

A NEW SPECIES OF SMALL *AMPHISBAENA*
(REPTILIA: AMPHISBAENIA: AMPHISBAENIDAE)
FROM WESTERN AMAZONIAN BRAZIL

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ABSTRACT — *Amphisbaena cunhai* nov. spec. is described on the basis of a series collected in the area of Cachoeira Samuel, rio Jamari, east of Porto Velho, Rondônia, Brazil. It can be distinguished from other (small) amphisbaenids in lowland northern South America by having four large precloacal pores, three supra and three infralabials, one row of postgenials, 14-16 dorsal and 14-18 ventral scales per annulus at midbody, a dorsal sulcus, malars in contact with the postmental and the nasals forming a median suture. A key and the known distribution areas for all small species of *Amphisbaena* in the Amazon region are given.

KEY WORDS: Reptilia, *Amphisbaena*, Amazon basin, Brazil, Distribution.

RESUMO — *Amphisbaena cunhai* nov. spec. é descrita com base em uma série coletada na área de Cachoeira Samuel, rio Jamari, a leste de Porto Velho, Rondônia, Brasil. Distingue-se de outros (pequenos) anfisbenídeos das terras baixas do norte da América do Sul por possuir quatro grandes poros pré-cloacais, três supra e três infralabiais, uma fileira de posgenianos, 14-16 escamas dorsais e 14-18 ventrais em um anel a meio do corpo, um sulco dorsal, malares em contato com a pós-mental e as nasais formando uma sutura mediana. Uma chave de identificação e a área de distribuição conhecida para todas as pequenas espécies de *Amphisbaena* da região amazônica são dadas.

PALAVRAS-CHAVE: Reptilia, *Amphisbaena*, Bacia amazônica, Brasil, Distribuição geográfica.

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INTRODUCTION

Apart from the two large species *Amphisbaena alba* Linnaeus and *A. fuliginosa* Linnaeus, which have a wide distribution in northern South America (Gans & Diefenbach 1970), a number of small species occur in the area, which are mostly known from type specimens only (often just the holotype) and at the best from some additional material. They give the impression of having restricted distributions, which in some cases most probably is correct, but in other cases clearly could be attributed to undercollecting of the group in the area. E.g. *A. vanzolinii* Gans originally was only known from the type locality in southern Guyana, but since 1968 new material has become available which extended the range into southern Suriname (Gonzalez Sponga & Gans 1971; Hoogmoed 1973; new material reported here) and into northern Brazil (material reported here), thus giving it a more general Guianan distribution. The Amazon basin proper harbours several species of small *Amphisbaena*, which only have become known to science relatively recently. After *A. vermicularis* Wagler (which only enters the Amazon basin at its eastern border, and only marginally can be considered Amazonian) was described in 1824, it lasted nearly a century before the first really Amazonian species, *A. mitchelli* Procter, was described in 1923, followed by *A. stevini* Schmidt in 1936. Only in 1971 *A. tragorhectes* Vanzolini was described. In the Guianas a similar pattern is visible, with *A. gracilis* Strauch being described in 1881 (at that time without known provenance), *A. stejnegeri* Ruthven in 1922, *A. rozei* Lancini and *A. vanzolinii* Gans in 1963, and finally *A. myersi* Hoogmoed in 1989. From this short overview it will be clear that amphisbaenids are only collected and described occasionally and that our knowledge of them shows large hiatuses. Recently we obtained a series of a small *Amphisbaena* from the southwestern part of the Brazilian Amazon area, still within the region originally covered by tropical rainforest. After careful comparisons with other species (both material and descriptions) we came to the conclusion that this material constitutes yet another undescribed species.

TAXONOMIC PART

Amphisbaena cunhai nov. spec.

MATERIAL — Holotype: 1m, MPEG 15436, I. 1989, equipe de resgate. Paratypes: 1f, MPEG 15437, 1m, MPEG 15438, 1m, MPEG 15441, 1f, MPEG 15442, 1f, MPEG 15443, 1m, MPEG 15455, I. 1989; 1f, RMNH 24470, 1f, RMNH 24471, XII. 1988; 1m, RMNH 24472, 1f, RMNH 24473, I. 1989. All material from: Brazil. Rondônia, Cachoeira Samuel, Rio Jamari, E. Porto Velho, collected by the 'equipe de resgate'.

DIAGNOSIS — A small species of amphisbaenid (Figure 1) with a short tail. Number of body annuli 226-239, caudal annuli 25-26 + 1, scales around midbody 28-34, 14-16 dorsals, 14-18 ventrals; three supralabials, three infralabials, one row of postgenials, one row of postmalars, ocular small, preanal pores four, large,

