

Montana US 93 South Wildlife Crossings Research

MDT # HWY – 308445-RP

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Overview

Montana Department of Transportation (MDT) has installed several wildlife crossing structures along US 93 South of Missoula, with ongoing construction that will install additional crossings in the coming years. This research will be conducted from 2008 until 2015 along this stretch of US 93 to help determine the effectiveness of these crossings and associated fences. Through investigations in animal-vehicle collisions and animal crossing structure usage before and after construction, the level of efficacy of these measures will be evaluated. White-tailed deer is the species of concern for this investigation, but other animals' use and collisions will be analyzed as well.

Work Progress This Quarter

Four cameras have been installed along US 93 South at four crossings to determine their effectiveness at passing white-tailed deer and other species. Two of the crossings are bridges without wildlife fencing, one is a culvert with wildlife fencing, and a fourth is an open span bridge with wildlife fencing.

Overall, the open span bridge is the most successful crossing, with 76 animals passing through the crossing in 84 days ($76/84 = .90$ deer/day). This crossing is open and wide, with a natural soil floor, and almost no human visitation. The least successful crossing is one of the bridges (no wildlife fencing), with no deer recorded in 85 days. One of the bridges without fencing did have 10 deer visit in the time span from late October through late November, and only four deer used the passage. The culvert with fencing was more successful, with 36 successful passes by white-tailed deer, and only one repel (of a buck). The bridges without wildlife fencing also have visitation by humans, which may be of concern for the wildlife. Other species recorded at the crossings overall include raccoon, skunk, and red fox.

Data on white-tailed deer distribution was located and passed on by Montana Fish Wildlife and Parks biologists. This data will be analyzed in conjunction with animal-vehicle collision data in the coming months.

Future work in the next quarter includes monthly checking of cameras and data analyses, snow tracking-weather permitting, and analyses of a-v-c data. Additional cameras will be placed as soon as the soil begins to melt.



White-tailed deer buck using passage



White-tailed deer taking refuge in culvert during snow storm.



White-tailed deer using large bridge passage.



Red fox in culvert.