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Inventory of select groups of arthropods
of four Mason County nature preserves

carried out by members of the
Illinois Natural History Survey
Center for Biodiversity
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Champaign, Illinois 61820-6970

Annual report for the 1997-98 fiscal year of the
Multi-State Prairie Insect Inventory
to
Wisconsin Department of Natural Resources
and
United States Fish and Wildlife Service

Illinois Natural History Survey Technical Report 1998 (19)
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Inventory of Selected Groups of Arthropods of Four Nature Preserves
in Mason Co., Illinois. July 1997- June 1998.

Introduction

Sampling for prairie arthropods for fiscal 1997-98 focused on four nature preserves in Mason Co., Illinois: Long Branch Sand Prairie, Matanzas Prairie, Sand Prairie - Scrub Oak Nature Preserve, and Revis Hill Prairie.

Long Branch comprises 93 acres of sand prairie dominated by prickly pear, *Opuntia compressa*, and the grasses *Eragrostis trichodes*, *Schizachyrium scoparium*, and *Calamovilfa longifolia*, and is typical of the Illinois River Sand Areas. Management has been largely restricted to the cutting of planted pine trees and limited burning. Sampling was conducted in a restored area near the south end that was burned in Spring 1997 and an extensive unburned native prairie at the north end of the preserve.

Matanzas Prairie is a high quality wet prairie comprising 27.6 acres and dominated by *Calamagrostis canadensis*, *Spartina pectinata*, and *Andropogon gerardii*. Burn management has been intensive for the past several years with the north and south halves burned in the spring of alternate years. Sampling was conducted within the two burn units, the north end of which was burned in 1997.

Sand Prairie - Scrub Oak Nature Preserve comprises 1,460 acres of a mixture of dry sand prairie, savanna and oak forest. Burn management has been intensive at this preserve. Sampling focused largely on a prairie opening adjacent to the road on the east side of the preserve, the north end of which was burned in spring 1997. An extensive sand prairie on the northeast end of the preserve that had also been burned was sampled in late summer, 1997. Vegetatively these prairies are similar to the those at Long Branch, but have been managed more intensively in recent years.

Revis Hill Prairie comprises 417 acres consisting of upland forest with extensive prairie openings dominated by short grasses such as *Bouteloua hirsuta*, *B. curtipendula*, and *Sporobolus cryptandrus*. Sampling was restricted to prairie openings that had not been burned in recent years.

Sampling

Biweekly sampling was performed July 2 - Sept .11, 1997 and May 22 - June 19, 1998. Sampling methods included sweeping, vacuuming, hand collecting, pitfall and Malaise traps. Two Malaise traps were placed at Long Branch Sand Prairie, one in a heavily disturbed old field at the south end and one in a relatively undisturbed prairie, also near the south end. A third Malaise trap was placed at Revis Hill Prairie, but was stolen after the first two sampling dates.

Pitfall traps were placed at the following locations:

- 1: Long Branch Sand Prairie, burned old field.
- 2: same, unburned prairie.
- 3: Matanzas Prairie, north burn unit.
- 4: same, south burn unit.
- 5: Sand Prairie - Scrub Oak, burned prairie.
- 6: same, unburned prairie.
- 7: Revis Hill Prairie, unburned prairie.
- 8: same, unburned prairie.
- 9: same, unburned sand blowout.

100-m transects were sampled by vacuum in burned and unburned areas at all sites except Revis Hill Prairie, where primarily unburned areas were sampled.

Malaise and pitfall trap samples were sent to the University of Wisconsin for processing. Vacuum transect samples were retained for use in biodiversity estimation. Specimens of Homoptera and Arachnida collected by other methods were retained for identification by INHS specialists and will be incorporated into the INHS arthropod collections.

Leafhoppers (Homoptera: Cicadellidae) of Mason Co. Nature Preserves
C. H. Dietrich

Based on the samples collected in 1997-98, leafhopper species richness is greatest at Revis Hill Prairie, followed by Long Branch Sand Prairie, Sand Prairie - Scrub Oak N.P., and Matanzas Prairie (Table 1).

A total of 33 leafhopper species were recorded in the hill prairie openings at Revis, including a number of rare species. *Athysanella incongrua*, *Dorydiella kansana*, *Flexamia abbreviata*, *F. albida*, *F. clayi*, *F. pectinata*, *F. sandersi*, *Hecalus grandis* (IL-Watch List), *Laevicephalus minimus*, *L. unicoloratus*, and *Prairiana kansana*, all of which specialize on native perennial grasses, are known from only a few other localities in Illinois.

Long Branch Nature Preserve, which harbored 30 leafhopper species, was somewhat less diverse in its leafhopper fauna. Uncommon grass-specialist species found here include *Dorydiella kansana*, *Flexamia areolata*, *F. atlantica*, *F. grammica*, *F. reflexa*, *F. sandersi*, *Laevicephalus peronatus*, *Polyamia rossi*, and *Sorhoanus orientalis*. In addition, in 1997, the site had a large population of the introduced grass-feeding European leafhopper, *Doratura stylata*. Nearly all of the leafhopper species recorded were restricted to unburned parts of the native prairie. An old field at the south end of the preserve that had been burned in yielded only seven leafhopper species.

The leafhopper fauna of Sand Prairie-Scrub Oak Nature Preserve comprised 28 species, nearly all of which occurred in the unburned parts of the preserve. An extensive sand prairie at the north end of the preserve that had been burned in spring 1997, was almost devoid of leafhoppers in August, 1997. More intensive sampling in a burned prairie on the east side of the preserve yielded half the number of leafhopper species present in an adjacent unburned prairie. The most notable finds were *Flexamia grammica*, a specialist on *Calamovilfa longifolia* and *Flexamia albida*, another prairie indicator species, both known from only a few other Illinois localities.

Despite the great diversity of potential host plants, the leafhopper fauna of Matanzas Prairie was the most depauperate of the four sites sampled, possibly due to the intensive burn management of the site. In 1997 following a spring burn, leafhoppers were almost completely absent in burned sections of the prairie and little recovery was evident, even at the end of the sampling period in September. The only notable find was a single individual of *Chlorotettix attenuatus*, found in the woods separating the north and south sections of the preserve. This species was previously known in Illinois from three sites in the Shawnee National Forest (southernmost Illinois). Sampling in 1998 indicated some recovery of the leafhopper fauna. Notable finds in 1998 included *Mesamia dorsalis*, which feeds on native *Helianthus* spp., *Hecalus lineatus*, a *Spartina* specialist, and *Amplicephalus osborni*, a sedge specialist. Nevertheless, many leafhopper species typical of wet or wet-mesic prairie remained absent and the numerically dominant leafhoppers were widespread, generalist typhlocybine species, such as *Dikraneura angustata*, *Empoasca fabae*, and *Forcipata loca*.

