## 59.9(71.2)

## Article II.— MAMMALS FROM THE ATHABASKA-MACKENZIE REGION OF CANADA.

## By J. A. Allen.

During the summer of 1907 Mr. E. Thompson Seton, accompanied by Mr. Edward A. Preble of the Biological Survey as assistant, made an expedition to the Barren Grounds in the vicinity of Aylmer Lake, Mackenzie District, for the purpose of natural history exploration. Their route was by way of the Athabaska River, Slave River, Great Slave Lake, and the chain of lakes northeastward to Aylmer Lake. The birds and mammals obtained on this trip were purchased for this Museum, through the generosity of Mrs. Morris K. Jesup. The birds have already been briefly reported upon by Mr. Seton; for the sake of the localities, and the measurements taken by Mr. Preble from the specimens in the flesh, it seems worth while to record these data for the mammals, which comprise about 270 specimens, and represent 25 species.

The principal points at which collections were made are: Athabaska River, 20 miles below Athabaska Landing, May 18 and 19; Grand Rapids, Athabaska River, May 22–24; Fort McMurray, Athabaska River, May 28, 29; Slave River, June 6–8; Fort Smith, Slave River, on the Athabaska–Mackenzie boundary, June 13–July 2; Great Slave Lake (various points), July 19–27, September 10–27; east shore of Artillery Lake, August 2–5; Aylmer Lake (various points), August 14–29; Artillery Lake (mostly east shore at tree limit), August 31–September 8.

The collection consists mainly of rodents, but lacks representatives of the genera *Phenacomys* and *Synaptomys*; it also contains only a single specimen of *Sorex*, and single specimens each of three species of *Putorius*; also only two specimens of *Lepus*, and one of *Eutamias*. With Mr. Preble's previous long experience in this general region, the scarcity of such forms as these in the collection seems to emphasize the precarious nature of the search for certain mammals that we are apt to associate especially with the region visited. In the case of the Arctic Hare, the visit was made during a year in which its numbers were reduced to a minimum by the great epidemic of 1907.

Among the noteworthy species obtained are a fine old male Musk-ox and a series of specimens of the Barren-ground Caribou.

<sup>&</sup>lt;sup>1</sup> 'Bird Records from Great Slave Lake Region. A preliminary List of Birds observed by my 1907 Expedition into the Arctic Barren-grounds of Canada ' By Ernest Thompson Seton. Auk, Vol. XXV, Jan. 1908, pp. 68-74.

1. Rangifer arcticus (Richardson). Seven specimens, skins and skulls, of which four are males and three females; two are fawns about three months old; the others are adults, in the abraded winter coat or in moult. All are from the east shore of Artillery Lake, at tree limit, August 2, except one taken at the outlet of Artillery Lake, August 25. The antlers of the two adult males were not preserved.

The collector's measurements of an adult male and three females are as follows:

Adult male, total length, 1930 mm.; tail vertebræ, 152; hind foot, 520; "weight, after loss of blood and some contents of paunch, 268\frac{3}{4} lbs."

Adult female, total length, 1590; tail vertebræ, 110; hind foot, 510.

Adult female, total length, 1524; tail vertebræ, 152; hind foot, 483.

Adult female ("just past nursing"), outlet of Aylmer Lake, August 25; total length, 1702; tail vertebræ, 127; hind foot, 508; height, 914.

2. **Ovibos moschatus** (Zimmermann). One specimen, a large, very old male, Aylmer Lake, long. 109° 20′, August 16.

Measurements: Total length, 96 in. (= 2338 mm.); tail vertebræ, 102 mm.; hind foot, 19 in. (483 mm.); height at shoulders, 59 in. (= 483 mm.)

- 3. **Marmota monax canadensis** (*Erxleben*). One specimen, Fort McMurray, Athabaska River, May 28. Total length, 435; tail vertebræ, 125; hind foot, 75.
- 4. **Citellus (Colobotis) parryi** (Richardson). Twenty-six specimens, skulls without skins, the skins having been lost by the upsetting of a boat: East shore of Artillery Lake (tree limit), August 3 (9); Clinton-Golden Lake, August 12 and 29 (5); Aylmer Lake, August 14, 17 (2); Sandhill Bay, Aylmer Lake, August 20–23 (4); outlet of Aylmer Lake, August 25 (1); near head of Artillery Lake, August 31 (2); east shore (tree limit), Artillery Lake, Sept. 4–6 (3).

