

ASK A PINHEAD

By Philip Straub, Pinhead Institute 2006 Telluride Summer Intern. Philip is a junior at Bozeman Montana High School, and the son of John Straub, president of the Telluride Science Research Center.



QUESTION: While camping near Wetterhorn Peak this summer, a young male goat followed my girlfriend and I back to camp. It circled us many times, stomping bushes and rubbing its horns on trees. After lying peacefully for a while under a tree very close to where we were seated, it approached my girlfriend and stole a sniff of her hair. It then seemed to challenge me. It approached me suddenly and quickly, stood just a couple of feet away, then repeatedly threw its head back,

snorted, and stomped its front feet. Five minutes later, as night began to fall and it walked up into the mountains. What was up with that?

ANSWER: Goats occasionally exhibit aggressive behavior around humans and domestic animals. They treat a person as if he or she is another goat, sometimes exhibiting the same behavior as if challenging a rival or predator. If below tree line, this will happen only during the day, as the goat will retreat to the alpine region to spend the night. Mountain goats also occasionally attack dogs, as they are seen as wolf-like predators.

"They do approach people and camps often in search of food or minerals (e.g. salt in urine)," says specialist Dr. Bruce Wunder. "If they feel threatened, cornered, surprised or have young to protect, they will act aggressively. You should avoid eye contact, back up and look for something to put between you and the goat (rock, tree, etc.)."

Mountain goats are talented alpine dwellers, and creatures of extraordinary grace. Their balance and ability to climb allows them to negotiate rocky and mountainous terrain and ascend slopes up to sixty degrees. They inhabit the Rocky Mountains and costal ranges, from southern Colorado, Utah, and Nevada through Alberta, British Columbia, the Yukon, and into the Chugatch range in south central Alaska. The total population is estimated at a stable 80,000. While they are primarily gentle creatures, they can, in certain situations however, become violent and aggressive.

Mountain goats form winter herds of males, or Billies, and females, or Nannies. They mate between November and early January, often with multiple partners. Males will fight each other over partners, and will sometimes protect a prized female from other males. These clashes are generally harmless, but can occasionally lead to injury or death. After this mating ritual, the adult males leave the herd and form groups of two or three goats. The females stay together to raise the offspring. When the new young are born, the previous year's offspring, both male and female, are forcefully removed from the herd. The young will then attempt to form groups, and sometimes challenge members of other herds to exercise dominance and gain entrance into the herd.

The goats will also become aggressive around predators or perceived predators while below tree line. Predators of adult and kid goats include bears, wolves, wolverines, and large cats. Golden eagles are also predators, but only to the very young. These predators are more of a threat below tree line because they can move with the same ease and speed as the goat, possibly faster. When in an alpine environment, a goat can simply amble to higher ground, leaving the predator behind. Only mountain lions pose a significant threat to goats above tree line, as they are fairly agile on steep rocky terrain. If goats have their young with them, the adults will remain down hill of the kids, blocking them from the predator and from a potential fall on a steep slope.

When a mountain goat does mount an attack, it begins by trying to scare off its predator. It will exhibit its horns, circle the opponent, and snort into the dirt. The goat will run its front hoofs through the dirt as they prepare to charge. When the attack is made, they will attempt to thrust their horns into a soft, fleshy part of the enemy's body, such as its belly, hind, or neck. While this rarely kills the predator, it will usually fend it off. Predators do occasionally kill goats, and they are hunted by people, but only 100 to 200 goats are harvested each year, and there is no current threat of extinction. The main causes of death in mountain goats are avalanches, mudslides, and rockslides.

While the aggressive behavior of these animals may make them seem dangerous and brutal, these elegant and largely harmless creatures, who have chosen such an inhospitable climate for their home, should truly be seen as those who have mastered the art of mountain travel.

Send your own science question to "Ask a Pinhead." Email Ramona Gaylord, Pinhead Institute Executive Director, at ramona@pinheadinstitute.org