

farther than where the fruit had fallen, would make *D. roquet zebra* a relatively poor disperser of *E. havanense*.

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ENYALIUS BILINEATUS (Two-lined Fat-headed Anole). DEFENSIVE BEHAVIOR. *Enyalius bilineatus* is a species of semi-arboreal lizard with a distribution in the southeastern, central-western, and northeastern regions of Brazil (Rodrigues et al. 2014. Mol. Phylogenet. Evol. 81:137–146; Sales et al. 2015. Brazil. Check List J. Biodivers. 11:10–12). Defensive behaviors of *E. bilineatus* remain largely unknown. Here we report the types and frequency of defensive behaviors made by *E. bilineatus* upon capture. This study took place at the National Forest of Ritópolis (21.05586°S, 44.27164°W, WGS 84; 896 m elev.), Minas Gerais, Brazil. Sampling occurred between January 2012 and October 2016. Individuals were caught by pitfall trap and funnel associated with a guide fence and collected manually. The following defensive behaviors were recorded at the moment at which the lizards were manually removed from the field-installed traps and put in transport boxes, and are based on 109 specimens: open mouth display (91%) (Fig. 1A), bite (81%) (Fig. 1B), whip tail (80%) (Fig. 1C), hissing (52%), thanatosis (18%) (Fig. 1D), gular inflation (13%), and cloacal discharge (12%). We emphasize that thanatosis occurred only following a more specific stimulation: turning the animal on its back, holding it in this position for about three seconds, and then releasing. This stimulus was done on 23 individuals, with 20 exhibiting thanatosis. Permission to collect lizards was authorized by Instituto Chico Mendes de Conservação à Biodiversidade (ICMBio 31727).

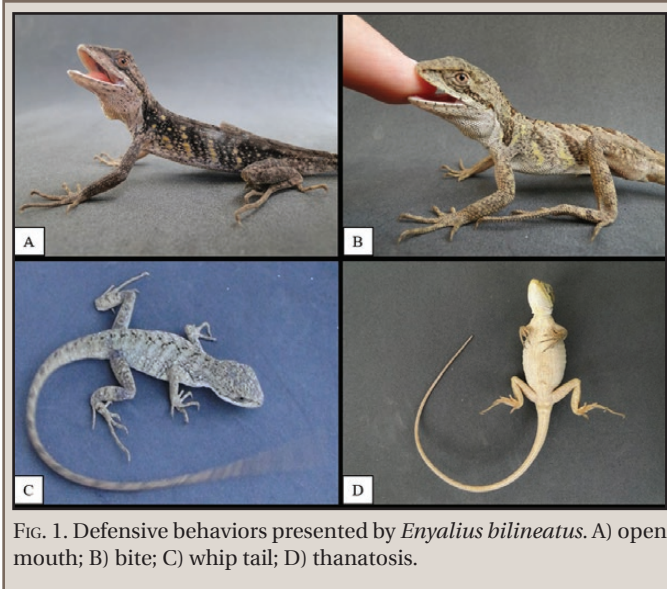


FIG. 1. Defensive behaviors presented by *Enyalius bilineatus*. A) open mouth; B) bite; C) whip tail; D) thanatosis.

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HEMIDACTYLUS TURCICUS (Mediterranean Gecko). DISPERSAL BY MOTOR VEHICLE. Evidence of dispersal of amphibians and reptiles by motor vehicles (vehicular rafting) is mounting (e.g.,

Norval et al. 2012. Herpetol. Notes 5:451–452; Herman 2013. Herpetol. Rev. 45:203–205; Hecnar and Hecnar 2018. Herpetol. Rev. 47:108–109) and it can be an important conservation issue when long distances are involved (Davis et al. 2011. Nature 474:153–154) and exotic species become established (Meshaka et al. 2004. The Exotic Amphibians and Reptiles of Florida, Krieger Publishing, Malabar, Florida. 166 pp.).

