

# HERPETOLOGICAL NOTES FROM NORTHERN INDIANA

CHAPMAN, GRANT, San Diego, California

The following notes were taken from January 20 to July 12, 1934, while the writer was on duty as the C. C. C. District Commander for the northern half of Indiana. Most of these observations were made in the Jasper-Pulaski (Counties) State Game Preserve, in the Indiana Dunes State Park (Porter County), and in the southwest corner of Starke County. These localities will be abbreviated hereunder by "J-P", "Dunes", and "Starke" respectively. Mr. H. B. Seward, of the Indiana Department of Conservation, made the appended herpetological observations within the Jasper-Pulaski State Game Preserve between June 21 and Dec. 20, 1933. Pertinent quotations are also appended from the Annual Reports of the Department of Conservation of the State of Indiana for 1931, 1932, and 1933.

Evermann and Clark have covered the area of Lake Maxinkuckee, Schmidt and Necker have treated the Chicago and Dunes areas, and Hay, Blatchley, and a few others have made observations within the area covered by the present notes. The collection was presented to Mr. L. M. Klauber of San Diego, California.

## Amphibia

*Ambystoma jeffersonianum* (Green). Jefferson's Salamander.

Four specimens were taken on April 8 while digging for the abutment of a bridge at the Dunes. One specimen was found on April 30 at J-P under a log, the first specimen of any kind taken under countless logs which I have turned in this park. One specimen was found under a log on May 4, two miles west of Woodville, Porter County. Evermann and Clark found only five specimens at Lake Maxinkuckee, while Schmidt reports it common near Chicago.

*Ambystoma maculatum* (Shaw). Spotted Salamander.

One specimen was taken on May 6 five miles west of Valparaiso under a log in damp ground. The spots behind eye and "ear" were bright orange, the remaining spots clear yellow. Evermann and Clark mention only two specimens, while Schmidt reports it as locally abundant near Chicago.

*Plethodon cinereus* (Green). Red-backed Salamander.

Thirty-five specimens were collected on April 21 at Sager's Pond, Valparaiso, under small logs on top of moist dead leaves. They were more numerous on the ridges than near the bottoms. All were torpid and none were present under logs where field mice lived, nor where the leaves were dry. Eight had red backs and twenty-seven had gray backs. On April 26 seventeen more were taken at the same place. Four had red backs and thirteen had gray backs. On April 28 three were taken three miles southwest of Valparaiso, two having red and one gray backs. On May 6 nine were taken five miles west of Valparaiso, six with red and

three with gray backs. In the Valparaiso area approximately thirty percent have red backs and seventy percent gray backs.

*Siren lacertina* Linnaeus. Siren.

One specimen was taken on April 11 in a drainage ditch at J-P by Mr. H. B. Seward and later liberated. I did not see the specimen. This species was not taken by Evermann and Clark at Lake Maxinkuckee nor by Schmidt in the Chicago area. Blatchley does not mention it from the lakes of northern Indiana. Hay lists it from Lafayette, about fifty miles south of J-P. Schmidt and Necker report it from Hebron, Porter County.

The above notes are in agreement with Evermann and Clark that the Caudata are poorly represented in the Maxinkuckee-J-P area and with Schmidt that they are more numerous farther north.

*Bufo americanus* Holbrook. Common Toad.

One specimen was collected at a small pond three miles west of Valparaiso on May 20. Very few specimens were seen and no notes taken.

*Bufo fowleri* Hinckley. Fowler's Toad.

One specimen was taken at the Dunes on May 29. No others were seen. This species is not mentioned by Evermann and Clark, which is in agreement with its not being found at J-P.

*Acris crepitans* Baird. Cricket Frog.

One was taken on April 2 five miles southeast of Chesterton.

*Hyla crucifer* Maximilian. Spring Peeper.

They were singing in chorus early in April five miles southeast of Chesterton.

*Rana cantabrigensis* (Baird). Wood Frog.