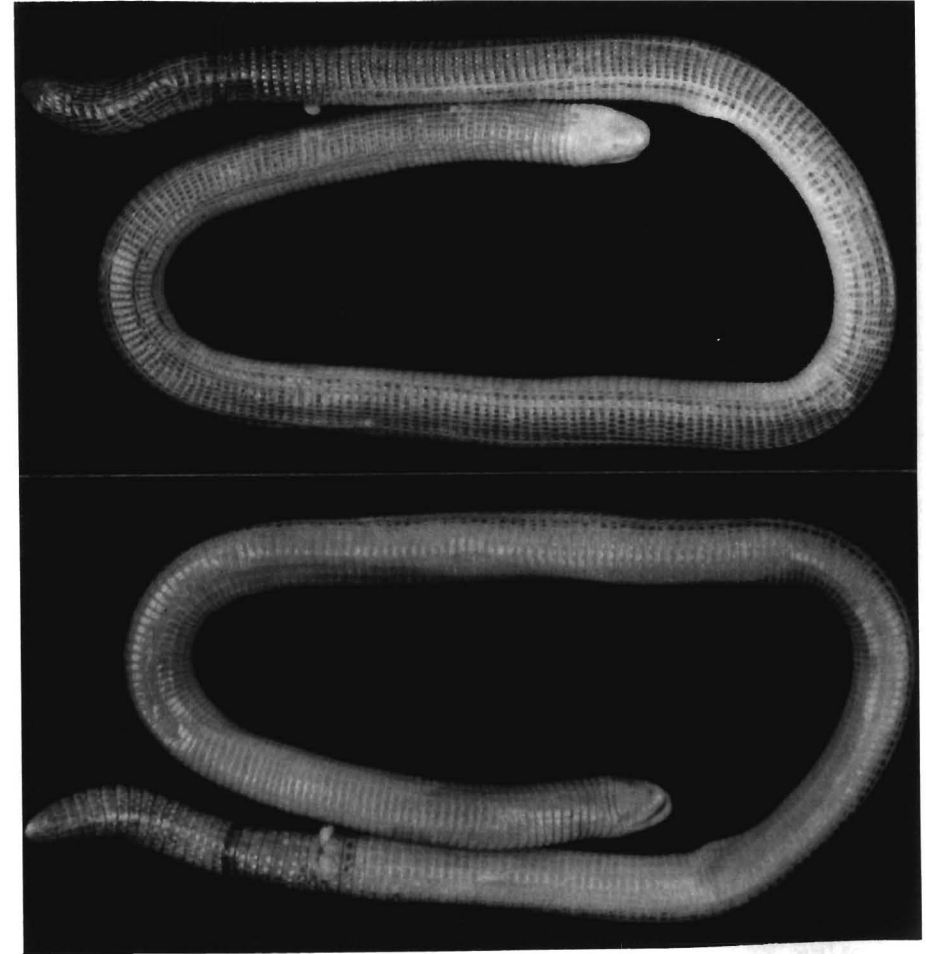


Figure 1 — *Amphisbaena cunhai* nov. spec. MPEG 15436 (holotype). Dorsal (upper) and ventral (lower) habitus. Total length 280mm.

occupying a large part of the scales in which they are situated; no distinct autotomy constriction in tail. Head above and below pinkish, dorsum brown, belly anteriorly pink, gradually changing to creamish, underside of tail grey with or without white spots.

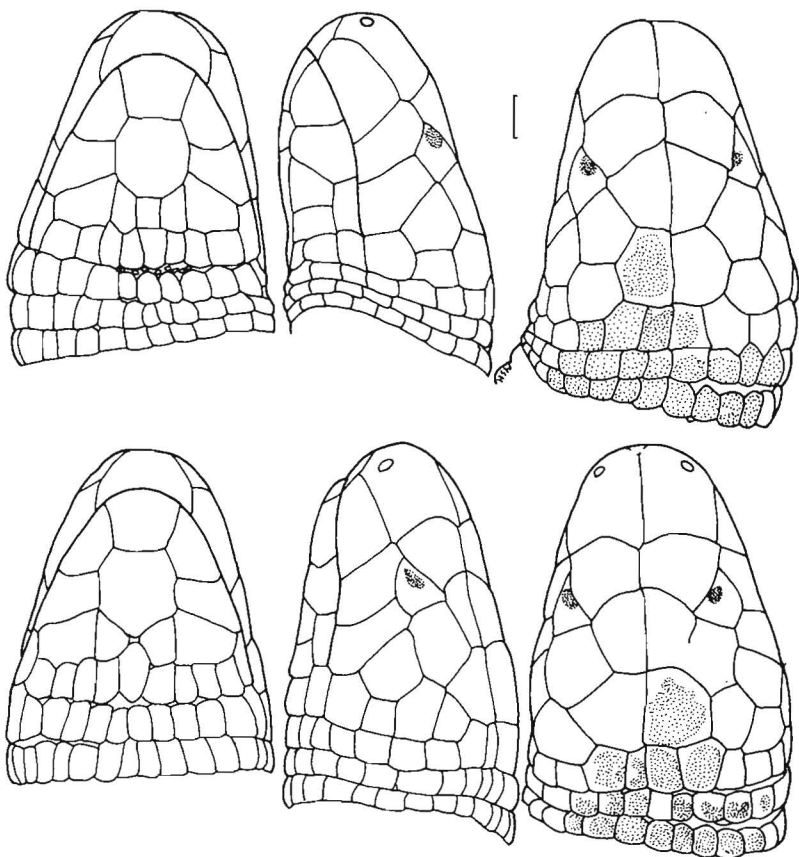


Figure 2 — *Amphisbaena cunhai* nov. spec. Left row: RMNH 24470, right row: RMNH 24471 (paratypes). Dorsal, lateral and ventral view of head the line represents 1mm.

DESCRIPTION — Head as wide as the body, slightly depressed, posterior part with a shallow but distinct, median dorsal sulcus. Snout rounded, blunt, swollen, projecting over the mouth (Figures 2-3).

Rostral medium-sized, pentagonal, distinctly wider than deep, just visible from above. Three supralabials, the anterior one trapezoid; the second and third irregularly pentagonal, elongate, distinctly smaller than the first one, subequal to each other. Ocular small, trapezoid, in contact with second and third supralabials, prefrontal, frontal (narrowly), postocular, and rarely with the temporal. Postocular much larger than ocular. One trapezoid temporal, smaller than the postocular, posteriorly bordered by three scales forming part of the first body annulus (Gans & Alexander, 1962: 78), ventrally by a small, pentagonal post-supralabial. A pair of large, quadrangular nasals in broad contact. A pair of smaller rectangular prefrontals, wider than long. A pair of trapezoid to semicircular frontals, smaller than the prefrontals. A pair of irregularly hexagonal parietals, slightly larger than the frontals. Nasal suture longer than frontal suture, which is as long as the parietal suture and longer than the prefrontal suture. Mental large, trapezoid, with straight to slightly convex posterior margin and anteriorly diverging sides; its anterior width is more than its length. Three infralabials, the first more or less trapezoid, the second also, but more elongate and of similar size, the third much smaller, rectangular, rarely divided and thus forming four infralabials.

