

SPECIES INVENTORY OF THE AMPHIBIANS AND REPTILES OF
STARK COUNTY, ILLINOIS

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Summary. Herpetofaunal surveys have become increasingly common in the past few years in the state of Illinois, however many sites throughout Illinois have yet to be sampled thoroughly. Stark County, Illinois is one such example. There are only seven records for amphibians and reptiles, and five of these records are from collections made before 1980. An intense survey was conducted for amphibians and reptiles in order to address the lack of information on these animals in Stark County. A total of 13 amphibians and reptiles were encountered during the survey (11 of which were new county records) which now brings the county inventory list to 18.

Introduction

Surveys of the herpetofauna of Illinois have become quite common over the past few years (Petzing et al. 1998; Wilson 1999; Petzing et al. 2000; Markezich and Beckett 2001) in an effort to determine the ranges of species and development management plans for these species. Many sites throughout Illinois have been sampled extremely well, however several areas have gone largely unstudied (Markezich and Beckett 2001). One area in Illinois that has been neglected regarding the knowledge of amphibians and reptiles that occur there is Stark County. Stark County is located in the Grand Prairie division of Illinois (Phillips et al. 1999) and may contain the least amount of information on amphibians and reptiles in the state of Illinois. In fact, there are only seven records for amphibians and reptiles in Stark County (Phillips et al. 1999). Of these seven records, five of the records are pre-1980 specimens, which means that only two recent records of an amphibian or reptile exist for this county (Phillips et al. 1999).

Materials and Methods

Locating breeding choruses during the night via phonotaxis from nearby roads and then walking to the actual site of the chorus accomplished surveys of the frogs in Stark County. One individual of each species encountered was then captured by hand to serve as a voucher specimen.

To survey for turtles, ideal spots in rivers and ponds were located and then turtle traps were set. The turtle traps were tarred nylon hoop nets with a 2.5-ft. hoop diameter. The traps were baited with sardines and left for a period of 18 hr which covered both day and night periods. Traps were then checked and reset at different locations.

In order to survey for snakes, roads were driven both day and night to look for snakes that were either crossing roads or dead on the roads. Additionally forested areas were searched for snakes.

Lastly forested areas were also searched for both salamanders and lizards. Logs and other debris were moved to look for salamanders and potential basking spots were checked for lizards. Also temporary pools of water were searched for salamander larvae.

In order to carry out this project a total of 5 trips were made to Stark County, which spanned a total of 11 days. With the aid of a field assistant, a total of 176 search hours were spent on this survey project. For each new amphibian or reptile species that was encountered a voucher specimen was collected and deposited at the Illinois Natural History Survey in Champaign, Illinois. Locality data for each specimen collected in this survey can be found in Appendix 1.

Results

As previously mentioned, there are seven known records for amphibians and reptiles from Stark County, five of which are from pre-1980 collections (Table 1). During the course of this survey a total of 13 amphibians and reptiles were encountered (Table 2), 11 of which were new county records. The new county inventory list now stands at 18 amphibians and reptiles (Table 3), which greatly increases the knowledge on these vertebrates found in Stark County.

Discussion

The primary goal of this project was to intensively survey Stark County in order to provide a more reliable inventory of the amphibians and reptiles that reside there. While Stark County is highly fragmented due to row-crop agriculture, a fair number of amphibians and reptiles were found in this county. However the distributions of these animals were very disjunct due to the agriculture and no one area contained a great number of amphibians or reptiles. While there are no areas worthy of state protection, care should be taken to monitor the species found to occur in this county to prevent their future extirpation from the few isolated locales now known to exist in Stark County. Overall, considering the number of new species found to reside in this county, the results of this project have met the goals of the project. This project has contributed to the knowledge of the herpetofauna of both Stark County and the state of Illinois.

Literature Cited

- Markezich, A.L. and D.J. Beckett. 2001. New amphibian and reptile records in northwestern Illinois. *Herpetological Review* 32:132-134.
- Petzing, J.E., M.J. Dreslik, C.A. Phillips, A.K. Wilson, M. Redmer, T.G. Anton, D. Mauger, and M.J. Blanchard. 1998. New amphibian and reptile county records in Illinois. *Herpetological Review* 29:179-182.
- Petzing, J.E., M.J. Dreslik, C.A. Phillips, C.D. Smith, A.R. Kuhns, D.B. Shepard, J.G. Palis, E.O. Moll, D.J. Olson, T.G. Anton, D. Mauger, and B. Kingsbury. 2000. New amphibian and reptile county records in Illinois. *Herpetological Review* 31:189-194.
- Phillips, C.A., R.A. Brandon, and E.O. Moll. 1999. Field guide to amphibians and reptiles of Illinois. Illinois Natural History Survey Manual 8. 300pp.
- Wilson, A.K. 1999. New Illinois amphibian and reptile distribution records from the Kaskaskia River drainage. *Herpetological Review* 30:118-120.

Table 1. Records of Amphibians and Reptiles in Stark County before the Herpetofaunal Survey.

