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NOTES ON GEOGRAPHIC DISTRIBUTION

Atractus titanicus Passos, Arredondo, Fernandes & Lynch, 2009 (Serpentes: Dipsadidae): Filling gaps in its geographical distribution

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ABSTRACT: We report additional specimens of *Atractus titanicus* from three municipalities in the western slope of the Central Cordillera of Colombia. Our reports fill a distribution gap of about 200 km (airline) between Sonsón and Tuluá. This findings support the previous suggestion that *A. titanicus* is apparently endemic of the western versant of the Central Cordillera and reinforce the idea that boundaries of elevation ranges may constitute an effective barrier to vertical dispersal of some Andean *Atractus*.

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The groundsnake *Atractus titanicus* was described on the basis of five specimens from Central Cordillera of Colombia in the Cauca Valley (Passos *et al.* 2009). These authors distinguish *A. titanicus* from all congeners by a unique combination of morphological characters. *Atractus titanicus* is morphologically similar to the putatively closely related *A. obesus,* from which is distinguished by the low number of ventral scales, four infralabials scales in contact with chinshields, dorsal color pattern with bands never forming dyads, and belly with dark brown dots and lacking complete rings (Passos *et al.* 2009). Recently, Rojas-Morales (2012) report five additional specimens of "*A. titanicus*" to municipality of Manizales, department of Caldas, Colombia. However, on the basis of data available in the paper we believe that these specimens may represent samples of *A. biseriatus* and/or *A. manizalensis* (both species have 15 dorsal scale rows, whereas *A. titanicus have* 17 series; Passos et al 2009). Therefore, while its taxonomic identity is not verified (there are no further morphological data in Rojas-Morales 2012 for guarantee accurate identifications), we do not consider these distribution records as valid to *A. titanicus*.

We report herein five additional specimens of the *A. titanicus* from three municipalities in the Cordillera Central of Colombia. Three specimens (MNRJ 24187, Herpetos-UQ 0344, Herpetos-UQ 0379) were collected crossing the road among 10:00–15:00 h by F. G. Montoya on July 04 2011 in the Vereda Camino Nacional (04°36′11″ N, 075°32′41″ W, 2656 m above sea level; asl hereafter), municipality of Salento, Quindío; a fourth specimen (Herpetos-UQ 0358) was collected crossing the road at 10:30 h by D.M. Sanchez on April 18, 2013 in the Granja Bengala (04°40′56″ N, 075°37′10″ W; 1800 m asl), municipality of Filandia, department of Quindío; and the fifth specimen (Herpetos-UQ 0413; Figure 1) was collected in a riparian forest on litter to 09:37 h by JCM-C on June 30, 2012 at Minas del Chaquiro (04°49′02″ N, 075°31′29″ W, 2250 m als), municipality of Santa Rosa de Cabal, department of Risaralda. None of the individuals displayed any defensive behavior when handled.

These new records increase to 10 the number of known specimens of *Atractus titanicus*, and extend the latitudinal range of the species about 200 km (airline) in northern central Andes of Colombia (Figure 2). The morphology of the specimens matches the diagnosis of *A. titanicus* (Passos *et al.* 2009), except for the number of ventral and infralabials scales contacting chinshields (Table 1). The range of variation in both characters was slightly augmented by the new specimens, which is expected when the sample is increased and corresponds to the general pattern of variation found in most congeners (Passos, 2008).

Passos *et al.* (2009), mistakenly cited Tuluá, Valle del Cauca in the Department of Caldas (Figure 2). These authors pointed out that most of the endemic species of *Atractus* are restricted to one side of the mountain ranges

FIGURE 1. General view of *Atractus titanicus* (Herpetos-UQ 0413) from Minas del Chaquiro, municipality of Santa Rosa de Cabal, department of Risaralda, Colombia. Photo by Julian Henao.

or intra-Andean Valleys of Colombia. Our new records give support to this assertion and reinforce the idea that boundaries of elevation ranges may constitute an effective barrier to vertical dispersal of some *Atractus* species to the lowland drainage of the Cauca River. Moreover, in the case of *A. titanicus*, its putative sister species (*A. obesus*) is endemic to the western piedmonts of the Cauca Valley at the Cordillera Occidental, whereas *A. titanicus* is apparently restricted to western slopes of Cordillera Central (Passos 2008).

All records of *Atractus titanicus* with available altitudinal data are between 1800–2600 meters elevation. This apparently restricted vertical range of distribution overlaps with a region highly disturbed for agricultural production in Colombian (see Lynch 2012 for a critical review of the threatened of Colombian snake fauna). Therefore, we recommend special attention of the environmental agencies to cryptzoic species with apparent relatively restricted distributional range like most Andean species of the genus *Atractus*.

