

1891. **Butler, A. W.** Our smaller mammals and their relation to Horticulture. Transactions Indiana Horticultural Society, 1891, vol. XXXI, pp. 117-123.
Repaged and issued separately.
1892. ————Our Indiana shrews. Proc. Indiana Acad. of Science, 1891, pp. 161-163.
1892. **Merriam, Dr. C. Hart.** The occurrence of Cooper's Lemming Mouse (*Synaptomys cooperi*) in the Atlantic states. Proc. Biol. Soc. of Washington, vol. VII, 1882, pp. 175-177.
1893. **Fisher, A. K., M. D.** The Hawks and Owls of the United States in their relations to Agriculture. U. S. Dept. of Agriculture, Division of Ornithology and Mammalogy, Bulletin No. 3.
Refers to mammals used as food.
1892. **Dury, Charles.** Zoological notes. What I found in the nest of a field mouse. Journ. Cin. Soc. Nat. Hist., 1892, p. 183.
1893. **Cox, Ulysses O.** A list of the birds of Randolph county, Ind., with some notes on the mammals of the same county. Ornithologist and Oologist, vol. XVIII, pp. 2-3.

PRELIMINARY LIST OF INDIANA MAMMALS.

1. *Didelphis virginiana* Shaw. Common Opossum.
Randolph county (Cox).
Wabash county. Specimen in Galbraith's collection.
Benton county. One sent me from there the winter of 1889-90.
Carroll county, Vigo county, Monroe county. I have seen it in all of these counties (Evermann).
Parke county. W. S. Blatchley's brother caught seven in one night the fall of 1890 near Rockville. Very plenty (M. H. Anderson). Many are brought in every winter to the market at Terre Haute.
Pike county. (Abundant), Indiana Farmer.
Howard county. Formerly abundant until the winter of 1855-6, when they were almost exterminated by severe winter. Since that time have been very scarce. One seen winter of 1885-6 (A. W. Moon).
Huntington county. Wm. E. Bardsley reports an opossum killed near Pleasant Plain the winter of 1892-3.
Hendricks county. Unusually abundant near Hadley winter of 1892-3. Reported in Indiana Farmer, Feb. 4, 1893, (A. Hadley).
Franklin county. Have not been noticeably abundant for a number of

years, until 1892, when quite a number were reported, even coming into Brookville and killing poultry.

Miami county. Abundant until the winter of 1854 (I think it was).

Only a few have been seen since (Oliver Borden).

Porter county. Opossums are becoming numerous in this section of the state (R. B. Trouslot).

St. Joseph county. A number found winter of 1892-3 (H. H. Swain).

Dr. Jordan, in his Manual, says the first toe is without a claw. I have a specimen that has a well-developed claw on each of the first three toes (Evermann).

2. *Lepus sylvaticus* Bachman. Cotton-tail.

Abundant all over the state. Two young ones found at Brookville, January 8, 1890.

3. *Lepus campestris* Bachman.

Mr. Chas. L. Reynolds, of Frankfort, informs me that he mounted one that was taken near Chauncy, in the summer of 1888. The specimen is now in the possession of Mr. Max Spring, a stationer, of La Fayette.

In the winter of 1876-77, I was told that an unusual rabbit was caught near Prince William, in Carroll county (Evermann).

4. *Erethizon dorsatus* (L.). Canada Porcupine.

Mr. C. L. Reynolds says he saw a porcupine on the Wild Cat creek, near La Fayette, about eleven years ago. Dr. Haymond gives it in his mammals of Franklin county. Mr. E. R. Quick reports it having occurred several years since. My mother gave me a vivid account of a fight between a dog and a porcupine which she witnessed in Franklin county forty or more years ago (Butler).

La Grange county (S. D. Steininger, 1860-1870).

Huntington county. Formerly observed; none reported in past seven or eight years (W. E. Bardsley).

Grant county. In the fall of 1892 a fine specimen of the porcupine was taken near Marion (E. L. Guthrie).

Randolph county. Quite common twenty years ago, now not found (Cox).

5. *Zapus hudsonicus* (Zimm.). Jumping Mouse.

