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LEPTODACTYLUS LATRANS (Criolla Frog). PREDATION. *Leptodactylus latrans* is a large anuran that inhabits swamps and streams with lots of vegetation, mostly wet grassland. Its distribution includes central Argentina, southern Brazil, Uruguay, and some parts of Paraguay (Ceï 1980. Amphibians of Argentina. Ital. J. Zool., N. S. Monogr. 2, 609 pp.; Gallardo 1987. Anfíbios Argentinos: Guía para su Identificación. Biblioteca Mosaico, Buenos Aires. 98 pp.). Tadpoles are gregarious and the female parent remains with the tadpoles until metamorphosis (Vaz Ferreira and Gehrau 1974. Rev. Biol. Uruguay 2:59–62; Vaz-Ferreira and Gehrau 1975. Phys. 34:1–14). *Astyanax eigenmanniorum* is a small fish (85 mm) that inhabits vegetated streams, calm rivers, ponds, and lakes from southern Brazil to central northern Argentina (Acosta et al. 2013. ProBiota, Ser. Tec. y Didac. 19:1–10). It is an omnivorous species, but its diet changes with the season. Its diet includes fish, eggs of the fish *Odontesthes bonariensis*, crustaceans, insects (larvae and adults), Coleoptera, Hymenoptera, spiders, and vegetation (Grosman 1999. Acta Sci. Biol. Sci. 21:267–275; Bennemann et al. 2005. Iheringia Ser. Zool. 95:247–254).

At 1500 h on 21 December 2013 at La Majadita (30.426°S, 67.2942°W, datum WGS84; elev. 979 m), Departamento Valle Fértil, San Juan, within the Parque Provincial Natural Valle Fértil, we observed a female *L. latrans* near a school of tadpoles. The frog was located in the water near the shore of a slow, permanent stream (25 cm deep). The tadpoles were at Gosner stage 20–23. When we came closer in order to obtain a photographic record, the female left the area, leaving the tadpoles alone. Immediately, a group (10–15 individuals) of *A. eigenmanniorum* began to feed on the colony of tadpoles. Fish approached the tadpoles until they were close enough to attack them. This action was conducted from the center to the shore of the stream, perpendicular to the direction of the water. Throughout our observations the female frog did not return to the tadpoles. We did not count how many tadpoles were eaten, but some were still alive when we left the site. This report represents a new prey species for *A. eigenmanniorum* and a new predator of *L. latrans* tadpoles.

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LITHOBATES AREOLATUS (Crawfish Frog). PREDATION. *Lithobates areolatus* is declining and distributed sparsely in remnant prairie habitats of the central United States (Parris and Redmer 2005. In Lannoo [ed.], Amphibian Declines: The Conservation Status of United States Species, pp. 526–528. Univ. California Press, Berkeley). Owing to their extensive use of crayfish/small mammal burrows and highly secretive nature, limited data exist regarding the life history of *L. areolatus*, particularly natural sources of mortality. Experimentally, two species of insect (both backswimmers [*Notonecta* spp.]) have been identified as predators of larval *L. areolatus* (Cronin and Travis 1986. Herpetologica 42:171–174). Reported predators of post-metamorphic *L. areolatus* include *Heterodon platirhinos* (Eastern Hog-nosed Snake; Engbrecht and Heemeyer 2010. Herpetol. Rev. 41:168–170), *Coluber constrictor* (North American Racer; Engbrecht et al. 2012. Herpetol. Rev. 43:323–324), *Thamnophis sirtalis* (Common



FIG. 1. Adult female *Nerodia erythrogaster* that regurgitated an adult *Lithobates areolatus* in Washington Co., Arkansas, USA.



FIG. 2. Juvenile *Lithobates areolatus* impaled on a barbed-wire fence by a *Lanius ludovicianus* (Loggerhead Shrike) in Benton Co., Arkansas, USA.

Gartersnake; Heemeyer 2011. Unpubl. MS Thesis. Indiana State University), and *Procyon lotor* (Raccoon; Engbrecht et al. 2012. Herpetol. Rev. 41:475); however, other common predators of rapid frogs such as snakes, birds, and mammals are suspected. Here we report the predation of *L. areolatus* by *Nerodia erythrogaster* (Plain-bellied Watersnake) and *Lanius ludovicianus* (Loggerhead Shrike) in northwest Arkansas, USA.

At 1500 h on 4 April 2014 we hand-captured a large adult female *N. erythrogaster* (SVL = 91.8 cm; 541.7 g) that was basking on emergent vegetation at Woolsey Wet Prairie Sanctuary (WWPS), Washington Co., Arkansas, USA (36.067175°N, 94.233639°W; datum WGS84). WWPS is a recently (2006) restored section of remnant prairie, perforated with numerous ephemeral wetlands which are known breeding sites for a population of *L. areolatus*. Upon capture, the *N. erythrogaster* voluntarily regurgitated an adult *L. areolatus* (Fig. 1; SVL = 8.0 cm, 24.55 g). A second well-digested *L. areolatus* was later recovered from the snake's stomach by palpation. On 10 April 2014, a second adult female *N. erythrogaster* (SVL = 75.8 cm; 321 g) was hand captured at WWPS that also regurgitated a single partially digested adult *L. areolatus*. *Nerodia erythrogaster* are thought to feed more heavily on amphibians than other species of *Nerodia* (Gibbons and Dorcas 2004. North American Watersnakes: A Natural History. University of Oklahoma Press, Norman. 438 pp.). Among 62 *N. erythrogaster* captured at WWPS between 15 March 2014 and 10 June 2014, 11 had palpable food items; of these, 100%

regurgitated anurans (*L. areolatus* [N = 2]; *L. sphenoccephalus* [Southern Leopard Frog; N = 5]; *L. catesbeianus* [American Bullfrog; N = 3]; *Hyla versicolor* [Gray Treefrog]; N = 1). Although rapid frogs are important prey for *N. erythrogaster* at this site, *L. areolatus* exhibit a relatively short, early spring breeding season, and thus are likely only available for a limited time within the aquatic habitat.

