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The Williams Prairie: A Prairie Relict in Johnson County

PAUL D. SORENSEN¹

Abstract. During the growing seasons of 1960 and 1961 several collections of the vascular plants of the Williams Prairie in Johnson County, Iowa were made. A list of the species is provided along with a statistical summary of the flora. Other aspects of the biology of the prairie are discussed.

INTRODUCTION

My purpose in preparing this paper is to report on the vascular plants of a prairie relict in Johnson County—one which holds a special interest for the biology students of the University of Iowa due to its proximity to Iowa City. The Williams Prairie, so named after its owner Mr. John J. Williams, is located only 16 miles from the university, which makes it much more accessible for scientific investigation than are the large, state-owned prairie preserves of Howard, Dickinson, and Pocahontas Counties. The classes in Plant Taxonomy at the University of Iowa have long needed an original prairie tract where native species can be observed in an undisturbed environment. In previous years these classes have had to be content with visiting the depauperate tracts which survive along railroad rights-of-way and along highways. These small tracts, while useful as refuges for native species threatened with extinction, are of such size that they are of little use for botanical investigation. The Williams Prairie, on the other hand, measures some thirty acres, a size quite suitable for scientific work of various sorts.

BACKGROUND

The Williams Prairie was first brought to the attention of the Department of Botany early in 1960 when Mr. Thomas Morissey proposed it as a site for future field trips. Dr. Thomas Hartley, an instructor of the class in Field Botany, conducted two trips there that summer. As a member of the class, I decided, on Dr. Hartley's suggestion, to make a study of its flora. Mr. Williams, the owner, was very cordial. He gave blanket permission for scientific investigations on his prairie, and he also gave some details of the area. Mr. Williams first moved to Johnson County in 1901. At that time he purchased the land on which he presently resides. Ten years later he bought from a Mr. Hefner the forty acre plot which included the prairie. His plan was to use the prairie as a wild hay field, but lately 10 acres of the upper

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portion was turned and cultivated for regular crops. He assures me that the remaining thirty acres have not been plowed. Presently, Mr. Williams rents the prairie to a neighbor, who harvests its wild hay. For the last few years it has been regularly mowed for that purpose.

In 1960 when Dr. Hartley first visited the prairie with his class, he was very enthusiastic about the number of "rare or otherwise noteworthy species" that occurred there. Later he mentioned the prairie to Dr. G. W. Martin who wrote to the Secretary of the Iowa Conservation Commission about the possibility of establishing the prairie as a preserve. Dr. Martin's letter was acknowledged by Raymond R. Mitchell, Superintendent of Parks. In his letter Mr. Mitchell assured Dr. Martin that the commission would look into the matter. He also stated that many of the rare species mentioned by Dr. Martin as occurring in the Williams Prairie could be found surviving on other of the publicly-owned prairies. Apparently no further progress has been made toward conservation of the tract, but on a recent visit with Mr. Williams I asked him if he would sell his prairie. He said no. His plans are to leave it to his daughter, who presently lives in Arkansas. Thus, as long as he is the owner, the prairie will likely remain as it is.

LOCATION, AREA, AND TOPOGRAPHY

The Williams Prairie is located in the SE $\frac{1}{4}$ Section 5, Oxford Township, Johnson County, Iowa, about two and one-half miles NNW of Oxford, Iowa. Most of section 5 lies between the Iowa River, a mile to the north, and a ridge of low, loess-laden hills on the south. The prairie lies in one of the southern extensions of the Iowan glacial lobe and is situated in the center of a broad, undrained depression characteristic of several such locations in the vicinity. The elevation of the hills to the south is 840 feet while the highest elevation in the prairie is 740 feet. The 740 foot line runs through the SW corner of the prairie. If a line were drawn between this corner and the NE corner, the lowest point (which I estimate to be 737 feet) would be met about half way. From this low point and continuing northeast, there is a slight rise, after which the elevation dips again to near the 737 foot mark. The profile is nearly the same on a line drawn between the other two corners. The prairie thus is in the shape of a bowl with a few slight dips and rises. The whole tract, except the zone bordering the fence, is moist. In the low spots there is actually water standing well into mid-summer in normal years. In dry years, as during the summer of 1960, these moist places dry up. Along the east side a few small pools attain a depth of a few inches. These do not support any vascular plants but are usually choked with an algal bloom. At some time in the

past an attempt was made to drain the prairie by digging a ditch in the NE corner. The attempt succeeded in draining a small portion of the tract. Here the water originally must have attained a depth of six inches or more since there remain a few characteristic sedge hummocks which form along muddy pond margins.