On 8 April 2018, a gecko (ca. total length = 12 cm) emerged from the external mirror housing of a Jeep being towed by a Winnebago motorhome just after it arrived at a family campground near Grand Bend, Ontario (43.2574°N, 81.8033°W; WGS 84). The motorhome was driven from Winter Haven, Florida where the owners spent the winter (28.0333°N, 81.7167°W; WGS 84) and covered a road distance of 2080 km (ca. 19-h drive). The gecko was photographed by H. W. Bober and regularly observed on the exterior decks and walls of mobile homes and nearby trees until the end of August. We identified the specimen as an adult *Hemidactylus turcicus*, verified by M. Nickerson of the Florida Museum of Natural History, and submitted digital photograph vouchers to A. Lathrop of the Royal Ontario Museum (ROMdm 01139a–c).

Hemidactylus turcicus is native to the Mediterranean basin but has been introduced to Cuba, France, Mexico, Panama, Puerto Rico, and the United States (IUCN Redlist, www.iucnredlist.org; 13 October 2018). Mediterranean Geckos were first reported in North America from Florida in 1915 (Stegneger 1922. Copeia 1922:56) and now have a well-established range in the southeastern United States (Powell et al. 2016. Field Guide to Reptiles and Amphibians of Eastern and Central North America, 4th ed. Houghton Mifflin Harcourt Publishing, New York. 494 pp.). This species is associated with human structures and its widely scattered pattern of dispersal in the United States is attributed to human-assisted transport along highways (Davis 1974. J. Herpetol. 8:77–80; Godley et al. 1981. Herpetol. Rev. 12:84–86; Meshaka 1995. Florida Sci. 58:10–15). Vehicular rafting may also have played an important role in the distribution of other non-native lizards in North America including the *Anolis sagrei* (Brown Anole) from the Caribbean (Godley et al., *op. cit.*; Campbell 1996. Herpetol. Rev. 27:155–157), and *Hemidactylus frenatus* (House Gecko) from the Orient (Meshaka et al., *op. cit.*; Norval et al., *op. cit.*).

To our knowledge this is the first record of *H. turcicus* occurring in Canada. The nearest verified records are about 300 km southeast in Beaver County, Pennsylvania, USA (40.7589°N, 80.3197°W, WGS 84; Carnegie Museum of Natural History CM 31440) and about 450 km southwest in Wayne County, Indiana (39.8355°N, 84.8941, WGS 84°W; Florida Museum of Natural History UF 165669). Whether this species can successfully establish in the cooler temperate climate of southwestern Ontario remains unknown.

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HOLBROOKIA LACERATA (Spot-tailed Earless Lizard). PRE-DATION. *Holbrookia lacerata* is a small phrynosomatid lizard found in short-grass plains from south and central Texas into northern Mexico (Hibbitts and Hibbitts 2015. Texas Lizards: A Field Guide. University of Texas Press, Austin, Texas. 333 pp.). They are a cryptic, easily startled lizard that has been little studied (Axtell 1956 Bull. Chicago Acad. Sci. 10:163–179). Here we report the first record of *H. lacerata* as prey for *Hypsiglena jani*. During telemetry fieldwork on *H. lacerata*, the radio signal of an individual was located at the corner of an oil-well pad at



FIG. 1. Adult female *Holbrookia lacerata* regurgitated from adult *Hypsiglena jani*.

0900 h on 28 June 2017, approximately 63 m northwest of the prior fix at 1312 h on 27 June 2017. The signal was coming from a large pile of rocks, atypical habitat for *H. lacerata*. Careful removal of the top layer of rocks exposed an adult *H. jani*, with a distended stomach. We palpated the snake, which regurgitated the *H. lacerata* with the radio still attached (Fig. 1). At the initial capture of the lizard on 26 June 2017, before attaching the radio, mass was 4.8 g, SVL was 54 mm, and tail length was 42 mm. After regurgitation, prey mass = 4.3 g, SVL = 59.5 mm, and tail length = 40.4 mm. The *H. jani* measured 17.3 g, SVL = 279 mm, and tail length = 50 mm. Prey to predator weight ratio was 27.7%, and total length ratio was 29.2%.

