



**INVESTIGATION AND EVALUATION OF PREDATOR KILLS AND
ATTACKS**

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This package contains basic information in regards to predator attacks, kills and feeding methods for the five main predators which reside within British Columbia and may prey on livestock. The five predators are Grizzly Bear, Black Bear, Cougar, Wolf and Coyote. This information will assist the Livestock Producer in determining which of the above predators may be responsible for damage caused.

WOLVES

Cattle/calves

Being a pack animal wolves, will attack a single or a small number of animals at one time. The attacks are normally to the rear of the animal, where the wolf or wolves will tear at the upper hindquarter, rectum, or vulva. This will cause the prey animal to go into shock from blood loss, may travel a distance, lie down, stiffen and eventually succumb to the injuries. The wolves will follow the heavy scent trail left and begin to consume as long as the prey animal poses no threat.

Another method of attack is disembowelling, whereas the wolf/s will run beside the prey animal, bite into the flank area and pull the hide away from the stomach section, allowing the stomach, intestines to fall away.

Both these methods are common and very efficient for a pack animal. One or two wolves do most of the work resulting in a number of animals being able to feed.

Wolves attack this way to protect themselves, if a wolf is injured and unable to travel death is certain.

Sheep/lambs

Due to a sheep herd usually being close to residences and human activity, wolves don't prey on sheep often.

When wolves do attack domestic sheep the same methods come into play, biting and lunging from the rear of the prey animal. If a wolf pack is involved bites to the top of the neck may be evident along with damage to the rear. Lambs may be bitten on top of the neck or back and carried away. In this case very little evidence is found. If a pack kills an adult sheep, consumption will be extensive. Carcass will be torn apart and spread over a large area, possibly all bones consumed as well. Wolves require 6 to 8 lbs of flesh a day to survive, gorging is common, once a wolf has fed heavily, may not feed again for days.

POULTRY/PETS

Again due to the close proximity to human activity these attacks are rare. Wolves may be aggressive towards domestic dogs, whether accompanied by humans or not.

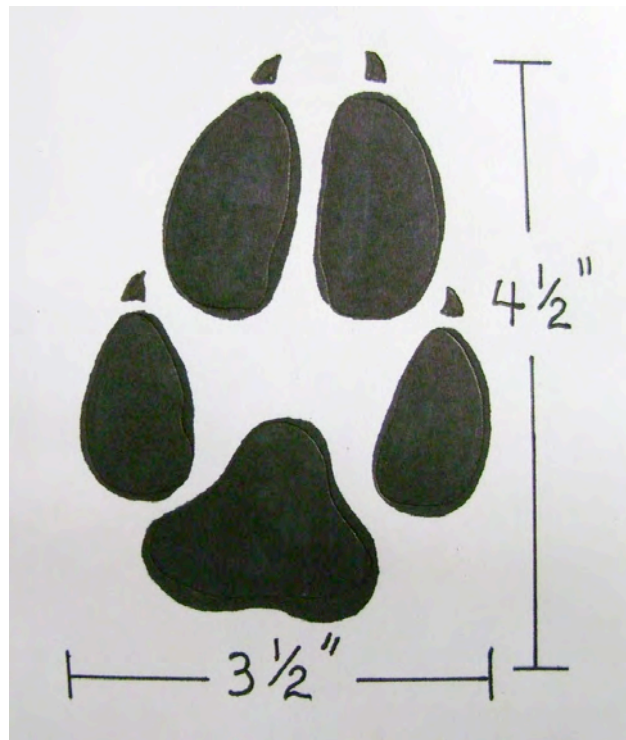
AVERAGE CANINE SPACING – UPPER CANINE – 4.5 – 5.5 CMS

LOWER CANINE – 3.0 – 4.0 CMS

CANINE DIAMETER – 1.0 -1.6 CMS

WOLF TRACK

Wolf tracks are quite large, with the front paws being $\frac{1}{5}$ th larger than the hind foot. Wolves are very protective of their feet, resulting in the wolf's preference of travelling along roads, trails, or pathways.



COYOTES

Coyotes are the most common predator found within British Columbia. Usually preys on smaller livestock, sheep, lambs, calves, poultry and pets. On rare occasion able to kill larger animals if conditions are right, (Cows calving).

Very human conscious, will soon lose fear of buildings, dogs, human activity.

Intelligent but wary will continue to kill in area of past reward.

Method of attack: Will give chase biting on hind legs of prey until such time as prey slows, then will attack the underside of neck, suffocating the prey or tearing out the throat. Will find numerous bite punctures on neck of prey, caused by coyote repositioning its grasp. Will also rip stomach hide of prey animal much like the wolf. Smaller prey will be dragged or carried off. Larger prey consumed on site. May find evidence of chase, on adult sheep, a wool trail found where coyote was giving chase and attacking. Attacks usually occur at night or at dawn and dusk.

Will consume entire kill, except for the larger bones, hide and paunch contents.

