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HYLA CHRYSOSCELIS/HYLA VERSICOLOR (Gray Treefrog/Cope's Gray Treefrog). **PREDATION.** On 8 June 2019, the authors were removing water from the winter tarp covering our above-ground swimming pool in Jackson County, Missouri, USA (39.02403°N , 94.30949°W ; WGS 84). A large number of *Hyla chrysoscelis*/*Hyla versicolor* tadpoles were in the water. We netted several hundred from the water and moved them to a nearby, natural, fishless pool, and continued to drain the water from the tarp. With the water down to pump level (1–4 cm), we were going to wait for the cooler evening to collect more tadpoles and remove the tarp. Almost immediately, several *Quiscalus quiscula* (Common Grackles) descended on the pool and began preying on the remaining tadpoles. They would wade through the shallow water, snapping up tadpoles and swallow them headfirst. The grackles would move leaves and debris with their beaks and heads and grab tadpoles, and presumably aquatic insects, as they moved from place to place in the pool. As many as three grackles were seen working the water of the 3×6 m pool at one time.

Common Grackles are known to be omnivorous, consuming grains, berries, and seeds, and particularly during the summer months insects, spiders, mollusks, fish, frogs, salamanders, mice, and baby birds and eggs of other avian species (Bull and Farrand 1977. The Audubon Society Field Guide of North American Birds, Eastern Region. Alfred A. Knopf, Inc., New York, New York. 775 pp.). This is the first report of Common Grackles feeding upon *H. chrysoscelis*/*H. versicolor* (Dodd 2013. Frogs of the United States and Canada. Johns Hopkins University Press, Baltimore, Maryland. 1032 pp.). In our yard, grackles are common visitors to our bird feeders, and use the pool to deposit feces. The rapidity with which they began feeding on these tadpoles, shows how opportunistic the grackles are, and how vulnerable hylid tadpoles are in drying pools, even in the absence of more typical avian aquatic predators such as herons and egrets.

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INCILIUS MELANOCHLORUS (Wet Forest Toad). **ARBOREAL BEHAVIOR.** *Incilius melanochlorus* is a nocturnal anuran, generally observed in association with streams during the breeding season (January to February); after eggs are deposited, the adults leave the stream and disperse in the surrounding forest, inhabiting the dimly lit forest floor where they are difficult to see (Savage 2002. The Amphibians and Reptiles of Costa Rica: A Herpetofauna between Two Continents, between Two Seas. University of Chicago Press, Chicago, Illinois. 934 pp). This species is a member of a monophyletic *I. valliceps* group, referred to as the "Forest Toads" (Mulcahy and Mendelson 2000. Mol. Phylogen. Evol. 17:173–189; Mulcahy et al. 2006. J. Biogeog. 33:1889–1904). These toads are considered highly terrestrial as they do not show obvious adaptations for climbing (Grubb and Neill 1971. Copeia 1971:347–348). While conducting an amphibian survey on 3 November 2017, at El Silencio de Los Angeles, San Ramón, Provincia de Alajuela, Costa Rica (10.20152°N , 84.48144°W , WGS 84), we located a juvenile *I. melanochlorus* on a leaf 30 cm above the ground (Fig. 1). The distance to the nearest stream was 410 m, and it was on the edge of a pasture where there were few rocks, as well as little dense vegetation and leaf litter. To the best of

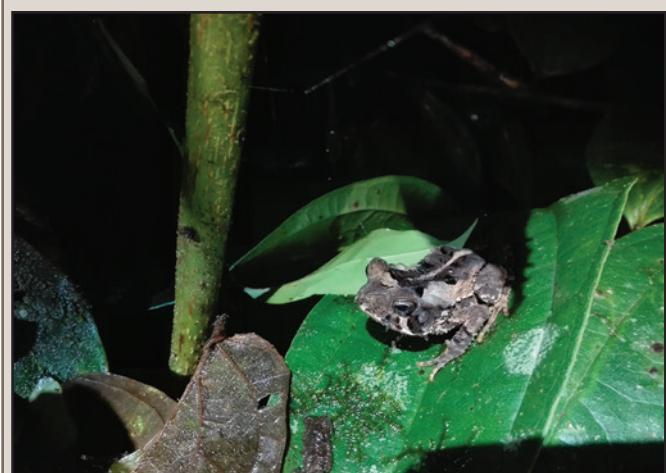


FIG. 1. *Incilius melanochlorus* observed on vegetation above ground level in Costa Rica.