Hypsiglena jani is a known predator of many lizard species, and phrynosomatid lizards appear to comprise a large proportion of their diet (Rodríguez-Robles et al. 1999. Copeia 1999:93–100). Consistent with previously reported *H. jani* predation activity, the snake swallowed the lizard head-first. The radio, which was attached mid-dorsal with the radio antenna extending posteriorly, along and past the tail of the lizard, did not appear to hinder swallowing. Both specimens were collected and deposited in the Biodiversity, Research and Teaching Collections at Texas A&M University, College Station as *H. jani*: TCWC 103603 and *H. lacerata*: TCWC 103604. Both specimens collected under the authority of a Texas Parks Wildlife Department scientific permit [SPR-0506-662].

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KENTROPYX STRIATA (Striped Kentropyx). DIET. *Kentropyx striata* is widely distributed within Amazonia, occurring in Venezuela, Guyana, Suriname, French Guiana, Colombia, Trinidad and Tobago, and Brazil (Avila-Pires 1995. Zool. Verh. 299:1–706). It is a heliothermic species commonly found on the ground or beneath vegetation in open areas (Avila-Pires 1995, *op. cit.*; Vitt and Carvalho 1992. Can. J. Zool. 70:1995–2006). The diet of *K.*



FIG. 1. *Kentropyx striata* specimen from the village of Santa Maria do Tapar, Santarm, Par, Brazil, showing the ingested *Anolis auratus* specimen. (A) General ventral view of the lizard (UFOPA-H 1236; male; snout–vent length = 109.51 mm) and (B) ventral view of prey (total length 60.48 mm).

striata is composed mainly of arthropods (all stages including eggs, larvae, pupae, and adults), as well as molluscs, oligochaetes, and plant material (e.g., fruits) (Magnusson 1993. J. Herpetol. 27:380–385; Vitt and Carvalho, *op. cit.*; Mesquita et al. 2006. South Amer. J. Herpetol. 1:61–71). The only vertebrate prey of *K. striata* reported to date are anuran amphibians and lizards (Vitt and Carvalho, *op. cit.*). Here we report the predation of a species of lizard not yet registered in the diet of the *K. striata*.

On 5 December 2015 at 1205 h in the village of Santa Maria do Tapar, Santarm, Par, Brazil (2.353071°S, 54.568990°W; WGS 84; 8 m elev.), an adult male *K. striata* (SVL = 109.51 mm) was collected by hand. At the time of capture the lizard was foraging on the ground in a clearing within a small fragment of secondary forest. The lizard was euthanized, and stomach contents were analyzed (Fig. 1A). A partly digested adult female *Anolis auratus* (total length 60.48 mm; Fig. 1B) was found among stomach contents. The prey had been ingested headfirst. Both prey and predator are housed in the herpetological collection of the Universidade Federal do Oeste do Par (UFOPA-H 1236).

The *K. striata* was collected in an area of seasonal floodplain (vrzea), occurring in syntopy with three other heliothermic lizard species: *Ameiva ameiva*, *Anolis auratus*, and *Varzea bistriata*. *Anolis auratus* is a semi-arboreal species commonly found in grasses and shrubs in open environments and, like *K. striata*, has an activity peak of from 0900–1300 h (Vitt and Carvalho, *op. cit.*). Saurophagy by sympatric species of lizards often occurs in nature (see examples in Siqueira and Rocha 2008. South Amer. J. Herpetol. 3:82–87; Pergentino et al. 2017. Herpetol. Notes 10: 225–228). The predation record presented here corroborates information on the generalist and opportunistic habit of *K. striata*.

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