



Deer-Vehicle Accidents on the SRS

The history of SRS deer-vehicle accidents...

In 1951 small groups of white-tailed deer existed in remote areas of what is now known as the Savannah River Site (SRS). As the idle farmland was converted to pine plantations and public hunting was suspended, these deer began to increase dramatically in number. By 1965 the deer population on the SRS had increased to the point where vehicle accidents were occurring at a high rate. In that year, public hunting was begun on the SRS to control



the number of deer and reduce the number of accidents. In 1990 the Savannah River Ecology Laboratory (SREL) began a study to better understand the factors that were contributing to deer-vehicle accidents.

The information presented here is based upon analyses of nearly 1,000 collisions between deer and vehicles in the 1990's on the SRS.

Statistics on deer-vehicle accidents...

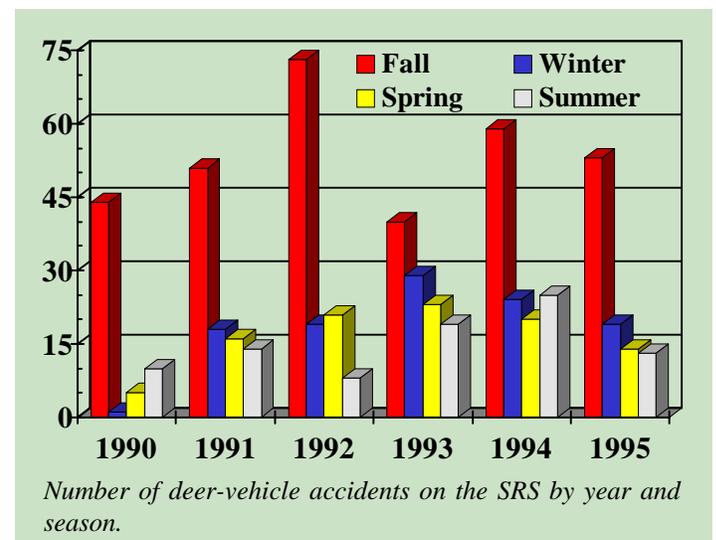
Deer-vehicle accidents on the SRS resulted in an average of \$110,000 per year in reported damage to personal and government property over the six-year period between 1990 and 1995. Injured or dead deer are also found without anyone reporting the accident or the amount of damage to their vehicles. We estimate this unreported damage could be as much as \$20,000 per year.

When do accidents occur?

Most accidents occur during dawn and dusk, a period of two hours before and after sunrise and one hour before to four hours after sunset. Few accidents occur outside of these times and the majority occur within one hour before and after sunrise and sunset. There is a strong seasonal pattern to accident occurrence which does not vary greatly among years. The majority of accidents occur in the fall of the year, within a 60 day period around the peak of the



mating season. During this time most accidents involve large breeding males that are moving within the population and across roads to secure mates. Does are involved in accidents during the spring and summer while moving to and from their fawns and feeding sites. Contrary to what most people believe, accidents occurring in the fall are essentially independent of site-wide hunting activities. When accidents occur is a function of the behavior of both deer **and** humans.



Where do accidents occur?

Accidents occur on all paved roads on the SRS. However, contrary to popular belief, deer accident locations do not have a predictable pattern in space. Even though accidents

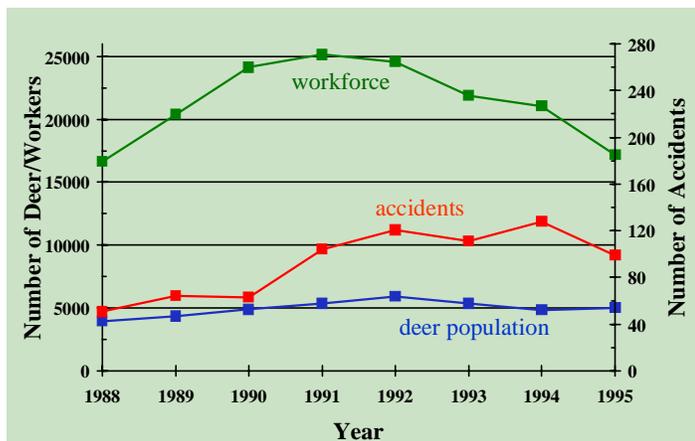
may occur more often on some roads in certain years than in others, these patterns are not repeated from one year to the next. The overall pattern of accident locations does not vary greatly among seasons of the year. There is some suggestion that the type of roadside vegetation and the location of creek bottoms may lend some predictability to where accidents occur. Clustering of accident locations does not occur in such a way that the number of accidents could be reduced by the strategic placement of warning signs.

Trends in number of employees, deer, and deer-vehicle accidents...

Over the years the number of employees on the SRS and the time at which they travel to and from work has changed. This has resulted in different numbers of employees driving on site roads during periods of maximum deer activity. The number of accidents is most likely related to the amount of traffic at these critical times and the number of deer in the population. The tendency for certain employees to work longer days has increased the probability that they will be involved in a deer-vehicle accident. The places where employees work on the SRS also have shifted over the years, and this further complicates the explanation for the patterns of deer-vehicle accidents.



Deer-vehicle accidents on the SRS occur with about equal frequency among all age groups of deer.



Numbers of employees, deer, and accidents on the SRS between 1988 and 1995.

Reduce your chances of having a deer-vehicle accident:

- **Slow down.** Reduced speed will make it more likely that you can avoid a collision with a deer. Most accidents occur under optimal driving conditions on clear days and straight roads.
- **Stay alert.** The hours before and after sunrise and

sunset are when most accidents occur. The months of October and November are when most accidents occur during the year, and these involve primarily large bucks, which do more damage to your vehicle during an accident. These are the most dangerous times.

- **One deer often means more deer.** Deer frequently travel in groups, so when one deer crosses the road, there may be others waiting to cross. Slow down after the first crossing and watch for others to dash into the road. Deer are often anxious to stay in their group and will feel compelled to rejoin it.
- **Deer tend to occur in the same places over time.** If you see deer along the road, that should alert you to the likelihood that there will be deer in that place in the future.
- **Control the number of deer.** There is a need to continue public hunting or to institute some other form of control on the SRS to keep the number of deer reduced. Both bucks and does of all ages are involved in accidents.
- **Harvest deer along paved roads.** Deer on the SRS tend to live most of their lives in a limited area called their home range. Eliminating deer living right next to the road should reduce the number of accidents along that road, because it will take time for deer to reoccupy that area.
- **Manage employee schedules to reduce traffic.** Ways should be sought to reduce the number of vehicles traveling on the roads during periods of high deer activity.