References


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Advertisement calls of two Bolivian Leptodactylus (Amphibia: Anura: Leptodactylidae)

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Leptodactylus gracilis Duméril & Bibron, 1841 was recently recorded from Bolivian territory by Köhler et al. (1995). The authors identified L. gracilis based on morphological
characters only (see Scrocchi and Lavilla, 1986). However, the most reliable character to distinguish *L. gracilis* from its sibling species *L. geminus* is the advertisement call (Cei, 1980). During field-work in January 1998 in Bolivia we again found the species and recorded its call. *Leptodactylus rhodonotus* ( Günther, 1869 "1868") is known to occur on the Andean slopes and the lowlands of the upper Amazon basin of Bolivia and Peru. The species inhabits lowland rainforests as well as montane rainforests between 200 and 2050 m above sea level (Reynolds and Foster, 1992; Rodríguez and Duellman, 1994). The advertisement call is unknown (Heyer, 1979). The purpose of this note is to verify the taxonomic status of *L. gracilis* in Bolivia based on bioacoustic data and to describe for the first time the advertisement call of *L. rhodonotus*.

Recording equipment included Sony WM-D6C and Aiwa HS-F150 tape recorders, respectively, a Sennheiser Me-80 directional microphone and TDK MA60 cassettes. Calls were analysed using a Medav Mosip-3000 sound spectrograph and Spektro 4.4 (version 1996) software. Frequency information was obtained through fast Fourier transformation (FFT; width 1024 points). Voucher specimens from recorded populations are deposited in the Zoologisches Forschungsinstut und Museum Alexander Koenig, Bonn (*L. gracilis* ZFMK 66841; *L. rhodonotus* ZFMK 66905).

Advertisement calls of *L. gracilis* (fig. 1) were recorded on 17 January 1998 at approximately 29 km southeast by road from Guadalupe (18°38'52"S/63°58'33"W), Provincia Vallegrande, Departamento Santa Cruz, Bolivia, 1650 m a.s.l. Males called from

**Figure 1.** Spectrogram (above) and oscillogram (below) of advertisement call of *Leptodactylus gracilis* from 29 km SE of Guadalupe, Dept. Santa Cruz, Bolivia. Air temperature 18.0°C.