

Proposal No. 104
Project No. 87-17

A SURVEY OF AMPHIBIANS, REPTILES, AND SMALL MAMMALS
AT SHAW PRAIRIE, MCLAUGHLIN MEADOW, AND HAFFNER
MEADOWS - MAY 30th to NOVEMBER 11th, 1986

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INTRODUCTION

Shaw Prairie and Woodlands and other holdings of the Lake Forest Open Lands Association were surveyed for amphibians, reptiles, and small mammals between May 30th and November 11th, 1986.

This study provides base data with which future observations can be compared. This report lists species seen during 1986 or otherwise known to occur within the area studied, and also includes comments on other species which might occur in or near the area. It is rarely possible to locate all species within a given area during one collecting season. This study was initiated relatively late in the season, so some species which are most active during March, April and May might have been missed.

METHODS AND MATERIALS

Shaw Prairie and McLaughlin Meadows were surveyed regularly during the course of this study. Haffner Meadows was also visited, but appeared to offer less suitable habitat for local amphibians and reptiles. It was visited only occasionally, with an emphasis on mammals.

A total of 17 visits were made to the study areas. Visits were made during each month of the study period, with the greatest number (5) made during June. Emphasis during the early part of the study was on amphibians and reptiles, although some mammal observations were made. The last few visits, during October and early November, concentrated almost exclusively on small mammals.

Most of the amphibians and reptiles and some of the small mammals were found under boards, logs, sheet metal, or other surface cover. Most protected areas are kept relatively free of such objects, and those that remain are often destroyed by the fires used as a management tool. The end result is that many prairies are relatively difficult to survey for small secretive animals.

Most of the cover utilized during this study was located just outside the boundaries of the protected area. The greatest concentration of cover was along the railroad embankment west of McLaughlin Meadow. This area contains numerous railroad ties and various other objects. It was checked on nearly every visit, on the assumption that any animals found there would also occur within the prairie a very short distance away. The productivity of this area was limited, possibly because of work underway during the summer on top of the embankment. Heavy equipment was used to remove two sets of railroad tracks, and some animals were probably temporarily driven away by this activity.

Other management techniques commonly employed by railroads, such as spraying of herbicides, can have a longer term impact on small animals. The management history of the section of railroad near the study area is not known to this observer.

At the beginning of the study period a few pieces of plywood and sheet metal were placed in a damp area just southwest of McLaughlin Meadow, midway between the fence along the western boundary and the railroad tracks. These were more productive, and provided all the sightings of voles (*Microtus*).

