

Climbing behavior of *Rhinella icterica* (Spix, 1824) (Anura, Bufonidae): A typically terrestrial toad being scansorial

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Abstract. Toads of the Family Bufonidae do present diversified life histories, most of them are terrestrial, but there are aquatic and arboreal species. *Rhinella icterica* (Spix, 1824) (Anura, Bufonidae) is a ground dweller bufonid that use the habitat mainly horizontally. Here, we report the occurrence of climbing behavior in *R. icterica*, adding knowledge with respect to its types of locomotion. The individual was found on the ground and when perceived the presence of the observer it jumped to a wall, hit it, fell back to the ground, and then started to climb the wall. The toad climbed slowly, but apparently without difficulty, since it went up without slipping until the top of the ravine. Performing a given locomotor behavior even rarely confer additional ability to evade from threats and to access otherwise inaccessible food and spatial resources. Whether this behavior is common or rare for ground dwelling *Rhinella* is still obscure, nevertheless, at least some typically terrestrial species of the genus are capable of climbing and, as *R. icterica*, use the habitat vertically.

Keywords: Locomotion; Locomotor behavior; Microhabitat use; Scansoriality; Space use.

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Toads of the Family Bufonidae do present diversified life histories, most of them are terrestrial, but there are aquatic and arboreal species (Vitt and Caldwell, 2014). *Rhinella icterica* (Spix, 1824) (Anura, Bufonidae) is a bufonid distributed in Argentina, Paraguay, and Brazil (Maneyro and Kwet, 2008). Toads of this species are ground dwellers that use the habitat mainly horizontally. Here, we report the occurrence of climbing behavior in *R. icterica* (Figure 1), adding knowledge with respect to its types of locomotion. The observation took place in a human modified environment on Nov. 3, 2018

in the Municipality of Nova Friburgo (-22.2839°S , -42.4944°W), State of Rio de Janeiro, Brazil. The *R. icterica* was found at 17:50 h on the ground. When perceived the presence of the observer (RMS), the individual jumped to a wall, hit it, fell to the ground, and then started to climb the wall (Figure 1A). The toad climbed slowly, but apparently without difficulty, since it went up without slipping until the top of the ravine (Figure 1B), an ascent of about 60 cm. The ravine was composed of compacted earth (Figures 1A and 1B) and had an almost vertical slope on the wall (Figure 1A), reducing the inclination towards the top (Figure 1B). The *R. icterica* approximated the ventral region of its body to the surface and moved its hands, arms, legs, and feet to climb the wall upwards. *Rhinella* toads have diverse habits of microhabitat use – they can be aquatic, terrestrial, and arboreal (Vitt and Caldwell, 2014). Performing a given locomotor behavior even rarely confer additional ability to evade from threats and to access otherwise inaccessible food and spatial resources (Dickinson et al., 2000). Whether this behavior is common or rare for ground dwelling *Rhinella* is still obscure, nevertheless, at least some typically terrestrial species of the genus are capable of climbing (*R. castaneotica*, *R. margaritifera* and *R. marina*) (Noronha et al., 2013; Hudson et al., 2016) and, as *R. icterica*, use the habitat vertically.



Figure 1. (A) *Rhinella icterica* climbing a nearly vertical wall, and (B) on the top of a ravine after have climbed the wall. Photographs by Rodrigo Maia-Solidade.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

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