

DESCRIPTION OF THE ADVERTISEMENT CALL  
AND RESOLUTION OF THE SYSTEMATIC  
STATUS OF *LEPTODACTYLUS GRACILIS DELATTINI*  
MÜLLER, 1968 (AMPHIBIA: LEPTODACTYLIDAE)

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*Abstract.*—The advertisement call of *Leptodactylus gracilis delattini* Müller is described from Campeche, Santa Catarina, Brazil and compared with calls from five populations of *L. gracilis* from mainland Brazil and calls of the closely related *L. furnarius* and *L. plaumanni*. Based on comparison of call data and re-examination of the holotype, *Leptodactylus gracilis delattini* Müller, 1968 is considered to be a strict junior synonym of *Leptodactylus gracilis* (Duméril and Bibron, 1841).

*Leptodactylus gracilis delattini* was described by Paul Müller in 1968, based on three individuals collected on Ilha Campeche, Santa Catarina, Brazil (27°42'S, 48°28'W), a tiny island located just off the southeastern part of the island of Santa Catarina (Fig. 1). *Leptodactylus gracilis delattini* was described as a subspecies on the basis of general morphological similarities with *L. gracilis*, but Müller (1968) knew of no geographically proximate specimens of *L. gracilis* on the large island of Santa Catarina or the mainland. Müller based his taxonomic decision solely on the basis of morphology, as he did not have any recordings of the advertisement call of the Ilha Campeche form. Later (Heyer 1978), *L. g. delattini* was considered a strict junior synonym of *L. gracilis*, again based on morphology, although the Ilha Campeche form was considered somewhat morphologically distinctive.

The advertisement call of *L. gracilis delattini* and calls of geographically proximate populations of *L. gracilis* are now available. The purposes of this paper are to describe the call of *L. gracilis delattini*, to compare *L. g. delattini*'s call with available calls from other populations of *L. gracilis*, and to reassess the systematic position of *L. g. delat-*

*tini*. In order to facilitate this latter aspect, we use the advertisement calls of *L. furnarius* and *L. plaumanni*, hypothesized close relatives of *L. gracilis* (see Heyer 1978), for comparative purposes.

#### Materials and Methods

Recordings analyzed for this paper are:

USNM (archives at National Museum of Natural History) Tape 247, cut 1, *Leptodactylus gracilis delattini*, recorded from USNM 319151, Brazil, Santa Catarina, Campeche (Fig. 1, locality 1), 22:10 h, 25°C air, by W. Ronald Heyer on 31 Dec 1991, using a Marantz portable tape recorder;

ASN (Archivo Sonoro Neotropical) Tape AJC 27, cut 10, *Leptodactylus gracilis*, an unvouchered recording from Brazil, Santa Catarina, São José, Tubarão (Fig. 1, locality 2), 22:00 h, 23°C air, 24°C water, by Adão J. Cardoso, on 13 Feb 1982, using a Uher reel-to-reel portable tape recorder;

USNM Tape 11, cut 1, *Leptodactylus gracilis*, recorded from USNM 217781, Brazil, Santa Catarina, Santo Amaro da Imperatriz (Fig. 1, locality 3), 21:10 h, 22°C air, by W. Ronald Heyer on 19 Nov 1979;

