



Pathology Biology Section - 2012

G32 Patterns of Injury in Fatal Coyote Attack: A Case Study From Nova Scotia, Canada

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After attending this presentation, attendees will: (1) gain an understanding of the rarity of lethal coyote attacks on human populations; (2) gain an understanding of patterns of injury in coyote attacks; and, (3) be educated about distinguishing animal attacks from postmortem predation and inflicted injuries.

This presentation will impact the forensic science community by presenting a unique and very rare case report on coyote attack fatalities. There have only been two recorded fatalities in North America from Coyote attacks. The presentation will also provide a unique examination of coyote attack patterns during autopsy.

The typical activity pattern of coyotes in the absence of human harassment seems to be largely crepuscular and diurnal, but when predator control activities are under-taken, coyotes shift their activity mainly to nighttime to avoid humans. Conversely, a lack of human harassment coupled with a resource-rich environment that encourages coyotes to associate food with humans can result in coyotes losing their "normal" wariness of humans.

Several factors may have led to the recent increases in predator attacks on humans in North America. Among them are human population growth, suburban sprawl, and protection of predator species that were once harassed. Male coyotes in the wild generally have home ranges from 8.1 to 16.1 square miles (21 to 41.6km²) and females 3.1 to 3.9 square miles (8 to 10km²).

The motive for attacks by coyotes is not always hunger or protection of dens. Movement, particularly escape behavior, is a key stimulus for eliciting orientation and attack; children's play and running behavior, particularly when running away from a coyote may provide a strong stimulus for attack.

There are only two recorded fatalities in North America from coyote attacks: in 1981, a female toddler in Glendale, California, and, in 2009, an adult female in Cape Breton, Nova Scotia, Canada. This is the case of an adult female who was attacked by at least three coyotes while hiking in the Cape Breton Highlands National Park in Nova Scotia, Canada.

The offending animals included a 32-pound female, 34-pound male (likely a brother of the female), and one 50-pound male (genetically unrelated to the other two animals). During the attack, a group of four hikers scared away the coyotes and called "911."

When emergency crews arrived, she was transported to a regional tertiary care center where she died overnight. An autopsy was performed by the Nova Scotia Medical Examiner Service.

The offending coyotes were captured, euthanized, and necropsied by a wildlife pathologist at the Atlantic Veterinary College, University of Prince Edward Island. All animals were healthy, free of apparent disease and infection, and well fed on postmortem examination. The female coyote contained human remains in her stomach.

This case report will describe the patterns of injury seen at autopsy and consider them in the context of usual coyote attack behavior. It will include considerations of distinguishing animal attacks from postmortem predation and inflicted injuries.

Coyote Attack, Injury Patterns, Forensic Pathology