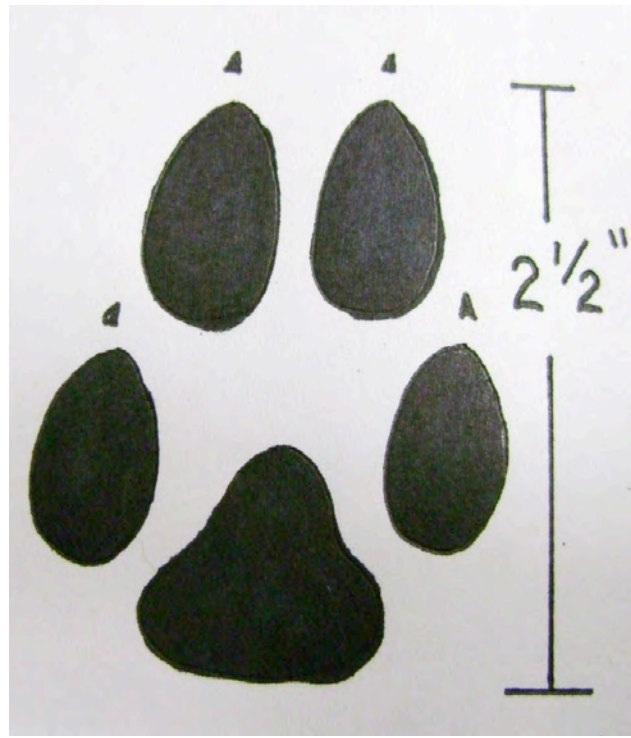
AVERAGE CANINE SPACING – UPPER CANINE WIDTH – 2.0 – 3.5 CMS

LOWER CANINE WIDTH – 2.3 – 2.8 CMS

CANINE DIAMETER – .4 – .7 CMS

COYOTE TRACK

Like other canines the coyote front paws are larger than the rear. Coyotes like to travel field edges and trails where cover is available.



COUGAR

Cougar are very common within British Columbia, found throughout the Province.

Nocturnal and wary, but will become brazen when hunting or feeding. A very task oriented, focused animal, when locked onto a prey animal. Will lose all fear until kill is complete.

Will take any sized prey if available, horses, cattle, sheep, goats, pets are most common.

Attacks large prey usually on underside of neck, crushing the windpipe and puncturing the neck. With smaller prey cougar will usually attack the top of the neck, base of the skull or top of the skull. Kills are usually extremely fast with little struggle from the prey. First feeding by the cougar may be the blood escaping from the prey. Cougar may make multiple kills on sheep at one time, almost always at night, with little feeding on any but one, which will be dragged into cover and buried. Cougar are slow methodical hunters and feeders, may be at location of kill for days. While feeding cougar may lick away hair from hide of prey animal, hide may also appear cut with a smooth edge.

Usually all kills will be buried if cougar is returning, once carcass turns rancid cougar may abandon.

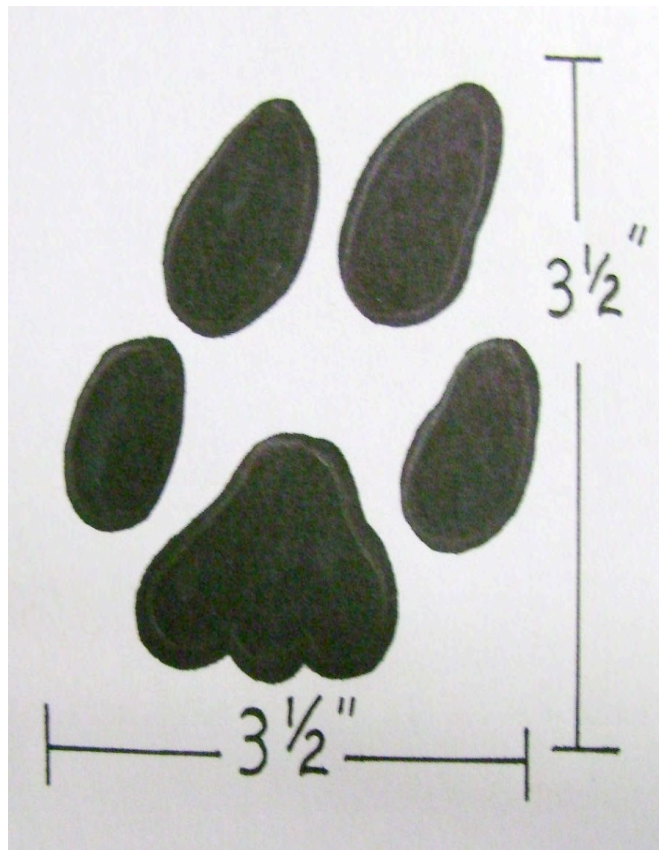
AVERAGE CANINE SPACING – UPPER CANINE WIDTH – 3.8 – 5.7 CMS

LOWER CANINE WIDTH 2.6 – 4.5 CMS

CANINE DIAMETER – 1.1 – 1.3 CMS

COUGAR TRACK

Again cougar's front paws are larger than the rear. Tracks appear round in shape compared to canines, also no appearance of claw indications. Cougar will not extend their claws unless attacking an animal or while climbing. They have a distinctive three lobed center pad on paws which are evident in tracks.



