Moose Fatalities on Tudor Road

How Does Weather, time of day, and road conditions, impact of car accidents involving moose?

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Introduction

We wanted to research moose because they are a common Anchorage animal and because they are often hit by cars in the municipality, we also wanted to know more about them because we see them all the time. Our study area is along Tudor Road where a lot of vegetation grows in the highway right of way. On Tudor Road (from Minnesota to Elmira) there is housing and businesses on both sides. On the east side of Elmira (on the north side of the street) there is park land, and on the south side of the street there is business. In addition ADOT figures show that an average of 50,000 vehicles travel Tudor Road each day. Other studies by the state department of transportation have been done and they were kind enough to give us some of their information. Moose are most active in the late afternoon and early in the morning. According to the Alaska State Troopers’ Bureau 90 moose were killed in Anchorage by vehicles from July through December 2006. (Sinnott, et al ADF&G; Wednesday, January 17, 2007).

Materials and methods

We used a GPS to mark waypoints on the road and on the side of the road. We would mark some deep footprints from moose, moose scat and small willow trees that had been chewed on by a moose. We also used a pencil, and notebook to write notes about vegetation. We used computers, and a camera to take pictures and download the pictures and GPS markings on the computer and of course to type the project. We used ARC GIS to make the maps that we use for the project. A member of the team took moose kill data from 2001 through 2005 from the Alaska Department of Transportation and marked waypoints on the road.

Data

The Alaska Department of Transportation keeps records of moose vehicle collisions that are reported on state maintained roads around the state. Tom Scott who provided us with our data pointed out that there may be additional collisions that aren’t reported. Some reasons for this include that the moose isn’t immediately killed or drivers fail to report the incidents. The table below shows the reported accidents along Tudor Road in Anchorage from 2001-2005.

![Table 1](http://example.com/table1.png)

Results

Moose are large mammals that are common in the Anchorage area. In 1994 there were estimated to be 2,100 moose in the Anchorage area and as many as 1000 spending the winter in the Anchorage Bowl. Between 1994-1999 an average of 156 moose were killed in vehicle collisions in the entire Anchorage area. Moose are hit over 50% (10/19) of the time in the dark months in the winter (December, January, and February), when the roads are the most icy. Also more than 50% (10/19) of the accidents occurred when the road conditions were icy or snowy.

![Fig. 1](http://example.com/fig1.png)

![Fig. 2](http://example.com/fig2.png)

![Fig. 3](http://example.com/fig3.png)

![Fig. 4](http://example.com/fig4.png)

![Fig. 5](http://example.com/fig5.png)

Discussion

Based on the review of the moose/car collision data, moose are mostly hit during the months that are dark. They were hit late at night and early in the morning. Most of the collisions along the Tudor Road corridor took place when the roads were icy which may also be a contributing factor.

![Fig 3 Bull moose walking up Campbell Airstrip Road. The road were very icy and the moose slipped several times](http://example.com/fig3.png)

Conclusions

As long as moose are present in the Anchorage area collisions between moose and motorized vehicles will happen. Based on what we learned we think that there are some things that can be done to make moose/vehicle less likely to happen. One is that people should try to slow down during the dark winter months. This would give them a better chance of stopping before hitting the moose. They should also make sure that their headlights are working and make sure that they can see where they are going and what you are doing. Since moose are going to travel were it is the easiest to get around people need to be more careful when they are traveling in Anchorage.

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