Postmental larger than the mental, irregularly octagonal, longer than wide, in narrow but distinct contact with the large malars (which are smaller than the second infralabial), followed by one row of 2-3 postgenials and another row of 7-9 ($\bar{x} = 8.0$, $n = 11$) postmalars (lateral ones may be enlarged; in RMNH 24471 the median one is enlarged and extends between the postgenials). Throat with transverse rows of elongate, rectangular scales which are smaller than the ventrals. Scales on nape and side of neck similar to the dorsals, but a trifle smaller.

Dorsals small, rectangular, with right angles, longer than wide, 14-16 in an annulus at midbody level. A distinct dorsal sulcus, with two small scales separating the larger dorsals, is present posteriorly of annulus 18-59 (mostly 45-59; only five specimens were studied for this character) to above the cloaca. Median ventrals larger than the dorsals, rectangular (wider than long); toward the sides ventrals smaller, gradually becoming longer than wide, but still larger than the dorsals, 14-18, mostly 16 in an annulus at midbody level. Total number of scales around midbody 28-34. A lateral sulcus separating the dorsals and the ventrals (Figure 5). Scales bordering on the sulcus have rounded lateral margins, the space between dorsal and ventral part of an annulus is filled by two small, oval scales. No ventral sulcus.

Body annuli 224-239 ($\bar{x} = 231.4$, $n = 11$) counting from the third supralabial to and including the pore-bearing precloacals, few intercalated incomplete annuli are present; three lateral annuli in the cloacal region.

Precloacal pores four, transversely oval, large, occupying a large part of the scale in which they are situated; posterior part of pore-bearing scales, which are longer than wide, divided into smaller scales; 6 precloacal segments; 7-11 (mostly 7 or 8) well differentiated postcloacal segments (Figures 4-5).

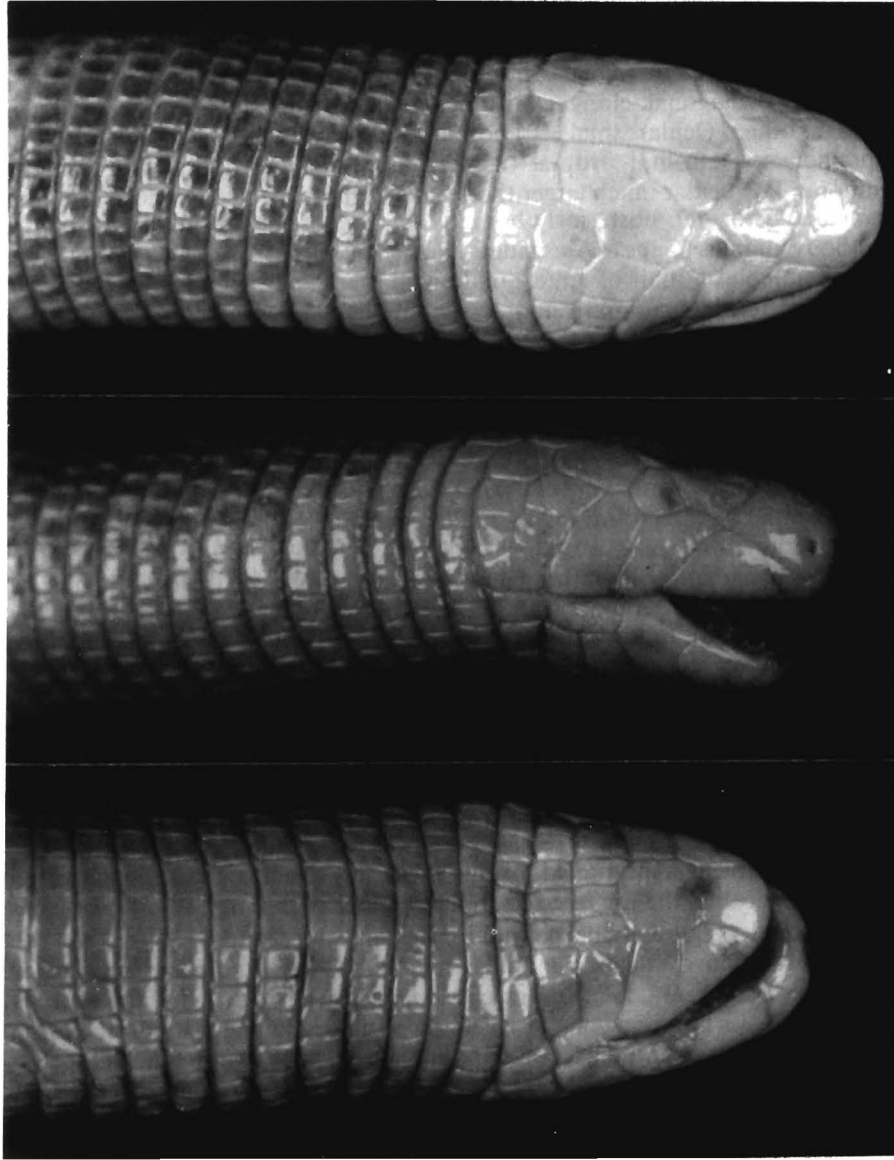


Figure 3 — *Amphisbaena cunhai* nov. spec. MPEG 15436 (holotype). Dorsal, lateral and ventral view of head.