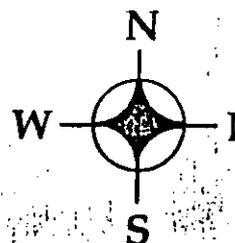
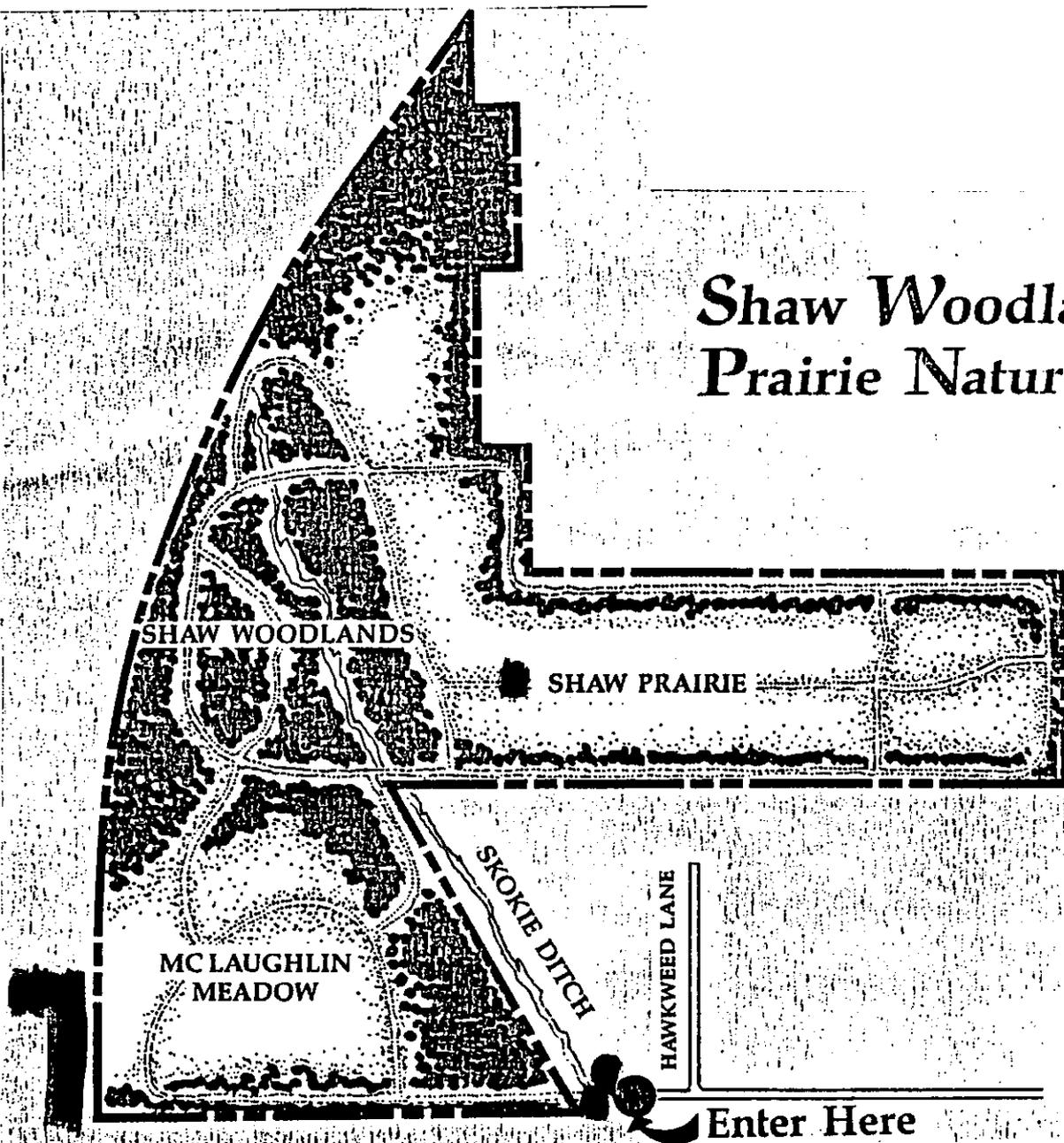
Several pieces of wood located in the trail through the center of Shaw Prairie were also productive sites, and provided the highest concentration of amphibian and reptile sightings. No small mammals were seen there, but runways and other signs of recent activity were noted. Visual searching at Shaw Prairie was limited to the existing trail system.

Amphibians and reptiles seen during the survey were collected, inspected, and released within a few minutes. Some were photographed.

Because positive identification of some mammal species requires careful measuring of the specimens, limited trapping was necessary. On several occasions, small numbers of borrowed livetraps were set and left overnight. These were placed midway between the fence at the west edge of McLaughlin Meadow and the railroad embankment (see Fig. 1). On another occasion a combination of live traps and snap traps were set at Haffner Meadows, running through an area which had recently been cleared and a short distance into the woods (Fig. 2). A few additional specimens were seen under boards and captured by hand.

Nomenclature of amphibians and reptiles follows Collins et al. (1982). Nomenclature for mammals follows Jones et al. (1979).