<i>Flexamia sandersi</i>	X						
<i>Forcipata loca</i>		X	X		X	X	
<i>Graminella nigrifrons</i>	X						
<i>Graphocephala coccinea</i>							X
<i>Hecalus grandis</i>							X
<i>Hecalus lineatus</i>		X					
<i>Hecalus viridis</i>							X
<i>Laevicephalus minimus</i>					X	X	
<i>Laevicephalus peronatus</i>	X			X			
<i>Laevicephalus unicoloratus</i>	X						X
<i>Latalus personatus</i>	X				X	X	
<i>Latalus sayi</i>		X	X				
<i>Limotettix anthracinus</i>							X
<i>Macrosteles quadrilineatus</i>	X		X		X	X	
<i>Menosoma cincta</i>	X			X			
<i>Mesamia dorsata</i>		X					
<i>Neocoelidia tumidifrons</i>		X					X
<i>Norvellina seminuda</i>	X						X
<i>Paraphlepsius irroratus</i>	X	X					
<i>Paraphlepsius sp.</i>							X
<i>Planicephalus flavicostus</i>	X						
<i>Polyamia caperata</i>		X			X	X	
<i>Polyamia rossi</i>	X				X		
<i>Polyamia weedi</i>	X				X		
<i>Prairiana kansana</i>							X
<i>Scaphoideus titanus</i>		X					
<i>Scaphytopius acutus</i>	X	X					
<i>Scaphytopius frontalis</i>	X				X	X	
<i>Sorhoanus pascuellus</i>				X			
<i>Stirellus bicolor</i>		X					X
<i>Xestocephalus pulicarius</i>	X						X
TOTAL SPECIES:	7	29	21	6	12	23	33

Mason County, Illinois, USA Report

SPIDERS

K. R. Zeiders

27 August 1998

Methods

Spiders were collected by pitfall trapping and sweep netting. A total of ten traps were set up. Sampling was done biweekly. Each pitfall trap consisted of two, layered 16 ounce Solo® cups placed flush with the ground. The collecting cup contained a few ounces of Sierra® antifreeze. A piece of chicken wire was staked above the cups to help keep out vertebrates. The traps were left in the ground for two-week time intervals. The upper cup was taken out at this time and replaced with a new cup and fresh antifreeze. The cups were taken back to the lab to be sorted.

Two pitfall traps were set-up at Sand Prairie - Scrub Oak Nature Preserve, three at Revis Hill Prairie Nature Preserve, two at Matanzas Prairie Nature Preserve, and three pitfall traps at Long Branch Sand Prairie Nature Preserve. After collecting the pitfall traps, the adjacent area was sweep netted for additional spiders. Collecting was done on 18 June, 3 July, 16 July, 31 July, 15 August, 28 August, and 11 September 1997 and started up again the following Spring and Summer on 22 May, 5 June, 19 June, and 2 July 1998.

All spider locality and identification information has been entered into a relational database. This database also contains all of the identified spiders locality information housed at Illinois Natural History Survey (INHS). All spiders collected are deposited at INHS.

Results

A total of 20 families with 86 species were collected at these four sites. Over 52% of the species occurred at a single site. Many species are represented by only a lone specimen. There were only two species Neoscona arabesca (Araneidae) and Schizocosa bilineata (Lycosidae) with the possibility of a third, Habronattus (Salticidae) that were found at all four sites. Overlap of species between sites ranged between 8 and 13 species. One new state record to add to Moulder's list of Illinois spiders is Sergiolus tennesseensis (Gnaphosidae) found at Long Branch.

Nature Preserves	<u># of families</u>	<u># of species</u>	<u># of spiders</u>
Sand Prairie-Scrub Oak	14	36	399
Revis Hill Prairie	8	36	296
Matanzas Prairie	18	48	446
Long Branch Sand Prairie	10	29	222

Nature Preserves	% of Major Spider Families found				
	<u>Araneidae</u>	<u>Gnaphosidae</u>	<u>Lycosidae</u>	<u>Salticidae</u>	<u>Thomisidae</u>
Sand Prairie-Scrub Oak	7	7	25	34	15
Revis Hill Prairie	20	0.7	11	45	18
Matanzas Prairie	4	1.5	48	14	15
Long Branch Sand Prairie	14	7	11	40	17

Long Branch Sand Prairie Nature Preserve

All of the following nature preserves are described as River Sand Areas. The Long Branch Preserve has gently rolling dunes covered with little bluestem, goat's rue, and prickly pear cactus. The Salticidae, especially Habronattus, were most numerous at this site. A new state record, a Gnaphosidae Sergiolus tennesseensis was found here. Also, another interesting gnaphosid Drassodes saccatus was collected in a pitfall trap. D. saccatus is generally associated with juniper, yucca, mesquite, sagebrush, and reeds.

Matanzas Prairie Nature Preserve

This is a high quality wet prairie characterized by blue-joint grass and cordgrass while the wet mesic prairie contains big bluestem, Indian grass and blue joint grass. The perennial flowers are extremely varied and thick. This site includes a wooded area. The Lycosidae, particularly Pardosa Pirata, Schizocosa, and the large Hogna helluo were most abundant at this site. Matanzas was the most diverse in number of families & species for all four sites. I collected Zora pumila (Zoridae), a spider that hunts in tall grass in the daylight at Matanzas. This is the first time I have ever collected this family.

Revis Hill Prairie Nature Preserve

This prairie site is described as one of the largest and finest loess hill prairies in the state. Much of the collecting was done in the old sand quarry which has not been burned in three years. This site is adjacent to an oak and hickory upland forest community. Again, the Salticidae were the most numerous, as it is in three of the four sites, with Habronattus being most abundant. Mangora gibberosa (Araneidae) an orb weaver that builds a fine-meshed snare in low bushes and tall grass was the most collected species. We did have some difficulty at this site with animals digging up the pitfall traps.

Sand Prairie-Scrub Oak Nature Preserve

This is a very dry sand prairie with a lot of eastern prickly pear cactus, sand love grass and porcupine grass. The blackjack and black oak trees are stunted. The vegetation seemed short and sparse. Salticids again were the dominate species, but with the Lycosidae not far behind. Schizocosa retrorsa (Lycosidae) was abundant, as was Habronattus, Metaphidippus protervus (Salticidae) and Xysticus ferox (Thomisidae). Many of the spiders collected here are a grey color, closely matching the habitat.

Attached is a list of spider species found at the four study sites.

Prairie Spiders - Mason County, Illinois, USA

Spider Family	Genus species	Long Branch	Matanzas	Revis Hill	Sand Prairie
AGELENIDAE	Agelenopsis		X		X
ANYPHAENIDAE	Wufla saltabundus		X		
ARANEIDAE					
	Acacesia hamata			X	
	Acanthepeira stellata	X			
	Alpaida calix				X
	Araneus pratensis	X	X	X	
	Argiope aurantia	X			X
	Argiope trifasciata		X	X	
	Larinia				X
	Mangora gibberosa	X		X	X
	Mangora placida			X	
	Neoscona arabesca	X	X	X	X
CLUBIONIDAE	Clubiona pikei group		X	X	X
CORINNIDAE	Castianeira descripta				X
	Castianeira		X		
DICTYNIDAE	Dictyna foliacea		X		
	Emblyna sublata		X		
GNAPHOSIDAE	Callilepis pluto				X
	Cesonia bilineata		X		
	Drassodes saccatus	X			
	Drassyllus creolus		X		
	Drassyllus depressus		X		
	Gnaphosa parvula		X		
	Gnaphosa sericata	X			
	Haplodrassus signifer			X	
	Sergiolus tennesseensis	X			
	Sergiolus		X		
	Zelotes hentzi	X		X	
	Zelotes				X
LINYPHIIDAE	Bathypantes pallidus		X		
	Ceraticelus minutus				X
	Ceraticelus			X	
	Meioneta		X	X	
LIOCRANIDAE	Phrurotimpus certus				X
	Phrurotimpus		X		
LYCOSIDAE	Hogna helluo	X	X		X
	Hogna rabida		X	X	X
	Pardosa milvina		X		
	Pardosa saxatilis		X		
	Pardosa			X	X
	Pirata insularis		X		
	Pirata minutus		X		
	Schizocosa avida	X			
	Schizocosa bilineata	X	X	X	X
	Schizocosa crassipalpa		X		
	Schizocosa ocreata gr.			X	X
	Schizocosa retrorsa			X	X
	Schizocosa rovneri		X		

