

## A COLLECTION OF AMPHIBIANS AND REPTILES IN SOUTHERN ILLINOIS

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**ABSTRACT.**—Fifty-seven species and subspecies of amphibians and reptiles were collected in Johnson, Massac, Pope and Pulaski counties in southern Illinois. New county records were established for five forms.

During the past several years, representatives of the Cooperative Wildlife Research Laboratory have collected amphibians and reptiles in southern Illinois with major emphasis on the two southern-most tiers of counties. This paper reflects collecting primarily in the southern tier of townships (Cache, Vienna and Grantsburg) of Johnson County; also included are findings for a

few localities in Massac, Pope and Pulaski counties. Emphasis was placed on this region of Johnson County because of the great variety of habitats afforded. In many respects it is similar to the Pine Hills Area in Union County whose herpetofauna has been reported (Rosenman 1956).

The topography of this region represents the Shawnee Hills section of the Interior Low Plateaus Province and the Coastal Plain Province (Leighton *et al.* 1948). Where the Shawnee Hills meet the Coastal Plain Province there are extensive rock outcroppings and precipitous bluffs at the bases of which are springs and inconspicuous, shallow caves. The adjacent and interior lowlands feature the Cache River and

its tributaries, Ray Creek, and several woodland sloughs the largest of which is Little Black Slough. According to forest types (Vestal 1931), the upland features the Southern Division, and the bottomland, the Tertiary Division. Herpetofaunal divisions by Smith (1961) classify the upland region as Shawnee Hills, an area rich in number of species and individuals, and the lowland as Austroriparian, whose herpetofauna is strongly influenced by forms characteristic of the Gulf Coast. As evidenced by the above ecological divisions, this region of southern Illinois provides a wide variety of faunal niches. Our collection of 57 representatives of the herpetofauna substantiates this conclusion as it represents over 50 per cent of all the forms reported for the entire State (Smith 1961).

A total of 55 collection sites were included (Table 1); by counties these were: Johnson 47, Massac 1, Pope 2, and Pulaski 3.

No attempt was made to collect every specimen observed; only a representative sample was actually preserved. In many instances where only a few specimens were found, only one was preserved. However, in some cases the number collected represented all that were observed or that could be captured. All specimens collected and preserved have been deposited in the herpetological collection of the Cooperative Wildlife Research Laboratory or in the collections of the Department of Zoology.

On the basis of the numbers observed and collected, an indication has been made of the relative abundance (common, uncommon, rare) of each species or subspecies. This reflects wide occurrence (generally) or local occurrence (locally) with reference to the finding of specific forms in available and seemingly suitable habitats.

In the list of representatives which follows, the numbers recorded in conjunction with each county refer to the collection sites with the same numbers as presented in Table 1. Scientific terminology follows that of Smith (1961).

#### LIST OF FORMS

**Caudata:** Fourteen of the 19 species and subspecies recorded for Illinois (Smith 1961) are represented in our collection; only *Desmognathus fusus*, which

occurs in southern Illinois (Rossman 1958), was not recorded.

*Cryptobranchus alleghaniensis alleghaniensis* (Daudin)—Hellbender, Massac County: 51. Rare. One specimen collected near Joppa from drift wood at edge of Ohio River by Wayne Greer, June 2, 1960. Stein and Smith (1959) reported only three preserved specimens for Illinois; the latest record was April 15, 1956 from the Ohio River near Metropolis, Massac County.

*Ambystoma maculatum* (Shaw)—Spotted Salamander, Johnson County: 2; Massac County: 48. Locally fairly common.

*Ambystoma opacum* (Grayson)—Marbled salamander, Johnson County: 2, 5, 12, 13, 22, 30, 35, 39; Pope County: 52, 53; Massac County: 48. Locally common.

*Ambystoma talpoideum* (Holbrook)—Mole salamander, Johnson County: 44; Pope County: 53; Rare; single specimen from each of the counties. This represents the first record for Pope County; Smith (1961) reported it from Alexander, Jackson, Union, and Johnson counties.

