiting the corollas of these additional plants: *Amorpha canescens*, *Astragalus canadensis*, *Cirsium altissimum*, *Dalea purpurea*, and *Helianthus annuus*.
Amorpha Ridge, Badger Ridge, Crescent Ridges, Reconstruction prairies

P ***Bombus bimaculatus* Cresson** Polylectic. *Astragalus canadensis* (2♀), *Dalea purpurea* (13♀), *Monarda fistulosa* (1♀), *Teucrium canadense* (2♀)
Amorpha Ridge, Badger Ridge, Crescent Ridge(s), Central Reconstruction Area, Gaura Ridge, Juniper Ridge

P ***Bombus fraternus* (Smith)** Polylectic. *Dalea purpurea* (3♀). This is a prairie-dependant bee species that has become very rare or absent throughout its geographic range.
Crescent Ridge(s), Juniper Ridge

P ***Bombus griseocollis* (DeGeer)** Polylectic. *Amorpha canescens*, *Astragalus canadensis*, *Cirsium altissimum*, *Dalea purpurea*, *Lobelia siphilitica*, *Melilotus officinalis*, *Teucrium canadense*. This species, as well as *Bombus auricomus* and *Bombus impatiens*, were the three most common bumblebees on the property.
Amorpha Ridge, Badger Ridge, Gaura Ridge, Below the Dam Wetland, Rahel's Prairie

- G ***Bombus impatiens* Cresson** Polylectic. *Cirsium altissimum* (1♀), *Dalea purpurea* (5♀), *Lobelia siphilitica* (1♀), *Monarda fistulosa* (1♀), *Solidago canadensis* (1♀), *Teucrium canadense* (2♀)
Amorpha Ridge, Badger Ridge, Below the Dam Wetland, Juniper Ridge, South Reconstruction Unit
- P ***Bombus pennsylvanicus* (DeGeer)** Polylectic. *Cirsium altissimum* (2♀, 1♂), *Helianthus annuus* (1♀). This bumblebee was uncommon at Hitchcock.
Badger Ridge, Below the Dam Wetland, Old Field Reconstruction Central
- P ***Bombus vagans* Smith** Polylectic. *Cirsium altissimum* (1♀), *Dalea purpurea* (4♀), *Hedyotis nigricans* (1♀), *Nepeta cataria* (2♀). This bumblebee was uncommon at Hitchcock.
Juniper Ridge, Lodge Woods, prairie reconstruction along drive to nature center, Top of the World Prairie
- P ***Epeolus scutellaris* Say** Polylectic, parasite of the bee genus *Colletes*. *Solidago canadensis* (1♂, 1♀). This species was collected from plants that abundantly were visited by *Colletes simulans*.
Badger Ridge
- P ***Florilegus condignus* (Cresson)** Polylectic. *Teucrium canadense* (1♂)
Amorpha Ridge
- P ***Holcopasites calliopsidis* (Linsley)** Polylectic. Cleptoparasite of *Calliopsis andreniformis*.
Dalea purpurea (1♀)
Crescent Ridge(s)
- P ***Melissodes agilis* Cresson** Females are oligolectic on *Helianthus* pollen. *Solidago canadensis* (1♂)
Old Field Reconstruction Central
- G ***Melissodes bimaculata* (Lepelletier)** Polylectic. *Cirsium altissimum* (1♀), *Monarda fistulosa* (1♀)
South Reconstruction Unit
- P ***Melissodes communis* Cresson** Polylectic. *Dalea purpurea* (4♀), *Monarda fistulosa* (1♀)
Badger Ridge, Crescent Ridge(s), South Reconstruction Unit
- P ***Melissodes coreopsis* Robertson** Polylectic. *Dalea purpurea* (1♀)
Crescent Ridge(s)

- P ***Melissodes desponsa* Smith** Females are primarily oligolectic on pollen of native *Cirsium*. This species was common on the inflorescences of *Cirsium altissimum* throughout the property. The female collects the pale pollen in rapid scooping movements with her two forelegs in a backward sweeping motion to the hind leg pollen-carrying scopae. The males visit for nectar and females.
- PT ***Melissodes trinodis* Robertson** Females are oligolectic on pollen of the *Asteraceae* with a strong preference for the genus *Helianthus*. Females and males visit the inflorescences of the following sunflower species: *Helianthus annuus*, *Helianthus hirsutus*, and *Helianthus rigidus*. Other inflorescences this bee was collected on were: *Dalea purpurea* (♂) and *Silphium integrifolium* (2♀).
Badger Camp Prairie, Badger Ridge, Old Field Reconstruction Central, Badger Ridge, Wavy-leaved Thistle Prairie
- P ***Nomada articulata* Smith** Polylectic, cleptoparasite of the bee genus *Agapostemon*.
Apocynum cannabinum (1♀), *Senecio plattensis* (1♀, 5♂), *Zizia aurea* (2♂).
Lodge Prairie, Juniper Ridge, prairie along drive to nature center
- T ***Nomada ovata* Robertson** Polylectic, cleptoparasite. One female was collected from the soil (2 MAY 2010). This species often occurs in woodlands.
Fern Ridge
- P ***Svastra obliqua* (Say)** Females are oligolectic on pollen in the *Asteraceae*, but were frequent on *Dalea purpurea* in the high prairie areas. *Cirsium altissimum* (1♀), *Dalea purpurea* (3♀, 1♂), *Ratibida columnifera* (1♀), *Ratibida pinnata* (2♂), *Vernonia baldwinii* (1♀)
Badger Ridge, Old Field Reconstruction Central, Gaura Ridge, Juniper Ridge, Lodge Prairie, South Reconstruction Unit
- P ***Triepeolus helianthi* (Robertson)** Polylectic. *Solidago canadensis* (1♂, 1♀). The females of this species are cleptoparasitic of numerous bees. At Hitchcock, it occurred with two bees on which it has been recorded to be parasitic in the literature (Rightmyer, 2008): *Melissodes trinodis* and *Melissodes agilis*. This species has not been recorded from the state of Iowa, but its geographic distribution surrounds the state (Rightmyer, 2008).
Badger Ridge, Old Field Reconstruction Central
- P ***Triepeolus lunatus* (Say)** Polylectic. *Heliopsis helianthoides* (1♀). Females are cleptoparasitic of the bee genus, *Melissodes*.
Old Field Reconstruction Central
- P ***Xeromelecta interrupta* (Cresson)** Polylectic. This is a rare bee for the state of Iowa. It is a cleptoparasite of *Anthophora walshii*, which see. A female was collected from an inflorescence of *Cirsium altissimum*, the same plant on which *Anthophora walshii* also was collected. *Ratibida pinnata* (2♀)
Below the Dam Wetland, Old Field Reconstruction Central

Halictidae

- PT ***Agapostemon sericeus* (Forster)** Polylectic. *Alliaria petiolata* (1♀), *Nepeta cataria* (1♀), Chute Woods, Lodge Woods
- P ***Agapostemon virescens* (Fabricius)** Polylectic. *Dalea purpurea* (2 ♀), *Ratibida pinnata* (1♀)
Old Field Reconstruction Central, Juniper Ridge
- PT ***Augochlora pura* (Say)** Polylectic. *Rhus glabra* (2 ♀), *Nepeta cataria* (1♀, 1♂).
Badger Camp Prairie, Bouteloua Ridge
- G ***Augochlorella aurata* (Smith)** Polylectic. This is a common species at Hitchcock. *Amorpha canescens* (3♀), *Comandra umbellata* (3♀), *Dalea purpurea* (4♀), *Heliopsis helianthoides* (1♀), *Lithospermum canescens* (1♀), *Oxytropis lambertii* (1♀), *Rhus glabra* (2♀)
Badger Ridge, Bouteloua Ridge, Central West Ridge, Crescent Ridge(s), Gaura Ridge, Juniper Ridge, Meador Prairie, restoration prairie along drive
- G ***Augochlorella persimilis* (Viereck)** Polylectic. This is a common species at Hitchcock. *Amorpha canescens* (1♀), *Dalea purpurea* (6♀, 5♂), *Comandra umbellata* (1♀), *Hedyotis nigricans* (2♀), *Monarda fistulosa* (1♀), *Oxytropis lambertii* (2♀), *Senecio plattensis* (3♀), *Sisyrinchium campestre* (1♀), *Zizia aurea* (2♀)
Amorpha Ridge, Bouteloua Ridge, Crescent Ridge(s), Old Field Reconstruction Central, Crescent Ridge(s), Juniper Ridge, Top of the World Prairie, Badger Ridge, Lodge Prairie, Prairie Reconstruction in front of resident watchman's house
- PT ***Augochloropsis metallica fulgida* (Smith)** Polylectic. *Dalea purpurea* (4♀), *Rhus glabra* (1♀) *Zizia aurea* (1♀)
Badger Ridge, Crescent Ridge(s), Lodge Prairie
- G ***Halictus confusus* Smith** Polylectic. *Amorpha canescens* (1♀), *Comandra umbellata* (8♀), *Dalea purpurea* (9♀, 3♂), *Hedyotis nigricans* (1♀), *Nepeta cataria* (1♀), *Senecio plattensis* (1♀)
Badger Ridge, Crescent Ridge(s), Gaura Ridge, Juniper Ridge, Lodge Woods, Top of the World Prairie,
- G ***Halictus ligatus* Say** Polylectic. This bee is common on the property visiting a wide variety of plants that consist of the following species: *Amorpha canescens*, *Cirsium altissimum*, *Cirsium undulatum*, *Dalea purpurea*, *Helianthus annuus*, *Helianthus hirsutus*, *Helianthus rigidus*, *Liatris punctata*, *Ratibida pinnata*, *Rudbeckia hirta*, *Senecio plattensis*, *Silphium perfoliatum*, *Solidago altissima*, *Solidago canadensis*, *Solidago gigantea*, *Solidago missouriensis fasciculata*, and *Solidago rigida*.
- P ***Halictus parallelus* Say** Polylectic. *Dalea purpurea* (1♀), *Helianthus rigidus* (1♂)
Badger Ridge, Crescent Ridge(s)