Mr. A. J. McCarthy, of Burlington, Carroll county, says in the spring of 1890 he caught three mice that had very long tails and very long hind legs, but short fore legs. They were seen by J. M. Beck also.

They are, apparently, jumping mice. Mr. A. B. Ulrey reports a specimen from Wabash county in Mr. Galbraith's collection.

La Grange county. According to S. D. Steininger.

Reported by Ernest W. Vickers from Mahoning county, Ohio.

Vigo county. Terre Haute, 1889 (W. S. Blatchley).

Stark county. Rather common, frequenting wild sod (Amos P. Atwood).

Knox county. Not uncommon, especially in the low prairie lands along the Wabash river (J. M. Risley).

Howard county. Rare. Only two seen in a lifetime (Isaac F. Street).

6. *Geomys bursarius* (Shaw). Pocket Gopher.

Mr. W. W. Archibald, of Newton county, tells that "a brown pouched gopher is found in that county, but it is not common" (Evermann).

7. *Fiber zibethicus* (L.). Muskrat.

Carroll, Monroe, Franklin and Vigo counties. It seems common in Vigo county. In the Five-mile pond, near Terre Haute, I counted 140 houses the other day, and in the Goose pond, ten miles south of Terre Haute, I have seen many houses. A trapper, near the Goose pond, told me that for several years he had caught about 160 each year at this pond (Evermann).

La Grange county (S. D. Steininger).

Wabash county (Ulrey).

Randolph county (Cox). Common.

Fayette, Fulton and Marshall counties.

The paper by one of the authors on the habits of the muskrat, published in the American Naturalist, November, 1885, gives the result of the observations of the writer in the White Water valley.

8. *Synaptomys cooperi* Baird. Lemming Mouse.

Franklin county. Identified by Dr. Haymond at Brookville thirty-five or more years ago. Its range appears to be quite restricted. It has been found on Brown's hill, southeast of Brookville, and along the bluffs for a mile and a half northwest of Brookville. From the stomach of a hawk killed in the eastern part of the county was obtained the skull of one of these mice. This mouse is considered to be quite a rare mammal. In 1878 Mr. E. R. Quick discovered its presence in numbers.

Brown county, Nashville, (Jordan).

Washtenaw county, Ann Arbor, Mich. Taken by Prof. J. B. Steere. He

informs me he does not know of its occurrence elsewhere in the state. At Ann Arbor it is confined to a very restricted locality.

9. *Arvicola pinetorum* (Le C.). Pine Mouse.

Franklin county. To Mr. Quick belongs the credit of obtaining the first reported pine mice from Indiana. In certain localities they are some years plentiful enough.

Vigo county. Terre Haute, Nov. 3, 1890; spring 1891.

Randolph county. Farmland, Jan. 1891. (U. O. Cox).

Wabash county. One specimen, North Manchester (A. B. Ulrey).

10. *Arvicola austerus* (Le C.).

Franklin county. A few specimens have been taken, but it does not appear to be abundant.

Vigo county. Terre Haute, May 1, 1891.

11. *Arvicola pennsylvanicus* Ord. Meadow Mouse.

Franklin, Carroll, Wayne, Vigo and Randolph counties.

Apparently common wherever reported. The most common meadow mouse.

Clinton county. A partial albino taken by C. J. Reynolds at Frankfort in 1890.

12. *Mus rattus* L. Black Rat.

Introduced into America about 1544, but is now being replaced by the succeeding. Included by Dr. Haymond in 1869, Franklin county. None have been reported since.

13. *Mus decumanus* Pallas. Brown Rat; Norway Rat.

Our common rat. Introduced into America about 1775. Appeared in Brookville in the summer of 1827 (Haymond).

14. *Mus musculus* (L.). House Mouse.

Our common species. Introduced—cannot learn the date of its introduction.

15. *Eutamias rutilus gapperi* (?) Coues. Long-eared Mouse.

There is a specimen in the collection of C. L. Reynolds at Frankfort which seems to belong to this species. It was taken near Montmorenci, Tippecanoe county, in 1889.

