

General Characteristics of Predator Kills

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Puncture Wounds

The number, size, depth and location of tooth or talon punctures vary. Some animals are killed by a single bite at the throat or neck. Small animals are often killed by a bite over the head, neck, shoulders or back. Since most predators find large animals harder to kill than small prey, they may bite repeatedly while shifting their grip to subdue prey animals.

In contrast, when prey is relatively small compared to the predator, a single bite is often sufficient to kill. As a rule, therefore, where many tooth punctures accompanied by hemorrhage are found, predators smaller than their prey are the most probable cause of death. However, young, inexperienced predators are also likely to inflict multiple injuries by indiscriminate attacks without killing their prey. This is relatively common with foxes, coyotes and dogs and is particularly true of dogs.

Although size and spacing between the canine teeth (responsible for most tooth punctures) are characteristic for each species, tooth punctures in tissue are often difficult to assign to a species since there are close similarities in species of similar size. Also, punctures do not remain clear and distinct because of tissue pliancy and movement. Differences are further obscured by multiple bites and punctures; therefore, additional information may be needed.

Location of Wounds

Foxes rarely crush the skull or spine on small livestock prey, but such injuries are relatively common on small lambs, goats and pigs killed by coyotes, bobcats and larger carnivores. Cougars and bears are capable of and frequently cause similar massive injuries to adult sheep and goats, calves and other animals of similar size with bites over the head, neck or shoulders. Broken bones are more commonly found when the predator is relatively large compared to its prey.

Most predators tend to attack the head and neck, although eagles may grasp small prey anywhere. Eagles commonly leave talon wounds in the shoulders, ribs and back, and often in the brisket and abdomen of small animals such as lambs and kid goats. They often grasp small prey by the head or neck but the spacing between the talon wounds (1 to 3 inches between front talons, and 4 to 6 inches between the middle front talon and the back talon or hallux), the triangular shape, and the depth of the wounds (up to 2 inches) are different than canine tooth punctures. Compression skull fractures of small prey, such as lambs and kids, may result from the eagle's grip. Internal bleeding is common in animals killed by eagles when their talons have entered the abdominal or thoracic cavities. Frequently, an eagle's talons puncture major internal veins and arteries, particularly the dorsal aorta, causing massive internal hemorrhage.

Bruises and extensive shoulder and back injuries are frequent in bear attacks on adult livestock but should not be confused with bruises caused by other livestock. For example, sheep may be injured by cattle and horses, particularly when livestock concentrates at the same locations. Bears may also claw and bruise the sides and abdomen while holding their prey. Bears may leave claw marks on the head, neck and shoulders, but these are more commonly found on cougar and bobcat kills.

Bleeding

Hemorrhage from arteries and veins differs. Arterial blood is normally bright red while venous blood is dark. Blood pressure is much higher in arteries than in veins and arterial blood is ejected in rapid spurts, often for several feet, as the heart contracts. In contrast, venous bleeding is steady and much slower because of low pressure. Blood from wounds or from the nose and mouth of injured animals is thick and will readily clot. It is distinctly different from the thin, reddish fluids resulting from decomposition.

Tracking

Observation of predators making kills is relatively rare; therefore, when predators are removed, there is the question of whether the individual responsible predators or groups have been removed, or whether those removed were simply scavengers. Evidence that the responsible animals were removed is usually indirect. Occasionally they are observed in the act of killing or may be identified by other information such as unique tracks, killing methods, or other definitive factors.

Knowledge that only specific animals live in the area or travel into an area to kill provides some evidence. More commonly, the evidence depends on predation patterns and loss levels that stop or are reduced when predators are removed. Occasionally, a predator is shot while attacking or may be trailed (by tracks or use of dogs) from a kill site to assure its removal. Stomach contents can be examined to determine if the captured predator has fed on a fresh kill. This alone is not sufficient to confirm responsibility for the kill but it suggests involvement.

Carnivore tracks and territorial marks are characteristic for each species, but they may be difficult to find. The characteristics of tracks are most easily seen in mud, dust, or snow but often are not clear on other surfaces. Experience is essential for accurate identification of predator tracks, feces and other marks.