Shaw Woodlands and Prairie Nature Preserve

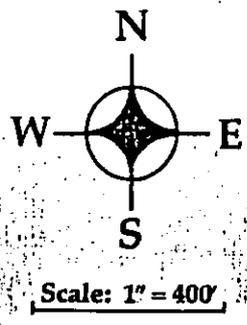
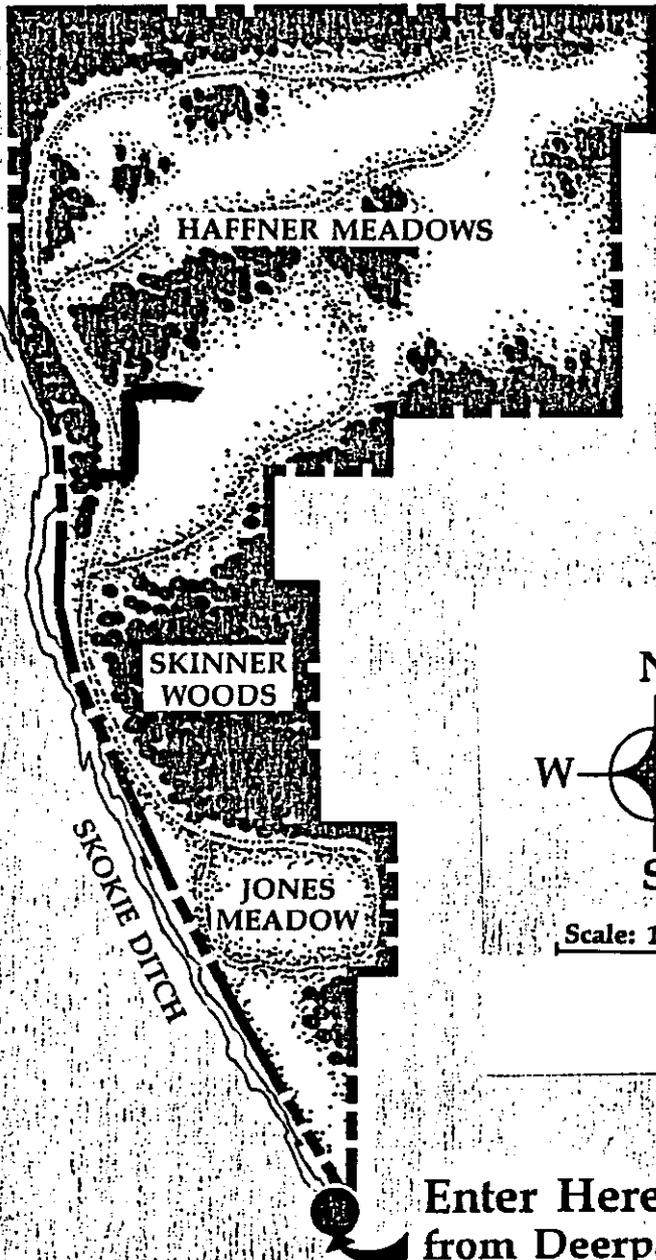


Scale: 1" = 400'

FIGURE 1. SHAW PRAIRIE AND MCLAUGHLIN MEADOW.

1. Table near entry
2. Logs along trail (sightings of Ambystoma t. tigrinum and Sorex cinereus).
- 3 through 7. Location of trapline.
8. Sighting of adult Lampropeltis t. triangulum
9. Boards in trail; sightings of Bufo a. americanus and juvenile Lampropeltis t. triangulum.

Haffner Meadows Nature Preserve



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FIGURE 2. HAFFNER MEADOWS.

Orange line indicates location of trapline.

AMPHIBIANS

Although Lake County is known for its relatively high number of amphibian species, many are eastern or northern woodland forms which barely enter this corner of Illinois. Relatively few amphibians have adapted to life on the open prairie; most would face rapid dessication in what for them would be a harsh environment. A few have managed to adapt by spending much of the year in burrows or by inhabiting permanent streams, lakes, or ponds.

Because of the lack of suitable breeding ponds, only a few species of amphibians inhabit the study area, even though small areas of otherwise suitable forest do exist there. Two of the three species found so far have small larvae which transform very early in the season; thus very shallow or ephemeral ponds do not limit them. The third may be a transient visitor, breeding elsewhere.

EASTERN TIGER SALAMANDER *Ambystoma tigrinum tigrinum*

A single specimen was found under a log just inside the Laurel Avenue entrance on June 20th. This species usually breeds in relatively large ponds, but often migrates considerable distances from them during the summer. It probably is a transient visitor, usually occurring at Shaw Prairie or McLaughlin Meadow in small numbers but seldom attempting to breed there. The one specimen seen was slightly over six inches in total length.

Small oak groves or the edges of more extensive forests were probably the original habitat of this salamander, but this adaptable animal is still common in northeastern Illinois and sometimes occupies heavily disturbed areas.

Since it spends most of the year underground - in rodent or crayfish burrows, or within drainage pipes, which it may follow for great distances - small treeless prairies are not a barrier. Adults are usually seen above ground only in the very early spring, and to a lesser extent in the fall. Young specimens are occasionally seen after late summer rains. They are difficult to find except where very common.