- G *Halictus rubicundus* (Christ) Polylectic. This species was common on the inflorescences of *Rhus glabra*. It also visited *Echinacea angustifolia* and *Verbascum thapsus*.
Badger Ridge, Bouteloua Ridge
- P *Lasioglossum achilleae* (Mitchell) Polylectic. *Amorpha canescens* (1♀), 10 JUL 2011. This eastern species is rare throughout its geographic range and unknown this far west in North America. One tiny female was collected on the high ridge of Rahel's Prairie from a lush display of *Amorpha canescens*. This collection is now with Jason Gibbs, monographer of the subgenus, *Dialictus*.
- P *Lasioglossum albipenne* (Robertson) Polylectic. *Amorpha canescens*
Rahel's Prairie
- P *Lasioglossum callidum* (Sandhouse) Polylectic. *Dalea purpurea* (3♀). Iowa state record.
Crescent Ridge(s)
- G *Lasioglossum cinctipes* (Provancher) Polylectic. *Rhus glabra* (2♀), *Alliaria petiolata* (3♀)
Badger Ridge, Bouteloua Ridge, Chute Woods
- P *Lasioglossum coreopsis* (Robertson) Polylectic. *Amorpha canescens* (1♀), *Dalea purpurea* (3♀). Iowa state record.
Crescent Ridge(s), Rahel's Prairie
- T *Lasioglossum coeruleum* (Robertson) Polylectic. *Apocynum cannabinum* (1♀)
Lodge Woods
- G *Lasioglossum coriaceum* (Smith) Polylectic. *Lactuca floridana* (1♀)
Lodge Parking Woods
- PT *Lasioglossum cressonii* (Robertson) Polylectic. *Dalea purpurea* (1♀), *Sisyrinchium campestre* (1♀)
Badger Ridge, Juniper Ridge
- PT *Lasioglossum foxii* (Robertson) Polylectic. *Alliaria petiolata* (1♀), *Zizia aurea* (1♀).
Chute Woods, Lodge Woods
- PT *Lasioglossum imitatum* (Smith) Polylectic. This species was abundant on the inflorescences of *Rhus glabra* and with four stylopized females collected. It also has been collected from the inflorescences of *Amorpha canescens* (3♀), *Dalea enneandra* (1♀), *Dalea purpurea* (30♀), *Echinacea angustifolia* (2♀), *Medicago lupulina* (2♀), *Nepeta cataria* (1♀), and *Verbascum thapsus* (1♀).
Badger Ridge, Bouteloua Ridge, Crescent Ridge(s), Gaura Ridge, lawn behind the cabins, Lodge Woods, Rahel's Prairie

- P ***Lasioglossum heterognathum** (Mitchell)* Polylectic. *Dalea purpurea* (4♀). Iowa state record.
Badger Ridge
- P ***Lasioglossum illinoense** (Robertson)* Polylectic. *Dalea purpurea* (10♀)
Badger Ridge, Crescent Ridge(s)
- P ***Lasioglossum laevissimum** (Smith)* Polylectic. *Asclepias syriaca* (1♀). Iowa state record.
Area adjacent to staff barn
- PT ***Lasioglossum macoupinense** (Robertson)* Polylectic. *Zizia aurea* (1♀).
Lodge Woods
- P ***Lasioglossum mitchelli** Gibbs* Polylectic. *Amorpha canescens* (3♀), *Dalea purpurea* (3♀). Iowa state record.
Badger Ridge, Crescent Ridge(s), Gaura Ridge, Rahel's Prairie
- P ***Lasioglossum nymphaearum** (Robertson)* Polylectic. *Amorpha canescens*(1♀)
Rahel's Prairie
- PT ***Lasioglossum obscurum** (Robertson)* Polylectic. *Dalea purpurea* (2♀), *Teucrium canadense* (1♀). Western range extension in North America.
Amorpha Ridge, Badger Ridge, Crescent Ridge(s)
- PT ***Lasioglossum pectorale** (Smith)* Polylectic. *Amorpha canescens* (1♀), *Asclepias tuberosa* (2♀), *Cirsium altissimum* (1♀), *Dalea purpurea* (3 ♀, 1 ♂), *Ratibida columnifera* (1♀), *Solidago canadensis* (1♀), *Zizia aurea* (1♀).
Badger Ridge, Old Field Reconstruction Central, West Ridge, prairie along drive to Nature Center, prairie Reconstruction in front of resident watchman's house, Rahel's Prairie
- P ***Lasioglossum semicaeruleum** (Cockerell)* Polylectic. *Dalea purpurea* (3♀)
Crescent Ridge(s)
- P ***Lasioglossum smilacinae** (Robertson)* Polylectic. *Lithospermum canescens* (1♀), *Dalea purpurea* (1♀), *Medicago lupulina* (1♀), *Rhus glabra* (5♀)
Badger Ridge, Bouteloua Ridge, Crescent Ridge(s), area next to barn
- P ***Lasioglossum tegulare** (Robertson)* Polylectic. *Amorpha canescens* (2 ♀), *Dalea purpurea* (33♀, 2♂), *Hedyotis nigricans* (1♀). Iowa state record.
Badger Ridge, Bouteloua Ridge, Crescent Ridge(s), Gaura Ridge, Rahel's Prairie
- G ***Lasioglossum truncatum** (Robertson)* Polylectic. *Taraxacum officinale* (1♀)
Open lawn adjacent to barn

- P *Lasioglossum vierecki* (Crawford) Polylectic. *Amorpha canescens* (4♀), *Dalea purpurea* (13♀), *Nepeta cataria* (1♀), *Senecio plattensis* (2♀). This species is obligate to sandy soils. Badger Ridge, Bouteloua Ridge, Crescent Ridge(s), Gaura Ridge, Juniper Ridge, Rahel's Prairie
- PT *Lasioglossum weemsi* (Mitchell) Polylectic. *Dalea purpurea* (1♀). Iowa state record. Juniper Ridge
- P *Lasioglossum zephyrum* (Smith) Polylectic. *Amorpha canescens* (1♀), *Dalea purpurea* (1♀)
Crescent Ridge(s), Juniper Ridge
- P *Sphecodes antennariae* Robertson Polylectic, cleptoparasite. *Comandra umbellata* (1♀)
Top of the World Prairie
- P *Sphecodes coronus* Mitchell Polylectic, cleptoparasite. *Ceanothus herbaceus pubescens* (♀) Top of the World Prairie,
- P *Sphecodes cressonii* Robertson Polylectic, cleptoparasite. *Ceanothus herbaceus pubescens* (♀) Top of the World Prairie,
- P *Sphecodes dichrous* Smith Polylectic, cleptoparasite. *Rhus glabra* (1♂, 1♀)
Bouteloua Ridge
- P *Sphecodes heraclei* Robertson Polylectic, cleptoparasite. *Rhus glabra* (1♀)
Bouteloua Ridge
- P *Sphecodes minor* Robertson Polylectic, cleptoparasite. *Rhus glabra* (1♀)
Badger Ridge

Megachilidae

- P *Anthidiellum notatum* (Latreille) Polylectic. *Dalea purpurea* (1♂, 1♀). Iowa state record. Crescent Ridge(s)
- P *Coelioxys alternata* Say Polylectic, cleptoparasite of the genus, *Megachile*. *Vernonia baldwinii* (2♂)
Lodge Prairie
- P *Coelioxys germana* Cresson Polylectic, cleptoparasite of the genus, *Megachile*. *Dalea purpurea* (1♀)
Badger Ridge

- P *Coelioxys modesta* **Smith** Polylectic, cleptoparasite of the genus, *Megachile*. *Heliopsis helianthoides* (1♀), *Vernonia baldwinii* (1♂)
Restoration prairie along drive
- P *Coelioxys octodentata* **Say** Polylectic, cleptoparasite of the genus, *Megachile*. *Solidago canadensis* (1♂)
Badger Ridge
- P *Coelioxys sayi* **Robertson** Polylectic, cleptoparasite of the genus, *Megachile*. *Amorpha canescens* (1♀), *Heliopsis helianthoides* (1♂)
Amorpha Ridge, restoration prairie along drive
- G *Heriades carinatus* **Cresson** Polylectic. *Apocynum cannabinum* (2♀, 1♂) *Rhus glabra* (3♂), *Nepeta cataria* (3♀, 1♂)
Badger Camp Prairie, Badger Ridge, Lodge Woods, Lodge Prairie
- P *Heriades leavitti* **Crawford** Polylectic. *Erigeron strigosus* (1♂), *Nepeta cataria* (1♂).
Badger Camp Prairie, Wavy-leaved Thistle Prairie
- P *Hoplitis pilosifrons* (**Cresson**) Polylectic. *Senecio plattensis* (2♂)
Juniper Ridge
- P *Hoplitis spoliata* (**Provancher**) Polylectic. *Amorpha canescens* (2♀).
Badger Ridge, Rahel's Prairie
- G *Megachile brevis* **Say** Polylectic. *Helianthus rigidus* (1♀)
Old Field Reconstruction Central
- PT *Megachile campanulae* (**Robertson**) Polylectic. *Nepeta cataria* (1♂)
Lodge Woods
- P *Megachile frugalis* **Cresson** Polylectic. *Amorpha canescens* (1♀), *Dalea purpurea* (3♀).
Uncommon visitor to prairie Fabaceae.
Amorpha Ridge, Bouteloua Ridge
- G *Megachile mendica* **Cresson** Polylectic. *Dalea purpurea* (1♀), *Nepeta cataria* (1♀),
Teucrium canadense (1♀)
Amorpha Ridge, Juniper Ridge, Lodge Woods
- P *Megachile montivaga* **Cresson** Polylectic. *Cirsium altissimum* (1♂)
Old Field Reconstruction Central
- P *Megachile petulans* **Cresson** Polylectic. *Amorpha canescens* (1♂), *Dalea purpurea* (1♀),
Heliopsis helianthoides (1♂), *Lespedeza capitata* (4♀), *Solidago canadensis* (1♀), *Vernonia*

baldwinii (1♀). The male that was collected had an *Asclepias viridiflora* pollinarium attached to the basal portion of the last segment of the hind tarsus by the dark-colored corpusculum.

Badger Camp Prairie, Lodge Prairie, Old Field Reconstruction Central, Crescent Ridge(s), restoration prairie along drive

Xylocopidae

G ***Ceratina calcarata* Robertson** Polylectic. *Ceanothus herbaceus* (2♂), *Comandra umbellata* (5♂), *Delphinium virescens* (1♀), *Leonurus cardiaca* (2♀).

Badger Ridge, Lodge Woods, Top of the World Prairie

G ***Ceratina mikmaqi* Rehan & Sheffield** Polylectic. *Amorpha canescens* (1♀), *Comandra umbellata* (2♂), *Dalea purpurea* (2♀,1♂), *Delphinium virescens* (1♀,1♂), *Echinacea angustifolia* (1♀) *Nepeta cataria* (2♀), *Rhus glabra* (1♀), *Senecio plattensis* (1♂), *Solidago canadensis* (1♀). In the case of *Delphinium virescens*, the females of this species and *Ceratina calcarata* enter through corolla opening and crawl down the elongate floral spur to the nectar reward.

Badger Camp Prairie, Badger Ridge, Bouteloua Ridge, Crescent Ridge(s), Juniper Ridge, Wavy-leaved Thistle Ridge

G ***Xylocopa virginica* (Linnaeus)** Polylectic. *Helianthus annuus* (1♀)

Badger Ridge

Cynipidae (gall wasps)

PT ***Acraspis macrocarpa* Bassett** Globose, hard leaf attachment on *Quercus macrocarpa*.

PT ***Acraspis villosa* Gillette** Globose, yellowish gall beset with chestnut-colored wavy hair on abaxial midrib and secondary veins of *Quercus macrocarpa*.

PT ***Andricus quercuspetiolicola* (Bassett)** Prominent, compound, globose, fleshy gall on the basal portion of the midrib of *Quercus macrocarpa*, just above petiole, or petiole absent and replaced by gall. Often towards the end of the growing season the gall is left with attached desiccated leaf fragments on one side.

P ***Antistrophus lygodesmiaepisum* Walsh** Globose, smooth, hard stem attachment on *Lygodesmia juncea*.

PT ***Disholcaspis quercusmamma* (Walsh)** Aggregations of this marble sized, globose, abruptly acute gall formed by this wasp, can be found on the twigs of *Quercus macrocarpa* in prairie and the remnant timber areas.