An additional predation event involving a *L. ludovicianus* (Loggerhead Shrike) took place near Maysville, Benton Co., Arkansas, USA (36.406867°N, 94.568393°W; datum WGS84). Because shrikes lack large talons for shredding, they impale prey upon thorns or barbed-wire fences to aid in tearing and consuming. The diet of *L. ludovicianus* is composed primarily of insects (orthopterans, coleopterans), but may also include vertebrate prey (snakes, lizards, amphibians, small rodents, and birds), especially in winter months when invertebrates are a less reliable food source. After observing two *L. ludovicianus* on 6 July 2013, JCN discovered a juvenile *L. areolatus* hanging from a nearby barbed-wire fence (Fig. 2). These observations expand the known predators and sources of natural mortality for *L. areolatus* and support the contention that breeding and post-metamorphic migration present a period of heightened vulnerability for this species (Heemeyer and Lannoo 2012. *Copeia* 2012[3]:440–450).

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LITHOBATES JOHNI (Moore's Frog). DIET. *Lithobates johni* is a poorly-known frog endemic to the southeastern Sierra Madre Oriental of México. The original species description (Blair 1947. *Am. Mus. Novit.* 1353:1–17) reported spiders, crayfish, and eight insect orders in the diet of 22 dissected *L. johni*, suggesting that it is a generalist consumer of invertebrates. Here, we provide the first record of a vertebrate in the diet of *L. johni*, from a population in the state of Veracruz, México. At 0830 h on 15 January 2014, we observed an adult *L. johni* devouring an adult *Ecnomiohylla miotympanum* (Small-eared Treefrog) in the Reserva Ecológica del Río Pancho Poza, at 2040 m in Municipio de Altotonga (19.73989°N, 97.25072°W; datum WGS84). This reserve is a ca. 57-ha state-protected area, located on the southwestern outskirts of the town of Altotonga. Habitat is mesic cloud forest, transitioning into disturbed vegetation along the shoreline of the river where the frogs were observed. At this site, *R. johni* occurs at high density; between 10 and 20 individuals were seen along a 0.75-km stretch of the river that same day.

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LITHOBATES SPHENOCEPHALUS (Southern Leopard Frog). DIET. *Lithobates sphenoccephalus* have been reported to feed indiscriminately on a wide variety of insects, arthropods, snails,

crayfish, fish, salamanders, and other anurans (Dodd 2013. *Frogs of the United States and Canada*. Vol. II. John Hopkins University Press. Baltimore, Maryland. 982 pp.). While not unexpected, this is the first record known to us of *L. sphenoccephalus* consuming a lizard. At 0024 h on 04 April 2014, a *L. sphenoccephalus* was found DOR on Zimmerscheidt Road, 13 km NNE of Columbus, Colorado Co., Texas, USA (29.81751°N, 96.50888°W, datum WGS84; elev. 85 m). The frog carcass contained a *Scincella lateralis* (Ground Skink). The anterior end of the *S. lateralis* was partially digested, and the posterior half of the lizard including the hind legs (tail missing) was largely intact and clearly recognizable. The specimens were deposited at the Texas Natural History Collection (TNHC 90500) and photographic vouchers deposited in the University of Arlington Digital Collection (UTADC-8113, UTADC-8114).

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PHYSALAEEMUS CUVIERI (Barker Frog). PREDATION. *Physalaemus cuvieri* is a small leptodactylid species that is widely distributed in South America (Maffei and Ubaid 2014. *Amphibians of Rio Claro Farm*. Lençóis Paulista, São Paulo, Brazil. 123 pp.). *Philodryas nattereri* (Paraguay Green Racer) is a generalist predator, feeding on reptiles, but also mammals and amphibians (Mesquita et al. 2011. *Herpetol. J.* 21:193–198). At 1933 h on 27 November 2013, we observed a medium-sized adult *P. nattereri* feeding on a *P. cuvieri* male (Fig. 1) on the banks of a permanent pond, in Bonfinópolis municipality, Goiás, Brazil (16.5993°S, 48.8753°W, datum SAD69; elev. 919 m). The air temperature at the site was 23.5°C, water temperature was 29.3°C, and humidity was 81%. While we recorded the advertisement calls of the individual of *P. cuvieri* the snake captured it by the head. The *P. cuvieri* remained alive with an inflated body while being swallowed. The predation event lasted 7 min. To our knowledge this is the first record of predation of *P. cuvieri* by *P. nattereri*.

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FIG. 1. *Philodryas nattereri* preying on *Physalaemus cuvieri*, in a permanent pool, Bonfinópolis municipality, Goiás, Brazil.