*Ambystoma texanum* (Matthei)—Small-mouthed salamander, Johnson County: 12, 40, 47; Massac County: 48. Generally uncommon.

*Ambystoma tigrinum tigrinum* (Green)—Eastern tiger salamander, Johnson County: 6, 26. Generally uncommon.

*Notophthalmus viridescens viridescens* (Walterstorff)—Central newt, Johnson County: 10; Pope County: 52, 53. Generally uncommon.

*Eurycea bislineata viridicola* Mittleman—Midwest two-lined salamander, Pope County: 52. Locally rare.

*Eurycea longicauda longicauda* (Green)—Long-tailed salamander, Johnson County: 1, 5, 9, 16, 12, 17; Pope County: 52. Fairly common.

*Eurycea jacknape* Rafinesque—Cave salamander, Johnson County: 1, 5, 9, 16, 12, 14, 17, 25, 29, 45; Massac County: 48. Common.

*Methodia dorsalis* Cope—Zigzag salamander, Massac County: 48; Pope County: 53. Uncommon.

*Methodia glutinosa glutinosa* (Green)—Slimy salamander, Johnson County: 1, 2, 5, 7, 9, 10, 12, 13, 14, 16, 22, 28, 31, 47; Massac County: 48; Pope County: 53. Very common.

*Plethron maculosus maculosus* (Rafinesque)—Mud puppy, Johnson County.

- 6, 32. Locally fairly common. One adult was caught by E. H. Compton while fishing in Cache River; there were many reports of previous catches and observations by fishermen in this river. On April 23, 1860, the junior author collected six larvae in a farm pond which contained "hundreds".
- Sorex intermedius nottingi* Goin—Western lesser shrew. Johnson County: 11. Generally rare.
- Salientia: Twelve of 21 representatives for Illinois as reported by Smith (1961) were collected by us.
- Bufo americanus sharkeyi* Bragg—Dwarf American toad. Johnson County: 11, 22; Pope County: 42. Generally uncommon.
- Bufo woodhousi powleri* Hinckley—Powler's toad. Johnson County: 2, 10, 12, 27, 47. Very common.
- Acris crepitans blanchardi* Harper—Blanchard's cricket frog. Johnson County: 1, 7, 10, 12, 15, 16, 19, 22, 46, 47. Very common.
- Pseudacris triseriata feriarum* (Baird). Upland chorus frog. Johnson County: 10, 19, 32, 33, 46, 47; Pope County: 52, 53; Pulaski County: 55. Fairly common.
- Hyla arborea arborea* Viosca—Western mud-colored treefrog. Johnson County: 11, 38. Locally fairly common. This represents the first record for this county; Smith (1961) reported it for only Alexander, Union and Jackson counties.
- Hyla cinerea* (Schneider) Green treefrog. Johnson County: 11, 47. Very rare as only one specimen was found in each locality. This is believed to be the first record from this county; Smith (1961) shows it for only Alexander and Union counties.
- Hyla crucifer crucifer* Wied—Northern spring peeper. Johnson County: 47. Generally uncommon. Seemingly there is an almost void of this species in the central sector of extreme southern Illinois.
- Hyla versicolor versicolor* Le Conte—Eastern gray treefrog. Johnson County: 2, 10, 11, 19, 46, 47. Fairly common.
- Rana arvalata ovalis* Rice & Davis—Northern crayfish frog. Johnson County: 27. Generally rare; only one specimen was collected. There are few records for extreme southern Illinois (Smith 1961).
- Rana catesbeiana* Shaw—Bullfrog. Johnson County: 7, 15, 28, 30; Maasac County: 49. Generally common.
- Rana clamitans melanota* (Rafinesque)—Green frog. Johnson County: 33, 34, 47. Locally uncommon.
- Rana pipiens sphaerocphala* Cope. Southern leopard frog. Johnson County: 7, 8, 12, 13, 22, 28, 39, 47. Very common.
- Testudines: Seven of the 17 representatives reported by Smith (1961) for Illinois were recorded by us; however, we did not make deliberate effort to collect turtles.
- Chelydra serpentina serpentina* (Linnaeus)—Common snapping turtle. Johnson County: 11, 32, 46, 47. Locally very common.
- Stroethocerus adairi* (Lafreille)—Musk turtle. Johnson County: 11, 30, 47. Locally fairly common.
- Kinosternon subrubrum subrubrum* (Lacépède)—Mud turtle. Johnson County: 2, 11, 30, 47. Locally fairly common. This probably represents the first record for this county and one of very few records for southern Illinois (Smith 1961).
- Trachemys carolina carolina* (Linnaeus)—Eastern box turtle. Johnson County: 2, 32. Generally very common.
- Chrysemys picta marginata* Agassiz—Midland painted turtle. Johnson County: 11, 30, 32, 47. Locally fairly common.
- Pseudemys scripta elegans* (Wied)—Red-eared turtle. Johnson County: 11, 30, 47. Locally fairly common.
- Trionyx spinifer spinifer* Le Sueur—Eastern spiny softshell. Johnson County: 32. Locally fairly common.
- Squamata (Sauria): Five of six representatives reported for Illinois (Smith 1961) were collected.
- Sceloporus undulatus apalachianus* (Green) Northern fence lizard. Johnson County: 1, 2, 27, 28, 32; Pope County: 53; Pulaski County: 55. Generally very common.
- Uma inornata scabra* (Linnaeus)—Six-line racerunner. Johnson County: 27, 32, 33. Locally fairly common. These records represent the first for this county; Smith (1961) reports it in this area only from counties bordering the Ohio River in extreme southeastern Illinois.
- Scincella lateralis* (Say)—Ground skink. Johnson County: 2, 10, 14, 15, 25, 27. Generally very common.
- Exumeces fasciatus* (Linnaeus)—Five-lined skink. Johnson County: 9, 15, 26, 27, 32, 37; Maasac County: 50. Locally very common.

