

## NOTES ON GEOGRAPHIC DISTRIBUTION

### Reptilia, Colubridae, Xenodontinae, *Lystrophis dorbignyi*, *Lystrophis pulcher*, and *Lystrophis semicinctus*: Distribution extension, new provinces records in Argentina.

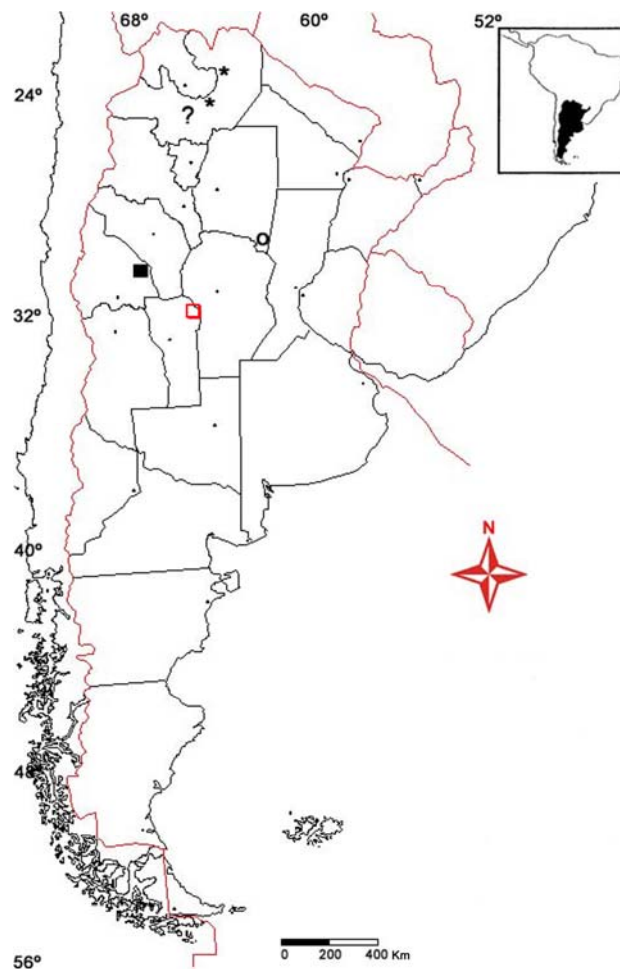
Santiago Javier Nenda<sup>1</sup>  
Pedro M. Cacivio<sup>2</sup>

<sup>1</sup> División de Herpetología, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia". Ángel Gallardo 470. CP 1405, Buenos Aires, Argentina. E-mail: santiagojnenda@yahoo.com.ar

<sup>2</sup> José Mármol 243. CP 3500, Resistencia, Chaco, Argentina.

The genus *Lystrophis* Cope has six recognized species, four of which are present in Argentina: *Lystrophis dorbignyi*, *L. histricus*, *L. pulcher*, and *L. semicinctus*. All members of this genus are psamophilic colubrids that feed on anurans and lizards (Orejas-Miranda 1966; Gudynas 1979; Cei 1986; 1993; Williams and Scrocchi 1994; Oliveira et al. 2001). *Lystrophis histricus*, *L. pulcher*, and *L. semicinctus* are mimetic with species of the genus *Micrurus* (Elapidae), and *L. dorbignyi* is mimetic with species of the genus *Bothrops* (Viperidae) (Orejas-Miranda 1966; Gudynas 1979; Cei 1986; 1993; Williams and Scrocchi 1994; Giraudo 2001). In Argentina, *L. histricus* has been recorded in the provinces of Formosa and Misiones (Serié 1936; Viñas and Olmedo 1988; Williams and Francini 1991; Cei 1993, Williams and Scrocchi 1994; Giraudo 2001; Giraudo and Scrocchi 2002). This species is represented by few specimens in herpetological collections and has not been recorded for the country since 1937 (Giraudo 2001). It is also present in Brazil, Paraguay, and Uruguay (Orejas-Miranda 1966; Viñas and Olmedo 1988; Giraudo 2001; Giraudo and Scrocchi 2002).

In the present contribution, new records of *Lystrophis dorbignyi*, *L. pulcher*, and *L. semicinctus* for different Argentinean provinces are provided, through the study of specimens from the herpetological collections of the Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN) and Museo de La Plata (MLP). Species determination follows characterizations provided by Scrocchi and Cruz (1993). Body measurements were taken with a ruler to the nearest millimeter.