PT ***Neuroterus floccosus* (Bassett)** The galls are formed on *Quercus macrocarpa* where they can

be numerous on the leaf lamina as 3-4 mm in diameter, scattered, low, pustule-like smooth galls expressed on the adaxial leaf surface. On the abaxial leaf surface the pustules are covered with a dense, long tomentum of cinnamon-colored pubescence.
Badger Camp Prairie, Badger Ridge

Perilampidae

PT *Euperilampus triangularis* (Say) *Apocynum cannabinum* (1 ♀)
Lodge Prairie

Lepidoptera

Erebidae

- P ***Cycnia inopinatus* (Edwards)** (Unexpected Tiger Moth) Larval host: *Asclepias*. The larvae of this species fed on the ventral portion of the foliage of *Asclepias syriaca* at Badger Ridge.

Hesperiidae

- P ***Anatrytone logan* (Edwards)** (Delaware Skipper) Larval host: *Poaceae*. This was a locally common skipper at Badger Ridge and Badger Camp Prairie.
- G ***Atalopedes campestris* (Boisduval)** (Sachem) Larval host: *Poaceae*. This was a common skipper throughout the property. The adults visited the inflorescences of: *Eupatorium rugosum*, *Lobelia siphilitica*, and *Silphium integrifolium deamii*.
- P ***Epargyreus clarus* (Cramer)** (Silver-spotted Skipper) Larval host: woody species in the *Fabaceae*. This was a common skipper throughout the property. The adults visited the inflorescences of: *Agalinis aspera*, *Amorpha canescens*, *Cirsium altissimum*, and *Verbena stricta*.
- PT ***Erynnis horatius* (Scudder & Burgess)** (Horace's Duskywing) Larval host: *Quercus*. The adults of this species were uncommon in prairie and along woodland edge of Badger Ridge and Badger Camp Prairie. The adults visited the inflorescences of *Astragalus canadensis*, *Hedyotis nigricans*, and *Nepeta cataria*.
- PT ***Euphyes vestris* (Boisduval)** (Dun Skipper) Larval host: *Carex*. The adults were occasional on the inflorescences of *Asclepias syriaca*.
Badger Ridge
- G ***Hylephila phyleus* (Drury)** (Fiery Skipper) Larval host: *Poaceae*. The adults visited the inflorescences of *Lobelia siphilitica*, and *Silphium integrifolium deamii*.
Below the Dam Wetland, Old Field Reconstruction Central
- P ***Poanes hobomok* (Harris)** (Hobomok Skipper) Larval host: *Poaceae*. The adults of this species were uncommon throughout the preserve, in prairie.
Top of the World Prairie
- P ***Polites origenes* (Fabricius)** (Crossline Skipper) Larval host: *Poaceae*. The adults visited the inflorescences of the following plants in the high prairie areas: *Liatris aspera* and *Liatris punctata*.
Crescent Ridge, Juniper Ridge, Top of the World Prairie

- P *Polites themistocles* (**Latreille**) (Tawny-edged Skipper) Larval host: *Poaceae*. The adults were frequent in Below the Dam Wetland on the inflorescences of *Lobelia siphilitica*.
- PT *Pompeius verna* (**Edwards**) (Little Glassywing) Larval host: *Tridens flavus*. This species was common on the inflorescences of *Asclepias syriaca* along the woodland edges and in the remnant prairie areas throughout the property.
- G *Pyrgus communis* (**Grote**) (Common Checkered Skipper) Larval host: *Malvaceae*. The adults were frequent on the inflorescences of *Liatris aspera*.
Top of the World Prairie
- P *Thorybes pylades* (**Scudder**) (Northern Cloudywing) Larval host: *Fabaceae*. One adult was on foliage of *Oxytropis lambertii* and another visited the inflorescences of *Liatris punctata*.
Juniper Ridge

Lycaenidae

- PT *Callophrys gryneus* (**Hübner**) (Juniper Hairstreak) Larval host: *Juniper*. This was a common species in the prairie and along the brushy edges where the host plant was. The adults visited the inflorescences of: *Liatris aspera*
Top of the World Prairie
- P *Celastrina ladon* (**Cramer**) (Spring Azure Complex) Larval host: flowering parts of numerous species. This was a common butterfly in the prairie remnants and prairie Reconstruction areas throughout the property.
- P *Cupido comyntas* (**Godart**) (Eastern Tailed-Blue) Larval host: *Fabaceae*. The eggs and larvae of this species were common on the inflorescences of *Lespedeza capitata* at Badger Ridge and Badger Camp Prairie. The adults were common throughout the property in the Reconstruction and remnant prairie areas where they visited the inflorescences of numerous plant species.
- T *Feniseca tarquinius* (**Fabricius**) (Harvester) Larval host: Predaceous on woolly aphids. The adults of this uncommon species were frequent in dappled sunlight on moist soil that surrounded puddles in the Fern Ridge area.
- PT *Satyrium calanus* (**Hübner**) (Banded Hairstreak) Larval host: *Carya*, *Juglans*, and *Quercus*
This was a common species in the prairie and along the woodland edges. The adults visited the inflorescences of: *Asclepias tuberosa*, and *Nepeta cataria*.
- P *Strymon melinus* (**Hübner**) (Gray Hairstreak) Larval host: *Fabaceae* and *Malvaceae*. This was a common species at Badger Ridge. The adults visited the inflorescences of *Cirsium discolor*.

Noctuidae

- PT *Alypia octomaculata* (**Fabricius**) (Eigh-spotted Forester) Larval host: *Vitaceae*. This species was locally common on the inflorescences of *Asclepias tuberosa* throughout the property along the woodland/prairie edges.
- P *Schinia lucens* (**Morrison**) (Leadplant Flower Moth) Larval host: *Amorpha*. The beautiful adults of the Leadplant Flower Moth occurred on the inflorescences of *Amorpha canescens*. The cryptic, thin, purplish, strongly patterned larvae can be common in the inflorescences where they feed. The larvae pupate and overwinter in the soil. This prairie conservative moth is rare throughout its geographic range.
Amorpha Ridge, Badger Ridge, Gaura Ridge, Crescent ridges, Rahel's Prairie

Nymphalidae

- PT *Asterocampa celtis* (**Boisduval & LeConte**) (Hackberry Emperor) Larval host: *Celtis*. This was a common, sometimes abundant species in the prairie and woodland edge areas on the property. The adults visit rotting fruit, dung, carrion and rarely flowers.
- PT *Asterocampa clyton* (**Boisduval & LeConte**) (Tawny Emperor) Larval host: *Celtis*. This was a common species in the prairie and woodland edge areas on the property. The adults visit rotting fruit, dung, carrion and rarely flowers. It was common at Badger Camp Prairie along the woodland edge, however, on the inflorescences of *Nepeta cataria*.
- P *Cercyonis pegala* (**Fabricius**) (Common Wood-Nymph) Larval host: *Poaceae*. This was a common species in the remnant prairie and prairie reconstruction areas flying low amongst the grass.
- PT *Danaus plexippus* (**Linnaeus**) (Monarch) Larval host: *Asclepias*. This was a common species in the prairie and woodland edge areas on the property. Adults and larvae were frequent on *Asclepias tuberosa* and *Asclepias syriaca*. This species visited the inflorescences of many flowering plants on the property.
- P *Junonia coenia* **Hübner** (Common Buckeye) Larval host: *Scrophulariaceae*. The larvae were common on the foliage of *Agalinis aspera* in the prairie areas throughout the property.
- P *Limenitis archippus* (**Cramer**) (Viceroy) Larval host: *Salix* and *Populus*. This species was occasional in Below the Dam Wetland and visited the inflorescences of *Lobelia siphilitica*.
- T *Limenitis arthemis* (**Drury**) (Red-spotted Purple) Larval host: numerous trees of the following genera: *Populus*, *Prunus*, *Quercus*, *Salix*, and *Tilia*. The adults were often perched on moist partly shaded soil that surrounded puddles on the ATV path in the woodland areas.

- PT *Nymphalis antiopa* (Linnaeus) (Mourning Cloak) Larval host: *Celtis*, *Populus*, *Salix*, and *Ulmus*. This was a common species in the prairie and woodland edge areas on the property.
- P *Phyciodes tharos* (Drury) (Pearl Crescent) Larval host: *Aster*. This was a common species in the prairie and woodland edge areas on the property.
- PT *Polygonia comma* (Harris) (Comma) Larval host: *Boehmeria*, *Humulus*, *Laportea*, and *Ulmus*, *Urtica*. The adults were uncommon throughout the preserve, mainly in open timber.
- PT *Polygonia interrogationis* (Fabricius) (Question Mark) Larval host: *Boehmeria*, *Celtis*, *Humulus*, *Ulmus*, and *Urtica*. The adults were uncommon throughout the preserve, mainly in open timber.
- PT *Speyeria cybele* (Fabricius) (Great Spangled Fritillary) Larval host: *Viola*. This was a common species in the prairie and woodland edge areas on the property. The adults visit the inflorescences of the following plants: *Asclepias tuberosa*, *Cirsium altissimum*, *Echinacea angustifolia*, and *Verbena stricta*.
- G *Vanessa atalanta* (Linnaeus) (Red Admiral) Larval host: *Urticaceae*. This was a common species in the prairie and woodland edge areas on the property. The adults visited the inflorescences of *Nepeta cataria*.
- G *Vanessa cardui* (Linnaeus) (Painted Lady) Larval host: Numerous species in *Asteraceae*, *Fabaceae*, and *Malvaceae*. This was a common species in remnant prairie and Reconstruction prairie on the property. The adults visited the inflorescences of *Liatris punctata*.
- G *Vanessa virginiensis* (Drury) (American Lady) Larval host: *Asteraceae*. This was a common species in remnant prairie and reconstruction prairie on the property. The adults visited the inflorescences of *Vernonia baldwinii*.

Papilionidae

- PT *Papilio cresphontes* Cramer (Giant Swallowtail) Larval host: *Rutaceae*. This was a common species in the prairie and woodland edge areas on the property. The adults visited the inflorescences of the following species: *Cirsium altissimum*. The adults were often on the foliage of *Xanthoxylum americanum*.
Badger Ridge, Hohneke North
- G *Papilio glaucus* Linnaeus (Tiger Swallowtail) Larval host: *Fraxinus*, *Populus*, *Prunus*, *Salix*, and *Tilia*. This was a common species in the prairie and woodland edge areas on the property. The adults visited the inflorescences of the following plants: *Cirsium altissimum*, *Monarda fistulosa*, and *Verbena stricta*.
- G *Papilio polyxenes* Fabricius (Black Swallowtail) Larval host: *Apiaceae*, occasionally *Rutaceae*.

This was a common species in the prairie and woodland edge areas on the property. The adults visited the inflorescences of *Verbena stricta*.

Pieridae

- G *Colias eurytheme* **Boisduval** (Orange Sulphur) Larval host: *Medicago*, *Melilotus*, and *Trifolium*. This was a common species on the property. Adults visited the inflorescences of the following species: *Agalinis aspera*, *Liatris aspera*, and *Linum rigidum*.
- G *Colias philodice* **Godart** (Clouded Sulphur) Larval host: *Medicago*, *Melilotus*, and *Trifolium*. This was a common species on the property. Adults visited the inflorescences of *Monarda fistulosa*.
- A *Pieris rapae* (**Linnaeus**) (Cabbage White) Larval host: *Brassicaceae*. This was a common species on the property. Adults were common on the inflorescences of numerous species.
- P *Pyrisitia lisa* (**Boisduval & LeConte**) (Little Yellow) Larval host: *Cassia* and *Chamaecrista*. This was a common species on the property, wherever *Chamaecrista fasciculata* and *Cassia marilandica* grew.

