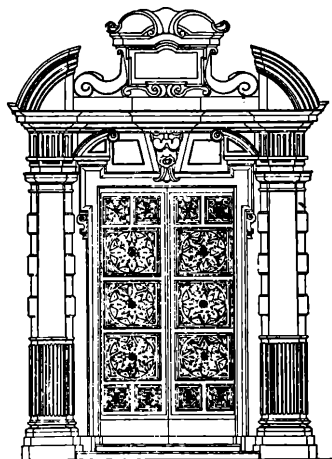


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A new subspecies  
of the *reticulatus* group,  
genus *Atractus*,  
from Southeastern South America  
(Serpentes, Colubridae)

Blanca Beatriz Alvarez - Laura Rey - José Maria Cei



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Blanca Beatriz ALVAREZ\*, Laura REY\* and José M. CEI\*\*

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genus *Atractus*, from Southeastern South America  
(Serpentes, Colubridae)

ABSTRACT

A new subspecies of the genus *Atractus reticulatus* group from Corrientes (Argentina) and Rio Grande do Sul (Brasil), identified and described. Its relationships with the Southeastern Brazilian nominate form and other poorly known regional forms of the genus are analysed and discussed.

INTRODUCTION

The Genus *Atractus* is widely distributed in the neotropical region, from the northeastern slopes of the Colombian mountains to the central and southeastern Brasil and neighboring territories of Paraguay, Bolivia and Argentina. In this latter country only *Atractus badius* Boie 1827 from Chaco, *Atractus canedii* Scrocchi & Cei 1991 from Salta and Jujuy, and *Atractus taeniatus* Griffin 1916 from Entre Ríos and Misiones, have been reported. Recent findings of some specimens of this genus in Corrientes pointed out clear cut differences with the above mentioned taxa, suggesting on the other hand several morphological affinities with *Atractus reticulatus* described by Boulenger (1885) on specimens from São Lourenço, on the eastern coast of Rio Grande do Sul, Brasil.

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\* Cátedra Anatomía Comparada, Facultad Ciencias Exactas, Naturales & Agrimensura, Universidad Nacional del Nordeste, Corrientes, Argentina.

\*\* Departamento Ciencias Naturales, Universidad Nacional de Río Cuarto. Córdoba, Argentina.

Werner furtherly described (1924) the nearby *Atractus paraguayensis* from Paraguay (no locality), on the basis of a lower number of postocular scales as well as a distinct colour pattern. Although both the specific taxa were synonymized by Amaral (1929) a subspecific status for the Werner's form was still retained as *Atractus reticulatus paraguayensis* Werner.

Specimens showing significant differences in dorsal colour pattern with the nominate form from eastern Rio Grande do Sul and Curitiba, State of Paraná, Brasil, as well as with *A. reticulatus paraguayensis* from "Paraguay", were now identified in our former sample from Corrientes but also in samples from the western district of Santa Maria, Rio Grande do Sul, Brasil. Such a differences can support a new taxonomic rank, at least at a subspecific level, for the just examined populations from the Corrientes province, Argentina and the neighbouring western territories of Rio Grande do Sul, Brasil (Fig. 1). Their apparent allopatric condition is here taken into account, restricting likely the nominate form *A. reticulatus reticulatus* to the eastern atlantic side of the State of Rio Grande do Sul, together with its northernmost neighbouring regions, such as Curitiba, State of Paraná.

We propose to name the new taxon *Atractus reticulatus scrocchii*, in honour of Dr. Gustavo J. Scrocchi, from the Instituto M. Lillo, Universidad Nacional de Tucumán, Argentina, for his generous and valuable aid through our own research.

#### MATERIALS USED IN MORPHOMETRIC AND MERISTIC STUDIES AND/OR ANALYSIS

Two samples of the new taxon (specimens in parenthesis) were examined:

- Corrientes, San Miguel, Departamento San Miguel, Argentina (2): UNNE-CHC. 00256, 00257.
- Rio Grande do Sul, Santa Maria, Brasil (8): ZUFMS. 0191, 0192, 0275, 0276, 0338, 0339, 0385, 0400.

Samples of related forms were also studied, as follows:

*Atractus reticulatus reticulatus* (7): FML. 01814 (1-5); MRSN R-168 (1-2). All from Paraná, Curitiba, Brasil.