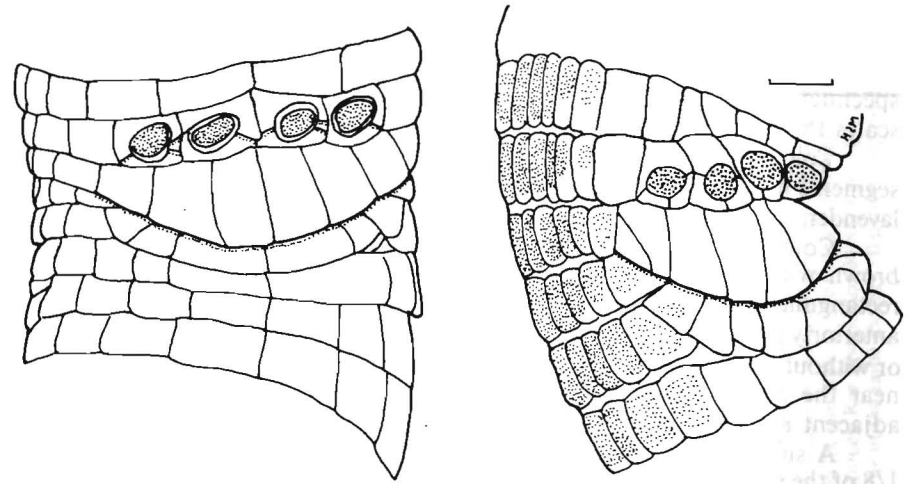


Figure 4 — *Amphisbaena cunhai* nov. spec., cloacal region a. RMNH 24470 (paratype), b. RMNH 24471 (paratype). The line equals 1mm.

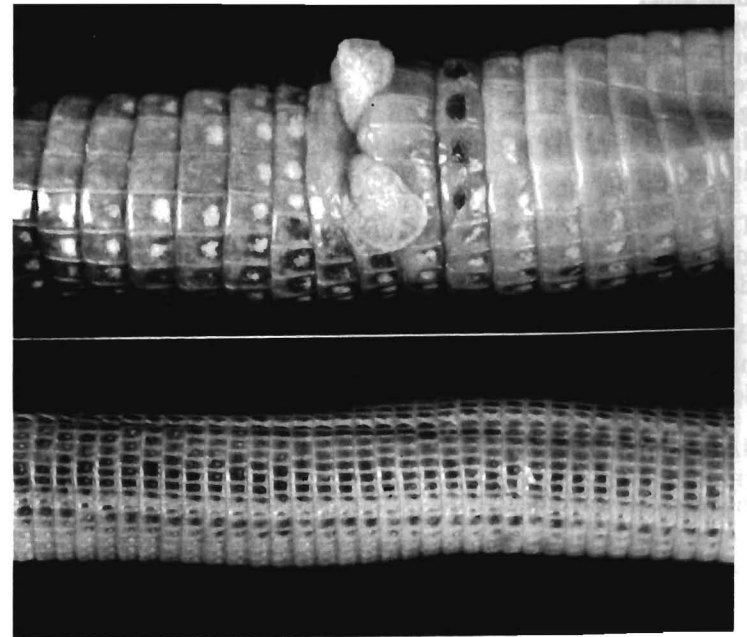


Figure 5 — *Amphisbaena cunhai* nov. spec. MPEG 15436 (holotype). Ventral view of cloacal region (upper) and lateral view of body, showing the lateral sulcus (lower picture).

Caudal annuli (counting from the first complete postcloacal annulus) 25-26 (\bar{x} = 25.4, n = 7) and a divided end plate at the tip. Autotomy constriction not distinct, but the autotomy plane is recognisable at the level of caudal annulus 5-7 (mostly 7), with tails broken after or regenerated from annulus 7. In all specimens the autotomy annulus is distinct because of its darker colour and the scales that are larger (longer) than those in adjacent annuli.

Colour in life: head dorsally and ventrally lavender (77), body dorsally with segments mostly hair-brown (119A), over a lavender background; body ventrally lavender; tail darker than body (colours and numbers according to Smithe, 1975).

Colour in preservative: head dorsally and ventrally pink, scales of dorsum brown with pinkish interstices, in posterior part of body with grey, oval to rectangular, central spots. Dorsal part of tail as posterior part of body. Belly anteriorly pink, gradually changing into creamish, in posterior part of body with or without white spots. Underside of tail grey with or without white spots situated near the anterior margin of the scales. Autotomy constriction darker than adjacent annuli, especially well visible ventrally.

A small species with a slender cylindrical body and a short (ca. 1/7 or 1/8 of the snout-vent length), cylindrical tail with a bluntly pointed tip. Maximum snout-vent length 246mm (\bar{x} = 199.1, n = 11), maximum tail length 34mm (\bar{x} = 25.7, n = 7).

HABITAT — All specimens were collected on the site of the hydroelectric dam Samuel, which is situated in a formerly forested region, now to a large extent cultivated, with some patches of rainforest remaining near the site of the dam. According to information received from Nelson Jorge da Silva Jr. of the Universidade Católica de Goiás, the species apparently was not rare at the site, being collected during rescue actions during the process of inundation by the hundreds and used as food for captive *Micrurus*. Unfortunately we could not obtain the remaining specimens in order to include them in the description.

DISTRIBUTION — So far only known from the Rio Jamari, at the site of inundation of the hydroelectric dam Samuel, 45 km east of Porto Velho, Rondônia, western Brazil (Figure 6).

ETYMOLOGY — The species is named in honour of Osvaldo Rodrigues da Cunha, in recognition of his contributions to our knowledge of the Amazonian reptiles.

