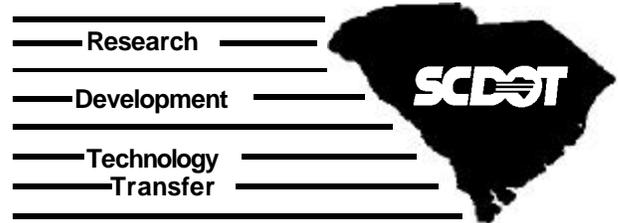


The RD & T Newsletter



A Publication of the South Carolina Department of Transportation
Research and Materials Laboratory

Milton O. Fletcher, P.E.
Research and Materials Engineer

Deer/Vehicle Collision Study Completed by Clemson University

As is the case across much of the country, deer present a substantial problem for motorists in South Carolina. In 1996, there were 5,904 deer/vehicle collisions reported in the state. The South Carolina Insurance News Service estimated that these collisions averaged \$1,700 in property damage per vehicle resulting in over \$10,000,000 damage for that year. Again, that is only collisions that were reported.

A research project was initiated to try to find economically feasible methods to reduce the number of deer/vehicle collisions in the state. SPR 594, "Causal Factors and Possible Solutions to Reduce Highway Accidents Caused by White-Tailed Deer in



Clemson University conducted this research to find economically feasible methods to reduce the number of deer/vehicle collisions in the state.

South Carolina," conducted by Dr. Webb Smathers, Jr., of Clemson University, was completed in June 2001. As part of the study, twelve (12) counties representing each geographic region of the state (mountains, piedmont, and coastal plain) were selected for detailed investigation. Accident records for two years, 1995 and 1998, were obtained. Information was analyzed to determine various aspects of the deer/vehicle collisions such as time of year, time of day, road conditions,

(Continued on Page 2)

**Deer/Vehicle Collision Study Completed
by Clemson University1**

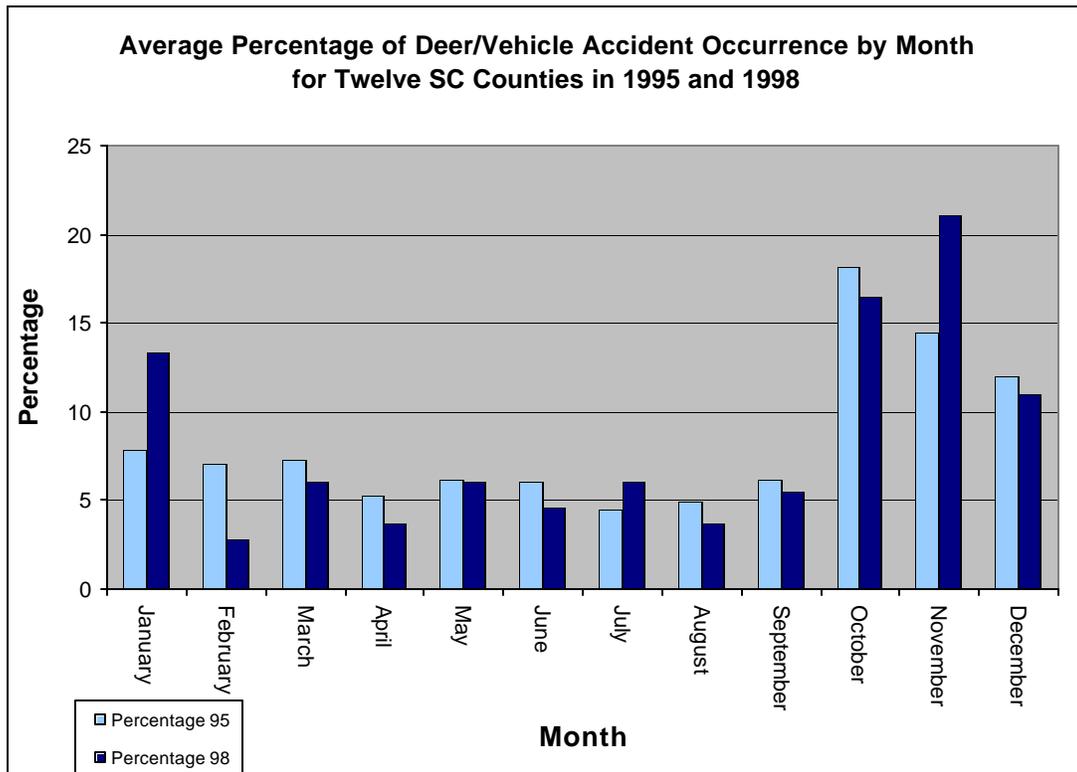
**USC Completes Study on Assessment of
Public Opinion of the SCDOT3**