our knowledge, this is the first photographic record of arboreal behavior in this species. In fact, this behavior of climbing and resting within the vegetation during the night is common across toads and may have developed as a strategy to avoid predators (Lindquist et al. 2007. Phylomedusa 6:37–44; Granda-Rodriguez et al. 2008. Herpetotropicos 4:87–93; De Noronha et al. 2013. Herpetol. Bulletin 124:22–23). Grubb and Neill (1971, *op. cit.*) observed arboreal behavior of *I. valliceps* in areas with few shelters and did not observe any arboreal behavior in areas with abundant shelters. Due to the conditions of the site where we conducted our observation, we believe that the arboreal behavior of *I. melanochlorus* may also be due to the reduction of typical refuges in disturbed areas.

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LEPTODACTYLUS LATRANS (Butter Frog). **DIET.** *Leptodactylus latrans* is one of the largest frog species in the Pantanal region of Brazil. They have a generalist and opportunistic diet, preferably feeding on arthropods, including crustaceans (Decapoda) (Pazinato et al. 2011. Biotemas 24:147–151), as in the record of the crab *Trichodactylus panoplus* in their diet (Oliveira et al. 2009. Biodiversidade Pampeana 7:44–46).

In this study, we present the first record of the *Poppiana argentiniana* crab in the diet of *L. latrans* in the northern Pantanal region (Fig. 1). A female *L. latrans* (SVL = 10.3 cm) was collected by an active nocturnal search on 5 August 2017, on the bank of the Paraguay River at the Taíamã Ecological Station (TES), Cáceres, Mato Grosso, Brazil (16.88921°S , 57.49584°W ; WGS 84). The specimen was euthanized with an injectable solution of 2% lidocaine hydrochloride (Xylestesin®), fixed in 10% formalin, preserved in 70% alcohol and deposited (CELBE-A-0080) in the collection of the Centro de Pesquisa de Limnologia, Biodiversidade e Etnobiologia do Pantanal (CELBE) of the State University of Mato Grosso (UNEMAT), Cáceres, Mato Grosso, Brazil. To analyze diet, we removed the stomach through a ventral incision, and then examined with the aid of

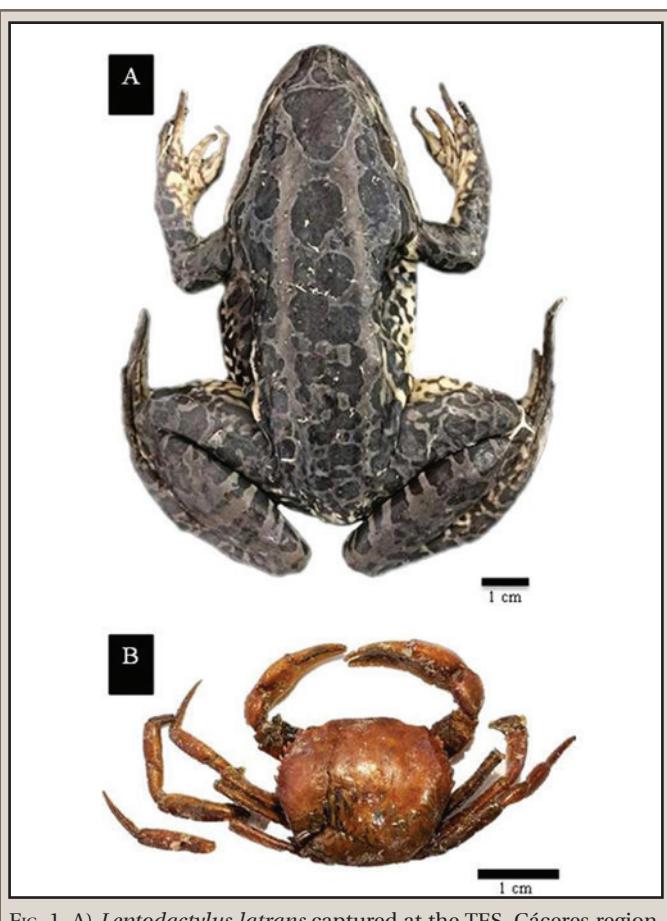


FIG. 1. A) *Leptodactylus latrans* captured at the TES, Cáceres region, Pantanal Mato-Grossense; B) *Poppiana argentiniana* found as prey in the stomach of *L. latrans* (CELBE-A-0080).

