and identified two categories of prey: Scorpiones and Araneae. This is the first record of the orders Scorpiones and Araneae in the diet of *P. aridus*.

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***PROCERATOPHRYS ARIDUS*. ENDOPARASITES.** *Aplectana membranosa* is a nematode (Cosmocercidae) that is widely distributed in the neotropics (Campião et al. 2014. Zootaxa 1:1–19). The Cosmocercidae are mainly parasites of vertebrates (Vanderburgh and Anderson 1987. Can. J. Zool. 65:1650–1661), and have been described from the gastrointestinal systems of anurans (Campião et al. 2014, *op. cit.*; Alcantara et al. 2018. J. Parasitol. 104:550–556; Teles et al. 2018b. Comp. Parasitol. 85:208–211). The genus *Proceratophrys* is composed of 41 species of frogs from Brazil, Argentina, and Paraguay (Frost 2018. Amphibian Species of the World: an Online Reference. Version 6.1; accessed 16 June 2018. Electronic database accessible at https:amphibiansoftheworld.amnh.org). *Proceratophrys aridus* (Fig. 1) inhabits the Caatinga ecoregion.

In the present study, we analyzed a specimen of *P. aridus* (SVL = 42.5 mm) captured in the municipality of Várzea Alegre, northeast Brazil (6.86944ºS, 39.385ºW, WGS 84; 297 m elev.) on 13 March 2018. It was anesthetized intramuscularly and then euthanized with intravenous potassium chloride. The body cavity, respiratory system, and gastrointestinal tract were examined for endoparasites using a stereomicroscope. The recorded nematodes were counted, preserved in 70% alcohol, mounted on slides, and identified with the aid of an optical microscope. We found 235 *Aplectana membranosa* in the small intestine. This is the first record of *A. membranosa* infecting *P. aridus*. *Aplectana membranosa* was originally described from *Leptodactylus latrans* (Leptodactylidae) and has also been recorded in the following species: *Ischnocnema parva, L. mystaceus, L. lineatus, L. pentadactylus, L. rugosus, L. vastus, Odontophrynus americanus, Rhinella granulosa, R. guttatus, R. icterica, R. marina, R. jimi,* and *R. diptycha* (Campião et al. 2014, *op. cit.*). It has a direct life cycle and a high reproductive rate, which facilitates the propagation of its larvae in the environment. Infection occurs through the skin or by accidental ingestion of eggs or larvae (Anderson 2000. Nematode Parasites of Vertebrates: Their Development and Transmission, 2nd ed. CABI Publishing, Wallingford, Oxon, UK. 650 pp.). These parasites are of great biological importance in the trophic relationships and conservation studies of their host populations (Marcogliese 2005. Int. J. Parasitol. 35:705–716). Several studies reporting endoparasites in anurans have been conducted in the last decade (Anjos 2011. Neotropical Helminthol. 5:107–111; Teles et al. 2014. Herpetol. Notes 7:355–356; Teles et al. 2015. J. Biol. 75:251–253), but about 90% of anuran species in Brazil have not been investigated for parasites (Campião et al. 2014, *op. cit.*). Such studies investigating the parasitic associates of anurans, like *P. aridus*, would provide important data for future studies related to both parasitology and the ecology of these amphibians.

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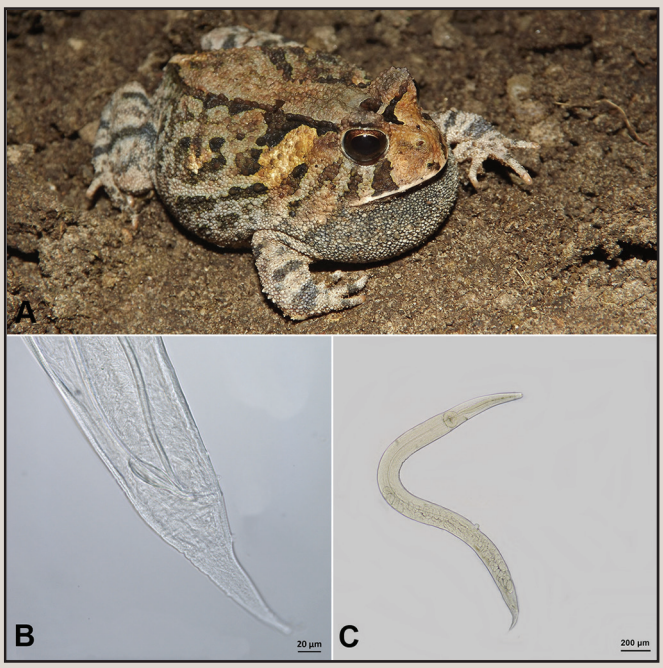

