## A STUDY OF THE DEER HERD ON THE RIT CAMPUS AND THE RELATIONSHIP OF HERD ACTIVITY AND HABITAT TO THE INCIDENCE OF DEER-VEHICLE COLLISIONS. P. Nau, K. Korfmacher\*, D. Merrill\*,

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The purpose of this research project is to provide RIT with preliminary information on the possible affects of campus landscape management and development on the resident deer herd by estimating the density of the herd, characterizing habitat variables, and correlating that information with the incidence of deer-vehicle collisions on the roadways of campus and the surrounding area. The project will utilize geographic information systems (GIS) and remote sensing techniques, coupled with traditional ground-based observations, to estimate the density and distribution of the deer herd that make use of the RIT property and to establish a database and map of deer trails and high-use "hot spot" habitats. The database will also contain records from RIT campus safety and the local police departments concerning the incidences of deer-vehicle collisions, which will be geocoded to local street maps in order to compare the distribution of the herd pathways with the locations of the accidents involving deer. The proposed College Town development will provide an interesting pre- and post- construction comparison to deer patterns by analyzing deer responses from the College Town area to deer responses throughout the RIT Super Block and the surrounding area. If correlations can be established, it may be possible to ultimately derive a comprehensive management strategy for enticing deer away from hotspots and development sites and into areas where collisions with vehicles can be minimized.