Saturniidae

- T *Actias luna* (**Linnaeus**) (Luna Moth) Larval host: The larvae consume leaves of various hardwoods on the property such as those of the following genera: *Carya*, *Juglans*, and *Rhus*. One adult was on the staff headquarter's building that was adjacent to remnant oak timber.
- PT *Automeris io* (**Fabricius**) (Io Moth) Larval host: numerous plant species. The larvae of this moth were occasional on *Lespedeza capitata* consuming the foliage.
Badger Ridge

Sphingidae

- G *Hemaris diffinis* (**Boisduval**) (Snowberry Clearwing) Larval host: *Symphoricarpos* and *Apocynum*. The adults of this species were common visitors to the inflorescences of *Cirsium altissimum*.
Area near the barn
- G *Hyles lineata* (**Fabricius**) (White-lined Sphinx) The adults of this species were common daytime visitors throughout the property to the inflorescences of *Cirsium altissimum*.

APPENDIX C

Floristic Metrics

An Example of Transect Monitoring With Floristic Quality Assessment

Appendix C. Floristic Metrics

Recommended for Monitoring at Hitchcock Nature Center

One of the more fine-grained and repeatable monitoring methods is the transect protocol described by Wilhelm and Masters' *Floristic Quality Assessment and Computer Applications*, 1999. Commonly, the results of each transect are presented in four sections as described below, where data from the Munchkin Prairie are used as an example.

Section 1 is a summary of the quadrat data for the transect. The data listed for each quadrat includes the mean coefficient of conservatism (MC), floristic quality index (FQI), and mean wetness (MW). These values are calculated once for native species only, and a second time including adventive species (W/Ad). Also presented for each quadrat are the number of native species (NS), and number of total species (TS). Shown below each of these columns are their values averaged per quadrat (AVG), and standard deviation (STD). The columns to the far right are sequential averages of the wetness coefficients ($[(x+n+y)/3]$), data that can be useful in the evaluation of plants along a slope or topographical catena.

Section 2 is a summary these same values for the entire transect. First, there is a tabulation of the species in each conservatism category (0 to 10) and the percentage of species in three conservatism classes (0 to 3, 4 to 6, 7 to 10). The two columns below summarize the number and percent of species in each physiognomic group (A=annual, B=biennial, P=perennial, W=woody, H= herbaceous).

Section 3 is a table that lists the relative importance values for each physiognomic group and for each species found in the transect sampling. First, there is a summary of the relative importance value (RIV) of each physiognomic group; these values are calculated by summing the frequency (FRQ) and the cover class (COV) of each group found in the transect then dividing by two. Each species RIV is calculated similarly. Each scientific name is followed by its coefficient of conservatism and wetland indicator status.

Section 4 is the transect inventory arranged alphabetically to scientific name. This is followed by a list of the quadrats along the transect string that includes the cover class value determined for each species recorded in the quadrat.

Section 1

TRANSECT DATA, QUADRAT

QUAD	MC	W/Ad	FQI	W/Ad	MW	W/Ad	NS	TS	MW	SEQ	W/Ad
1	6.3	6.3	23.5	23.5	4.4	4.4	14	14		4.3	4.3
2	6.6	6.6	22.8	22.8	4.3	4.3	12	12		4.3	4.3
3	5.8	5.8	21.6	21.6	4.4	4.4	14	14		4.3	4.3
4	5.9	5.9	23.8	23.8	4.4	4.4	16	16		4.4	4.4
5	6.1	6.1	21.1	21.1	4.4	4.4	12	12		4.4	4.4
6	6.5	6.5	21.4	21.4	4.5	4.5	11	11		4.1	4.1
7	5.8	5.8	19.3	19.3	3.4	3.4	11	11		4.0	4.0
8	5.8	5.8	19.9	19.9	4.3	4.3	12	12		3.9	3.9
9	6.5	6.5	18.4	18.4	4.1	4.1	8	8		4.2	4.2
10	5.5	5.5	17.4	17.4	4.2	4.2	10	10		4.3	4.3
11	6.7	6.7	20.0	20.0	4.4	4.4	9	9		4.2	4.2
12	5.2	5.2	15.7	15.7	4.0	4.0	9	9		4.3	4.3
13	6.4	6.4	20.2	20.2	4.4	4.4	10	10		4.3	4.3
14	6.4	6.4	21.1	21.1	4.5	4.5	11	11		4.4	4.4
15	6.9	6.9	20.7	20.7	4.3	4.3	9	9		4.3	4.3
16	6.3	6.3	17.7	17.7	4.1	4.1	8	8		4.4	4.4
17	6.1	6.1	17.3	17.3	4.6	4.6	8	8		4.5	4.5
18	7.0	7.0	18.5	18.5	4.7	4.7	7	7		4.7	4.7
19	7.3	7.3	20.5	20.5	4.8	4.8	8	8		4.2	4.2
20	4.9	4.9	12.9	12.9	3.1	3.1	7	7		3.9	3.9
AVG	6.2	6.2	19.7	19.7	4.3	4.3	10.3	10.3			
STD	0.6	0.6	2.7	2.7	0.4	0.4	2.5	2.5			

Section 2

TRANSECT DATA, OVERALL TRANSECT

C	NUMBER		35 NATIVE SPECIES		
0	1		35 TOTAL SPECIES		
1	0		6.2 NATIVE MEAN C		
2	0	0 to 3	6.2 W/Adventives		
3	3	11.4%	36.8 NATIVE FQI		
4	6		36.8 W/Adventives		
5	4		4.1 NATIVE MEAN W		
6	3	4 to 7	4.1 W/Adventives		
7	7	57.1%			
8	6				
9	0	8 to 10			
10	5	31.4%			
Native	35	100.0%	Adventive	0	0.0%
Tree	0	0.0%	Tree	0	0.0%
Shrub	1	2.9%	Shrub	0	0.0%
W-Vine	0	0.0%	W-Vine	0	0.0%
H-Vine	0	0.0%	H-Vine	0	0.0%
P-Forb	28	80.0%	P-Forb	0	0.0%
B-Forb	0	0.0%	B-Forb	0	0.0%
A-Forb	0	0.0%	A-Forb	0	0.0%
P-Grass	5	14.3%	P-Grass	0	0.0%
A-Grass	0	0.0%	A-Grass	0	0.0%
P-Sedge	1	2.9%	P-Sedge	0	0.0%
A-Sedge	0	0.0%	A-Sedge	0	0.0%
			Fern	0	0.0%

Section 3

PHYSIOGNOMIC RELATIVE IMPORTANCE VALUES

PHYSIOGNOMY	FRQ	COV	RFRQ	RCOV	RIV
Nt P-Forb	154	214	74.8	67.7	71.2
Nt P-Grass	50	98	24.3	31.0	27.6
Nt Shrub	1	2	0.5	0.6	0.6
Nt P-Sedge	1	2	0.5	0.6	0.6

SPECIES RELATIVE IMPORTANCE VALUES

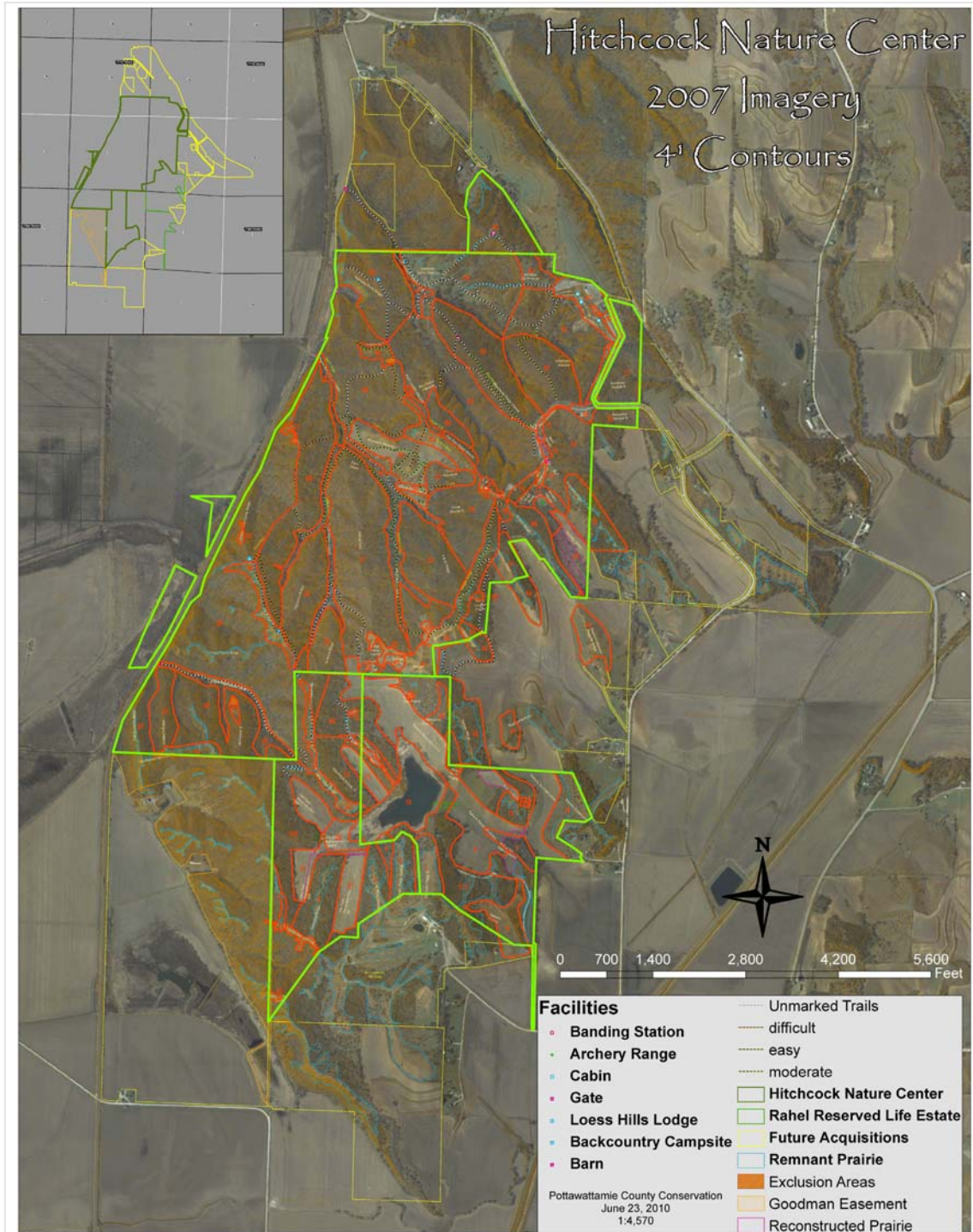
SCIENTIFIC NAME	C WETNESS	FRQ	COV	RFRQ	RCOV	RIV
Schizachyrium scoparium	5 FACU-	20	54	9.7	17.1	13.4
Helianthus rigidus	8 UPL	18	33	8.7	10.4	9.6
Dalea purpurea	8 UPL	18	26	8.7	8.2	8.5
Solidago rigida	4 FACU-	17	27	8.3	8.5	8.4
Sorghastrum nutans	4 FACU+	13	20	6.3	6.3	6.3
Aster sericeus	10 UPL	13	14	6.3	4.4	5.4
Aster ericoides	3 FACU-	10	16	4.9	5.1	5.0
Andropogon gerardii	4 FAC-	8	14	3.9	4.4	4.2
Aster azureus	7 UPL	9	11	4.4	3.5	3.9
Aster oblongifolius	10 UPL	5	10	2.4	3.2	2.8
Anemone cylindrica	7 UPL	6	7	2.9	2.2	2.6
Bouteloua curtipendula	6 UPL	6	7	2.9	2.2	2.6
Lespedeza capitata	3 FACU	6	7	2.9	2.2	2.6
Liatris aspera	8 UPL	5	8	2.4	2.5	2.5
Sisyrinchium campestre	4 UPL	5	7	2.4	2.2	2.3
Asclepias verticillata	0 UPL	5	6	2.4	1.9	2.2
Pedimelum esculentum	8 UPL	5	5	2.4	1.6	2.0
Lygodesmia juncea	7 UPL	4	6	1.9	1.9	1.9
Dalea enneandra	10 UPL	4	4	1.9	1.3	1.6
Echinacea angustifolia	8 UPL	4	4	1.9	1.3	1.6
Euphorbia corollata	3 UPL	4	4	1.9	1.3	1.6
Silphium laciniatum	7 FACU-	3	5	1.5	1.6	1.5
Linum sulcatum	7 UPL	3	3	1.5	0.9	1.2
Muhlenbergia cuspidata	10 UPL	3	3	1.5	0.9	1.2
Astragalus lotiflorus	10 UPL	2	2	1.0	0.6	0.8
Carex pensylvanica	6 FACW+	1	2	0.5	0.6	0.6
Comandra umbellata	6 FACU	1	2	0.5	0.6	0.6
Cornus drummondii	4 FAC	1	2	0.5	0.6	0.6
Asclepias hirtella	5 UPL	1	1	0.5	0.3	0.4
Delphinium virescens	7 UPL	1	1	0.5	0.3	0.4
Hedyotis nigricans	7 UPL	1	1	0.5	0.3	0.4
Oxytropis lambertii	8 FACU-	1	1	0.5	0.3	0.4
Penstemon grandiflorus	5 UPL	1	1	0.5	0.3	0.4
Solidago missouriensis	5 UPL	1	1	0.5	0.3	0.4
Solidago nemoralis	4 UPL	1	1	0.5	0.3	0.4