16. *Calomys americanus* Kerr. Common White-footed Mouse.

Carroll, Monroe and Vigo counties.

I have oft-n caught an old female with young hanging to her teats and carried her by the tail for many rods before the young would drop off. (Evermann).

La Grange county. (Steininger).

Franklin county. Very common. They often infest the dwellings and outbuildings of the country residents. Sometimes nest in woodpecker holes or other cavity in an old snag.

Randolph county (Cox).

17. *Castor fiber* (L.). Beaver.

This was certainly rather common in Indiana in early days. "Beaver lake" was, no doubt, so named because of the presence of beavers there. Mr. C. L. Reynolds says he saw a beaver swimming in the Wabash river about twelve miles above La Fayette, in the summer of 1889. He says he is sure of it. In Sept., 1888, I saw a skull in Mr. Sampson's collection at New Harmony, that was taken near there not many years ago (Evermann).

Mr. S. D. Steininger says there are traces of the beaver still to be seen in La Grange county.

Beavers were formerly found in some numbers in Franklin county. In Bath and Springfield townships were extensive colonies, and the remains of their dams are still to be seen. They were also found along the rivers. In the spring of 1883 Mr. Edward Hughes obtained the skull of a beaver from the alluvial deposit at the mouth of Yellow Bank creek four miles from Brookville. The specimen is in the collection of the Brookville Society of Natural History.

Randolph county. Extinct. Traces of beaver dams still found (Cox).

18. *Arctomys monax* (L.). Ground Hog.

Franklin, Carroll, Monroe and Vigo.

Randolph county (Cox).

Wabash county (Ulrey).

La Grange county (Steininger).

Generally very abundant and very destructive.

19. *Spermophilus tridecemlineatus* (Mitchill). Striped Gopher.

In the summers of 1883 and 1884 I saw perhaps three or four individuals in Tippecanoe township, Carroll county, just west of Pittsburg. In Vigo county it seems to be rather common. I have the skin of one taken near Terre Haute, a few years ago, and given me by Miss Ida Lawrence. Mr. W. S. Blatchley has one taken just north of Terre Haute, in the spring of 1888. Last spring I saw one alive southeast of Terre Haute, and in June last I saw a dead one hanging on the fence, five miles south of the city.

Miss Helen Rankin, who lives three miles north of Terre Haute, tells

me that it is seen on their farm every summer. [Evermann.]

Mr. C. L. Reynolds has one that was taken near La Fayette. He says he has seen them in the grounds of Purdue University.

Mr. W. W. Archibald says it is pretty common in Newton county.

La Grange county (Steininger).

Benton county. Has been reported from both Benton and White counties by Mrs. D. C. Ridgley.

White county. Mr. Charles Dury informs me there are some specimens in the Cuvier club collection, Cincinnati, Ohio, that were taken at Chalmers.

Mr. Jas. O. Dunn reports having kept two striped gophers in a cage for nearly a year.

Dr. C. Hart Merriam informs me that Robert Potter sent him a specimen of this species taken at Austin, Oakland county, Mich., and further that he received a specimen from J. W. Anderson, Lakeville, Oakland county, Mich.

Found in some numbers by Dr. R. M. Byrnes, in 1862, near Middletown, Butler county, Ohio. See Langdon Mammalia of the vicinity of Cincinnati.

20. *Spermophilus franklini* Sabine. Gray Spermophile.

Remington, Jasper county. Abundant.

Monticello, White county (Jas. O. Dunn).

This is the first reported occurrence in Indiana. Further notes on its range in the state are desired.

Dr. C. Hart Merriam informs me that the U. S. Department of Agriculture received a specimen of *S. franklini* in flesh from R. Carroll, Earl Park, Benton county, Indiana, also that J. B. Chesebrough reported its occurrence at Kentland, Newton county. Dr. Merriam writes he has two records, one from Robert Potter, Austin, Oakland county, and the other from J. W. Anderson, of Lakeville, Oakland county, Mich.

21. *Tamias striatus* (L.). Ground Squirrel.

Carroll county. Abundant.

Monroe county. Abundant.

Vigo county. Abundant.

