

## NOTES ON GEOGRAPHIC DISTRIBUTION

### **Reptilia, Squamata, Amphisbaenidae, *Leposternon* spp.: Distribution extension, new state record, and geographic distribution map.**

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The genus *Leposternon* Wagler, 1824 is represented by fossorial squamate reptiles characterized mainly by having head always dorsoventrally compressed, nostril with the opening on the ventral surface of the snout, rostral and nasals fused into a single shield (= rostronasal shield), tail very short with rounded tip, autotomic site tail absent, and presence of pores precloacal in two species (Gans 1971; Porto et al. 2000). Actually, *Leposternon* is represented by seven species: *L. infraorbitale* (Berthold, 1859), *L. kisteumacheri* Porto, Soares & Caramaschi, 2000, *L. microcephalum* Wagler, 1824, *L. octostegum* (Duméril, 1851), *L. polystegum* (Duméril, 1851), *L. scutigerum* (Hemprich, 1820), and *L. wuchereri* (Peters, 1879). Species of the genus *Leposternon* occur in almost all Brazilian states (Figure 1), and with exception of *L. microcephalum* that occurs also in Bolivia, Paraguay, Argentina, and Uruguay, all other species are endemics from Brazil.

During analyses of specimens of *Leposternon* deposited in the collection of *Museu de Zoologia* of the *Universidade de São Paulo*, Brazil, a specimen (MZUSP 6387, Figure 2) collected by C. A. de Souza in the municipality of Rio Branco (09°58'30" S, 67°48'36" W), state of Acre, Brazil, deserved our attention. Based in the characterization of the species of *Leposternon* presented by Gans (1971), we identified the specimen as *Leposternon* aff. *infraorbitale*.

The specimen is an adult medium-sized male (total length 398.8 mm, head length 16.2 mm, tail length 14.8 mm), robust body (diameter of midbody

17.5 mm), and relatively small tail (3.7 % of total length). It presents 281 dorsal postpectoral half-annuli, 243 ventral postpectoral half-annuli, 10 caudal annuli, and 38 dorsal and 41 ventral segments of midbody half-annuli. Regarding head scalation the following variations were observed in relation to the sample examined by Gans (1971): anterior portion of the azygous is placed between the pre-frontals, in contact with the rostronasal shield; the posterior portion of the azygous presents a small shield placed between the frontal shields; presence of an infraocular shield at each side; an enlarged ocular shields, being 1.63 times longer than high. The pectoral shields are small, similarly to the pattern of the specimens from the state of Bahia (*sensu* Gans 1971). General dorsal coloration is yellowish brown, being less conspicuous on the anterior region and darker towards the tail. Ventral coloration is cream, except for some places in the lateral portion where the dorsal coloration is apparent. The background color of tail dorsum is yellowish, with dark brown spots on center scales, and the venter is light yellowish.

*Leposternon infraorbitale* exhibits variation in the color pattern, and on meristic and morphometric characters (S. L. B. Ribeiro, pers. obs.). However, to prove that MZUSP 6387 specimen of *Leposternon* could be identified as *L. infraorbitale*, a more detailed analysis is necessary. For this reason we considered the referred specimen as *Leposternon* aff. *infraorbitale*. This is the first record of the genus *Leposternon* for the state of Acre, and the westernmost locality of its distribution (Figure 1).

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**Figure 1.** Geographic distribution of the species of *Leposternon*. The new record to the municipality of Rio Branco, state of Acre, Brazil is represented by a red star; other records represent data from the following literature: Gans (1971); Barros-Filho and Valverde (1996); Montero (1996); Rodrigues (1996); Dirksen and De la Riva (1999); Montero and Terol (1999); Porto et al. (2000); Strüssmann (2000); Nogueira (2001); Borges-Nojosa and Caramaschi (2005); Carvalho Júnior and Nascimento (2005); Freitas and Silva (2005); Vitt et al. (2005); Achaval and Olmos (2007); and Vaz-Silva et al. (2007). Abbreviation of Brazilian states: AC = Acre; AL = Alagoas; AM = Amazonas; AP = Amapá; BA = Bahia; CE = Ceará; DF = Distrito Federal; ES = Espírito Santo; GO = Goiás; MA = Maranhão; MG = Minas Gerais; MS = Mato Grosso do Sul; MT = Mato Grosso; PA = Pará; PB = Paraíba; PE = Pernambuco; PI = Piauí; PR = Paraná; RJ = Rio de Janeiro; RN = Rio Grande do Norte; RO = Rondônia; RR = Roraima; RS = Rio Grande do Sul; SC = Santa Catarina; SE = Sergipe; SP = São Paulo; TO = Tocantins.