- Numees Jaceps* (Schneider) Broad-headed skink. Johnson County: 2. Generally uncommon.
- Squamula* (Serpentes): Nineteen of 46 species and subspecies reported by Smith (1961) for Illinois were represented in our collection.
- Coryphophis amoenus kelcey* (Kennicott)—Midwest worm snake. Johnson County: 1, 13, 14. Generally fairly common.
- Ferocetus abacera reuscareri* Schlegel—Western mud snake. Johnson County: 11. Generally uncommon.
- Dicodactylus punctatus edwardsi* (McReem) Northern ringneck snake. Johnson County: 13; Pope County: 53. Generally uncommon.
- Heterodon platyrhinos* Latrille—Eastern hognose snake. Johnson County: 15, 21, 23. Generally fairly common.
- Ophiodrys aestivus* (Linnaeus) Rough green snake. Johnson County: 20, 31, 40. Generally fairly common.
- Coluber constrictor priapus* *z. flaviventris* Say—Eastern yellow-bellied racer. Johnson County: 3, 26; Massac County: 48. Generally very common.
- Eliophis chauleta apitoides* Duméril, Bibron, & Duméril—Gray rat snake. Johnson County: 22, 23, 27. Generally very common.
- Lampropeltis calligaster calligaster* (Harlan)—Prairie kingsnake. Johnson County: 47; Massac County: 56. Generally rare. Scarcely this is the first record for Johnson County.
- Lampropeltis getulus sigei* (Yarrow)—Black kingsnake. Johnson County: 13, 29; Pope County: 52. Generally fairly common.
- Lampropeltis triangulum sspida* (Cope) Red milk snake. Massac County: 48. Generally rare.
- Thamnophis sirtalis sirtalis* (Linnaeus) Eastern garter snake. Johnson County: 27; Pulaski County: 45. Locally fairly common.
- Virginia valeriana elegans* (Kennicott)—Western earth snake. Johnson County: 2. Generally rare.
- Storeria occipitomaculata occipitomaculata* (Storer)—Northern red-bellied snake. Johnson County: 3, 5. Generally uncommon.
- Natrix eschschogaster neglecta* Couart—Red-bellied water snake. Johnson County: 7, 23, 37. Locally common.
- Natrix rhombifera rhombifera* (Halliwell)—Diamond-backed water snake. Johnson County: 8, 30, 33, 39; Massac County: 49. Locally common.
- Natrix aspidon piceivialis* Cope—Midland water snake. Johnson County: 2, 18, 36. Locally fairly common.
- Aphelostedion piscivorus leucostomus* (Troost) Western cottonmouth. Johnson County: 11, 30, 47. Locally fairly common.
- Aphelostedion canaliculatum mckeani* (Daudin) Northern copperhead. Johnson County: 2, 27, 32, 39, 41, 43. Generally fairly common.
- Crotalus horridus horridus* Linnaeus—Timber rattlesnake. Johnson County: 42. Generally uncommon.

