



Large Carnivore Encounters at Big Bend National Park

Article by **PATRICIA MOODY HARVESON** and **DAVID PRICE RUMBELOW**



Big Bend National Park is one of the few places in Texas where mountain lions and black bears can be readily seen. Although conflict between park visitors and these large carnivores is extremely rare, researchers with the Borderlands Research Institute monitored trends in reported encounters with mountain lions and black bears in the park.

For many, viewing large carnivores in the wild can be one of the most memorable encounters they ever experience in nature. Jaguars, black bears, mountain lions, wolves and even grizzly bears once roamed across various regions of Texas. For many of these species, Texas represented the periphery of their range.

Through the years, some of these

species have become displaced or have been extirpated. For example, only one confirmed scientific specimen of grizzly bear exists in Texas, where it was killed in the Davis Mountains by C.O. Finley in 1900. Historically, jaguars were thought to occur through the southern half of the state. The last documented record of a jaguar in Texas was in the early 1950s.

Similarly, wolves once roamed across Texas with the gray wolf in the west. The last confirmed specimen of a wolf occurred in 1970 in Brewster County.

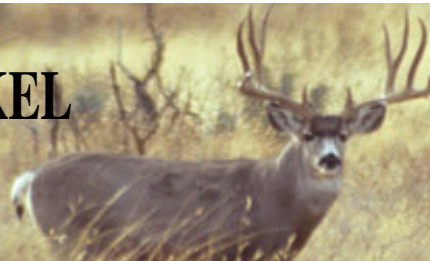
Each of these species requires something that is becoming all too rare in Texas... wide open spaces. Some large carnivores have adapted to the human expansion that has occurred in Texas, and some have not. Jaguars, grizzly bears and wolves are considered extirpated from Texas, while black bears and mountain lions still occur in some ecoregions.

There are few places left in Texas that still support large carnivores. One of the most pristine areas is Big Bend National Park (BBNP). BBNP was created in 1946 and represents 801,163 acres of rugged Chihuahuan Desert. BBNP is one of the last areas in Texas that has breeding populations of black bears and mountain lions.

One of the challenges faced by the National Park Service lies at the core of its mission. The National Park Service is tasked with preserving wildlife while providing recreational opportunities to visitors. The challenge is especially evident when it comes to large carnivores that have the potential to endanger park visitors.

In February 2012, the potential for conflict with large carnivores was realized

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when a six-year-old boy was attacked by a mountain lion in BBNP. Fortunately, the young boy only sustained minor injuries to his face. The mountain lion in question, an emaciated female, was subsequently captured and euthanized.

To ascertain the potential for conflict between large carnivores and humans at BBNP, the Borderlands Research Institute initiated a study in cooperation with the National Park Service. For this portion of the study, our goal was to consolidate historical reports in BBNP and gain a better understanding of the factors that lead to human encounters with large carnivores (black bears and mountain lions) so that park managers can better mediate between positive encounters and negative incidents.

PARK USE BY VISITORS

Since its inception, BBNP has kept detailed records on all encounters between visitors and mountain lions or black bears. The number of park visitors in BBNP has steadily increased since its establishment and currently averages around 300,000 visitors each year. Visitor use of the park varies by month. The hotter months (July, August and September) have the lowest visitation, whereas March and April are the busiest months for the park likely due to moderate temperatures and spring break vacations.

LARGE CARNIVORE ENCOUNTERS

When visitors encounter mountain lions or black bears in the park, they are encouraged to fill out an observation card detailing the type of encounter, location and activity of visitor during the encounter. Using the observation cards, we classified mountain lion and black bear encounters as sightings (nonthreatening), aggressive interactions (including contact with property), or attacks (where physical contact was made).

Since 1950, there have been over 2,428 mountain lion encounters recorded with 98 percent of the encounters being sightings. Only 43 encounters with mountain lions, or 2 percent, were considered aggressive interactions and only eight encounters were classified as an attack.

There have been almost three times as many black bear encounters (6,592) as mountain lion encounters. Of black bear



Following extirpation in the 1950s, black bears are beginning to naturally recolonize West Texas.

encounters, 98 percent were classified as sightings and about 2.5 percent of encounters were aggressive interactions. Most aggressive interactions by black bears occurred when they made contact with property containing human food. There has never been a black bear attack recorded in BBNP.

Most encounters with mountain lions and black bears have occurred in the Chisos Mountains which contain prime habitat for mountain lions and black bears with water, shade and food. The Chisos Mountains (where lodging, dining and an interpretative center are located) are a relatively small portion of the park, but they have the highest human use and a high number of encounters.

Aggressive interactions with mountain lions were almost exclusively limited to areas in and around the Chisos. Similarly, aggressive interactions with black bears occurred most frequently in the Chisos Mountains, but also occurred in Panther Junction, Glen Springs and Rio Grande Village.

Most large carnivore sightings occurred from vehicles. Mountain lion sightings were most common from roads (49 percent), followed by on or near trails (30 percent). The opposite was seen for black bears, where most sightings occurred around trails while hiking (51 percent) followed by roads (30 percent). Most aggressive interactions with mountain lions occurred while visitors were hiking; and the majority of aggressive interactions with black bears occurred while camping and to a lesser extent, hiking.

Encounters between humans and large carnivores have occurred during all hours of the day and night but occurred most often in the morning and evening when these two carnivores are most active. Coincidentally, human use of hiking trails is also highest in morning and evening hours when temperatures are cooler.

Black bears have been naturally recolonizing West Texas over the last 25 years. As black bear numbers increase, so have the number of encounters with visitors. Black bears increase activity





Because of their low population densities and nocturnal nature, mountain lions are one of the rarest animals in Texas to view.

from summer to fall as they prepare for hibernation. Few encounters occur from December to March as most bears are hibernating. As bears emerge from dens in the spring, encounters become more common.

Mountain lions in the Desert Southwest have large home ranges and low population density. In addition, mountain lions are primarily nocturnal and secretive by nature. Mountain lion encounters occurred most often in the late evenings and while visitors were driving. These encounters were mostly positive, resulting in little to no risk to human health or property.

Aggressive interactions and attacks by mountain lions mostly occurred while visitors were hiking on trails. There is little indication of seasonal variability in encounters with mountain lions, but there is a slight peak in the spring and fall that corresponds to periods of high visitor use.

Over the past 70 years, there have been only eight attacks by large carnivores. All eight attacks have been by mountain lions and six of those occurred on hiking trails, one occurred outside of the Chisos Lodge, and one occurred at a visitor campsite. In six of the eight attacks, the mountain lion was driven off by fighting back (throwing stones, kicking and punching).

CONCLUSION

Not all visitor encounters with large carnivores were considered negative defined as those that threatened human safety and/or property. In fact, for the majority of park visitors, seeing a mountain lion or black bear is considered a highlight of their visit and creates a feeling of being in true wilderness.

Since 1946, over 10 million people have visited BBNP and no park visitor has ever been killed by a black bear or mountain lion. In fact, no human fatalities have ever been recorded in Texas because of

mountain lions or black bears in the wild. Only eight visitors have ever been attacked by a large carnivore, all mountain lions, in BBNP. To put the number of attacks in perspective, you have less than a one in a million chance of being attacked by a large carnivore in BBNP. In fact, just encountering a mountain lion or black bear is a rare occurrence.

BBNP is a national treasure and one of the few places remaining in Texas where you may be lucky enough to see one of these large carnivores. The Chisos Basin Visitor Center provides excellent resources for those seeking more information on black bears and mountain lions including locations of recent sightings and safety recommendations. ☺