(Deer/Vehicle Study -- Continues from Page 1)

features within the surrounding area such as streams or rivers, etc. Locations of the collisions were noted on county maps to identify clusters or “hot spots” and field visits were made to several of these sites for thorough evaluation. Attributes such as traffic volume, speed limit, condition of right-of-way, roadside vegetation, visibility, terrain, manmade or natural funnels that would promote movement of deer, and similar items were noted.

Study findings revealed that the frequency of deer/vehicle collisions was higher over the last three (3) months of the year. This time frame coincides with the breeding season for white-tailed deer. Also, the majority of collisions, ranging from 61% to 82% for the twelve counties studied, occurred between 6:00 pm and 6:00 am. Finally, a significant number of collisions occurred within 0.3 mile of a stream or river.

(Continued on Page 3)



Bar Graph Showing the Average Percentage of Deer/Vehicle Accident Occurrence by Month for Twelve SC Counties in 1995 and 1998.

(Deer/Vehicle Study -- Continues from Page 2)

Several recommendations were made to try to reduce the number of deer/vehicle collisions. According to the Principal Investigator, increased public awareness through education is one of the most cost-effective and efficient methods in reducing these collisions. Public service announcements, newspaper articles, and school programs were cited for use as part of an educational program. Among other recommendations were maintaining right-of-ways to allow maximum visibility for motorist, thus increasing reaction time, and reducing speed limits along with use of signs with flashing lights at high incident locations during the latter part of the year. Finally, additional research was recommended to implement and evaluate the effectiveness of some of the preventative measures identified in the study.

The following served on the Steering and Implementation Committee for this project: SCDOT - Eddie Hinson, chairman, Huley Shumpert, Bubba Randolph, Brent Dillon; FHWA - Stephen Ikerd; and SC Department of Natural Resources - Charles Ruth.

A copy of the final report can be obtained by contacting Terry Swygert by telephone at (803) 737-6652 or by E-mail at swygerttl@dot.state.sc.us.

CLEMSON
UNIVERSITY



USC Completes Study on Assessment of Public Opinion of the SCDOT

The South Carolina Department of Transportation (SCDOT) has become increasingly aware that South Carolina's population is confused about SCDOT's responsibilities. Therefore, SCDOT wanted to assess the level of confusion as well as the public's perception of how well SCDOT is "Doing its job" and whether the South Carolina region of residence had an impact on opinions. The Division of Research of the Darla Moore School of Business, University of South Carolina, recently completed a study that looked at these issues. SPR No. 620, "Assessment of Public Opinion of the South Carolina Department of Transportation," was conducted by Dr. Sandra J. Teel. The research was composed of focus group interviews and telephone surveys, which considered five South Carolina regions.

Concerning responsibilities of SCDOT, the apparent source of confusion is responsibilities of the South Carolina Department of Public Safety. Half or more of respondents incorrectly assign responsibility to SCDOT for motor vehicle registration, drivers' license issuance, and speeding tickets, while no more than 60 percent correctly assign responsibility to SCDOT for highway safety campaigns, driveway entrance repair, mass transit, and litter control.

(Continued on Page 4)

(Public Opinion Study -- Continues from Page 3)

Without prompting, respondents were asked to identify sources of funds for SCDOT and the percentage of SCDOT's total operating revenue coming from the stated source. Sources identified by respondents include: drivers' licenses; gasoline taxes; state government; property taxes on cars; vehicle registration; federal government; property taxes on homes; and taxes on trucks.

The median overall rating is "about average" for SCDOT's "doing its job" (62% of respondents). More than half of respondents believe South Carolina's Department of Transportation is about the same as departments of transportation in other states. In grading specific SCDOT activities, highway safety campaigns, setting speed limits, SHEP, and enhancements receive the highest "C", resurfacing and repairing roadways and mass transit receive the lowest "C".