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TABLE I.—Herpetofauna Collecting Sites and Their Specific Locations, South-Cen Illinois.

*Johnson County*

|                          |  |
|--------------------------|--|
| 1. Nelsot Spring         | —T. 138, R. 4E, SW $\frac{1}{4}$ of Sec. 17.                     |
| 2. Little Stoney Slough  | —T. 138, R. 3E, SE $\frac{1}{4}$ of SW $\frac{1}{4}$ of Sec. 36. |
| 3. Prichard Farm         | —T. 138, R. 3E, NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Sec. 10. |
| 4. Belknap Road          | —T. 138, R. 3E, NW $\frac{1}{4}$ of Sec. 33.                     |
| 5. Bied Spring           | —T. 138, R. 3E, SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Sec. 31. |
| 6. Begg Pond             | —T. 138, R. 2E, NE $\frac{1}{4}$ of Sec. 7.                      |
| 7. White Hill Quarry     | —T. 148, R. 2E, SW $\frac{1}{4}$ of Sec. 5.                      |
| 8. Dick Pond             | —T. 148, R. 2E, NE $\frac{1}{4}$ of NE $\frac{1}{4}$ of Sec. 12. |
| 9. Spout Spring          | —T. 148, R. 2E, SW $\frac{1}{4}$ of NE $\frac{1}{4}$ of Sec. 1.  |
| 10. Sander Spring        | —T. 138, R. 3E, NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 21. |
| 11. Little Black Slough  | —T. 138, R. 2E, NE $\frac{1}{4}$ of Sec. 35.                     |
| 12. Kaiser Farm          | —T. 148, R. 2E, NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 10. |
| 13. Case Bluff           | —T. 138, R. 3E, SW $\frac{1}{4}$ of NE $\frac{1}{4}$ of Sec. 21. |
| 14. Trcvillion Spring    | —T. 138, R. 4E, NW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 13. |
| 15. Sico Spring          | —T. 138, R. 3E, SW $\frac{1}{4}$ of Sec. 15.                     |
| 16. Anderson Spring      | —T. 138, R. 3E, SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 10. |
| 17. Fitcha Springs       | —T. 138, R. 4E, NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 27. |
| 18. Farm Pond            | —T. 138, R. 2E, Sec. 18.   |
| 19. Mathis Pond          | —T. 138, R. 3E, SE $\frac{1}{4}$ of SW $\frac{1}{4}$ of Sec. 32. |
| 20. Route 146            | —T. 138, R. 4E, SW $\frac{1}{4}$ of Sec. 6.                      |
| 21. Gravel Road          | —T. 138, R. 3E, SE $\frac{1}{4}$ of Sec. 10.                     |
| 22. Maffort Bluff        | —T. 138, R. 2E, NE $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 25. |
| 23. Patna Place          | —T. 138, R. 2E, NE $\frac{1}{4}$ of Sec. 35.                     |
| 24. Morse Pond           | —T. 148, R. 2E, NE $\frac{1}{4}$ of Sec. 2.                      |
| 25. Reevesville Cemetery | —T. 138, R. 4E, NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 36. |
| 26. Mascher Spring       | —T. 148, R. 2E, NE $\frac{1}{4}$ of Sec. 2.                      |
