

in our case, and knowledge of this color change should help with field identification.

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PSEUDIS PARADOXA PLATENSIS (La Plata Paradox Frog).

LARVAL DIET. *Pseudis paradoxa platensis* is an aquatic hylid distributed in the Paraná and River Plate Basins, in Argentina, Brazil, Bolivia, Uruguay and Paraguay (Garda et al. 2010. *Zootaxa* 2666:1–28.). In Paraguay it is largely associated with the Cerrado and Chaco ecoregions, in the departments of Alto Paraguay, Amambay, Boquerón, Central, Concepción, Misiones, Ñeembucú, and Presidente Hayes (Brusquetti and Lavilla 2006. *Cuad. Herpetol.* 20:3–79). Dietary studies of *P. paradoxa platensis* have been carried out in Argentina in both post-metamorphic and pre-metamorphic life stages. Dure and Kehr (2001. *J. Herpetol.* 35:340–343) found Diptera and Coleoptera to be the most abundant prey items for post-metamorphic individuals, with amphibian prey the largest category by biomass, though infrequently consumed. In contrast, Falico et al. (2012. *Herpetol. Notes* 5:215–217) found that Odonata were the most important prey item for *P. paradoxa platensis* during a study carried out in January of 2010. Arias et al. (2002. *Phyllomedusa* 1:97–100) presented dietary data for larval life stages of *P. paradoxa platensis* and concluded that the species is omnivorous, feeding mostly on phytoplankton but also consuming insects and plant fragments. Apparent dietary variation led Falico et al. (2012, *op. cit.*) to suggest that the species is an opportunistic feeder that adapts its feeding strategy based on food availability.

At 2345 h on 13 January 2019, a Gosner stage 38 larva of *P. paradoxa platensis* (39.66 mm SVL, 70.38 mm tail length) was captured in a temporary pond at Fortín Toledo, Boquerón department, Paraguay (22.2118°S, 60.2019°W; WGS 84). The individual was captured floating in water (22 cm deep) with its head and nostrils above the water line. It was placed in an empty plastic container along with some pond water. Upon revisiting the container one hour later, it had regurgitated a juvenile *Leptodactylus bufonius* (Oven Frog; 22.05 mm SVL). The specimens were collected under Permit 176/2018 issued by the Ministerio del Ambiente y Desarrollo Sostenible, and dispatched humanely following Simmons (2002. *Herpetological Collecting and Collections Management*. SSAR Herpetological Circular No. 31. 153 pp.). Both specimens were prepared in 10% formalin and deposited in the Colección Zoológica de Para La Tierra (CZPLT) as CZPLT-H 1367 (*P. paradoxa platensis*) and CZPLT-H 1368 (*L. bufonius*). This is the first published record of a pre-metamorphic *P. paradoxa platensis* preying on a vertebrate and the first published dietary data of the species from Paraguay.

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RANA BOYLI (Foothill Yellow-legged Frog). **REPRODUCTIVE BEHAVIOR and HABITAT USE.** Spawning aggregations coincide

in the South Fork Eel River for *Entosphenus tridentatus* (Pacific Lamprey), an anadromous jawless fish, and *Rana boylei* (Foothill Yellow-legged Frog), a lotic-breeding anuran endemic to California and Oregon, USA. Although they have experienced sharp declines (Wang et al. 2020. *J. Freshwater Ecol.* 35:29–55), *E. tridentatus* runs in the Eel basin have shown an uptick in recent years, and the opportunity for frog-lamprey interactions has increased.

Spawning aggregations are defined as concentrations of animals, predictable in time and space, at far greater densities than occur during non-reproductive periods (Domeier and Colin 1997. *Bull. Mar. Sci.* 60:698–726). As adults, *E. tridentatus* are dispersed in the ocean where they are blood-sucking parasites of fish, while *R. boylei* are dispersed along streams eating arthropods. *Entosphenus tridentatus* and *R. boylei* larvae, however, consume similar diatom and detrital food resources in rivers. Hence their breeding migrations, albeit in opposite directions, share a common destination. *Entosphenus tridentatus* swim upstream from estuaries, sometimes hundreds of kilometers, while *R. boylei* hop at most a few kilometers downstream from tributaries, but they convene at the same mainstem locations to mate and lay eggs. With similar thermal triggers in Spring (water temperature:



FIG. 1. Five clutches of *Rana boylei* eggs (marked with bamboo skewers) attached to cobbles around the inner perimeter of an *Entosphenus tridentatus* nest (length parallel to the current = 60 cm, width perpendicular to flow = 40 cm).



FIG. 2. Two male *Rana boylei* amplexing a *Entosphenus tridentatus* carcass in the South Fork Eel River, Mendocino County, California, USA.