NOTES ON GEOGRAPHIC DISTRIBUTION

Reptilia, Leptotyphlopidae, Leptotyphlops salgueiroi Amaral, 1954: Distribution extension and geographic variation

Henrique Caldeira Costa,¹ * Roberta Richard Pinto,² and Diego José Santana¹

¹ Universidade Federal de Viçosa, Museu de Zoologia João Moojen. Vila Gianetti 32. CEP 36570-000. Viçosa, MG, Brazil.
² Museu Nacional, Universidade Federal do Rio de Janeiro, Departamento de Vertebrados. Quinta da Boa Vista, s/n, São Cristóvão. CEP 20940-040. Rio de Janeiro, RJ, Brazil.

* Corresponding author. E-mail: ccostah@yahoo.com.br

The genus Leptotyphlops Fitzinger, 1843 comprises 105 species of small and slender fossorial snakes (see McDiarmid et al. 1999; Dixon and Vaughan 2003; Passos et al. 2006; Broadley and Walach 2007; Hedges 2008) that occur in all continents with exception of Antarctica and Australia (McDiarmid et al. 1999). In South America, Leptotyphlops has a wide distribution range, from Venezuela to northern Argentina (McDiarmid et al. 1999). Fourteen species are found in Brazil (Bérnils 2009), but due to their secretive habits, are poorly represented in herpetological collections (Passos et al. 2005).

Amaral (1954) described Leptotyphlops salgueiroi (Figure 1) on the basis of a single specimen from Itá (currently Baixo Guandu), state of Espírito Santo, Brazil. Rodrigues (1997) briefly described a second individual of the species from São José do Macuco (currently São José da Vitória), state of Bahia, Brazil. Passos et al. (2005) redescribed the holotype, reported new specimens and localities, and described the hemipenis of L. salgueiroi. Bilate and Ribeiro (2005) reported the southernmost record of the species in the state of Rio de Janeiro.

Figure 1. Leptotyphlops salgueiroi (MZUFV 1397), municipality Muriaé, state of Minas Gerais, Brazil. Photo by H. C. Costa.

Based on this additional sample we provide new distribution map (Figure 2), morphometric and pholidosis data (Table 1) for the species. Terminology for cephalic shields, and measurements follow Passos et al. (2006). Sex was determined through a ventral incision on the base of the tail. Analysis of variance (ANOVA) using scales counts (middorsal scales and subcaudal scales) was employed in order to verify existence of sexual dimorphism. Assumptions of univariate normality and homoscedasticity were evaluated using Kolmogorov-Smirnov and Levene tests, respectively (Zar 1999). The statistic analyses were performed using STATISTICA 6.0 for Windows.

According to Passos et al. (2005; 2006), males and females of *L. salgueiroi* have, respectively, 217-226 and 230-232 middorsals, 17-23 and 18-20 subcaudals. Data from additional specimens extend the number of middorsal and subcaudal scales to 200-226 / 17-24 in males, and 217-233 / 16-20 in females. Although the number of middorsal and subcaudal scales overlap between sexes, females showed significantly higher numbers of middorsals than males (F(1,20) = 27.9; p < 0.01) and males had more subcaudals than females (F(1, 20) = 25.1; p < 0.01), two widespread conditions in snakes (Greene 1997). Regarding the geographic distribution of *L. salgueiroi*, our data show that this taxon has a more continental distribution than previously known (Figure 2).

Table 1. Meristic and morphometric variation (in millimeters) of *Leptotyphlops salgueiroi*. SVL = snout-vent length, TL = tail length, MD = midbody diameter, MT = midtail diameter.

<table>
<thead>
<tr>
<th>Specimens</th>
<th>Sex</th>
<th>Middorsals</th>
<th>Subcaudals</th>
<th>SVL</th>
<th>TAL</th>
<th>MB</th>
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Literature Cited


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Appendix 1. Specimens examined
MINAS GERAIS: Laranjal (MZUFV 1619); Muriaé (MZUFV 1397, MZUFV 1519); Parque Nacional das Sempre Vivas (MCN-R 2561); Poté (MZUFV 1214); São José da Safira (MZUSP 14262-3); ESPÍRITO SANTO: Pinheiros (MNRJ 14014-5); Vale Encantado, Guarapari (MZUSP 15050-1); Governador Valadares (MZUFV 1216); Fazenda Campo Verde, Viana (MZUSP 15052-3); Parque Estadual da Fonte Grande, Vitória (MZUFV 1574); RIO DE JANEIRO: Niterói (MNRJ 14487, MNRJ 13124, MNRJ 14245-6, MNRJ 15422); Bom Jesus de Itabapoana (MNRJ 15825).