

Saskatchewan Silver-haired Bat Records

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Published information on the distribution of mammals in Saskatchewan, as indicated by Fuller (1943), is extremely limited, particularly in the case of smaller mammals such as the bats. This situation is partly the result of a scarcity of records. The area involved is large and remote — the determination of the fauna of this province as well as its distribution and significance is necessarily an immense task. The extent to which naturalists and other interested individuals can contribute to this end may be demonstrated by the present paper.

The Silver-haired Bat (*Lasiycteris noctivagans*) is a medium-sized and blackish-brown bat. The hairs of the back and belly are usually tipped with silvery-white hence its name. Its wing-spread measures from 11 to 13 inches. Cameron (1951:7) considers it to be "rather rare" in Canada, although it has been stated by C. H. Merriam to be the most abundant bat in the Adirondacks of New York (Hamilton, 1943:81). In contrast with several species which breed in colonies this bat is usually thought to be solitary in habits (e.g., Burt, 1946:111). Hamilton, however, states that at times it is sociable " . . . often congregating in vast numbers." (1943:81). According to most authors it is found in wooded areas near water, and it is generally known as a "tree bat." It is distributed from the Atlantic to the Pacific, over most of the United States and the southern half of Canada.

Cameron states (1951:7) that the Silver-haired Bat has been recorded in Canada from Quebec west to Alberta, but Anderson also lists it for British Columbia (1946:29). This species is thought to occur throughout Alberta in the forested areas (Rand, 1948:63). Bailey (1926:212) said that it was probably found " . . . over at least the forested parts of North Dakota during the breeding season and the months of greatest insect activity"—Soper (1946:135) found: ". . . no records of its occurrence on the Great Plains to the west (of Manitoba), although it doubtless occurs there as a migrant."

The general distribution of the Silver-haired Bat in Saskatchewan as shown by Palmer (1954) and Burt and Grossenheider (1952) covers all of the province except the Hudsonian life zone (northern one-quarter of the province).

Forty records of this bat in Saskatchewan during the last four decades are presented in table 1. This includes material from a published report by Banfield (1941) and from several issues of the *Blue Jay*. (Mrs. I. M. Priestly, through constant queries on the subject of bats in the *Blue Jay* from 1942 to 1946, evoked a number of valuable contributions. As a result, Rand (1942) submitted a list of Saskatchewan bats.) Records of specimens in the National Museum of Canada were sent to the Saskatchewan Museum of Natural History by Dr. A. W. Cameron. Dr. S. C. Downing forwarded the data from the Royal Ontario Museum and Mr. Harvey Beck submitted a list of specimens in the collections of the University of Saskatchewan. Additional records or specimens were submitted by others indicated. The 18 specimens received in 1955 and 1956 resulted from public response to our newspaper and radio requests for bats.

The situation in which many of these bats were found (see table 1) shows that this species utilizes man-made structures at least as resting places and possibly as breeding sites. It might pay to look in similar places earlier in the season, in June and July, for females with young. The large number of August and September records probably relate to some aspect of the life history of this species, possibly mating or migration. So little is known of the habits that one can only speculate on the cause for this apparent increase in appearance. Note the nearly even sex ratio (15 females: 13 males) and the even monthly distribution of the specimens (6 females - 7 males: August; 6 females - 4 males: September).

The distribution of the available records is shown on the accompanying map. A Manitoba record at T. Pas (ROMZP) has been included

to indicate the probable occurrence of this species in that sector of Saskatchewan. The preponderance of records in the Transition lifezone (southern third of the province) may be attributed to the greater number of observers in this region. Nevertheless, it is apparent that the Silver-haired Bat is of frequent occurrence in southern Saskatchewan. It may even be considered to be common: of 31 bats received at the museum in 1955 and 1956, 18 were Silver-haired Bats, four were Red Bats (*Lasiurus borealis*), and nine were Big Brown Bats (*Eptesicus fuscus*).

Owing to the migratory nature of the Silver-haired Bat most of the records are uncertain as regards breeding status. Breeding records in North Dakota in June and July (Bailey, 1926:212-213) and particularly the presence of females with young in August at Buffalo Narrows (Novakowski, 1954) suggest, however, that many of these records may actually represent breeding localities. Note also the specimens taken in June at Govenlock and in July at Yorkton. These data suggest that the Silver-haired Bat may be a

breeding species throughout the Transition and Canadian life zones in suitable areas of Saskatchewan. Further work will obviously be needed to establish the definite breeding range as well as the total area of distribution.