REMARKS — The specimens of the new species have been compared to descriptions of all other species of small amphisbaenids from lowland northern South America (Amazon and Orinoco basins and the Guianas), encompassing both areas with tropical rainforest and areas with savanna vegetation (caatinga, cerrado and other open types of vegetation). Where possible direct comparisons with material of other species were made. However, due to the rarity of most species such comparisons were only possible in a limited number of cases. *Amphisbaena cunhai* nov. spec. differs from *A. miringoera* Vanzolini 1971), *A. mitchelli* Procter, 1923, *A. silvestrii* Boulenger 1902 and *A. neglecta* Dunn & Piatt

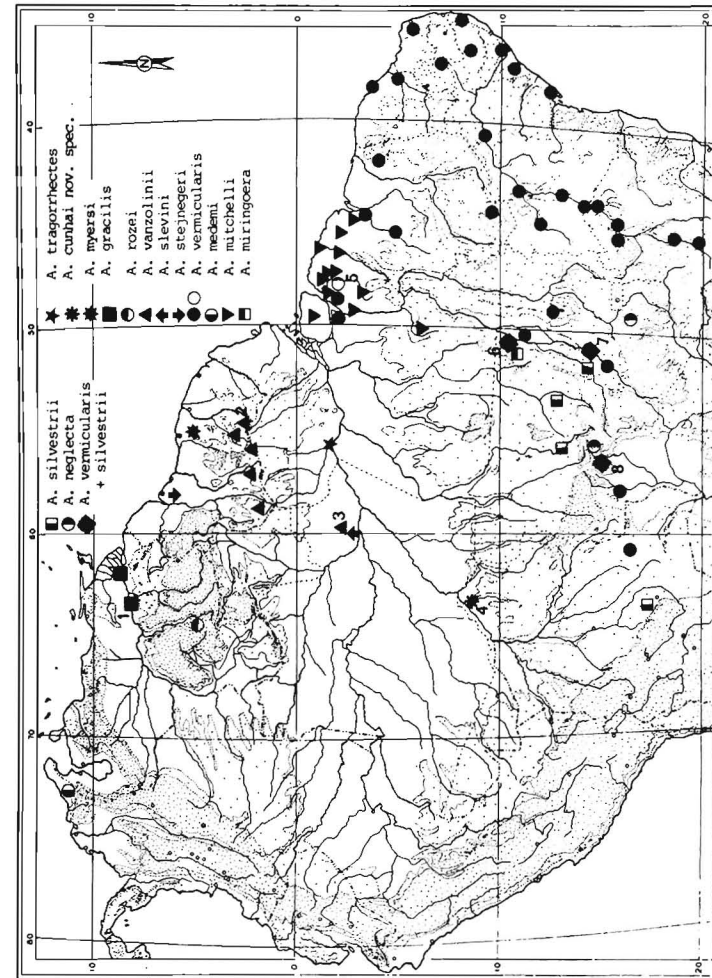


Figure 6 — Map of northern South America showing the distribution of small (and one medium-sized to large) Amazonian species of *Amphisbaena*. Distribution data are based on literature records (Gans, 1962, 1963a, b, 1964c; Gans & Amdur, 1966; Gans & Mathers, 1977; Gorzula, 1985; Hoogmoed's, 1989; Vanzolini, 1971) and on new material examined in the collection of MPEG. New locality data for *A. mitchelli* (in mainland Pará and Maranhão) have not been numbered and explained as they can be found in the list of material and in the maps published by Cunha & Nascimento (1976, 1978, 1982). Numbered new localities are: 1. Ciudad Bolívar, Estado Bolívar, Venezuela (*A. gracilis*), 2. Loe Creek, Suriname, 3. Hydroelectric dam Balbina, Rio Uatumbá, Amazonas, Brazil (both *A. vanzolinii*), 4. Hydroelectric dam Samuel, Rio Javari, Rondônia, Brazil (*A. cunhai*), 5. Km 16 road to Acará (*A. vermicularis*). In a few instances *A. silvestrii* occur in the same locality (Barro do Tapirapé (6), Aruanã (7), Cuiabá (8); these have indicated with a diamond).

Table 1 — Meristic characters of the type series of *Amphisbaena cunhai* nov. spec.

sex	s-vl	taill	svl/tl	headl	headw	hdl/w	headd	hdl/d	suplab	inflab	posgen	posmal
RMNH 24470	f	216	29	7.45	8.90	1.59	4.00	2.23	3	3	3	8
RMNH 24471	f	193	28	6.89	8.00	1.36	4.20	1.90	3	3	2	9
RMNH 24472	m	236	14+	7.33	9.50	1.38	4.50	2.11	3	3	2	8
RMNH 24473	f	176	24	7.24	6.50	1.41	3.40	1.91	3	3	3	9
MPEG 15436	m	246	34	7.24	9.20	1.42	4.40	2.09	3	3	3	7
MPEG 15437	f	225	29	7.76	7.30	1.35	4.30	1.70	3	3-4	?	8
MPEG 15438	m	230	11.5+	7.80	7.80	1.18	4.40	1.77	3	3	3	8
MPEG 15441	m	171	21	8.14	4.50	1.27	3.40	1.68	3	3-4	3	8
MPEG 15442	f	182	6+	6.10	4.70	1.30	3.20	1.91	3	3	3	7
MPEG 15443	f	105	14	7.50	4.60	1.44	2.50	1.84	3	3	3	7
MPEG 15455	m	210	5+	6.20	5.10	1.22	3.40	1.82	3	3	3	9
		199.09										8

