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## AN ANNOTATED LIST OF THE VASCULAR PLANTS OF FONTENELLE FOREST AND NEALE WOODS IN EASTERN NEBRASKA

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No detailed listing of the complete vascular flora of any woodland site along the Missouri River of east-central Nebraska has been published. This study provides a current annotated list of vascular flora at two private nature centers in the Omaha area, Fontenelle Forest and Neale Woods. Totalling about 644 hectares, the two preserves are located on loess bluffs adjacent to the Missouri River valley, with Fontenelle Forest also containing floodplain forest. A total of 597 species are distributed among 100 families and 331 genera between the two sites, representing approximately one-third of the known vascular flora for Nebraska. Comparisons are made between these two similar sites in the numbers of taxa, major vascular plant families, species growth habit, habitat, and origin. Additionally, the study compares current Fontenelle Forest flora to collections from the 1950's, and examines possible future changes in the flora at both Fontenelle Forest and Neale Woods.

† † †

### INTRODUCTION

Woodlands along the Missouri River of east-central Nebraska, particularly the hilltop and upper-slope portions, have been described as dominated by *Quercus macrocarpa* (bur oak) and *Carya cordiformis* (bitternut hickory) (Aikman, 1926; Weaver, 1965). A more detailed list of herbaceous and woody species of the wooded bluff and meadowland region was given by Pound and Clements (1900), but that list was relatively short and incomplete. None of these efforts, however, provided a detailed list of all flora of individual woodland sites. The present study was initiated to provide such detail, which is ecologically important and also serves the practical objectives of a nature preserve.

This study develops an annotated list of all known vascular flora at two forests—Neale Woods and Fontenelle Forest—and compares them in terms of numbers of taxa, exclusive taxa, and species growth-habits, habitats, and origin. In addition, the study compares the changes in the flora of Fontenelle Forest since the collections made in the 1950's by the Omaha Botany Club.

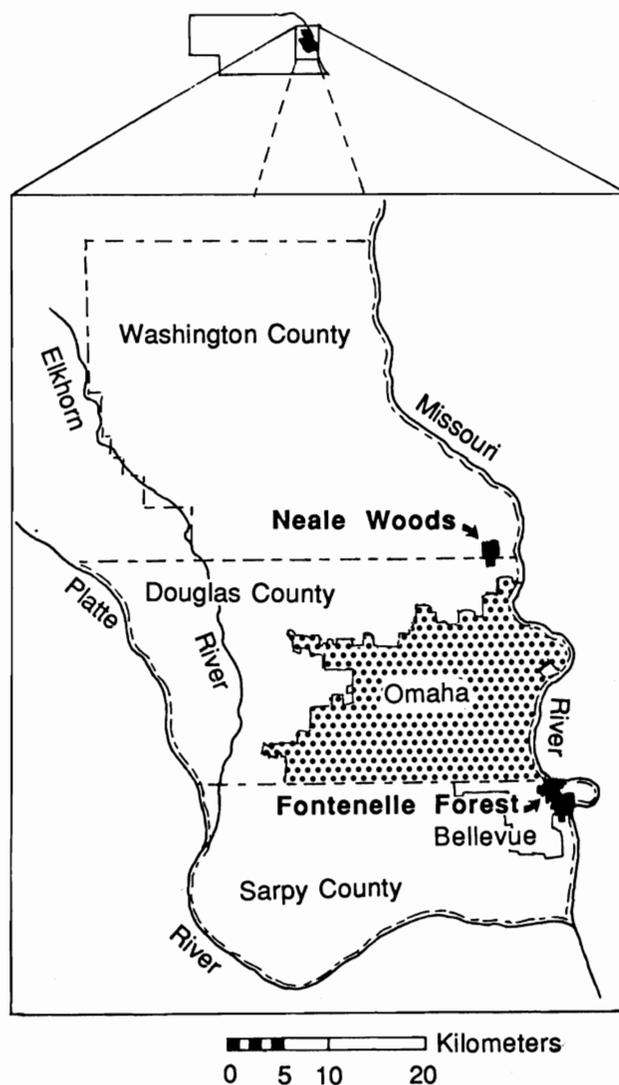


FIGURE 1. Location of Fontenelle Forest and Neale Woods Nature Centers in eastern Nebraska.

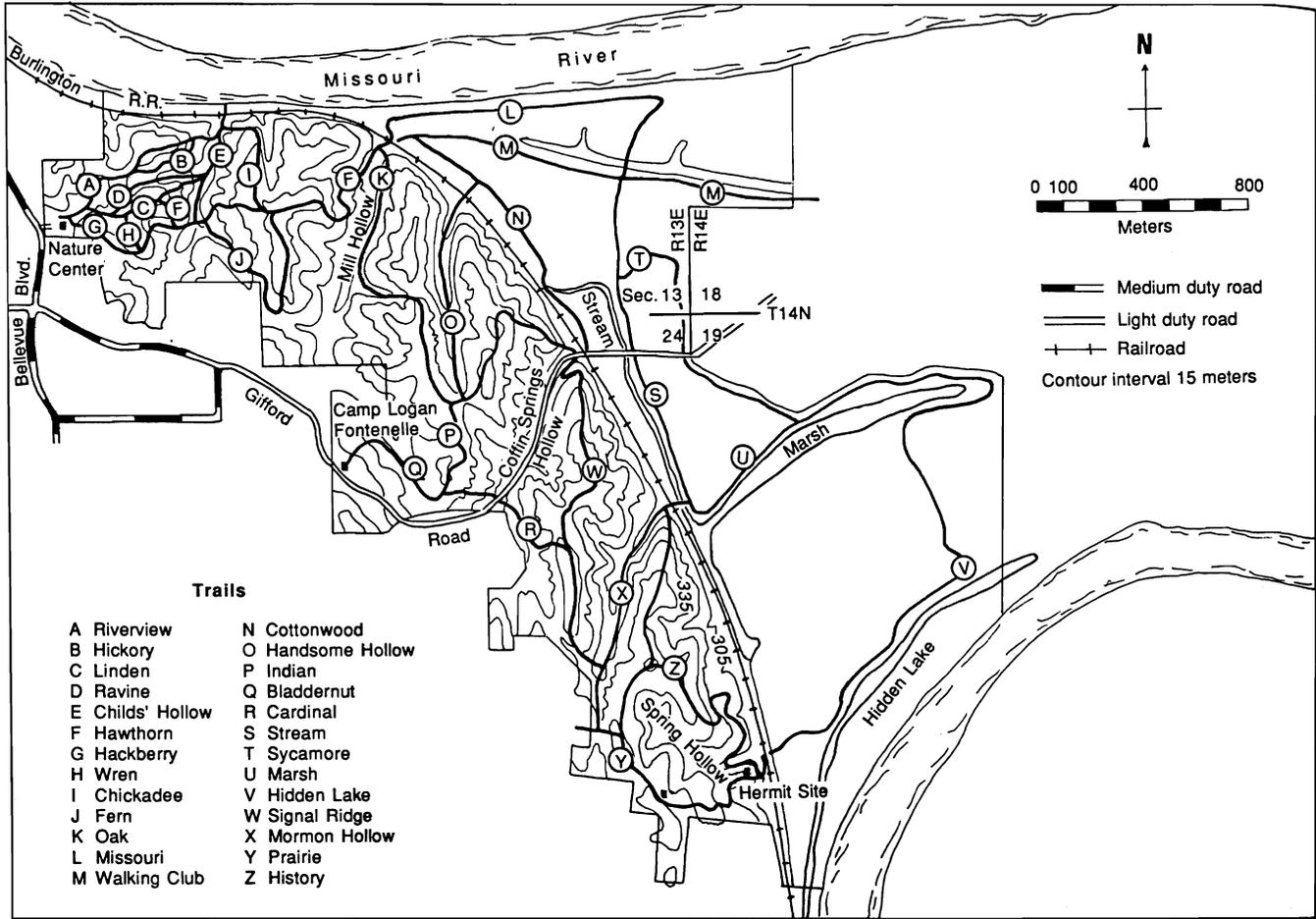


FIGURE 2. Fontenelle Forest Nature Center.

**SITES AND METHODS**

**Site descriptions**

The Fontenelle Forest Association operates two nature-study centers approximately 28 km (17.5 mi) apart in the Omaha area (Fig.1). The original and largest preserve is Fontenelle Forest Nature Center in northeastern Sarpy County. The more recent acquisition is Neale Woods Nature Center in eastern Washington and Douglas counties.

Fontenelle Forest covers approximately 526 ha (1300 ac), with roughly half in the Missouri River floodplain and the remainder in the adjacent loess bluffs (Fig. 2). Land acquisition for the site began in 1916, with the latest addition in 1985. At present, the uplands are almost entirely forested, with open areas limited to two small fields, one near Camp Logan Fontenelle and another near the southern boundary. At the latter site, removal of encroaching shrubs and trees in 1975 was followed by seeding with mixed prairie grasses, primarily to retain a scenic viewpoint. Spring seeps drain the lower portion of the major upland hollows. Two oxbow lakes, the Marsh and Hidden Lake, are situated on the Missouri River floodplain.

The Marsh dates back to the 1850's. Hidden Lake was created by the Army Corps of Engineers' River Channelization Project in the 1940's. The largest area of habitat for ruderal species occurs along the Burlington Railroad tracks that separate the uplands from the floodplain.

Neale Woods covers approximately 118 ha (292 ac) (Fig. 3). The first tract of land was donated in 1971, with the latest purchase in 1986. Consisting entirely of upland loess hills, Neale Woods, although primarily wooded, has several *Bromus inermis* (smooth brome) fields of various sizes. Prairie restoration using grass seed from Stock Seed Company of Murdock, Nebraska, and by seeding and transplanting forbs from nearby prairies, is in progress at two brome fields, with a third scheduled for seeding in 1988. Rock Creek, a spring-fed stream, parallels the north boundary, becoming pondlike in two locations due to earthen dams. Remnants of two old farm ponds are found on the lower central portion of the Koley Tract. Although these ponds rarely hold water, the presence of species such as *Phalaris arundinacea* (reed canary grass) indicates a relatively wet environment.

Both Fontenelle Forest and Neale Woods are patchworks of land tracts acquired from different owners, with a variety of previous land uses and with vegetation in various stages of succession. G. W. Garabrandt (1976, 1978) extensively studied land use at Fontenelle Forest. Land uses have included a boy scout camp, a hermit's residence, farm fields, pastures, clear-cuts, selective logging, a trading post, and an Indian agency. At Neale Woods, an early 1940's photograph shows three

ridge-tops on the Neale Tract as farm fields. In addition, both brome fields and woodlands were grazed. In addition to the prairie restoration project at Neale Woods, several species have been deliberately planted at both sites. The above factors, combined with differences in total area and the presence of different habitats, possibly explain the differences in the flora between the two sites.

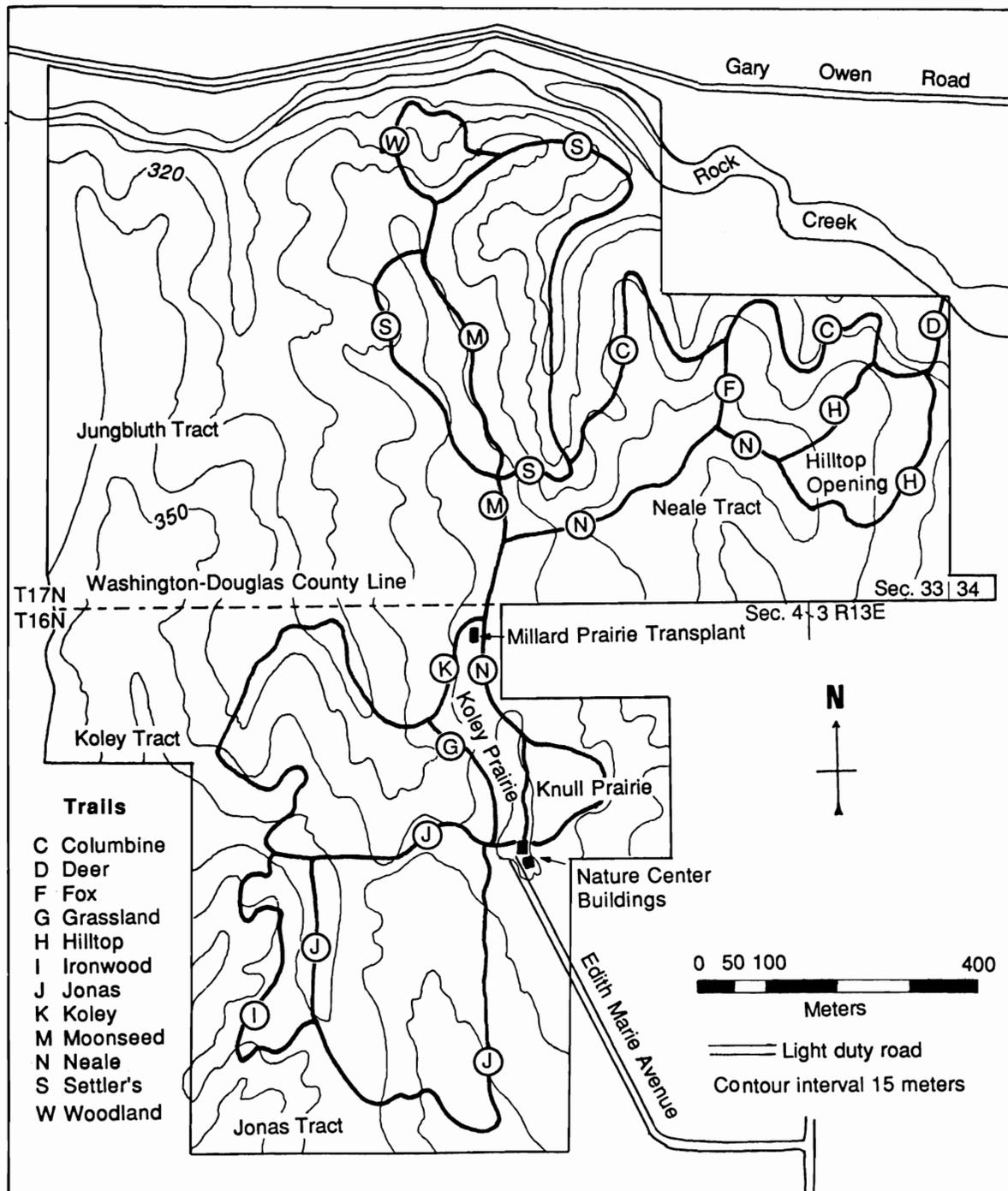


FIGURE 3. Neale Woods Nature Center.

## Methods

Herbarium specimens from the Omaha Botany Club and the University of Nebraska at Omaha provided a baseline checklist. All those specimens were reidentified, and nomenclature was updated according to modern taxonomic treatments. The *Atlas of the Flora of the Great Plains* (Great Plains Flora Association, 1977) provided a second checklist of possible species according to distribution records. These two checklists were used to guide my field collections.

## OBSERVATIONS AND DISCUSSION

I collected over a thousand voucher specimens, mostly between March, 1986, and October, 1987, with a few collections dating back to 1982. An annotated list of Fontenelle Forest (FF) and Neale Woods (NW) vascular flora follows the discussion below.

A total of 597 species are distributed among 100 families and 331 genera at Fontenelle Forest and Neale Woods (Table I). This represents approximately one third of the known vascular flora for Nebraska. The greater numbers at Fontenelle Forest in all taxa are understandable given the smaller area and lack of floodplain habitat at Neale Woods.

TABLE I. Numbers of the vascular flora in different taxa at Fontenelle Forest and Neale Woods\*

Divisions	Families		Genera		Species	
	FF	NW	FF	NW	FF	NW
Equisetophyta	1	1	1	1	5 (2)	3
Polypodiophyta	2	2	4 (1)	4 (1)	4 (1)	4 (1)
Pinophyta	1	2 (1)	1	2 (1)	1	2 (1)
Magnoliophyta						
A. Magnoliopsida	79 (12)	67	232 (58)	182 (8)	376 (144)	266 (34)
B. Liliopsida	16 (5)	11	81 (32)	51 (2)	164 (87)	88 (11)
Totals	99 (17)	83 (1)	319 (91)	240 (12)	550 (234)	363 (47)
Totals at Both Sites	100		331		597	

\*Numbers of taxa exclusive to each site are placed in parentheses.