The soil of the prairie is mainly loessial Knox sand. This sand is quite deep in some places and thin in others. Beneath it is an impervious layer of clay gumbo til of Kansan origin, which presumably accounts for the poor drainage. The presence of Knox sand in this locality is of particular interest as this soil type comprises less than 1.5% of the county area. The relative scarcity of this sand has its corresponding effect in the number and kinds of rare species of plants growing in the region.

THE VEGETATION

It is only in the broad sense that one may term this tract a prairie. It might more appropriately be named a "meadow" or a "sedge meadow." Of the grass-like plants which are found, the sedges of the genus *Carex* are clearly dominant. The presence or absence of moisture appears to be the controlling factor, for the prairie ranges from quite dry, sandy knolls to wet, bowl-shaped swales, and the dominants shift accordingly. But in this regard, there are a few anomalies. An example would be the Little Bluestem, *Andropogon scoparius*. This grass is most typical of drier prairies where it grows to good size. In the Williams Prairie it does not appear to be so selective. I have noted it in a dense sedge-swale as well as along the rims of the drier knolls. *Rudbeckia serotina* behaves in a similar manner.

No large woody plants have grown up in the prairie. A thicket of the Wild Plum, *Prunus americana*, has become established at the east end; a few Cottonwoods, *Populus deltoides*, rim the north edge. Along the fence adjacent to the road, a few individuals of *Rhus glabra*, *Cornus drummondii*, *Ulmus rubra*, and *Gleditsia triacanthos* have grown up. But in the prairie itself, the only woody plant that is well-established is *Salix gracilis*, one of the prairie willows.

Of the forbs, five are especially noteworthy. The most conspicuous is the Bunchflower, *Melanthium virginicum*. This tall member of the Liliaceae develops an enormous, off-white inflorescence in the early half of July. This is the only station in the county for this species. The Turk's Cap Lily, *Lilium michiganense*, blooms just a little later. It produces a large, multi-flowered umbel. The petals are deep red and because of their great abundance are very striking. Coming into bloom about the same time as the *Melanthium* is the Prairie Fringed Orchid, *Habenaria leucophaea*. This species is fairly inconspicuous among

the taller sedges and forbs. It must require considerable soil moisture, for during the dry season of 1961 it did not appear.

