

White-tailed Deer Response to a Large Spring Wildfire in South Texas

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In March 2008, a catastrophic fire burned 95% of the 15,200-acre Chaparral Wildlife Management Area. This created an opportunity to study the effect of a wild fire on white-tailed deer food habits. Because of the scale of the fire and the dry spring conditions, there was concern that deer may not be able to achieve a diet of sufficient quality to maintain body condition and support gestation. Our objectives are to identify foods eaten after the fire, determine the relative importance of each of those foods, and monitor body condition and pregnancy of deer remaining after the fire.

Twenty-eight deer were harvested between April 9th and June 20th at 2-week intervals. We recorded live weight, body condition, and the number and size of fetuses from each doe and collected jawbones, ear tissue samples, ovaries, blood, feces, kidneys, and rumen contents. Of 23 gravid does harvested, 6 carried singletons, 16 had twins, and one held triplets. The sex ratio of fetuses was 1:1.3 (male:female). Kidney fat averaged 19% (range 4–41%) and did not differ significantly among collection periods. Rump fat averaged 0.05 inches (1.4 mm) and did not differ significantly among collection periods.

White-tailed deer are resilient opportunists, and this study indicates they were able to maintain body condition and pregnancy after a large-scale fire. Rainfall during May augmented soil moisture and probably decreased the time required for the habitat to recover. Forthcoming rumen content analysis will indicate foods important during the period after the wild fire.

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