## Major vascular plant families

Table II lists the ten largest families at each site; they account for 55% or more of the total flora. The top families are the same, for the most part, although the number of species in each family at Neale Woods averages about 74% of those at Fontenelle Forest. Three families in which the percentage is appreciably less are Cyperaceae, Poaceae, and Brassicaceae. In Cyperaceae, the additional species at Fontenelle Forest are primarily floodplain or hydric species. In Poaceae and Brassicaceae, the majority of additional species at Fontenelle Forest are largely ruderals found along the railroad tracks.

Table II. The ten largest families at each site.

Fontenelle Forest		Neale Woods	
Family	No. of Spp.	Family	No. of Spp.
Poaceae	86	Asteraceae	51
Asteraceae	76	Poaceae	48
Cyperaceae	32	Cyperaceae	20
Fabaceae	23	Fabaceae	17
Lamiaceae	20	Lamiaceae	14
Brassicaceae	20	Rosaceae	12
Rosaceae	18	Polygonaceae	11
Polygonaceae	16	Brassicaceae	10
Liliaceae	12	Apiaceae	8
Apiaceae	11	Euphorbiaceae	8
Total Species	314	Total Species	199
(ca. 57% of total flora)		(ca. 55% of total flora)	

## Site-specific taxa

Species found in Neale Woods but not in Fontenelle Forest account for only 12.7% of its total species (detailed list in M. M. Garabrandt, 1988). Of the 46 species exclusive to Neale Woods, over half are planted, with most being part of the prairie restoration project. Additional ruderal species have germinated as a result of the restoration disturbance. The one family exclusive to Neale Woods, Pinaceae, contains a single planted species, *Pinus sylvestris* (Scotch pine), at the edge of a Christmas-tree farm. Three additional species exclusive to Neale Woods merit discussion. Both *Hydrophyllum appendiculatum* (notchbract waterleaf), on the northwest edge of its range, and *Allium tricoccum* (wild leek), on the western edge of its range, are known in Nebraska only from Douglas and Washington counties. The main range of *Dasistoma macrophylla* (mullein foxglove) is several counties south and east of Omaha. Although rare at Neale Woods, this species appears to be spreading on nearby land to the north.

Fontenelle Forest has 234 species and 17 families not found in Neale Woods; this is 42.5% of its total flora (detailed list in M. M. Garabrandt, 1988). A large number of these are floodplain and hydric species, emphasizing the more extensive and diverse wet habitats of Fontenelle Forest. In addition, Fontenelle Forest has more disturbed area than Neale Woods, especially along the railroad tracks, where 38 species are found exclusively. Two families and a number of species in Fontenelle Forest are near the edge of their ranges. *Aesculus glabra* (western buckeye, Hippocastanaceae) is several counties north of its main range. Extremely rare at Fontenelle Forest, this species has not been observed flowering. *Platanus occidentalis* (sycamore, Platanaceae) is a floodplain tree near the northern edge of its range. Perhaps some of the sycamores at Fontenelle Forest were planted, particularly those near the former site of Camp Gifford, a boy scout camp operated from 1919 through 1945. Other species near the edges of their ranges include *Prunus serotina* (wild black cherry), an uncommon tree at the northwestern edge of its range, and three grass species, *Muhlenbergia tenuiflora* (slender muhly), *M. sylvatica* (forest muhly), and *Brachyelytrum erectum* (brachyelytrum), all at the western edge of their ranges. One interesting plant present at Fontenelle Forest but absent at Neale Woods is *Impatiens capensis* (spotted touch-me-not). Neale Woods is well within its range, but it

has not been found there, perhaps because it prefers wetter habitat than its congener, *I. pallida* (pale touch-me-not). Many of the other exclusive species of Fontenelle Forest are either plants of open areas and woodlands that seem likely to be found in the future at Neale Woods, or they are plants that have not been collected recently at Fontenelle Forest (see below) and may not be found in the future at either place.

**Changes in Fontenelle Forest flora since the 1950's**

Ninety-seven species that lack more recent collections were collected at Fontenelle Forest between 1949 and 1964 by the Omaha Botany Club. Three of these were planted species that did not persist. Loss or change in habitat probably accounts for many others. For example, 46 of the species normally occur in prairie and open areas no longer present at the locations indicated by the herbarium labels from the 1950's. In addition, 38 of the collections bear label data indicating that they were ruderals from along the railroad tracks. Herbicide spraying by the railroad, recently instituted on a large scale, has evidently eliminated many of these. Relative abundance of a species is another factor. For example, the herbarium label on *Gentiana andrewsii* (bottle gentian) states that it was collected from one clump located on the floodplain. Such uncommon plants are difficult to relocate, or they may not have survived.

TABLE III. The number of species of different growth-habits at Fontenelle Forest and Neale Woods\*

Divisions	Annual		Biennial		Perennial			
					Herbaceous		Woody	
	FF	NW	FF	NW	FF	NW	FF	NW
Equisetophyta	0	0	0	0	5.0 (2.0)	3.0	0	0
Polypodiophyta	0	0	0	0	4.0 (1.0)	4.0	0	0
Pinophyta	0	0	0	0	0	0	1.0	2.0 (1.0)
Magnoliophyta								
A. Magnoliopsida	103.5 (48.0)	63.5 (8.0)	24.5 (8.0)	19.5 (3.0)	173.0 (69.0)	125.0 (21.0)	75.0 (19.0)	58.0 (2.0)
B. Liliopsida	33.5 (22.0)	13.0 (1.5)	1.0 (0.5)	0.5	129.5 (64.5)	74.5 (9.5)	-	-
Totals	137.0 (70.0)	76.5 (9.5)	25.5 (8.5)	20.0 (3.0)	311.5 (136.5)	206.5 (30.5)	76.0 (19.0)	60.0 (3.0)
Percentage of Total species	24.9	21.1	4.6	5.5	56.6	56.8	13.8	16.6

\*Species for which habit is double (i.e. annual or biennial) were given values of 0.5 in 2 categories. Parentheses indicate numbers of species exclusive to each site.

### Species origins

Fontenelle Forest has about 430 native species, about 74 naturalized without known human intervention, and about 16 known to have been deliberately introduced. The approximate figures for Neale Woods are, respectively, 252, 59, and 51. Despite being less than one-fourth of the area of Fontenelle Forest, Neale Woods has a greater number of planted species, due to the prairie restoration project.

Several species presumed to have been planted are discussed in Rolfsmeier *et al.* (1988): *Trillium grandiflorum* (large flowered trillium), *T. erectum* (purple trillium), *Cornus alternifolia* (alternate-leaved dogwood), and *Asimina triloba* (paw paw). Several additional species merit discussion here. *Podophyllum peltatum* (May apple) is slightly northwest of its main range; two persistent populations are located at Fontenelle Forest, one in the uplands and one on the floodplain. *Convallaria majalis* (cultivated lily-of-the-valley) grows adjacent to the upland May apples, leading one to suspect that they were planted along with it. The smaller floodplain population of May apples may have been planted or may have started from fruit dispersed from the upland population. Dr. Harold Gifford (personal communication) reports that he and his father planted *Nelumbo lutea* (American lotus) seeds in the marsh in the 1920's, although the species was reported by Engelmann (1862) for the Omaha area as early as 1857. Engelmann stated that it was "quite rare, on account of the great use of both roots and seeds for food by the Omaha, Otoe, and Pawnee Indians." The Fontenelle Forest location is the central of three county records in eastern Nebraska for this species, with Iowa county records reaching even farther north. The Marsh population has increased greatly since I first saw it in 1978, with floating or aerial leaves now covering over 75% of the surface area of the Marsh. At the hermit's site near the south end of Fontenelle Forest several planted species persist: *Robinia pseudo-acacia* (black locust trees) are found in straight rows, and *Scilla sibirica* (Siberian squill) and *Hemerocallis fulva* (day lily) grow abundantly along the edge of the trail leading toward Spring Hollow.

### Growth habits

Both Fontenelle Forest and Neale Woods have comparable percentages in all categories of growth habit (Table III). Most numerous are herbaceous perennials (about 57%) followed by annuals, woody perennials, and biennials in that order. Of the native woody species, *Cercis canadensis* (redbud) and *Amelanchier arborea* (juneberry) are notable. Redbud, uncommon on the uplands of Fontenelle Forest, is at the northwestern edge of its range. It was recently planted at Neale Woods in both counties, and there is no evidence yet that it has naturalized. Juneberry is very uncommon at both sites, at the crest of upland slopes. The Washington County record at Neale Woods is the northernmost occurrence for this species in Nebraska.

### Habitat

Woodlands are the most common habitat at both sites, but species in open habitats are comparable in numbers to the woodland habitat, followed by species in disturbed and in wet or aquatic habitats (Table IV). Although open and disturbed habitats are small in area at both sites, they add considerable diversity to the flora. The small number of strictly floodplain species is noteworthy, since the area of the floodplain habitat is larger than all of Neale Woods. Despite limited aquatic habitat, Neale Woods hosts a diverse wetland flora.

TABLE IV. The number of species in different habitats at Fontenelle Forest and Neale Woods\*

Habitat	Both sites	Only FF	Only NW	Total
Woods	159 (159)	37 (28)	9 (9)	205 (195)
Prairie	35 (26)	20 (3)	24 (43)	79 (62)
Open	136 (134)	54 (46)	16 (18)	206 (198)
Disturbed	95 (94)	77 (39)	10 (11)	182 (144)
Floodplain	19 (19)	49 (48)	0	68 (67)
Wet/Aquatic	96 (96)	41 (38)	2 (2)	139 (136)

\*Species may be listed in one or more habitats. Numbers in parentheses indicate species with recent recollections.

### Future changes in the flora

The flora of any locality is not static, but undergoes constant change. Since the 1950's, the greatest changes at Fontenelle Forest have resulted from the closing canopy eliminating open-habitat or prairie species, and the loss of railroad track species due to herbicide spraying. Currently the marsh may be changing as *Nelumbo lutea* expands at the expense of other species. Future floristic changes may depend on factors including the railroad management policy, periodic flooding, plant disease or other disturbances. At Neale Woods, the continuation of prairie restoration creates disturbance that may temporarily increase the ruderal flora. In the smooth brome fields that are not seeded to prairie, plant succession will eventually close the canopy, eliminating open-area species. Aging of the early-successional forest on hilltops may also result in changes in the flora. Finally, alteration on adjacent property downstream may increase the amount and depth of aquatic habitat, leading to vegetation changes in and along Rock Creek.

## ANNOTATED LIST

All species on the following list are documented by voucher specimens deposited in the herbarium at the University of Nebraska at Omaha (which also houses the specimens of the Omaha Botany Club), except that *Asplenium platyneuron*, *Caltha palustris*, and *Cypripedium calceolus* are documented by photographs. In the list, all families, genera, and species are given alphabetically within each division and class. Nomenclature follows the *Flora of the Great Plains* (Great Plains Flora Association, 1986).

For each species, the annotated list provides a common name, a subjective estimate of abundance at each site, and a habitat description based on field observations and information from herbarium labels. Where the name used differs from the one used by the Omaha Botany Club (OBC) in 1959 because of nomenclatural changes or redeterminations, the OBC name is given in brackets. Non-native species are distinguished as “planted” if planting is known or suspected; as “naturalized” if they have evidently become established without direct planting by humans; or as “waif” for chance findings that have not persisted (e.g., corn or wheat). Species not designated by one of these three terms are assumed to be native. The designation “no recent collections” indicates species lacking vouchers more recent than the Omaha Botany Club collections dating from 1949 to 1964. “Recent collections” refers to any species collected since 1964, although the majority were collected in the 1980’s. Counties from which voucher specimens were obtained are abbreviated as follows: Douglas (D), Sarpy (S), and Washington (W). An asterisk (\*) following a county name indicates a new record for that county. A dagger (†) denotes a species that is discussed at greater length in Rolfsmeier *et al.* (1988).

## I. EUISETOPHYTA

## Equisetaceae

- Equisetum arvense* L. Field horsetail. Common along railroad banks, roadsides and on floodplain at FF; locally common along Rock Creek at NW. (S, W)
- Equisetum* × *ferrissii* Clute. Intermediate scouring rush. This hybrid of *E. hyemale* and *E. laevigatum* is frequently encountered and spreads vegetatively (Great Plains Flora Association, 1986). Common on the floodplain and creeks at FF, especially northwest of Hidden Lake; locally common along some banks of Rock Creek at NW. (S, W\*)
- Equisetum fluviatile* L. [Misdetemined in OBC as *E. kansanum*, a synonym for *E. hyemale*.] Water horsetail. Rare in wet floodplain meadows and creeks at FF. This species has sporadic distribution in Nebraska and is southwest of its main range. (S)
- Equisetum hyemale* L. Common scouring rush. Common on floodplain at FF; uncommon along Rock Creek at NW. (S, W\*)
- Equisetum laevigatum* A. Br. Smooth scouring rush. FF vouchers from June and July, 1958, in swampy land, although more typically a prairie species. No recent collections, but likely in open areas. (S)

## II. POLYPODIOPHYTA

## Ophioglossaceae

- Botrychium virginianum* (L.) Sw. Rattlesnake fern. Common in woodlands at both sites; especially noticeable in early successional hilltops at NW. (S, D, W)

## Polypodiaceae

- Adiantum pedatum* L. Maidenhair fern. Common in moist ravines at both sites. (S, D, W)
- Asplenium platyneuron* (L.) Oakes *ex* D. C. Eat. † Ebony spleenwort. Extremely rare at NW in second-growth forest. Discovered and photographed in 1988, but no specimen was taken. This is only the second record of the species in Nebraska, the other being a 1987 collection from Jefferson County (Rolfsmeier *et al.*, 1988). (W)
- Cystopteris protrusa* (Weath.) Blasdel. Lowland fragile fern. Common in woodlands at both sites. One questionable voucher of a closely related species, *C. fragilis*, was found from Mormon Hollow of FF. The distinction between the two needs careful evaluation because it seems to be based on features that may be partly developmental. (S, D, W)
- Woodsia obtusa* (Spreng.) Torr. Blunt-lobed woodsia. FF voucher from May, 1950, and June, 1964, off the trail below Camp Brewster. Typical habitat includes rocky ledges; not found at FF. No recent collections. (S)

## III. PINOPHYTA

## Cupressaceae

- Juniperus virginiana* L. Red cedar. Uncommon at FF along the railroad tracks, at the rivers edge, and scattered on hilltops. Uncommon at NW, in brome fields and on early successional hilltops and woodland edges. (S, D, W)

## Pinaceae

- Pinus sylvestris* L. Scotch pine. Uncommon at NW on the western border of the Jungbluth Tract, the edge of a Christmas tree farm. Planted–NW. (W)

## IV. MAGNOLIOPHYTA

## A. MAGNOLIOPSIDA

## Aceraceae

- Acer negundo* L. var. *negundo*. Box elder. NW voucher from 1977 along a woodland edge. This variety appears to be uncommon, although there is considerable intergradation between it and *A. negundo* var. *violaceum* (Great Plains Flora Association, 1986). (W)
- Acer negundo* L. var. *violaceum* (Kirchn.) Jaeg. Box elder. Common in fields and woodland edges at both sites. (S, D, W)
- Acer saccharinum* L. Silver maple. Common on floodplain at FF, especially around Hidden Lake; uncommon on early successional hilltops and woodland edges at NW. (S, D, W)
- Acer saccharum* Marsh. Sugar maple. Seeds from Ohio planted in FF on Dec. 15, 1935. Increment bore of solitary tree on Riverview Trail near Childs Hollow agrees with that date. Planted–FF. (S)

