

POPULATION CHARACTERISTICS AND DIETS OF TWO WHITE-TAILED DEER HERDS WITH CONTRASTING DENSITIES

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Population density, diets, sex ratio, productivity estimates, and physical condition parameters were determined for a semi-confined population of white-tailed deer (Odocoileus virginianus) and for another population on a nearby control area near Fairfield, Texas. Data collected during walk-transect deer counts revealed significantly ($P < 0.05$) higher population densities on the study area. Less palatable foods were more prominent in deer diets on the study area than on the control area. For most parameters measured, analyses of nutrient levels of rumen contents produced no evidence of a statistically significant ($P < 0.05$) difference between the two areas. The sex ratio was skewed toward a predominance of females. The increased tendency of males to disperse was judged to account for this phenomenon on the study area. Fawn/doe and fetus/doe ratios suggested productivity was lower among deer on the study area than among control area deer. Kidney fat, femur marrow fat, and antler characteristics suggested deer on the study area subsisted on a low quality diet. Differences in diet, productivity, sex ratios, and physical condition between the deer on the two areas was linked to the difference in population density.

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