Section 4

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ANDGER	4 <i>Andropogon gerardii</i>	1 FAC-	Nt P-Grass	Big bluestem grass
ANECYL	7 <i>Anemone cylindrica</i>	5 UPL	Nt P-Forb	"Windflower
ASCHIR	5 <i>Asclepias hirtella</i>	5 UPL	Nt P-Forb	Tall green milkweed
ASCVER	0 <i>Asclepias verticillata</i>	5 UPL	Nt P-Forb	Whorled milkweed
ASTAZU	7 <i>Aster azureus</i>	5 UPL	Nt P-Forb	Sky-blue aster
ASTERI	3 <i>Aster ericoides</i>	4 FACU-	Nt P-Forb	Heath aster
ASTOBL	10 <i>Aster oblongifolius</i>	5 UPL	Nt P-Forb	Aromatic aster
ASTSER	10 <i>Aster sericeus</i>	5 UPL	Nt P-Forb	Silky aster
ASTLOT	10 <i>Astragalus lotiflorus</i>	5 UPL	Nt P-Forb	Lotus milk vetch
BOUCUR	6 <i>Bouteloua curtipendula</i>	5 UPL	Nt P-Grass	Side-oats grama
CXPENP	6 <i>Carex pennsylvanica</i>	-4 FACW+	Nt P-Sedge	Pennsylvania oak sedge
COMUMB	6 <i>Comandra umbellata</i>	3 FACU	Nt P-Forb	Bastard toadflax
CORDRU	4 <i>Cornus drummondii</i>	0 FAC	Nt Shrub	Rough-leaved dogwood
DALENN	10 <i>Dalea enneandra</i>	5 UPL	Nt P-Forb	Sailpod dalea
DALPUR	8 <i>Dalea purpurea</i>	5 UPL	Nt P-Forb	Purple prairie clover
DELVIR	7 <i>Delphinium virescens</i>	5 UPL	Nt P-Forb	Prairie larkspur
ECHANG	8 <i>Echinacea angustifolia</i>	5 UPL	Nt P-Forb	Purple coneflower
EUPCOR	3 <i>Euphorbia corollata</i>	5 UPL	Nt P-Forb	Flowering spurge
HEDNIG	7 <i>Hedyotis nigricans</i>	5 UPL	Nt P-Forb	Narrow-leaved bluets
HELRIE	8 <i>Helianthus rigidus</i>	5 UPL	Nt P-Forb	Prairie sunflower
LESCAP	3 <i>Lespedeza capitata</i>	3 FACU	Nt P-Forb	Round-headed bush clover
LIAASP	8 <i>Liatris aspera</i>	5 UPL	Nt P-Forb	Rough blazing star
LINSUL	7 <i>Linum sulcatum</i>	5 UPL	Nt P-Forb	Grooved yellow flax
LYGJUN	7 <i>Lygodesmia juncea</i>	5 UPL	Nt P-Forb	Skeletonweed
MUHCUS	10 <i>Muhlenbergia cuspidata</i>	5 UPL	Nt P-Grass	Prairie satin grass
OXYLAM	8 <i>Oxytropis lambertii</i>	4 FACU-	Nt P-Forb	Locoweed
PEDESC	8 <i>Pediomelum esculentum</i>	5 UPL	Nt P-Forb	Prairie turnip
PENGRN	5 <i>Penstemon grandiflorus</i>	5 UPL	Nt P-Forb	Large-flowered beard tongue
SCHSCO	5 <i>Schizachyrium scoparium</i>	4 FACU-	Nt P-Grass	Little bluestem
SILLAC	7 <i>Silphium laciniatum</i>	4 FACU-	Nt P-Forb	Compass plant
SISCAM	4 <i>Sisyrinchium campestre</i>	5 UPL	Nt P-Forb	Prairie blue-eyed grass
SOLMIS	5 <i>Solidago missouriensis</i>	5 UPL	Nt P-Forb	Missouri goldenrod
SOLNEM	4 <i>Solidago nemoralis</i>	5 UPL	Nt P-Forb	Field goldenrod
SOLRIG	4 <i>Solidago rigida</i>	4 FACU-	Nt P-Forb	Stiff goldenrod
SORNUT	4 <i>Sorghastrum nutans</i>	2 FACU+	Nt P-Grass	Indian grass

APPENDIX D

Maps of Hitchcock Nature Center



Appendix D: Key to Maps 1-4

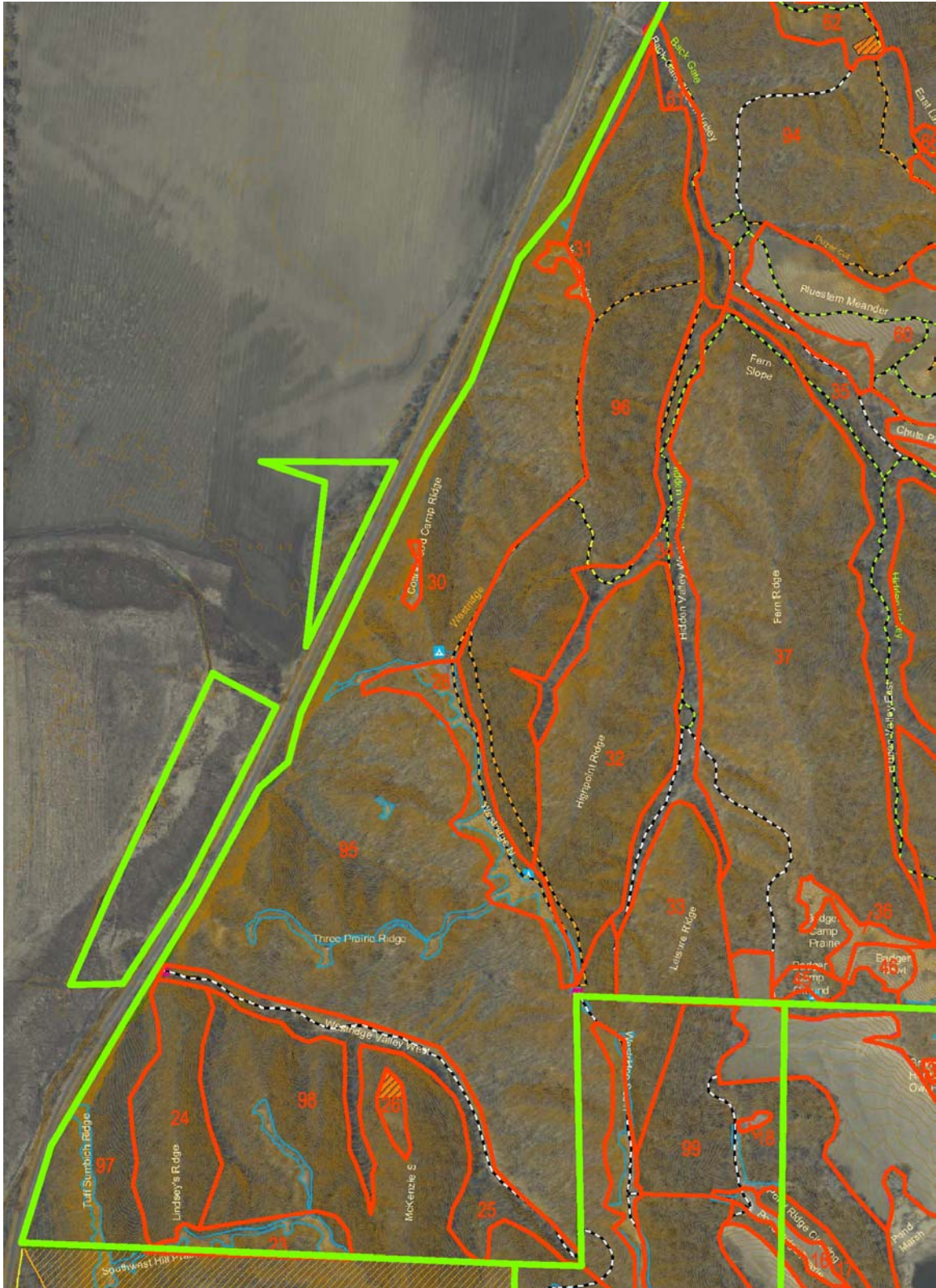
Inventory Areas of the Hitchcock Nature Center