## Amaranthaceae

- Amaranthus albus* L. Tumbleweed. Uncommon on sunny, disturbed soil of newly seeded prairie, east side of Foley tract. (D)
- Amaranthus graecizans* L. Prostrate pigweed. FF voucher from Aug., 1951, on the railroad bank. Not recently collected, but expected on disturbed ground at either site. (S)
- Amaranthus retroflexus* L. Rough pigweed. Common in disturbed areas, especially along the tracks at FF; common at NW along the roadsides. (S, W)
- Amaranthus rudis* Sauer. Water hemp. Common in wet and disturbed areas at both sites. Only staminate plants collected. (S, D, W)

## Anacardiaceae

- Rhus glabra* L. Smooth sumac. Common in open fields, roadside and woodland edges at both sites. Remnants found in early successional woodlands as well. (S, D, W)
- Toxicodendron radicans* (L.) Kuntze ssp. *negundo* (Greene) Gillis. [*Rhus radicans* of OBC.] Poison ivy. Abundant at both sites, especially in floodplain forest and shrubby areas. (S, D, W)

## Annonaceae

*Asimina triloba* (L.) Dun.† Paw Paw. Locally common at both sites. Located as an understory in an upland ravine at FF, in Coffin Springs Hollow. This population is possibly from seed introduction in the 1960's (personal communication, Dr. Harold Gifford Jr.). The NW population is found south of Rock Creek, and is the northernmost occurrence for this species in the Great Plains. Native-NW and planted-FF. (S\*, W\*)

## Apiaceae

*Berula erecta* (Huds.) Cov. var. *incisum* (Torr.) Cronq. [*B. pusillum* of OBC.] Water parsnip. FF voucher from July, 1951, in a spring-fed ditch next to the railroad tracks. No recent collections for this species, which is at the western edge of its range. (S)

*Cicuta maculata* L. Water hemlock. Uncommon on floodplain along creek banks at FF. (S)

*Conium maculatum* L. Poison hemlock. Uncommon along railroad tracks at FF. Also possible along stream banks and roadsides. Naturalized. (S)

*Cryptotaenia canadensis* (L.) DC. Honewort. Uncommon in upland woods at both sites; common on floodplain at FF. (S, D, W)

*Daucus carota* L. Queen Anne's lace. Uncommon along roadsides and in disturbed areas at both sites. Also planted in Knull Prairie restoration at NW. Naturalized at both sites and planted-NW. (S, D)

*Heracleum sphondylium* L. ssp. *montanum* (Schleich.) Briq. Cow parsnip. Common in floodplain and in ravines at FF; rare on terrace south of Rock Creek at NW. (S\*, W\*)

*Osmorhiza claytonii* (Michx.) Clarke. Sweet cicely. Common in woodlands at both sites. (S, D, W)

*Osmorhiza longistylis* (Torr.) DC. Anise root. Common in woodlands at both sites. (S, D, W)

*Pastinaca sativa* L. Garden parsnip. FF voucher from May, 1960, along the bank of the Missouri River. No recent collections. Naturalized. (S)

*Sanicula canadensis* L. Black snakeroot. Common in woodlands at both sites. (S, D, W)

*Sanicula gregaria* Bickn. Black snakeroot. Common in woodlands at both sites. (S, D, W)

*Zizia aurea* (L.) Koch. Golden Alexander. Very uncommon in Knull Prairie restoration at NW. Planted-NW. (D)

## Apocynaceae

*Apocynum cannabinum* L. Dogbane. Common at both sites along open roadsides and railroad tracks, and less common in old fields. (S, D, W)

## Araliaceae

*Aralia racemosa* L.† Spikenard. Rare at both sites. Found on lower portion of slopes above creeks. (S\*, W\*)

*Panax quinquefolium* L.† Ginseng. Rare in woodlands at both sites. This species had been reported as possibly extirpated in the eastern Great Plains (Great Plains Flora Association, 1986). (S, W\*)

## Asclepiadaceae

*Asclepias incarnata* L. Swamp milkweed. Common on the floodplain in wet areas at FF. (S)

*Asclepias syriaca* L. Common milkweed. Common in fields, along roadsides and forest edges at both sites. (S, D, W\*)

*Asclepias verticillata* L. Whorled milkweed. Uncommon at FF in open areas; common in brome fields at NW. (S, D, W)

*Cynanchum laeve* (Michx.) Pers. [*Ampelamus albidus* of OBC.] Climbing milkweed. Uncommon in forest edges and roadsides at both sites. (S, D, W)

## Asteraceae

*Achillea millefolium* L. Yarrow. FF voucher from May, 1950, in an open meadow. No recent collections. Uncommon in disturbed areas of the brome fields at NW, also planted in the Knull Prairie restoration. Native at both sites and planted-NW. (S, D)

*Ambrosia artemisiifolia* L. Common ragweed. Common along sunny trailsides, roadsides or disturbed ground at both sites. (S, D, W)

*Ambrosia trifida* L. Giant ragweed. Common along sunny trailsides, roadsides and disturbed ground at both sites. (S, D, W)

*Antennaria neglecta* Greene. Pussytoes. FF voucher from May, 1953, on a dry, sunny bank in open woods, no recent collections; rare at NW in brome field at the eastern edge of the pine tree plantings. (S, W)

*Anthemis cotula* L. Dog fennel. FF voucher from July, 1969, along the railroad tracks. Naturalized. (S)

*Arctium minus* Bernh. [Misidentified as *A. lappa* in OBC.] Common burdock. Uncommon along the river at FF; uncommon along the roadside at NW. (S\*, W\*)

*Artemisia absinthium* L. Wormwood. Rare along the railroad tracks opposite Mormon Hollow at FF. Naturalized. (S)

*Artemisia biennis* Willd. Biennial wormwood. Uncommon along the railroad tracks and Missouri River edge at FF. Naturalized. (S)

*Artemisia ludoviciana* Nutt. var. *ludoviciana*. White sage. FF vouchers from July and Aug., 1953, in full sun near Gifford Road and railroad tracks. Not recently collected. Uncommon in Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)

*Aster drummondii* Lindl. [Misidentified as *A. cordifolius* and *A. parviceps* in OBC.] Drummond's aster. FF vouchers from Oct., 1950, and Sept., 1974, from near the main entrance and from an old field respectively. No recent collections; distinction between this species and *A. sagittifolius* is difficult and the latter is common. (S)

*Aster ericoides* L. Heath aster. FF voucher from Sept., 1951, off a grassy bank in central part of the forest. No recent collections. Common in the Millard Prairie transplant and uncommon in the Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)

*Aster laevis* L. [Misidentified as *A. patens* in OBC.] Smooth blue aster. FF vouchers from Sept., 1952, and 1974, both at woodland edges along Gifford Road. (S)

*Aster novae-angliae* L. New England aster. Uncommon to rare along stream banks and roadsides at FF; uncommon in Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)

*Aster ontarionis* Wieg. Missouri aster. Uncommon in floodplain woods at FF. (S\*)

*Aster praecaltus* Poir. var. *nebraskensis* (Britt.) Wieg. [Misidentified as *A. oblongifolius* in OBC.] Willowleaf aster. Uncommon along railroad tracks in wet areas at FF. (S\*)

*Aster sagittifolius* Willd. Arrow-leaved aster. Common in woodlands and edges at both sites. See *A. drummondii* for discussion. (S\*, D, W)

*Aster sericeus* Vent. Silky aster. Rare in Knull Prairie restoration at NW. Planted-NW. (D)

*Aster simplex* Willd. var. *simplex*. [Misidentified as *A. paniculatus* in OBC.] Tall white aster. Common along roadsides and wet areas at both sites. (S, W)

*Bidens cernua* L. Bur marigold. Common along creeks and wet ditches at FF; uncommon at NW along Rock Creek. (S, W)

*Bidens comosa* (A. Gray) Wieg. Beggar-ticks. Common along wet ditches and creeks at FF. (S)

*Bidens connata* Muhl. ex Willd. Beggar-ticks. Uncommon along the Missouri River shore at FF. (S)

*Bidens frondosa* L. Beggar-ticks. Common along wet ditches and creeks at both sites. (S, W)

*Bidens vulgata* Greene. Beggar-ticks. Common in floodplain woods or along creeks at FF. Naturalized. (S)

*Boltonia asteroides* (L.) L'Her. var. *recognita* (Fern. & Griseb.) Cronq. Swamp aster. Uncommon at the east end of the Marsh at FF. (S\*)

*Cacalia atriplicifolia* L. Pale Indian plantain. Uncommon in woodlands and edges at both sites. (S, W\*)

*Cacalia plantaginea* (Raf.) Shinn. Indian plantain. FF voucher from July, 1953, in a low, open area. No recent collections. (S)

*Carduus nutans* L. ssp. *macrocephalus* (Desf.) Nyman. Musk thistle. Common along railroad tracks at FF; abundant in recently grazed pasture on Jungbluth Tract; common in prairie restoration areas and uncommon elsewhere at NW. Naturalized. (S, D, W)

*Cirsium altissimum* (L.) Spreng. Tall thistle. Uncommon along roadsides, trailsides and woodland edges at both sites. (S, D, W)

*Cirsium flodmanii* (Rydb.) Arthur. Flodman's thistle. FF voucher from Aug., 1952, on floodplain near Gifford Road and railroad tracks. No recent collections. Near the southeast edge of its range. (S)

*Cirsium vulgare* (Savi) Ten. Bull thistle. Uncommon along railroad tracks at FF but likely in disturbed ground at both sites. Naturalized. (S)

*Conyza canadensis* (L.) Cronq. [*Erigeron canadensis* of OBC.] Horseweed. Common in disturbed, sunny ground and roadsides at both sites. (S, D, W)

*Conyza ramosissima* Cronq. Spreading fleabane. Rare along the railroad tracks at FF. (S\*)

- Coreopsis palmata* Nutt. Finger coreopsis. FF voucher from June, 1950, in an open meadow, no recent collections; uncommon in Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)
- Coreopsis tinctoria* Nutt. Plains coreopsis. Uncommon in Knull Prairie restoration at NW. Both naturalized and planted at NW. (D)
- Dyssodia papposa* (Vent.) Hitchc. Fetid marigold. FF voucher from Sept., 1951, on sandy bank in central part of forest. No recent collections, but likely in disturbed sunny sites. Uncommon at NW in newly seeded Koley Prairie. (S, D)
- Echinacea angustifolia* DC. [Misidentified as *E. pallida* in OBC.] Purple coneflower. FF voucher from July, 1953, in an open prairie near old schoolhouse. No recent collections. Uncommon at NW in Knull Prairie restoration. Native-FF and planted-NW. (S, D)
- Eclipta prostrata* (L.) L. [*E. alba* of OBC.] Yerba de tajo. FF voucher from Sept. 1952, in swampy, open floodplain forest. Not recently collected, but likely. (S)
- Erechtites hieracifolia* (L.) Raf. ex DC. Fireweed. Common in damp ground along the railroad tracks at FF. (S)
- Erigeron annuus* (L.) Pers. Annual fleabane. Common in open areas at both sites. Distinction between this species and *E. strigosus* is sometimes difficult in our area. (S, W)
- Erigeron philadelphicus* L. Philadelphia fleabane. Common along trails and edges at both sites. (S, D, W)
- Erigeron strigosus* Muhl. ex Willd. [*E. ramosus* of OBC.] Daisy fleabane. Common in open, disturbed locations at both sites. See *E. annuus* for discussion. (S, D, W)
- Eupatorium altissimum* L. Boneset. FF vouchers from Sept., 1949, and 1953, in open sun in central forest and near bank of Missouri River respectively. Not recently collected but possible. Uncommon at NW in brome fields and Knull Prairie restoration. Native at both sites and planted-NW. (S, D\*, W)
- Eupatorium maculatum* L. var *bruneri* (A. Gray) Breitung. Spotted Joe-Pye-weed. Uncommon in moist wooded areas at FF. (S)
- Eupatorium perfoliatum* L. Boneset. Uncommon along creeks and marsh on the floodplain at FF. (S)
- Eupatorium purpureum* L. Sweet Joe-Pye-weed. Uncommon to common along woodland edges at both sites. (S, W)
- Eupatorium rugosum* Houtt. [*E. urticaefolium* of OBC.] White Snakeroot. Common in woodlands and edges at both sites. (S, D\*, W)
- Grindelia squarrosa* (Pursh) Dun. var. *squarrosa*. Gumweed. FF voucher from Sept., 1951, on sandy bank in central part of forest. No recent collections but seen nearby and likely. (S)
- Helianthus annuus* L. Common sunflower. Common to uncommon in disturbed or open locations at both sites. (S, D, W\*)
- Helianthus grosseserratus* Martens. Sawtooth sunflower. FF voucher from Sept., 1952, on dry bank with prairie grasses by Gifford Road. Not recently collected. (S)
- Helianthus rigidus* (Cass.) Desf. ssp. *rigidus*. Stiff sunflower. FF voucher from Aug., 1951, in low ground near railroad tracks. No recent collections. Uncommon on Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)
- Helianthus tuberosus* L. Jerusalem artichoke. Common along woodland edges at both sites. (S, D, W)
- Heliopsis helianthoides* (L.) Sweet var. *scabra* (Dun.) Fern. [*H. scabra* of OBC.] Ox-eye. Common in open field at south end of FF; common in Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)
- Iva xanthifolia* Nutt. Marsh elder. FF voucher from Aug., 1952, in open woods by road and railroad crossing. No recent collections. (S)
- Kuhnia eupatorioides* L. var. *corymbulosa* T. & G. [*K. suaveolens* of OBC.] False boneset. FF voucher from Sept., 1951, on sandy bank in central part of forest. No recent collections but possible. Uncommon in brome fields, Millard Prairie transplant and Knull Prairie restoration at NW. Native at both sites and planted-NW. (S, D)
- Lactuca canadensis* L. Wild lettuce. Uncommon on forest margins and along railroad tracks at FF. (S)
- Lactuca floridana* (L.) Gaertn. Florida lettuce. Uncommon in woodlands and edges at both sites. (S, D, W)
- Lactuca oblongifolia* Nutt. [*L. pulchella* of OBC; also misidentified as *Cichorium intybus* in OBC.] Blue lettuce. Uncommon along railroad tracks, roadsides and in fields at both sites. (S, D, W)
- Lactuca serriola* L. [*L. scariola* of OBC.] Prickly lettuce. Common in sunny, disturbed areas and roadsides at both sites. Naturalized. (S, W)
- Lygodesmia juncea* (Pursh) Hook. Skeletonweed. FF voucher from July, 1953, in open prairie beside railroad tracks. No recent collections. (S)
- Ratibida columnifera* (Nutt.) Woot. & Standl. Columnar coneflower. FF voucher from Sept., 1952, in open prairie beside Gifford Road. No recent collections but possible in sunny, disturbed locations. Uncommon in brome fields at NW and in the Knull Prairie restoration. Native at both sites and planted-NW. (S, D, W)
- Ratibida pinnata* (Vent.) Bernh. Prairie coneflower. FF vouchers from Aug., 1951, and July, 1969, from near railroad tracks and off Prairie Trail ridge east of Mormon Hollow respectively. Also seen in early 1980's off Indian Trail opening, but no collections. Common in Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)
- Rudbeckia hirta* L. Black-eyed Susan. Uncommon at the south end field at FF; common in Knull Prairie restoration at NW, but also found in brome field on west boundary of Jungbluth Tract. Native at both sites and planted-NW. (S, D, W\*)
- Rudbeckia laciniata* L. Golden glow. Common in moist ravines and floodplain at FF; less common in ravines at NW. (S, D, W)
- Senecio plattensis* Nutt. Prairie ragwort. FF voucher from June, 1955, on steep bank near railroad. No recent collections. Uncommon in Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)
- Silphium integrifolium* Michx. Rosinweed. FF voucher from Aug., 1952, on grassy bank beside Gifford Road. No recent collections. Uncommon in Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)
- Silphium laciniatum* L. Compass plant. FF voucher from July, 1953, off prairie bank near Gifford Road and railroad. No recent collections. Young plants common in Knull Prairie restoration, but no flowers yet. Native-FF and planted-NW. (S, D)
- Silphium perfoliatum* L. Cup rosinweed. Common along creeks and roadsides at both sites. (S, W)
- Solidago canadensis* L. var. *canadensis*. Canada goldenrod. Common in sunny areas, roadsides and fields at both sites. Also planted in Knull Prairie restoration at NW. Native at both sites and planted-NW. (S, D, W)
- Solidago canadensis* L. var. *gilvocanescens* Rydb. [*S. altissima* of OBC.] Canada goldenrod. FF voucher from Sept., 1953, near bank of Missouri River. No recent collections of this variety. (S\*)
- Solidago gigantea* Ait. Late goldenrod. Common along roadsides, fields and other sunny areas at both sites. (S, D)
- Solidago missouriensis* Nutt. Prairie goldenrod. Common in Millard Prairie transplant, uncommon in Knull Prairie restoration at NW. Planted-NW. (D)
- Solidago nemoralis* Ait. Gray goldenrod. FF voucher from Sept., 1951, off a grassy bank in central part of forest. Rare then, according to herbarium label information, with no recent collections. (S)
- Sonchus asper* (L.) Hill. Spiny sow thistle. Common along railroad tracks, parking lots, and sunny roadsides at both sites. Naturalized. (S, D)
- Taraxacum officinale* Weber. [Misidentified as *Taraxacum (sic) erythrospermum* in OBC.] Dandelion. Uncommon along roadsides and trailsides at both sites. Naturalized. (S, D, W)
- Tragopogon dubius* Scop. [Misidentified as *T. pratensis* in OBC.] Goat's beard. Uncommon along railroad tracks, sunny roadsides, and in fields at both sites. Naturalized. (S, W\*)
- Verbesina alternifolia* (L.) Britt. [*Actinomeris alternifolia* of OBC.] Wingstem. Common in ravines at both sites and on the floodplain at FF. (S, D, W)
- Vernonia baldwinii* Torr. ssp. *interior* (Small) Faust. Western ironweed. Uncommon in fields and along roadsides at both sites. (S, D)
- Vernonia fasciculata* Michx. ssp. *fasciculata*. Ironweed. Rare on floodplain forest edge at FF. (S)
- Xanthium strumarium* L. var. *canadense* (P. Mill.) T. & G. [*X. italicum* of OBC.] Cocklebur. Uncommon along the Missouri River at FF. (S)