Migration data on bats is exceedingly limited. The present records indicate the presence of Silver-haired Bats in Saskatchewan as early as June 7 and as late as October 12. The October records suggest that some members of this species, although it is regarded as being highly migratory — records far out over the Atlantic being available, may spend the winter here in hibernation. Beer (1956:282) reported finding a Silver-haired Bat hibernating in a cave in Minnesota in January; he points out that records of this species in hibernation are quite rare.

A number of Silver-haired Bats were kept by me in captivity for several weeks in 1955 and 1956, permitting school-group demonstrations, a TV program and much incidental entertainment. All were fed raw beef liver and fresh banana. Oddly enough, considering their insectivorous habits, they readily ate banana.

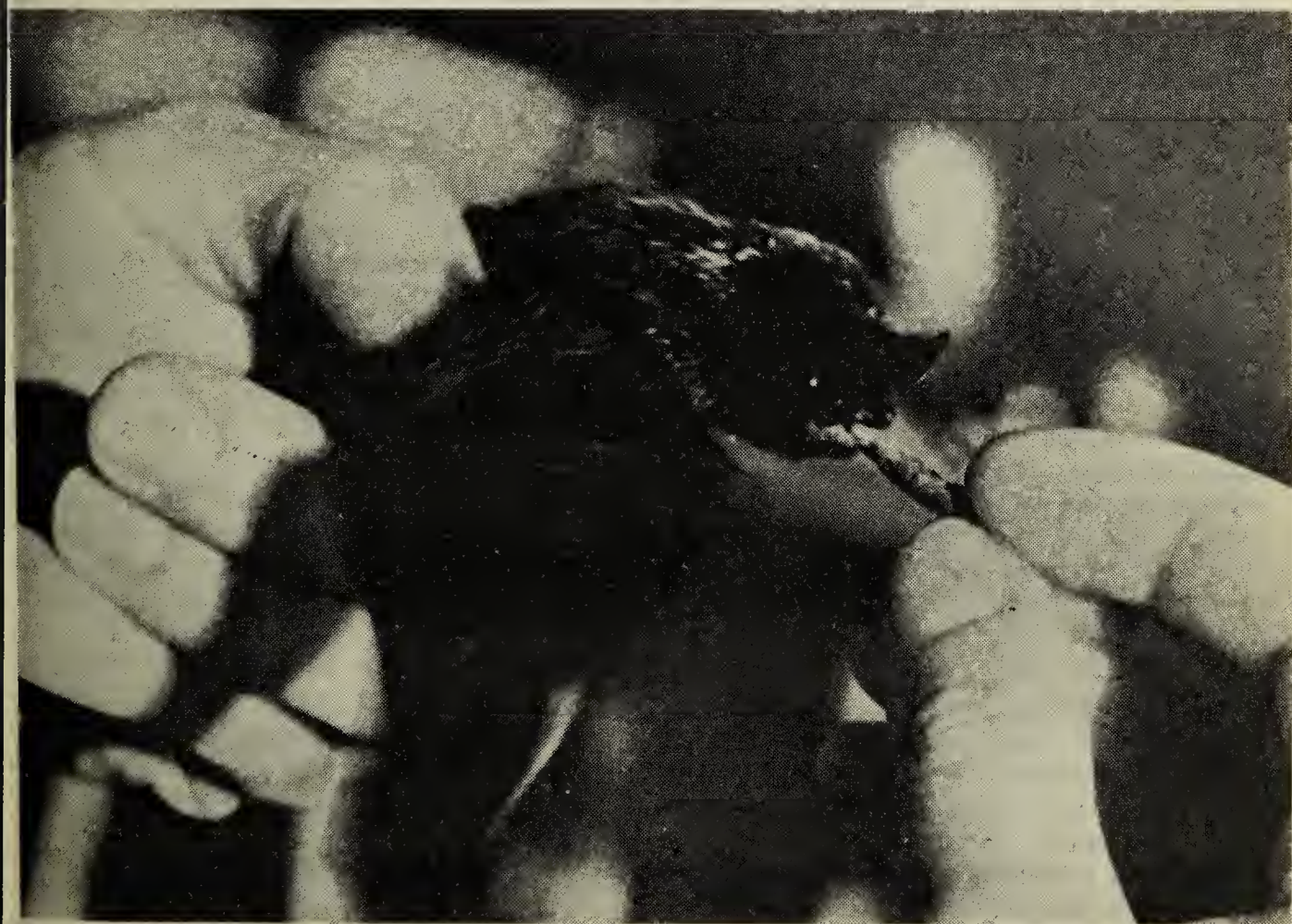


Photo by F. W. Lahrman

Silver-haired Bat feeding, September, 1956



Photo by R. W. Fyle
Female Silver-haired Bat skin.
Tregarva, Sask., Sept. 10, 1956

