



## Vehicle and Wildlife Collisions

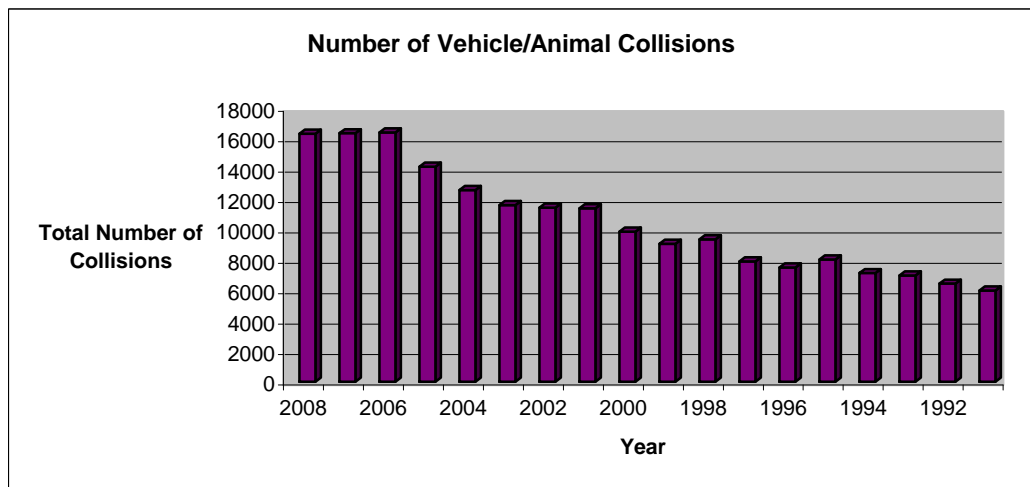
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Collisions between wildlife and vehicles are a serious problem in Alberta, costing millions of dollars in damages and insurance claims per year, causing serious injuries and fatalities, and harming an important natural resource — our wildlife. It is important to understand the impact of these collisions on wildlife resources, and the safety risks and costs posed to motorists.

### The Facts

According to Alberta Transportation, the most recent confirmed statistics indicate that vehicle/wildlife collisions within Alberta are on the rise; 5,997<sup>1</sup> collisions were recorded in 1991 and 16,322<sup>1</sup> in 2008, which indicates an increase in occurrence of almost 170% for that time period. 15,950 of the vehicle/wildlife collisions in 2008 caused property damage, 363 caused injuries, and 9 were fatal. The total numbers for 2008 came to 9 fatalities, 498 injuries, and a total cost of \$240 million<sup>2</sup> in damages.



Alberta Transportation found that deer were most commonly reported as the animals involved in these collisions (involved in 85% of reported incidents), then moose (11%), bear (2%), and then of other types of animals (2%).

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<sup>1</sup>The total number of recorded collisions includes wild and domestic animals.

<sup>2</sup>The total amount of \$240 million was calculated by Alberta Transportation and is based on the societal costs for fatalities, injuries and property damages resulting from Animal-vehicle collisions reported in 2008. The societal cost includes medical, rehabilitation, funeral, legal, insurance administration, law enforcement, market losses, family/community, and property damage costs. The societal costs of traffic collisions are meant for cost/benefit analysis of Alberta road improvement projects, so they may vary from one jurisdiction to other.

It is obvious that these collisions are a serious problem on Alberta's roadways; however, not all vehicle/wildlife collisions are reported, and often they are recorded incorrectly. Statistics now available were recorded with the help of Alberta Transportation's pilot project Road Animal Fatality Information Application (RAFIA), a project that involves the use of GPS-enabled data recording units to more accurately record the locations, times, and types of animals involved in these collisions. With more information, it will become easier to reduce the collisions, and to establish which methods — including the addition of fencing (Banff), building culverts and overpasses, adding reflector devices and signage, reduction of posted speed limits, and other technologies — are working most effectively.

### **Peak Collision Times**

Collisions are most likely to occur during the period between midnight to dawn; Alberta Transportation found that the highest number of collisions happened during 12 a.m. to 3 a.m. (31%) and 3 a.m. to 6 a.m. (33%). This is due to lessened visibility in the twilight hours, and often fatigue.

Animals are attracted to the salt used on roads during winter months to reduce ice and snow. Care should be used during this time as animals are often found in the middle of the road.

