

**RANA DRAYTONII (California Red-legged Frog). DIET.** Researchers working with the federally threatened *Rana draytonii* have included diet as part of the study of this species (Hayes and Tennant 1986. *Southwest. Nat.* 30:601–605; Alvarez 2013. *Herpetol. Rev.* 44:126–127; Bishop et al. 2014. *J. Herpetol.* 48:137–143). However, with the exception of cannibalism of juvenile *R. draytonii* reported by Alvarez (2013, *op. cit.*), work on the diet of this species has been focused on adults. A subset of the specimens investigated by Hayes and Tennant (1986, *op. cit.*) did include the juvenile life stage (presumed to be post-metamorphic animals) but these researchers did not report specific prey items of that life stage. Although occasionally observed, there is a paucity of reported information on the diet of juvenile *R. draytonii*. Here, we report a post-metamorphic (juvenile) *R. draytonii* preying on a large adult crane fly (Tipulidae).

We were collecting post-metamorphic *R. draytonii* for a terrestrial ecology study at the Mitsui Ranch, Sonoma County, California (38.3300°N, 122.5819°W) in August 2019. A juvenile *R. draytonii* was collected and a subdermal PIT (passive integrated transponder) unit was inserted. Upon close inspection we noted that a large crane fly (possibly *Holorusia* sp.) was being consumed by the juvenile frog. Since the frog was in hand from the moment of capture to the observation of the prey item, we surmised that the juvenile *R. draytonii* preyed upon the crane fly while both were in the aquatic habitat. The crane fly length was ca. 65 mm, while the SVL of the juvenile *R. draytonii* was 36 mm. Most anurans are widely accepted to be gape-limited feeders, allowing large-gaped species to have a diet that has greater variability (Duellman and Trueb 1994. *Biology of Amphibians*. Johns Hopkins University Press, Baltimore, Maryland. 670 pp.). This being relatively putative, it can be expected that items such as crane flies, and similar species may be part of the diet of juvenile *R. draytonii*. Collecting and disseminating natural history information for species in decline, including all life stages remains critical. These small pieces of information are required to complete a broader picture of their natural history, which is essential for better management of declining species.

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**RHINELLA MARINA (Cane Toad). DEFENSIVE BEHAVIORS.** Antipredatory postures such as death feigning, body raising and stiff legs are known for many species of the family Bufonidae (Toledo et al. 2011. *Ethol. Ecol. Evol.* 23:1–25). *Rhinella marina* is a large toad widely distributed throughout South and Central America, Australia and many Pacific islands (Frost 2020. *Amphibian Species of the World: An Online Reference*. Version 6.0, <https://amphibiansoftheworld.amnh.org>, accessed 7 April 2020). On 23 October 2019, in Cancão Natural Municipal Park, Municipality of Serra do Navio, Amapá, Brazil (0.90275°N, 52.00497°W; WGS 84), we collected a juvenile *R. marina* on the leaf-litter near a body of water. When manipulated for taking photographs, the specimen turned its ventral region up with arms and legs upward

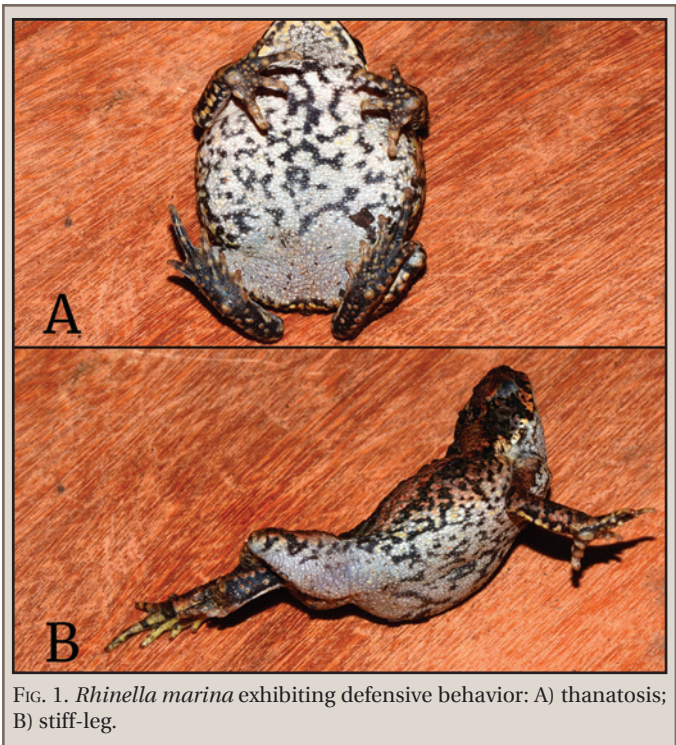


FIG. 1. *Rhinella marina* exhibiting defensive behavior: A) thanatosis; B) stiff-leg.

(Fig. 1A). After a few seconds, the individual flattened its body and stretched out its legs in the lateral decubitus position, keeping its eyes closed (Fig. 1B). No defensive call was emitted. The first behavior, called thanatosis, has already been recorded for bufonids by Toledo et al. (2010. *J. Nat. Hist.* 44:1979–1988), even for *R. marina*. The second behavior called stiff leg has been recorded for the genera *Rhinella* (Mângia and Santana 2013. *Herpetol. Notes* 6:45–46) and *Dendrophryniscus* (Toledo et al. 2011, *op. cit.*), but not for *R. marina*. This is the first report of the stiff-leg defense mechanism for *R. marina*, increasing our knowledge of anti-predatory behavior for this species.

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**SPEA HAMMONDII (Western Spadefoot). LONGEVITY.** On 10 April 2011, an adult female *Spea hammondii* was found at Chatsworth Nature Preserve, Chatsworth, Los Angeles County, California (34.22840°N, 118.63699°W; WGS 84) during a Southwestern Herpetologists Society (SWHS) field trip. The frog was found in a concrete drainage channel with > 3 m vertical sides. This was the first record of this species from this locality since the SWHS began herpetofaunal surveys in the early 1990s. Because *S. hammondii* has declined dramatically in southern California, the SWHS brought the frog into captivity with the intention of releasing it near the capture site after documenting the find with local experts. However, the frog was taken without a state collecting permit or knowledge that California Department of Fish and Wildlife regulations prohibit the release of once-captive wild animals. To resolve this situation, the spadefoot was transferred to the Natural History Museum of Los Angeles County (LACM) on 1 May 2011, where it was maintained in the Live