#### Balsaminaceae

- Impatiens capensis* Meerb. Spotted jewelweed. Common on the floodplain, stream and spring banks and other wet areas at FF only. (S)
- Impatiens pallida* Nutt. Pale jewelweed. Common at both sites in wet areas along streams and in ravines. (S, D, W)

#### Berberidaceae

- Berberis thunbergii* DC. Japanese barberry. Uncommon in woodlands at FF; rare at NW. Naturalized or persisting from plantings. (S, W)
- Caulophyllum thalictroides* (L.) Michx. Blue cohosh. Rare in ravines at FF; uncommon in ravines and on terrace near Rock Creek at NW. (S, D\*, W)
- Podophyllum peltatum* L. May apple. Two populations persist at FF, one in an upland ravine, one on the floodplain. Planted or possibly naturalized at FF. (S)

**Betulaceae**

- Corylus americana* Walt. Hazelnut. Common at both sites in railroad or roadside thickets and woodland edges, occasionally in woodlands. (S, D, W)  
*Ostrya virginiana* (P. Mill.) K. Koch. Ironwood. Abundant in upland woodlands at both sites. (S, D, W)

**Bignoniaceae**

- Catalpa speciosa* Warder. Northern catalpa. Uncommon floodplain tree at FF; only one specimen located in the uplands of NW, a meter-high sapling at edge of upland woods. Naturalized. (S, D\*)

**Boraginaceae**

- Hackelia virginiana* (L.) I. M. Johnst. Virginia stickseed. Abundant in woodlands and shrubby areas at both sites. Often observed in rosette form. (S, D, W)  
*Lappula echinata* Gilib. Blue stickseed. FF voucher from May, 1958, in an open, sunny area in central part of forest. No recent collections. (S)  
*Lithospermum arvense* L. Corn gromwell. Uncommon along railroad tracks at FF. Naturalized. (S\*)  
*Lithospermum canescens* (Michx.) Lehm. Hoary puccoon. Uncommon in Millard Prairie transplant at NW. Planted-NW. (D)  
*Onosmodium molle* Michx. var. *occidentale* (Mack.) Johnst. False gromwell. Uncommon in Knull Prairie restoration at NW. Planted-NW. (D\*)

**Brassicaceae**

- Alliaria petiolata* (Bieb.) Cavara & Grande. † Garlic mustard. Uncommon in floodplain forest at FF; common in Jungbluth Tract upland woods at NW. Naturalized. (S\*, W\*)  
*Arabis canadensis* L. Sicklepod. Uncommon in woodlands at both sites. (S, W\*)  
*Arabis hirsuta* (L.) Scop. var. *pycnocarpa* (Hopkins) Rollins. Rock cress. FF voucher from May, 1958, along woodland trail near railroad tracks. Not recently collected. (S)  
*Armoracia rusticana* Gaertn. Horseradish. FF voucher from May, 1958, near Missouri River, near railroad tracks. Not recently collected. Naturalized. (S)  
*Brassica campestris* L. Wild turnip. Uncommon in fields and waste ground at both sites. Naturalized. (S, D)  
*Brassica juncea* (L.) Czern. Indian mustard. Common along railroad tracks at FF. Naturalized. (S\*)  
*Brassica kaber* (DC.) Wheeler. [Misidentified as *B. arvensis* in OBC.] Charlock. Common along railroad tracks at FF. Naturalized. (S)  
*Camelina microcarpa* Andr. ex DC. Small-seeded false flax. Uncommon along the railroad tracks at FF. Naturalized. (S)  
*Capsella bursa-pastoris* (L.) Medic. Shepherd's purse. Common along roadsides, waste ground and fields at both sites. Naturalized. (S, D, W)  
*Descurainia pinnata* (Walt.) Britt. ssp. *brachycarpa* (Richard.) Detling. Tansy mustard. Uncommon in disturbed ground, roadsides and open areas at both sites. (S, D)  
*Descurainia sophia* (L.) Webb. Flixweed. Common along roadsides and disturbed areas at both sites. Naturalized. (S\*, D)  
*Erysimum repandum* L. Bushy wallflower. FF voucher from May, 1968, along the railroad tracks. No recent collections, but possible. Naturalized. (S)  
*Hesperis matronalis* L. Dame's rocket. Common and apparently spreading in woodlands at FF, especially near camp and Nature Center. Naturalized. (S)  
*Lepidium densiflorum* Schrad. [Misidentified as *L. virginicum* in OBC.] Peppergrass. Common in disturbed ground, roadsides and old pastures at both sites. (S, D)  
*Nasturtium officinale* R. Br. Watercress. Common along springs at base of uplands at FF. Naturalized. (S)  
*Rorippa palustris* ssp. *glabra* (Schulz) Stuckey var. *fernaldiana* (B. & A.) Stuckey. [R. *islandica* of OBC.] Yellow cress. Common in wet areas along railroad tracks and on floodplain at FF; uncommon along Rock Creek at NW. (S, W\*)  
*Sisymbrium altissimum* L. Tumbling mustard. FF voucher from July, 1953, from a moist ditch beside railroad tracks in central part of FF. Not recently collected but likely. Naturalized. (S\*)  
*Sisymbrium loeselii* L. Tall hedge-mustard. Common in disturbed soil and roadsides at both sites. (S, D, W\*)  
*Sisymbrium officinale* (L.) Scop. var. *leiocarpum* DC. Hedge-mustard. Uncommon along railroad tracks at FF. Naturalized. (S\*)  
*Thlaspi arvense* L. Pennycress. Common in disturbed ground and roadsides at both sites. Naturalized. (S, D, W)

**Caesalpiniaceae**

- Cassia chamaecrista* L. Partridge pea. Common in open fields and sunny roadsides at both sites. (S, D, W)  
*Cassia obtusifolia* L. Senna. Rare at FF. One non-flowering clump located along the railroad tracks near Mill Hollow in 1987. This is the northern edge of its range. (S\*)  
*Cercis canadensis* L. Redbud. Uncommon in upland woodlands at FF, more common at the south end. Young trees have been planted recently in both counties at NW, but there is no evidence of spreading yet. Native-FF and planted-NW. (S, W)  
*Gleditsia triacanthos* L. Honey locust. Uncommon woodland and field tree at both sites. (S, D, W)  
*Gymnocladus dioica* (L.) K. Koch. Kentucky coffee tree. Uncommon to common upland forest tree at both sites. (S, D, W)

**Campanulaceae**

- Campanula americana* L. Tall bellflower. Common in woodlands and edges at both sites. (S, D, W)  
*Lobelia siphilitica* L. Great lobelia. Common in wet areas on the floodplain and along the railroad tracks at FF. (S)  
*Triodanis leptocarpa* (Nutt.) Nieuw. [*Specularia leptocarpa* of OBC.] Venus' looking glass. FF voucher from May, 1958, in open woods on trail down to Missouri River. Not relocated recently but likely in disturbed sites. (S)

**Cannabaceae**

- Cannabis sativa* L. Marijuana. Common along roadsides, railroad tracks and in disturbed sunny areas at both sites. Naturalized. (S, D, W)  
*Humulus japonicus* Sieb. & Zucc. Japanese hops. Common along roadsides and creeks at both sites; especially abundant along the railroad tracks at FF. Naturalized. (S, W)  
*Humulus lupulus* L. var. *pubescens* E. Small. Common hops. Common along roadsides and creeks at both sites. (S, W)

**Caprifoliaceae**

- Lonicera dioica* L. Wild honeysuckle. Uncommon on wooded slopes at FF. (S)  
*Lonicera tatarica* L. Tatarian honeysuckle. Uncommon on the floodplain at FF; uncommon along woodland edges at NW. Naturalized or persisting from plantings. (S\*, D\*)  
*Sambucus canadensis* L. Elderberry. Common ravine, floodplain and roadside plant at both sites. (S, D, W)  
*Symphoricarpos occidentalis* Hook. [Misidentified as *S. albus* in OBC.] Wolfberry. Common woodland-edge or field species at both sites. (S, D, W)  
*Symphoricarpos orbiculatus* Moench. Coralberry. Common woodland, field, or edge shrub at both sites. (S, D, W)  
*Triosteum perfoliatum* L. Feverwort. Uncommon in upland woodlands at both sites. (S, D\*, W\*)  
*Viburnum opulus* L. var. *americanum* Ait. Highbush cranberry. Uncommon at FF at the base of Mill Hollow; rare at NW on terrace south of Rock Creek. Probably planted or possibly naturalized at both sites. (S\*, W\*)

**Caryophyllaceae**

- Cerastium vulgatum* L. Mouse-ear chickweed. FF voucher from May, 1952, on edge of path near entrance. No recent collections, but likely. Naturalized. (S)  
*Saponaria officinalis* L. Bouncing Bet. Uncommon along the railroad tracks at FF. Naturalized. (S)  
*Silene antirrhina* L. Sleepy catchfly. Uncommon along the railroad tracks at FF. (S)  
*Silene noctiflora* L. Night-flowering catchfly. FF voucher from June, 1952, along the railroad tracks. No recent collections, but possible. Naturalized. (S\*)  
*Silene pratensis* (Raf.) Godr. & Gren. White cockle. Common in Knull Prairie restoration at NW. Naturalized and planted-NW. (D)  
*Silene stellata* (L.) Ait. Starry campion. Uncommon in woodlands at both sites. (S, D, W)  
*Stellaria aquatica* (L.) Scop. † Giant chickweed. Uncommon on the floodplain at FF. Naturalized. (S)

**Celastraceae**

- Celastrus scandens* L. Climbing bittersweet. Uncommon at FF; common at NW along woodland edges, roadsides and thickets. (S, D, W)  
*Euonymus atropurpureus* Jacq. Wahoo. Uncommon at woodland edges and roadsides at both sites. (S\*, D, W)

**Ceratophyllaceae**

*Ceratophyllum demersum* L. Hornwort. Abundant in both the Marsh and Hidden Lake at FF. (S)

**Chenopodiaceae**

- Chenopodium album* L. Lamb's quarters. Uncommon along woodland edges and roadsides at NW. (W)
- Chenopodium gigantospermum* Aellen. [*C. hybridum* of OBC.] Mapleleaf goosefoot. Uncommon along shaded trails, also along railroad tracks and roadsides at both sites. (S, D\*, W)
- Chenopodium standleyanum* Aellen. [Misidentified as *C. album* in OBC.] Standley's goosefoot. Common in woodlands at both sites. (S\*, D\*, W\*)
- Chenopodium strictum* Roth. Erect goosefoot. FF voucher from Aug., 1966, near entrance to FF. No recent collections but likely. (S\*)
- Corispermum nitidum* Kit. [Misidentified as *C. hyssopifolium* in OBC.] Bugseed. FF voucher from Sept., 1953, on a sandbank at edge of Missouri River. No recent collections, but possible. Naturalized. (S)
- Kochia scoparia* (L.) Schrad. Kochia. Common roadside and field weed at both sites. Naturalized. (S, D, W)

**Convolvulaceae**

- Calystegia sepium* (L.) R. Br. ssp. *angulata* Brummitt. [*Convolvulus sepium* of OBC.] Hedge bindweed. Uncommon along sunny roadsides and railroad tracks at both sites. (S, W\*)
- Convolvulus arvensis* L. Field bindweed. Common in disturbed ground and along roadsides at both sites. Naturalized. (S, D, W)
- Ipomoea hederacea* Jacq. Ivy-leaved morning glory. Uncommon at FF along fencelines and railroad tracks; uncommon at NW along roadsides and in disturbed ground. (S, D, W\*)

**Cornaceae**

- Cornus alternifolia* L.F.† Alternate-leaved dogwood. Rare at both sites and disjunct from normal range. Several individuals at the base of Handsome Hollow at FF; one clump north of Woodland Trail on slope above creek at NW. Possibly persisting from plantings at both sites. (S\*, W\*)
- Cornus amomum* P. Mill. Pale dogwood. Uncommon in moist, sunny areas of the floodplain at FF. (S)
- Cornus drummondii* C. A. Mey. Rough-leaved dogwood. Common at both sites especially in fields, at woodland edges and along roadsides. (S, D, W)
- Cornus stolonifera* Michx. Red osier dogwood. Uncommon along the railroad tracks at FF. (S)

**Crassulaceae**

*Penthorum sedoides* L. Ditch stonecrop. Uncommon in wet areas at both sites. Located along the edge of the Missouri River at FF; along Rock Creek at NW. (S, W)

**Cucurbitaceae**

*Sicyos angulatus* L. Bur cucumber. Common at both sites. Found in shaded ravines, along wet areas, woodland edges and in the floodplain forest. (S, D, W)

**Cuscutaceae**

- Cuscuta curta* (Engelm.) Rydb. Dodder. Common in Spring Hollow at FF growing on *Impatiens*. (S)
- Cuscuta glomerata* Choisy. Clustered dodder. FF voucher from Aug., 1953, in an open prairie beside Gifford Road, growing on *Solidago*. No recent collections. (S)
- Cuscuta gronovii* Willd. Gronovius' dodder. Common on floodplain and base of uplands in wet areas at FF, growing on numerous hosts. (S)

**Elaeagnaceae**

*Elaeagnus angustifolia* L. Russian olive. Uncommon at FF on edge of camp field and south end field; uncommon in open brome fields at NW. Naturalized. (S\*, D\*)

**Euphorbiaceae**

- Acalypha rhomboidea* Raf. Rhombic copperleaf. Common roadside and ravine plant at both sites. (S, D\*, W\*)
- Acalypha virginica* L. Three-seeded mercury. Common on trailsides and roadsides at FF; probably overlooked at NW. (S)