Alberta Transportation found that the highest number of collisions occurred during November and February. November is mating season for deer and moose, and presents an especially dangerous time for both the wildlife and motorists, as animal behaviour is markedly unpredictable during that time.

### **Other Concerns**

Other factors involved in collisions include speed, distracted driving, fatigue, and issues with visibility. It is important to maintain a safe speed, especially during low-visibility hours, to avoid "overdriving the headlights" of the vehicle. Motorists should stay focused and alert, and obey posted speed limits, especially during travel in peak collision areas and times, to reduce the possibility of collisions.

### **Peak Collision Areas**

Fleet Safety International provides the following advice in regards to determining peak deer-collision areas:

- Watch for animals in both rural and urban areas.
- Watch for deer crossing signs as these usually indicate traditional migration routes.
- As mentioned above, dusk and dawn are the most dangerous times for collisions, due to decreased visibility.

- During hunting season, deer collisions rise significantly; in fact, the single highest deer collision day is the opening day of hunting season. Insurance records indicate that five times more deer collisions occur on this day than on any other.
- Deer travel in herds; if you see one deer, watch for others.
- Be extremely vigilant where dense woods encroach the roadway, as deer can often dart out of these areas.

Alberta Transportation's pilot project is the first step in identifying the "hotspots" for vehicle/wildlife collisions. With accurate records and increased reporting, statistics will be more accurate and available, and the data may then be studied to highlight the peak areas. Once the areas have been identified, it will be easier to implement effective deterrence strategies, and to inform motorists of dangerous areas.

### **Tips to Reduce Collision Risk and Severity**

Fleet Safety International and AMA recommend the following tips to reduce chances of collision:

- Reduce speed and increase vigilance in peak collision areas. Ensure you are mentally alert in these areas. If you do not remember the last few miles, it is time for a break.
- Slow down. The faster you're going, the greater the distance you'll need to stop. Obey posted speed limits, as that will give you more time to react or stop if an animal suddenly appears in your path. The severity of a collision increases as speed increases, increasing the potential for death or serious injury.
- Extend your visual lead-time. Keep your eyes focused on the top two-thirds of your windshield and use visual scanning patterns.
- During dusk and dawn, scan the tree line for horizontal shadows that intercept the vertical tree shadows. Try to drive during daylight hours. Animal migration happens most often during early morning and twilight hours. By restricting your driving to daylight hours, you'll be reducing your risk of a wildlife collision.
- Watch for the reflection of deer eyes, but remember that moose eyes are not reflective.
- If you see a deer, reduce your speed until you are safely past the animal. Keep a watch for other deer. Remember that animals, especially deer, travel in packs; if you see one, watch for others.
- Know when not to swerve. If an animal, especially a small animal such as a deer, appears in your path, brake hard but do not swerve or leave your lane. You are better to hit the deer than to lose control of your vehicle, which could lead to rolling, hitting the ditch, or hitting another car or another object.
- Do not depend on animal deterrents, such as deer whistles, as they are not 100% effective.
- Watch for posted signs as they indicate peak wildlife sighting/collision areas.
- Wear your seatbelt. Most injuries from collisions occur because of a lack of proper use of seat restraints.

- For larger animals such as moose, it is probably better to swerve around the animal than to hit it.
- If a deer appears in your headlights and then runs towards you, it is most likely that the animal is running from the shadow created behind them from your headlights, as it will perceive the shadow as a predator. In such a case, reduce your speed, flash your high-beam lights, and honk your horn in short bursts to alert the deer.

In cases where collision is unavoidable, Fleet Safety International and AMA recommend the following tips:

- Aim for the spot the animal is coming from, not where it is going.
- Look where you want to go, not at the animal. Your car tends to go in the direction that you are looking — if you are looking at the animal that is the direction that the vehicle tends to go.
- If you must hit something, especially in the case of a large animal, try for a glancing/angular blow rather than a head-on collision: brake firmly and quickly to lessen the impact, then look, and steer your vehicle to strike the animal at an angle. Let up on the brake just before you hit the animal. This causes the front end of your vehicle to rise and reduces the chances of the animal flipping onto the windshield or crushing your vehicle's roof. Moose tend to hit the top of the vehicle as they have weak legs. Duck as low as you can in case the animal does land on your vehicle.

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