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Ecology of the Texas horned lizard *Phrynosoma cornutum* in Kansas

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The Texas horned lizard (*Phrynosoma cornutum*) has been found historically in deserts and grasslands throughout central and western North America, but has undergone a dramatic reduction in range and abundance in recent years. Their unique feeding habits may contribute to their decline. The diet of the Texas horned lizard is largely comprised of harvester ants (*Pogonomyrmex* spp), though they eat some prey besides ants. Human activities, including 1) general and species-specific pesticide applications, 2) the introduction of fire ants, and 3) changes in land use have reduced the abundance of harvester ants and changed grass composition in many parts of the Texas horned lizard's range. Further study is needed to investigate the proposed link between decline and reductions in harvester ant availability, or reductions in the abundance and diversity of insects in general due to human activities. It is necessary to determine whether the crucial aspect of a food shortage is a reduction in ant availability or a general decline in all prey types. I studied the Texas horned lizard in prairie in central Kansas, an area free of fire ants, pesticides and invasive grasses in order to: 1) document the diversity of prey available to and used by horned lizards, 2) examine the effects of native vegetation on lizard mobility, and 3) characterize differences between adult and juvenile foraging ecology in different land treatments (pasture, hay before and after swathing). Preliminary results from fecal pellet analyses indicate that the Kansas population specializes on the ant *Crematogaster*, though beetles and other ants account for part of the diet. Runway trials reveal that native grasses hinder mobility, and the effect is similar across age classes. Land treatment affects both turn angles and step length. It is hoped that this study may provide insights into the conservation of this lizard.