

Influence of Movements and Body Fat of Male Deer on Breeding Success

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Previous studies have made it clear that it is difficult to predict which white-tailed deer males are breeding. One way to understand which males may be successfully breeding is to examine possible breeding strategies employed by individual males. Movement patterns and body condition (as measured by body fat content) are possible factors explaining which males are successful breeders.

This study is being conducted on a portion of the King Ranch. Each autumn, 16 to 21 males are captured from a helicopter using net guns and fitted with Global Positioning System (GPS) radio collars. The GPS collars will collect deer locations every 15 to 20 minutes until March of the following year. Age, rump fat thickness, and antler size will be recorded for each male captured. Thirty to 50 fawns will be captured each year and DNA techniques will be used to determine how many, if any, fawns were sired by each of the GPS-collared males.

Analyzing movement patterns and body fat measurements in conjunction with breeding success will help us better understand the breeding system of male white-tailed deer among age classes.

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