Wabash county (A. B. Urey).

Randolph county (U. O. Cox). Common.

Franklin county (Haymond; Butler).

La Grange county (Steininger).

22. *Sciurus hudsonicus* Erxleben. Red Squirrel. Chickaree.

Miami county (J. C. Cunningham).

Fulton county. Shot one near Kewanna, 12-24-'89.

Wabash county (Ulrey; Blatchley).

Randolph county (Cox). Occasionally seen.

Blackford county (Cox). Abundant.

Franklin county (Haymond).

La Grange county (Steininger).

Huntington county. The most common squirrel. Some neighbor boys raised fourteen young in 1892 (W. E. Bardsley).

23. *Sciurus carolinensis carolinensis* Allen. Southern Gray Squirrel.

Franklin county. Some years quite common in this part of the state.

Both forms are found here. The gray squirrel is still plenty enough to be extensively hunted.

24. *Sciurus carolinensis leucotis* Gapper. Northern Gray Squirrel.

Carroll county. Formerly abundant.

Monroe county. Not common now.

Vigo county. Not common now.

Wabash county (Ulrey).

Randolph county (Cox). Common in places.

Franklin county (Haymond).

This squirrel is now much less common than it was fifteen to twenty-five years ago. I have for five years watched the Terre Haute market, and in all that time I have not seen over a dozen gray squirrels, while hundreds of fox squirrels were seen. The few gray squirrels that I did see in the market here came from the lower Wabash somewhere (Evermann).

La Grange county (Steininger).

This form with the other is found in Franklin county, though the numbers vary from year to year.

I myself have not seen a black squirrel for many years, though they were not rare in Carroll county when I was a boy.

It is now agreed that the Black Squirrels are a form of the Northern Gray Squirrel. They were formerly quite common in southeastern Indiana, but are now never seen. The lessening of the numbers of this form, *leucotis*, and the increase of the numbers of the southern form, *carolinensis*, is noted by most of the inhabitants. The older men speak of the disappearance of the black and of the gray squirrels "we used to have," and of the appearance of the reddish gray squirrels, which they term a cross between

the gray and the fox squirrels. Dr. Haymond, 1869, says: "Years ago there were about one-sixth of the squirrels in southeastern Indiana black; in northeastern Indiana nearly half of them were black. There are no black squirrels to be seen in southeastern Indiana, neither has there been for several years. * * The further north I have gone in this state the more black squirrels I have seen." In 1872 the last black squirrel was seen in Franklin county.

25. *Sciurus niger ludovicianus* Allen. Fox Squirrel.

Carroll, Monroe and Vigo counties. Still common in each of these counties.

Wabash county (Ulrey). One in Galbraith's collection with the under parts black.

Randolph county (Cox). One killed near Farmland last summer that was about half black. An uncle of Mr. Cox, several years ago found a nest of young fox squirrels, of which two were red, two white and two black.

Last year a white (albino) squirrel was sent me from Bloomington. It was taken in Brown county.

Two white squirrels were seen occasionally on Coal creek, in Vigo county, last year.

(QUERY.—Do we not find melanism and albinism in both gray and fox squirrels?)

Fox squirrels remain about stationary as to numbers in Franklin county. Generally the gray squirrels are much more frequent. Albino examples are met with almost every year.

26. *Sciuropterus volans* (L.). Common Flying Squirrel.

Carroll, Monroe and Vigo counties. I have never found this squirrel very common in any of these counties.

April 16, 1890, I found a nest containing two young, south of Terre Haute. They were in a woodpecker's hole in a maple snag, about twenty feet from the ground. I broke the snag at the hole and took the two young and placed them on the ground near the root of the tree. The mother had come out of the hole upon my first striking the tree and flown to another tree near by, where she remained, watching my movements. After some little time, she flew back to the snag. Of course, she seemed disturbed by the changed appearance of things. She looked all about, and finally came down to the ground, took one of the young in her mouth, and ran up to the top of the snag. Pretty soon she flew across to

another tree, perhaps thirty feet away, with the young one in her mouth, and ran up the tree to, perhaps a height of fifty feet, where she found a knot-hole into which she carried the young. In a moment she reappeared and flew back to the snag after the other young. I had, in the meantime, stationed myself by the young, ready to catch the old one when she came to seize it. After several advances and retreats, she finally came and seized it in her mouth and was putting up the snag when I caught her.

