NOTES ON GEOGRAPHIC DISTRIBUTION AND CALL REDESCRIPTION OF *SCINAX PERERECA* (ANURA:HYLIDAE)

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INTRODUCTION

The Neotropical tree - frogs of genus *Scinax* (Wagler, 1830) is the second more specious within Hylidae, with 95 species currently recognized (Frost, 2008). It ranges from southern Mexico to east - central Argentina, occurring in almost all major tropical and subtropical ecosystems within this region (Faivovich, 2002; Frost, 2008).

Phylogenetic studies (morphologic and molecular) have recently demonstrated the genus monophyly (Faivovich, 2002; Faivovich *et al.*, 005; Salducci *et al.*, 005).

Scinax perereca (Pombal *et al.*, 995a) is a mid - sized species (males 34.0–38.5 mm SVL) of the *S. rubra clade* (Pombal *et al.*, 995a; Faivovich 2002; Faivovich *et al.*, 2005). It was originally described from the municipality of Ribeirão Branco, southern São Paulo State, Brazil. It has also been cited to the state of Rio Grande do Sul, northeastern Argentina (Pombal *et al.*, 995a; Frost 2008), and Paraguay (Brusquetti & Lavilla, 2006).

OBJECTIVES

Herein we report on the occurrence of *Scinax perereca* in the municipality of Ubatuba, north coast of São Paulo state. We also present new data on its advertisement and aggressive calls.

MATERIAL AND METHODS

The calls were recorded with a digital recorder (Boss 864; set at 44100 Hz and 16 bit resolution) and with a directional microphone (Sennheiser ME67). Recordings were analyzed with the SoundRuler software (Gridi - Papp, 2004), using a FFT of 768. Two adult males of *Scinax perereca* (AAG - UFU 4613 - 4614) were checked against the original description of the species for major morphological differences. In Ubatuba, the species was found in the Praia da Enseada (23º29'55" S, 45º05'00"W). Two males were recorded when calling at the border of a small (0.5 x 0.5 m) forest (shadowed) temporary pool close to (< 100 m) the sea.

RESULTS AND DISCUSSION

Herein we report on the occurrence of *Scinax perereca* in a previoulsy unknown region, in the municipality of Ubatuba, north coast of São Paulo state, expressively extending its geographic distribution to northeast.

The advertisement call (n = 3 males) consists of a single note (n = 30 calls), with 13–20 pulses per call (mean = 16.9; n = 18 calls). The calls have a mean duration of 0.21 ±0.02 s (range 0.16–0.25 s), with a call rate of 4.8–15.0 calls/min. (n = 38 calls; n = 3 males). The pulses duration are approximately the same throughout the calls, median 10.3 ±1.06 ms, range 7.6–13.6 ms (n = 67 pulses; n = 4 calls).

The frequency ranged between 0.95–7.05 kHz, with the most part of energy between 1.14 and 5.02 kHz (n = 10 calls). There was individual variation in dominant frequency, which can consist of two parallel bands of frequency (sidebands) with the same power, to present only one band of dominant frequency or when two bands are present, the dominant frequency can alternate among pulses between both bands (first and second) inside one even call. The first band of frequency is between 1.43–2.31 kHz and the second band, 2.74–3.99 kHz (n = 30 calls; n = 3 males). The majority of the calls does not present frequency modulation, and when occur (n = 4 calls) is little ascendant after the mid section of the call. The call amplitude is not modulated either.

Territorial calls (n = 2 males; n = 7 calls) are also pulsed, and two kinds can be recognized. The most common call has two pulses, with mean duration of 76.8 ±10.8 ms (range 56.6–88.5 ms), being the first pulse shorter, mean 35.6 ±6.9 ms (range 23.8–44.1 ms) than the second, mean 41.2 ±4.3 ms (range 32.8–46.8 ms). The dominant frequency varies

between 1.21–3.49 kHz, the first pulse with amplitude between 1.21–2.87 kHz and amplitude of second pulse between 1.42–3.49 kHz. The call emitted most rarely has three pulses, with duration of 134.0 ms (n = 1 call), the first pulse duration 44.0 ms, and the others lasting 45.9 ms and 44.0 ms, respectively. There is no evident interval between the emission of the second and third pulses. The dominant frequency varies between 1.26–5.04 kHz, with amplitude between 1.26–2.83 kHz for the first pulse, 1.26–3.03 kHz and 1.54–5.04 kHz for the second and third pulses, respectively. Both territorial calls exhibit ascendant frequency modulation among consecutive pulses.

Regarding the advertisement call from the type locality (Pombal *et al.*, 995a; Pombal *et al.*, 995b; their values in parentheses), the call from the Ubatuba specimens are shorter (0.28–0.35 s), have less pulses (21–24), higher frequency range (0.8–3.9 kHz), and different amplitude of dominant frequency (1.3–1.6 kHz, only one band).

The territorial call of *Scinax perereca* (see Figure 3 in Pombal *et al.*, 995a) is different of territorial call we described by its apparently harmonic structure, range of dominant frequency and greater duration (0.08–0.21 s); the calls here described have two or three pulses and lasts between 0.07–0.13 s.

Considering that just few calls of two localities are available and that the differences in the advertisement call are not expressive, we believe they can not be regarded as inter - specific differences, but just may represent inter - individual or inter - population variation. The small differences could be related to the different recording devices used as well. Aggressive calls are highly dependent on the social context (Wells, 1988) and at present the meaning of the differences we found can not be evaluated.

CONCLUSION

Herein we report on the occurrence of *Scinax perereca* in an unknown region, in the municipality of Ubatuba, north coast of São Paulo state, expressively extending its geographic distribution to northeast.

Considering that just few calls of two localities are available and that the differences in the advertisement call are not expressive, we believe they should represent inter - individual or inter - population variation. The small differences could be related to the different recording devices used as well.

The territorial call of *Scinax perereca* is different of territorial call we described by its apparently harmonic structure, range of dominant frequency and greater duration. Aggressive calls are highly dependent on the social context and at present the meaning of the differences we found can not be evaluated.

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