(This fruit, along with, of all things, cottage cheese, has long been used as a standard diet for bats in captivity.) The possibility of the closely related and equally insectivorous Red Bat feeding on fruit in the wild has been commented on by Mr. H. H. Pittman of Wauchope, Sask.: "I am not prepared to say that there is any connection, direct or indirect, between Red Bats and wild plums but where these and some of the other fruit bushes occur the bats are often found." (letter to *Blue Jay*, 1946, Vol. 5:5). My bats were usually fed by hand, the bats quickly seizing and rapidly devouring the small bits which were held before their sensitive nostrils. Two of the captive bats, when released in a large room, would repeatedly dip low and skim across the smooth floor, often actually touching the floor with their chin much as if they were attempting to drink. All drank greedily when presented with water while being fed.

Occasionally, when a Silver-haired Bat was disturbed as it rested on a level surface with its wings partly spread, it would, suddenly flip over onto its back, meanwhile baring its teeth and uttering its peculiar "electric spark chittering." This seemingly aggressive or defensive behavior reminded one of a similar behavior often seen in captive owls. In a letter

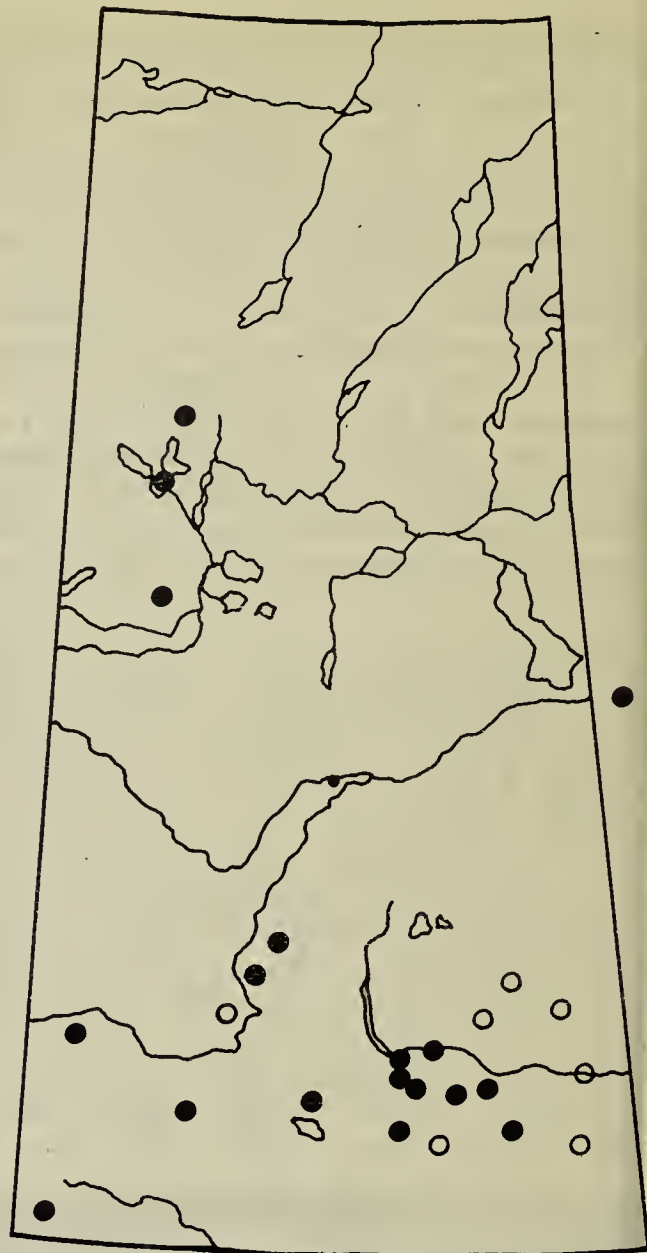


Figure 1. Silver-haired Bat Distribution:
solid circles—specimens
open circles—records

to the *Blue Jay* (1942, 1:32), Mr. I. Carvell describes a bat "about six inches long and grey in color" (Hoary Bat (*Lasiurus cinereus*)) which was lying on its back on the ground and which "... when turned over with a stick quickly turned onto its back again."