- | | |
|---|--|
| 1 Crescent Ridge, East – Map 4 | 53 Mary & Alex Ridges – Map 3 |
| 2 Crescent Ridge, West – Map 4 | 54 Lodge Prairie – Map 3 |
| 3 Crescent Ridge, Central – Map 4 | 55 Lodge Landscape – Map 3 |
| 4 Crescent Valley, West – Map 4 | 56 Chute Woods – Map 3 |
| 5 Rahel’s Prairie – Map 4 | 57 Chute Thicket – Map 1 |
| 6 Rahel’s Reconstruction – Map 4 | 58 Chute Prairie – Map 1 |
| 7 Below-the-Dam Wetland – Map 4 | 59 Boardwalk Ridge – Map 1 |
| 8 Amorpha Ridge – Map 4 | 60 Bluestem Meander – Map 1 |
| 9 Top-of-the-World Prairie – Map 4 | 61 Back Gate Stream Valley – Map 1 |
| 10 Goodman Ridge – Map 4 | 62 McKenzie Research Ridge, North – Map 1 |
| 11 Rahel’s Knob, Mowed Thicket – Map 4 | 63 Fox Run Ridge Prairie – Map 1 |
| 12 Rahel’s Knob, Herbicided Thicket – Map 4 | 64 Fox Run Ridge Woods – Map 1 |
| 13 Rahel’s Knob – Map 4 | 65 Hohneke Point Ridge – Map 1 |
| 14 Rahel’s Easement – Map 4 | 66 Boy Scout Clearing – Map 1 |
| 15 West Ridge Thicket – Map 4 | 67 Wildflower Wander – Map 1 |
| 16 Pond Ridge – Map 4 | 68 Bulldozed Valley, East Face – Map 1 |
| 17 Pond Ridge Clearing – Map 4 | 69 Access Ridge – Map 3 |
| 18 Lost Prairie – Map 4 | 70 Archery Road Slope – Map 3 |
| 19 Rahel’s Impoundment & Marsh – Map 4 | 71 Archery Range Woods – Map 3 |
| 20 Old-Field Reconstruction, Central – Map 4 | 72 Ferguson Ridge – Map 3 |
| 21 Old-Field Reconstruction, Complex – Map 4 | 73 Barn Parking Reconstruction – Map 1 |
| 22 Satin Grass Bluff – Map 4 | 74 Barn Parking Woods – Map 1 |
| 23 Southwest Hill Prairie – Map 2 | 75 Entry Road Reconstruction – Map 1 |
| 24 Lindsey’s Ridge – Map 2 | 76 Entryway Woods, South – Map 1 |
| 25 West Ridge Valley – Map 2 | 77 Entryway Woods, North – Map 1 |
| 26 McKenzie Research Ridge, South – Map 2 | 78 Lodge Parking Thicket – Map 3 |
| 27 West Ridge Prairie, South – Map 4 | 79 Campground Roadside Reconstruction – Map 1 |
| 28 West Ridge Prairie, North – Map 2 | 80 Campground Reconstruction – Map 1 |
| 29 Cottonwood Prairie – Map 3 | 81 Campground – Map 1 |
| 30 Cottonwood Camp Ridge – Map 2 | 82 Hohneke Hill Pasture – Map 1 |
| 31 Yucca Ridge – Map 2 | 83 Hohneke Stream Flats & Farm Pond – Map 1 |
| 32 High-Point Camp Ridge – Map 2 | 84 Hohneke Valley Pasture – Map 1 |
| 33 Leisure Ridge – Map 2 | 85 Hohneke Addition – Map 1 |
| 34 Hidden Valley, West – Map 2 | 86 Entrance Playground & Lawn – Map 1 |
| 35 Hidden Valley, East – Map 2 | 87 Archery Valley Reconstruction – Map 3 |
| 36 Badger Camp Prairie – Map 2 | |
| 37 Fern Ridge – Map 2 | |
| 38 Great Horned Owl Prairie – Map 3 | |
| 39 Few-Forb Prairie – Map 4 | |
| 40 Juniper Ridge – Map 3 | |
| 41 Rayburn’s Knob – Map 3 | |
| 42 Meador Ridge Pasture – Map 3 | |
| 43 Gaura Ridge Addition – Map 3 | |
| 44 Bouteloua Ridge Addition – Map 3 | |
| 45 Badger Camp – Map 3 | |
| 46 Badger Bowl – Map 3 | |
| 47 Badger Hill – Map 3 | |
| 48 Gaura Ridge – Map 3 | |
| 49 Munchkin Prairie – Map 3 | |
| 50 Wavy-Leaved Thistle Nose – Map 3 | |
| 51 Bouteloua Ridge – Map 3 | |
| 52 Badger Ridge – Map 3 | |

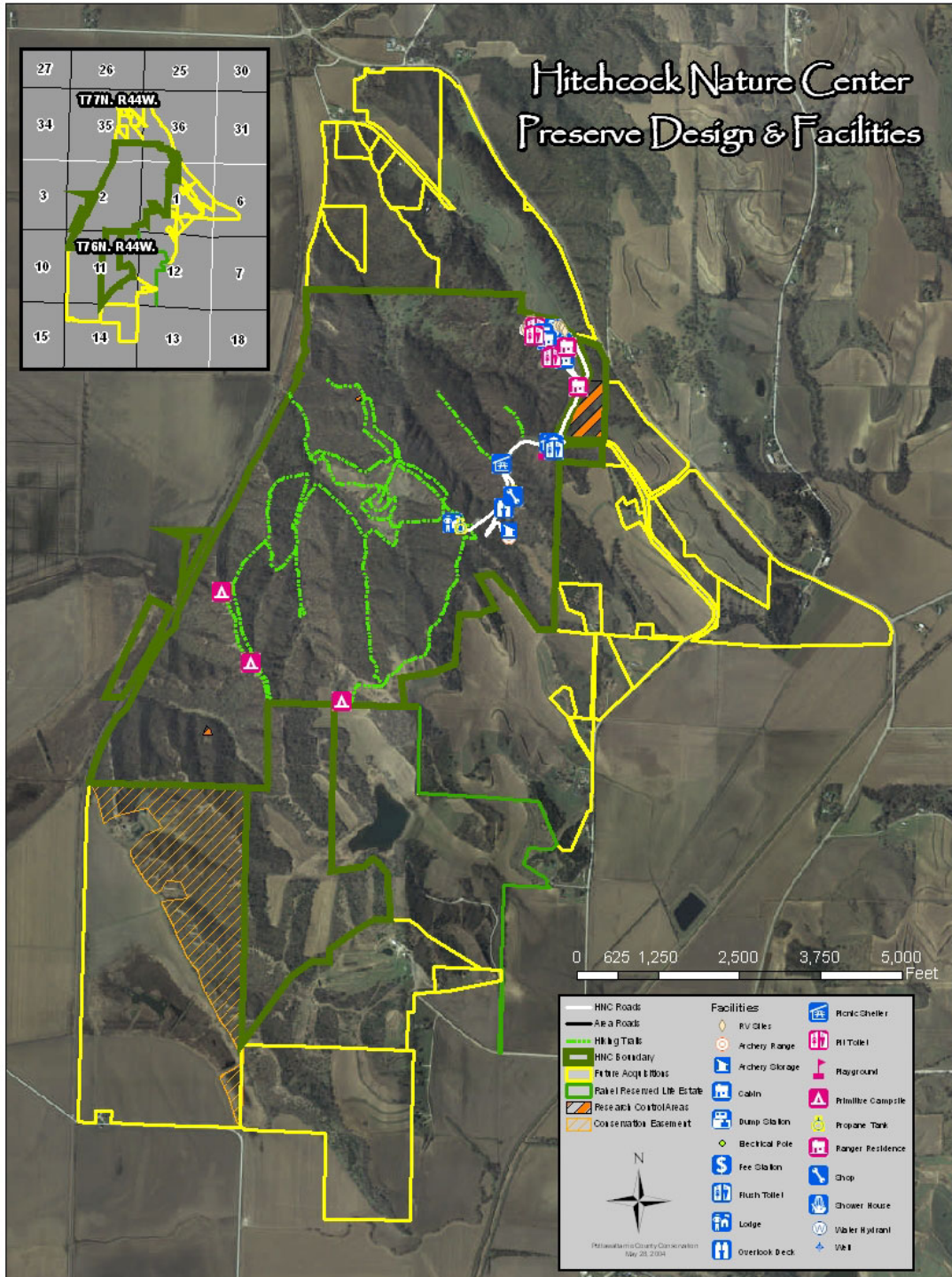
Undifferentiated Wooded Areas

- 91 Campground Thicket – **Map 1**
- 92 Entryway Thicket – **Map 1**
- 93 Bulldozed Valley – **Map 1**
- 94 Back Gate Timber – **Map 1**
- 95 West Ridge Bluffs – **Map 2**
- 96 West Ridge Timber – **Map 2**
- 97 Tuffsumbich Ridge – **Map 2**
- 98 Southwest Ridges – **Map 2**
- 99 Pond Ridge Thicket – **Map 2**
- 100 Badadditood Thicket – **Map 4**
- 101 Rahel’s Thicket – **Map 4**

Map 2: Missouri Bluffs



Hitchcock Nature Center, Preserve and Facilities



APPENDIX E

General Land Survey Notes

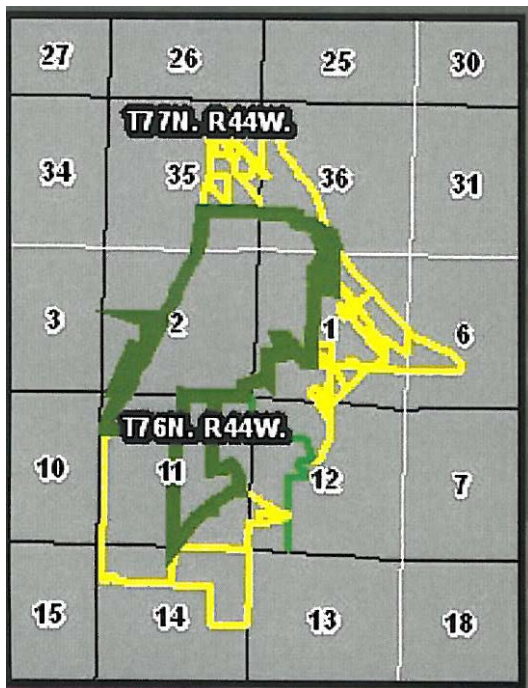
**Including the Section Lines
That Pass Through or Near**

Hitchcock Nature Center

1852

General Land Survey Notes Hitchcock Nature Center

The survey of Township 76N, Range 44W was finished in May of 1852 under the leadership of George Bumgarder. In his summary of the township he mentioned the “high bluffs [with] thin barrens [of] Bur Oak, soil 2nd rate”, the latter comment an allusion to its suitability for agriculture. Sections 14 and 11 of the township had “no timber.” Pigeon Creek was 60 links [40 feet] wide everywhere it crossed a section line, and was described as having “high clay banks”. Township 77N, Range 44W was finished in April of 1852, under the leadership of Walter Clement, Deputy Surveyor. This section had a well developed farm at the north edge of what now is Hitchcock Nature Center, and Honey Creek was 16 links [10.5 feet] wide.