On December 16, 1890, I received three live ones from Burlington, Carroll county, that had been caught by J. M. Beck. In felling a tree he found a family of six, three of which he caught and sent to me.

Randolph county. Mr. Cox reports it not so common as it was formerly. He says that on Thanksgiving day, a few years ago, he found fifteen in a small rotten stump, a little higher than a man's head.

Wabash county (Ulrey). This squirrel makes a very interesting pet.

Franklin county. Very abundant in Franklin county. They breed during the sugar making season in early spring. It is remarkable what a number of these animals can be found by going from snag to snag and pounding upon it at that time of the year. I have found their nests in woodpecker's holes in tall sycamores and in various buildings, including dwellings.

La Grange county (Steininger).

27. *Blarina brevicauda* Say. Mole shrew.

Carroll, Monroe and Vigo counties.

Tippecanoe county. (Reynolds' collection.)

I have seen a good many of these shrews in Monroe county, and a few in Carroll and Vigo. On two occasions I put a shrew and a white-footed mouse in the same tin can, with the same result each time—the shrew ate the mouse (Evermann).

La Grange county (Steininger).

Franklin county. Common.

See my paper "On Indiana Shrews," Proc. Ind. Academy of Science 1891, pp. 161-3, for an account of the insects that were found by Chas. Dury in a nest of this species. (Butler).

Vigo county. One specimen, spring 1891.

Randolph county, 1891 (Cox).

28. *Blarina exilipes* (Baird).

I have seen but four specimens of this little shrew, all of which were

taken by Mr. H. M. Hawley, near Terre Haute. The first one was brought me by him Jan. 18, 1890, the next Oct. 1, 1890 and the next Oct. 10, 1890. Mr. Hawley says it is not very common about his place, but that his cat manages to catch four or five every year. He calls it the bee mole, because it gets into his bee hives and there builds its nest and feeds upon the brood (Evermann).

Franklin county. Sometimes taken.

Randolph county. Farmland, winter 1890 (U. O. Cox).

29. *Blarina platyrhinus* (DeK.). Common Shrew.

Wabash county. A specimen of this shrew was taken by Mr. A. B.

Ulrey at North Manchester. This is the only reported occurrence in the state.

30. *Blarina parva* (Say). Least Shrew.

Franklin county (Butler).

Two small shrews, submitted by Mr. E. R. Quick to Dr. Langdon, were referred to Dr. Coles. That gentleman, Jan. 15, 1879, wrote Dr. Langdon: "I have not the slightest doubt that you have the veritable animal of Say (*Sorex parva*) in the specimen you send." It is not uncommon about Brookville.

Marion county (Jordan). Brayton, Ohio Mammals.

Ann Arbor, Washtenaw county, Mich. Reported by Prof. J. B. Steere who, however, informs me that he is not certain of its identity.

31. *Blarina cinerea* (Bach.). Cinereus Shrew.

Jefferson county. A dead shrew, found by me near Hanover, in 1877 was referred to the late Prof. S. F. Baird, and he returned it, saying that it was this species.

32. *Scalops aquaticus* (L.). Common Mole.

Carroll, Monroe and Vigo counties (E).

Tippecanoe county (Reynolds).

Randolph county (Cox).

Franklin county (Haymond; Butler). Many moles taken here are more or less marked with white on throat and lower parts.

Rather common in all the above named counties.

La Grange county (Steininger).

33. *Condylura cristata* (L.). Star-nosed Mole.

The first specimen of this mole taken in Indiana was secured by Mr. J. C. Cunningham, near Denver, Miami county, July 5, 1887. The taking of this specimen was reported by Mr. Evermann at the meeting of the

Academy in December, 1887, this note being afterward published in the American Naturalist, vol. XXII, p. 359. Mr. Butler also examined the specimen and reported it in Journal of the Cincinnati Soc. Nat. Hist. for January, 1888, p. 214. The specimen was deposited in the Museum of the Indiana State Normal School, but was lost in the fire of April 8, 1888.

