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***Rana juliani*. Vocalization.** Frogs typically produce calls with the aid of a vocal sac (Hayes and Krempels, 1986; Vitt and Caldwell, 2014). Vocal sacs enable a frog to call efficiently (Bucher et al., 1982) and increase the conspicuousness of the call (Gridi-Papp, 2008), although they do not serve as cavity resonators as is popularly believed (Bucher et al., 1982; Rand and Dudley, 1993; Gridi-Papp, 2008). In addition to aiding in vocalization, vocal sacs can serve multiple communication functions as visual cues (Narins et al., 2003), vibrational cues (Lewis et al., 2001), and chemical signals (Starnberger et al., 2013; Starnberger et al., 2014). In frog species where vocalization does not play a large role in communication, other methods of signaling are used (e.g., foot signaling; Lindquist and Hetherington, 1996). Nevertheless, there are examples of frogs without vocal sacs that vocalize, albeit usually at a reduced volume (Hayes and Krempels, 1986).

On 5 March 2016, along Dry Creek (17°03'06.6"N, 88°34'07.9"W; UTM; elev. 184 m) near Hummingbird Highway in Middlesex, Belize, VK observed an adult *Rana juliani* produce a distress call while being handled (Fig. 1). On 21 June 2016, further upstream on Dry Creek (17°02'16.6"N, 88°33'49.5"W; UTM; elev. 500 m) KLJ observed six additional individuals produce a distress call when handled. *Rana juliani* lacks a vocal sac and vocal slits, and the original description noted that vocalizations are not known (Hillis and de Sá, 1988). To the best of our knowledge, no other reports of *R. juliani* vocalization exist.

A vocal sac and the presence of slits varies slightly in a sister species (*R. vaillanti*) that vocalizes (Hillis and de Sá, 1988; Hillis and Wilcox, 2005). In Hillis and de Sá's (1988) description, 88.7% of the specimens of *R. vaillanti* examined had vocal sacs and slits, yet they did not state whether individuals that lacked vocal sacs and slits vocalized or not. *Rana vaillanti* produces distress calls (Guyer and Donnely (2005), and if vocal sac-less individuals are able to vocalize, the mechanism might be similar in *R. juliani*.



Fig. 1. A *Rana juliani* observed vocalizing at Dry Creek, Middlesex, Belize. A video of the distress call is available at the following address: <https://www.youtube.com/watch?v=mNaTFL2rSSM&feature=youtu.be>

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***Smilisca sordida* (Peters, 1863). Diet.** The Drab Treefrog, *Smilisca sordida*, is a species with a distribution extending from Honduras to western Panama, as well as in the Magdalena Valley of Colombia, at elevations from sea level 1,525 m (Savage, 2002; Köhler, 2011). During the breeding season, males of this species prefer to perch at the level of the water or a few centimeters higher, where they vocalize to attract females or to reclaim their territories, and females normally are found perched at 1m or more in height (MAGC, pers. observ.). During amplexus, females construct basins in which to deposit their eggs (Malone, 2004). Males of *S. sordida* are smaller (maximum snout–vent length [SVL] 45 mm) than females (maximum SVL 65 mm) (Duellman and Trueb, 1966).

Predation of anurans on other vertebrates mainly has been recorded in the larger species, and is relatively uncommon in smaller species or individuals (Franca et al., 2004). The diet of Neotropical hylids primarily is based on terrestrial arthropods of various sizes and is directly related to the size of the anuran (Malone, 2006), and predatory events on fishes have not been recorded in most of these hylids (de Paula Lima et al., 2010).