AMERICAN TOAD *Bufo americanus americanus*

A large adult was found under a board in the trail near the center of Shaw Prairie on July 25th. This common and widespread species breeds during late April and early May. It would have ceased calling before the beginning of this study, so the exact breeding sites are not known. The spring-fed area adjacent to the site of collection probably is a suitable breeding area. This toad shows no aversion to shallow water and sometimes breeds in shallow puddles, only a few inches deep and a few feet wide, in unpaved roads at Illinois Beach State Park. American toads show no clear habitat preference in Lake County; they are common in both open and wooded situations. Toads burrow to escape dry conditions, using bony "spurs" on their hind feet to dig backwards into the ground.

WESTERN CHORUS FROG *Pseudacris triseriata triseriata*

This is probably the most common amphibian within the study area. It is one of the earliest breeding amphibians, and the tadpoles transform so rapidly that even the most ephemeral ponds can provide suitable breeding habitat. Individuals of this species have been heard calling from nearly every depression within the study area which holds water for more than a few weeks of the year, including puddles only a few feet across. Chorus frogs are common throughout Illinois: they are most abundant in open areas, but also occur in woodland ponds. Human disturbance seems to have little effect on them; chorus frogs have been heard calling from marshes which are nearly surrounded by houses and have already been partially filled in. The breeding season begins in March or early April, soon after the ice is gone from the ponds, and continues sporadically into late May or June. They are completely terrestrial during the summer, but are rarely seen except after summer showers, when they are occasionally found leaping through the wet grass.

OTHER AMPHIBIANS POSSIBLY OCCURRING IN OR NEAR THE STUDY AREA

BLUE-SPOTTED SALAMANDER *Ambystoma laterale*

This is a common salamander in Lake County, most abundant in Oak flatwoods but also found in Oak savanna and a variety of other at least partially wooded habitats. No suitable breeding ponds were seen within the study area, but individuals may occasionally stray into the area if there are suitable ponds nearby.

MUDPUPPY *Necturus maculosus*

This large, permanently aquatic salamander occurs in Lake Michigan. Although unlikely, it is conceivable that one or more individuals could ascend the Chicago River and the Skokie ditch as far as the study area.

BULL FROG *Rana catesbeiana*

GREEN FROG *Rana clamitans melanota*

Young Bullfrogs and Greenfrogs sometimes disperse from existing populations, and it is possible that some could eventually occupy portions of the Skokie ditch. An individual of one of these species was seen near Abbott Labs in 1984.

NORTHERN LEOPARD FROG *Rana pipiens*

The apparent absence of this wet meadow species is somewhat surprising; the wet area of Shaw Prairie appears to provide suitable habitat.

Leopard Frogs in Wisconsin and northern Illinois were reduced dramatically in numbers during the 1970's by an outbreak of redleg, a bacterial infection (Vogt, 1981). Many populations have recovered well over the past few years, and some are already back to their former levels. It is possible that the species once occurred at Shaw Prairie but was wiped out, and has not yet reappeared because of the distance from other populations.

REPTILES

Terrestrial reptiles are always difficult to find in prairies because of the scarcity of boards, logs, and other surface cover. These are often the only hiding places utilized by reptiles and accessible to human collectors without disturbing the habitat. The larger snakes can sometimes be found active on the surface, but such activity is limited to relatively small portions of the day; many species become nocturnal during mid-summer. The smaller snakes tend to be secretive, and are seldom seen except by turning surface cover.

Even considering the difficulties inherent in locating reptiles on a prairie, the relative scarcity of snakes within the study area is somewhat surprising. Particularly astonishing is the apparent rarity or absence of both types of garter snakes, the two most common snakes in Lake County. The presence of milk snakes, a predator on other snakes, does not explain the lack of garter snake sightings.

At all other Lake County sites where the two species are known to occur together, garter snakes far outnumber milk snakes. I do not know of any other locality in Lake County where milk snakes occur without garter snakes.