**Figure 1.** New provinces records in Argentina for the genus *Lystrophis*: ■ = *L. pulcher* from Valle Fértil, province of San Juan MACN 34529; □ = *L. pulcher* from Junín department, province of San Luis MACN 34442; ? = *L. semicinctus* from an unknown locality in the province of Salta MLP-JW 307; ● = *L. semicinctus* from Santiago del Estero; and \* = *L. dorbignyi* from tow different localities in the province of Salta, MACN EX-CENAI 1682, and MACN EX-CENAI 942.

*Lystrophis dorbignyi* was recorded in Brazil, Paraguay, Uruguay, and Argentina (Orejas-Miranda 1966; Peters and Orejas-Miranda 1970; Gudynas 1979; Cei 1986; 1993; Williams and Scrocchi 1994; Oliveira et al. 2001; Giraudo 2001; Giraudo and Scrocchi 2002). In Argentina, this species was previously reported in the provinces of Buenos Aires, Chaco, Córdoba, Corrientes, Entre Ríos, Formosa, La Pampa, Mendoza, Misiones, Río Negro, San Luis, Santa Fe, and Santiago del Estero (Koslowsky 1895;

## NOTES ON GEOGRAPHIC DISTRIBUTION

1898; Serié 1936; Peters and Orejas-Miranda 1970; Cei 1986; 1993; Williams and Francini 1991; Williams and Scrocchi 1994; Giraud 2001; Álvarez et al. 2002; Arzamendia and Giraud 2002; Giraud and Scrocchi 2002; Ávila and Carrizo 2003; Kacoliris et al. 2006). In the present study, *L. dorbignyi* is recorded for the first time in two different localities from the province of Salta: Las Lajitas (24°40'60" S, 64°15'0" W), collected on 15 July 1964 by J. Canos, an adult male (MACN EX-CENAI 1682) (Figures 1 and 2), 363 mm of snout-vent length (SVL), and 75 mm of tail length (TL); and La Estrella (23°49'0" S, 64°4'60" W), collected on 24 September 1954 by Franklin Barrionuevo, an adult male (MACN EX-CENAI 942) (Figures 1 and 3), 470 mm SVL, and 85 mm TL.



**Figure 2.** Dorsal view of *Lystrophis dorbignyi* (MACN EX-CENAI 1682) from Las Lajitas, province of Salta.

Orejas-Miranda (1966) and Cei (1993) mention that *L. dorbignyi* occurs between 25° S and 40° S, therefore the specimen MACN EX-CENAI 942 from La Estrella, province of Salta, widens this range far to 23°49'0" S and 40° S latitude, on the western limits of the distribution of the species.



**Figure 3.** Dorsal view of *Lystrophis dorbignyi* (MACN EX-CENAI 942) from La Estrella, province of Salta.

*Lystrophis semicinctus* was previously recorded in Bolivia and Argentina (Scrocchi and Cruz 1993; Williams and Scrocchi 1994; Giraud and Scrocchi 2002). The species was reported by other authors in Argentina in the provinces of Buenos Aires, Catamarca, Córdoba, Chubut, Entre Ríos, La Pampa, La Rioja, Mendoza, Neuquén, Río Negro, San Luis, San Juan, and Tucumán (Scrocchi and Cruz 1993; Williams and Scrocchi 1994; Ávila et al. 1998; Arzamendia and Giraud 2002; Giraud and Scrocchi 2002; Ávila and Carrizo 2003; Kacoliris et al. 2006). In the present contribution, *L. semicinctus* is recorded for the first time in two new different provinces from Argentina: province of Salta, without other data, collected by Gerling in 1898, a juvenile male with 19 pairs of black bands on the body and 3 pairs of black bands on the tail, 150 mm SVL, 18 mm TL (MLP-JW 307) (Figure 1); and south east of the province of Santiago del Estero, locality of Selva (29°46' S, 62°03' W), without other data, an adult male with 18 pairs of black bands on the body and 2 ½ pairs on the tail, 366 mm SVL, 46 mm TL (MACN EX-



## NOTES ON GEOGRAPHIC DISTRIBUTION

CENAI 524) (Figures 1 and 4). The specimen from Salta (MLP-JW 307) represents a historical record, since the species was not reported for this province after 1898. The record of the specimen from Selva, Santiago del Estero (MACN EX-CENAI 524), represents a sympatric zone between *L. pulcher* and *L. semicinctus* in the province of Santiago del Estero. Moreover, this record fills a gap in the distribution of *L. semicinctus* between the localities of Concordia, province of Entre Ríos (located 425 km south east far from Selva) and El Cadillal, province of Tucumán (located 467 km north west far from Selva) given by Scrocchi and Cruz (1993).