Prairie Spiders - Mason County, Illinois, USA

Spider Family	Genus species	Long Branch	Matanzas	Revis	Sand Prairie	
LYCOSIDAE	Schizocosa saltatrix			X		
	Varacosa avara		X	X		
OXYOPIDAE	Oxyopes	X	X			
PHILODROMIDAE	Philodromus imbecillus	X	X			
	Philodromus marxi			X		
	Philodromus					
	Thanatus formicinus	X			X	
	Thanatus		X			
	Tibellus duttoni	X				
PISAURIDAE	Tibellus oblongus		X			
	Pisaurina brevipes		X			
PISAURIDAE	Pisaurina mira					
	Agassa cerulea			X		
SALTICIDAE	Eris	X				
	Habrocestum pulex				X	
	Habronattus agilis	X		X	X	
	Habronattus decorus	X		X	X	
	Habronattus viridipes	X		X	X	
	Habronattus			X		
	Hentzia mitrata			X		
	Maevia inclemens			X		
	Marpissa pikei	X	X			
	Metaphidippus insignis			X		
	Metaphidippus protervus	X		X	X	
	Metaphidippus			X		
	Neon nellii			X		
	Phidippus clarus			X		
	Phidippus whitmani	X				
	Phidippus			X		
	Phlegra fasciata			X		
	Sassacus papenhoei			X		
	Sitticus cursor			X	X	
	Talavera minuta				X	
	Tutelina elegans			X	X	
	Tutelina formicaria				X	
	TETRAGNATHIDAE	Tetragnatha	X	X		X
	THERIDIIDAE	Steadota americana				X
		Theridion frondeum		X		
	THOMISIDAE	Theridion	X			X
		Misumenoides formosipes	X	X		
Misumenoides				X		
Misumenops asperatus			X	X	X	
Misumenops celer		X			X	
Misumenops oblongus			X	X		
Ozyptila georgiana			X			
Synema parvula				X		
Xysticus bicuspis		X				
Xysticus ferox				X	X	
Xysticus pellax	X		X	X		

Prairie Spiders - Mason County, Illinois, USA

Spider Family	Genus species	Long Branch	Matanzas	Revis	Sand Prairie
TITANOECIDAE	Titanoeca americana				X
ZORIDAE	Zora pumila		X		

Aphids collected at four Mason County Sand Prairies July 1997 thru June 1998
David Voegtlin
August 1998

Sampling for aphids was done by hand collecting, beating and vacuum. All specimens were mounted on microscope slides for determination and are in the collection of the Illinois Natural History Survey. When these sites were chosen for study, based on the plant diversity of the four nature preserves, I estimated that I might expect to find in the neighborhood of 50 species of aphids in a year. This turned out to be far from what I managed to find and these sites are the least diverse (as far as aphids go) of any of the sites sampled during this multi-year study. The number of species collected was low compared to other sites. I am not sure of the reason but a discussion of each site and what I observed relating to aphid collections in burned and unburned areas is given below.

Aphid collections in relation to burned and unburned areas within the nature preserves.

Long Branch Nature Preserve

A small area at the south end of this preserve had been burned in the spring of 1997. This preserve was dedicated in 1989 and no other parts of this prairie have been burned since that time. Here I found little difference in the aphids between the burned and unburned areas, with the exception of *Iziphya flabella* which was not found in the burned area. Some of the host plants of aphids collected at this site such as *Tephrosia virginiana* were not seen in the burned area so it is not possible to know of the aphids found on it in the unburned area would have been there also.

Sand Prairie - Scrub Oak Nature Preserve

An extensive area on the north end of this very large preserve was burned in the spring of 1997 (see attached map). Also smaller openings along the west side were burned either that spring or the previous year. A smaller clearing along the east side had not been burned recently. I think this is the most instructive place in regards to the influence of fire on aphids. The vegetation in a opening on the east side where most of our sampling was done is very much like that in an extensive area on the north end (see attached map). Extensive multiple bug-vac samples in the burned area in July and August failed to collect a single aphid specimen. A short bug-vac sample in the small unburned clearing collected large numbers of *Iziphya flabella* on *Carex muhlenbergia*, a very common plant in both burned and unburned areas. Extended bug-vac samples along the west side in clearings that had been burned also were completely negative in terms of any aphids collected at all. I did manage to finally find *Iziphya flabella* in a wet area along the west side that appeared to have escaped the burn.

Matanzas Nature Preserve

The north half of this preserve had been burned in the spring of 1997 and the south half the year before. Extensive collecting efforts at this site were very unrewarding. The first aphid found was *Myzus lythri*, a european native that overwinters on *Prunus mahaleb* and migrates to secondary summer hosts which in this case was *Lythrum alatum*. Collections using a bug-vac were unsuccessful on either half until I vacuumed a ditch that divides the preserve. This ditch probably did not burn (or burned less completely) and was a refuge for two saltusaphidines, *Subsaltusaphis wanica* (1 specimen) and *Thripsaphis ballii* (2 specimens). Extensive bug-vacs throughout the sampling period did not collect any

Iziphya flabella even though a short bug-vac in the ditch across the road from the preserve yielded an abundance of *Iziphya flabella* as well as other aphids. *Subsaltusaphis wanica* became relatively abundant in an extensive area of cord grass in June of 1998. A large patch of prairie forbes in the burned area was essentially devoid of aphids until late summer 1997 when *Uroleucon luteolum* showed up on *Solidago*. All colonies of this species were begun by winged migrants. Although the list of aphid species below shows several species for this nature preserve, the number of specimens collected was very low, often only one or two of each species. The more mesic areas of this preserve have a high diversity of prairie forbes. Many of these, especially the composites, are host to some of the more common prairie aphids in the genus *Uroleucon*. Given this host diversity it is surprising that so few aphids were found at this site.

Revis Hill

A portion of the upper areas of this hill prairie had been burned in the spring of 1997. One of our sampling sites had been burned three years previously. In the area burned in the spring of 1997 only one aphid species, *Sipha flava*, was collected by bug-vac of an extensive stand of *Sorghastrum nutans*. Prairie forbes in small unburned sites along the base of the preserve as well as in the clearing burned three years earlier were the only place where any colonies of aphids were seen.

Aphids in burn areas.

One of the observations from sampling efforts for aphids in these areas is the difference in numbers of specimens taken in the burned and unburned areas. Most aphids in the unburned areas are found in colonies and if taken by vacuum are in relatively large numbers that include adults and numerous nymphs. In burned areas numbers are low, as mentioned above often only a single specimen, rarely nymphs. The only exception was at Long Branch Nature Preserve where the burn area was small and the distance that any species would have to travel to reach the burned area was relatively short.