One male was found at the Dunes on April 2, and on the 8th. eight mating specimens were collected. All colors and variants described by Hay were present in this group. One of the above females laid about 700 eggs on April 10.

*Rana catesbeiana* Shaw. Bull Frog.

A large female, 15 cm. snout to vent, allowed herself to be picked up at Flint Lake, Valparaiso on May 5. She was full of eggs. Ordinarily they are very wild there. Six large specimens were shot by boys at Mink Lake, three miles north of Valparaiso on May 22.

*Rana pipiens* Schreber. Leopard Frog.

These were numerous on April 2 just south of Chesterton. One male was taken one mile south of Wanatah, Starke County, on April 7. A few were seen on May 9 at the duck pond at J-P.

## Reptilia

It seems strange that Evermann and Clark made no mention of lizards in their work on Lake Maxinkuckee. Myers, quoting Hay, confines all lizards except the glass snake to the southern half of the state but later corrects the statement when he finds that Blatchley recorded the swift as being common in the Dunes in 1897. Schmidt and Necker list three species in the Chicago area.

*Ophisaurus ventralis* (Linnaeus). Glass Snake.

A male was found April 7 crawling on the surface at J-P. This lizard gives off a very disagreeable odor. Additional records are as follows: Dunes, one specimen, May 3; Starke, a male, May 16; J-P, a female, May 17; Dunes, a male, May 22, body 18.2 cm., tail 41 cm. When handled, this lizard feels as if it were creaking and preparing to shatter. Myers gives the range as "occasional throughout the State". Since it is not reported from Ohio or Michigan, it would seem that a more accurate definition of the range would prove interesting.

*Cnemidophorus sexlineatus* (Linnaeus). Six-lined Swift.

A pair, the male more brightly colored than the female, was dug up at Starke on April 20, where a foundation was being excavated. The day was cold with snow flurries. Both specimens were torpid and very fat. The following specimens were also taken: J-P, a female on May 8 and another specimen on May 17; Starke, a male on May 21 and nine more from June 5 to 10; a female at the Dunes on May 23.

*Sceloporous undulatus* (Latreille). Fence Lizard.

Two specimens were taken at the Dunes on June 5. These specimens may have been brought from Fort Knox, Kentucky, by the C. C. C. boys and liberated in the park. Hay records a specimen from near Indianapolis.

*Eumeces fasciatus* (Linnaeus). Blue-tailed Skink.

One specimen was taken under bark at J-P on April 25. Another specimen was taken at Valparaiso under bark on April 28.

*Phrynosoma* sp. Horned-toad.

On May 29 at Valparaiso a small boy brought me a bottle of water containing a bloated and nearly drowned horned toad. It had been mistaken as a dangerous animal and injured in capture. When released on the carpet it soon dried off and was borne off in triumph by an enlightened herpetological enthusiast. It was clearly an escaped individual.

*Heterodon contortrix* (Linnaeus). Hog-nosed Snake.

Two specimens were found at J-P on April 18, and one spotted specimen on May 25. One gray specimen was taken in Starke on May 24.

*Eurypholis vernalis* (Harlan). Green Snake.

Two specimens were collected by Mr. Seward at J-P on May 21. See also Appendix.

*Coluber constrictor flaviventris* (Say). Blue Racer.

Four specimens were taken at J-P on April 18. Many more were seen this date crawling through a field, apparently just emerged from hibernation and seemingly moving in one general direction. On April 24 one specimen was taken at the Dunes. Description: 108 to vent, tail 35.5 cm.; belly clear bluish white, sides blue, back olive green. On May 7, five miles north of J-P a specimen was seen on the road with head held high. It hurried off when the car was sighted. On the same day a male was taken at the Dunes. Description: 75 to vent, tail 27 cm.; belly light blue, sides beautiful sky blue, back blue-green, throat and lips white, snout olive brown, lores black. Another Dunes specimen taken May 12, a male, had an abscess or growth on the right jaw. Description: body 67, tail 28 cm. Another J-P specimen scurried off the road on May 17. Two specimens were taken at Starke on May 21 and a young specimen on the 24th. One of the Dunes foresters states he saw "a ball as large as a bushel basket of blue racers scooped out of a sand bank by a steam shovel last winter."