Often garter snakes were easily found at other locations within an hour of fruitless searches of the study area. For example, on June 3rd, 5 plains garter snakes, *Thamnophis radix radix*, were found at Lake-Cook Road and Sanders Road at 4:30 pm; at 5:00 pm, one Chicago garter snake, *Thamnophis sirtalis semifasciata*, was found at Ryerson Conservation Area; at 5:30 pm, one milk snake but no garter snakes were found at Shaw Prairie and McLaughlin Meadow, even though more effort was expended there than at the first two localities. On July 7th, the study area was searched from 5:00 to 6:00 pm and only mice were found; at 6:30 pm, two *Thamnophis sirtalis semifasciata* were found at Ryerson. On September 4th, brown snakes and red-bellied snakes were found at Ryerson but again no snakes were found at Shaw Prairie. Similar results were obtained on other occasions.

The plains garter snake, *Thamnophis r. radix*, was originally a prairie species, although it also occupies disturbed habitats today. The Chicago garter snake, *Thamnophis sirtalis semifasciata*, is usually found near the forest edge. Suitable habitat for both species is plentiful within the study area; one or both could be found there in the future. Very sudden and dramatic local declines of once common species of snakes have been documented. For example, a population of brown snakes, *Storeria dekayi*, in Missouri was nearly wiped out by flooding in 1982. Brown snakes had been the most common reptile at that site from 1979 to 1982, but disappeared even though other species were not greatly reduced in numbers (Seigel, 1986).

Future sightings of snakes at Shaw Prairie, McLaughlin Meadow, or Haffner Meadows should be recorded. The latter site may become much more suitable for snakes as clearing progresses; probably very few live there now. Any such data could prove to be valuable in determining the fluctuation of population levels over time.

Turtles are relatively easy to locate and identify during the spring, while they bask on logs on the first warm days. They spend most of their time in the water the remainder of the year, and highly specialized and time consuming techniques (trapping, or night hunting from boats) are required to census a population. Because of the lack of high quality aquatic habitat within the study area, and the fact that no rare or uncommon species of turtle are known from within several miles, little effort was expended searching for them.

The following species of reptiles are known to occur within the study area:

SMOOTH GREEN SNAKE *Opheodrys vernalis blanchardi*

Reported from Shaw Prairie during the Illinois Natural Areas Inventory. This secretive snake may be abundant and easily found during April and May, but it is rarely seen after those months. They probably still occur in the prairie areas in fair numbers, and persistent turning of surface cover within the above mentioned time frame may reveal specimens in the future. I have seen them at every other Lake County prairie that I have searched. At the nearby Prairie White-fringed Orchid site (I-94 at Rt. 137) they are most easily found during the late afternoon on warm and sunny early May days.

This snake is believed to be highly susceptible to insecticides (Vogt, 1981; Minton, 1972), and it has disappeared from many unprotected areas in Lake County.

EASTERN MILK SNAKE *Lampropeltis triangulum triangulum*

Three individuals of this species were seen during the course of the study (one adult and two juveniles). The adult was found on the east side of the railroad embankment just west of McLaughlin Meadow, on June 3rd, coiled under a railroad tie. This specimen was approximately 3 feet in length. The two juveniles were found on different days, under the same board, in the central trail at Shaw Prairie. Although almost exactly the same size, photographs confirm that the two sightings were of two different individuals because their patterns were noticeably different.

This species is quite secretive, and the sighting of 3 specimens in an area with limited surface cover indicates that it is probably fairly common within the study area. In Walworth County, Wisconsin, milk snakes are known to spend a great deal of time underground (Henderson et al., 1980)

Most of the habitat information for this species within Illinois is less than adequate. According to Smith (1961) the species is "common in the Chicago area but distinctly uncommon over the rest of Illinois." He calls the milk snake "a forest species, although in Illinois it evidently is not strictly confined to wooded regions." According to Pope (1944) it "has no well defined habitat preference." Most of the specimens seen in Lake County by this author have been in forest edge situations; in presettlement times they were probably widespread in savanna areas. Today, milk snakes are fairly common along the railroad tracks between Wadsworth Prairie and Wadsworth Savanna and in the areas near Grant Township Prairie. They are also common at a number of fairly open sites in McHenry County, including Hickory Grove Highlands and The Hollows. Robert Kennicott in 1856 observed that "*Coluber eximus* (current nomenclature for milk snakes in that time) keeps very much about old logs in the woods." (Kennicott, 1856; Mierzwa, 1986).