Species collected at each preserve are provided below.

Long Branch Nature Preserve

* <i>Aphis oestlundii</i> Gillette	<i>Oenothera biloba</i>
* <i>Cinara pergandei</i> (Wilson)	<i>Pinus banksiana</i>
<i>Iziphya flabella</i> complex (2 maybe 3 species)	<i>Carex</i> spp.
<i>Microparsus</i> (<i>Megouroparsus</i>) <i>tephrosiae</i> (Smith)	<i>Tephrosia virginiana</i>
* <i>Uroleucon</i> (<i>Lambertius</i>) n.sp.	<i>Heterotheca camporum</i>
<i>Uroleucon</i> (<i>Lambertius</i>) <i>erigeronensis</i> (Thomas)	by vacuum (composites)

Matanzas Nature Preserve

* <i>Aphis cornicola</i> Fitch	<i>Cornus stolonifera</i>
** <i>Myzus lythri</i> (Shrank)	<i>Lythrum alatum</i>
* <i>Thripsaphis ballii</i> (Gillette)	by vacuum (<i>Carex</i> spp)
* <i>Subsaltusaphis wanica</i> Hottes & Frison	<i>Spartina pectinata</i>
* <i>Nearctaphis sensoriata</i> Gillette & Bragg	by vacuum
* <i>Uroleucon</i> (<i>Lambertius</i>) <i>luteolum</i> (Williams)	<i>Solidago canadensis</i>
* <i>Colopha ulmicola</i> (Fitch)	<i>Ulmus rubra</i>

Sand Prairie - Scrub Oak Nature Preserve

<i>Aphis pulchella</i> (Hottes & Frison)	<i>Euphorbia corollata</i>
<i>Aphis monardae</i> (Oestlund)	<i>Monarda fistulosa</i>
<i>Iziphya flabella</i> (Sanborn)	<i>Carex muhlenbergia</i>
<i>Iziphya vitatta</i> Richards	<i>Carex</i> sp.
<i>Microparsus</i> (<i>Megouroparsus</i>) <i>tephrosiae</i> (Smith)	<i>Tephrosia virginiana</i>
<i>Uroleucon ambrosiae</i> (Thomas)	<i>Rudbeckia hirta</i>

Revis Hill Prairie

<i>Acyrtoshiphon pisum</i> (Harris)	<i>Melilotus alba</i>
** <i>Amphorophora sensoriata</i> Mason	<i>Rubus</i> sp.
<i>Aphis monardae</i> Oestlund	<i>Monarda fistulosa</i>
<i>Aphis nasturtii</i> Kaltenbach	<i>Nepeta cataria</i>
<i>Hysteroneura setaria</i> (Thomas)	by vacuum (grasses)
** <i>Iziphya flabella</i> complex	by vacuum
* <i>Sipha flava</i> Forbes	<i>Sorghastrum nutans</i>
<i>Therioaphis trifolii</i> (Monell)	<i>Melilotus alba</i>
<i>Uroleucon</i> (<i>Lambersius</i>) n.sp.	<i>Heterothea camporum</i>
<i>Uroleucon</i> (<i>Lambersius</i>) <i>luteolum</i> (Williams)	<i>Solidago candensis</i>
<i>Uroleucon</i> (<i>Uromelan</i>) <i>helianthicola</i> (Olive)	<i>Helianthus grosseserratus</i>
	<i>Helianthus rigidus</i>
<i>Uroleucon</i> (<i>Lambersius</i>) <i>gravicorne</i> (Patch)	<i>Erigeron strigosus</i>

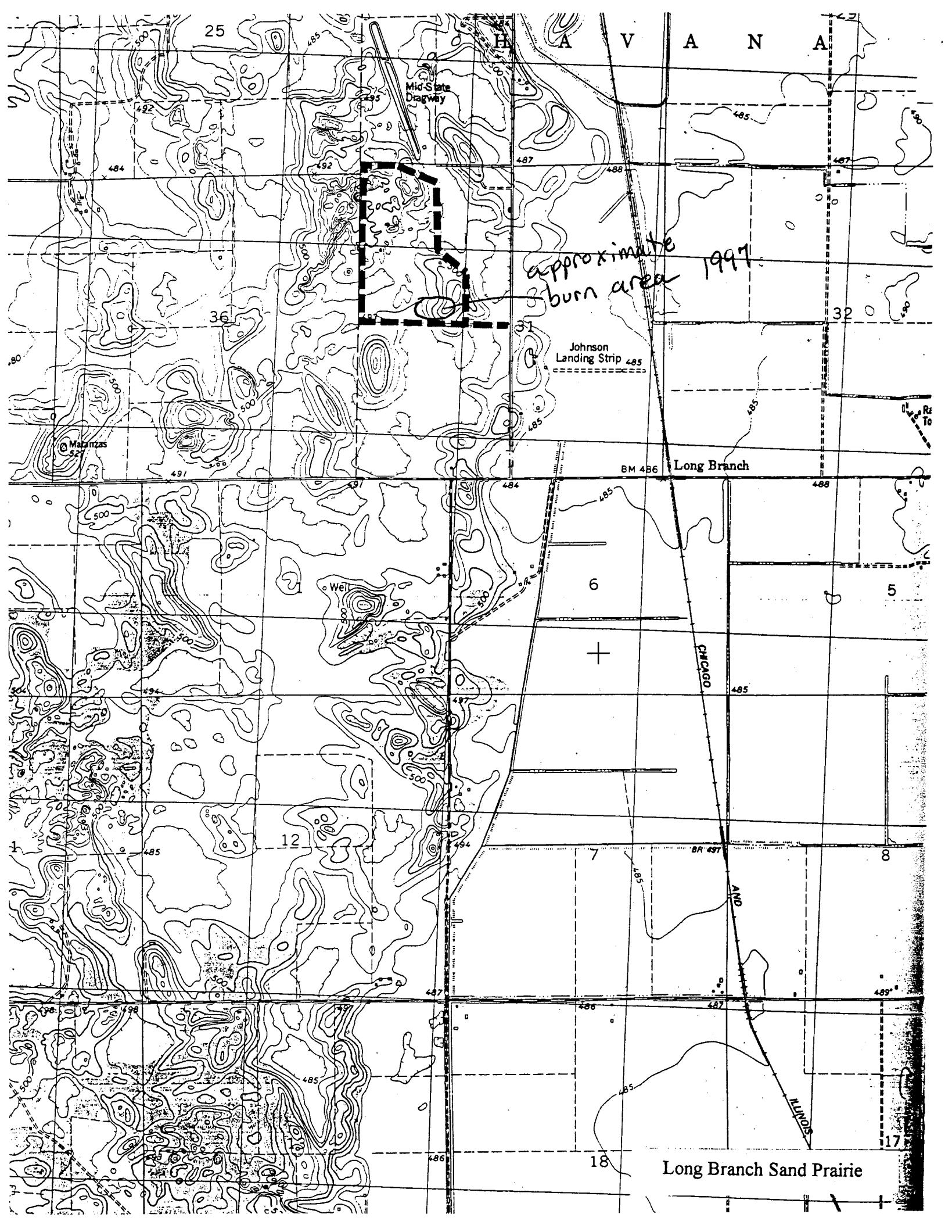
* Aphids collected in areas burned the previous spring.