*Elaphe vulpina* (Baird and Girard). Fox Snake.

Two specimens were taken at J-P on May 21. A car-killed specimen was seen on the road five miles north of J-P on June 28. The C. C. C. boys have captured and sold about a dozen specimens to date.

*Lampropeltis t. triangulum* (Lacepede). Milk Snake.

Three car-killed specimens were seen on the road between Valparaiso and J-P on May 21, and two live specimens were taken at J-P the same day. No others were seen the whole season. It appears that various species of snakes emerge from hibernation under specific climatic conditions, crawl to their feeding grounds, and are seldom seen again until time for the hibernating movement.

*Natrix septemvittata* (Say). Queen Snake.

One small specimen was taken at Sager's pond, Valparaiso on April 17. The specimen seemed to be diseased, having swellings on body and lower jaw. Another specimen was seen at the same time. It is known locally as "bull snake". The tail is prehensile.

*Natrix s. sipedon* (Linnaeus). Water Pilot.

One specimen was seen two miles west of Woodville, Porter County, on May 4. Three specimens were seen at Flint Lake, Valparaiso on May 6. A specimen was taken west of Woodville on May 8, and another on May 14. Description of the latter: body 44, tail 13.9 cm. A juvenile taken at the Dunes, May 18, had body 23.1, tail 7.3 cm. A male was taken at Mink Lake, three miles north of Valparaiso on May 22. One specimen was taken at the Dunes on June 30.

*Storeria dekayi* (Holbrook). Brown Snake.

The following specimens were taken; a male, J-P, April 11; a female, Dunes, April 12; a female found lying on the ground near a drainage ditch in the sun on April 18; a male, Starke, April 23; two females, J-P, April 30; a pair, Dunes, May 1; a male, Dunes, May 3; a specimen under

a log two miles west of Woodville, Porter County, May 4; a female, Dunes, May 18.

*Thamnophis butleri* (Cope). Garter Snake.

A male was taken on the road five miles north of Valparaiso. Evermann and Clark record one specimen.

*Thamnophis s. sauritus* (Linnaeus). Ribbon Snake.

A male was found crawling at J-P on March 20.

*Thamnophis s. sirtalis* (Linnaeus). Garter Snake.

One specimen was taken on January 20 two miles north of Tefft, Porter County, coiled on the grass beside a drainage ditch. I rejoiced at finding what appeared to be the first specimen of a collecting season. The truth appears to be that a January specimen is a late record and that the season does not begin until the latter part of March. A male was found crawling at J-P on March 20, and several specimens had been dug from hibernation prior to this date. The following specimens were also taken; five males, Dunes, April 2; a pair, J-P, April 6; and a very fat female containing a frog April 11; a male, Dunes, April 12; one carinjured specimen, two miles north of Reynolds, White County, April 15; a female, Dunes, April 19; a male, Valparaiso, May 4; one specimen, Dunes, May 12; one seen three miles west of Valparaiso, May 20.

*Sistrurus c. catenatus* (Rafinesque). Rattle Snake.

Two specimens were taken in wet ground near the Boy Scout Camp at the Dunes on May 3.

*Sternotherus odoratus* (Latreille). Musk Turtle.

One specimen was taken at J-P on May 21, and another on the Kankakee River, opposite Riverside, on May 26. It was a male with tectiform carapace. It was not vicious but would bite at an eraser lightly when teased. The University of Valparaiso collection contains one specimen, a female, labeled Flint Lake.

*Kinosternon subrubrum* (Lacepede). Mud Turtle.