*Atractus taeniatus* (3): Oberá, Misiones, Argentina, MACN 3110, 3111; Urquiza, Entre Ríos, Argentina, MLP. 637.

(Acronyms: UNNE-CHC, Universidad Nacional Nord Este, Colección Herpetológica Corrientes; ZUFMS, Zoología, Univ. F. Santa Maria; FML, Fundación Miguel Lillo, Tucumán; MACN, Museo Argentino Ciencias Naturales; MRSN, Museo Regionale Scienze Naturali, Torino).

DIAGNOSIS AND DESCRIPTION OF *Atractus reticulatus scrocchii* subsp. nov.

**Diagnosis.** A middle-sized fossorial snake, differing from the nominate form by a whitish cephalic collar (absent in *A. r. reticulatus*), followed by a dark nuchal collar, as well as by its dorsal colour pattern, with dark-bordered brownish scales whitish in the center, giving rise to a somewhat indistinct brownish network (versus the eccentrically dark-bordered scales and the contrasting reticular brown dorsal pattern of *A. r. reticulatus*). The new taxon is recognizable from *A. r. paraguayensis* by its lower ventral scale number (139-153 versus

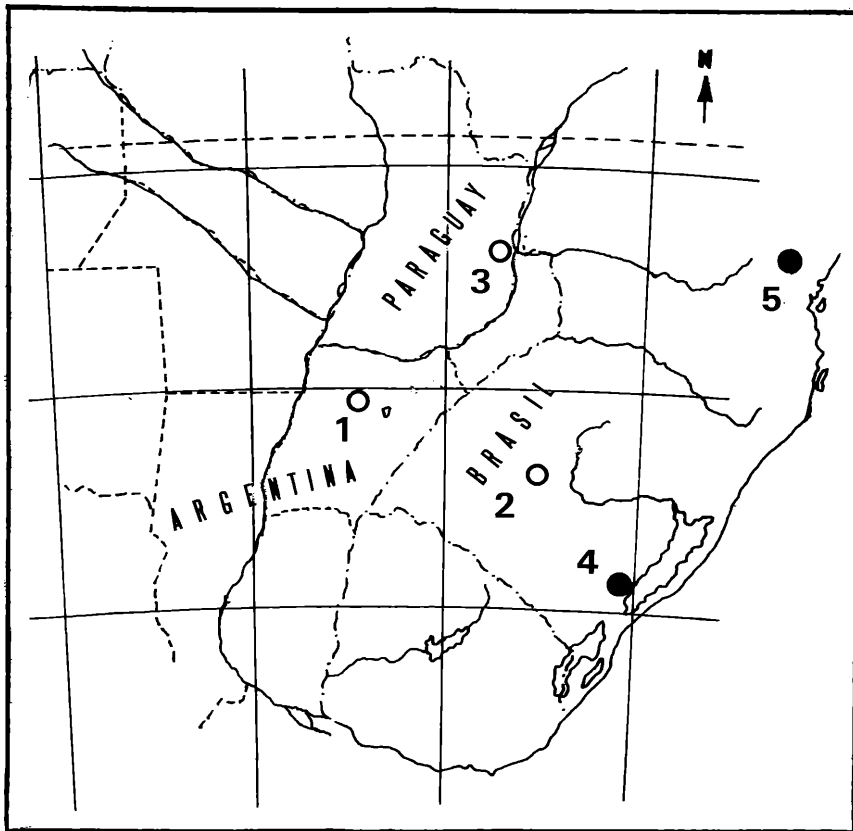


Fig. 1 - Distribution of species and subspecies of the *reticulatus* group of the genus *Atractus*, in southeastern South America: White circles: *Atractus reticulatus scrocchii* subsp. nov. - 1. San Miguel, Corrientes; 2. Santa Maria, Rio Grande do Sul; 3. Puerto Bertoni (Iguazú Falls), Paraguay. Black circles: *Atractus reticulatus reticulatus* (Boulenger); 4. São Lourenço, Rio Grande do Sul (Type); 5. Curitiba, Paraná.

166), by the presence of two postocular scales (only one in *A. r. paraguayensis*), as well as by a different dorsal scale pattern. It also differs from *A. taeniatus* by lacking the dark vertebral stripe of this species, and from *A. badius* by a different number of dorsal scale rows (15 versus 17).