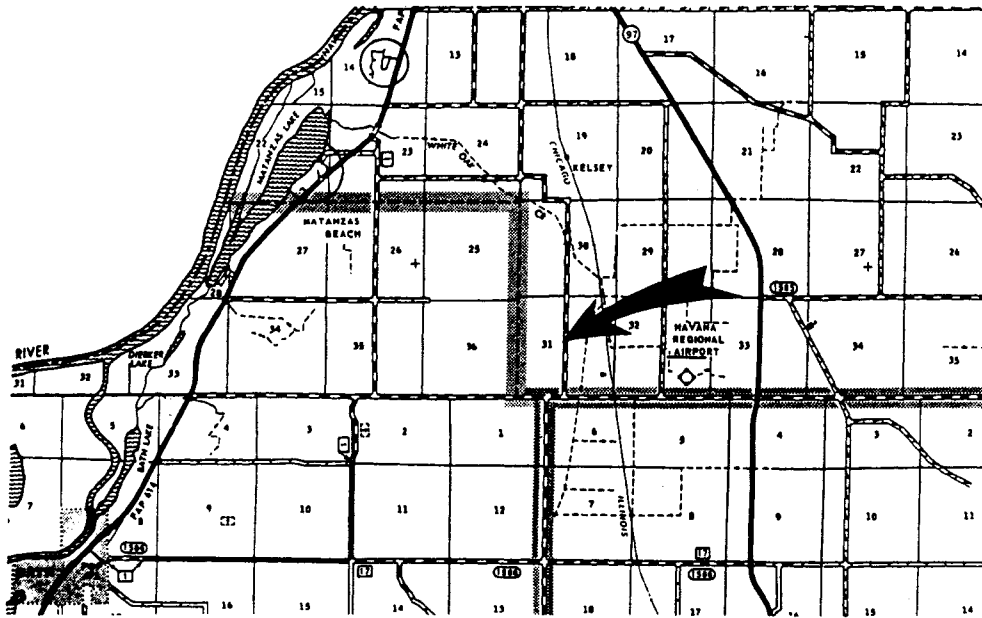
** Aphids collected in areas burned more than 1 year prior to sampling

Aphid species from the above list of particular interest.

Two species stand out from these collections. The first is a *Microparsus* (*Megouroparsus*) *tephrosiae* taken on *Tephrosia virginiana*. This is a major range expansion. It was described from specimens taken in North Carolina and later found in Florida and Mississippi. The second is found on *Heterothea camporum* and is close to a species *Uroleucon* (*Lambersius*) *carberriensis* Robinson described from aphids collected on *Chrysopsis* in Manitoba and Alberta. *Chrysopsis* and *Heterothea* are closely related genera and *camporum* was at one time considered a *Chrysopsis*. I believe it is an undescribed species.

A third species *Nearctaphis sensoriata* is a new record for Illinois. It host alternates from the winter host *Amelanchier* to unknown secondary hosts. One specimen was collected by bug-vac of the ditch running through Matanzas.





Long Branch Sand Prairie Nature Preserve

Mason County

Location and Access:

From Kilbourne, take Highway 97 north 4 miles to a county road. Turn west on the county road and go 2 miles to another county road. Turn north on this road and go 0.5 mile. The preserve is on the west. The preserve is reached by walking west along the hedgerow 0.1 mile to the preserve.

Description:

This preserve contains sand prairie typical of the Illinois River Sand Areas. Large, gently rolling dunes are covered with little bluestem, goats rue and prickly pear cactus. An inventory of plant species, completed in 1989, resulted in the discovery of the rare hairy bead grass.

Lark sparrows, bluebirds, six lined racerunners, coyotes and plains pocket gophers are also present on the site.

Approximately ten acres of pines were removed in 1989. Efforts are now underway to restore the former pine plantation area back to native sand prairie vegetation.

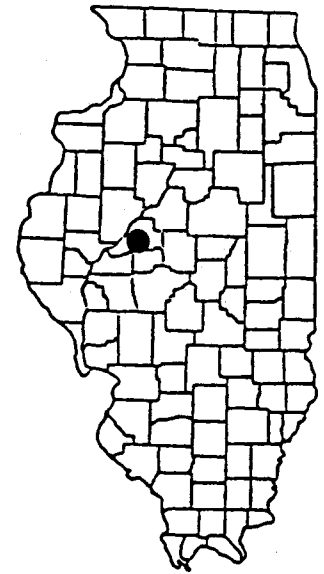
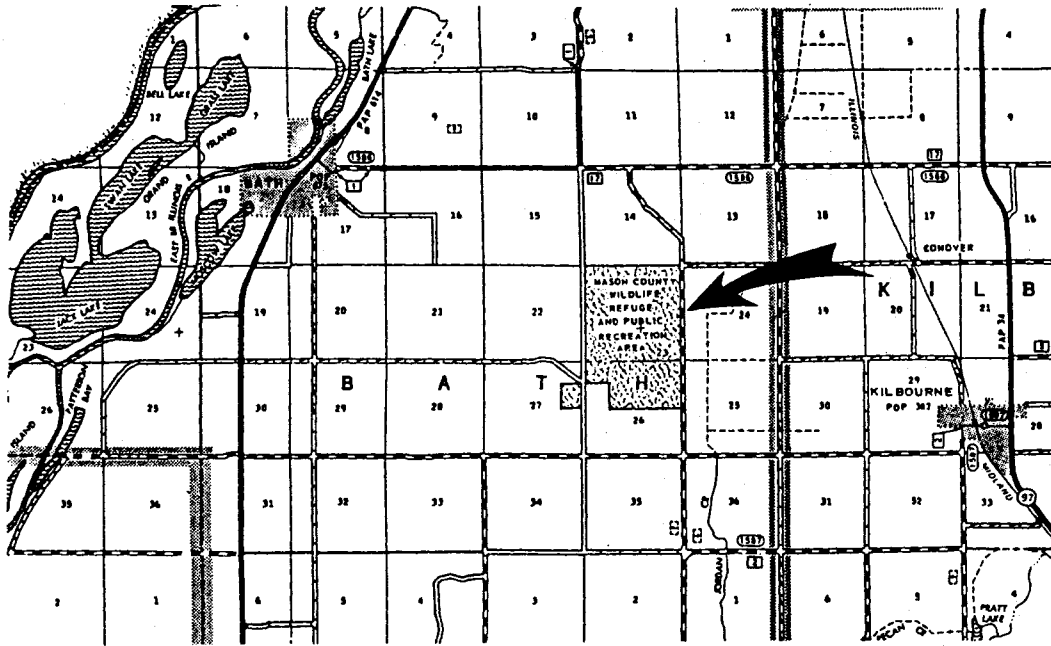
Ownership: Illinois Department of Natural Resources

Dedicated: August 1989

Size: 93 acres

Topo Map: Kilbourne 7.5

For Further Information Contact: Illinois Department of Natural Resources, Natural Heritage Biologist, Sangchris Lake State Park, R.R. #1, Rochester, IL 62563 (217/498-9208)



Sand Prairie-Scrub Oak Nature Preserve

Mason County

Location and Access:

From Bath, take blacktop road east 3.6 miles, then turn and go south 1.3 miles. The nature preserve is west of the road.

