

TALLGRASS PRAIRIE SNAKE ASSEMBLAGE. FOOD HABITS. Although the natural history of most reptiles within the central Great Plains (USA) is well known (e.g., Fitch 1989. *Occas. Pap. Mus. Nat. Hist. Univ. Kansas* 125:1–50), few studies have been conducted on reptiles inhabiting tallgrass prairie. This lack of basic information is a major impediment to the conservation of these species (Dodd 1987. *In* Seigel et al. (eds.), *Snakes: Ecology and Evolutionary Biology*, pp. 478–513. Macmillan Publ. Co., New York) and the tallgrass prairie in which they exist. During a study designed to document the natural history of a tallgrass prairie rep-

tile assemblage, I was able to collect dietary information from seven snake species.

These observations were collected at the Konza Prairie Research Natural Area (3487 ha) located in Riley and Geary counties, Kansas (USA), from 1995 to 1996 (for site description see Cavitt 1998). The role of food supply and nest predation in limiting reproductive success of brown thrashers (*Toxostoma rufum*): effects of predator removal, food supplements and predation risk. Ph.D. dissertation. Kansas State Univ., Manhattan. 148 pp.). Hardware cloth drift fences connected to funnel traps were used to capture most snakes (see Cavitt, *op. cit.*, for a description of the fences and traps), although a few individuals were captured by hand. All snakes were identified, and sexed by tail shape and by probing for the presence of hemipenes. Stomach contents were examined by palpating for undigested food items. Five ungrazed sites, which had all been burned within the previous five years, were monitored for snake activity. Two of the five sites were burned by a wildfire during the study (spring 1996). A total of 550 individuals were captured, however dietary information could only be obtained from 22 individuals of seven species. Table 1 lists the food items recovered from each of the snakes captured.

Despite the fact that snake food habits are one of the most readily studied aspects of their natural history, little is known about the diet of the tallgrass prairie snake community. Invertebrates, small mammals, and bird eggs or nestlings comprised over 80% of the food items recovered; all of these are abundant within the tallgrass prairie (Kaufman et al. 1998. *In* Knapp et al. [eds.], *Grassland*

Dynamics: Longterm Ecological Research in Tallgrass Prairies, pp. 113–139. Oxford University Press, Oxford). This supports findings from other dietary surveys suggesting food habits may be largely controlled by prey availability (e.g., Fitch 1963. *Univ. Kansas Mus. Nat. Hist Misc. Publ.* 15:353–468). For example, ground nesting birds are very abundant within the tallgrass prairie and bird eggs or nestlings were the only items recovered from *Pituophis catenifer* in this study. Likewise, Imler (1945. *J. Wildl. Manag.* 9:265–273) found that within a northern Nebraska wetland, *P. catenifer* consumed primarily waterfowl eggs. However, in the Great Basin Desert, an area with fewer ground nesting birds, *P. catenifer* rarely consumed bird eggs (Parker and Brown. 1980. *Milwaukee Public Mus. Publ. Biol. Geol.* 7:1–104). Although the accounts presented here are not unique for the species collected, they do provide basic information on the dietary habits of snakes inhabiting tallgrass prairie.

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TABLE 1. Stomach contents of snakes captured on the Konza Prairie Research Natural Area. An * indicates the record was obtained from an individual captured on recently burned prairie. All other records were from snakes captured on unburned prairie.

Species	Sex	SVL (cm)	Stomach Contents
<i>Coluber constrictor flaviventris</i>	M	—	grasshopper (Acrididae)
	M	70	grasshopper (Acrididae), Lepidopteran larvae
	F	—	grasshopper (Acrididae)
	U	—	three neonate rodents
<i>Elaphe emoryi</i>	M	89.5	upland sandpiper (<i>Bartramia longicauda</i>) egg
	M	35.5	two neonate rodents
<i>Lampropeltis getula</i>	M*	59	<i>Ophisaurus attenuatus</i>
	M*	70.5	tail of <i>O. attenuatus</i> (a tailless <i>O. attenuatus</i> was captured in a nearby trap)
	M	74	unidentified passerine egg
	M	81	unidentified snake (unable to remove)
	M	95	dickcissel (<i>Spiza americana</i>) egg, 2 brown-headed cowbird (<i>Molothrus ater</i>) eggs, day-old cowbird nestling
	F	76	3 cowbird nestlings (ca. 6 days old)
	F	70.5	<i>Peromyscus</i> sp.
<i>L. calligaster</i>	U*	—	<i>Peromyscus</i> sp.
<i>L. triangulum</i>	U*	57.5	<i>Peromyscus</i> sp.
<i>Pituophis catenifer</i>	M	135	five northern bobwhite quail (<i>Colinus virginianus</i>) eggs
	M	127	greater prairie chicken (<i>Tympanuchus cupido</i>) chick
<i>Thamnophis sirtalis</i>	M	—	two beetles (Carabidae)
	F	—	<i>Microtus</i> sp.
	U	48.5	Lumbricid earthworms
	U	25	frog (<i>Rana</i> sp.)
	U	51	<i>Peromyscus</i> sp.