This species was not recorded from Lake Maxinkuckee by Evermann and Clark nor by Schmidt and Necker from the Chicago area. It was reported by Blatchley in 1900 thirty miles east of Maxinkuckee. Hay records it from Knox and Vigo counties on the western edge of the state. Blatchley found it common at Bass Lake fifteen miles west of Lake Maxinkuckee. It is not reported from Michigan by Gaige nor from Ohio by Conant. It, therefore, seems confined to the western edge of the state, possibly in communities, and not "probably throughout the state" as Myers states.

The first specimen was taken in a drainage ditch at J-P on April 13, a female on the 18th., and two more on the 30th. A female was taken at Starke on the 23rd, and a male and three females on May 7. A pair was found mating, walking on the bottom of a shallow pond at J-P, on May 9. When picked up they separated. Two more females and another male were taken at the same time and place. A pair, mating, and another male were taken at Starke, May 11. Five males and three

females were taken at Starke, May 15. Two were taken in a practically dried up swamp at J-P on May 17.

This species tames easily, is docile, refuses to bite, feeds readily, and was not known to give off any odor. There are evidences of shells being gnawed by rodents.

An article by the present writer on the sexual dimorphism of this species has appeared in the American Midland Naturalist.

*Chelydra serpentina* (Linnaeus). Snapping Turtle.

A male was taken at J-P on April 11. A large vicious female taken at Valparaiso, April 30, had a carapace 18x24 cm. Another large female was taken at J-P May 7. Three large specimens in the laboratory of the University of Valparaiso were examined May 17. They had been taken by flashlight while apparently feeding on the banks of the stream emptying into Sager's pond. Three juveniles from a creek west of Chesterton were taken on May 18. They had apparently just hatched but no egg tooth was present. They measured 26x26, 30x30, and 32x32 mm., respectively. The underside of marginals and spots on the plastron were blue-white. One specimen was taken at Starke May 21. Many more specimens were seen than are shown in the above notes.

*Clemmys guttata* (Schneider). Spotted Turtle.

Twelve specimens from J-P were taken from shallow drainage ditches on April 18. They are very gentle and allow their legs and tail to be extended without evidence of fear.

Ten specimens were taken from drainage ditches at Starke on April 18, and six more on April 23. A pair was seen at J-P on April 30 trying to mate on moist ground. Both specimens were old with smooth scutes, the male much the smaller. A shell was found which had been gnawed into by some rodent. Another pair were observed mating at J-P on May 1, and several pairs in captivity were mating. The males pay no attention to other males or to *Kinosternon* which are in the same inclosure. A male was observed to be kicking or stroking his tail with his hind feet alternately or with both together. A specimen was taken in a flowing creek five miles west of Valparaiso on May 6. This is the only specimen seen in other than still water. A female was taken on May 6 at Flint Lake, Valparaiso. A pair of old specimens with badly mutilated shells were taken at Starke on May 7. The shells of two young were found where some animal had killed them, consuming the heads and fore feet and leaving the shell on the bank. A juvenile was found dry on a tuft of grass where some animal had tried to devour the fore legs; they were partly skinned, and the head was paralyzed. This specimen measured 47x52 mm., and another slightly smaller specimen was found alive, together with six adult females and three males, at J-P on May 9. A female was taken at Starke on May 11. Several specimens were seen along the edge of a deep drainage ditch on the south edge of Porter County on May 17. The other species were in the center of the ditch. Two specimens from the southwest corner of Starke County were taken on May 21. A female was found dead, its head and fore feet eaten off, in J-P on May 21.

An article by the present writer on the sexual dimorphism of this

species appeared in the last issue of the Proceedings of the Indiana Academy of Science.

*Emys blandingii* (Holbrook). Blanding's Turtle.