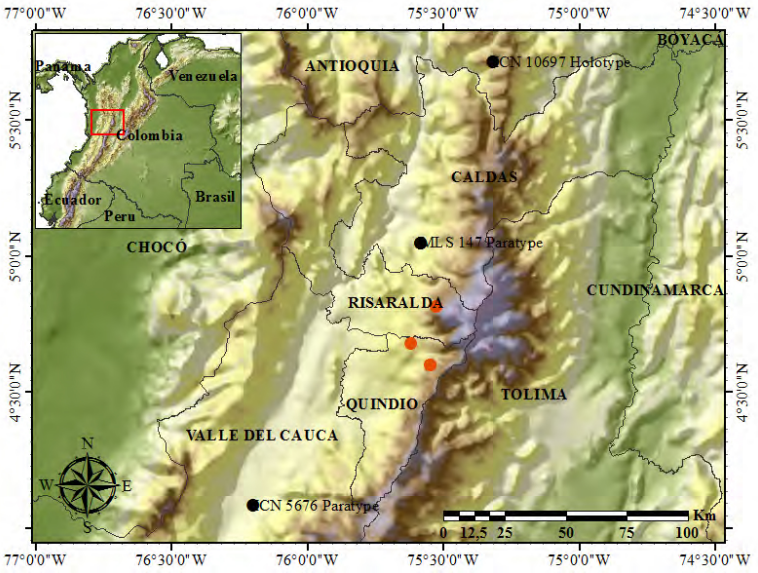

Figure 2. Geographical distribution of *Atractus titanicus*. Black dots represent previous localities and red dots represent new records.

Table 1. Summary of the quantitative morphological variation (meristic and morphometric characters) for known specimens of *Atractus titanicus*. We use "|" when the counts were different on both sides of the body, otherwise this character is represented by a single value. Institutional abbreviations of the specimens examined are as listed in Sabaj Pérez (2013), except for Herpetos-UQ which represents the Herpetological Collection of the Quindío University, Armenia, department of Quindío, Colombia. V = ventrals; SC = subcaudals; D2SC = Dorsal on the level 2nd subcaudal; T = temporals; IL+CS = Infralabials contacting chinshields; G = Gular scale rows; SVL = Snout-vent length.

Specimens	Sex	V	SC	D2SC	T	IL+CS	G	SVL
ICN 10697 - Holotype	Female	162	19	9	1+2	1–4	4|3	433 mm
ICN 5676 - Paratype	Male	157	21|22	9	1+2	1–4	4|3	263 mm
MLS 134 - Paratype	Male	155	27	9|10	2+2	1–4	4|3	545 mm
MLS 143 - Paratype	Female	160	18|19	8	1+2	1–4	4	680 mm
MLS 147 - Paratype	Male	152	30	10	1+2	1–4	4	482 mm
MNRJ 24187	Female	159	21|21	9	1+2	1–4|1–2	4|3	735 mm
Herpetos-UQ 0379	Female	158	23|23	9	1+2	1–4	4|3	790 mm
Herpetos-UQ 0344	Female	158	23|23	8	1+2	1–4	4	370 mm
Herpetos-UQ 0358	Female	151	31	8	1+2	1–4	4	530 mm
Herpetos-UQ 0413	Male	158	34|34	8	1+2	1–4|1–3	4	310 mm

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Literature Cited

Lynch, J.D. 2012. El contexto de las serpientes de Colombia con un análisis de las amenazas en contra de su conservación. *Revista de la Academia Colombiana de Ciencias Exactas, Físicas y Naturales* 36(140): 435–449 (http://www.accefyn.org.co/revista/Vol_36/140/435_449.pdf).

Passos, P. 2008 *Revisão taxonômica do gênero* Atractus *Wagler, 1828 (Serpentes: Colubridae: Dipsadinae).* Ph.D. Thesis, Rio de Janeiro: Museu Nacional. 671 pp.

Passos, P., J.C. Arredondo, R. Fernandes, and J.D. Lynch. 2009. Three new *Atractus* (Serpentes: Dipsadidae) from Andes of Colombia. *Copeia* 2009: 425–438 (doi: 10.1643/CH-08-063).

Rojas-Morales, J.A. 2012. Snakes of an urban-rural landscape in the central Andes of Colombia: species composition, distribution, and natural history. *Phyllomedusa* 11(2): 135–154 (http://www.phyllomedusa.esalq.usp.br/articles/volume11/number2/112135154.pdf).

Sabaj Pérez, M.H. (Editor). 2013. *Standard Symbolic Codes for Institutional Resource Collections in Herpetology and Ichthyology: An Online Reference. Version 4.0*. Electronic Database Accessible at http://www.asih.org. Captured on 01 October 2013.

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