Six adult males, from Aylmer and Clinton-Golden Lakes: Total length, 413 (395–430); tail vertebræ, 133 (120–140); hind foot, 63 (60–66). The females are much smaller, the largest female of the series being smaller than the average of the series of males.

- 5. **Eutamias borealis** (Allen). One specimen, male, Fort Smith, June 15. Total length, 210; tail vertebræ, 96; hind foot, 30.
- 6. **Sciurus hudsonicus** Erxleben. Three specimens: Fort McMurray, May 28; Fort Smith, June 17; Fort Reliance, Great Slave Lake, September.

Fort McMurray,  $\mathcal{P}$ , total length, 315; tail vertebræ, 130; hind foot, 48. Fort Smith,  $\mathcal{P}$ , 325, 135, 51. Fort Reliance,  $\mathcal{O}$ , 336, 147, 53.

- 7. **Sciuropterus sabrinus** (Shaw). One specimen, Fort Resolution (without skull, date, or measurements).
  - 8. Peromyscus maniculatus arcticus (Mearns). Sixty-nine specimens,

including young and old in all phases of pelage: Twenty miles south of Athabaska Landing, May 12 (1); Grand Rapids, Athabaska River, May 22–24 (22); Fort McMurray, May 29 (3); Fort Smith, June 13–18, July 1, 2 (31); Oot-sing-gree-ay Island, Great Slave Lake, July 22 (2); Old Fort Reliance, Sept. 15, 16 (3); west end of Ethen Island, Great Slave Lake, Sept. 21, 22 (5); Fort Resolution, Sept. 27 (3).

A series of 22 adult specimens, 11 males and 11 females, all taken on an island at Grand Rapids, Athabaska River, shows a wide range of variation in measurements. The males average slightly the larger, but there is a wide range of individual variation in specimens apparently equally adult, in each series, as follows: 11 males: Total length, 172.5 (162–182); tail vertebræ, 80.8 (73–86); hind foot, 20.5 (20–21). 11 females: Total length, 171 (165–178, with 1 at 193); tail vertebræ, 78.8 (73–82, with 1 at 92); hind foot, 20.1 (19–21).

Another series of 7 adult females from Fort Smith, about 300 miles further north, averages considerably larger, as follows: Total length, 181 (165–196); tail vertebræ, 78 (70–88); hind foot, 20.3 (20–21). They also appear grayer and less fulvous.

These measurements, taken by Mr. Preble, greatly exceed those given for this subspecies by Mr. Osgood in his 'Revision of the genus *Peromyscus*' (N. Am. Fauna, No. 28, 1909, pp. 49 and 260).

9. **Evotomys gapperi athabascæ** *Preble*. Fourteen specimens: Grand Rapids, Athabaska River, May 23 (2 specimens); Fort Smith, Slave River, June 16, 17 (2); east end of Great Slave Lake, Sept. 10 (4); Fort Reliance, Great Slave Lake, Sept. 15, 16 (3); Ethen Island, Great Slave Lake, Sept. 22 (3).

Measurements of 8 adult females from the lower Athabaska and Slave Rivers: Total length, 130.3 (128–142); tail vertebræ, 33 (28–38); hind foot, 18.3 (18–19).

10. **Evotomys dawsoni** *Merriam*. Seventeen specimens: North shore of Lake Aylmer, long. 109° 20′, August 16–19 (7); Sandhill Mountain, outlet of Lake Aylmer, August 28 (7); Kasba Lake, August 31 (1); Artillery Lake (near head), Sept. 1 (2).

Measurements of 8 adult females from Aylmer Lake are: Total length, 135 (127–146, with one at 155); tail vertebræ, 31.5 (30–33, with one at 37); hind foot, 19 (18–20).

11. **Lemmus trimucronatus** (*Richardson*). Fourteen specimens, mostly immature: Aylmer Lake, Sept. 7 (1); Sandhill Mountain, at outlet of Lake, August 23–28 (4); north shore, long. 109° 20′, August 17–19 (9).

The only fully adult specimen, a male, measured, total length, 158 mm.; tail vertebræ, 24; hind foot, 20.

12. **Dicrostonyx hudsonius alascensis** Stone. Four specimens: Sandhill Mountain, Aylmer Lake, August 26, 27 (2); Artillery Lake, tree limit, east shore, Sept. 4 and 8 (2).