**Figure 4.** Dorsal view of *Lystrophis semicinctus* (MACN EX-CENAI 524) from Selva, province of Santiago del Estero, showing 18 pairs of black bands on the body.

*Lystrophis pulcher* was recorded in Bolivia, Paraguay, and Argentina (Scrocchi and Cruz 1993; Williams and Scrocchi 1994; Giraudo 2001; Giraudo and Scrocchi 2002). It was reported in Argentina in the provinces of Catamarca, Chaco, Córdoba, Corrientes, Entre Ríos, Formosa, Jujuy, La Rioja, Salta, San Luis, Santa Fe, Santiago del Estero, and Tucumán (Scrocchi and Cruz 1993; Williams and Scrocchi 1994; Giraudo 2001; Álvarez et al. 2002; Arzamendia and Giraudo 2002; Giraudo and Scrocchi 2002; Ávila and Carrizo 2003). In the present contribution the extended distribution is given for a new province record in San Juan, in the locality of Las Tumanas,

Valle Fértil (30°52'0" S, 67°24'0" W), collected by Eduardo Haene in January 1989, a juvenile male (MACN 34529) (Figure 1), 211 mm SVL, 25 mm TL. Ávila et al. (1998) misidentified the latter specimen and erroneously assigned it to *L. semicinctus*. Following the keys given by Scrocchi and Cruz (1993) we assigned the specimen MACN 34529 to *Lystrophis pulcher*, since it shows 12 pairs of black bands on the body and 2 ½ pairs of black bands on the tail, and a juvenile pattern coloration as described in Scrocchi and Cruz (op. cit.) (Figure 5). This record represents a new contact area between *L. pulcher* and *L. semicinctus*, after the distribution map of the latter species given by Williams and Scrocchi (1994).



**Figure 5.** Dorsal and ventral views of *Lystrophis pulcher* (MACN 34529) from San Juan province showing 12 pairs of black bands on the body and 2 ½ on the tail, and juvenile pattern coloration. Arrow points the vent.

## NOTES ON GEOGRAPHIC DISTRIBUTION



**Figure 6.** Dorsal and ventral views of *Lystrophis pulcher* (MACN 34442) from the province of San Luis showing 11 pairs of black bands on the body and 1 ½ on the tail, and typical adult blackish coloration

Ávila and Carrizo (2003) provided a list of 14 specimens of *L. semicinctus* from the province of San Luis, where the specimen MACN 34442 was misidentified. MACN 34442 from the department of Junín, locality of Santa Rosa del Conlara (32°20' S, 65°12' W) (Figure 1), collected by Gustavo R. Carrizo in January 1993, 330 mm SVL, 51 mm TL, belongs to *L. pulcher* since it shows 11 pairs of black bands on the body, 1 ½ pairs of black bands on the tail, and a typical adult blackish coloration (Figure 6). This represents another contact area between *L. semicinctus* and *L. pulcher* in the province of San Luis, as mentioned by Scrocchi and Cruz (1993).

### Acknowledgements

We are grateful to Gabriela C. Küppers for her comments on the manuscript and for helping us to translate it. To Julián Faivovich for making helpful comments on the manuscript. To Jorge D. Williams and Ramiro Almagro, from the Herpetology Division of the Museo de La Plata, for providing access to the collection under their care. Santiago J. Nenda is grateful to Museo Argentino de Ciencias Naturales “Bernardino Rivadavia” and Gustavo R. Carrizo for providing institutional and laboratory support.