ASN Tape IS 3, cut 11, *Leptodactylus gracilis*, an unvouchered recording from

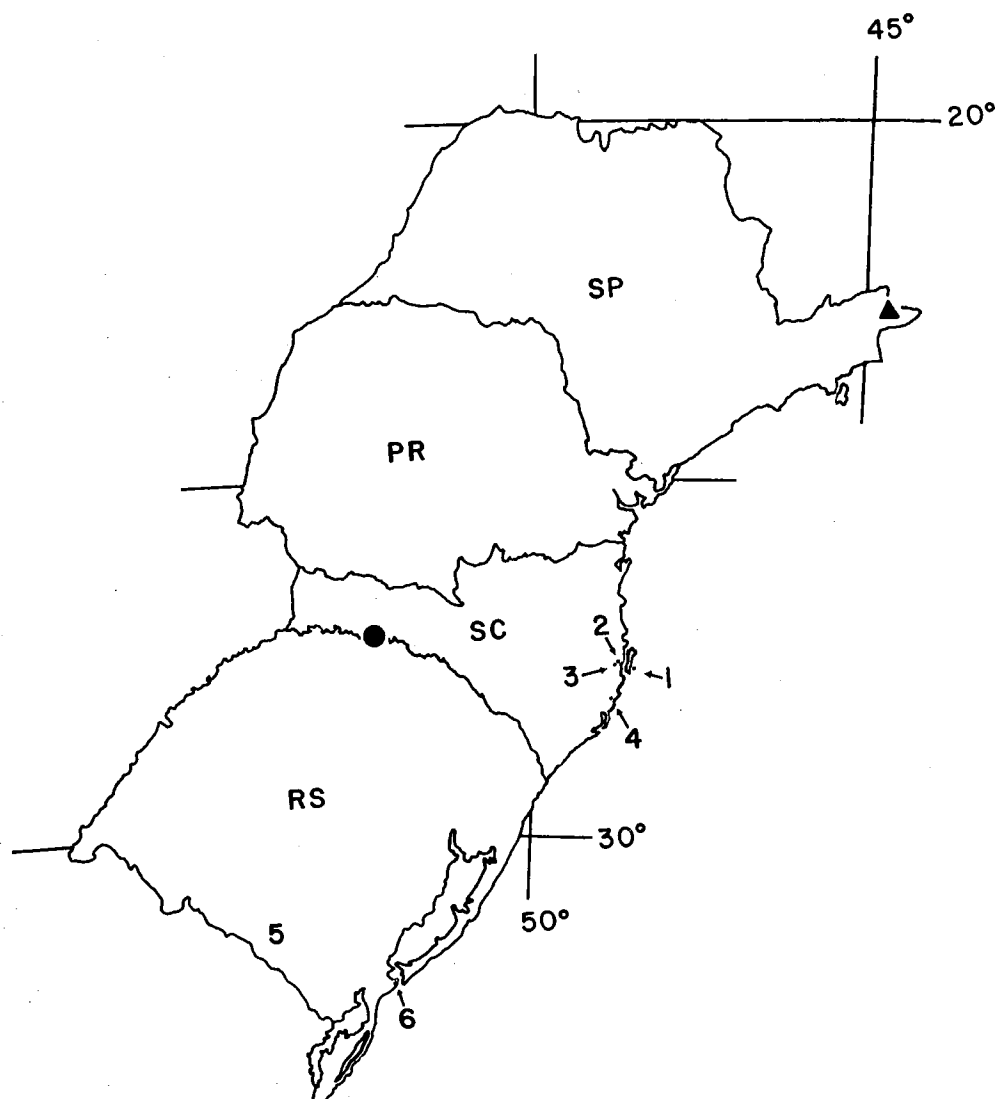


Fig. 1. Map of Brazilian States of São Paulo (SP), Paraná (PR), Santa Catarina (SC), and Rio Grande do Sul (RS), showing recording sites analyzed. 1 = *Leptodactylus gracilis delattini*, 2-6 *L. gracilis*, triangle = *L. furnarius*, dot = *L. plaumanni* (see methods and materials section for further locality information).

Brazil, Santa Catarina, Araçatuba (Fig. 1, locality 4), 21:00 h, 27.5°C air, 29°C water, by Ivan Sazima on 14 Feb 1971;

ASN Tape AJC 40, cut 5, *Leptodactylus gracilis*, recorded from ZUEC (Universidade Estadual de Campinas Departamento de Zoologia) 5310, Brazil, Rio Grande do Sul, Bagé (Fig. 1, locality 5), 19:30 h, 24°C air, 25°C water, by Adão J. Cardoso on 19

Dec 1982, using a Uher reel-to-reel portable tape recorder;

ASN Tape AJC 40, cut 2, *Leptodactylus gracilis*, an unvouchered recording from Brazil, Rio Grande do Sul, Rio Grande (Fig. 1, locality 6), 21:30 h, 24°C air and water, by Adão J. Cardoso on 18 Dec 1982, using a Uher reel-to-reel portable tape recorder;

ASN Tape AJC 73, cut 5, *Leptodactylus*