- Euphorbia corollata* L. Flowering spurge. FF vouchers from 1952 and 1964. No recent collections. Uncommon at NW in Millard Prairie transplant. Native-FF and planted-NW. (S, D)
- Euphorbia cyathophora* Murray. [*E. heterophylla* of OBC.] Fire-on-the-mountain. Uncommon in woodlands and roadsides at both sites. (S, D)
- Euphorbia dentata* Michx. Toothed spurge. Uncommon along open roadsides, railroad edges and in fields at both sites. (S, W)
- Euphorbia glyptosperma* Engelm. Ridge-seeded spurge. Uncommon along roadsides at NW. (W)
- Euphorbia maculata* L. [*E. supina* of OBC.] Spotted spurge. Common in sunny trails, roadsides and disturbed soil at both sites. (S, D, W\*)
- Euphorbia marginata* Pursh. Snow-on-the-mountain. FF voucher from Aug., 1959, on the lowlands. Not recently collected but possible. Uncommon at NW near trails in brome fields. (S, D)
- Euphorbia nutans* Lag. Eyebane. Common along sunny trails and roadsides at both sites. (S, D, W)

**Fabaceae**

- Amorpha canescens* Pursh. Lead plant. Uncommon in Knull Prairie restoration at NW. Planted-NW. (D)
- Amorpha fruticosa* L. False indigo. Uncommon along the Missouri River and south end of Hidden Lake at FF. (S)
- Amphicarpaea bracteata* (L.) Fern. [Misidentified as *Phaseolus polystachios* in OBC.] Hog peanut. Uncommon to common along creeks, on the floodplain and in ravines at both sites. (S, W\*)
- Astragalus canadensis* L. Canada milk vetch. Uncommon along railroad tracks at FF; common in Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)
- Coronilla varia* L. Crown vetch. Uncommon in field at the south end of FF. Naturalized. (S\*)
- Crotalaria sagittalis* L. Rattlebox. FF voucher from July, 1959, on Missouri River lowlands. Not recently collected. (S)
- Dalea candida* Michx. ex Willd. var. *candida*. White prairie clover. Uncommon in Knull Prairie restoration at NW. Planted-NW. (D)
- Dalea leporina* (Ait.) Bullock. Foxtail dalea. Uncommon in brome fields and newly-seeded Koley Prairie at NW. (D)
- Dalea purpurea* Vent. var. *purpurea*. Purple prairie clover. Uncommon in Knull Prairie restoration at NW. Planted-NW. (D)
- Desmodium canadense* (L.) DC. Canada tick-trefoil. Uncommon along woodland edges and Gifford Road at FF. (S)
- Desmodium canescens* (L.) DC. Hoary tick-trefoil. Common along roadsides and ravines at both sites. (S, D, W)
- Desmodium glutinosum* (Muhl. ex Willd.) Wood. [*D. grandiflorum* of OBC.] Large-flowered tick-trefoil. Uncommon to common in woodlands at both sites. (S\*, W\*)
- Desmodium illinoense* A. Gray. Illinois tickclover. FF voucher from July, 1953, from an open prairie near upper part of Gifford Road. Not collected recently. (S)
- Desmodium paniculatum* (L.) DC. var. *dillenii* (Darl.) Isley. [Misidentified as *D. nudiflorum* in OBC.] Panicked tick-trefoil. FF voucher from Sept., 1949, along path near entrance. Not collected recently. (S)
- Desmodium paniculatum* (L.) DC. var. *paniculatum*. Panicked tick-trefoil. Rare in shrubby, open areas on hilltops at NW. (W)
- Glycyrrhiza lepidota* Pursh. Wild licorice. FF voucher from July, 1953, on floodplain in disturbed, wet area near road and farm. No recent collections. (S)
- Lespedeza capitata* Michx. Bush clover. FF voucher from Aug., 1949, in open sun along Linden Trail. Not recently collected. Uncommon in Knull Prairie restoration and rare in Jonas Valley at NW. Native-FF and planted-NW. (S, D)
- Medicago lupulina* L. Black medick. Common in field trails and roadsides at both sites. Naturalized. (S, D, W\*)
- Medicago sativa* L. [Misidentified as *Trifolium procumbens* in OBC.] Alfalfa. FF voucher from July, 1951, in an open meadow in full sun. Not collected recently, but possible in south end field or along tracks. Uncommon in brome fields at NW. Naturalized. (S, D\*, W)
- Melilotus alba* Medic. White sweet clover. Common along roadsides and in fields and disturbed areas at both sites. Naturalized. (S, D, W)
- Melilotus officinalis* (L.) Pall. Yellow sweet clover. Common along roadsides, and in fields and disturbed areas at both sites. Naturalized. (S, D, W)

*Robinia pseudo-acacia* L. Black locust. Common at the south end of FF, planted in rows at the hermit's site; uncommon along Rock Creek at NW. In addition, abundant stands of *Robinia* are located southeast of NW but no Douglas county vouchers thus far. Planted-FF and naturalized NW. (S, W\*)

*Strophostyles helvola* (L.) Ell. Wild bean. FF voucher from Sept., 1953, in sandy soil along the river bank. Not recently collected, but possible in wet, disturbed areas. (S)

*Strophostyles leiosperma* (T. & G.) Piper. Slick-seed wild bean. FF voucher from Sept., 1949, in light shade in upland forest. Not recently collected but possible in open disturbed areas. (S)

*Trifolium hybridum* L. Alsike clover. Uncommon along floodplain trails at FF near farm fences. Naturalized. (S)

*Trifolium pratense* L. Red clover. Uncommon along farm fenceline on floodplain at FF; common in brome fields and roadsides at NW. Naturalized. (S, D, W)

*Trifolium repens* L. White clover. Uncommon along farm fenceline on floodplain at FF; uncommon along trails in brome fields at NW. Naturalized. (S, D, W)

*Vicia americana* Muhl. ex Willd. var. *americana*. American vetch. FF voucher from Sept., 1949, in light shade along Linden Trail. Not recently collected, but possible. (S)

#### Fagaceae

*Quercus borealis* Michx. f. var. *maxima* (Marsh.) Ashe. Red oak. Common upland woodland tree at both sites; uncommon on FF floodplain off Walking Club Trail. (S, D, W)

*Quercus macrocarpa* Michx. Bur oak. Common upland woodland tree at both sites; especially common on ridgetops at FF. (S, D, W)

#### Fumariaceae

*Corydalis micrantha* (Engelm.) Gray ssp. *micrantha*. [Misidentified as *C. campestris* in OBC.] Slender fumewort. FF voucher from May, 1952, at edge of open woodland path in moist soil. No recent collections, but possible. (S)

*Dicentra cucullaria* (L.) Bernh. Dutchman's breeches. Abundant in woodlands at both sites. (S, D, W)

#### Gentianaceae

*Gentiana andrewsii* Griseb. Bottle gentian. FF voucher from Sept., 1959, on the lowlands. No recent collections. (S)

*Gentiana puberulenta* Pringle. Downy gentian. Uncommon in Millard Prairie transplant at NW. Planted-NW. (D)

#### Geraniaceae

*Geranium carolinianum* L. Carolina cranesbill. Uncommon along the railroad tracks at FF. (S)

*Geranium maculatum* L. † Wild cranesbill. FF voucher from May, 1951, from a shady central location. No recent collections; west of its main range. Suspected to have been planted, but has not persisted. (S)

#### Grossulariaceae

*Ribes americanum* P. Mill. Wild black currant. Uncommon on the floodplain, ravines and creek banks at FF. (S)

*Ribes missouriense* Nutt. Wild gooseberry. Common in woodlands at both sites. (S, D, W)

#### Hippocastanaceae

*Aesculus glabra* Willd. var. *arguta* (Buckl.) Robins. Western buckeye. Rare in two locations at FF; on upland, wooded hilltop near nature center, and off Walking Club Trail on the floodplain. No flowering observed. Several counties north of its main range. (S\*)

#### Hydrophyllaceae

*Ellisia nyctelea* L. Waterpod. Common to uncommon on trail edges in woodlands and openings at both sites. (S, D, W)

*Hydrophyllum appendiculatum* Michx. † Hairy waterleaf. Common in wooded ravines at NW. This species is restricted in distribution in Nebraska to Douglas and Washington counties. (D, W\*)

*Hydrophyllum virginianum* L. Virginia waterleaf. Abundant in woodlands at both sites. (S, D, W)

#### Juglandaceae

*Carya cordiformis* (Wang.) K. Koch. Bitternut hickory. Uncommon to locally common in upland woods at both sites. (S, D, W\*)

*Carya ovata* (P. Mill.) K. Koch. Shagbark hickory. Common in uplands at FF; uncommon to rare in upland woods at NW, although common on adjacent lands. (S, D, W\*)

*Juglans nigra* L. Black walnut. Common in upland ravines at both sites. (S, D, W)

#### Lamiaceae

*Agastache nepetoides* (L.) O. Ktze. Giant hyssop. Uncommon to locally common in woodlands and along roadsides at both sites. (S, D, W\*)

*Galeopsis bifida* Boenn. † [*G. tetrahit* of OBC.] Common hemp-nettle. Rare on floodplain at FF. Naturalized. (S)

*Glechoma hederacea* L. Ground ivy. Uncommon along roadsides, in ravines and by creeks at both sites. Naturalized. (S, D, W\*)

*Lamium amplexicaule* L. Henbit. FF voucher from May, 1952, near front entrance to forest in disturbed area. Not recently collected. Naturalized. (S)

*Leonurus cardiaca* L. Motherwort. Common along roadsides, and near parking lots and other disturbed areas at both sites. Naturalized. (S, D, W)

*Lycopus americanus* Muhl. ex Bart. American bugleweed. Common along streams and other wet areas at both sites. (S, W)

*Lycopus uniflorus* Michx. One-flower horehound. FF voucher from Aug., 1951, along a ditch next to railroad tracks. Not recently collected, but likely in wet areas. (S)

*Lycopus virginicus* L. Virginia bugleweed. Common along wet floodplain areas at FF. (S)

*Mentha arvensis* L. Field mint. Uncommon in moist areas at FF. (S)

*Mentha × gentilis* L. Hybrid mint. This sterile hybrid between *M. arvensis* and *M. spicata* was uncommon in the brome field north of the buildings at NW, probably persisting from cultivation in a former garden. That field has since been reseeded to prairie and the mint population is probably eradicated. Planted-NW. (D)

*Mentha × piperita* L. Peppermint. Thought to be a hybrid from *M. arvensis* and *M. aquatica* (Great Plains Flora Association, 1986). FF voucher from Aug., 1952, in wet ditch near railroad tracks. Not recently collected. Naturalized. (S)

*Monarda fistulosa* L. [*M. fistula* (sic) of OBC.] Wild Bergamot. Uncommon in south end field at FF; uncommon along woodland edges and in brome fields at NW, common in Knull Prairie restoration at NW. Native at both sites and also planted-NW. (S, D, W)

*Nepeta cataria* L. Catnip. Common in disturbed areas and roadsides at both sites. Naturalized. (S, D, W)

*Physostegia virginiana* (L.) Benth. Virginia lionsheart. Uncommon in wet areas near tracks and on floodplain at FF. (S)

*Prunella vulgaris* L. Self heal. Uncommon on floodplain and in ravines at FF; uncommon along Rock Creek at NW. (S, W)

*Salvia azurea* Lam. Blue sage. Uncommon in Knull Prairie restoration at NW. Planted-NW. (D)

*Salvia nemorosa* L. Sage. Uncommon in Knull Prairie restoration at NW; seed planted from a naturalized population in Washington County north of Blair. Naturalized and planted-NW. (D)

*Salvia reflexa* Hornem. Lance-leaved sage. FF voucher from Oct., 1951, off a grassy bank in central part of the forest. Not collected recently, but possible in disturbed areas. Uncommon along brome field trails at NW. (S, D)

*Scutellaria lateriflora* L. Blue skullcap. Common along streams and marshy areas at FF; less common along pond-like portion of Rock Creek at NW. (S, W)

*Scutellaria parvula* var. *leonardii* (Epl.) Fern. Small skullcap. FF voucher from May, 1958, in sunny open place along Hawthorn Trail. Not recently collected. (S)

*Stachys palustris* ssp. *pilosa* (Nutt.) Epling. Hedge nettle. Common floodplain plant at FF; less common along Rock Creek at NW. (S, W)

*Stachys tenuifolia* Willd. Thinleaf betony. Uncommon on floodplain at FF. (S)

*Teucrium canadense* L. var. *canadense*. Germander. Common plant in moist areas at both sites. (S, W)

#### Lentibulariaceae

*Utricularia vulgaris* L. Common bladderwort. Uncommon submersed, free-floating plant in both the Marsh and Hidden Lake at FF. (S)

**Linaceae**

- Linum perenne* L. var. *perenne*. [Misidentified as *L. usitatissimum* in OBC.] Garden flax. FF voucher from July, 1951, along the railroad tracks. No recent collections, but possible. Naturalized. (S)
- Linum sulcatum* Ridd. Grooved flax. FF voucher from July, 1953, in an open prairie near old schoolhouse. No recent collections. Uncommon in brome fields at NW. (S, W\*)

**Lythraceae**

- Ammannia robusta* Heer & Regel. [Misidentified as *A. coccinea* in OBC.] Toothcup. FF voucher from Aug., 1952, in swampy ground on the floodplain. Not recently collected but likely. (S)

**Malvaceae**

- Abutilon theophrasti* Medic. Velvet leaf. Common along roadsides and disturbed ground at both sites. Naturalized. (S, D, W)
- Callirhoe involucrata* (T. & G.) A. Gray. Purple poppy-mallow. Uncommon on Knull Prairie restoration at NW. Planted-NW. (D\*)

**Menispermaceae**

- Menispermum canadense* L. Moonseed. Common in woodlands and edges at both sites. (S, D, W)

**Mimosaceae**

- Desmanthus illinoensis* (Michx.) MacM. Illinois bundleflower. Uncommon along railroad tracks and south end field at FF; common along the roadsides and uncommon in fields at NW. (S, D, W)

**Molluginaceae**

- Mollugo verticillata* L. Carpetweed. Uncommon at FF along the railroad tracks near Spring Hollow. (S\*)

**Monotropaceae**

- Monotropa uniflora* L. Indian pipe. Common to uncommon at both sites in upland woods; especially common in early-successional woodlands. (S, D, W)

**Moraceae**

- Maclura pomifera* (Raf.) Schneid. Osage orange. FF voucher from Oct., 1953, at edge of forest and road. No recent collections; probably planted from farther south and not persisting. Planted-FF. (S\*)
- Morus alba* L. White mulberry. Common at both sites, especially on floodplain at FF and in brome fields at NW. Naturalized. (S, D, W)
- Morus rubra* L. Red mulberry. Uncommon upland tree at both sites. (S\*, D, W)

**Nelumbonaceae**

- Nelumbo lutea* (Willd.) Pers. American lotus. Abundant in Marsh at FF. Possibly planted by Dr. Harold Gifford Jr. and Sr. in the 1930's (personal communication, Dr. Harold Gifford Jr.), but known from this general area since mid-1800's (Engelmann, 1862). A small population originally, its floating and aerial leaves now cover over three-fourths of the Marsh. (S)

**Nyctaginaceae**

- Mirabilis nyctaginea* (Michx.) MacM. Wild four o'clock. Uncommon field, roadside and railroad plant at both sites. (S, D)

**Oleaceae**

- Fraxinus americana* L. White ash. Uncommon upland forest tree at both sites. At the northern edge of its range. (S, D\*)
- Fraxinus pennsylvanica* Marsh. Green or red ash. Common at both sites, in floodplain and upland forest; also common invader of brome fields at NW. (S, D, W)

