

**Montana US 93 South Wildlife Crossings Research  
MDT # HWY – 308445-RP**

**Fourth Quarterly Report  
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## **Overview**

Montana Department of Transportation (MDT) has installed several wildlife crossing structures along US Highway 93 South of Missoula between Florence and Hamilton, with ongoing construction that will install additional crossings in the coming years. This research will be conducted from 2008 through 2015 along this stretch of US Highway 93. The purpose of this project is to determine the effectiveness of these crossings and associated fences in providing improved public safety and permeable roadways by investigating animal-vehicle collisions and animal crossing structure usage before and after construction. White-tailed deer is the species of concern for this investigation, but other animal use of crossings and vehicle-collisions will be analyzed as well.

## **Work Progress This Quarter**

As of July 2009, 33 cameras have been installed along in the study area along US Highway 93, as well as cameras located at a control site. The placement of these cameras at all existing wildlife crossings and future sites in the study area will generate the data necessary for fulfillment of the research contract for evaluating wildlife crossings in the research area (Sections 3.1.5 - 3.1.8 of RFP). There will be four to six additional cameras placed at control sites, the locations are to be decided.

In general, deer are using the existing crossings. In the north, the number of deer using the bridged crossings with sidewalks and the corrugated steel culvert are much lower than the deer using the bridged crossing at a nearby bridged crossing. All these crossings are within a mile and 3/4 of each other. An interesting development at a bridged crossing with sidewalks is that the two white-tailed deer bucks that were using the stream bed to move through began leading two does through the crossing and now the four of them can be seen using this stream, see Figure 1 below. At two bridged crossings with natural bed

walkways, which were finished at the end of 2008, once fencing was placed to guide the animals to the crossings, white-tailed deer began using these crossings within three weeks, see cover photo. All future crossings with cameras have had deer photographed using the area. Some existing older bridges are showing to pass deer. Of special note is the deer use of a large and quite high bridge. There are not only white-tailed deer, but mule deer have been photographed using the stream area under the structure. This includes regular buck use as well see Figure 2 below. A new camera site placed at a future culvert site is proving a hot spot of deer activity. In the first 10 days of monitoring in July, there were 37 deer passes, Figure 3 below.

Photographic data for all cameras for the length of the study are being analyzed and will be presented in the annual report which is scheduled for submission in late August, 2009.



Figure 1. White-tailed deer buck leading does and buck through bridged crossing with sidewalks. In 270 days of monitoring this crossing, no deer has used the cement sidewalks to pass underneath the bridge.



Figure 2. Old bridge with mule deer bucks moving underneath. This is the first site to record mule deer.



Figure 3. A trio of deer at a new camera location where there is to be a future culvert. This site had 37 deer events in the 1<sup>st</sup> 10 days of monitoring.

### **Anticipated Work**

Future work in the next quarter includes:

- Creation of the annual-interim report,
- monthly checking of current cameras and
- photograph analyses,
- installation of 4-6 cameras in control sites,
- pellet group transects,
- the taking of GPS coordinates of roadside and landscape features related to animal-vehicle collisions,
- continued mapping and statistical analyses of a-v-c data, and,
- planning for and conducting public meeting.