

**Amphibian and Reptile Survey of Sangamon River Corridor Restoration Project**

Christopher A. Phillips

Evan Menzel, Tim Hunkapiller, and John Petzing

Illinois Natural History Survey

Center for Biodiversity

607 East Peabody Drive

Champaign, Illinois 61820

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## Introduction

The Sangamon River Corridor Restoration Project consists of 600 acres of recently farmed fields, grasslands, and riparian forest along the north bank of the Sangamon River adjacent to Allerton Park in Piatt County. Surveys were conducted to determine species composition and the presence of rare, threatened, or endangered species of amphibians and reptiles.

## Materials & Methods

A series of eight Cover Boards were placed in the vicinity of the barn and small pond on April 2. The following environmental variables were recorded every time the boards were checked, before and after the boards were checked: shaded air temperature, substrate temperature, wind speed, relative humidity, cloud cover percentage, and precipitation. Visual Encounter Surveys were employed infrequently. In addition, baited hooptraps were employed in the small pond behind the barn from June 10 to July 1. The traps were set at 14:15 PM, June 10 and checking began at 13:20, June 11. Bait of sardines or chicken liver was refreshed every two days. Finally, the pond behind the barn was seined on 28 May. A 3 m long x 1 m deep seine with 5 mm mesh was pulled by two surveyors for eight hauls of approximately 3 m each.

Any amphibians or reptiles observed while walking or driving between the various traps and methods were recorded separately as "incidental encounters". All amphibians and reptiles were identified to species and released at the point of capture. The single individual *Clonophis kirtlandii* was scale clipped, measured and released at point of capture. Turtles were measured, uniquely marked by notching their marginal scutes, and released back into the pond where capture occurred. No other species were marked so the numbers listed below are encounters, not individuals. All encounters are listed below by survey method and specific location.

## Results

### Cover Boards

Cover Boards were checked on March 31; April 1, 2, 14, 15, 16, 23, 29, 30; May 3, 13, 14, 16, 30; and June 5, 9, 10, 11, 12, 16, 19, 20, 23, 24, 28. Cover Boards yielded no amphibian species and six reptile species:

<i>Thamnophis sirtalis</i>	common garter snake	n=56
<i>Lampropeltis calligaster</i>	prairie kingsnake	n=1
<i>Storeria dekayi</i>	brown snake	n=26
<i>Nerodia sipedon</i>	Northern water snake	n=1

<i>Clonophis kirtlandii</i>	Kirtland's snake	n=1
<i>Elaphe vulpina</i>	fox snake	n=2
<i>Thamnophis</i> sp. ( <i>radix</i> ?)	prairie garter snake	n=1

The majority of the snakes encountered were spread uniformly across the boards. There are some observations concerning the location of the encounters for individual species. *T. sirtalis* was found throughout the study site and was most consistently encountered. *L. calligaster* was found previously in the season during VES, but was only encountered a single time under a board. *S. dekayi* was found frequently and rather uniformly across the boards. *N. sipedon* was encountered only once, at the tin cover board closest to the pond. Both *C. kirtlandii* and *E. vulpina* were found on the western side of the tile drainage that supplies the pond. One *Thamnophis* sp. was encountered, but escaped before identification could be made. A tentative identification of *T. radix*, the prairie garter snake, was made.

## VES

Approximately 19.67 man-hours of effort were expended on VES equally over the following days in 2003: March 17, 22, 31; April 2, 14, 15, 16, 23, 29, 30; May 3, 13, 14, 16, 30; and June 9, 11, 12, 16. Habitats searched included a recent old-field, converted pastureland, and a riparian floodplain forest. Visual Encounter Surveys yielded three amphibian species and four reptile species:

<i>Bufo americanus</i>	American toad	n=2	in the forest
<i>Bufo fowleri</i>	Fowler's toad	n=1	in the forest
<i>Acris crepitans</i>	cricket frog	n=1	in pond
<i>Lampropeltis calligaster</i>	prairie kingsnake	n=2	draw, west of drainage inlet
<i>Thamnophis sirtalis</i>	common garter snake	n=2	ditch west of corn field
<i>Chelydra serpentina</i>	snapping turtle	n=1	drainage outlet form pond
<i>Chrysemys picta</i>	painted turtle	n=11	in pond

## Hoop Traps

Thirty-two trap-nights of turtle trapping yielded two turtle species:

<i>Chrysemys picta</i>	painted turtle	n=7	pond behind barn
<i>Chelydra serpentina</i>	snapping turtle	n=3	pond behind barn

Using hooptraps there were 10 initial captures and 1 recapture.

## Seining

Seining resulted in three amphibian species:

<i>Rana sphenoccephala</i>	southern leopard frog	n=1	
<i>Hyla veriscolor-chrysocephala</i>	grey treefrog complex	n=25 tadpoles	
<i>Ambystoma texanum</i>	smallmouth salamander	n=3 larvae	

## Incidental Encounters

<i>Acris crepitans</i>	cricket frog	n=2	pond behind the barn
<i>Bufo americanus</i>	American toad	n=2	pond behind the barn
<i>Pseudacris triseriata</i>	western chorus frog	n=7	pond behind the barn
<i>Rana catesbeiana</i>	bullfrog	n=20	pond behind the barn
<i>Chrysemys picta</i>	painter turtle	n=2	juvenile and adult caught by hand while setting hoop traps
<i>Trachemys scripta</i>	slider turtle	n=1	shell found near pond inlet
<i>Elaphe vulpina</i>	fox snake	n=1	DOR near entrance of grassy lane on S. Allerton road
<i>Nerodia sipedon</i>	northern watersnake	n=1	Dead on Road (DOR) on S. Allerton Road adjacent to site
<i>Thamnophis sirtalis</i>	common garter snake	n=2	one dead and collected near corn field and one encountered near cover board at levee wall

## Discussion

The list above includes common and abundant species of the region. Noticeably absent from this list are a few common species such as *Coluber constrictor*, *Elaphe obsoleta*, *Heterodon platirhinos* and *Rana blairi* which have been previously vouchered by the Illinois Natural History Survey for the vicinity of the study site. It is reasonable to assume that these species are present, but not enough effort was expended to detect them.