sex	bodyan	tailan	automl	latann	dorsca	vensca	cloapo	prclos	poclos	trdiam	verdiam	svl/di
RMNH 24470	f	235	26	7	14	14	4	6	7	5.7	4.6	37.89
RMNH 24471	f	228	25	7	14	16	4	6	8	7.2	4.2	26.81
RMNH 24472	m	225	?	7	16	16	4	6	11	7.2	6.1	32.78
RMNH 24473	f	236	25	6	16	16	4	6	8	4.8	4.5	36.67
MPEG 15436	m	226	26	7	15	16	4	6	8	6.4	6.8	38.44
MPEG 15437	f	226.5	26	7	16	18	4	6	10	6.4		35.16
MPEG 15438	m	224	?	7	16	16	4	6	8	6.7		34.33
MPEG 15441	m	231	25	7	16	16	4	6	?	5.0		34.20
MPEG 15442	f	239	?	7	14	16	4	6	7	4.7		38.72
MPEG 15443	f	238	25	6	14	16	4	6	8	3.4		30.88
MPEG 15455	m	237	?	5	16	16	4	6	8	5.2		40.38
		231.41	25.43									

1936 (all with two precloacal pores) and from *A. stejnegeri* Ruthven, 1922 (six pores) in the number of precloacal pores (Gans 1962, 1963a; b, 1964a; Procter 1923; Vanzolini 1971. From *A. vanzolinii* Gans, 1963, and *A. slevini* Schmidt, 1936 it differs in having three instead of two infralabials (Gans 1963a, b); from *A. rozei* Lancini, 1963 and *A. vermicularis* Wagler, 1824 by having three instead of four supralabials (from *A. rozei* also by having flat instead of tubercular scales) (Gans & Amdur 1966; Lancini 1963); from *A. medemi* Gans & Mathers, 1977 by the nasals forming a long suture, instead of being (nearly) completely separated by the rostral (Gans & Mathers 1977); from *A. tragorhectes* Vanzolini, 1971 by its normally sized first infralabial, its higher number of body annuli, its lower number of caudal annuli and its higher number of scales in an annulus at midbody (28-34 versus 24) (Vanzolini 1971); from *A. gracilis* Strauch, 1881 it differs in having malars and normally sized second infralabials (Gonzales Sponga & Gans 1971); and from *A. myersi* Hoogmoed, 1989 by the malars being in contact with the postmental, by only having one row of postgenials, by the much larger size of the preanal pores, by the presence of a distinct dorsal sulcus, by the large first supralabial and by the third supralabial being subequal to the second supralabial (Hoogmoed 1989).

Amphisbaena vanzolinii Gans

The new material studied (RMNH 24474, MPEG 14804, 14829, 14931) falls within the total variation width of the species, at the same time strengthening Hoogmoed's (1973:387) remarks about geographical variation in scale counts. E.g. the MPEG specimens from Balbina have 222-227 body annuli, 12-14 postcloacals, and 34 scales in an annulus around midbody. In these characters they clearly can be grouped with the types from southwestern Guyana (body annuli 225-228, 12 postcloacals, 28-30 scales around midbody), as opposed to the material from Suriname and southeastern Guyana, which presents lower scale counts (body annuli 200-214, 8-11 postcloacals, 24-31 scales around midbody). However, in other characters the Balbina specimens agree with material from Suriname (lateral annuli in cloacal region two or three, number of postgenials two) as opposed to the material from southwestern Guyana (lateral annuli in cloacal region four or five, number of postgenials three). Gonzalez Sponga & Gans (1971:591, 594) report a specimen from the Vienna Museum of unknown provenance, but collected by Natterer. As Natterer travelled along the Rio Negro and the Rio Branco in the present Estado do Amazonas and Território Federal de Roraima (Papavero 1971:80-87), we may presume the specimen hails from northern Brazil. Its meristic data (body annuli 231, 12 postcloacals, scales around midbody 34, lateral annuli in cloacal region four) excellently fit the data of specimens with high scale counts from known localities in Brazil and southwestern Guyana. The new specimen from southern Suriname agrees with other specimens from Suriname in all aspects. Thus, although the specimens discussed here reinforce Hoogmoed's (1973) preliminary observations on geographical variation, the material available in our opinion is still not sufficient to take any decisive action

at this stage, as we still lack sufficient understanding of geographical patterns of variation. More material from Brazilian Guiana would be needed to solve this problem.

DISCUSSION

Gans (1967) gave a checklist of amphisbaenians, which, for South America was repeated by Gans & Diefenbach (1970), who at the same time gave a key. Since the publication of these lists five new species of small *Amphisbaena* have been described from lowland cis-Andean northern South America (Gans & Mathers, 1977; Hoogmoed 1989; Vanzolini, 1971, 1986, including the present species. All these species were based on small series (*A. medemi*, *A. miringoera*, *A. cunhai*), or on single specimens only (*A. tragorhectes*, *A. myersi*). Gans (1965) already pointed out our fragmentary knowledge of the small species of South American *Amphisbaena*, and stated that the "available samples scarcely permit the beginning of zoogeographical study; not even the ranges of many species can thus far be plotted with any degree of certainty".