a stereoscopic microscope. The identification of the crab was based on Magalhães (2003. Família: Pseudothelphusidae e Trichodactylidae. In G. A. S. Melo [ed.], Manual de identificação dos Crustáceos Cecápodos de Água Doce Brasileiros, pp. 143-297. Edições Loyola, São Paulo, Brazil).

The *P. argentiniana* we found was a male and filled the entire stomach of the *L. latrans*. A large part of the diet of anurans is comprised of terrestrial prey, although aquatic and semiaquatic prey are sporadically captured (Sole et al. 2009. Herpetol. Notes 2:9-15). From this record we confirm that *P. argentiniana* is part of the diet of *L. latrans* in wetlands in the Pantanal biome. Other crustaceans have been reported in the Pampa biome (Oliveira et al. 2009, *op. cit.*), as well as in an area of high humidity in the Atlantic Rainforest (Sole et al. 2009, *op. cit.*). The TES presents little information about its local fauna in its management plan, so this report contributes to the ecological knowledge of the local biodiversity.

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LITHOBATES BERLANDIERI (Rio Grande Leopard Frog). ENDOPARASITE. *Lithobates berlandieri* occurs naturally in southwest Texas and southeastern New Mexico, USA, to southern Mexico and has been introduced into Arizona and California (Dodd 2013. Frogs of the United States and Canada. Vol. 2. Johns Hopkins University Press, Baltimore, Maryland. 982 pp.). In this note, we report the first occurrence of the cestode *Ophiotaenia magna* in *L. berlandieri*.

One male *L. berlandieri* (SVL = 80 mm) collected 16 September 1949, 8 km S. of Brownwood, (31.71°N, 98.99°W WGS 84), Brown County, Texas and deposited in the Biodiversity Research and Teaching Collection (TCWC), Department of Wildlife and Fisheries Science, Texas A & M University, College Station, Texas as TCWC 4238, was examined. The frog was fixed in 10% formalin and stored in 70% ethanol. The body cavity was opened by a longitudinal incision and the digestive tract was removed and examined. The esophagus, stomach, and small and large intestine were opened and examined for helminths utilizing a dissecting microscope. One adult cestode was found in the small intestine. It was regressively stained in hematoxylin, mounted in Canada balsam and examined as a whole mount under a compound microscope. The scolex was not available for study. However, based on comparisons of proglottid morphology with drawings in the original description (Hannum 1925. Trans. Amer. Microscop. Soc. 44:148-155), the cestode was identified as *Ophiotaenia magna*. It was deposited in the Harold W. Manter Laboratory (HWML), University of Nebraska, Lincoln, USA as *O. magna* (HWML 216015).

Ophiotaenia magna is a common cestode in North American anurans. A list of anuran species hosts published for *O. magna* is in (Prudhoe and Bray 1982. Platyhelminth Parasites of the Amphibia. Oxford University Press, London, U.K. 217 pp. + 4 microfiche). *Lithobates tarahumarae* (Bursey and Goldberg 2001. J. Parasitol. 87:340-344) should be added to that list.

Other Cestoda found in *L. berlandieri* include *Cylindrotaenia americana* (Jones 1987. Syst. Parasitol. 10:165-245), *Ophiotaenia filaroides*, Proteocephalidea (larvae) (León-Règagnon et al. 2005. Southwest. Nat. 52:251-258), and *Mesocestoides* sp. (McAllister and Conn 1990. J. Wildl. Dis. 26:540-543.). *Lithobates berlandieri* represents a new host for *O. magna*.

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