### Literature cited

- Álvarez, B. B., R. H. Aguirre, J. A. Céspedes, A. B. Hernando, and M. E. Tedesco. 2002. Atlas de anfibios y reptiles de las provincias de Corrientes, Chaco y Formosa (Argentina). I. Anuros, cecilidos, saurios, anfisbénidos y serpientes. Corrientes, Universidad Nacional del Nordeste. 160 p.
- Arzamendia, V. and A. R. Giraud. 2002. Lista y distribución de los ofidios (Reptilia: Serpentes) de Santa Fe, Argentina. Cuadernos de Herpetología 16(1): 15-32.
- Ávila, L. J., J. C. Acosta, and A. F. Murúa. 1998. Herpetofauna de la provincia de San Juan, Argentina: lista comentada y distribución geográfica. Cuadernos de Herpetología 12(1): 11-29.
- Ávila, L. J. and G. R. Carrizo. 2003. Lista comentada y distribución geográfica de la herpetofauna de la provincia de San Luis, Argentina. Acta Zoológica Lilloana 47(1-2): 93-115.
- Cei, J. M. 1986. Reptiles del centro, centro-oeste

## NOTES ON GEOGRAPHIC DISTRIBUTION

- y sur de la Argentina. Herpetofauna de las zonas áridas y semiáridas. Monografía IV. Torino, Museo Regionale di Scienze Naturali di Torino. 527 p.
- Cei, J. M. 1993. Reptiles del noroeste, nordeste y este de la Argentina. Herpetofauna de las selvas subtropicales, puna y pampas. Monografía XIV. Torino, Museo Regionale di Scienze Naturali di Torino. 949 p.
- Giraud, A. R. 2001. Serpientes de la selva paranaense y del chaco húmedo. Taxonomía, biogeografía y conservación. Buenos Aires, Editorial L.O.L.A. xvi + 285 p.
- Giraud, A. R. and G. J. Scrocchi. 2002. Argentinian snakes: an annotated checklist. Smithsonian Herpetological Information Service 132: 1-53.
- Gudynas, E. 1979. Notes on the ecology of *Lystrophis dorbignyi* in Uruguay. ASRA Journal 1(2): 24-33.
- Kacoliris, F., N. Horlent, and J. D. Williams. 2006. Herpetofauna, Coastal Dunes, Buenos Aires Province, Argentina. Check List 2(3): 15-21.
- Koslowsky, J. 1895. Batracios y reptiles de Rioja y Catamarca. Revista del Museo de La Plata 6: 359-370.
- Koslowsky, J. 1898. Enumeración sistemática y distribución geográfica de los reptiles argentinos. Revista del Museo de La Plata 8: 161-200 + 7 láminas.
- Orejas-Miranda, B. R. 1966. The snake genus *Lystrophis* in Uruguay. Copeia 1966(2): 193-205.
- Oliveira, R. B., M. Di-Bernardo, G. M. Funk Pontes, A. P. Maciel, and L. Krause. 2001. Dieta e comportamento alimentar da cobra-nariguda, *Lystrophis dorbignyi* (Duméril, Bibron & Duméril, 1854), no litoral norte do Rio Grande do Sul, Brasil. Cuadernos de Herpetología 14(2): 117-122.
- Peters, J. A. and B. R. Orejas-Miranda. 1970. Catalogue of Neotropical Squamata. Part I. Snakes. Washington D.C., Bulletin of U.S. Natural Museum. 347 p.
- Scrocchi, G. J. and F. B. Cruz. 1993. Description of a new species of the genus *Lystrophis* Cope and a revalidation of *Lystrophis pulcher* (Jan, 1863) (Serpentes, Colubridae). Papéis Avulsos de Zoologia 38(10): 171-186.
- Serié, P. 1936. Nueva enumeración sistemática de los ofidios Argentinos. Obra Cincuentenario, Revista del Museo de La Plata 2: 33-61.
- Viñas, M. and E. V. de Olmedo. 1988. Sobre *Lystrophis histricus* (Jan) en Argentina. Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" 15(1): 1-6.
- Williams, J. D. and F. Francini. 1991. A checklist of the Argentine snakes. Torino, Bollettino del Museo Regionale di Scienze Naturali di Torino 9(1): 55-90.
- Williams, J. D. and G. J. Scrocchi. 1994. Ofidios de agua dulce de la República Argentina. Fauna de agua dulce de la República Argentina 42(3): 1-55.

Received December 2006

Accepted May 2007

Published online May 2007