**Onagraceae**

- Circaea lutetiana* L. ssp. *canadensis* (L.) Asch. & Mag. [*C. quadriscutata* of OBC.] Enchanter's nightshade. Uncommon in woodlands at both sites. (S, D, W\*)
- Epilobium ciliatum* Raf. Willowherb. Uncommon to common along creeks and other wet areas at both sites. (S, W)
- Epilobium coloratum* Biehl. Purple-leaved willowherb. FF voucher from Oct., 1951, in marshy land near railroad and Gifford Road. Not recently collected, but likely. (S)

*Gaura parviflora* Dougl. Velvety gaura. Uncommon in fields and sunny roadsides at both sites. (S, D)

*Oenothera biennis* L. Common evening primrose. Uncommon at both sites, along roadsides and railroad tracks. Also uncommon in Knull Prairie restoration at NW. Native at both sites and also planted-NW. (S, D, W)

*Oenothera villosa* Thunb. Common evening primrose. Uncommon along the roadsides at NW; probably overlooked at FF. (W)

**Oxalidaceae**

*Oxalis dillenii* Jacq. Gray-green wood sorrel. Uncommon along open trails and disturbed areas at NW. (D)

*Oxalis stricta* L. Yellow wood sorrel. Common in open areas, trailsides and waste ground at both sites. (S, D, W)

**Papaveraceae**

*Sanguinaria canadensis* L. Bloodroot. Uncommon on wooded slopes and ravines at FF; common on wooded slopes at NW. (S, D, W\*)

**Phytolaccaceae**

*Phytolacca americana* L. Pokeweed. Abundant along the railroad tracks and woodland edges on the floodplain at FF; recently becoming common in uplands as well. Rare at NW in shaded ravine on the western boundary. At present, this species is near the northern edge of its range at NW, but appears to be expanding northward. (S\*, W\*)

**Plantaginaceae**

*Plantago lanceolata* L. English plantain. Uncommon in the reseeded prairie north of the buildings at NW. Naturalized. (D)

*Plantago patagonica* Jacq. var. *patagonica*. Patagonian plantain. Uncommon in the Knull Prairie restoration at NW. Planted-NW. (D\*)

*Plantago rugelii* Dcne. Rugel's plantain. Common on trails in shaded ravines and roadsides at both sites. (S, D, W)

**Platanaceae**

*Platanus occidentalis* L. Sycamore. Common floodplain tree at FF, especially north of Gifford Road. At the northern edge of its range. (S)

**Polemoniaceae**

*Phlox divaricata* L. ssp. *laphamii* (Wood) Wherry. Timber phlox. Common in woodlands at both sites. (S, D, W)

**Polygalaceae**

*Polygala verticillata* L. Whorled milkwort. FF voucher from July, 1949, along Hawthorn Trail. No recent collections, but possible, especially in the reseeded prairie areas at NW. (S)

**Polygonaceae**

*Polygonum achoreum* Blake. Knotweed. Common along roadsides and in sunny trails at both sites. Naturalized. (S\*, D, W)

*Polygonum arenastrum* Jord. ex Bor. Knotweed. [Misidentified as *P. aviculare* and *P. exsertum* in OBC.] Common roadside weed at both sites. (S, W)

*Polygonum amphibium* L. var. *emersum* Michx. [*P. coccineum pratincolum* of OBC.] Swamp smartweed. Uncommon along the edge of the marsh at FF. (S)

*Polygonum convolvulus* L. Climbing buckwheat. Common in waste ground and roadsides at FF; uncommon along field edges at NW. (S, D)

*Polygonum hydropiper* L. Water pepper. Uncommon near pond at NW. (W)

*Polygonum hydropiperoides* Michx. Water pepper. Common along Gifford Road on floodplain at FF. (S)

*Polygonum lapathifolium* L. Pale smartweed. Uncommon along Missouri River and around marsh at FF. (S)

*Polygonum pensylvanicum* L. Pink smartweed. Common near wet areas at both sites. (S, W)

*Polygonum persicaria* L. [Misidentified as *P. hydropiper* in OBC.] Lady's thumb. Common in wet areas at both sites. (S, W\*)

*Polygonum punctatum* Ell. [Misidentified as *P. hydropiper* and *P. hydro-piperoides* in OBC.] Water smartweed. Common in wet areas at both sites. (S, W\*)

*Polygonum ramosissimum* Michx. Knotweed. FF voucher from Sept., 1951, from a low area near the railroad at FF. Not recently collected, but likely. (S)

*Polygonum scandens* L. False climbing buckwheat. Common along railroad tracks and woodland edges at FF; uncommon in brushy field areas at NW. (S, W)

*Polygonum virginianum* L. [*Tovara virginianum* of OBC.] Jumpseed. Common in woodlands at FF; uncommon in woodland ravines at NW. (S, W\*)

*Rumex acetosella* L. Sheep sorrel. FF voucher from Sept., 1957, at edge of farm and forest on the floodplain. Not recently collected, but possible. Naturalized. (S)

*Rumex altissimus* Wood. Pale dock. Uncommon in field near pond at NW. (W\*)

*Rumex crispus* L. Curly dock. Common along roadsides and in disturbed areas at both sites. Naturalized. (S, W)

*Rumex maritimus* L. Golden dock. FF voucher from Aug., 1961, at edge of ponds and ditches at FF. Not recently collected. (S)

*Rumex verticillatus* L. Water dock. Uncommon at the edge of the marsh at FF. (S)

#### Portulacaceae

*Claytonia virginica* L. Spring beauty. Common in woodlands at FF; uncommon at NW. (S, W\*)

*Portulaca oleracea* L. Common purslane. Uncommon along the railroad tracks at FF; likely at NW in disturbed ground, but no collections yet. Naturalized. (S\*)

#### Primulaceae

*Lysimachia ciliata* L. Fringed loosestrife. Uncommon along stream banks and floodplain road edge at FF. (S)

*Lysimachia thysiflora* L. Tufted loosestrife. Uncommon in marshy areas at base of uplands in FF. (S\*)

#### Ranunculaceae

*Actaea rubra* (Ait.) Willd. Red baneberry. Rare in moist woodlands at both sites. (S, W\*)

*Anemone canadensis* L. Canada anemone. Common in moist ravines and floodplain forest at FF. (S)

*Anemone virginiana* L. Thimbleweed. Uncommon in fields, edges, and upland hilltop woodlands at both sites. (S, D, W)

*Aquilegia canadensis* L. Columbine. Uncommon in moist woodlands at both sites. (S, W)

*Caltha palustris* L. Marsh marigold. Rare at FF. One specimen located at the base of Mill Hollow in 1982. Heavy rain runoff eliminated plant shortly after discovery. No voucher taken, but plant photographed. (S\*)

*Clematis virginiana* L. Virgin's bower. Uncommon along roadsides and woodland edges at both sites. (S, W\*)

*Delphinium virescens* Nutt. Prairie larkspur. Uncommon in Knull Prairie restoration at NW. Planted-NW. (D)

*Ranunculus abortivus* L. Small-flowered crowfoot. Common in woodlands at both sites. (S, D, W)

*Ranunculus hispidus* Michx. var. *nitidus* (Ell.) T. Duncan. [*R. septentrionalis* of OBC.] Marsh buttercup. FF voucher from May, 1953, on slope near Mill Hollow. No recent collections. On the western edge of its range. (S\*)

*Ranunculus sceleratus* L. var. *sceleratus*. Celery-leaved crowfoot. Uncommon in wet ditches along the railroad tracks and creek edges at FF. Naturalized. (S)

*Thalictrum dasycarpum* Fisch. & Ave-Lall. Meadow rue. Common along roadsides, creeksides and railroad tracks at both sites. (S, W\*)

#### Rhamnaceae

*Ceanothus herbaceus* Raf. var. *pubescens* (T. & G.) Shinners. [*C. ovatus* of OBC.] New Jersey tea. FF voucher from July, 1953, in an open clearing near old schoolhouse. No recent collections. (S)

*Rhamnus lanceolata* Pursh var. *glabratus* Gl. Lance-leaved buckthorn. FF voucher from July, 1953, near railroad tracks and Gifford Road. No recent collections. (S)

#### Rosaceae

*Agrimonia pubescens* Wallr. Downy agrimony. Uncommon in upland woods at both sites. (S\*, W\*)

*Agrimonia striata* Michx. Striate agrimony. Uncommon in upland woods at FF. (S)

*Amelanchier arborea* (Michx. f.) Fern. [*A. canadensis* of OBC.] Juneberry. Uncommon in upland woods at both sites. The northernmost record for Nebraska. (S, D, W\*)

*Crataegus mollis* (T. & G.) Scheele. Downy hawthorn. Uncommon in woodlands and edges at FF; uncommon on early successional hilltops and in brome fields at NW. (S, D, W)

*Fragaria vesca* L. Wild strawberry. FF voucher from June, 1949, along creek off Hawthorn Trail. No recent collections, but possible in woodlands at both sites. (S)

*Fragaria virginiana* Duchn. Wild strawberry. Rare in woodlands at FF; uncommon on early successional hilltops at NW. (S, W)

*Geum canadense* Jacq. White avens. Uncommon in woodlands at both sites. (S, D, W)

*Potentilla arguta* Pursh. Tall cinquefoil. FF voucher from July, 1953, in an open prairie in the uplands, but no recent collections; uncommon in Knull Prairie restoration at NW. Native-FF and planted-NW. (S\*, D)

*Potentilla norvegica* L. Norwegian cinquefoil. Uncommon in moist areas and along the railroad tracks at FF. (S)

*Potentilla recta* L. Sulphur cinquefoil. Uncommon in disturbed fields at NW, also uncommon in Knull Prairie restoration. Native and planted-NW. (D, W)

*Potentilla rivalis* Nutt. Brook cinquefoil. Uncommon on floodplain at FF. (S\*)

*Prunus americana* Marsh. Wild plum. Uncommon along woodland edges at both sites. (S, D, W)

*Prunus serotina* Ehrh. Wild black cherry. Rare in woodlands at FF. Near the northern edge of its range. (S)

*Prunus virginiana* L. Eastern chokecherry. Uncommon to common in woodlands at both sites. (S, D, W)

*Pyrus ioensis* (Wood) Carruth. Wild crabapple. FF vouchers from Sept., 1952, and May, 1954, along open area of Riverview Trail. No recent collections. (S)

*Rosa arkansana* Porter. Prairie wild rose. FF voucher from sunny location near railroad in June, 1952. No recent collections. (S)

*Rosa multiflora* Thunb.† Multiflora rose. Uncommon in woodlands, edges and along creeks at both sites. Naturalized. (S\*, D, W\*)

*Rubus allegheniensis* Porter.† Common blackberry. Uncommon in ravines and along creeks at both sites. (S\*, D\*, W\*)

*Rubus occidentalis* L. [Misidentified as *R. strigosus* in OBC.] Black raspberry. Common along creeks, woodland edges and in young woodlands at both sites. (S, D, W)

#### Rubiaceae

*Galium aparine* L. Catchweed bedstraw. Abundant in woodlands and along edges and roadsides at both sites. (S, D, W)

*Galium circaeans* Michx. Cross cleavers. Common in woodlands at both sites. (S, D, W\*)

*Galium concinnum* T. & G. Shining bedstraw. Uncommon in woodlands at both sites. (S\*, D\*, W\*)

*Galium trifidum* L. Small bedstraw. Uncommon in wet areas on the floodplain and near the railroad tracks at FF. (S)

#### Rutaceae

*Zanthoxylum americanum* P. Mill. Prickly ash. Common in open woodlands, roadsides and edges at both sites. (S, D, W)

#### Salicaceae

*Populus deltoides* Marsh. ssp. *monilifera* (Ait.) Eckenw. Cottonwood. Abundant on the floodplain at FF; less common in uplands at both sites. (S, D, W)

*Salix amygdaloides* Anderss. Peachleaf willow. Common in wet areas of the floodplain at FF. (S)

*Salix eriocephala* Michx. [*S. rigida* of OBC.] Diamond willow. Common near wet areas at both sites. (S, W\*)

*Salix exigua* Nutt. ssp. *interior* (Rowlee) Cronq. Sandbar willow. Common on floodplain wet areas at FF, especially along the Missouri River; uncommon along Rock Creek at NW. (S, W)

*Salix nigra* Marsh. Black willow. Uncommon on the floodplain and other wet areas at FF. (S)

#### Scrophulariaceae

*Dasistoma macrophylla* (Nutt.) Raf.† Mullein foxglove. Rare along roadsides and forest edges at NW. On the northern edge of its range. (W\*)

*Lindernia dubia* (L.) Penn. [Misidentified as *Isanthus brachiatus* in OBC.] False pimpernel. FF voucher from Aug., 1959, along lakeshore on the floodplain. No recent collections. (S)

*Mimulus glabratus* H.B.K. var. *fremontii* (Benth.) A. L. Grant. Roundleaf monkey flower. Rare along springfed ditches by the railroad tracks at FF. (S)

*Mimulus ringens* L. Allegheny monkey flower. Common on the floodplain in wet areas at FF. (S)

*Pedicularis lanceolata* Michx.† Swamp lousewort. Rare on the floodplain at FF. One population located in wet meadow near railroad tracks. Sporadically distributed across Nebraska and Iowa, southwest of its main range. (S)

*Penstemon grandiflorus* Nutt. Large beardtongue. Uncommon in Knull Prairie restoration at NW. Planted–NW. (D)

*Scrophularia marilandica* L. Figwort. Abundant in woodland ravines and along roadsides at both sites. (S, D, W)

*Verbascum thapsus* L. Woolly mullein. Uncommon at FF; common at NW in fields, along sunny roadsides or in disturbed soil. Naturalized. (S, D, W)

*Veronica americana* (Raf.) Schwein. ex Benth. Brooklime speedwell. Uncommon on floodplain near water at FF. (S)

*Veronica arvensis* L. Corn speedwell. Uncommon on trails through brome fields at NW. (D\*)

*Veronica peregrina* L. var. *peregrina*. Purslane speedwell. Uncommon in moist habitats at both sites. (S, D)

#### Simaroubaceae

*Ailanthus altissima* (P. Mill.) Swingle. Tree of Heaven. Common in both the floodplain forest and parts of the uplands at FF; an uncommon field tree at NW, beginning to creep into the western edge of the Koley Tract woods. Naturalized. (S\*, D, W\*)

#### Solanaceae

*Datura stramonium* L. Jimson weed. FF voucher from Sept., 1958, near farm border on floodplain. Not recently collected, but possible in disturbed areas. (S)

*Lycium halimifolium* P. Mill. Matrimony vine. Common along the railroad tracks near the Marsh at FF. Naturalized. (S)

*Physalis heterophylla* Nees. Clammy ground cherry. Uncommon in upland fields at the south end of FF. (S)

*Physalis longifolia* Nutt. [Misidentified as *P. virginiana* in OBC.] Common ground cherry. Common roadside, field, and railroad track weed at both sites. (S, D, W)

*Solanum carolinense* L. Horse nettle. Uncommon field and railroad track plant at FF; uncommon invader of fields and reseeded prairies at NW. (S, D, W\*)

*Solanum ptycanthum* Dun. ex DC. [Misidentified as *S. nigrum* in OBC.] Black nightshade. Uncommon woodland, ravine, and roadside plant at both sites. (S, W)

*Solanum rostratum* Dun. Buffalo bur. Uncommon along roadsides, railroad tracks and in disturbed ground at both sites. (S\*, D)

#### Staphyleaceae

*Staphylea trifolia* L. Bladdernut. Common in woodlands at both sites. (S, D, W)

#### Tiliaceae

*Tilia americana* L. American linden. Common in upland woods at both sites, especially on slopes. (S, D, W)

#### Ulmaceae

*Celtis occidentalis* L. Hackberry. Abundant in woodlands at both sites. (S, D, W)

*Ulmus americana* L. American elm. Common in woodlands, especially in early successional areas at both sites. (S, D, W\*)

*Ulmus pumila* L. Siberian elm. Common at FF in south end field, Indian Trail old field and along the Missouri River; common in brome fields and early successional woodlands at NW. Naturalized. (S\*, D\*, W\*)

*Ulmus rubra* Muhl. Red elm. Uncommon in woodlands at both sites. (S, D, W)

*Ulmus thomasii* Sarg. Cork elm. Uncommon along creeks at FF. Located close to NW along Rock Creek. (S)

#### Urticaceae

*Boehmeria cylindrica* (L.) Sw. False nettle. Abundant in floodplain woods at FF. (S\*)

*Laportea canadensis* (L.) Wedd. Wood nettle. Common in ravines and wet areas at both sites. (S, D, W)

*Parietaria pensylvanica* Muhl. Pellitory. Common in shaded woods at both sites. (S\*, W)

*Pilea fontana* (Lunell) Rydb.† Clearweed. Common on floodplain along creeks at FF. (S)

*Pilea pumila* (L.) A. Gray. Clearweed. Common in ravines and other moist areas at both sites. (S, D, W)

*Urtica dioica* L. ssp. *gracilis* (Ait.) Seland. [*U. gracilis* of OBC.] Stinging nettle. Common in ravines and other moist areas at both sites. (S, D, W)

#### Verbenaceae

*Lippia lanceolata* (Michx.) Greene. Fog fruit. Uncommon on the floodplain of FF in moist areas. (S)

*Phryma leptostachya* L. Lopseed. Uncommon to common in woodlands at both sites. (S, D, W)

*Verbena bracteata* Lag. & Rodr. Prostrate vervain. Uncommon on sunny trailsides at both sites. (S, D)

*Verbena hastata* L. Blue vervain. Uncommon in moist areas at FF; uncommon in the Millard Prairie transplant at NW. Native–FF and planted–NW. (S, D)

*Verbena stricta* Vent. Hoary vervain. Uncommon in fields and sunny roadsides at FF; common in NW brome fields, also planted in Knull Prairie restoration at NW. Native at both sites and planted–NW. (S, D, W)

*Verbena urticifolia* L. Nettle-leaved vervain. Common in fields and roadsides at both sites. (S, D, W)

Note: Several *Verbena* species hybridize rarely to frequently, with characteristics intermediate between the parental species (Great Plains Flora Association, 1986). All hybrids are possible but were not collected from either site.