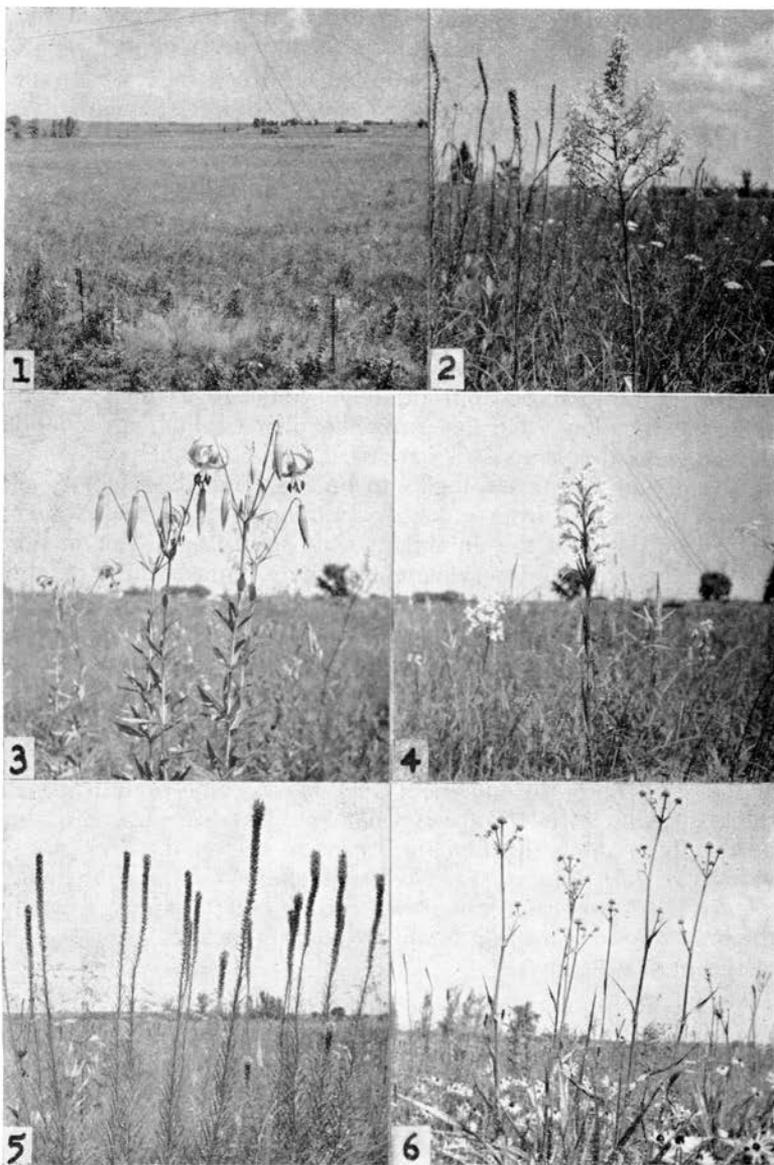


Figure 1. The Williams Prairie looking NE.
 Figure 2. The Bunchflower, *Melanthium virginicum*.
 Figure 3. The Turk's Cap Lily, *Lilium michiganense*.
 Figure 4. The Prairie Fringed Orchid, *Habenaria leucophaea*.
 Figure 5. The Blazing Star, *Liatriis pycnostachya*.

Figure 6. *Yucca filamentosa* var. *glauca* *yuccifolium*. (Courtesy Dr. T. G. Hartley.)

It is not known elsewhere in the county. Later in the summer, with numerous other members of the Aster family, the Blazing Star, *Liatris pycnostachya*, comes into bloom. This species forms a very large population and appears to do as well in dry years as in the wet. Until recently, the Williams Prairie was the only known station in the county for it, but it is now known from a small prairie remnant south of Iowa City. Last to bloom in the Autumn is the Bottled Gentian, *Gentiana andrewsii*. This species also is extremely rare in this region, but in the Williams Prairie it is rather abundant.

In addition to those species listed above, the following are considered rare or perhaps extinct in the county by Thorne (1955):

<i>Aster umbellatus</i>	<i>Juncus dudleyi</i>
<i>Cacalia tuberosa</i>	† <i>Lotus corniculata</i>
<i>Campanula aparinoides</i>	<i>Ludwigia alternifolia</i>
<i>Carex buxbaumii</i>	<i>Oxyopsis rigidior</i>
<i>Carex conoidea</i>	<i>Pedicularis lanceolata</i>
<i>Carex meadii</i>	<i>Phalaris canariensis</i>
† <i>Carex prarisa</i>	<i>Phlox maculata</i>
<i>Eleocharis compressa</i>	<i>Salix gracilis</i>
<i>Festuca elatior</i>	† <i>Vicia americana</i>
† <i>Festuca paradoxa</i>	<i>Viola nephrophylla</i>
<i>Hypericum majus</i>	† <i>Viola pedatifida</i> x <i>V. nephrophylla</i>

(†) Indicates previously unreported from Johnson County.

The vascular plants are the principle object of interest in this present study, but some of the other plants should be mentioned. Mr. Gary L. Smith is studying the bryophytes. To date he has identified the following species:

<i>Amblystegium varium</i>	<i>Climacium kinbergii</i>
<i>Aulacomnium palustre</i>	<i>Drepanocladus aduncus</i>
<i>Brachythecium oxycladon</i>	<i>Mnium cuspidatum</i>
<i>Bruchid sullivantii</i>	<i>Physcomitrium pyriforme</i>

A sample of the algae taken this Spring yielded, according to Mr. Robert A. Trankle, the following genera: *Microspora*, *Oedogonium*, *Spirogyra*, *Vaucheria*, *Closterium*, *Fragillaria*, and *Navicula*.