SNAPPING TURTLE *Chelydra serpentina*

Snapping turtles have been reported from the Skokie ditch within the study area by a number of individuals, and they are probably fairly common there. This species is very tolerant of water pollution, and still occurs well within the Chicago city limits.

OTHER REPTILES POSSIBLY OCCURRING IN OR NEAR THE STUDY AREA

WESTERN FOX SNAKE *Elaphe vulpina vulpina*

The largest species of snake native to Lake County, often exceeding 4 feet in length. It is common in the less developed portions of the county and seems to prefer fairly open areas near cattail marshes. It also is frequently sighted in the vicinity of barns, probably because of the concentration of mice.

Relatively few fox snakes have been reported from the area east of the Des Plaines River and south of Waukegan, but they could eventually be seen within the study area. Most sightings of this species are of snakes out in the open. It is sometimes mistaken for a rattlesnake because of the similar brown blotches and the habit of vibrating the tip of the tail when cornered.

PLAINS GARTER SNAKE *Thamnophis radix radix* see page 7

CHICAGO GARTER SNAKE *Thamnophis sirtalis semifasciata* see page 7

MIDLAND BROWN SNAKE *Storeria dekayi wrightorum*

Although somewhat sporadic in occurrence in Lake County, this snake tends to be common where it does occur. Normally a forest edge species, it is occasionally found deep in the woods during spring and fall. It is usually found under a board or other object. It is very common at Ryerson Conservation Area, but appears to be absent from some localities in Highland Park and Green Oaks.

RED BELLIED SNAKE *Storeria occipitomaculata occipitomaculata*

This is a small (usually under 10 inches) and very secretive snake. Smith (1961) considered it "distinctly uncommon except in the forested morainal region of Cook and Lake Counties." Most Lake County specimens are found near the forest edge or in small clearings within oak - hickory forest. I have found it in Waukegan, Highland Park, Halfday, and Riverwoods. It often is found with milk snakes. The study area is more open than its normal habitat, but its presence there cannot be ruled out.

KIRTLAND'S SNAKE *Clonophis kirtlandi*

A 1984 sighting of this rare snake at Illinois Beach State Park represented the first Lake County record and the northernmost record since the late 1800's. It still occurs in northern Cook County, but only 3 specimens have been taken there since 1971 (Mierzwa, 1985, unpublished report). *Clonophis* lives in wet meadows, and probably inhabited wet prairies in presettlement times; it spends much of its time in crayfish burrows (Sellers, 1985, unpublished report). Its occurrence within the study area is unlikely but not impossible; it is mentioned here because any sighting of this species would be significant.

MASSASAUGA *Sistrurus catenatus catenatus*

Rattlesnakes probably have not occurred at the study site within the past 100 years. Sightings of any venomous snake generally do not go unreported for long. All recent Lake County sightings of this species have been south of Duffy Road and west of I-94; most have been near the Des Plaines River. Shaw Prairie appears to contain suitable habitat for this species, so it is possible that it did occur there in presettlement times.

BLANDING'S TURTLE *Emydoidea blandingi*

This prairie species is common at Illinois Beach State Park and a few other Lake County sites. Although fairly terrestrial at times, it is limited to the vicinity of marshes or ponds. The wet portions of the study area probably are not extensive enough to harbor this turtle.

PAINTED TURTLE *Chrysemys picta marginata x belli*

This abundant turtle may still occur in the Skokie ditch.

SPINY SOFTSHELL TURTLE *Trionyx spiniferus spiniferus*

This turtle is fairly common in the Des Plaines River. There is a slight chance that single specimens could occasionally enter the study area, but their occurrence is not likely.

MAMMALS

Five types of small mammals were seen during this study, representing most of the species expected to occur in this area. White footed mice were unusually common; the other species were found in normal abundance.

Although this study covered only mice and shrews, other mammal sightings were recorded (see table 1 for a list of species and the dates they were seen). On one occasion (November 11 at Haffner Meadows) a small carnivorous mammal was frightened away while it was in the process of eating a trapped *Peromyscus*. The animal was never actually seen because of the high grass, but judging by size and speed may have been a weasel.