Miami county. Mr. Wm. Heddleson near Deedsville, captured a Star-nose Mole, March 19, 1894. The specimen is now in possession of Mr. C. F. Fite of Denver. (J. C. Cunningham).

Ernest W. Vickers, Ellsworth, Mahoning county, Ohio, informs me of the occurrence of this species in that county, also in Cuyahoga county near Cleveland.

Prof. J. B. Steere informs me the Star-nosed Mole is abundant at Ann Arbor, Mich. in low swampy ground which has been drained. He has also taken it in Ionia county, Mich.

34. *Vespertilio gryphus* Fr. Cuv. Little Brown Bat.

Carroll county, Monroe county, Vigo county. Common in all of these counties. (E.)

Wabash county. Ulery's collection.

Tippecanoe county. Reynold's collection.

Clinton county. Collection of Mr. Al. Keyes.

La Grange county (Steininger).

Franklin county (Haymond). The most common bat in southeastern Indiana.

35. *Vespertilio gryphus lucifugus* (LeC.).

Vigo county. A specimen taken at Terre Haute in 1889. (Evermann).

36. *Lasionycteris noctivagans* (Le C.). Silvery Bat.

LaPorte county. I have a specimen taken near Michigan City, May 10, 1890, and presented to me by Mrs. D. C. Ridgley.

Franklin county. Has been taken by E. R. Quick.

Marion county. Two specimens in the collection of W. P. Hay, Irvington. One taken in 1886, the other in 1889.

37. *Adelonycteris fuscus* (Beauv.). Brown Bat.

Vigo county. A specimen taken by me in 1889 at Terre Haute. (Evermann).

Franklin county. Identified by Mr. Quick.

38. *Atalapha noveboracensis* Erxleben. Red Bat.

Carroll county, Monroe county, Vigo county. Rather common in all these counties.

Wabash county. Ulrey's collection. Took one at Terre Haute, Sept. 8, 1890.

Franklin county (Haymond). Next to the Little Brown Bat this is perhaps the most common species in southeastern Indiana.

39. *Atalapha cinerea* (Beauvais). Hoary Bat.

White county. A specimen taken in White county (1890) by Miss Eva Chamberlain.

Franklin county (Haymond). Has been taken by E. R. Quick.

40. *Vesperugo carolinensis* (Geoff.). Carolina Bat.

Franklin county. Identified by Mr. Quick.

41. *Cariacus virginianus* (Boddert). Virginia Deer.

Common in the early days.

Franklin county (Haymond—1847, Butler). I have no recent records, unless La Grange county, 1870, (Steininger) be alright.

Ripley county. Only few years ago. (Butler).

42. *Cervus canadensis* Erxleben. Wapiti; Elk.

Franklin county. Was found comparatively rarely in the White water region at the time of its settlement and soon after disappeared. I have evidence of its occurrence in Ripley county subsequent to 1810. Its former abundance was indicated early in the century by the great numbers of antlers to be found in the beds of the streams most of which soon disappeared, but often they are still found buried beneath the surface of the soil.

43. *Bison bison* (L.). Bison; Buffalo.

The Buffalo is on the seal of the state of Indiana, and was no doubt found in the state in an early day. Allen, in Ninth Report of the U.S. Geological and Geographical Survey, 1875, pp. 502, etc., gives all that he could find as to its former distribution in North America. From this it appears that it was at one time abundant over large portions of Indiana. Charlevoix, writing in 1720, says "all the country that is watered by the Ouabache and by the Ohio which runs into it, is very fruitful. It consists of vast meadows, well-watered, where the wild Buffaloes feed by thousands." Vaudreuil, writing about the same time, and La Hontan who saw Lake Erie and the surrounding country in 1687, also speak of the Buffalo as being abundant in this region then. See also Audubon's article on the Buffalo given in The Life of Audubon by Mrs. Horace St. John.