Measurements of three subadult females: Total length, 144, 122, 120; tail vertebræ, 18, 18, 16; hind foot, 18, 18, 17.

13. **Microtus drummondi** (Aud. & Bach.). Thirty-one specimens, mostly immature: Fort Mackay, Athabaska River, May 31 (1); Slave River, 20 miles below Peace River, June 7 (4); Fort Smith, June 14 (1); Sandhill Bay, north shore of Aylmer Lake, August 19–23 (5); Artillery Lake, tree limit, east shore, Sept. 4, 5 (14); Burr Lake, 11 miles east of east end of Great Slave Lake, Sept. 10 (1); Fort Reliance, Sept. 14–16 (4); Fort Resolution, Sept. 27 (1).

The 10 largest adults (mostly females), partly from Slave River and partly from Aylmer Lake, measure: Total length, 160.5 (150–170); tail vertebræ, 46 (41–46, with one each at 49 and 53); hind foot, 19.1 (18–20).

- 14. **Lepus arcticus canus** *Preble*. Two specimens, an adult and a young adult female, Aylmer Lake, August 14 and 19 (long. 109° 30′), near Sandhill Bay. They measured, respectively, total length, 625, 570; tail vertebræ, 76, 72; hind foot, 160, 142.
- 15. Lynx canadensis Kerr. Five skins with skulls and 3 additional skulls: Athabaska Landing, Alberta, May 18, 19 (skin and skull and 2 additional skulls); Poplar Point, Athabaska River, June 3 (skin and skull); Fort Smith, June 17, 18 (1 skin and skull and an additional skull); Slave River, 8 miles below Salt River, July 5 (skin and skull); Great Slave Lake, near Fort Reliance, July 27 (skin and skull); Artillery Lake, east shore at tree limit, August 5 (skin and skull). Five of the specimens measured in the flesh as follows:

Adult female, Pelican Portage; total length, 917; tail vertebræ, 133; hind foot, 240.

Adult female, Slave River, 15 miles below Peace River; total length, 934; tail vertebræ, 108; hind foot, 242.

Adult female, Poplar Point, Athabaska River; total length, 890; tail vertebræ, 118; hind foot, 235.

Male, Fort Smith; total length, 950; tail vertebræ, 130; hind foot, 260.

Male, Slave River, 8 miles below Salt River; total length, 915; tail vertebræ, 115; hind foot, 242.

Male, total length, 952; tail vertebræ, 102; hind foot, 234.

16. Canis occidentalis Richardson. One skin and skull, Sandhill Bay, Aylmer Lake, August 20, and several additional more or less weathered skulls. The Sandhill Bay specimen measured, total length, 1685 mm. ("5 ft. 6½ in."); tail vertebræ, 470; hind foot, 298.5; height at shoulders, 711 ("28 in.").

- 17. Canis latrans Say. Two weathered skulls, picked up 20 miles below Athabaska Landing, May 18.
- 18. **Vulpes lagopus innuitus** *Merriam*. One specimen, Aylmer Lake, long. 109° 20′, August 18. Total length, 790; tail vertebræ, 290; hind foot, 138.
- 19. Vulpes alascensis abietorum Merriam. Seven skulls, 20 miles south of Athabaska Landing, Alberta, May 18 (3); mouth of Salt River, Mackenzie, June 18 (1); Fort Reliance, Great Slave Lake, Sept. 15 (2); Fort Smith, Oct. 4 (1).
- 20. Lutreola vison energumenos (Bangs). One specimen (skull only), Nialing River, July 11.
- 21. **Putorius cicognanii richardsoni** (*Bonaparte*). One specimen, skull only, Fort McMurray, Athabaska River, May 28.
- 22. **Putorius arcticus** *Merriam*. One specimen, Clinton-Golden Lake, south shore, long. 107° 30′, August 29. Total length, 365; tail vertebræ, 110; hind foot, 50.
- 23. **Putorius rixosus** Bangs. One specimen, Old Fort Reliance, Great Slave Lake, Sept. 15. "Taken at corner of house in a mouse trap." Total length, 172; tail vertebræ, 32; hind foot, 21.
- 24. **Mustela americana actuosa** Osgood. Two skeletons, Fort McMurray, Athabaska River, May 28.
  - 25. Sorex personatus I. Geoffroy. One specimen, Fort Smith, June 17.