

## MULE DEER GROUP KILLS COYOTE

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Coyotes (*Canis latrans*) are known to be predators of both young and adult mule deer (*Odocoileus hemionus*; Cahalane 1947, Bekoff 1977, Bowyer 1987). Aggressive defense against coyotes by adult female mule deer, involving chasing and vigorous kicking with the forelegs, has been observed in does acting both singly and in groups (Cahalane 1947, Seidensticker et al. 1973, MacConnell-Yount and Smith 1978, Hamlin and Schweitzer 1979, Truett 1979, Wenger 1981, Bowyer 1987, Griffith 1988). The observation reported here appears to be the first instance in which a coyote is known to have been killed by such an attack.

At 0800 hours MST on 28 October 1996, the senior author was watching a group of about 50 mule deer feeding in a 60-acre alfalfa field near the South Fork of the Shoshone River, 18 miles SW of Cody, Park County, Wyoming. A large doe (number 1) was seen chasing a single coyote relentlessly around the field. As the doe tired, other does and fawns joined the chase; following her periods of rest, number 1 would join the chase again. After 10–15 minutes of this activity, the coyote apparently tired while being pursued by number 1, and the doe was observed to strike the coyote with a front hoof. Within seconds, 7 or 8 does surrounded the coyote, rearing up and striking it with their front hooves. Other deer in the field stood watching this attack. Fifteen minutes later, as the deer began to move off, the senior author approached and examined the dead coyote. It appeared to be a yearling; the body was badly broken by hooves and had been trampled into the ground.

The behavioral context of this attack is not fully known, but the following observations seem worthy of note. A group of coyotes

frequented the hills east of the alfalfa field in the fall of 1996: they were observed feeding on small rodents in the open, and on several occasions groups of mule deer were seen chasing the coyotes away when the latter ventured too close. On the morning of 28 October 1996 the coyotes were heard howling more than usual; it is possible that a deer kill had been made that morning. Immediately following the death of the young coyote described above, 1/4 mile away, a group of 3 coyotes (2 adults and 1 yearling) was seen in the alfalfa field adjoining a gully frequented by deer at night.

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