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**Figure 2.** *Leposternon* aff. *infraorbitale* from the municipality of Rio Branco, state of Acre, Brazil (MZUSP 6387). Scale bar = 10 mm.

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### Literature cited

- Achaval, F and A. Olmos. 2007. Anfibios y reptiles del Uruguay. Montevideo: Zonalibro. 160 p.
- Barros-Filho, J. D. and M. C. C. Valverde. 1996. Notas sobre os Amphisbaenia (Reptilia, Squamata) da Microrregião de Feira de Santana, Estado da Bahia, Brasil. *Sitientibus* 14: 57-68.
- Borges-Nojosa, D. M. and U. Caramaschi. 2005. Composição e análise comparativa da diversidade e das afinidades biogeográficas dos lagartos e anfisbenídeos (Squamata) dos brejos nordestinos; p. 463-512 In I. R. Leal, M. Tabarelli, and J. M. C. Silva (ed.). *Ecologia e Conservação da Caatinga*. Recife: UFPE.
- Carvalho Júnior, R. R. and L. B. Nascimento. 2005. *Leposternon wuchereri* (Wucherer's Worm Lizard). Geographical Distribution. *Herpetological Review* 36(2): 202-203.
- Dirksen, L. and I. De la Riva. 1999. The Lizards and Amphisbaenians of Bolivia (Reptilia, Squamata): Checklist, Localities, and Bibliography. *Graellsia* 55: 199-215.
- Freitas, M. A and T. F. S. Silva. 2005. Guia ilustrado. A Herpetofauna da Mata Atlântica Nordestina. Pelotas: USEB. 161 p.
- Gans, C. 1971. Studies on amphisbaenians (Amphisbaenia, Reptilia). A review of the amphisbaenid genus *Leposternon*. *Bulletin of the American Museum of Natural History* 144(6): 379-464.
- Montero, R. 1996. Lista de las localidades de los Amphisbaenidae de Argentina. *Cuadernos de Herpetología* 10(1-2): 25-45.
- Montero, R. and G. J. Terol. 1999. Los Amphisbaenidae en Paraguay, Listado Geográfico. *Cuadernos de Herpetología* 13(1-2): 89-95.
- Nogueira, C. 2001. New Records of Squamate Reptiles in Central Brazilian Cerrado II: Brasília Region. *Herpetological Review* 32(4): 135-137.
- Porto, M., M. Soares, and U. Caramaschi, 2000. A new species of *Leposternon* (Amphisbaenia, Amphisbaenidae) from Minas Gerais, Brazil, with a key to the species of the genus (Amphisbaenia, Amphisbaenidae). *Boletim do Museu Nacional* 412: 1-10.
- Rodrigues, M. T. 1996. Lizards, Snakes, and Amphisbaenians from the Quaternary Sand Dunes of the Middle Rio São Francisco, Bahia, Brazil. *Journal of Herpetology* 30(4): 513-523.
- Strüessmann, C. 2000. Herpetofauna; p. 153-189 In C. J. R. Alho, P. N. Conceição, R. Constantino, T. Schlemmermeyer, C. Strüessmann, L. A. S. Vasconcelos, D. M. M. Oliveira, and M. Schneider (ed.). *Fauna Silvestre da Região de Manso*, MT. Brasília: Ministério do Meio Ambiente, Edições IBAMA, Centrais Elétricas do Norte do Brasil.
- Vaz-Silva, W., A. G. Guedes, P. L. Azevedo-Silva, F. F. Gontijo, R. S. Barbosa, G. R. Alopisio, and F. C. G. Oliveira. 2007. Herpetofauna, Espora Hydroelectric Power Plant, state of Goiás, Brazil. *Check List* 3(4): 338-345.
- Vitt, L. J., J. P. Caldwell, G. R. Colli, A. A. Garda, D. O. Mesquita, F. G. R. França, D. B. Shepard, G. C. Costa, M. M. Vasconcelos, and V. N. Silva. 2005. Uma atualização do guia fotográfico dos répteis e anfíbios da região do Jalapão no Cerrado brasileiro. *Special Publications in Herpetology* 2: 1-24.

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