Description of the holotype. UNNE-CHC. 00256. San Miguel, Departamento San Miguel, Corrientes, Argentina, 28 December 1991, Coll. by B. B. Alvarez, L. Rey.

A short-tailed, medium-sized male snake. Head small, not very distinct from the neck; eyes very small; pupil circular; snout rounded, slightly protruding on the tip. Rostral rather small, broader than deep, hardly visible from above; internasals small, twice as broad as long; prefrontals nearly squared, very evident; frontal large, triangular, a little broader than long, nearly as long as its distance from the end of the snout, but shorter than parietals; supraocular moderate; nostril between two irregular scales; loreal enlarged, entering the eye; parietals nearly once and half longer than broad; two postoculars; temporals 1+2; upperlabials 7, third and fourth entering the eye; infralabials 7, four in contact with the single pair of large chin-shields, separated from the symphyisial (Fig. 2, A, B, C). Dorsal scales smooth, in 15-15-15 scale rows; ventrals 144; anal entire; subcaudals 27. Snout-vent 230 mm; tail 33 mm.

Colouration (in just preserved specimens): dorsally pale brown, uniform on body and tail; scales bordered with dark brown, whitish on the center, giving rise to a softly reticulated network (Fig. 2, G); laterally the two first scale rows are slightly pigmented. Head black on snout, prefrontals, supraoculars, eyes and frontal, narrowly extending on the beginning of parietals; upperlabials whitish, irregularly speckled with minute black dots on their upper borders, particularly in the third and fourth scales. A whitish collar, often speckled with a very minute dark dots, on the most part of the parietals and the first three-four nuchal scale rows; this collar is followed by a very dark crossband, extending on three scale rows and stumping therefore in the general dorsal colouration. Gular and ventral surface whitish, immaculate (Fig. 3, 1, 2).

Variation of the paratypes (UNNE-CHC. 0057, a female specimen, same data of the holotype; ZUFMSM. 0191, 1092, 0275, 0276, 0338, 0339, 0385, 0400, Santa Maria, Rio Grande do Sul, Brasil).

The female specimen UNNE-CHC. 00257, similar to the male from the same locality: ventrals 146; subcaudals 29; postoculars 2; snout-vent 228 mm; tail 32 mm. Also the specimens from Santa Maria show a limited variation for their observed morphological characters: ventrals 139-153 ( $x = 145.7 \pm 4.8$ ); subcaudals 23-32 ( $x = 28.8 \pm 5.88$ ); no difference for supralabial, infralabial, postocular and temporal numbers (7, 7, 2, and 1+2); snout-vent 195-285 mm ( $x = 254 \pm 31.5$ ). No remarkable variation for general color patterns of these snakes can be reported. No particular sex dimorphism could be pointed out.