#### Violaceae

*Viola canadensis* var. *rugulosa* (Greene) C.L. Hitchc. [*V. rugulosa* of OBC.] Tall white violet. FF vouchers from May, 1951, and June, 1952, in open upland woods. Not collected recently. (S)

*Viola pedatifida* G. Don. Prairie violet. Uncommon in Millard Prairie transplant at NW. Planted–NW. (D)

*Viola pratincola* Greene. [*V. missouriensis* and *V. papilionacea* of OBC.] Blue prairie violet. FF vouchers from April, 1952, and May, 1958, from the floodplain and uplands respectively. Not recently collected. (S)

*Viola pubescens* Ait. [Misidentified as *V. striata* in OBC.] Downy yellow violet. Common in woodlands at both sites. (S, D, W\*)

*Viola sororia* Willd. Downy blue violet. Common in woodlands at both sites. (S, D, W)

*Viola* × *viarum* Pollard. Road violet. FF voucher from June, 1960, on bank above railroad tracks near south end. Not recently collected. Considered to be a hybrid of *V. pratincola* and *V. pedatifida* by some sources (Great Plains Flora Association, 1986). Others consider it a simple genetic form instead of a species (Russell, 1965). (S)

#### Vitaceae

*Ampelopsis cordata* Michx. Porcelain berry. Uncommon on the floodplain at FF, climbing high, especially along fencelines and roadsides. (S)

*Parthenocissus vitacea* (Knerr) Hitchc. [Misidentified as *P. quinquefolia* in OBC.] Woodbine. Abundant in the woodlands at both sites. A related species, *P. quinquefolia*, may also be here, but was not collected at either site. (S, D, W)

*Vitis riparia* Michx. [Misidentified as *V. palmata* and *V. vulpina* in OBC.] Riverbank grape. Common in woodlands at both sites. (S, D, W)

#### B. LILIOPSIDA

##### Alismataceae

*Alisma subcordatum* Raf. Water plantain. Common in the Marsh and other floodplain wet areas at FF; one non-flowering specimen found in pondlike area of Rock Creek at NW tentatively assigned to this species. (S, W)

*Alisma triviale* Pursh. Water plantain. Common in marsh and other floodplain wet areas at FF. (S)

- Echinodorus rostratus* (Nutt.) Engelm. [Misidentified as *E. cordifolius* in OBC.] Burhead. FF voucher from July, 1959, at edge of floodplain pond. Since abundance is erratic from year to year, it may have been overlooked recently. (S)
- Sagittaria cuneata* Sheld. Arrowhead. Uncommon at FF at the east end of the marsh. (S)
- Sagittaria latifolia* Willd. Arrowhead. Common emergent in shallow wet areas of the floodplain at FF. (S)

#### Araceae

- Arisaema triphyllum* (L.) Schott. Jack-in-the-pulpit. Common in the floodplain forest, less common in the uplands at FF; uncommon on wooded slopes near Rock Creek at NW. (S, W)

#### Commelinaceae

- Commelina communis* L. Dayflower. Uncommon in ravines and moist areas at both sites. Naturalized. (S, D, W\*)
- Tradescantia bracteata* Small. Spiderwort. FF voucher from June, 1960, along a sunny railroad embankment. Typically found in moist prairies, but there are no recent collections. Uncommon in Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)

#### Cyperaceae

- Carex amphibola* Steud. var. *turgida* Fern. Ambiguous sedge. Common in wet woodlands at both sites. (S, D, W\*)
- Carex aquatilis* Wahl. var. *altior* (Rydb.) Fern. Aquatic sedge. Uncommon in wet areas at FF. (S)
- Carex artecta* Mack. Covered sedge. Common in upland woods at both sites. (S, D, W)
- Carex blanda* Dewey. Woodland sedge. [Misidentified as *C. grisea* in OBC.] Common in woodlands at both sites. (S, D, W)
- Carex brevior* (Dewey) Mack. Shorter sedge. Common on floodplain and along roadsides at FF; common in fields in NW. (S, D)
- Carex cephalophora* Willd. Woodbark sedge. Common in woodlands at both sites. (S, D, W\*)
- Carex comosa* F. Boott. Bearded sedge. Uncommon in wet meadows at FF. (S\*)
- Carex convoluta* Mack. Convoluted sedge. Common in woodlands at both sites. (S, D, W)
- Carex crawei* Dew. Crawe's sedge. Uncommon in Millard Prairie transplant at NW. Planted-NW. (D)
- Carex cristatella* Britt. [Misidentified as *C. scoparia* in OBC.] Small-crested sedge. Common in woodlands and wet areas at FF; less common in woodlands at NW. (S\*, W\*)
- Carex davisii* Schwein. & Torr. Davis sedge. Common in wooded areas at both sites. (S, W\*)
- Carex grivida* Bailey var. *grivida*. Heavy sedge. Common in woodlands and edges at both sites. (S, D)
- Carex hitchcockiana* Dew. Hitchcock's sedge. Common in upland woodlands at both sites. (S\*, D\*, W\*)
- Carex hystericina* Muhl. ex Willd. Porcupine sedge. Uncommon on floodplain at FF. (S\*)
- Carex jamesii* Schwein. James' sedge. Common in woodlands at NW; probably overlooked at FF. (D\*, W\*)
- Carex lacustris* Willd. Lake sedge. [Misidentified as *C. scoparia* in OBC.] Uncommon in wet areas at FF. (S)
- Carex laeviconica* Dewey. Smoothcone sedge. Common in wet areas at FF. (S)
- Carex lanuginosa* Michx. Woolly sedge. Uncommon in wet areas at FF. (S)
- Carex meadii* Dew. Mead's sedge. FF voucher from May, 1958, on a dry hillside near entrance. Typically a prairie species; there are no recent collections. (S)
- Carex molesta* Mack. Troublesome sedge. Uncommon in woodlands and wet areas at both sites. (S, D, W)
- Carex oligocarpa* Willd. Few-fruited sedge. Common in woodlands at both sites. (S, D\*)
- Carex sparganioides* Willd. Bur sedge. Common in woodlands at NW; probably overlooked at FF. (D, W\*)
- Carex sprengei* Dew. ex Spreng. Long-beaked sedge. Abundant in woodlands at both sites. (S, D, W)
- Carex stipata* Muhl. Saw-beaked sedge. Uncommon in wet woodlands at FF. (S)

- Carex tenera* Dew. Slender sedge. Uncommon woodland sedge at NW; probably overlooked at FF. (D\*, W\*)
- Carex vulpinoidea* Michx. Fox sedge. Common on floodplain near wet areas at FF. (S)
- Cyperus erythrorhizos* Muhl. Redrooted sedge. Uncommon on flood plain, near edge of Marsh and Hidden Lake at FF. (S)
- Cyperus esculentus* L. Yellow nutsedge. Common on floodplain and disturbed areas at FF; uncommon in disturbed ground near Rock Creek pond at NW. (S, W)
- Cyperus odoratus* L. Fragrant sedge. Uncommon at edge of Marsh at FF. (S)
- Cyperus rivularis* Kunth. [Misidentified as *C. diandrus* in OBC.] Brook flatsedge. FF voucher from Aug., 1960, at edge of oxbow lake in forest. No recent collections. (S)
- Cyperus strigosus* L. False nutgrass. Uncommon at edges of Marsh and other wet areas at FF. (S)
- Eleocharis erythropoda* Steud. Spikerush. Uncommon in wet meadows at both sites. (S, W\*)
- Scirpus acutus* Muhl. Hardstem bulrush. Common in the Marsh and other wet areas at FF. (S\*)
- Scirpus atrovirens* Willd. Darkgreen bulrush. Common in the Marsh and other wet areas at FF; less common along Rock Creek at NW. (S, W\*)
- Scirpus fluviatilis* (Torr.) Gray. River bulrush. Common in wet areas at FF. (S)
- Scirpus validus* Vahl. Softstem bulrush. Common in the Marsh and other wet areas at FF. (S)

#### Iridaceae

- Iris virginica* L. var. *shrevei* (Small) Anderson. [Misidentified as *I. versicolor* in OBC.] Blue flag. Uncommon in wet areas of the floodplain at FF, along the railroad tracks and the edges of the Marsh. (S)
- Sisyrinchium montanum* Greene. Blue-eyed grass. Rare on one shrubby east-facing slope at NW. (W\*)

#### Juncaceae

- Juncus dudleyi* Wieg. Dudley rush. Uncommon in wet areas near railroad tracks at FF. (S)
- Juncus interior* Wieg. Inland rush. Common in ravines and wet areas at both sites. (S\*, W\*)
- Juncus tenuis* Willd. Path rush. Uncommon along ravine trails and other moist areas at both sites. (S, D)
- Juncus torreyi* Cov. Torrey's rush. Uncommon along the Missouri River edge at FF. (S)

#### Lemnaceae

- Lemna minor* L. Lesser duckweed. Abundant on the Marsh, in creeks, and in wet ditches at both sites. (S, W\*)
- Lemna trisulca* L. Star duckweed. Uncommon submersed aquatic in the Marsh and Hidden Lake at FF. (S)
- Spirodela polyrrhiza* (L.) Schleid. Greater duckweed. Common in the Marsh and Hidden Lake at FF. (S)
- Wolffia borealis* (Engelm.) Landolt. Watermeal. Common in the Marsh and in Hidden Lake at FF. (S)
- Wolffia columbiana* Karst. Watermeal. Common in the Marsh and in Hidden Lake at FF. (S\*)

#### Liliaceae

- Allium sativum* L. Garlic. † FF voucher from July, 1960, on Missouri River lowlands. No recent collections. Naturalized. (S)
- Allium tricoccum* Soland. Wild leek. Locally common at NW, especially along terrace south of Rock Creek. On the western edge of its range, this species is only known for Douglas and Washington counties in Nebraska. (D, W)
- Asparagus officinalis* L. Wild asparagus. Uncommon in margins of woods or sunny disturbed areas at FF; uncommon in brome fields and woodland edges at NW. Naturalized. (S, D, W)
- Convallaria majalis* L. Lily-of-the-valley. Uncommon at FF, near May apple population off Childs Hollow. Planted-FF. (S)
- Erythronium albidum* Nutt. White fawn-lily. Common in upland woods at FF; uncommon in wooded ravines at NW. (S, W\*)
- Hemerocallis fulva* L. Day lily. Uncommon along railroad tracks and near the hermit's site at FF. Planted-FF. (S\*)

- Lilium canadense* L. [*L. michiganense* of OBC.] Turk's-cap lily. FF voucher from July, 1953, at edge of woods near old schoolhouse. Rare reports in recent years along railroad tracks, but no collections. Uncommon in woodlands at NW, but not flowering there. (S, W)
- Polygonatum biflorum* (Walt.) Ell. [*P. canaliculatum* of OBC.] Solomon's seal. Common in woodlands at both sites. (S, D, W)
- Scilla sibirica* Haw. Siberian squill. Locally common near the hermit's site at the south end of FF. Planted-FF. (S)
- Smilacina racemosa* (L.) Desf. False Solomon's seal. Common in woodlands at both sites. (S, D, W)
- Smilacina stellata* (L.) Desf. Starry Solomon's seal. Uncommon on floodplain at FF; uncommon along Rock Creek at NW. (S, W)
- Trillium erectum* L.† Purple trillium. FF voucher from May, 1951, off lowlands. Far out of range and not recently relocated, so assumed not to be persisting. Planted-FF. (S)
- Trillium grandiflorum* (Michx.) Salisb.† Large-flowered trillium. Although far out of range, a population persists on the floodplain at FF. Planted-FF. (S\*)

#### Najadaceae

- Najas guadalupensis* (Spreng.) Magnus. Naiad. Uncommon but easily overlooked in the marsh at FF. (S\*)

#### Orchidaceae

- Corallorhiza odontorhiza* (Willd.) Nutt. Late coralroot. Common in early successional woodland hilltops at both sites. (S, W)
- Cypripedium calceolus* L. var. *pubescens* (Willd.) Correll. Yellow lady's-slipper. Persisting at several places in FF from unauthorized plantings made in 1985 of plants collected from the wild in Doniphan County, Kansas. No voucher specimen has been made, but numerous photographs have been taken. This species was collected "near Bellevue" in 1888 (voucher specimens are in the University of Nebraska-Lincoln herbarium), but has not been reported in Sarpy County since then. Planted-FF. (S)
- Galearis spectabilis* (L.) Raf. [*Orchis spectabilis* of OBC.] Showy orchis. Uncommon on the floodplain and near the base of the upland in moist soil at FF; common in early successional woodland hilltops, uncommon on slopes and ravines at NW. (S, D\*, W\*)