MASKED SHREW *Sorex cinereus*

A single masked shrew was seen near the entrance to Shaw Prairie at the end of Laurel Avenue, approximately 20 meters inside the fence and west of the parking area. This tiny species is common in Lake County. At nearby localities it has been taken both in the woods and in successional fields, and is probably most common in moist situations.

Hoffmeister and Mohr (1957) considered Illinois masked shrews to be *Sorex cinereus cinereus*. Mumford and Whitaker (1982) examined 9 specimens from Lake County, Illinois and found that they were "brownier than *S. c. cinereus*... and thus tend toward *leseurii*."

SHORT TAILED SHREW *Blarina brevicauda*

One short-tailed shrew was caught at Haffner Meadows, in an area of dense shrubs near the forest edge. They probably occur throughout the study area, and should be fairly common. Shrews eat primarily insects and earthworms, so traditional trapping methods often do not give an accurate picture of their relative abundance. Pitfall traps are sometimes effective in capturing shrews, but were not utilized during this study.

Dead shrews may occasionally be found along trails. These may be killed but not eaten by foxes or other carnivores, which find the animals distasteful because of the musk glands.

WHITE FOOTED MOUSE *Peromyscus leucopus noveboracensis*

As expected, this is the most abundant small mammal within the study area. It occurs in all habitats, but probably reaches maximum density in forest edge situations. The 14 specimens taken in only 72 trap nights, (19.44% success rate), indicate an unusually high density. Catches of this species during a study in Vigo County, Indiana ranged from 4.80% to as little as 0.14% (Mumford and Whitaker, 1982, p. 325).

Many of the specimens caught during this study were near areas of dense shrubbery, and a few were taken inside the woods at Haffner Meadows. A few others were caught in very open situations, but no traps were set more than 40 meters from at least some shrubs or trees. The density of this species may decrease toward the centers of the largest open areas. According to Hamilton and Whitaker (1979) "it less often ventures into open grassland and cultivated areas, except when hedgerows or woodlands are close by".

Other individuals of this species were consistently seen under the wooden "table" just west of the parking area at the end of Laurel Avenue. At least some mice were present every time this object was turned, and on July 24th, a single adult with 5 newborn young was seen. The number of mice on other occasions ranged from 2 to 4.

White footed mice are abundant throughout Lake County, and can be the dominant small mammal. They are common at Ryerson Conservation Area, and made up half the total catch during a study there (Mierzwa, Holmes, and Weeg, 1985, unpublished data). They represented 47% of the total catch at Volo Bog, far more than any other species (Mahan and Heidorn, 1984, unpublished report). Local museums have numerous specimens from around the county.

White footed mice fill an important niche in the overall ecology of the area because they are preyed upon by so many other animals. It would be interesting to monitor the relative abundance of this species before and after prairie burns.

PRAIRIE DEER MOUSE *Peromyscus maniculatus bairdii*

Two specimens of the prairie deer mouse were caught in 72 trap nights (0.28%), both at McLaughlin Meadow. This species can be distinguished from the very similar white footed mouse by its shorter tail (less than 65mm) and its shorter hind foot (19mm or less). It inhabits relatively dry, open areas and normally does not occur in the forest. Within the study area, they evidently overlap considerably with the white footed mouse (6 of which were caught on the same day as the deer mice in the same trap line). In the central portions of the prairie, deer mice may be more common and white footed mice less common.

Deer mice occur throughout Lake County but probably become less common toward the southeast because of the more extensive forest areas there.

MEADOW VOLE *Microtus pennsylvanicus pennsylvanicus*

Two adult meadow voles were seen at the southwest corner of McLaughlin Meadow, in a grassy area which floods occasionally. One of them had a litter of 4 young when found on September 4th.

During some years, meadow voles may be common within the study area. Other Lake County populations vary greatly in numbers from year to year. The Ryerson Conservation Area population was apparently near the bottom of its cycle during 1985. Populations at Lake-Cook and Sanders Roads and at Rt. 137 and I-94 were near maximum levels, and voles were so common that they could easily be caught by hand.

OTHER SMALL MAMMALS KNOWN FROM NEARBY AREAS

PRAIRIE VOLE *Microtus ochrogaster*

Known from the northwestern part of Lake County where it usually inhabits drier areas than the meadow vole, although they are occasionally found together.