When more than one bat was kept in the same container (a shoe-box) they invariably clustered together, one on top of the other. A further indication of their "sociability" was obtained following the escape of four bats in the museum library during the last week of August, 1956. Three males escaped a day after a female had escaped and disappeared (presumably behind books, etc.). The following evening all four were found hanging behind a curtain, the three males clustered about the female. This behavior and the condition

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Saskatchewan Silver-Haired Bat Records

Table 1

Date	Location	Situation	Sex	Specimen (S) or Report (R) by	Collection
Aug. 23, '13	Craven	?	F	H. H. Mitchell	S SMNH
Aug. 27, '13	Regina	?	M	H. H. Mitchell	S SMNH
Aug. 18, '31	Regina	?	?	A. Chorolsky	S ROMZP
Aug. 7, '33	Govenlock	?	M	H. F. Hughes	S NMC
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Aug. 19, '34	Swift Current	On haystack	?	R. Kruse	S SCCM
Aug. 14, '39	Dundurn	Barnyard clearing	?	A. F. Banfield	S ROMZP
Aug. 14, '42	Yorkton	In Elm Tree	?	Mrs. I. M. Priestly	R
Aug. 15, '44	Indian Head	?	F	Marg Cummings	S USM
Aug. 15, '45	Yorkton	In Maple Tree	?	Mrs. I. M. Priestly	R
Aug. 22, '45	Yorkton	On Street	?	Mrs. I. M. Priestly	R
Aug. 3, '45	Ituna	In Tool Shed	?	H. M. Raynor	R
Aug. 20, '46	Regina	?	M	J. Tell	S SMNH
Aug. 9, '46	Sheho	?	?	W. Niven	R
Aug. 2, '46	Tullis	Pile railway ties	?	Evelyn J. Binnie	R
Aug. 10, '47	Esterhazy	On window screen	?	Rev. T. Beveridge	R
Aug. 26, '48	Flotten Lake	?	M	S. D. MacDonald	S NMC
Aug. 1, '48	Prelate	Flew inside school	?	Sister Helen	S In school museum
Aug. 22, '53	Frobisher Lake	Deserted cabin	F	D. S. Rawson	S USM
Aug. 22, '53	Frobisher Lake	Deserted cabin	F	D. S. Rawson	S USM
Aug. 7, '53	Buffalo Narrows	Aband. Woodpecker hole	F	N. Novakowski	S USM
Aug. 7, '53	Buffalo Narrows	Aband. Woodpecker hole	F	N. Novakowski	S USM
Aug. 1, '55	Regina	On ground	F	A. A. Boney	S SMNH
Aug. 5, '55	Cupar	?	F	Carol Ward	S SMNH
Aug. 11, '55	Regina	In house (?)	F	Local resident	S SMNH
Aug. 11, '55	Outlook	?	M	J. K. McGregor	S SMNH
Aug. 12, '55	Glenavon	?	M	J. V. Florek	S SMNH
Aug. 15, '55	Regina	In granary	M	H. Moravec	S SMNH
Aug. 15, '55	Wilcox	In outshed	M	C. Weisshaar	S SMNH
Aug. 24, '55	Craven	In attic of old house	F	C. Blender	S SMNH
Aug. 29, '55	Mortlach	?	F	E. J. Meadows	S SMNH
Aug. 12, '55	Langbank	Inside log building	M	J. L. Cole	R*
Aug. 23, '56	Regina	In house	M	S. Rulach	R*
Aug. 25, '56	Lewvan	In load of railroad ties	M	H. Schwindt	R*
Aug. 28, '56	Regina	In college	M	Father Dolese	R*
Aug. 29, '56	Regina	On outside of building	M	R. W. Nero	R*
Aug. 30, '56	Qu'Appelle	In pool elevator	F	J. E. Hayes	R*
Aug. 31, '56	Regina	In canopy on building	F	R. W. Nero	R*
Aug. 31, '56	Regina	In canopy on building	?	R. W. Nero	R*
Aug. 10, '56	Tregarva	On barn door track	F	J. W. Busby	S SMNH

SMNH - Saskatchewan Museum of Natural History; NMC - National Museum of Canada; ROMZP - Royal Ontario Museum of Zoology and Paleontology; USM - University of Saskatchewan Museum; SCCM - Swift Current Collegiate Museum; * Examined by R. W. Nero, all except one which escaped were sent alive to Harvard University for recording and analysis of their high-frequency vocalization.

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