Intimately associated with the vegetation and especially the moist character of the prairie are the birds that nest there. Mr. Fred W. Kent, well-known in Iowa City for his interest in birds, has visited the Williams Prairie because the Sedge Wren (Short-Billed Marsh Wren) and the Bobolink can be heard there. These two birds are becoming rare due to the vanishing moist prairies. Also nesting in the prairie are the Grasshopper Sparrow, Song Sparrow, Red-Winged Blackbird, Yellow-Throated Warbler, and the Meadow Lark. Sometimes present but not nesting are the Short-Eared Owl and the Marsh Hawk. One Red-Winged Blackbird built its nest in the branches of the inflorescence of *Melanthium virginicum*. This should indicate to those unfamiliar with the species the considerable size of tall forbs which grow in undisturbed prairies.

It would be inaccurate to say that the Williams Prairie has

remained completely undisturbed. I have already mentioned the mowing of the hay which, while not destroying the plant community, is, nevertheless, a form of disturbance. It is sometimes necessary to mow when the soil is quite wet. At such times the heavy machinery makes deep furrows in the turf. The sod must be extremely tough to bear such abuse. Weeds might be expected to invade these furrows, but there is no evidence of such invasion. The only "weedy" part of the prairie is near the center where some years ago there was a hay stack. Here the Giant Ragweed, *Ambrosia trifida*, grows. In both the east and west ends, the Pocket Gopher, *Geomys bursarius*, has become numerous. Their mounds offer open ground where weeds gain a foothold. Grazing by cattle is the most serious form of disturbance. They trample underfoot much more than they destroy in eating. The moist sod allows their hoofs to penetrate the turf more destructively than the wheels of the mowing machinery. Fortunately, grazing has been light in the past. So far, the only effects of grazing have been noted in the west end along the fence where *Phleum pratense* is abundant. As pasture, this appears to be more desirable than the coarser sedges growing in the swales.

THE FLORA OF THE WILLIAMS PRAIRIE

Three large collections were made during the Summer of 1960. That Fall, those grasses in identifiable condition were taken. An additional four collections were made in the Summer of 1961. In all these excursions an attempt was made to collect a specimen of everything in flower or fruit, although some common weeds were not collected. A set of the specimens will be on deposit in the Herbarium of the University of Iowa, Iowa City, Iowa.

In the list below, plants probably not indigenous on the prairie are preceded by an "*". It has also seemed appropriate to depart from tradition and to adopt certain names of plant families which employ the endings *-aceae*. Within the major classes, families are arranged alphabetically, as are also genera in families and species in genera.

LIST OF VASCULAR PLANTS

"Pteridophytes"

Aspidiaceae

Onoclea sensibilis L.
Thelypteris palustris Schott

Equisetaceae

Equisetum arvense L.

Monocotyledons

Alismataceae

Alisma subcordatum Raf.

Commelinaceae

Tradescantia ohiensis Raf.

Cyperaceae

Carex annectens Bickn. var. *xan-*

thocarpa (Bickn.) Wieg.

Carex brevior (Dew.) Mackn.

Carex buxbaumii Wahl.

Carex conoidea Schkuhr.

Carex haydenii Dew.

Carex lasiocarpa Ehrh.

Carex meadii Dew.

Carex prarisa Dew.

Carex sartwellii Dew.

Carex scoparia Schkuhr.

Carex stricta Lam.

Carex vulpinoidea Michx.

Cyperus esculentus L.

Eleocharis compressa Sulliv.

Sclipus atrovirens Willd.

Sclipus validus Vahl.

Hypoxidaceae*Hypoxis hirsuta* (L.) Coville**Iridaceae***Iris virginica* L. var. *shrevei*
(Small) E. Anders.**Juncaceae***Juncus dudleyi* Wieg.
Juncus tenuis Willd.**Liliaceae***Lilium michiganense* Farw.
Melanithium virginicum L.**Orchidaceae***Habenaria leucophaea* (Nutt.)
Gray**Poaceae**