Thanks to the detailed work of Gans and his coworkers our knowledge of the group since 1965 has increased, but Gans' words are still true for many species, as is evident after a glance at the map (Figure 6). Quite a number of species are still known from the type locality only. For others our knowledge has increased thanks to recent additions to several collections. Gans (1965) stated that there was an interesting tendency of certain groups to speciate on even relatively small mountain ranges. As examples he mentioned *A. munoai* Klappenbach, 1960 from eastern Uruguay, now also known from southern Brazil, and *A. vanzolinii* that was known "from only a single isolated plateau in southern British Guiana". Since, the distribution of *A. vanzolinii* has been shown to be more extensive (Gans & Mathers 1977; Gonzalez Sponga & Gans 1971; Hoogmoed 1973; this paper, new material in MPEG and RMNH). Also, it has become clear that *A. mitchelli* is not restricted to Marajó Island (Gans 1963a), but also is distributed south of the Amazon in an area that encompasses the eastern part of the state of Pará and the western part of Maranhão (Gans 1964b; new material in MPEG, see Figure 6 and list of specimens studied). These new data suggest that the apparently restricted distributions of small amphisbaenas Gans (1965) was alluding to in part were collecting artifacts, but for other species they might well be real. However, amphisbaenids are notoriously difficult to collect and new collections from many critical points in the Amazon basin, especially in the west, are still needed before we may even try to start making speculations about zoogeography and/or relationships. Even for a species like *A. vermicularis*, that has been relatively well collected, any statement about its zoogeographical relationships has to be made with reservedness. Gans & Amdur (1966) state that the range of this species covers the "Brazilian lowlands, south of the Amazonian forest and west of the coast, inland to Bolivia, south into Minas Gerais, and Central Mato Grosso". However, a few lines lower they list material from Pará that clearly falls within the morphoclimatic domain of the

Hylaea. Vanzolini et al. (1980) say this species occurs "Do Pará a Minas Gerais e Mato Grosso, em todos os tipos de ambientes", but they do not further specify this. These scarce data suggest that *A. vermicularis* probably is a species mainly of caatinga and cerrado, that just enters eastern Amazonia. It is not certain what caused this distribution, but its occurrence in eastern Amazonia might have been brought about only recently by the increased creation, under recent colonisation pressure, of open areas in former rainforest areas, e.g. around Belém, that thus became suited for this species.

During our study of the new material it became apparent that the only useful key for identifying amphisbaenids from South America was that provided by Gans & Mathers (1977:36). However, no special key for the species from the Amazon basin and adjacent regions was available and we decided to present one here. The following key was constructed using data from the literature and especially from the key to the amphisbaenians of the Americas given by Gans & Mathers (1977:36), and from our own data obtained from studying specimens from several museums, among which several types of species from the Guianas and eastern Amazonia. During construction of the key it became apparent that couplet 38 and triplet 39 in the key of Gans & Mathers (1977:41) are incorrect, because *A. gracilis* does not have two but three supralabials, as is quite evident from the redescription and pictures of the head given by Gonzalez Sponga & Gans (1971). Consequently it would have to be placed elsewhere in the key. In the present key we already made the necessary adaptations.

The area covered by this key can roughly be described as the lowland Amazon basin and adjacent regions. Small species from coastal northeastern (Gans 1965) and southeastern (Gans 1966) Brazil were not taken into consideration, respectively because they live in a distinctly different habitat, and because they form a well defined group. *A. vermicularis*, though better described as a moderately-sized to large species, intermediate in size between the large species *A. alba* and *A. fuliginosa* on the one hand, and the small species dealt with here on the other hand, has been taken into account because it does enter the Amazon basin proper, and also because specimens of several of the small species have been confused with it. Species with a vertically keeled tail were dealt with by Gans (1964c), and though they occur close to the southern limit of the area treated here, are not further considered. *A. pericensis* Noble, which is only known from some dry high altitude localities on the east flank of the Andes in northern Peru (thus, in the Amazon basin s.l.) (Gans 1963c), is not taken into consideration either. Some species occurring along the southern margin of the Hylaea and seemingly inhabiting open formations (*A. silvestrii*, *A. neglecta*, *A. miringoera*) have been taken into consideration because they occur in areas where rainforest and open formations meet and they might eventually turn out to be inhabitants of the rainforest (as well).

Key to the small species of *Amphisbaena* from northern cis-Andean South America (Amazon basin plus adjacent regions)

1. Precloacal pores four 6
Precloacal pores two or six 2
2. Precloacal pores two 3
Precloacal pores six; mental and postmental fused *A. stejnegeri* 4
3. Body annuli more than 210 4
Body annuli less than 182 5
4. Body annuli 211-220, caudal annuli 27-29 *A. mitchelli*
Body annuli 250-262, caudal annuli 22-24 *A. miringoera*
5. Body annuli 151-161, caudal annuli 14-16 *A. neglecta*
Body annuli 179-181, caudal annuli 20-22 *A. silvestrii*
6. Infralabials two or one and a half, supralabials two 7
Infralabials three, supralabials three or four 8
7. One and a half infralabials, body annuli 200-231, caudal annuli 28-31, autotomy at 7th to 14th caudal annulus *A. vanzolinii*
Two infralabials, body annuli 204-211, caudal annuli 23-25, autotomy at 4th to 6th caudal annulus *A. slevini*
8. Supralabials four 9
Supralabials three 11
9. Scales tubercular, body annuli 205-209, caudal annuli 20-23, medium-sized *A. rozei*
Scales flat 10
10. First infralabial enormous, body annuli 196, caudal annuli 31, no autotomy constriction *A. tragorhectes*
First infralabial normal, body annuli more than 211, size medium to large, caudal annuli 24-30, autotomy constriction at 4th to 7th caudal annulus *A. vermicularis*
11. Nasals separated, or barely touching, body annuli 230-235, caudal annuli 17-18 *A. medemi*
Nasals forming a distinct suture 12
12. Malars present, second infralabial normal 13
Malars absent, infralabials three, second infralabial very large, body annuli 224-248, caudal annuli 21-22, autotomy at 6th or 7th annulus *A. gracilis*
13. Malars separated from the postmental, two rows of postgenials, body annuli 222, caudal annuli 27, autotomy at 8th annulus, no dorsal sulcus *A. myersi*
Malars in contact with the postmental, one row of postgenials, body annuli 226-233, caudal annuli 24-28, autotomy at 5th to 7th caudal annulus, a dorsal sulcus *A. cunhai*