#### Poaceae

- Agropyron cristatum* (L.) Gaertn. Crested wheatgrass. FF voucher from July, 1953, along railroad embankment near Gifford Road. No recent collections. Naturalized. (S)
- Agropyron intermedium* (Host) Beauv. var. *intermedium*. Intermediate wheatgrass. A sporadically-occurring grass, collected on the edge of the lower trail in the Knull Prairie restoration. Naturalized. (D)
- Agropyron repens* (L.) Beauv. Quackgrass. Common along roadsides and railroad tracks at both sites. Naturalized. (S, W\*)
- Agropyron smithii* Rydb. Western wheatgrass. FF voucher from June, 1952, along sunny path near entrance. No recent collections, but possible along roadsides or railroads. (S)
- Agrostis stolonifera* L. [*A. alba* of OBC.] Redtop. Common in low, moist ground at FF, along the railroad tracks. Naturalized. (S)
- Alopecurus pratensis* L. Meadow foxtail. Uncommon along railroad tracks at FF. Naturalized. (S)
- Andropogon gerardii* Vitman. Big bluestem. Common along the railroad tracks and planted at the south end field at FF; uncommon in Knull Prairie restoration at NW. Planted at both sites and native-FF. (S, D)
- Andropogon scoparius* Michx. Little bluestem. Common in south end field at FF; common in Knull Prairie restoration at NW. Planted at both sites. (S, D)
- Aristida oligantha* Michx. Prairie three-awn. FF voucher from Sept., 1953. No recent collections, but likely in dry, sandy waste ground. (S)
- Avena fatua* var. *sativa* (L.) Hausskn. Cultivated oats. Uncommon along railroad tracks at FF. Waif. (S)
- Bouteloua curtipendula* (Michx.) Torr. Side-oats grama. FF vouchers from Aug., 1952, and July, 1964, along the railroad tracks. No recent collections. Common in upper section of Knull Prairie restoration at NW. Native-FF and planted-NW. (S, D)
- Bouteloua gracilis* (H.B.K.) Lag. ex Griffiths. Blue grama. Uncommon in Knull prairie restoration at NW. Planted-NW. (D)
- Brachyelytrum erectum* (Schreb.) Beauv. Erect brachyelytrum. Uncommon woodland grass at FF. (S)
- Bromus ciliatus* L. Fringed brome. FF voucher from July, 1953, at edge of woodland in moist soil. No recent collections; plant has a scattered distribution. (S)
- Bromus inermis* Leyss. ssp. *inermis*. Smooth brome. Uncommon along railroad tracks, common in the south end field at FF; abundant in open fields at NW. Naturalized at both sites, and probably also planted at NW. (S, D, W)
- Bromus japonicus* Thunb. ex Murr. Japanese brome. Common along roadsides and railroad at both sites. Naturalized. (S, W\*)
- Bromus latiglumis* (Scribn. ex Shear) Hitchc. Broad-glumed brome. Uncommon in woodlands at both sites. (S, D, W\*)
- Bromus pubescens* Muhl. ex Willd. Canada brome. Uncommon in woodlands at both sites. (S, D, W)
- Bromus tectorum* L. Downy brome. Uncommon along the railroad tracks at FF. Naturalized. (S)
- Buchloë dactyloides* (Nutt.) Engelm. Buffalo grass. Uncommon in Knull Prairie restoration at NW, on hilltop and lower trail. Planted-NW. (D)
- Calamagrostis canadensis* (Michx.) Beauv. Bluejoint. FF voucher is from Aug., 1961, in wet soil near railroad tracks. No recent collections, but likely. (S)
- Cenchrus longispinus* (Hack.) Fern. [*C. pauciflorus* of OBC.] Sandbur. FF voucher from Aug., 1951, along the railroad tracks; more recently found in the camp field. (S)
- Cinna arundinacea* L. Woodreed. Common on the floodplain and in moist woods at both sides. (S, W)
- Dactylis glomerata* L. Orchard grass. Common in disturbed woodlands, fields and roadsides at both sites. Naturalized. (S, D, W\*)
- Diarrhena americana* Beauv. var. *obovata* Gl. American beakgrass. Common in woodlands at both sites. (S, W\*)
- Dichanthelium oligosanthes* (Schult.) Gould var. *scribnerianum* (Nash) Gould. [*Panicum scribnerianum* of OBC.] Scribner dichanthelium. Common in brome fields and young woodlands at both sites; also in prairie restorations at NW. Native at both sites and also planted-NW. (S, D, W)
- Digitaria ciliaris* (Retz.) Koel. Southern crabgrass. Common in disturbed ground at both sites. Naturalized. (S, D)
- Digitaria ischaemum* (Schreb. ex Schweigg.) Schreb. ex Muhl. Smooth Crabgrass. Common in disturbed ground at both sites. Naturalized. (S, D)
- Digitaria sanguinalis* (L.) Scop. Hairy crabgrass. Common in disturbed ground at FF; likely at NW. Naturalized. (S)
- Echinochloa crusgalli* (L.) Beauv. Barnyard grass. Common in disturbed soil and roadsides at both sites. Naturalized. (S, D, W)
- Echinochloa muricata* (Beauv.) Fern var. *microstachya* Wieg. Barnyard grass. FF voucher from Sept., 1949. No recent collections, but likely in moist, waste ground. (S)
- Echinochloa muricata* (Beauv.) Fern var. *muricata*. Barnyard grass. FF voucher from Sept., 1974. No recent collections, but likely in moist, waste ground. (S\*)
- Eleusine indica* (L.) Gaertn. Goosegrass. Common along roadsides and in disturbed ground at both sides. (S, W\*)
- Elymus canadensis* L. Canada wild rye. Uncommon in open areas at both sites, also uncommon in Knull Prairie restoration at NW. Native at both sites and also planted-NW. (S, D, W)
- Elymus villosus* Muhl. Slender wild rye. Common in woodlands or edges at both sites. (S, W)
- Elymus virginicus* L. var. *virginicus*. Virginia wild rye. Common in woodlands, bottomlands, and edges at FF; likely at NW. (S)
- Eragrostis cilianensis* (All.) E. Mosher. [*E. megastachya* of OBC.] Stinkgrass. Common on disturbed soil at both sites. Naturalized. (S, D)
- Eragrostis hypnoides* (Lam.) B.S.P. Teal lovegrass. Common on floodplain, especially near Missouri River at FF. (S)
- Eragrostis pectinacea* (Michx.) Nees. Carolina lovegrass. Common along roadsides at NW; likely at FF, but no collections. (W)
- Eragrostis spectabilis* (Pursh) Steud. Purple lovegrass. FF voucher from Sept., 1949, in full sun. No recent collections, but likely. (S)
- Eragrostis trichodes* (Nutt.) Wood. Sand lovegrass. FF voucher from Aug., 1961, in open woods. No recent collections, but possible on sandy soils. (S)
- Festuca arundinacea* Schreb. Tall fescue. Common along roadsides and in ditches at both sites. Naturalized. (S, W)
- Festuca obtusa* Biehler. Nodding fescue. Common in woodlands at both sites. (S, D, W)
- Glyceria striata* (Lam.) Hitchc. Fowl mannagrass. Common in wet areas along creeks at both sites. (S, W\*)

- Hordeum jubatum* L. Foxtail barley. Common along roadsides and waste ground at both sites. (S)
- Hordeum pusillum* L. Little barley. Common in waste ground at both sites. (S)
- Hystrix patula* Moench. Bottlebrush. Common in woodlands at both sites. (S, D, W)
- Koeleria pyramidata* (Lam.) Beauv. [*K. cristata* of OBC.] Junegrass. FF voucher from May, 1953, at edge of woods. No recent collections. (S)
- Leersia oryzoides* (L.) Sw. Rice cutgrass. Uncommon along the Marsh and streams at FF. (S)
- Leersia virginica* Willd. Whitegrass. Common in moist ground at both sites. (S, W)
- Leptochloa fascicularis* (Lam.) A. Gray. Bearded sprangletop. Uncommon along Gifford Road and railroad tracks at FF. (S\*)
- Lolium perenne* L. var. *aristatum* Willd. Italian ryegrass. Uncommon along roadsides and waste areas at FF. One voucher specimen has an abnormal panicle, and is possibly a hybrid with *Festuca arundinacea*. Naturalized. (S\*)
- Lolium perenne* L. var. *perenne*. Perennial ryegrass. Uncommon along roadsides, waste areas, and trailsides at both sites. Naturalized. (S, D)
- Muhlenbergia bushii* R. Pohl. Bush's muhly. Common in wooded areas and edges at both sites. (S\*, W\*)
- Muhlenbergia frondosa* (Poir.) Fern. Wirestem muhly. Common in woodlands and edges at FF. (S)
- Muhlenbergia mexicana* (L.) Trin. Wirestem muhly. Common in woodlands at both sites. (S, D, W)
- Muhlenbergia racemosa* (Michx.) B.S.P. Marsh muhly. Common in woods, fields and disturbed areas at both sites. (S, W)
- Muhlenbergia schreberi* J. F. Gmel. Nimblewill. Common in moist woods at both sites. (S, W)
- Muhlenbergia sylvatica* (Torr.) Torr. Forest muhly. Uncommon in upland woodlands at FF. (S)
- Muhlenbergia tenuiflora* (Willd.) B.S.P. Slender muhly. Rare in upland woods at FF, at the extreme western edge of its range. (S)
- Oryzopsis racemosa* (Smith) Ricker. † Black-seed ricegrass. Uncommon on wooded slopes at both sites. (S, W\*)
- Panicum capillare* L. Witchgrass. Common in disturbed ground at both sites. (S, D, W)
- Panicum dichotomiflorum* Michx. Fall panicum. Common in wet areas along the railroad tracks at FF. (S)
- Panicum miliaceum* Walt. Broom-corn millet. Uncommon along the railroad tracks at FF. Naturalized. (S)
- Panicum virgatum* L. Switchgrass. Uncommon in wet areas along the railroad tracks and in the south end field at FF; common in the Knull Prairie restoration at NW. Native-FF and also planted at both sites. (S, D)
- Phalaris arundinacea* L. Reed canary grass. Common around the Marsh and in moist ravines at both sites. (S, D, W)
- Phleum pratense* L. Timothy. Uncommon along roadsides and in fields at both sites. Naturalized. (S, W\*)
- Phragmites australis* (Cav.) Trin. ex Steud. Common reed. Common along the Marsh and wet areas near the railroad tracks at FF. (S)
- Poa annua* L. Annual bluegrass. Uncommon in ravine trails at FF. Naturalized. (S)
- Poa compressa* L. Canada bluegrass. Uncommon along tracks at FF; uncommon on shaded slopes at NW. Naturalized. (S, W\*)
- Poa palustris* L. Fowl bluegrass. Uncommon in wet areas along the railroad tracks. Naturalized. (S\*)
- Poa pratensis* L. Kentucky bluegrass. Common in a variety of habitats at both sites. Both native and naturalized. (S, D, W)
- Poa sylvestris* A. Gray. Woodland bluegrass. Uncommon in rich woodlands at FF. (S)
- Poa trivialis* L. † Rough bluegrass. Uncommon in wet areas along railroad tracks at FF. Naturalized. (S)
- Secale cereale* L. Rye. Uncommon along railroad tracks at FF. Waif. (S)
- Setaria faberi* Herrm. Chinese foxtail. Common along roadsides and in fields at both sites. Naturalized. (S, W\*)
- Setaria glauca* (L.) Beauv. Yellow foxtail. Common in disturbed ground at both sites. Naturalized. (S, D)
- Setaria verticillata* (L.) Beauv. Bristly foxtail. Uncommon in disturbed areas at FF. Naturalized. (S)
- Setaria viridis* (L.) Beauv. [Misidentified as *S. italica* in OBC.] Green foxtail. Common in disturbed ground at both sites. Naturalized. (S, W)
- Sorghastrum nutans* (L.) Nash. Indian grass. Uncommon along the railroad tracks and in the south end field at FF; common in the Knull Prairie restoration as well as on Hilltop Trail opening at NW. Native-FF and planted at both sites. (S, D, W)
- Sorghum bicolor* (L.) Moench. Cultivated sorghum. Uncommon along the railroad tracks at FF. Waif. (S)
- Sorghum halepense* (L.) Pers. Johnson grass. Uncommon along the railroad tracks and farm fencelines at FF. Naturalized. (S)
- Spartina pectinata* Link. Slough grass. Uncommon in wet areas at FF; rare at the bottom of Jonas Valley at NW. (S, D)
- Sphenopholis obtusata* (Michx.) Scribn. var. *major* (Torr.) Erdm. Slender wedgegrass. Uncommon in wet woodlands at both sites. (S\*, W\*)
- Sphenopholis obtusata* (Michx.) Scribn. var. *obtusata*. Prairie wedgegrass. Uncommon in fields at NW. (W\*)
- Sporobolus asper* (Michx.) Scribn. var. *asper*. Rough dropseed. FF voucher from Oct., 1950, in shady moist soil. No recent collections, but likely. (S)
- Sporobolus vaginiflorus* (Torr. ex Gray) Wood. Poverty grass. FF voucher from Sept., 1953, on path toward Camp Brewster. No recent collections, but possible in disturbed habitats. (S)
- Stipa spartea* Trin. Porcupine grass. FF voucher from June, 1955, in open sunny area. No recent collections. (S)
- Tridens flavus* (L.) Hitchc. Redtop. Uncommon in field at south end of FF; uncommon in brome fields at NW. (S, W\*)
- Triticum aestivum* L. Wheat. Uncommon along the railroad tracks at FF. Waif. (S)
- Zea mays* L. Corn. Uncommon along the railroad tracks at FF and roadside at NW. Waif. (S, W)
- Zizania aquatica* L. Wild rice. Uncommon in Marsh and wet areas at FF. (S)

#### Potamogetonaceae

- Potamogeton filiformis* Pers. Slender pondweed. Common in the Marsh and Hidden Lake at FF. (S\*)
- Potamogeton foliosus* Pers. Slender pondweed. Common in the Marsh and Hidden Lake at FF. (S)
- Potamogeton natans* L. Floating-leaved pondweed. FF voucher from Aug., 1959 in lowland pond. No recent collections. (S)
- Potamogeton nodosus* Poir. Longleaf pondweed. Uncommon in Hidden Lake at FF. (S\*)
- Potamogeton pectinatus* L. Sago pondweed. Common in the Marsh and Hidden Lake at FF. (S\*)

#### Smilacaceae

- Smilax herbacea* L. var. *lasioneuron* (Small) Rydb. Carrion flower. Common in woodlands at both sites. (S, D, W)
- Smilax hispida* Muhl. [*S. tamnoides hispida* of OBC.] Greenbrier. Common in woodlands and edges at both sites. (S, D, W)

#### Sparganiaceae

- Sparganium eurycarpum* Engelm. Bur-reed. Uncommon emergent of the Marsh and other quiet waters at FF. (S)

#### Typhaceae

- Typha angustifolia* L. Narrow-leaved cat-tail. Uncommon along the railroad track ditches at FF. (S)
- Typha latifolia* L. Broad-leaved cat-tail. Uncommon along the railroad track ditches at FF. (S)

NOTE: Both species of *Typha* hybridize, producing the intermediate *T. × glauca*. In addition, a third species, *T. domingensis*, is possible for this area. It not only hybridizes with both species separately, but trihybrids may be expected (Great Plains Flora Association, 1986).

#### Zannichelliaceae

- Zannichellia palustris* L. Horned pondweed. Uncommon, but easily overlooked in the stream north of Gifford Road at FF. (S\*)

### Excluded Species

In addition to some misidentifications noted above in the checklist, the Omaha Botany Club publication (1959) included some species for which there exists no voucher or for which the identification or label information is doubtful. These are listed in Table V.

TABLE V. Species reported by Omaha Botany Club (1959) for Fontenelle Forest, but excluded in this study because no voucher exists or because voucher is doubtful.

<i>Species</i>	<i>Reason for Exclusion</i>
<i>Allium canadense</i>	No voucher
<i>Arisaema dracontium</i>	An OBC voucher specimen of <i>A. dracontium</i> was collected in June, 1959. Its label suggests it came from a large colony in a nearly-inaccessible ravine off Mormon Hollow. Extensive searches in ravines off this Hollow have not resulted in any recent collections. That, and the fact that the herbarium label was obviously altered, leads to some doubt that this is a legitimate Fontenelle Forest specimen.
<i>Carex pensylvanica</i>	No voucher
<i>Carex trisperma</i>	No voucher
<i>Carya laciniosa</i>	Voucher specimen not from Fontenelle Forest
<i>Cyperus filiculmus [sic]</i>	No voucher
<i>Eleocharis acicularis</i>	No voucher
<i>Juglans cinera [sic]</i>	Two of the three OBC vouchers are not from Fontenelle Forest but from Mount Vernon Gardens. The third voucher has doubtful label data.
<i>Nuphar advena</i>	No voucher
<i>Quercus coccinea</i>	Voucher not from Fontenelle Forest
<i>Quercus velutina</i>	Voucher specimen has questionable label data. In addition, the specimen has no fruit and is not identifiable with certainty.

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