

PEER-EDITED NOTE

PREDATION OF A SMALL RODENT BY A
BLUNT-NOSED LEOPARD LIZARD (*GAMBELIA SILA*)

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Abstract.—The Blunt-nosed Leopard Lizard (*Gambelia sila*) is a relatively large predatory lizard found in the San Joaquin Desert of California. The food habitats of this species have been previously studied, and primary diet components include orthopterans (mainly grasshoppers) and coleopterans (various beetle groups). Here, I report the predation of a small rodent by a radio-collared Blunt-nosed Leopard Lizard. To my knowledge, this is the first report of predation by a Blunt-nosed Leopard Lizard of a mammal, although the congeneric Long-nosed Leopard Lizard (*G. wislizenii*) is known to eat small rodents. Because of differences in activity times, I believe it is unlikely that Blunt-nosed Leopard Lizards regularly predate or consume rodents.

Key Words.—diet; food habits; mammals; prey.

The Blunt-nosed Leopard Lizard (*Gambelia sila*) is a relatively large predatory lizard found in the San Joaquin Desert (Germano et al. 2011). It can reach 120 mm snout-vent length (SVL) and weigh 45 g (Montanucci 1965; Germano 2009). As a member of the family Crotaphytidae, Blunt-nosed Leopard Lizards are opportunistic carnivores that mainly eat insects and other lizards (Conant and Collins 1991; McGuire 1996; Stebbins 2003). Specific food habitats of Blunt-nosed Leopard Lizards have been previously assessed and orthopterans (mainly grasshoppers) and coleopterans (various beetle groups) were the primary food items in both stomachs and scats (Meek 1905; Montanucci 1965, 1967; Germano et al. 2007). Hymenopterans (bees, wasps, and ants) and dipterans (flies and relatives) were also part of their diet (Montanucci 1965, 1967; Germano et al. 2007). Other diet components that tend to be less prominent include lizards, hemipterans (true bugs: cicadas, aphids, etc.), insect larvae, spiders, mites, scorpions, and plant matter (Montanucci 1965, 1967; Germano et al. 2007).

There is no documentation of predation of mammals by Blunt-nosed Leopard Lizards, nor have mammals been recorded in stomach contents or scats, although the Little Pocket Mouse (*Perognathus longimembris*) has been documented as part of the diet of the congeneric Long-nosed Leopard Lizard (*G. wislizenii*; Pietruska et al. 1981). Food habitat studies on Long-nosed Leopard Lizards have otherwise shown a similar diet pattern to Blunt-nosed Leopard Lizards, with orthopterans and coleopterans dominating the diet (Pack 1922; Knowlton and Thomas 1936; McCoy 1967; Parker and Pianka 1976; Lemos-Espinal et al. 2000). Similarly, small rodents have infrequently appeared in stomachs of the Eastern Collared Lizard (*Crotaphytus collaris*), which are in the same family (Crotaphytidae) as leopard lizards (McAllister and Trauth 1982; McAllister 1985).

In 2015, I was tracking Blunt-nosed Leopard Lizards as part of radio-telemetry study in the Semitropic Natural Area, Kern County, California. I was tracking a female lizard (snout-vent length 103 mm; weight 38 g) and had just spotted her and planned to take a GPS location when a small rodent ran out from an adjacent shrub. The rodent ran toward the female radio-collared Blunt-nosed Leopard Lizard and she immediately ran to the rodent and captured it in her mouth. The lizard then retreated under a shrub and held the rodent in her mouth. I watched her for over 10 min and took several photographs of the predation event (Fig. 1). I was never able to determine whether she ate the rodent or not. I think it is unlikely she would be able to swallow the rodent, especially while wearing a radio collar. I am unsure what species of rodent she captured, but, based on nocturnal rodents known to be present on the site, it may have been a juvenile Tipton Kangaroo Rat (*Dipodomys nitratooides nitratooides*) or Heermann's Kangaroo Rat (*Dipodomys heermanni*) or an adult San Joaquin Pocket Mouse (*Perognathus inornatus*).

In June 2022, I received another report of a Blunt-nosed Leopard Lizard capturing a small rodent. I received a photograph of a male Blunt-nosed Leopard Lizard in full breeding colors with a small rodent in its mouth. The photograph was taken by Andy McCorry along a fence line at Pixley National Wildlife Refuge, Tulare County, California (Bill Vanherweg, pers. comm.). The head of the rodent was in the mouth of the lizard and only the hind end and hind legs were in view. The consensus of several biologists who viewed the photograph was that the rodent may have been a North American Deermouse (*Peromyscus maniculatus*) based on the bicolored tail. It is unknown whether the lizard ate the rodent or not. I attempted to contact the photographer but did not receive a response.

Based on observations of Blunt-nosed Leopard Lizards over the course of my study as well as observations by



FIGURE 1. Female Blunt-nosed Leopard Lizard (*Gambelia sila*) with a small rodent in her mouth at Semitropic Natural Area, Kern County, California. (Photographed by Erin N. Tennant).

other researchers, this lizard seems to be an opportunistic predator that will eat almost anything available that it can catch (also see Germano et al. 2007). Thus, if a rodent is caught and can be swallowed, it is likely it will be eaten. These instances are likely very rare, however, because small rodents are nocturnal in the desert habitats where Blunt-nosed leopard lizards are found. One aspect of the diet of Blunt-nosed Leopard Lizards that needs further study is determining their food consumption in comparison to prey availability on specific sites where they are found (Germano et al. 2007).

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