Catalogue of American Amphibians and Reptiles.

Dixon, J.R. and R.L. Tipton. 2008. *Liophis ceii*.

Liophis ceii Dixon
Cei's Legion Snake; Sabanara de Cei; Jararaquinha-do-Cei

Liophis ceii Dixon 1991:230. Type-locality: "near Tucumán," Argentina. Holotype, Texas Cooperative Wildlife Collection (TCWC) 53409, adult male, taken by James R. Dixon on 18 May 1977.

• **CONTENT**. No subspecies are recognized.

• **DEFINITION**. Both Dixon (1991) and Cei (1993 [1994]) described the species as a slender snake to about 524 mm total length, of which about 1/5 is tail. There is little sexual dimorphism in the measurement and length characteristics. Head relatively short; snout truncate, somewhat flattened and wide in the parietal-temporal region; neck distinct from head and body; eyes large, pupil round; rostral wide, visible from above; internasals somewhat shorter than prefrontals; nasal in center of large semidivided nasal scale; usually 1, occasionally 2, preoculars; postoculars usually 2, occasionally 3; quadrate loreal present; frontal pentagonal and anteriorly widened, shorter than parietals; first and second row of temporals 1+2; 8 supralabials, with 4th and 5th in contact with eye; infralabials normally 10 per side, 5 of which contact first pair of genials. Dorsal scales smooth, in 19–19–15 rows, with single apical scale pit; anal plate divided. Individuals from above 2000 m elevation have ventrals and subcaudals varying from 158–168 (mean = 162.2) and 54–64 (mean = 59.7), respectively. Individuals from below 1000 m elevation have ventrals and subcaudals ranging from 157–170 (mean = 165.1) and 49–59 (mean = 53.3), respectively. Dixon (1991) suggested a "cline" in the number of ventral and subcaudal scales may exist between populations of different altitudes.

The everted hemipenis is 6 subcaudals in length (11–12 subcaudals in situ; Dixon, unpubl. data), covered with dense layer of small spinules interspersed with larger spines. Sulcus spermaticus divides about 3 mm from base of hemipenis, and each fork of sulcus curves towards outer edge of each lobe and enters smooth apical disk at inner lateral edge. Six or 7 rows of large spines concentrated along outer edge of each lobe, with smaller spines scattered above sulcus spermaticus to edge of disk. Asulcate surface has large spines around one-fourth of base, with smaller spines between lobes.

Liophis ceii is olive-green dorsally, becoming somewhat darker in the vertebral region. Occasionally, head scales become pale olive, with small rounded black spots. These black spots are noticeable on the pale labials, and may be more evident on posterior labials. Dorsal body color pattern consists of a series of obscure narrow crossbands outlined with dark edges about 1 scale row in width, from nape to above

Figure 1. *Liophis ceii*, from Pampagrande, 1300 m elevation, Departamento de Santa Cruz, Bolivia. Photographs by Dirk Embert.

vent; the latter are separated from each other by a transverse row of scales containing paired white dots on their bases. These pale interspaces and dorsal dark bands range in a more or less regular pattern between the sixth scale rows. A lateral series of blackish dots occurs along the fourth row of scales, more or less in regular series, from the nape to the vent. These blackish spots are separated from each other by a grayish-green to olive ground color. White to pale tan dorsolateral line occurs on scale rows 5–7 anteriorly, and 4–6 posteriorly. Anterior part of the pale dorsolateral line obscured by cross bands, becoming distinct on the posterior one-third of body and throughout the tail. Top of head olive-green to gray-green, with darker areas along the edges of prefrontals, frontal, supraoculars and parietals; side of the head dark brown from upper edge of snout to nape; dark color extends downward onto upper edges of first 6 supralabials, and progressively lower on supralabials 7 and 8; nape band divided middorsally, edged with black on outer edges, tending to make middle of band appear pale in color. Ventral ground color rose in life, with chin, throat and infralabials white. A series of lateral black marks is present on every other ventral, never extending completely across venter. Some of these black marks are centrally located on posterior part of venter. Subcaudals rose with occasional black mark on outer edges.