BLACK BEAR

Black Bear are numerous throughout British Columbia. Through learned behaviour can become a very efficient predator on livestock. Will attack all sizes of prey, but usually prefers smaller animals such as young cattle, sheep, goats and swine are the most common. Very opportunists, if the prey is available will attempt to make a kill. Usually if the bear is a novice at attacking, a number of livestock will be maimed or injured. All bears are maulers when it comes to attacking and killing. They attempt to pull the prey down using their size and weight. Once the bear has hold of the prey, biting will take place above the withers along the spine. As long as the prey continues to move and struggle the attack will continue. Look for heavy disturbance around attack site. Final killing bites will take place on the upper neck of prey, which is evident with multiple bites and heavy damage to the spine.

Black Bear will carry or drag kills to cover and approximately 10 – 15% of the bears will semi-bury the kill. Will protect their kill aggressively, and consume all but the larger bones and hide. A portion of bears prefer to leave the carcass until it rots and will return to feed on maggots and waste. Carcasses that have been fed on may have the hide pulled down over the leg bones. Black Bear will consume 90% of the carcass if given the opportunity. Bears will also claim other predator's kills.

AVERAGE CANINE SPACING – UPPER CANINE WIDTH – 5.5 -6.5 CMS

LOWER CANINE WIDTH – 4.5 – 5.5 CMS

CANINE DIAMETER – 1.5 – 1.9 CMS

BLACK BEAR TRACKS

Black bear tracks have the appearance of human foot prints. In the right conditions the front bear tracks may have slight claw marks showing. Black Bear have small sharp claws on all four feet, which allows them to climb and grasp while attacking prey. Black Bear tracks unlike Grizzly Bear usually show a wedge indent shape on the hind foot.



GRIZZLY BEAR

The Grizzly Bear is largest predator in British Columbia. Usually found in the more remote areas. Will prey on all sizes of livestock but prefers larger prey. Cattle, horses, sheep, goats are preferred. Like the Black Bear, Grizzly Bear are maulers which will attempt to bring the prey to the ground, using their weight and strength and biting at the same time. Grizzly Bear will continue to bite until such time the prey animal is dead. Usually Grizzly Bear kills will not have a definite kill bite, but will have multiple bites and heavy damage to the spine of the prey. Look for signs of struggle in area when large prey is taken. Grizzlies will carry or drag kills to cover and will most likely bury carcass extensively. Grizzly Bear will aggressively protect the kill until such time as it is totally consumed. Grizzly Bears will also claim other predator's kills and will consume if carcass is putrid and rotten.

AVERAGE CANINE SPACING – UPPER CANINE WIDTH – 5.5 -6.5 CMS

LOWER CANINE WIDTH – 5.5 – 6.5 CMS

CANINE DIAMETER – 2.1 – 2.6 CMS

GRIZZLY BEAR TRACKS

Grizzly Bear like the Black Bear leave tracks that appear human like. Grizzly Bear tracks will usually have claw marks showing from their front paws. These claw marks may extent 3 to 4 inches in front of toe pad. Grizzly Bear also have the tendency to walk pigeon toed which will appear in tracks left. Due to their large dull claws and weight, majority of Grizzly Bear are unable to climb trees.



INVESTIGATION OF ATTACKS AND KILLS

All five of these predators found in British Columbia do attack, kill and feed on livestock. The Livestock Producer can help themselves by practicing good husbandry which will assist in preventing losses to these predators. Correct disposal of carcasses is crucial in preventing predators from causing future problems. If the Producer does experience an attack or kill, investigation and determination of predator can begin with them. All of these predators have different methods of attacking killing and feeding. Once the Producer recognises these differences, correct mitigation can begin, either by them or with assistance.

Simple techniques can be learned and applied by the Producer to determine the correct predator. If an animal is killed or attacked, look for signs of struggle, tracks, hair and feces left by the predator. If prey animal is dead, inspect the carcass, observe the locations of attack and look for scratch marks, canine bites. Skin portions of the carcass that appear to be damaged by bite wounds. Observe the quantity of damage, measure canine punctures compare those with the attached measurements and make a determination. If feeding has taken place on a carcass try to determine how much has been fed, during the time animal was last seen alive to when it is found. Is the carcass buried, semi-buried or left untouched? All these indicators will assist in your final determination.

**MOST IMPORTANT, CONSIDER YOUR SAFETY WHEN
ANALYSING OR INSPECTING KILLS AND ATTACKS CAUSED BY
PREDATORS.**