Description:

This preserve is a mixture of dry sand prairie, dry sand savanna and dry sand forest. Little bluestem, goats rue, eastern prickly pear cactus, sand love grass and porcupine grass characterize the sand prairie. Blowouts, areas of actively moving sand, are sites where beach grass, three-awn grass and Mohlenbrock's sedge may be found. Blackjack and black oaks plus mockernut and black hickories are present in the forest. Due to the arid nature of the soils, these trees remain small and "scrubby". Prairie plants are often present in the herbaceous understory of the forested land.

Lark sparrows nest in the sand prairies which also provide homes for badgers, pocket gophers, western hognose snakes and many insects that are more typical of western states.

Ownership: Illinois Department of Natural Resources

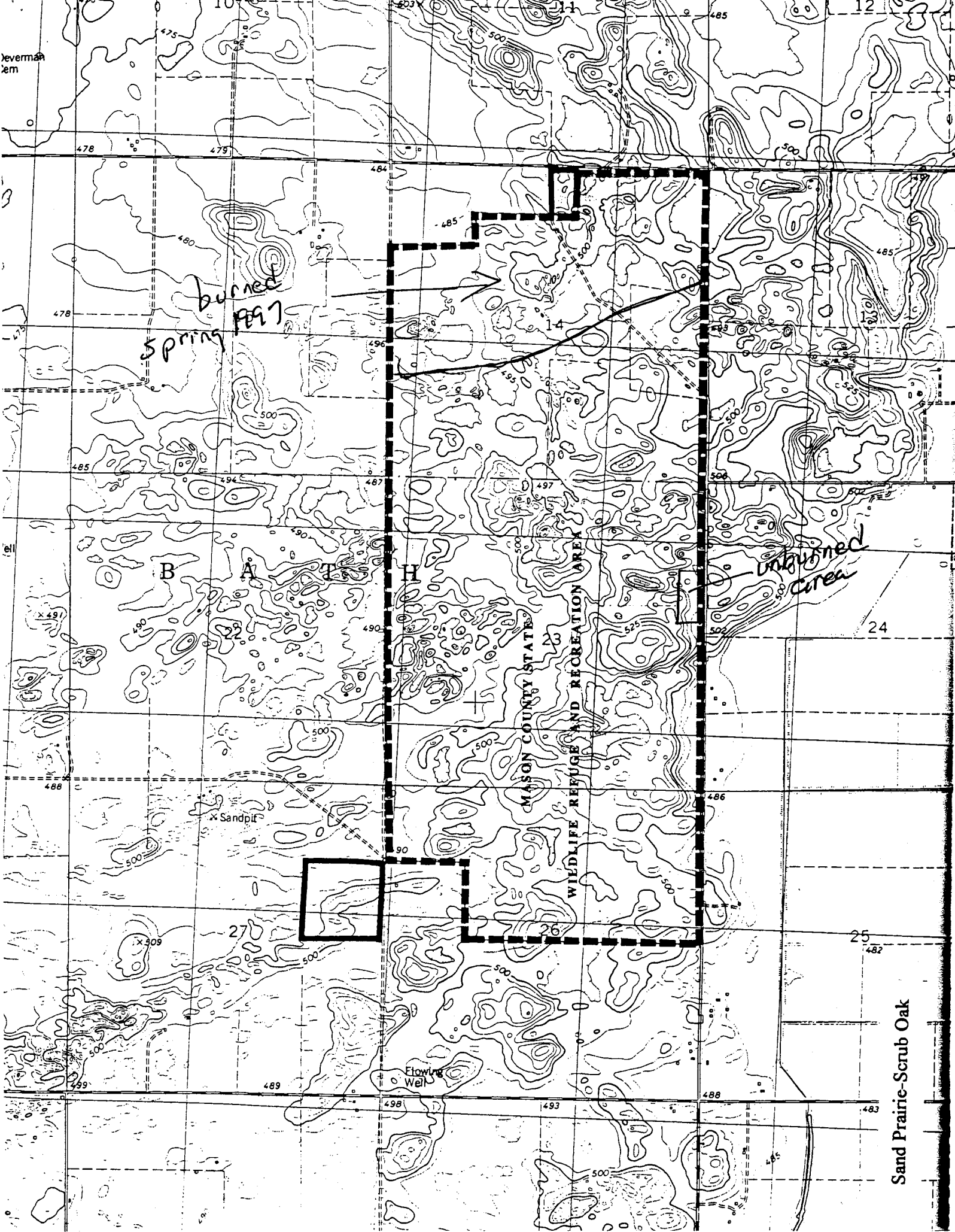
Dedicated: April 1970

Size: 1,460 acres

Topo Map: Kilbourne 7.5

For Further Information Contact: Site Superintendent, Sand Ridge State Forest, Forest City, IL 61532 (309/597-2260) or Illinois Department of Natural Resources, Natural Heritage Biologist, Sangchris Lake State Park, R.R.#1, Rochester, IL 62563 (217/498-9208)

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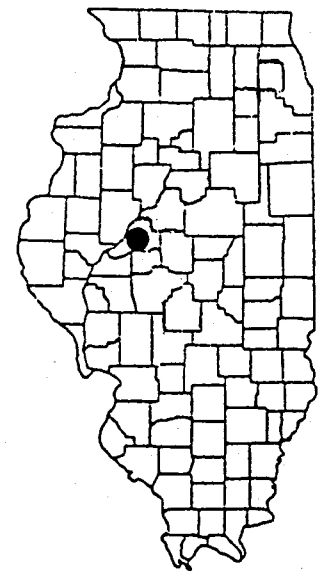
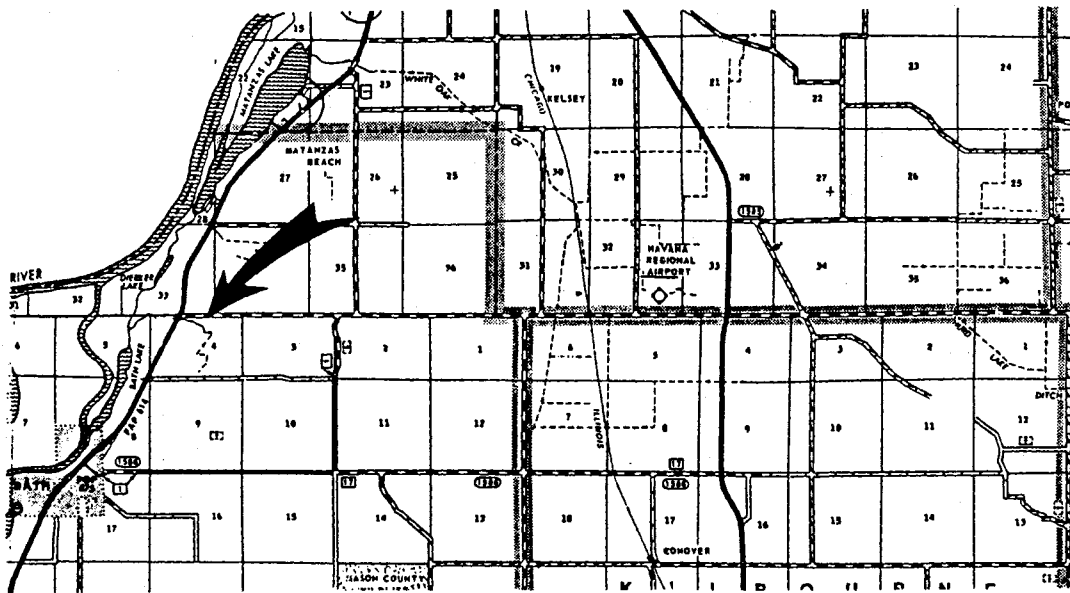


burned
area
Spring

unburned
area

MASON COUNTY STATE
WILDLIFE REFUGE AND RECREATION AREA

Sand Prairie-Scrub Oak



Matanzas Prairie Nature Preserve

Mason County

Location and Access:

From Bath, take Hwy. 78 north 1.5 mi. to blacktop road, turn and go east 0.3 mi. The nature preserve is south of the road.