• **DIAGNOSIS**. *Liophis ceii* closely resembles *L. almadensis*. Both species have similar color and pattern of the venter and dorsal surface of the body. This similarity includes the posterior dorsolateral pale

MAP. Distribution of *Liophis ceii*. The type-locality is too imprecise to plot.

stripes and body blotches. *Liophis ceii* is differentiated by the absence of the distinctive pale parietal mark, presence of an extra scale row reduction (19–19–15), more ventrals, fewer subcaudals, and a shorter, wider head than *L. almadensis*.

• **DESCRIPTIONS**. Detailed descriptions appear in Dixon (1991) and Cei (1993 [1994]).

• **ILLUSTRATIONS**. Cei (1993 [1994]: pl. 101, figs. 2,3) shows dorsal and ventral color photographs.

• **DISTRIBUTION**. Found in the states of Santa Cruz and Tarija in eastern Bolivia and ranging southward into the provinces of Catamarca, Tucumán, Salta and Jujuy in northwestern Argentina, usually at altitudes between 375 to 2500 meters. These are little known snakes with almost no information about their habits or natural history. They appear to be associated with the "chaqueño" and higher slopes of the dry eastern side of the Andes to about 2000 meters. Dixon (1991) found the holotype in the fall (18 May 1977) foraging along the Rio Sali, near Tucuman.

• **FOSSIL RECORD**. None.

• **PERTINENT LITERATURE**. Dixon (1991) described the hemipenis, nape and occiput pattern. This species also appears in Cei (1993 [1994]), Schmitz et al. (2001), Giraudo and Scrocchi (2002), and Tipton (2005; which includes common names in Spanish, Portuguese, and English). The ecology of the species is briefly mentioned by Torres et al. (2000).

• **REMARKS**. *Liophis ceii* closely resembles *L. almadensis*. Both species have similar color and pattern of the dorsal and ventral surfaces of the body. This similarity includes the posterior dorsolateral pale stripes and body blotches. *Liophis ceii* is differentiated by the absence of the distinctive pale parietal mark, the presence of an extra scale row reduction (19-19-15), more ventrals, fewer subcaudals, and a shorter, wider head than L. almadensis. In addition, Cei (1993[1994]) points out that a comparision of the average number of ventrals and subcaudals shows a significant difference between the two species. Dixon (unpublished data) has noted that gravid females of L. ceii ranging from 37.6 to 68.3 cm total length and collected at an elevation of 2500 meters in Bolivia on 26 October 1926, contained 3 to 5 ovidual eggs.

• **ETYMOLOGY**. The name honors Dr. José M. Cei who has made major contributions to the herpetology of Argentina and Chile.

LITERATURE CITED

Cei, J.M. "1993" (1994). Reptiles del noroeste, nordeste y este de la Argentina – Herpetofauna de las selvas subtropicales, puna y pampas. Mus. Reg. Sci. Nat. Monogr. (14):1–949.

Dixon, J.R. 1991. Geographic variation and taxonomy of *Liophis almadensis* (Wagler) (Serpentes: Colubridae), and description of a new species of *Liophis* from Argentina and Bolivia. Texas J. Sci. 43:225–236.

Giraudo, A.R.S. and G.J. Scrocchi. 2002. Argentinian snakes: an annotated checklist. Smithson. Herpetol. Info. Serv. (132):1–53.

Schmitz, A., W. Böhme, W. Bischoff, J. Hallermann, and L. Dirksen. 2001. Fast 1000 in nur 10 Jahren, Neubeschriebene Reptilientaxa der Jahre 1990–1999. Tier und Museum 7:35–65.

Tipton, B.L. 2005. Snakes of the Americas. Checklist and Lexicon. Krieger Publ. Co., Malabar, Florida.

Torres, S., G.J. Scrocchi, and M.B. Harvey. 2000. The South American tropidurid lizard *Stenocercus marmoratus*: redescription, distribution, and natural history. J. Herpetol. 34:129–134.

James R. Dixon, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, Texas 77843 (jrdixon5@verizon.net) and **Bob L. Tipton**, Research Associate, Texas Cooperative Wildlife Collection, Texas A&M University, College Station, Texas 77843.

Primary editor for this account, Josiah H. Townsend.

Published 30 April 2008 and Copyright © 2008 by the Society for the Study of Amphibians and Reptiles.