Franklin county. Only the earliest settlers and they but once, so far as can be learned, reported the occurrence of the Buffalo in this county

about four miles southeast of Brookville. The last one reported from Ohio was in 1795. They doubtless left Indiana about 1800. That they once were very abundant in the Ohio valley is shown by the abundance of their remains at "Big Bone Lick" in Kentucky. The earlier explorers, too, tell us of their numbers. Col. Croghan, in May, 1765, speaking of Kentucky just below the mouth of the Big Miami river, on the way to "Big Bone Lick," says: "On our way we passed through a fine timbered clear woods: we came into a large road which the Buffaloes have beaten, spacious enough for two waggons to go abreast, and leading straight into the Lick."

44. *Procyon lotor* (L.). Raccoon

Carroll county, Monroe county, Vigo county. Formerly more common than now.

Wabash county (Ulrey). Galbraith's collection.

Randolph county (Cox). Very abundant.

Franklin county. Still found in some numbers.

La Grange county (Steininger).

45. *Ursus americanus* Pallas. Brown, Black or Cinnamon Bear.

Franklin county. No doubt common in Indiana at one time, but there are few exact records. The last Bear was seen in Franklin county about 1839. A few years ago the skull of a bear was found in a hollow tree. It was brought to Dr. Haymond, who turned it over to Mr. Butler. It is now in Mr. Quick's collection.

La Grange county, 1878 (Steininger).

46. *Lutra hudsonica* (Lacépède). American Otter.

Franklin county (Haymond). Mr. C. L. Reynolds tells me that a Mr. Wells, at La Fayette, has an otter that was killed near there not many years ago. It occurred at Venice, Butler county, several years ago. (Dury.)

47. *Mephitis mephitis* (Shaw). Skunk.

Carroll County, Monroe county, Vigo county. Not uncommon in each of these counties, though less so than formerly.

Randolph county. Not common. (Cox).

Wabash county (Ulrey).

La Grange county (Steininger).

Franklin county. Still abundant. E. R. Quick reports the capture of a fine black male in the winter of 1892-3. This seems to be unusual as the general impression is that the males are usually light col-

ored. Is this impression correct?

48. *Taxidea americana* (Boddart). American Badger.

One was killed 2 miles east of Quaker Hill, or 5 miles southwest of Newport, Vermillion county, in 1880, by a cousin of S. B. McCool of Quaker Hill. Reported by Mr. F. T. Peters. Mr. S. D. Steininger, says 'the badger has been found in Elkhart, La Grange, Steuben, De Kalb, Noble and Kosciusko counties. Four have been caught in La Grange county within the last ten years, the last one in 1887. Three were caught in the north-east part of Elkhart county in 1888. In 1880 a black one was caught in Noble county, the hide of which was sold to Chas. Edson.

Grant county. A badger was reported taken but could not verify it (E. L. Guthrie).

Franklin county. July 28, 1889 a badger was killed near Metamora.

Upon examining it the gentleman who killed it said two others had been taken the preceding year (1888).

49. *Putorius vison* (Schreber). Mink.

Carroll county, Monroe county, Vigo county. I have seen it occasionally in each of these counties. (Evermann.)

Wabash county (Ulrey). Galbraith's collection.

Randolph county. Common (Cox). Mr. Cox reports that a mink killed 24 half-grown chickens for him in one night two years ago. Each chicken was bitten only through the head.

Tippecanoe county. Reynold's collection.

La Grange county (Steininger).

Franklin county. Not uncommon in certain localities, especially about drift piles along streams. Last year, 1893, the writer saw three minks at one time in daylight about a drift pile within the corporate limits of the town of Brookville. *Putorius nigrescens* (A. and B.). Little Black Mink is not now thought to be a distinct species. Both forms are found in Franklin county.

50. *Putorius erminea* (L.). Weasel.

Carroll county, 1878; Monroe county, 1883; Vigo county, 1890. I have seen the weasel in each of these counties, but never found it common (Evermann).

Wabash county (Ulrey). Galbraith's collection.

Randolph county (Cox). Occasional.

La Grange (Steininger).

Franklin county. Not uncommon. Some reported every year.

51. *Vulpes vulpes* (L.). Red Fox.