The first specimens seen were at J-P where a female covered with caked mud and a male with shell clean and shining were walking beside a drainage ditch on April 6. The plastron of the female was badly gnawed by rodents near the center of the humerals, pectorals, and abdominals, and at the vicinity of the hinges. A large male was taken at the Dunes April 8. One specimen, car-killed, was seen at the north-west corner of Marshall County on April 9. A large female was taken just east of Pokagon Park, Steuben County, also on April 9. Fifteen specimens were observed in a ditch at Starke on April 18. In deep water they are alert and difficult to catch. Their yellow necks are very prominent at a distance. Five specimens were taken at J-P in swampy ground. They push along underneath the algae apparently searching for snails. The light yellow mottling of the carapace closely resembles the bubble-filled algal scum. A very clean, clearly marked specimen was taken at the Dunes on April 19. The Dunes specimens are in contrast to the scarred and rusty looking specimens from Starke. A badly mutilated female, with most of the scute tissue destroyed as if by a grass fire, was taken at Starke on April 20. Five females were taken at J-P on April 30. They were in a shallow grassy pond where the grass was dead, but where there were many algae. Most of these had been badly knawed by rodents. To aright themselves individuals of this species pop their long necks back nearly to the center of the carapace, but do not open the mouth, as is the case with the musk and mud turtles. A juvenile was taken at Flint Lake, Valparaiso, on May 6. It measured 3.5x3 cm. and was similar in shape to the juveniles of *Chrysemys*. The tail was two cm. in length and the umbilical scar was present; it was mottled brown above; the plastron was dark brown with narrow yellowish border; a double line or crease showed where the hinge of the plastron was to develop. A male was taken at Starke on May 7. A juvenile was found at J-P, which had been killed by some animal and the head only eaten and the body left on the edge of a ditch together with several more young of other species which had been killed in the same way. Two adult males and three females were taken at the same time and another male at Spectacle Lake five miles north of Valparaiso on May 9. A young specimen taken at J-P on May 11, measured 10.8x7.8 cm. but bore eight or nine growth rings, making it seem to be stunted. Its pattern was similar to that of *T. ornata*, and it had keels on its last three neurals. A female taken on May 15 at Starke had a plastron which appeared to be solid black, but when scaled with the thumb nail the normal colors appeared. My J-P notes for May 17 read: "Still very dry—ponds drying up. Hunted where swamp had been and found five specimens with their backs out of water, burrowing around grass roots, some on land. A three-ring immature had been chewed in two by some animal. One had its plastron severely knawed by some rodent, but not on the edges; the knawing had been done symmetrically over a large area represented by two crescents paralleling the outer posterior edges of the plastron." A

specimen was seen at the south edge of Porter County on May 17 and one taken at Starke on May 21. A female, very beautifully marked and in perfect condition, was taken four miles west of Valparaiso on June 4. The choicest of these specimens were presented to the New York Aquarium and the remainder released. All specimens were carefully measured and no gross sexual dimorphism was found. At first it appeared that the male had more hooked front claws and redder eyes than the female, but as the data increased no constant difference, even in size, could be noted.

*Terrapene carolina* (Linnaeus). Box Turtle.

A very large, high, square female was taken at the Dunes April 12. A large male with each dorsal scute embossed and the primal disc still showing its granular surface was taken on May 8. It measured 16x12.6 cm. A pair was taken five miles west of Valparaiso in open woods near a permanent pond on May 9. The following notes were made on captive individuals between May 14 and 22. The male wedges his long toe nails under rear carapace of female and she clamps her rear plastron so that he cannot escape. He bites at her head and she closes front plastron fastening his lower jaw so that he cannot move; he is now helpless. After ten minutes he gets his lower bill free but cannot get his toes out; finally she bursts forth and tries to dislodge him by scrambling and batting with her front feet; then she gets his toes and lower bill caught again and after five more minutes she comes out and dislodges him. A male rode another male backwards and got his toes pinched in the front plastron of the other. This species was not observed to try to mate with *T. ornata* or *T. triunguis* or any other species. This species was observed to drink several times a day, whereas *T. ornata* drinks about twice a week. A very handsome female, taken at the Dunes, showed about eighteen growth rings even on the plastron. A female taken at the Dunes on May 22 had pink eyes. When looked at through a hand lens the iris resembles colored grains, some white, some red. Two females were taken at the Dunes on June 22. One had a purple iris.