PINE VOLE *Microtus (Pitymys) pinetorum scalopsoides*

A single specimen (CNHM #022537) from Highland Park was collected in 1924.

MEADOW JUMPING MOUSE *Zapus hudsonius intermedius*

This animal is locally common near the western edge of Lake County

HOUSE MOUSE *Mus musculus*

This species may occasionally enter the study area from nearby residential areas.

PYGMY SHREW *Microsorex hoyi*

This animal is known in Illinois from a single specimen taken in a Palatine garage in 1949. It can be positively distinguished from *Sorex cinereus* only by examining the teeth of the upper jaw under magnification.

GENERAL COMMENTS

Ongoing clearing of portions of Haffner Meadows may increase species diversity at that site. Reptiles in particular will benefit, and might become more conspicuous there over the next several years. Some changes may also occur in relative abundance of the various small mammals, with one possible result being a decrease in numbers of white footed mice and an increase in numbers of deer mice and voles. A major inhibiting factor for amphibian species is the lack of suitable breeding ponds within the study area. Most local species require the presence of ponds which hold water at least into early July, and which are deep enough for eggs to survive early spring freezes.

Consideration should be given to asking staff, volunteers, and visitors to Lake Forest Open Lands Association holdings to report their sightings of animals. A log of sightings would over time add to the knowledge of the area and would also make it possible to monitor the effects of clearing, controlled burning, and other management activities.

TABLE 1.

Amphibians, reptiles, and mammals seen on Lake Forest Open Lands Association holdings during 1986.

DATE	LOCATION(S) VISITED	SPECIES SEEN
30 May	Shaw Prairie McLaughlin Meadow Haffner Meadows	<i>Pseudacris t. triseriata</i> (many) <i>Sciurus carolinensis</i> (3)
2 June	Shaw Prairie McLaughlin Meadow	<i>Lampropeltis t. triangulum</i> <i>Sylvilagus floridanus mearnsi</i> (2) <i>Procyon lotor</i>
11 June	McLaughlin Meadow	
18 June	Shaw Prairie McLaughlin Meadow	<i>Odocoileus virginiana</i>
20 June	Shaw Prairie McLaughlin Meadow	<i>Ambystoma t. tigrinum</i> <i>Sylvilagus floridana mearnsi</i>
25 June	Shaw Prairie McLaughlin Meadow	<i>Microtus p. pennsylvanicus</i>
2 July	Shaw Prairie McLaughlin Meadow	<i>Marmota monax</i> <i>Sylvilagus floridana mearnsi</i> <i>Peromyscus leucopus noveboracensis</i> (2)
7 July	McLaughlin Meadow	<i>Peromyscus maniculatus bairdii</i>
8 July	Shaw Prairie McLaughlin Meadow	<i>Lampropeltis t. triangulum</i>
24 July	McLaughlin Meadow	<i>Peromyscus leucopus noveboracensis</i> w/5 young
25 July	Shaw Prairie McLaughlin Meadow	<i>Bufo a. americanus</i> <i>Sciurus carolinensis</i> <i>Sylvilagus floridanus mearnsi</i> (2)

DATE	LOCATION(S) VISITED	SPECIES SEEN
4 Aug.	Shaw Prairie McLaughlin Meadow	<i>Lampropeltis t. triangulum</i> <i>Tamias striatus</i> <i>Sylvilagus floridanus mearnsi</i>
4 Sept.	Shaw Prairie McLaughlin Meadow	<i>Microtus p. pennsylvanicus</i> w/1 young
28 Oct.	Shaw Prairie McLaughlin Meadow	<i>Pseudacris t. triseriata</i> <i>Sorex cinereus</i> <i>Peromyscus leucopus noveboracensis</i> (3)
29 Oct.	Shaw Prairie McLaughlin Meadow	<i>Peromyscus leucopus noveboracensis</i> (10) <i>Peromyscus maniculatus bairdii</i> (2)
10 Nov.	Haffner Meadows	
11 Nov.	Haffner Meadows	<i>Peromyscus leucopus noveboracensis</i> (8) <i>Blarina brevicauda</i> <i>Vulpes fulva</i> (tracks) <i>Sciurus</i> sp. (tracks)

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