Carroll county, Monroe county, Vigo county. Rather common in each of these counties. In Vigo county several "fox drives" are had every winter and from none to three or four foxes caught each time.

Wabash county (Ulrey). Galbraith's collection.

Randolph county. Common. Cox.

La Grange county (Steininger.)

Franklin county. According to Dr. Haymond the Red Fox came into the county about forty years ago. Previous to that time the gray form only was found. They are numerous. Fox drives were much in vogue a few years ago but none have been had for several years.

52. *Urocyon cinereo-argentatus* (Schreber). Gray Fox.

Franklin county. These foxes are numerous; probably as much so as they ever were. (Haymond, 1869). They are still found but are rare. Their shy habits perhaps make them appear less numerous than they are.

53. *Canis lupus* (Say). Wolf.

Periodical reports of "wolves" are heard, but there is no definite record that I have seen. One was said to be in Clay county in 1890.

Franklin county. Formerly found in numbers. Wolves have been reported killed within twenty or twenty-five years but the greater number had disappeared before that time.

Lake county. Several wolves said to be "Prairie Wolves" found along the Kankakee river in the last two years. (M. A. Brannon, 1890).

54. *Lynx canadensis* (Desmarest). Canada Lynx.

Mr. C. L. Reynolds tells me he mounted a Lynx that was killed in 1885, 7 or 8 miles west of Chauncey, Tippecanoe county.

La Grange county, 1875 (Steininger.)

Montgomery county. One was killed Nov. 22, 1890 near Garfield. (David Binford.)

Franklin county. Was formerly found but never common.

55. *Lynx rufus* (Guldenstädt). American Wild Cat.

Franklin county. In 1869 Dr. Haymond noted "occasionally seen but rare." That was about the end of their existence in this county.

Wild cat reports are seen in the papers almost every winter. Definite records are needed.

56. *Felis concolor* L. American Panther.

Franklin county. Formerly found. Known to the early settlers as Pan-

ther, Painter, Cougar, Catamount. Never was common. But few have been seen since 1835. Two young were taken east of Brookville in 1838. None have been reported for thirty years or more. Other definite records needed.

SPECIES CONCERNING WHICH FURTHER KNOWLEDGE IS DESIRABLE REGARDING
THEIR POSITION IN THE INDIANA FAUNA.

Nycticejus humeralis O. Thomas. Twilight Bat. Pennsylvania to Nebraska and South.

Scapanus americanus (Bartram). Hairy-tailed Male. Massachusetts to Ohio. Adams county, Ohio.

Scalops argentatus A. and B. Prairie Mole. Silvery Mole. Michigan to Louisiana and West.

Neosorex palustris (Rich.). Water Shrew. Massachusetts to Rocky Mountains and North.

Sorex forsteri (Rich.). Forster's Shrew. Northern U. S. to Pennsylvania.

Sorex cooperi Bach. Cooper's Shrew. Massachusetts to Nebraska and North.

Brachysorex harlani (Duver.)

Brachysorex brevicaudatus (Duver.)

Amphisorex leseurii (Duver.)

These three last species were described by Duvernoy in 1842. The two former from New Harmony, Ind. The latter from Wabash valley, Ind. Their present relationship are not known.

Ochetodon humilis (A. and B.). Harvest Mouse. South Carolina to Iowa, Utah and South.

Calomys palustris Harlan. Rice-field Mouse. New Jersey to Kansas and South. Madisonville, Hamilton county, Ohio, 1876 (Langdon).

Calomys michiganensis (A. and B.). Michigan Field Mouse. Michigan to Illinois and Kansas.

Calomys aureolus (A. and B.). Red Mouse. Pennsylvania to Illinois and South.

Neotoma floridana Say and Ord. Wood Rat. New York to Colorado, Arizona and South.

Lepus palustris Bach. March Hare. North Carolina to South Illinois and South in Swamps.

Lepus aquaticus Bach. Water Hare. South Illinois to Louisiana and Southwest in canebrakes and about lowland streams.

Mephitis putorius (L.). Little Striped Skunk. Wisconsin to Georgia and Southwest.