

# IDENTIFYING LONG-TAILED WEASELS ON THE PRAIRIES

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The Prairie Long-tailed Weasel (*Mustela frenata longicauda*) has been listed as threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) since 6 April 1982. Concern was expressed about a possible decline in this subspecies as early as 1977.<sup>4</sup> Despite this relatively longstanding concern, little is known about this weasel outside of Manitoba.

Table 1 presents a method by which naturalists can contribute to knowledge of the status of this weasel in the prairies. The observations in Table 1 were collected by the authors in a one month period in the Calgary area, largely as incidental observations. The majority of the observations were road kills. Although unfortunate, road kills can provide useful information on distribution, measurements, field marks, etc. for elusive species like the Long-tailed Weasel. The possibility of measuring and sexing individuals depends upon the condition of the carcass.

The summer coloration (late April to mid-October) of Prairie Long-tailed Weasels differs from the Long-tailed Weasel depicted in the Peterson's series field guide to the mammals.<sup>3</sup> The white line down the hind leg which is supposed to distinguish the Long-tailed Weasel from the Ermine is very difficult, if not impossible, to see on a free-ranging animal.

Compared to the Peterson's field guide, the Prairie Long-tailed Weasel is a much lighter brown on the dorsal surface and yellowish to buff-colored on the underside. This summer coat description for the Prairie Long-tailed Weasel seems to hold



*Long-tailed Weasel*

*Lorne Scott*

Table 1. MEASUREMENTS AND SIGHTINGS OF LONG-TAILED WEASELS IN THE CALGARY AREA, 1987.

Date	Location	Sex	Measurements (mm)			Habitat*											
			Total Length	Tail	Hind Foot	Tail Hair**	B	BPG	F	G	H	MF	P	S	UG	W	
<i>Road Kills</i>																	
26 June	1 km N of Calgary	M	460	175	46	—		+									
12 July	1 km N of Calgary	M	424	140	45	40		+	+							+	
13 July***	0.5 km N of Calgary	—	—	116	—	20		+		+							
13 July***	2 km N of Calgary	—	—	143	—	24		+									
13 July	2 km N of Calgary	—	—	—	—	—										+	
15 July	Hwy 40 4.5 km S of Hwy 1	M	435	165	47	33					+						
15 July	10 km W of Calgary	M	410	163	46	42										+	
<i>Sightings</i>																	
21 June	Calgary - Fish Creek Park																+
26 June	Calgary - Nose Hill Park																+
13 July	Calgary - 2 km N																+
20 July	Calgary - 5 km N																+

\* Habitat types were recorded for the area within 250 m of the sighting. This distance was used because it is likely to include most or all of the home range of the weasel. BPG - Balsam Poplar Grassland, B - Barley Field, F - Farmyard, G - Gravel Pit, H - Hayfield, MF - Mixed Forest, P - pasture, S - Summerfallow, UG - Ungrazed Grassland, W - Wheat Field.

\*\* Tail hair is a measure of the distance hair on the tail extended past the fleshy part of the tail.

\*\*\* probably juveniles - had noticeably shorter hair on the carcass as reflected in the tail hair measurements.

in southwestern Alberta (this study), Saskatchewan and North Dakota.<sup>2 5</sup> However, Soper describes the Prairie Long-tailed Weasel as "white below, sometimes tinged with pale yellow."<sup>6</sup> The

Ermine is characterized as being white on the underside although Soper described Ermine as sometimes having pale yellow underparts.<sup>2 5 6</sup> Therefore, weasels with yellowish to buff-colored undersides are

probably Long-tailed Weasels; weasels with pale yellow or white undersides could be either Long-tailed Weasels or Ermine; even familiarity with the weasels of the locality does not guarantee positive differentiation on the basis of color alone. Of course the Least Weasel is easily distinguished from the other two Canadian weasel species by not having a black-tipped tail.

During moult, the belly of the Long-tailed Weasel is the first part of the pelage to turn white in the fall (Oct.- Nov.) and the last to change to the summer coat in spring (April).<sup>5 6</sup> As a result, belly color is not a good way to distinguish the two species from October to April.

Overall size can be used to distinguish Long-tailed Weasels from Ermine in the field, but as most observers of wildlife will realize, the size of free-ranging animals is difficult to determine with any accuracy. Unfortunately these two weasel species overlap in size and accuracy is necessary to differentiate them on this basis: Long-tailed Weasels range from 300-480 mm or more and Ermine range from 200-340 mm in total length.<sup>1 5 6 7</sup>

Some authors have recommended a relationship between tail length and body length to separate the two species in the field. However this relationship varies greatly depending on the authority: the Long-tailed Weasel has a tail measuring

40-70% of its body length while the Ermine has a tail measuring 30-50% of its body length.<sup>5 6 7</sup> Obviously there is some overlap, but a rule of thumb would be: a weasel with a tail length greater than half the body length is a Long-tailed Weasel; a tail length less than half the body length is probably, but not always, an Ermine.

