

NOTES ON GEOGRAPHIC DISTRIBUTION

Amphibia, Anura, Hylidae, *Hypsiboas beckeri*: Filling gap and description of its advertisement call.

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Hypsiboas beckeri (Figure 1) is a small tree frog (mean SVL 29 mm in males and 33 mm in females) described by Caramaschi and Cruz (2004). This species is known from the type locality: Morro do Ferro (ca. 20°46'00.25" S, 44°35'00.00" W; 1,200 m), municipality of Poços de Caldas (Caramaschi and Cruz 2004) and from the Serra da Pedra Branca (22°11'16.1" S, 45°23'23.5" W), municipality of Pedralva (Orrico and Luna-Dias Neto 2006), both in the state of Minas Gerais, southeastern Brazil. Data on the ecology and natural history of *Hypsiboas beckeri* is scarce and, therefore, it is considered data deficient by the IUCN list (Stuart 2006).



Figure 1. Adult male of *Hypsiboas beckeri* from the municipality of São Thomé das Letras, state of Minas Gerais, southeastern Brazil.

During a field expedition from 3 to 6 September 2004, we found nine adult males of *Hypsiboas beckeri* in the municipality of São Thomé das Letras, southern region of the state of Minas Gerais (21°44'40.21" S, 45°00'03.40" W; 1,290 m; Figure 2). The specimens were collected and deposited at the Célio F. B. Haddad collection, in the *Departamento de Zoologia, Universidade Estadual Paulista*, municipality of Rio Claro, state of São Paulo, Brazil (CFBH 7416-24). We recorded the advertisement call of four males with a Marantz cassette tape recorder (PMD222) equipped with an external directional microphone (Audiotecnica AT835b) positioned approximately 50 cm from the calling male. Calls were recorded on chrome cassette tapes at 4.75 cm/sec. We analyzed the calls using Canary 1.2.4 software (16 bits of resolution, 44 kHz of frequency sampling, FFT, frame length of 256 samples, 70 % of brightness, and 80 % of contrast). Terminology follows Toledo and Haddad (2005).

The vegetation at the studied area is composed by riparian fields and *Campos Rupestres* (Magalhães 1966). The individuals were found at night, calling perched on branches of bushes in the margins of small rivulets, about 50 cm above the water, at approximately 14 °C of air temperature. The advertisement calls of adult males of *Hypsiboas beckeri* are composed by two different notes (referred here as note A and note B). The first is longer and has more pulses than the second, but they are similar in frequency ranges.

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Notes B could be present or not and its function is not clear (Table 1; Figure 3). The present record of a third population of *Hypsiboas beckeri* in Minas Gerais represents an important contribution

for the knowledge of its geographic distribution, and the description of its advertisement call adds new information about natural history and taxonomy of this group.