*Terrapene ornata* (Agassiz). Sand Turtle.

A female was taken at Starke on May 7. My notes read: "Carapace 9.4x7.7 with about sixteen growth rings; a stunted specimen". Later I found that the sand turtle as it is known here is much smaller than *T. ornata* of the western plains. A male taken at J-P on May 9 caused this entry: "Another runt; eye brilliant red; head and face greenish; very active." One small female and two males were taken at J-P on May 10, a pair at Starke on May 31, and a female from J-P on June 10. This female opened her mouth and hissed. This was the only Indiana specimen found which showed any viciousness. In the west this is a rather common trait. It had only three nails on hind feet, but was a typical *T. ornata*. Four males and three females were taken at Starke on June 25. One female measured 50x36 mm. It had both hind feet and some fore toes frozen or burned so badly that they turned black and dropped off. The following observations were made on captive specimens from May 17 to 20: males trying to mate; females very much opposed; a male



tried to right a capsized female; a male got hind toes caught in the hind carapace of a female, which reached out and bit at him. When mating the male rises to a vertical or backward position with toes caught in hind shell of female which frequently bites at him.

The fact that Evermann and Clark did not list this species makes it appear possible that it is spreading eastward. Inasmuch as this turtle has been known for forty years from the J-P area, it seems more probable that it was simply overlooked by the Evermann and Clark party even after "a rather careful study by us of that region covering several years." It should be pointed out also that they make no mention of any lizards, although three species appear to be fairly common twenty-five miles west. They state that the Mississippi River formed an impassable barrier between *T. ornata* and *T. carolina*, but this barrier was removed by the building of bridges. In the same paper they again state: "We have then, in the case of *T. ornata*, an invasion eastward . . . by the removal of the barrier of rivers by the building of bridges." This highly ingenious theory may be answered: (1) *T. ornata* has been known from the J-P area for forty years. (2) Who has seen either species marching across a bridge? (3) The parallel rivers flowing through *T. ornata* territory head well outside of their range but did not prove insuperable barriers. (4) They state, "We have heard of perhaps half a dozen others (*T. carolina*) taken or seen within a few miles of the lake." Some of these may well have been *T. ornata*. (5) *T. carolina* does not drown so very easily. It would probably prefer to breast the waves rather than the bridge traffic. Food, climatic, and other ecological conditions may have governed the distribution of these species more than rivers.

*Terrapene triunguis* (Agassiz).

A female was found in the woods at the Dunes on May 12. It was doubtless an escape or release. There is a mounted specimen in the collection at the University of Valparaiso, and every effort was made to ascertain its source, but to no avail.

*Chrysemys picta marginata* (Agassiz). Painted turtle.

Specimens were seen or taken as follows: an immature specimen at J-P on April 7, measuring 5.1x4.4 mm.; one dead on highway two miles west of Ligonier, Noble County, April 8; a medium sized female at the Dunes April 8; a large female four miles south of Chesterton and a crushed specimen two miles south of Chesterton on April 9; a specimen without center plastron blotch two miles west of Waterloo, DeKalb County, on April 10; a small specimen at J-P on April 11; six specimens taken in edge of pond and in deeper parts of a drainage ditch on April 18; two specimens from drainage ditches at Starke on April 19; a pair from Starke on April 20. These turtles are covered with red, brown, black, cherry, or mahogany-colored pigment which can be scaled off by the thumb nail when dry. A male and two females were secured from Starke on April 28. As is usually the case, the male is very nervous, active, and vicious. They wave all four feet when picked up instead of retracting as is the custom of the females. A male and a female were taken from Starke on April 30; a male from two miles west of Woodville,