FIG. 1. A) Adult specimen of *Proceratophrys aridus*; B) male specimen of *Aplectana membranosa*, posterior view with a pair spicules; C) full view of *Aplectana membranosa* female. 1A)

***RANA ONCA* (Relict Leopard Frog). DIET and MORTALITY.** *Rana onca* was once presumed extinct, although populations of this species persisted (Jaeger et al. 2001. Copeia 2001:339–354). Since the early 2000s, a multi-agency conservation effort to supplement native populations and establish new populations has been undertaken (Fed. Reg. 81:69434–69437). Following the release of juvenile *R. onca* into a newly created refugium habitat, several of them were observed consuming *Apis mellifera scutellata* (Africanized Bee). One individual *R. onca* was killed while attempting to consume an *A. m. scutellata*. Although anuran diets often include prey of the order Hymenoptera (Whitaker 1961. Herpetologica 17:173–179), this is the first report of juvenile *R. onca* preying upon, and in one case being killed by, *A. m. scutellata*.

On 29 May 2018 at approximately 1030 h, 100 newly postmetamorphic *R. onca* were released into an artificial pond refugium at the Springs Preserve in Las Vegas, Clark County, Nevada, USA (36.17462°N, 115.18405°W; WSG 84). The frogs

originated from three egg masses that were collected, as part of a conservation program, from remnant populations of the species in Black Canyon, Lake Mead National Recreation Area, Clark County, Nevada, USA (Bradford et al. 2004. Southwest. Nat. 49:218–228). The eggs and resultant tadpoles were reared in a laboratory setting until metamorphosis. At the time of their release, the *R. onca* averaged 32 mm SVL.

Within minutes of being released, the juvenile *R. onca* began consuming *A. m. scutellata* that frequented the pond's edge, presumably to obtain water for evaporative cooling of their hive. One of the newly-released *R. onca* attempted to consume an *A. m. scutellata* and was stung. The encounter was captured on video (https://vimeo.com/356479040) and slow-motion footage was used to determine the sequence of events. The *R. onca* captured a flying *A. m. scutellata* with its tongue and retracted the entire bee into its mouth. The *R. onca* appears to have then been stung in the tongue and immediately attempted to dislodge the *A. m. scutellata.* To do so, the frog unfurled its tongue as it pushed the bee away with its right front foot, without success. The *A. m. scutellata* was securely affixed by its barbed stinger to the frog's tongue. Upon failing to dislodge the *A. m. scutellata*, the *R. onca* leapt away with the bee still attached. The *R. onca* jumped erratically several times, dislodging the bee, which was immediately consumed by another frog. The frog landed in the pond, where it began to swim in a lopsided manner. It swam in a couple of circles before sinking to the bottom of the pond. The *R. onca* was collected and taken back to the laboratory. At the time of collection, the *R. onca* was unresponsive to stimuli, but appeared to be alive. It died within 24 h.

Previous work has shown that bee venom has an effect on the autonomic and neuromuscular system of frogs (Nabil et al. 1998. HET 17:185–190). Vetter et al. (1999. West. J. Med. 170:223–227) provided a succinct overview of bee venom components and their effects on cells. The other *R. onca* observed eating *A. m. scutellata* suffered no apparent ill effects after approximately one hour of post-release observations. Toads are known to consume bees without ill effect (Slonaker 1900. Indiana Acad. Sci.:167–170), but have exhibited some learned avoidance (Brower and Brower 1962. Am. Nat. 96:297–307).