The following served on the Steering and Implementation Committee for this project: SCDOT - Peter Poore, chairman, Stan Shealy, Carl Chase, Joann Woodrum; and FHWA - Carol Adkins.

A copy of the final report can be obtained by contacting Terry Swygert by telephone at (803) 737-6652 or by E-mail at swygerttl@dot.state.sc.us.



Traffic Safety Facts



Did you know ...

- In past decade, there has been a 1 percent growth in the building of new highways, but we're driving 35 percent more miles.
- It is estimated that as many as 2,000 alcohol-impaired driving trips occur for every arrest made.
- In 1998, more than 11,000 lives were saved because people used their safety belts.
- According to the National Highway Traffic Safety Administration (NHTSA), if all passengers four years and older had been properly restrained in 1998, 9,000 additional lives could have been saved.
- Children who are properly secured in child safety seats survive 75 percent of the crashes that otherwise would be fatal.

Research Projects Started Between July 1, 2001 and December 31, 2001

SPR No. 628, "Development of Scheduling Templates for Preconstruction Activities"

Principal Investigator: Dr. Lansford C. Bell, Clemson University

SPR No. 629, "Field and Laboratory Assessment of Flowable Fill Performance in South Carolina"

Principal Investigator: Dr. Charles E. Pierce, University of South Carolina

SPR No. 631, "Long Range Program Cost Estimating Methodology"

Principal Investigator: Dr. Lansford C. Bell, Clemson University

SPR No. 632, "Load Testing for Assessment & Rating of Highway Bridges - Phase II"

Principal Investigator: Dr. Scott Schiff, Clemson University

SPR No. 633, "Permeability of Portland Cement Concrete (PCC) Structures in South Carolina"

Principal Investigator: Dr. Michael F. Petrou, University of South Carolina

.....
Research Projects Completed Between July 1, 2001 and December 31, 2001

SPR No. 582, "Development of a Quality Control Program for Aggregates in South Carolina"

Principal Investigator: Dr. James L. Burati, Jr., Clemson University

SPR No. 594, "Causal Factors and Possible Solutions to Reduce Highway Accidents Caused by White-Tailed Deer in South Carolina"

Principal Investigator: Dr. Web Smathers, Clemson University

SPR No. 610, "Aggregate and Concrete QC/QA Certification of Contractors and SCDOT Personnel Phase II: Pilot and Implementation of Coarse Aggregate Program"

Principal Investigator: Dr. M. Hanif Chaudhry, University of South Carolina

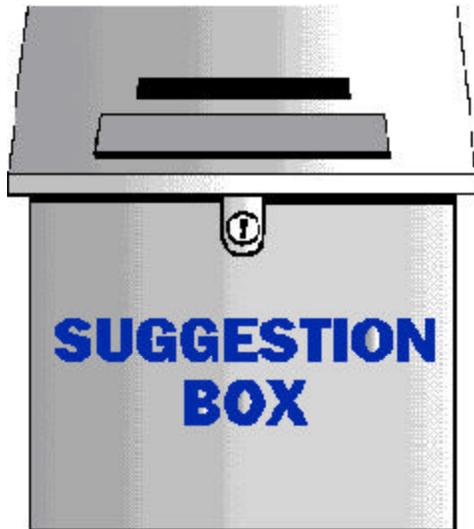
SPR No. 612, "Establishment and Management of Native Grasses and Forbs in Highway Corridors"

Principal Investigator: Dr. William Stringer, Clemson University

If you would like a copy of the final report for any of these projects, please contact:



Mike Sanders, P.E., Research Engineer
P.O. Box 191
Columbia, SC 29202
(803) 737-6691, fax: (803) 737-6649
e-mail: sandersmr@dot.state.sc.us



If you have any suggestions for improving our newsletter or know of any topics that should be included, please contact Mr. Mike Sanders at (803) 737-6691. You may also send it to the RD & T Newsletter, SCDOT, Research and Materials Laboratory, P.O. Box 191, Columbia, SC 29202.



**RD & T Newsletter
South Carolina Department of Transportation
Research and Materials Laboratory
P.O. Box 191
Columbia, SC 29202**