A more accurate method of identifying to species prairie weasels in all seasons and localities is by measurement. That requires having the specimen "in hand," which is where road kills and other methods of obtaining carcasses are valuable. A simple measure of the tail length (excluding hair) clearly separates adult Prairie Long-tailed Weasels from Ermine. The Long-tailed Weasel is larger than the Ermine but, as in all weasels, females are smaller than males of the same



*Ermine with mouse* Wayne Shiels/  
*Four Winds Prairie Photography*

Table 2. PUBLISHED RANGES FOR ADULT TAIL LENGTHS OF MALE ERMINE AND FEMALE PRAIRIE LONG-TAILED WEASELS

Source	Location	Tail Length Range (mm)	
		Female Long-tailed	Male Ermine
Beck <sup>2</sup> *	Saskatchewan	139-170	60-100
Soper <sup>6</sup>	Alberta	138-139	81-88
Banfield <sup>1</sup>	Canada	**	65-90
Jones et al. <sup>5</sup>	Nebraska	115-142	70-101

\* Beck's figures are for both sexes combined

\*\* Banfield's figures are for a smaller eastern subspecies and are not applicable to Prairie Long-tailed Weasels.

species. The area of likely confusion concerns male Ermine and female Long-tailed Weasels which are closest in size. Table 2 presents published information on adult tail length for female Prairie Long-tailed Weasels and compares it to published male Ermine measurements.

There is no overlap between adults of the two species and any weasel with a tail length over 100 mm is likely to be an adult or juvenile Long-tailed Weasel. The tail is used for this comparison because it is the commonly measured body part that is most likely to remain intact for measurement. This method of identification should only be used in the prairies as other subspecies of Long-tailed Weasel may be smaller and overlap Ermine in tail length.

Juvenile Long-tailed Weasels, which may have shorter tail lengths, can be distinguished from adults by their shorter tail hair (as measured in Table 1). Since young begin to forage with the female as early as 6 or 7 weeks after birth and reach adult size in 10 to 11 weeks, confusion could only occur for a short period during summer.<sup>5</sup>

Identifying weasels accurately in the field is not always possible based on any single characteristic. Some individuals are clearly one species or the other but other individuals require careful consideration of size, coloration and tail length in comparison to body length. However with repeated observations and access to "in hand" specimens, observers can quickly become proficient at identifying these two species accurately.

The Wild West program was launched in 1986 by the World Wildlife Fund, Canada, to aid in the conservation of endangered prairie habitats and species. As part of this program, an evaluation of the status of the threatened Prairie Long-tailed Weasel has begun. You can help determine the status of the Long-tailed Weasel

in the prairie provinces by sending Wild West any information you may have. If possible, include the date, location, description of field marks, measurements, sex, habitat within 250 m and if dead, the cause of mortality (eg. road-kill, dog, unknown). All sightings consisting of the species, approximate date and location are valuable. If the Long-tailed Weasel seems rare or absent in your area or seems to be increasing or decreasing in abundance, it is important to report this information as well. For further information contact:

**Prairie Long-tailed Weasel Study**  
**c/o Wild West Program**  
**World Wildlife Fund Canada**  
**#204 - 1422 Kensington Road NW**  
**Calgary, Alberta**  
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- <sup>1</sup> BANFIELD, A.W.F. 1981. The mammals of Canada. Univ. of Toronto Press, Toronto. 438 pp.
- <sup>2</sup> BECK, W.H. 1958. Guide to Saskatchewan mammals. Sask. Nat. History Soc. Publ. No. 1. 52 pp.
- <sup>3</sup> BURT, W.H. and R.P. GROSSENHEIDER 1976. A field guide to the mammals. Houghton Mifflin Co., Boston. 289 pp.
- <sup>4</sup> GOVERNMENT OF CANADA 1977. Report on the status of Canadian wildlife used by the fur industry. Revised Edition. 66 pp.
- <sup>5</sup> JONES, J.K., Jr., D.M. ARMSTRONG, R.S. HOFFMANN and C. JONES 1983. mammals of the Northern Great Plains. Univ. Nebraska Press. 379 pp.
- <sup>6</sup> SOPER, J.D. 1964. The mammals of Alberta. Hamley Press Ltd., Edmonton 402 pp.
- <sup>7</sup> SVENDSON, G.E. 1982. Weasels. *IN* J.A. CHAPMAN and G.A. FELDHAMER, Eds. Wild Mammals of North America. Hopkins Univ. Press, Baltimore. 1147 pp.