## **Evaluation of Suspected Predator Kills**

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There is a logical, scientific procedure for evaluating predator kills and feeding to determine the species responsible, but there is no simple series of steps which lead to consistent and accurate determinations. Predators frequently feed on carrion (dead animals) and take other predator kills. Several species may feed on the same carcass. Much experience and intuitive judgment may be essential for successfully identifying the predator species responsible.

A common error made in evaluating predator kills and feeding is the tendency to stereotype these by species. Most predators do follow a general pattern, but individuals vary in food preferences, method of attack and feeding behavior. These behaviors may overlap extensively between individuals of different species; consequently, evidence other than the carcass is frequently essential to make accurate judgments. The following procedure is suggested for determining if a loss has resulted from predators and for identifying the species.

Because humans are susceptible to many diseases carried by animals, always take proper precautions to prevent exposure during examination of all animal carcasses.

## 1. Examine injured animals for the type and extent of wounds and feeding.

If possible, determine whether wounds were made by mammals (canine teeth and/or claws), by birds (talons and/or beaks), or by other causes. Some animals are fed upon without being killed. Coyotes may bite off the tails and feed on the hindquarters of live calves. They may feed on calves and on the genitals and hindquarters of cows giving birth. Black bears and coyotes occasionally feed on the udders of lactating females without killing them. At times, raccoons also feed on young or defenseless livestock without killing them, Similarly, vultures, magpies, ravens and gulls may attack and feed on young or defenseless livestock, peck out their eyes and kill them. Newborn young, females giving birth and other helpless animals are especially vulnerable.

Dogs often cause extensive injuries to young and small livestock without killing them, but do not usually feed on them. Some dogs learn to kill efficiently and feed like coyotes normally do. Injuries caused by coyotes sometimes resemble those caused by dogs. This may be a result of inexperience in killing, two or more coyotes attacking the same animal or a heavy fleece which prevents effective attack at the throat. Other factors, such as physical injuries which restrict coyotes from their normal attack, also affect killing behavior of individual coyotes. A high percentage of animals injured in such attacks die later from shock, loss of blood or infections.

Such wounds and feeding patterns confirm predation but injuries do result from other causes such as thorns, nails, barbed wire and vehicles. Venomous snake bites cause injuries which may be difficult to identify without careful examination.



## 2. Where predation is suspected or confirmed, locate the attack, kill, and feeding sites if possible.

Avoid tracking over and destroying evidence such as tracks and droppings around these sites and the carcass. Since feeding and other predator sign may be similar, it is often essential to have all available evidence to confirm the cause of death and/or the species responsible.

Many predators move their kills. Small animals are frequently carried away by foxes, bobcats and coyotes. Cougars, bobcats and black bears seem to prefer feeding in a secluded area and they may drag or carry their kills to cover. All three species normally feed in a limited area without scattering carcass remains and they frequently cover carcasses with dirt, grass, leaves or other debris. In contrast, coyotes that feed extensively tend to scatter carcass remains, wool and hair over much larger areas while feeding.

Predator sign is frequently found near kill sites. Trails, fence lines, creeks, waterholes and dry washes in the vicinity should be checked for tracks and droppings. Crawls through or under net wire fences are quite common and hair is often found on the soil or clinging to wire where predators pass through or under these fences.

## 3. Examine carcasses for wounds, hemorrhage, bruises, broken bones, and feeding.

If necessary, the entire carcass should be skinned and opened to identify internal wounds and other factors which help confirm the cause of death. For example, some animals are killed by a single grip at the throat which causes suffocation but leaves little external evidence. Bears and cougars may kill by blows from the front paws that break the neck or back and may cause extensive bruises but these may not be apparent prior to necropsy. Claw marks caused by cougars and bobcats may be much more evident on the flesh side of the skin because of dense hair or wool.

Be careful not to confuse bruises, which are localized and a dark color from clotted blood, with the conditions caused by decomposition. At certain stages, decomposition may resemble extensive bruises. Also, body fluids collect on the lower side of the carcass during decomposition and cause extensive areas of discoloration. Discoloration caused by snakebite may also be obscured by decomposition; careful and complete examination may be necessary to find these wounds.

The position of the carcass may be important. Animals that are killed are rarely found lying in a natural position. Also, scavengers may move or turn a carcass over while feeding. As a result, caution is necessary in attempting to reconstruct the circumstances of death since postmortem changes which developed with the body in one position may cause judgment errors when its position has been changed.