Description:

Matanzas Prairie is the only remaining high quality wet prairie in the Illinois River Section of the Illinois and Mississippi River Sand Area Natural Division. This site was once covered with sand and gravel deposited from the meltwaters of the last glaciation. On the relatively level areas water filled depressions were formed and eventually became marshes, sand ponds, and wet sand prairie. The wet prairie is characterized by blue-joint grass and cordgrass, while Indian grass, big bluestem, and blue joint-grass dominate the wet mesic prairie. A

threatened variety of orchid is also found here. Notable wildlife species include the threatened Illinois chorus frog, sedge wren, and common yellowthroat. Current management practices include prescribed burning, brush removal, and wet prairie restoration.

Ownership: Illinois Department of Conservation

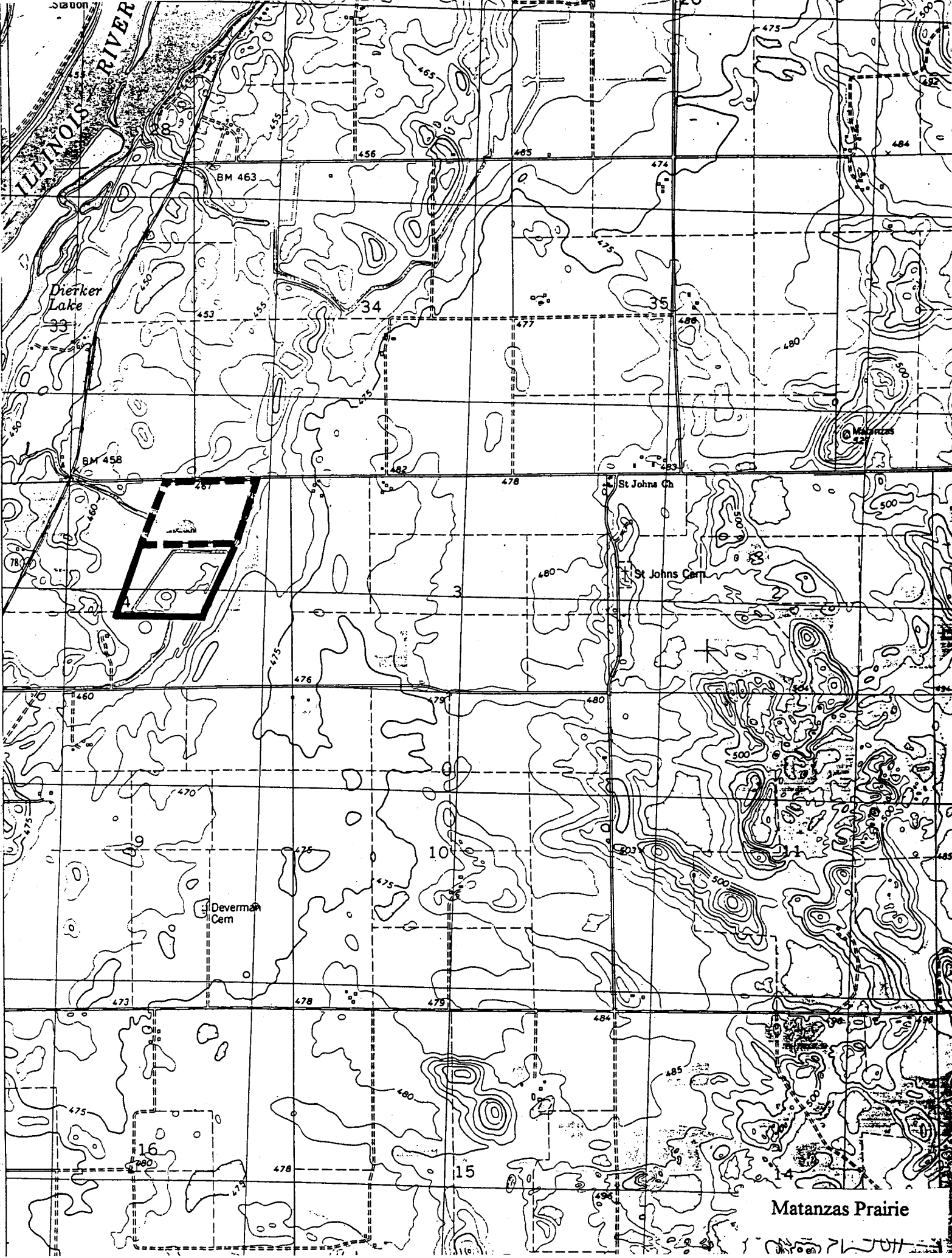
Dedicated: June 1985

Size: 27.6 acres

Topo Map: Kilbourne 7.5

For Further Information Contact: Illinois Department of Conservation, Natural Heritage Biologist, Sangchris Lake State Park, R.R.#1, Rochester, IL 62563 (217/498-9208)

buffer available



ILLINOIS RIVER

Dierker Lake

BM 463

BM 458

34

St. Johns Ch.

St. Johns Cem.