- *Agropyron repens* (L.) Beauv.
- *Agrostis alba* L.
- *Agrostis hyemalis* (Walt.) BSP.
- *Andropogon gerardii* Vitman
- *Andropogon scoparius* Michx.
- *Avena sativa* L.
- *Bromus inermis* Leyss.
- *Bromus japonicus* Thunb.
- *Bromus tectorum* L.
- *Calamagrostis canadensis* (Michx.)
Nutt.
- *Cenchrus pauciflorus* Benth.
- *Dactylis glomerata* L.
- *Digitaria ischaemum* (Schreb.)
Muhl.
- *Echinochloa crusgalli* (L.) Beauv.
- *Elymus canadensis* L.
- *Elymus virginicus* L.
- *Eragrostis ciliatensis* (All.) Lut.
- *Eragrostis pectinacea* (Michx.)
Nees
- *Festuca elatior* L.
- *Festuca paradoxa* Desv.
- *Glyceria striata* (Lam.) Hitchc.
- *Hordeum jubatum* L.
- *Leersia oryzoides* (L.) Sw.
- *Panicum capillare* L.
- *Panicum dichotomiflorum* Michx.
- *Panicum implicatum* Scribn.
- *Panicum virgatum* L.
- *Phalaris canariensis* L.
- *Phleum pratense* L.
- *Poa compressa* L.
- *Poa palustris* L.
- *Poa pratensis* L.
- *Setaria faberii* Herrm.
- *Setaria lutescens* (Wieg.) F. T.
Hubb
- *Setaria viridis* (L.) Beauv.
- *Sorghastrum nutans* (L.) Nash
- *Spartina pectinata* Link
- *Sporobolus cryptandrus* (Torr.)
Gray
- *Stipa spartea* Trin.

Smilacaceae*Smilax herbacea* L.**Sparganiaceae***Sparganium eurycarpum* Engelm.**Dicotyledons****Acanthaceae***Ruellia humilis* Nutt.**Amaranthaceae**• *Amaranthus retroflexus* L.**Anacardiaceae**• *Rhus glabra* L.
• *Rhus radicans* L.**Apiaceae (Umbelliferae)**

- *Cicuta maculata* L.
- *Eryngium yuccifolium* Michx.
- *Oxypolis rigidior* (L.) C. & R.
- *Pastinaca sativa* L.
- *Santula canadensis* L.
- *Zizia aurea* (L.) W. D. J. Koch

Apocynaceae*Apocynum cannabinum* L.
Apocynum sibiricum Jacq.**Asclepiadaceae***Asclepias hirtella* (Pennell) Wood-
son*Asclepias incarnata* L.
Asclepias tuberosa L.
Asclepias verticillata L.**Asteraceae (Compositae)**

- *Achillea millefolium* L.
- *Ambrosia artemisiifolia* L.
- *Ambrosia trifida* L.
- *Antennaria neglecta* Greene
- *Anthemis cotula* L.
- *Artemisia caudata* Michx.
- *Aster novae-angliae* L.
- *Aster pilosus* Willd.
- *Aster simplex* Willd.
- *Aster umbellatus* Mill.
- *Bidens cernua* L.
- *Bidens vulgata* Greene
- *Cacalia tuberosa* Nutt.
- *Chrysanthemum leucanthemum* L.
- *Cirsium discolor* (Muhl.) Spreng.
- *Cirsium vulgare* (Savi) Airy-Shaw
- *Conyza canadensis* (L.) Cronquist
- *Echinacea pallida* Nutt.
- *Eclipta alba* (L.) Hassk.
- *Erechtites hieracifolia* (L.) Raf.
- *Erigeron annuus* (L.) Raf.
- *Erigeron strigosus* Muhl.
- *Eupatorium perfoliatum* L.
- *Gnaphalium obtusifolium* L.
- *Helenium autumnale* L.
- *Helianthus grosseserratus* Martens
- *Krigia biflora* (Walt.) Blake
- *Lactuca canadensis* L.
- *Lactuca floridana* (L.) Gaertn.
- *Lactuca scariola* L.
- *Liatis pycnostachya* Michx.
- *Matricaria matricarioides* (Less.)
Porter
- *Ratibida pinnata* (Vent.) Barnh.
- *Rudbeckia serotina* Nutt.
- *Rudbeckia subtomentosa* Pursh.
- *Senecio plattensis* Nutt.
- *Stiphium integrifolium* Michx.
- *Stiphium laciniatum* L.
- *Silphium perfoliatum* L.
- *Solidago altissima* L.
- *Solidago gigantea* Ait.
- *Solidago graminifolia* (L.) Salisb.
- *Solidago rigida* L.
- *Taraxacum erythrospermum* Andrz.
- *Taraxacum officinale* Weber
- *Tragopogon dubius* Scop.
- *Vernonia fasciculata* Michx.
- *Xanthium strumarium* L.