T77N R44W

Sec. 26 & 35, west corrected

- 5.00 Enter field, under cultivation
- 9.50 Stream, runs northwest, spring on bank
- 10.51 House
- 10.52 To a road, runs north and south
- 27.51 Honey Creek, runs southwest, 16 links wide
- 28.00 House 2 chains north
- 31.00 Leaves field, bottom, runs northeast and south
- 33.02 House
- 33.50 Enter bottom and field

- 40.00 Set post, made mound of earth and sod
- 51.00 Leave field
- 80.00 Surface mostly level, mostly bottomland prairie

Sec. 35 & 36, north

- 6.50 Linden, 40 inches
- 7.50 Stream, 2 links wide, runs west
- 11.50 White Oak, 20 inches
- 27.87 Bur Oak 15 inches
- 40.00 Set post; Ironwood 11 inches; Ironwood 6 inches
- 42.00 To a road
- 57.53 House, 5 chains east; improvement of 8 acres around the house
- 75.00 To a road
- 76.50 House, west 2 chains; 2 acres in cultivation
- 77.00 Stream, 3 links wide, runs west
- 80.00 Set post; elm 8 inches; bur oak 8 inches; surface hilly and broken; soil first rate; timber oak, elm, linden

Sec. 25 & 36, west

- 40.00 Set post; Bur Oak 30 inches; Bur Oak 25 inches
- 80.00 Hilly and very broken, soil first rate; timber oak, elm, linden, hickory, and walnut; undergrowth Prickly Ash, Linden, Gooseberry; 10 acres in cultivation

Sec. 1 & 36, South Boundary, west

- 1.50 Left field
- 11.00 Enter timber
- 12.00 Elm 25 inches
- 40.00 Set and post; Hackberry 11 inches; Bur Oak 13 inches

80.00 Set post; Walnut 16 inches; Hackberry 11 inches; Elm 12 inches; Linden 8 inches; surface extremely broken; timber young, hickory, elm Walnut, oak, undergrowth berries and weeds; soil first rate

Sec. 2 & 35, west

10.16 Linden 22 inches
28.25 Begin to descend Missouri River bluffs
33.25 Foot of bluffs and enter low wet and swampy bog; left timber
38.00 Honey Creek, 10 links wide; runs south, low banks
40.00 Set post; made mound of earth and sod
65.00 Enter slough; runs northwest and southeast
77.00 Left slough; runs northwest and southeast
80.00 Set a post; made a mound of earth and sod; surface first half mile extremely broken; last half mile low, level and wet bottom; timber of first half mile elm, Linden, and Hickory. August 14, 1851.

T76N R44W

Sec. 13 & 14, north on a line.

33.00 Pigeon Creek, 60 links wide, runs [flows] west, deep rapid current, runs east, high clay banks.
36.00 Leave river bottom, NE & NW
40.00 Set a post . . . made a mound of earth and sod
80.99 Set as post . . . made a mound of earth and sod; surface level, soil 1st rate. Williams house on SW ¼ of Sec 13. April 26th, 1852.

Sec. 12 & 13, west corrected.

59.95 Set a post and made a mound of earth and sod
53.50 Pigeon Creek 60 links wide, runs southwest, deep rapid current, high clay banks
79.00 To corner of sections 11,12,13,14; surface level, mostly low and ?

Sec. 11 & 12, north

40.00 Set a post and made a mound of earth & sod
80.00 Set a post, Bur Oak 5 inches; Bur Oak 7 inches; surface hilly, soil 1st rate.

Sec. 1 & 12, west corrected

35.00 Leave marsh, south and northeast
40.20 Set a post, made a mound of earth and sod.
80.40 To the corner; surface level, soil first rate.

Sec. 1 & 2, south corrected

37.84 Set a post; Bur Oak 15 inches; Bur Oak 18 inches.
76.00 Enter timber
77.84 To the corner; surface hilly; White Oak, Bur Oak, Elm.

Sec. 11 & 14, west corrected

39.95 Set a post; Bur Oak 12 inches; Bur Oak 16 inches.
42.00 Enter Missouri River bottoms
57.00 Enter pond
79.90 To the corner; surface east half hilly and bluffs; west half level and wet.

Sec. 10 & 11, north.

30.00 Leave pond
40.00 Set a post, made a mound of earth and sod
60.00 Left bank of fresh water lake, high clay banks at set meander post; Cottonwood 10 inches; ash 6 inches.
80.00 Set post; Ash 12 inches, Cottonwood 16 inches; Section Corner for meander post on left bank of Lake, low mud bank.

Sec. 2 & 11, west corrected

20.00 Enter timber.
40.12 Bur Oak 8 inches; Bur Oak 14 inches
59.12 Bur Oak 18 inches
68.18 Left bank of lake, and set meander post, Ash 6 inches; Ash 6 inches; after off set, width of lake 12.06 chains.
80.24 To the corner; surface hilly and bluff; soil first rate.

Sec. 1 & 6, north

10.00 Leave marsh
20.00 Leave bottoms
40.00 Set a post, made a mound of earth and sod
81.19 Set a post for corner and township; made a mound of earth and sod; surface level and broken prairie.

Sustaining Our Natural Heritage: Ten (Suggested) Conservation Commandments

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[The following synthesis is distilled from my presentation at the 30th anniversary celebration of the Missouri Native Plant Society, 26 September 2009, in Fulton, Missouri, and my opening address for the Wild Things Conference, 7 February 2009, in Chicago.]

In recent years there has been growing realization of the essential role of healthy ecosystems in sustaining a productive, vibrant human society. There is widespread agreement among diverse segments of society that it is a worthy goal to conserve the planet's natural heritage and healthy ecosystems for multiple reasons ranging from pragmatic and utilitarian to esthetic and ethical. However, the reality continues to be bleak: functional ecosystems and their component biota continue to be degraded and lost at alarming and often increasing scales around the globe.

Nowhere is this more evident than in the fragmented landscapes of midcontinental North America. Here large portions of states such as Illinois and Missouri once contained the most diverse and productive phase of what is now the most endangered, least conserved terrestrial habitat type on Earth – temperate grasslands – embodied locally by our tallgrass prairies and their associated woodlands. These systems sustained and shaped our history and culture from the advent of human occupation of the region, and our steward-

ship and restoration of them, or lack thereof, will significantly affect the quality of life for future generations.

IN THE BEGINNING: A BRIEF ECOLOGICAL REVIEW

During the past four billion years, as continental land masses formed, ebbed, and meandered across the surface of our planet, living things have influenced and been influenced by the physical environment, evolving, diversifying, and radiating in direct response to physical and evolutionary opportunities and constraints. The result is an unimaginably diverse and interrelated complex of life forms and ecosystems, each supremely adapted to the site conditions, process regimes, and biological interactions present at that specific locus and time period.

Only 15,000 years ago the northern portions of our region were under thick masses of glacial ice, and the entire area was influenced by the proximity of a continuous mass of ice extending northward to the pole. Glacially-influenced climate

patterns in the region supported vegetation similar to what one might find today in areas far to the north in Canada: spruce-fir woodlands, jack pine parklands, and other cold-adapted systems.

Since that time, as the climate warmed and fluctuated within a range more evocative of our modern weather, the ice sheets retreated by fits and starts to reveal their legacy of deposition and contour alteration. This new landscape and climate supported a different combination of biota and natural communities, which were profoundly influenced by a new force at once both organism and process regime: humans. The 14,000 year legacy of humans in the Midwest has shaped the genesis and perpetuation of our post-glacial biological systems. One of the most wide-ranging and significant impacts has been that of human fire, which vastly outnumbered lightning-caused ignition frequencies and fire coverage in the landscape. This history of thousands of years of deliberate wildland aboriginal ignitions has resulted in the contemporary matrix of fire-dependent natural communities in virtually every terrestrial landscape in the Midwest, as demonstrated by the grassland biogeographic influences evident not only in our prairies, but in our woodlands, forests, and even wetlands.

The take-home from the recent retreat of the glaciers and genesis of human-influenced natural communities is that our modern ecosystem, although composed of biota reflecting a multi-billion year evolutionary lineage, is young – 15,000 years being a blip in biological time. A mere 20,000 weeks ago, this young system was then subjected to the most rapid and catastrophic continental-scale impact to hit the planet in the past 65 million years. This occurred when

Old World humans settled the New World. In a single stroke, the largely hunter-gatherer, nomadic pattern of human influences on the land was replaced by a culture predicated on permanent population centers and intensive agriculture focused on a few domesticated species.

This recent influx of humans arrived in the New World complete with their camp followers: legions of wanted and unwanted plants and animals specifically adapted to the impacts and processes imposed by their sedentary agrarian society. North America's native systems and their component biota are completely unadapted to this intensive land disturbance, fire suppression, and associated impacts. In the contemporary landscape, native biota are thus often less competitive than a host of introduced species which, through thousands of generations of evolutionary adaptation and selection, have become adapted to, and sometimes dependent on, the disturbances imposed by Old World cultural patterns. Our native biota is still reeling from this impact. It is hard to convey the scale, intensity, and especially the rapidity of this impact in biological time, since we tend to measure time in the scale of human experience, but the impacts of Euro-settlement are still radiating through the biological fabric of our region — sound waves from an ecological gunshot still echoing across the landscape.

These impacts have intensified with the increasing technological sophistication of human society. For tallgrass prairies, the ecological nadir was attained in 1837, in Grand Detour Illinois, when Vermonter John Deere developed the first effective steel moldboard plow. This enabled the deep, fertile, carbon-rich soils that were

the product of thousands of generations of prairie vegetation to be exploited for food production – simultaneously scribing the epithet for most tallgrass prairies and turning the region into the breadbasket of the world. In the process, a system with more than one thousand species of flowering plants was converted into endless rows of two non-native grasses and an Asian legume.

REALITIES OF CONTEMPORARY CONSERVATION

Sometime around May 23, 2007, the world underwent a profound change. For the first time in history, there were more people living in cities than in rural regions. In part a reflection of growing world population, this illustrates the increasing pressures on natural systems around the globe. Conservation success will mean making societal decisions that both meet the growing needs of human populations and ensure that the natural systems upon which we ultimately depend for providing healthy soils, clean water, and other basics of life are sustained and retain the full array of diversity to ensure ecological resiliency and viability.

This will not be a trivial feat. Today there are about seven billion people on Earth, and this is projected to increase to eight billion in less than 20 years. Population in Missouri and the Chicago Region is expected to increase by more than 20% in that time. During the same interval, global per-capita caloric intake is projected to rise 10%, as people in developing nations acquire better diets – and this will be exacerbated by an increasing consumption of meat, and the energy inefficiencies associated with meat production. Degradation from climate change, ecologically and economically destructive

invasive species, and irreversible historic impacts to ecological health and economic productivity in many of our most productive lands render the situation even more challenging. With 40% of the Earth's total land area currently in some type of agriculture or pasture, sustaining this increased productivity without negative impacts to our remaining natural habitats and waters will be daunting. It will require the full integration of economic, societal, and conservation needs into the fabric of every decision and action.

People have long recognized the need for resource conservation. In the New World, this was evident as early as 1620 with the first sea turtle regulations in Bermuda. Since that time, driven by multiple goals ranging from pragmatic to esthetic and moral, numerous policies and approaches have been developed to meet human and ecosystem needs, with varying degrees of success. At the same time, our increasingly sophisticated technology has fostered a growing disconnect between people and the natural systems upon which we ultimately depend. This disconnect is both spatial and temporal, as modern technology allows us to defer the consequences of bad decisions across areas and intervals — bad decisions such as expending thousands of years of prairie-accumulated soil tilth and fertility to unsustainably produce a few decades of high-yield crops, or vast energy expenditures to transport resources and abate the consequences of locally unsustainable practices.