The *R. onca* refugium at the Springs Preserve was established under Landowner Cooperative Agreement #LCA-R01 with the assistance of the Nevada Department of Wildlife (NDOW Permit #489200) and US Fish and Wildlife Service under the programmatic Relict Leopard Frog Candidate Conservation Agreement with Assurances. Support for the rearing of *R. onca* was provided to the University of Nevada, Las Vegas (UNLV) by the Clark County Desert Conservation Program (Project 2015-UNLV-1550A) to further implement or develop the Clark County Multiple Species Habitat Conservation Plan. Protocols involving live animals were approved by the Institutional Animal Care and Use Committee at UNLV, and authorized under permits by NDOW and the National Park Service, Lake Mead National Recreation Area.

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***RANA SPHENOCEPHALA* (Southern Leopard Frog). DIET.** Leopard frogs have been reported to feed on a variety of vertebrates, including fish, salamanders, and frogs (Wright and Wright 1949. Handbook of Frogs and Toads of the United States and Canada. Third Edition. Comstock Publishing Company, Ithaca, New York. 640 pp.; Johnson 1987. Amphibians and Reptiles of Missouri. Missouri Department of Conservation, Jefferson City. 368 pp.). In Oklahoma, Force (1925. Copeia 1925:2527) reported that *R. sphenocephala* ate mainly insects. However, Carr (1940. Univ. Florida Publ. Biol. Sci. Ser. 3:1118) mentioned that leopard frogs were indiscriminant feeders which suggests they can be opportunistic predators. Here, I report the first instance of a *R. sphenocephala* feeding on a reptile (skink).

On 25 August 2019, an adult (73 mm SVL) female *R. sphenocephala* was collected by hand outside a residence in Hochatown, McCurtain County, Oklahoma, USA (34.17107°N,

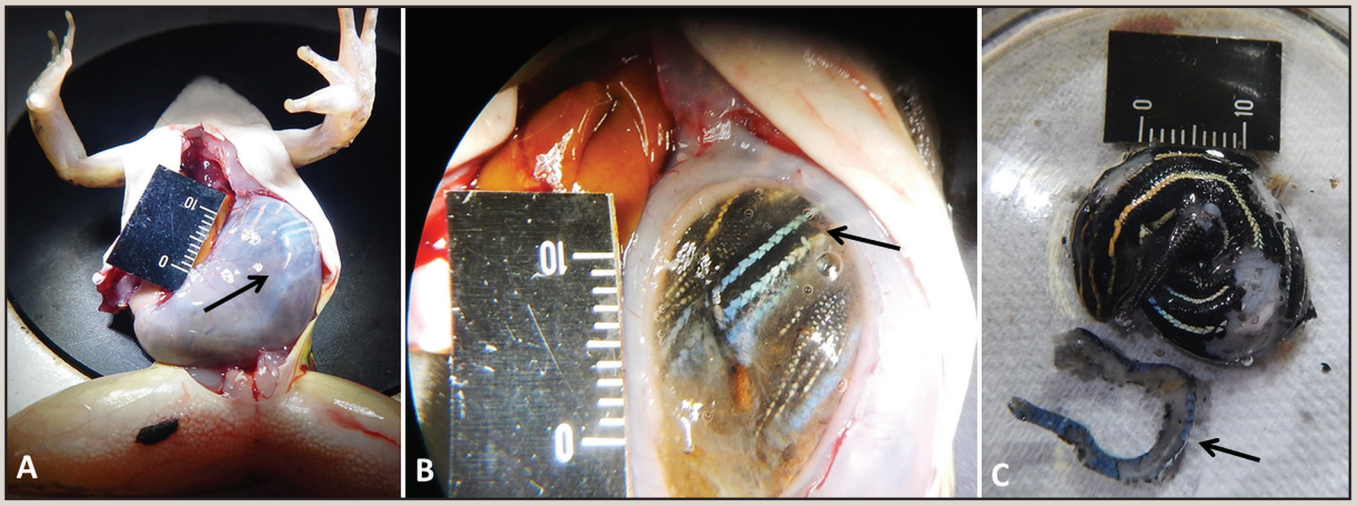

FIG. 1. Food item in stomach of *Rana sphenocephala* from McCurtain County, Oklahoma, USA. A) *Plestiodon fasciatus* in situ (arrow); B) Opened stomach showing *P. fasciatus* (arrow); C) Prey body removed from gut and separate tail (arrow). Note scale (mm).