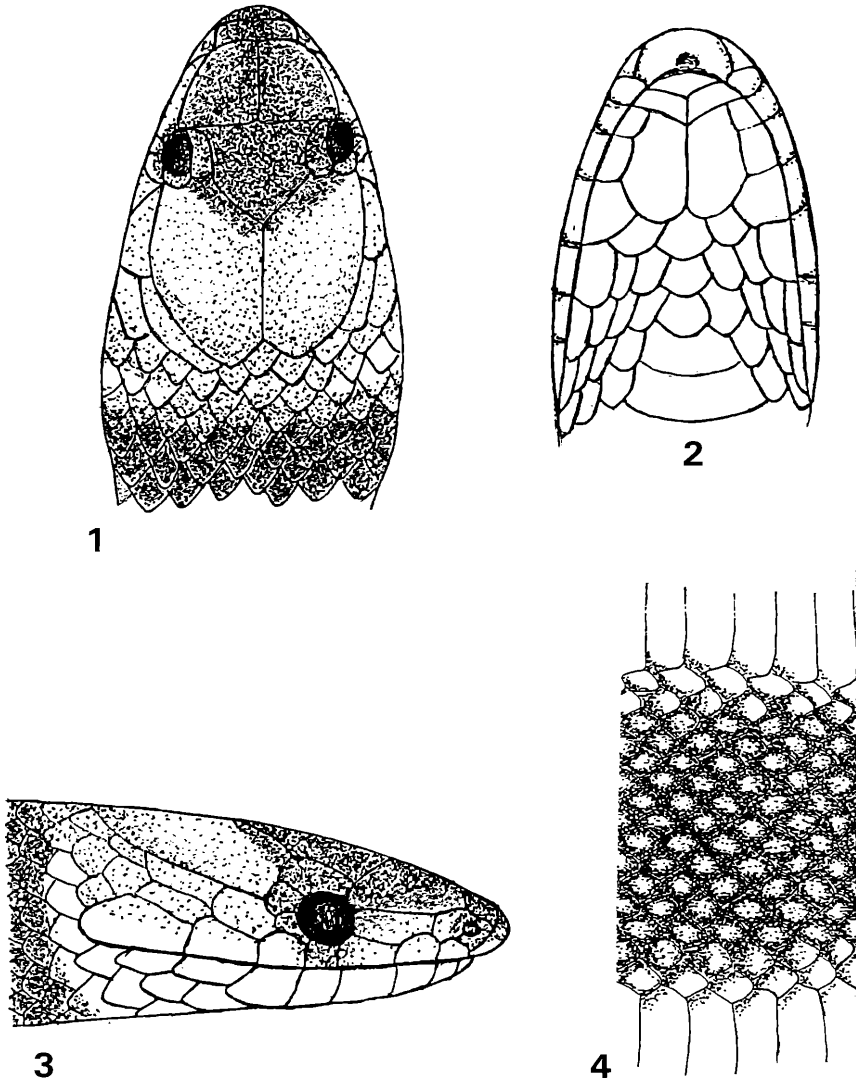


Fig. 2 - Morphological characters of *Atractus reticulatus scrochii* sp. nov. - 1. Head, dorsal view; 2. head, ventral view; 3. head, lateral view; 4. dark-bordered dorsal scales, with whitish centers. (All: strong magnification).

## OBSERVATIONS

The reported morphological differences suggest a present evolutionary divergence of the western populations of the *Atractus reticulatus* complex from the eastern populations alongside Atlantic coasts, now related to the nominate form (Fig. 3, 3). We have been able to observe another specimen of *Atractus* collected a century ago by Borelli near Puerto Bertoni, an old Paraguayan locality facing the Iguazú Falls (Fig. 1, 3). The characters of this specimen (MZUT.R-2825, Museo Regionale Scienze Naturali, Torino) agree for wide to the above mentioned characters of *A. reticulatus scrocchii* (number of scale rows 15; ventrals 148; subcaudals 27; postoculars 2; dorsal and ventral color patterns similar). Our new subspecies likely prevails in the main districts of the Parana-Uruguay basin, and a fisiografic factor of geographical and/or ecological isolation could be represented by the extensive intermediate relief of the ancient Serra do Mar and Serra geral embossments.

Our knowledge do not provide a sufficient information about the still uncertain status of *A. reticulatus paraguayensis*, until revisionary studies of the type and field research concerning its undefined locality ("Paraguay") have been completed. We will only point out that, in spite of the well known variation of postocular scales in Colubrids, the presence of only a postocular in *A. reticulatus paraguayensis* may be probably a significant morphological condition in this form (cfr. Amaral 1929). In fact, in all the specimens of *A. reticulatus reticulatus* here examined, as well as in all the specimens of *A. reticulatus scrocchii*, no one showed a single postocular scale. Always two postocular scales were observed. A simple but useful remark for a future revision of this interesting taxon.

Fig. 3 – Snakes of the *Atractus reticulatus* group - 1-2. dorsal and ventral views of the holotype of *Atractus reticulatus scrocchii*; 3. A specimen of *Atractus reticulatus reticulatus* from Curitiba, Paraná, Brasil. (Approximately, natural size). (Photographs by B. B. Alvarez).





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## RIASSUNTO

Una nuova sottospecie del gruppo *reticulatus* del genere *Atractus*, della regione paranense di Argentina e Brasile, viene qui descritta e commentata tenendo in considerazione le sue relazioni tassonomiche (e probabilmente evolutive) con le altre forme del gruppo e specie affini del genere ancora poco conosciuto.

Blanca Beatriz ALVAREZ

Laura REY

*Cátedra Anatomía Comparada, Facultad Ciencias Exactas, Naturales & Agrimensura,  
Universidad Nacional del Nordeste, Corrientes,  
9 de Julio 1449. 3400 Corrientes, Argentina.*

José M. CEI

*Departamento Ciencias Naturales, Universidad Nacional de Río Cuarto.  
5800 Río Cuarto, Córdoba, Argentina.*

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