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Predation attempt on *Trachycephalus typhonius* (Linnaeus, 1758) by *Caiman yacare* (Daudin, 1802)

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Frogs are an important resource for many animal groups, such as fish, mammals, birds, reptiles, and invertebrates (Toledo et al., 2007; Wells, 2007). To avoid predation, frogs have developed a variety of defensive behaviours and mechanisms, including puffing up their bodies, biting, and producing toxic secretions (Ferreira et al., 2019). The genus *Trachycephalus* is widely distributed in the neotropical region (Frost, 2021) and secretes a large amount of toxins with adhesive effects on their dorsum (e.g., Toledo et al., 2011; Ferreira et al., 2019).

Trachycephalus typhonius (Linnaeus, 1758) occurs from southern Mexico to northern Argentina (Leenders, 2016; Piva, 2020), and is a common species in the Pantanal Floodplain. Although this large frog is mainly arboreal, it reproduces in shallow temporary or permanent ponds during the wet season (Leenders, 2016). The Yacare Caiman (*Caiman yacare*), another common species in Pantanal floodplains, is an opportunistic predator that feeds on a variety of animals depending on availability (Santos et al., 1996). In this study, we report an attempted predation by a juvenile *C. yacare* on an adult *T. typhonius* in the Pantanal Floodplain, Mato Grosso do Sul, Brazil.

On 14th December 2021 at around 19:29 h, we observed a juvenile *C. yacare* with an adult *T. typhonius* in its mouth at the edge of a temporary pond (Fig. 1), during fieldwork at the Base de Estudos do Pantanal in the municipality of Corumbá, state of Mato Grosso do Sul, Brazil (-19.577°N, -57.019°E). The event was recorded using a video camera (Panasonic HC-V270), and the video has been deposited in the Zoological Collection of the Universidade Federal de Mato Grosso do Sul - Digital Media (ZUFMS-MID) under the vouchers ZUFMS-MID00005 and ZUFMS-MID00006. We observed the event for 10 minutes until the *C. yacare* released its prey and dove underwater swimming away, not appearing again. At the time of the event, 10 species of anurans were actively calling in the swamp, including *Trachycephalus typhonius*, *Rhinella diptycha*, *Elachistocleis bicolor*, *Physalaemus albonotatus*, *Scinax acuminatus*, *Dendropsophus nanus*, *Rhinella bergi*, *Leptodactylus podicipinus*, *Leptodactylus fuscus*, and *Leptodactylus macrosternum*. We counted at least eight caimans, all juveniles, which around 21:00 h began to leave the swamp and move to the surrounding bushes.

Caiman yacare is known to occasionally include anurans in its diet, but they are not considered a significant part of it (Santos et al., 1996; Toledo et al., 2007). This could be due to the fast digestion rate of amphibians, which makes them less likely to be detected using stomach flushing as a diet assessment method (Delany and Abercrombie, 1986; Platt et al., 2006). The diet of caimans depends on prey availability (Magnusson et al., 1987; Santos et al., 1996; da Silveira and Magnusson, 1999), and during the rainy season in the Pantanal, the anuran population significantly increases (Alho, 2008). In a study on *Caiman crocodilus*, the sister species of *C. yacare*, in Venezuela during the wet season, Gorzula (1978) found that 66% of the prey taken were anurans. Bernal (2006) reported that adult *C. crocodilus* responded to playback of the advertisement calls of *Leptodactylus pentadactylus* and *Rhinella marina*, indicating that predation on anurans by crocodilians may be more common and that frogs could represent a more significant part of caiman's diet than previously thought. Therefore, further dietary studies on *C. yacare* are needed to better understand the importance of anurans in the diet of this species.

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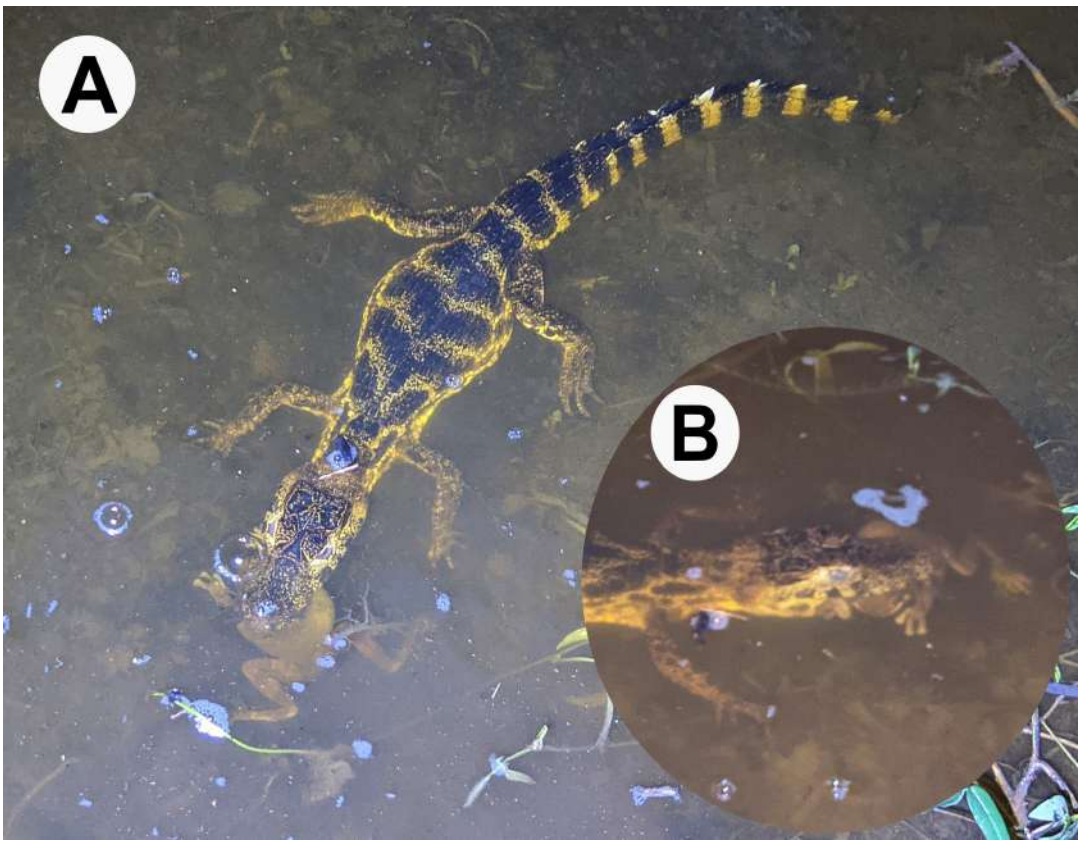

Figure 1. Attempted predation by a juvenile *Caiman yacare* on an adult *Trachycephalus typhonius* at the edge of a temporary pond in Base de Estudos do Pantanal, Corumbá Municipality, Mato Grosso do Sul, Brazil. Photographs by Kelvin Yuiti Mori (A) and Sean Keuroghlian-Eaton (B).

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