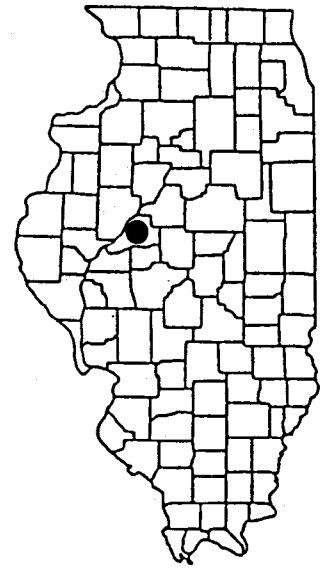
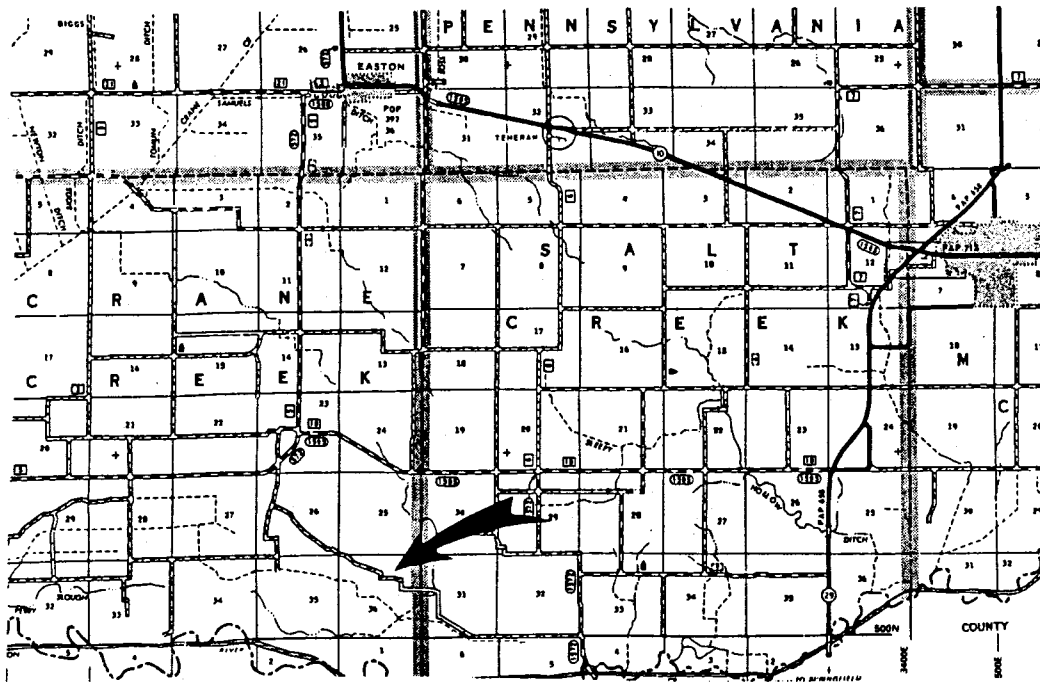
Deverman Cem.

10

15

16

Matanzas Prairie



Revis Hill Prairie Nature Preserve

Mason County

Location and Access:

From 0.5 mile north of Kilbourne on Hwy. 97, turn and go east on blacktop road 7.5 miles to gravel road, turn and go southeast 1 mile. The nature preserve is on the northeast side of the road.

Special Note: Trails are established. Parking is available on the roadside.

Description:

Revis Hill Prairie is one of the largest and finest loess hill prairies in the state. Geologically, the area was created after the retreat of the last glacier when meltwaters carried finely ground silt or "rock flour" which was deposited throughout the river valleys as mud flats. During periods of drought, the dried loess was blown onto adjacent uplands. Revis Hill Prairie is located on one of these ancient loess bluffs above the Sangamon River. Much of the vegetation found at Revis is typical of hill prairies, although several rare species do occur. Little bluestem, side oats grama, silky aster, scurf pea, ladies tresses orchid, purple coneflower,

tickseed and leadplant are just a few of the common grasses and forbs, while oaks and hickories dominate the upland forest communities. In between the prairie and the upland forest, a band of savanna occurs. Unusual animals present at this preserve include turkey vulture, bank swallow, bluebird, western hognose snake, western slender glass lizard, prairie walking stick and Ottoe skipper. Management practices currently being implemented at the preserve include prescribed burning, brush removal and alien species control.

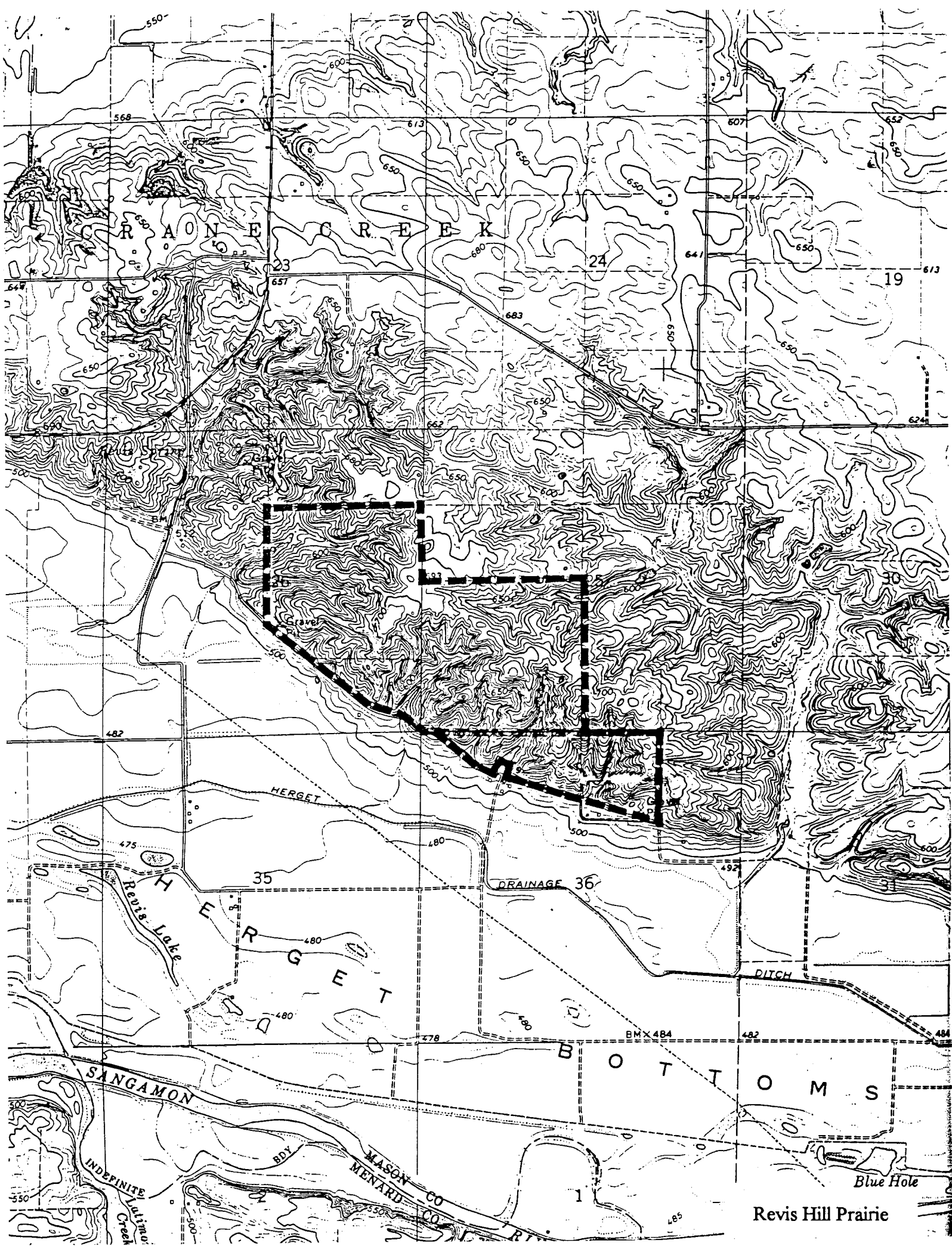
Ownership: Illinois Department of Natural Resources

Dedicated: August 1973

Size: 417 acres

Topo Map: Easton 7.5

For Further Information Contact: Illinois Department of Natural Resources, Natural Heritage Biologist, Sangchris Lake State Park, R.R.#1, Rochester, IL 62562 (217/498-9208)



R A O N E C R E E K

H E R G E T

S A N G A M O N

M A S O N C O
M E N A R D C O

Revis Hill Prairie

Blue Hole

BNX 484

DRAINAGE 36

DITCH

INDEFINITE
Creek

80Y

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