Boraginaceae*Lithospermum canescens* (Michx.)
Lehm.**Brassicaceae (Cruciferae)**

- *Barbarea vulgaris* R. Br.
- *Brassica nigra* (L.) Koch.
- *Capsella bursa-pastoris* (L.) Medic.
- *Cardamine bulbosa* (Scherb.) BSP.
- *Lepidium densiflorum* Schrad.
- *Lepidium virginicum* L.

Campanulaceae

- *Campanula aparinoides* Pursh
- *Lobelia siphilitica* L.
- *Lobelia spicata* Lam.
- *Triodanis perfoliata* (L.) Nieuwl.

Capparidaceae• *Polanisia graveolens* Raf.**Caprifoliaceae**

- *Sambucus canadensis* L.
- *Triosteum perfoliatum* L.

- Caryophyllaceae**
 **Lychnis alba* Mill.
 **Saponaria officinalis* L.
Silene antirrhina L.
- Chenopodiaceae**
 **Chenopodium album* L.
- Cistaceae**
Helianthemum bicknellii Fern.
- Convolvulaceae**
 **Convolvulus arvensis* L.
 **Convolvulus sepium* L.
- Cornaceae**
 **Cornus drummondii* Meyer
- Euphorbiaceae**
Euphorbia corollata L.
Euphorbia maculata L.
- Fabaceae (Leguminosae)**
Amorpha canescens Pursh
Amorpha fruticosa L.
Apios americana Medic.
Baptisia leucantha T. & G.
Cassia fasciculata Michx.
Desmodium canadense (L.) DC.
 **Gleditsia triacanthos* L.
Lathyrus palustris L.
Lespedeza capitata Michx.
 **Lotus corniculata* L.
 **Medicago sativa* L.
 **Melilotus alba* Desr.
 **Melilotus officinalis* (L.) Lam.
Strophostyles helvola (L.) Ell.
 **Trifolium hybridum* L.
 **Trifolium pratense* L.
 **Trifolium repens* L.
Vicia americana Muhl.
- Gentianaceae**
Gentiana andrewsii Griseb.
- Geraniaceae**
Geranium carolinianum L.
Geranium maculatum L.
- Hydrophyllaceae**
Ellisia nyctelea L.
- Hypericaceae (Guttiferae)**
Hypericum majus (Gray) Britt.
Hypericum mutilum L.
Hypericum sphaerocarpum Michx.
- Lamiaceae (Labiatae)**
Lycopus americanus Muhl.
Monarda fistulosa L.
 **Nepeta cataria* L.
 **Prunella vulgaris* L.
Pycnanthemum pilosum Nutt.
Pycnanthemum tenuifolium Schrad.
Pycnanthemum virginianum (L.)
 Durand & Jackson
- Lythraceae**
Lythrum alatum Pursh
- Moraceae**
 **Cannabis sativa* L.
- Nyctaginaceae**
 **Mirabilis nyctaginea* (Michx.)
 MacM.
- Oleaceae**
 **Fraxinus pennsylvanica* Marsh.
- Onagraceae**
Ludwigia alternifolia L.
Oenothera biennis L.
- Oxalidaceae**
Oxalis europaea Jord.
Oxalis violacea L.
- Penthoraceae**
Penthorum sedoides L.
- Plantaginaceae**
 **Plantago rugelii* Dcne.
- Polemoniaceae**
Phlox maculata L.
Phlox pilosa L.
- Polygalaceae**
Polygala sanguinea L.
- Polygonaceae**
 **Polygonum convolvulus* L.
 **Polygonum erectum* L.
 **Polygonum pennsylvanicum* L.
Polygonum punctatum Ell.
Polygonum sagittatum L.
Polygonum scandens L.
Polygonum tenue Michx.
 **Rumex acetosella* L.
Rumex altissimus Wood
 **Rumex crispus* L.
- Primulaceae**
Dodecatheon meadia L.
Lysimachia ciliata L.
Lysimachia quadriflora Sims
- Ranunculaceae**
Anemone canadensis L.
Anemone virginiana L.
Caltha palustris L.
Ranunculus abortivus L.
Ranunculus septentrionalis Poir.
Ranunculus septentrionidis Poir.
 var. *caricetorum* (Greene)
 Fern.
Thalictrum dasycarpum Fisch. &
 Lall.
- Rhamnaceae**
Ceanothus americanus L.
- Rosaceae**
Fragaria virginiana Duchesne
Potentilla arguta Pursh
Potentilla norvegica L.
 **Potentilla recta* L.
Potentilla simplex Michx.
Prunus americana Marsh.
 **Prunus serotina* Ehrh.
 **Pyrus ioensis* (Wood) Bailey
Rosa blanda Alt.
 **Rubus occidentalis* L.
Spiraea alba DuRoi
- Rubiaceae**
Galium aparine L.
Galium obtusum Bigel.
- Salicaceae**
 **Populus deltoides* Marsh.
Salix gracilis Anderss. var. *textoris*
 Fern.
- Santalaceae**
Comandra richardsoniana Fern.
- Saxifragaceae**
Heuchera richardsonii R. Br.
Saxifraga pennsylvanica L.
- Scrophulariaceae**
 **Chaenorrhinum minus* (L.) Lange
Gerardia tenuifolia Vahl.
Gratiola neglecta Torr.
Pedicularis lanceolata Michx.
Penstemon digitalis Nutt.
 **Verbascum thapsus* L.
Veronica peregrina L.
Veronicastrum virginicum (L.)
 Farw.
- Solanaceae**
 **Datura stramonium* L.
Physalis heterophylla Ness
Physalis longifolia Nutt.
 **Solanum carolinense* L.
 **Solanum nigrum* L.
- Ulmaceae**
 **Ulmus rubra* Muhl.
- Urticaceae**
Parietaria pennsylvanica Muhl.
- Verbenaceae**
Lippia lanceolata Michx.
Verbena hastata L.
Verbena stricta Vent.
Verbena urticifolia L.