| 27. Belknap              | —T. 148, R. 2E, SW $\frac{1}{4}$ of Sec. 1.                      |
| 28. Veach Hollow         | —T. 138, R. 3E, SW $\frac{1}{4}$ of Sec. 14.                     |
| 29. Old Metropolis Road  | —T. 138, R. 3E, SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 10. |
| 30. Levee Slough         | —T. 138, R. 3E, SW $\frac{1}{4}$ of NE $\frac{1}{4}$ of Sec. 31. |
| 31. Wick Hill            | —T. 138, R. 2E, NE $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 21. |
| 32. Foreman Junction     | —T. 138, R. 3E, NE $\frac{1}{4}$ of Sec. 31.                     |
| 33. Mulkey Pond          | —T. 138, R. 2E, NE $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 34. |
| 34. Pipe Spring          | —T. 138, R. 3E, NW $\frac{1}{4}$ of Sec. 18.                     |
| 35. Dripping Spring      | —T. 138, R. 3E, NW $\frac{1}{4}$ of Sec. 18.                     |
| 36. Prichard Farm        | —T. 138, R. 3E, SE $\frac{1}{4}$ of Sec. 9.                      |
| 37. Marshall Pond        | —T. 148, R. 2E, SE $\frac{1}{4}$ of Sec. 12.                     |
| 38. Heron Pond           | —T. 138, R. 3E, NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Sec. 30. |
| 39. High Banks           | —T. 138, R. 3E, NW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 31. |
| 40. Merchant Farm        | —T. 138, R. 3E, NW $\frac{1}{4}$ of Sec. 32.                     |
| 41. Main Bros.           | —T. 138, R. 3E, NE $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 39. |
| 42. Huckleberry Hollow   | —T. 138, R. 3E, NW $\frac{1}{4}$ of Sec. 34.                     |
| 43. Route 45             | —T. 138, R. 3E, NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 28. |
| 44. Thorne Pond          | —T. 138, R. 3E, NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Sec. 31. |
| 45. Mason Cave           | —T. 148, R. 2E, NE $\frac{1}{4}$ of Sec. 6.                      |
| 46. Belknap Road         | —T. 148, R. 3E, NW $\frac{1}{4}$ of Sec. 5.                      |
| 47. Cypress Swamp        | —T. 138, R. 4E, NE $\frac{1}{4}$ of Sec. 14.                     |

*Madison County*

|                   |  |
|-------------------|--|
| 48. Cagle Spring  | —T. 148, R. 4E, NE $\frac{1}{4}$ of Sec. 10. |
| 49. Black Bottoms | —T. 168, R. 6E, SE $\frac{1}{4}$ of Sec. 23. |
| 50. Metropolis    | —T. 168, R. 4E, SW $\frac{1}{4}$ of Sec. 2.  |
| 51. Janna         | —T. 158, R. 3E, SW $\frac{1}{4}$ of Sec. 24. |

*Pope County*

52. Jackson Hollow —T. 11S, R. 5E, S $\frac{1}{2}$  of Sec. 31.  
53. Stafford Bluff —T. 13S, R. 5E, SW $\frac{1}{4}$  of Sec. 29.

*Pulaski County*

54. Farm Pond —T. 14S, R. 2E, NE $\frac{1}{4}$  of Sec. 30.  
55. Mann Bros. Sawmill —T. 14S, R. 2E, NW $\frac{1}{4}$  of SE $\frac{1}{4}$  of Sec. 18.