Scientific Name	Common Name
<i>Ambystoma tigrinum</i>	Tiger salamander*
<i>Acris crepitans</i>	Cricket Frog
<i>Pseudacris crucifer</i>	Spring Peeper*
<i>Elaphe vulpina</i>	Fox Snake
<i>Lampropeltis triangulum</i>	Milk Snake*
<i>Opheodrys vernalis</i>	Smooth Green Snake*
<i>Sistrurus catenatus</i>	Massasauga Rattlesnake*

* Pre-1980 Record

Table 2. Amphibians and Reptiles Found in this Herpetofaunal Survey Along with Museum Numbers of Voucher Specimens.

Scientific Name	Common Name	Museum Number
<i>Acris crepitans</i>	Cricket Frog	INHS 17358
<i>Bufo americanus</i>	American Toad*	INHS 16872, INHS 17359
<i>Bufo fowleri</i>	Fowler's Toad*	INHS 17452
<i>Hyla chrysoscelis/versicolor</i>	Gray Treefrog Complex*	INHS 17355
<i>Pseudacris triseriata</i>	Western Chorus Frog*	INHS 17234
<i>Rana blairi</i>	Plains Leopard Frog*	INHS 17356
<i>Rana catesbeiana</i>	Bullfrog*	INHS 16873
<i>Rana clamitans</i>	Green Frog*	INHS 17357
<i>Coluber constrictor</i>	Racer*	INHS 17419
<i>Elaphe vulpina</i>	Fox Snake	INHS 17420
<i>Storeria dekayi</i>	Brown Snake*	INHS 17417, INHS 17418
<i>Thamnophis sirtalis</i>	Common Garter Snake*	INHS 16878
<i>Chelydra serpentina</i>	Snapping Turtle*	Visual ID**

* New County Record

** Specimen was large, gravid female and therefore not collected.

Table 3. New Amphibian and Reptile Inventory List of Stark County.

Scientific Name	Common Name
<i>Ambystoma tigrinum</i>	Tiger Salamander*
<i>Acris crepitans</i>	Cricket Frog
<i>Bufo americanus</i>	American Toad
<i>Bufo fowleri</i>	Fowler's Toad
<i>Hyla chrysoscelis/versicolor</i>	Gray Treefrog Complex
<i>Pseudacris crucifer</i>	Spring Peeper*
<i>Pseudacris triseriata</i>	Western Chorus Frog
<i>Rana blairi</i>	Plains Leopard Frog
<i>Rana catesbeiana</i>	Bullfrog
<i>Rana clamitans</i>	Green Frog
<i>Coluber constrictor</i>	Racer
<i>Elaphe vulpina</i>	Fox Snake
<i>Lampropeltis triangulum</i>	Milk Snake*
<i>Opheodrys vernalis</i>	Smooth Green Snake*
<i>Sistrurus catenatus</i>	Massasauga Rattlesnake*
<i>Storeria dekayi</i>	Brown Snake
<i>Thamnophis sirtalis</i>	Common Garter Snake
<i>Chelydra serpentina</i>	Snapping Turtle

* Pre-1980 Record

Appendix 1. Locality data for collected voucher specimens.

Scientific Name	Museum Number	Collection Locality/Date
<i>Acris crepitans</i>	INHS 17358	Along 1500N, just west of 935E – 6/13/2001
<i>Bufo americanus</i>	INHS 16872	0.1 miles south of 1400N, 0.3 miles west of 1500E – 4/1/2000
<i>Bufo americanus</i>	INHS 17359	On 1200E, 0.5 miles north of 1425N – 6/13/2001
<i>Bufo fowleri</i>	INHS 17452	Along 1500N, just west of 935E – 6/14/2001
<i>Hyla chrysoscelis/versicolor</i>	INHS 17355	Along 1500N, just west of 935E – 6/13/2001
<i>Pseudacris triseriata</i>	INHS 17234	Along 1100 N, 0.8 miles east of 950E – 4/4/2001
<i>Rana blairi</i>	INHS 17356	Along 1500N, just west of 935E – 6/13/2001
<i>Rana catesbeiana</i>	INHS 16873	0.1 miles south of 1400N, 0.3 miles west of 1500E – 4/1/2000
<i>Rana clamitans</i>	INHS 17357	On 1200E, 1.0 miles north of 1425N – 6/13/2001
<i>Coluber constrictor</i>	INHS 17419	On 1120N, 0.3 miles west of 1175E – 6/15/2001
<i>Elaphe vulpina</i>	INHS 17420	On Rte. 17, 0.1 miles east of Toulon – 6/14/2001
<i>Storeria dekayi</i>	INHS 17417	On 1425N, 0.1 miles west of 1200E – 6/13/2001
<i>Storeria dekayi</i>	INHS 17418	On 1200E, 1.0 miles north of 1425N – 6/13/2001
<i>Thamnophis sirtalis</i>	INHS 16878	On 1250N, 1.0 miles east of 1450E – 4/20/2000
<i>Chelydra serpentina</i>	Visual ID	On 1425N, 0.8 miles west of 1200E – 4/20/2000