Violaceae

Viola nephrophylla Greene
Viola pedatifida G. Don
Viola pedatifida G. Don x *V.*
nephrophylla Greene

Viola sagittata Ait.*Vitaceae*

Parthenocissus quinquefolia (L.)
 Planch.
Vitis riparia Michx.

STATISTICAL SUMMARY

A. Components of the flora of the Williams Prairie:

Major Groups	Species		Genera	
	Native	Naturalized	Native	Naturalized
"Pteridophytes"	3	0	3	0
Monocotyledons	48	18	30	9
Dicotyledons	139	58	97	40
Totals	190	76	130	49

B. Total number of families represented: 63

C. Families with 10 or more species:

Asteraceae	48	Cyperaceae	16
Poaceae	40	Rosaceae	11
Fabaceae	17	Polygonaceae	10

D. Genera represented by 4 or more species:

Carex	12	Aster	4
Polygonum	7	Potentilla	4
Panicum	5	Solidago	4
Asclepias	4		

E. Forty-eight genera are represented by 2 or more species.

These statistics become especially significant when compared with those of the county on the whole. The present totals for the county are: 114 families represented by 1013 species.

ACKNOWLEDGMENTS

I wish to acknowledge the assistance of Prof. Robert F. Thorne for his aid in the identification of troublesome taxa and for his encouragement in the preparation of this paper. Mr. Fred W. Kent has been very willing to donate his talents in the photographic work; he has also supplied information on birds. I am indebted to Mr. Thomas Morissey for first creating interest in the Williams Prairie. Dr. Thomas Hartley has contributed much toward this flora with his knowledge of plants and with his collections of specimens.

Finally, I should like to mention that a number of persons are presently engaged in biological studies of the Williams Prairie. Mrs. Diane Lewiston has made collections of the algae and is working on the desmids. Mr. William Sorensen has taken water samples to study the Saprolegniaceae; and Mr. Gary L. Smith is studying the bryophytes. Clearly, here is an easily accessible place for a great deal of experimentation and investigation. This tract of original prairie should remain as long as possible in its present state. Were it to succumb to the plow as have so many others, we will have lost an irreplaceable part of our history.

Literature Cited

Thorne, R. F. 1955. The Flora of Johnson County, Iowa. Proc. Iowa Acad. Sci. 62: 155-196.