As a result, the majority of people, both in our region and throughout the world, have become personally disenfranchised from the natural environment. This is certainly the case for the populace as a whole, as exemplified by the concept of

“nature deficit disorder” portrayed in Richard Louv’s book *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*¹. I submit that this is also increasingly the case for conservation practitioners, as we become ever more enamored with models, theories, and “big picture” philosophical approaches, even as our institutions of higher learning become ever less proficient at research and education activities requiring organismal expertise. With modern research and academic agendas often driven by funding opportunities and prestige, vital fields of study and knowledge are withering, even as the need for them has never been more acute.

Regardless of models or grand theories, the only immutable truths in nature are those to be learned from the performance of the biota. Discerning these truths requires a culture with the commitment to train and nurture a vibrant community of experienced field practitioners engaging in a disciplined, deep immersion in understanding the individual organisms that comprise our ecosystems – beginning not least with the ability to competently identify them in the field. It is depressing for human society that, even among cutting edge conservation institutions and agencies, field organismal biology is increasingly regarded as a quaint, outdated, al-

¹ (Algonquin Books, 2005). However, as an eminent Illinois ecologist has pointed out, it seems glib to ascribe the dire state of contemporary conservation solely to lack of children’s immersion in nature, since the immediate previous generations, who putatively grew up more immersed in nature than did contemporary generations, were responsible for the most intensive epoch of deliberate habitat destruction in world history.

most Victorian pursuit that has outlived its utility².

SUSTAINING OUR NATURAL HERITAGE AND A VIBRANT, PRODUCTIVE SOCIETY

If we are to succeed as a sustainable society that allows future generations to have the opportunities and resources that have benefitted us, we must embrace a new vision that integrates conservation and human needs into the fabric of our thinking. Depending on the specific situation, the two factors will be weighted differently, but the old paradigm of a polarized model where either one or the other reigns absolute must be replaced with something more reflective of ecological sustainability and the realities of contemporary society.

We must not only recognize, but celebrate, our dependence on functional ecosystems and the role of humans in shaping and sustaining our post-glacial natural environment. By accident of biological and human history, this region contains unique and irreplaceable resources of global conservation significance, including the remnants of the most productive phase of Earth’s most imperiled terrestrial habitat type. For both practical and ethi-

² A compelling account of this is provided in biologist David Ehrenfeld’s essay, [Vanishing Knowledge](#), which appeared in *Beginning Again: People and Nature in the New Millennium* (Oxford University Press, 1994) and was reprinted in *The Sun*, December 1995, and *Harper’s Magazine*, March 1996. It includes a searingly poignant summary:

“I fear for us when there is no one left in our places of learning who can tell one moth from another, no one who knows the habits of hornbills, no one to puzzle over the diversity of hawthorns, no one to even know that this knowledge is needed and is gone.”

cal reasons, we have a sacred obligation to ensure that the full spectrum of this precious biological tapestry is maintained in healthy arrays. To that end I propose ten conceptual conservation commandments for achieving successful conservation of our natural heritage and a viable planet sustaining healthy human societies.

I. RECOGNIZE OUR IGNORANCE — We need to recognize, but be not paralyzed by, how little we know about our native habitats, ecosystems, and their component biota. As a society, we lack the knowledge and technological capability to even identify every organism in an acre of high quality native prairie, let alone begin to construct a cogent assessment of the complex interrelationships and dependencies these organisms have both among themselves and with the physical environment. It is humbling that we have the responsibility to restore, manage, and sustain complex biological systems, habitats, and populations while veiled by this blinding cloak of ignorance. All too often, we tend to believe our own hyperbole regarding the state of our knowledge, displaying the hubris of thinking that, for the first time, we have finally figured it out — just as countless individuals and generations on whose knowledge we stand have thought before us. It is time to adopt a more realistic assessment and recognize that much remains unknown, and that there are undoubtedly errors in our contemporary thinking that will be revealed iteratively in the future. Conservation action must not be held hostage by these knowledge gaps, but we also must have the humility to accommodate uncertainty, eschew deterministic “end state” models, and commit as a society to continually operate in a context of action,

humility, uncertainty, and willingness to learn and adapt concepts.

II. GLORY BE UNTO THE ORGANISMS

— Humans must re-embrace nature at its most fundamental level, celebrating biodiversity and empowering organismal expertise at various levels across broad swaths of society. We must embrace a societal commitment to immerse humans in nature, cultivate a stewardship ethic and sense of obligation to the landscape, facilitating knowledge and hands-on experience. Successful conservation requires a bivalent vision for success — we must conceptualize, plan, implement, and innovate at regional, landscape, continental, and global scales, even as we remain disciplined to monitor success at the collective organismal level, for nothing else is a fundamental gauge of true conservation success. Success measures should be explicitly linked to organismally-based responses enfranchising broad spectra of biotic diversity, and these outputs should drive an adaptive management decision process.

III. CELEBRATE THE ESSENTIAL ROLE OF HUMANS

— Humans have been an essential factor shaping the genesis and perpetuation of the post-glacial environment, and our native biota and natural systems have an obligatory dependence on an ongoing, interventionist human role. We must establish a societal paradigm of humans as an integral part of the natural world, while simultaneously inculcating the need for human activities to be attuned to system constraints and bio-historic precedents. This includes avoiding a philosophically derived “wilderness” mentality seeking to “protect” nature from humans — an aberration without biological precedent

in post-glacial North America. We need to focus on pragmatic conservation and sustaining irreplaceable constellations of biota. Rather than a constraint, this is an opportunity to fully involve society in an ongoing hands-on interaction and immersion in our natural heritage, while cultivating a collective stewardship ethos.

IV. HONOR THE PAST, BUT RETURN

NOT — Conservation success requires that we be cognizant of the past and learn from it, while not engaging in counterproductive attempts to recreate a static version of past ecosystem or habitat states. All too often, previous conservation efforts have either rigidly tried to preserve or reconstruct static historical artifacts, or else blithely assumed that succession and change were “natural” and ecosystems were unshakably elastic, rendering biological history of no value. In reality, the organismal richness underpinning stable systems evolved as assemblages of biota under a specific range of conditions, meaning that these systems function within a window of constrained dynamism within which they and their component biota will flourish and in turn enable us to flourish as a society. It is thus requisite to understand in detail the conditions, process regimes, and range of variation within which these systems existed in the pre-Eurosettlement period, and to emulate conditions, biotic relationships, and process regimes within the amplitude of this constrained dynamism. The goal is not to create a static preconception, but to allow the flourishing of the full array of native organismal diversity that characterized these systems and habitats prior to the depauperizing impacts associated with Eurosettlement. From an individual perspective, we can

be enriched through learning the human and biological history of the locus on Earth’s surface that we inhabit.

V. KNOW THY ENEMIES

— We must develop systematic, concise, nuanced, and predictive, science-based analyses of threats to the long term viability of our natural systems and their component biota. This will require the discipline to look beyond what “seems” to be bad, and instead use data to determine the actual threats which, if unabated, are likely to expunge or degrade irreplaceable facets of our natural heritage. I suggest recognition of three categories of threats and the differences inherent among them: 1) historic impacts creating current threats and thus requiring remediation; 2) current threats requiring abatement; and 3) future threats that require deterrent actions in the present. We must learn to effectively determine true, not perceived or emotionally-sensed, impacts of threats, and have the discipline to ensure an objective, science-based approach targeting resources accordingly. This will require credible measures for assessing threat abatement, and developing and implementing unified threat abatement strategies that accommodate economic and societal needs.

VI. EXPLICITLY AND EMOTIONALLY VALUE NATURE

— To erode the divide between much of contemporary society, its decision-making processes, and the natural world, we must value nature from both pragmatic and cultural perspectives. This means suffusing across society an enthusiasm for and understanding of why biodiversity is critical to human well-being. People should have pride in the significance of local and regional biodiversity and its role in

defining us as a culture and imbuing a sense of place. Planning and land use decisions should include explicit valuation of the economic services provided by healthy natural systems, including considerations of future value of services and long term costs of replacing these services if ecosystem function is degraded or lost.

VII. BE VIGILANT IN PROTECTING THE IRREPLACEABLE — Despite laudable progress and achievement in ecological restoration, human society lacks the ability to restore any natural habitat to the level of diversity and function of its natural congener. This mandates that we effectively conserve and steward existing natural areas and high quality habitats and remnants, since they are by definition irreplaceable. Conservation practitioners must engage society to vigorously defend areas with remnant biological integrity against the “death by 1,000 cuts” scenario, whereby any one example is considered expendable, despite the impoverishing impact on the health of the whole. We must use science and documentation to adjust societal expectations to be intolerant of “acceptable” loss levels or degradation of priority natural habitat and inject the concept of irreplaceability into societal dialog.

VIII. AVOID FALSE PROPHETS OF SIMPLISTIC AND UNIVERSAL GREENERY — People like simple, feel-good solutions, and as a society we tend to oversimplify complex ecological issues. This is exemplified by reductionist propaganda (and misguided regulation) such as planting trees is always a beneficial “green” solution to environmental woes, in promoting highly subsidized inappropriate biofuel production or unre-

stricted wind farms to cure our energy issues, and other damaging thinking. We as a society must learn that dealing with complex systems and problems requires acknowledging complexity and the need for a nuanced series of strategies and solutions. Every action (or non-action) has consequences good and bad, and these consequences do not play out consistently across landscapes, habitats, and human communities. Conservation success mandates recognition of the uniqueness of habitats, biota, and societal interactions at each spot on the Earth’s surface.

IX. NURTURE A PERMANENT STEWARDSHIP ETHIC — The regional conservation community must instill an understanding of the ongoing interdependency between human society and natural habitats, inculcating cultural expectations of permanence, continuity, and an obligation to future generations. This can be an uplifting opportunity to enfranchise people as collective curators of our natural heritage, celebrating a sense of place here as nowhere else on Earth (even as the same is replicated endlessly around the globe); we should regard this as both our responsibility and our great privilege. The resultant stewardship ethic also has the potential to produce societal benefits beyond the immediate conservation benefits achieved.

X. GROW BEYOND LOCAL BORDERS — Even as we recognize the importance of our region’s natural heritage to both local and global conservation success, we should strive to develop mechanisms to export and adapt lessons learned, and to learn from others outside of the region. Both successes and failures have value beyond the region where they occur.

Societal success means conservation being embraced locally everywhere across the globe. Our region is positioned to play a pivotal global role, both for the unique biological systems and biota conserved, and for our long legacy in projects such as Chicago Wilderness and Kansas City Wildlands, which are model platforms for intimately fostering an ongoing recognition and relationship between people and the natural systems that sustain us.

AND SO...

Achieving these societal transformations and achievements will enable the opportunity for success, but will by no means guarantee it. Our challenge is nothing short of suffusing an understanding of the role of nature and a full integration of conservation issues across human society, ensuring full awareness of humanity's ultimate dependence on our natural systems. Conservation, economic needs, and other issues are not equally weighted across the natural and cultural landscape, but each should be considered in the decision making process, whether the area is a unique prairie habitat or an industrial parking lot. Decisions should be made with the understanding that all actions have social and ecological consequences, that success means meeting both societal and ecological needs, and that some habitats and lands contain irreplaceable natural heritage that directly benefits all of us. Success will not be quick, easily measured, or effortless; hard decisions and compromise will be required. I believe the fate of human society depends on achieving this, and it is the measure by which future generations will judge us. As never before in human history, we cannot afford to fail.

KUDOS

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