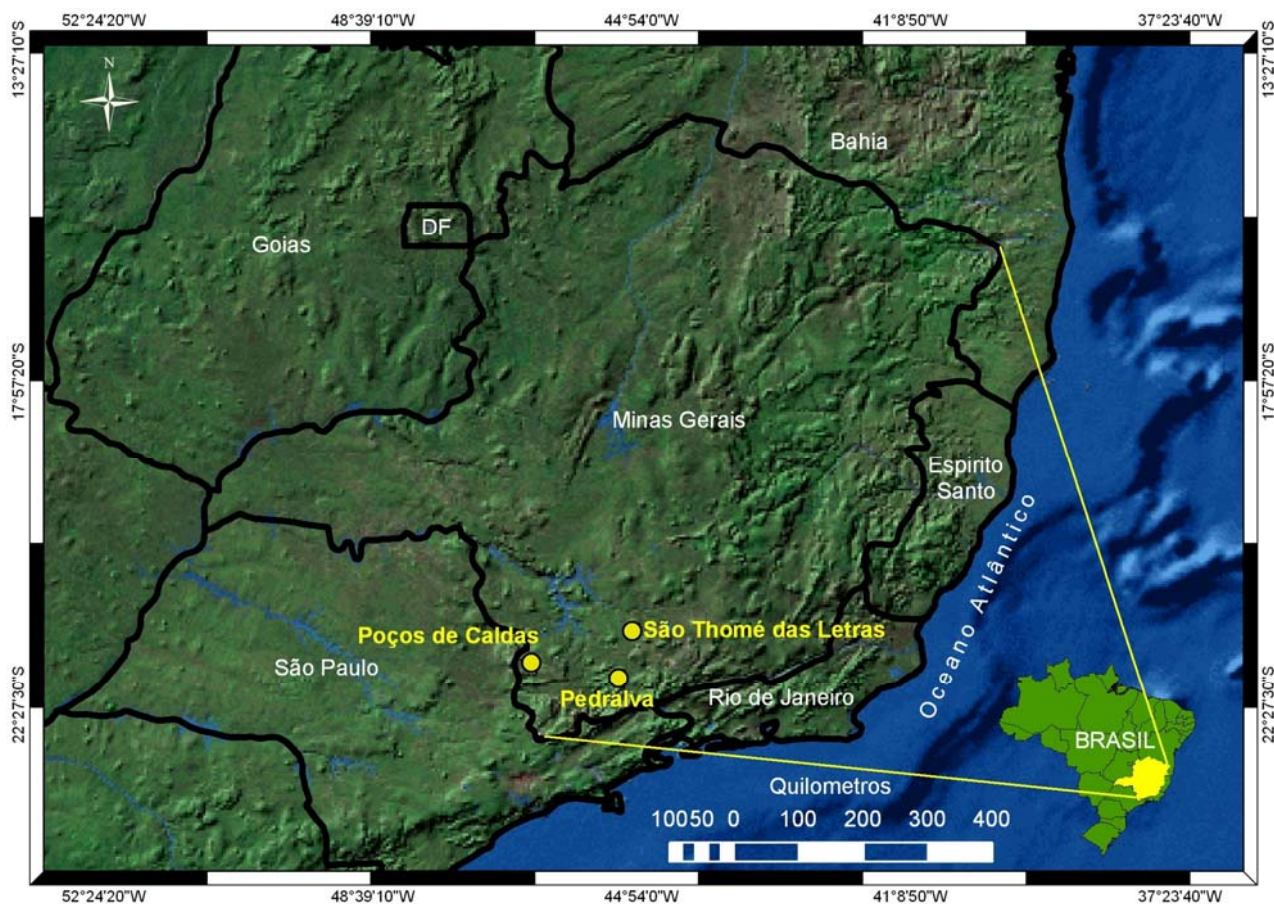


Figure 2. Distribution of *Hypsiboas beckeri* in Brazil: São Thomé das Letras (present record); Morro do Ferro, Poços de Caldas (type-locality), and Serra da Pedra Branca, Pedralva, all in the state of Minas Gerais.

Table 1. Mean, standard deviation ($\bar{x} \pm SD$), and amplitude (max–min.) of acoustic parameters of the advertisement calls of adult males of *Hypsiboas beckeri*, recorded at São Thomé das Letras, Minas Gerais, southeastern Brazil. Air temperature was 14 °C.

Note type (N)	Duration (s)	Minimum frequency (kHz)	Maximum frequency (kHz)	Dominant frequency (kHz)	Number of pulses	Interval between two notes of the same type (s)	Interval between notes A and B of same call (s)	Number of notes B per call
A (9 notes; 3 males)	0.11 ± 0.01 (0.09 – 0.13)	5.51 ± 0.74 (4.63 – 6.63)	8.40 ± 0.44 (7.59 – 9.12)	7.10 ± 0.14 (6.89 – 7.32)	16.86 ± 3.94 (11 – 23)	0.51 ± 0.88 (0.16 – 1.53)	0.4 ± 0.22 (0.25 – 0.56)	3.36 ± 2.01 (0 – 6)
B (11 notes; 4 males)	0.02 ± 0.00 (0.01 – 0.03)	6.17 ± 0.38 (5.20 – 6.54)	8.01 ± 0.48 (7.49 – 9.30)	7.02 ± 0.24 (6.46 – 7.32)	2.27 ± 0.90 (1 – 4)	0.11 ± 0.08 (0.02 – 0.23)	–	–

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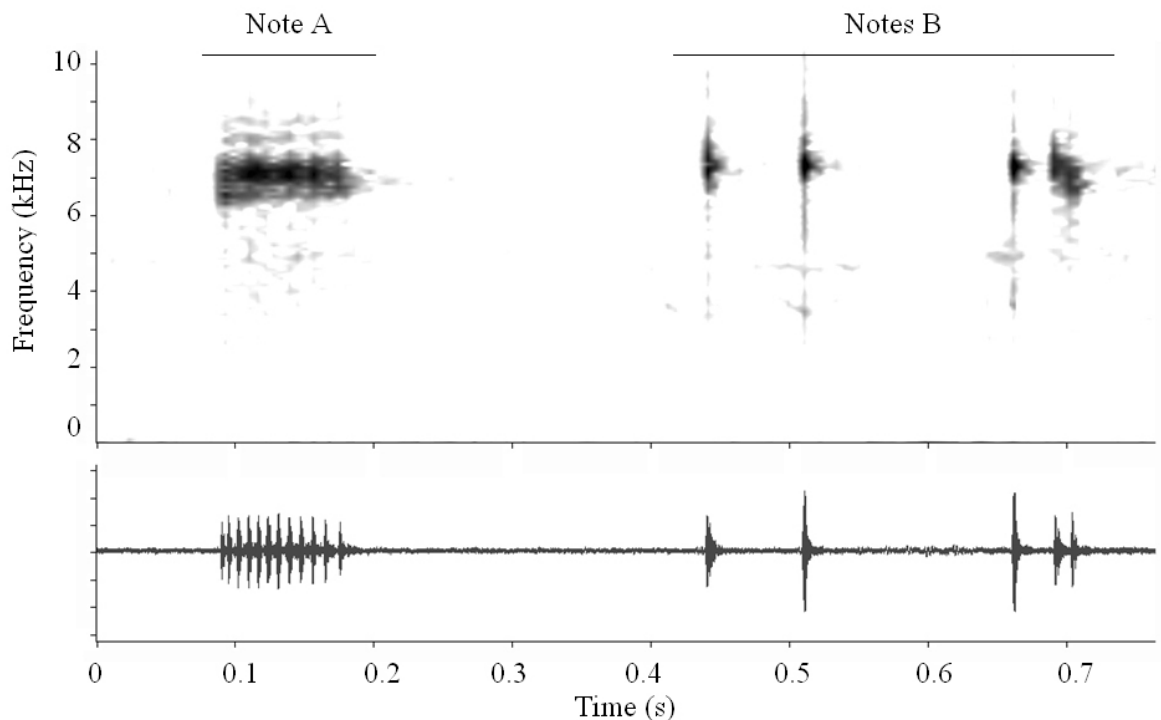


Figure 3. Sonogram and wave form of the composed advertisement call of *Hypsiboas beckeri* recorded at São Thomé das Letras, Minas Gerais, southeastern Brazil, from 3-6 September 2004. Mean air temperature was 14 °C.

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