Porter County. This specimen was not particularly vicious but snapped when teased. It bore a distinct keel on the first neural. A pair were taken from Flint Lake, Valparaiso, on May 6, a very nervous but not vicious male, and a very old, smooth, and narrow female, measuring 12.1x10.3 cm., from Starke on May 7; two young were found dead on a bank, killed by some animal which devours only the head and fore feet, at J-P on May 9. Two males and two females were taken at the same time and place, a female from Spectacle Lake five miles north of Valparaiso on May 10, and a male from a drainage ditch at Starke on May 11. The male seems to use his front feet and long claws as tactile organs. The male is quicker and more intelligent (?) than the female and is caught more often than his talents warrant, as he is continually wandering into embarrassing cul de sacs, whereas the female sits on a log and tumbles off at the first sign of danger. A female, plain olive green, not decorated as are the specimens from Spectacle Lake, was taken on the dry golf links three miles north of Valparaiso, far from any pond, on May 14; a dead female seven inches long three miles west of Chesterton on May 14; and three females, one vicious, which is rare in this species, from Starke on May 15. Several specimens were seen in a deep drainage ditch on the south edge of Porter County. One was seen picking at something and was easily caught and found to have but one eye. The following is from my notes of May 16: "This is a very dry year—all ponds going dry and crops burning up. This pond, two miles south of Chesterton, contained many turtles and ducks. Walked all over it today and found three recently killed females at the bases of willows growing in the drying pond. The heads and fore feet had been chewed off, but the tail and hind feet had not been touched. There were no tracks showing evidences of a struggle and no tooth marks on the shells. A nearby ditch nearly filled with weeds contained a little water. Here I took a large female which had had her fore feet chewed off and her snout also, but they had healed apparently from the mutilation of a former year. She was very vicious as seems to be the case with any turtle which has been mutilated." Numerous, apparently newly hatched young were taken from Flint Lake, three miles north of Valparaiso, on May 19; about one hundred specimens were seen at Travis Millpond, northwest of Valparaiso on May 20; two specimens were taken from Starke on May 21; a female from six miles south of Chesterton, collected on June 16, had the lower jaw broken, tail off, and vent torn, but all healed, from a prior year's mutilation.

Notes were made on the sexual dimorphism of this species, but Dr. Norman Hartwig has written a thesis on this subject based on a very large number of specimens. It is hoped that it will appear soon.

*Amyda spinifer* (LeSueur). Soft-shelled Turtle.

Mr. Seward reports this species from the main drainage ditch in J-P.

#### Appendix

The following list includes specimens observed in J-P from June 21 to December 20, 1933, by Mr. H. B. Seward and identified by means of Hay's "Batrachians and Reptiles of Indiana". *Siren lacertina*, 3;

*Ambystoma tigrinum*, 8; *A. jeffersonianum*, 3; *Triturus viridescens*, 1; *Bufo americanus*, common; *Hyla versicolor*, 3; *H. crucifer*, 3; *Rana pipiens*, common; *R. cantabrigensis*, 2; *Ophisaurus ventralis*, 6; Lizard, several (probably *C. sexlineatus*); *Storeria dekayi*, 6; *Thamnophis s. sauritus*, common; *T. s. sirtalis*, 20; *Elaphe vulpina*, 3; *Coluber constrictor flaviventris*, 10; *Heterodon contortrix*, 15; *Sistrurus catenatus*, 3; *Clemmys guttata*, common; *Terrapene ornata*, 4.

On page 131 of the thirteenth Annual Report of the Department of Conservation of the State of Indiana the following records for J-P appear: blue racers, 34; prairie snake, 3; cotton mouth moccasin, 1; puff adder, 2; garter snake, 13; hog-nosed snake, 16; water moccasin, 1; grass snake, 9; snapping turtle, 1.

The following has been extracted from the unpublished monthly reports of J-P for 1932: Feb., 1 snapping turtle; June, 5 blue racers; Aug., 4 blue racers; Sept., 1 snapping turtle; Nov., 1 snapping turtle. The same source for 1933 shows: May, 9 blue racers, 3 hog-nosed snakes; June, 11 blue racers; July, 13 snakes; Aug., 2 rattlers; 2 blue racers; Sept., 2 blue racers; Oct., 1 blue racer.

Of course the reptiles listed above were destroyed.

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