MATERIAL STUDIED

A. mitchelli: BRAZIL: PARA. Belém: MPEG 195-6; MPEG 325, 31.VII.1958; MPEG 342, VIII.1958; MPEG 346-7, IX.1958; MPEG 1190-3, 1963, R. Benício; MPEG 1194, 22.V.1964, J. C. L. Carvalho; MPEG 2201, 30.IX.1964; MPEG 3886-8, IV.1970, M. Gonçalves; MPEG 5096, VI.1971, F. Nascimento; MPEG 6060, XII.1972, F. Nascimento; MPEG 6865, 19.IX.1973, O. Cunha & F. Nascimento; MPEG 7244, VI.1972, O. Cunha & F. Nascimento; MPEG 9192, IV.1974, O. Cunha; MPEG 11208, 2.V.1976, Rafael; MPEG 12909, 23.III.1983, C. Souza; MPEG 13233, 10.III.1984, R. Moraes; MPEG 13859, IV.1984, C. Moraes; MPEG 14276; 27.VIII.1985, D. M. Rego; MPEG 14290; 14.XII.1985; C. Martins; MPEG 14518, 10.V.1979, R. Moraes. Carajás, Serra Norte: MPEG 13688, 18.VII.1984, C. P. Cunha; MPEG 13993-5, 17.XI.1984, T. C. S. Avila Pires & R. Moraes; MPEG 13996, 17.XI.1984, J. C. S. Pinto; MPEG 14016, 30.XII.1984, J. C. S. Pinto; MPEG 14108, 10.VI.1985, T. C. S. Avila Pires & R. Moraes. Viseu, Bela Vista: MPEG 5832, 21.IX.1972, O. Cunha & F. Nascimento; MPEG 6466, 25.VI.1972, O. Cunha & F. Nascimento; MPEG 6982, 25.X.1973, O. Cunha; MPEG 7472, 28.III.1974, O. Cunha & F. Nascimento. Viseu, Fazenda Real: MPEG 6740, III.1973, O. Cunha & F. Nascimento. Santa Luzia, Capitão Poço: MPEG 7255, 6.VI.1974, O. Cunha & F. Nascimento; MPEG 9214-5, X.1975, O. Cunha & F. Nascimento. Ananindeua, Seminário Pio X: MPEG 4501, X.1970, Padilha. Ourém, Limão Grande: MPEG 7246, 23.VI.1972, O. Cunha & F. Nascimento. Peixe-Boi: MPEG 7245, 17.X.1973, O. Cunha. Mangabeira, N. Baião, Rio Tocantins: MPEG 665-6, 1953, O. Cunha. Santo Antônio de Tauá: MPEG 6799-6801, 16.VII.1973, O. Cunha & F. Nascimento. Colônia Nova: MPEG 11779, VII.1978, O. Cunha & F. Nascimento. Marajó Island: BMNH 1946.8.2.31, Ehrhardt (holotype).
MARANHÃO. Parua: MPEG 11205-9, 22.X.1977, F. Nascimento. Puraqueú: MPEG 11759, 29.VII.1978, O. Cunha & F. Nascimento.

A. vermicularis: BRAZIL: PARA. Km 16 road to Acará: MPEG no number, 3.II.1979, O. Cunha & F. Nascimento.
MARANHÃO: Arari: MPEG 11215-6, 21.XI.1977, F. Nascimento; MPEG 11749-54, VII.1978, O. Cunha & F. Nascimento; MPEG 11981-2, X. 1978, F. Nascimento & R. S. Pereira.
GOIÁS. Aragarças: MPEG 194, I.1958, M. Hidasi: MPEG 225, VI.1958, J. Hidasi.
BAHIA: ZSMH 660/0, Spix (lectotype).

A. vanzolinii: SURINAME, Distr. SIPALIWINI (formerly MAROWIJNE), Loëkreek: RMNH 24474, 6.VIII.1975, M. S. Hoogmoed.
BRAZIL: AMAZONAS. Presidente Figueiredo, UHE Balbina, Rio Uatumá: MPEG 14804, 19.I.1988, F. Nascimento & F. Braga; MPEG 14829, 26.I.1988, F. Nascimento & F. Braga; MPEG 14931, 19.IV.1988, Equipe de resgate.

A. stejnegeri: GUYANA, DEMERARA. Vreeden Rust: UMMZ 55858, 1.I.1921, E. N. Clarke (holotype).

A. myersi: SURINAME, distr. PARA (formerly SURINAME). Jodensavanne: AMNH 130478, 22.X.1963, J. Luitjes (holotype).

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UMA NOVA ESPÉCIE DE *TYPHLONECTES* DA AMAZÔNIA BRASILEIRA (AMPHIBIA, GYMNOPHIONA, TYPHLONECTIDAE)

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RESUMO — *Typhlonectes cunhai* sp. nov. é descrito com base em dois exemplares coletados em Manaus, Amazonas, Brasil. A nova espécie caracteriza-se por apresentar o corpo fortemente comprimido lateralmente, crista dorsal em toda extensão do corpo, cabeça mais larga que o corpo, seis dentes espleniais, e corpo com coloração uniforme.

PALAVRAS-CHAVE: Amphibia, Gymnophiona, Typhlonectidae, *Typhlonectes cunhai* sp. nov., Amazônia.

ABSTRACT — *Typhlonectes cunhai* n. sp. is described based on two specimens collected in Manaus, Amazonas, Brazil. The new species is characterized by its strongly compressed body, a dorsal crest along the total body extension, head wider than body, six splenial teeth, and uniform body color.

KEY WORDS: Amphibia, Gymnophiona, Typhlonectidae, *Typhlonectes cunhai* n. sp., Amazônia.

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