

Rediscovery of a forgotten snake in an unexpected place and remarks on a small herpetological collection from southeastern Brazil

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A collection of snakes and frogs collected in the area of Porto Real, Rio de Janeiro State, Brazil, was bought in December 1890 and remained unidentified until now. The collection comprises 100 snakes belonging to 18 species and 152 frogs belonging to 19 species. A comparison with the herpetofauna from nearby Serra do Japi in São Paulo is made. General remarks on variation and identification are made for a number of species. Among the snakes were two specimens of *Cercophis aurata* (Schlegel, 1837), a species described on the basis of one specimen from Suriname, and no new specimens having been recorded until now. The new individuals cause the known area of distribution to be greatly enlarged, but such a large distribution area occurs in several other snakes as well. Morphological data, drawings of details, habitus photographs and a detailed description of the species, based on the three available specimens, are provided.

Introduction

During routine curatorial work in the collection of the Nationaal Natuurhistorisch Museum (formerly Rijksmuseum van Natuurlijke Historie (RMNH)) a collection of frogs, snakes and one lizard, was discovered that in 1890 had been bought (among other animals) from Mr Hardy du Dréneuf of Turnhout, Belgium by the museum. These specimens had been collected by him in the “surroundings of Porto Real, Brasil” (Jentink, 1891: 16: “[Aankoop] December. Van den Heer Hardy du Dréneuf te Turnhout:98 Slangen, 45 Hagedissen, 225 Vorscheen....., alles door hem verzameld in de omstreken van Porto Real, Brazilië”¹). This locality is located in the west of the State of Rio de Janeiro to the eastnortheast of Agulhas Negras and Resende and northwest of Barra Mansa and Volta Redonda, just south of the Serra de Mantiqueira. Among the material were two snakes that turned out to belong to *Cercophis auratus* (Schlegel, 1837). Part of Hardy du Dréneuf’s² material has been incorporated into the collections of the RMNH, but a large part remained among the unidentified collections until now, and is here reported on. Only four of the lizards mentioned in the original purchase could be traced; one was among the unidentified frogs discussed here, and three more were studied a few years ago by Jackson (1978) and used in his description of *Enyalius perditus* Jackson, 1978.

1) translation: [Purchase] December. Of Mr Hardy du Dréneuf in Turnhout:....98 snakes, 45 lizards, 225 frogs....., all collected by him in the surroundings of Porto Real, Brazil.

2) according to Boulenger (1894: 132) this would be M.F. Hardy du Dréneuf, from whom the British Museum (Natural History) also obtained specimens.

REPTILIA
OPHIDIA

COLUBRIDAE

Cercophis Fitzinger, 1843

Cercophis Fitzinger, 1843: 26; Hoogmoed, 1982: 225; Vanzolini, 1986: 5; Vanzolini in Peters & Donoso-Barros, 1986: 5.

Oxybelis (part): Romer, 1956: 580.

Type-species.— *Dendrophis aurata* Schlegel, 1837.

Content.— Only one species known.

Diagnosis.— Small slender, apparently arboreal, snakes having a very long tail (41-49% of total length), ending in a sharp tip. Eye large, pupil round. Maxillary teeth 19-20, followed by a distinct diastema and two larger, ungrooved teeth. Head long and flattened, with a complete complement of head scales (no fusions). Supralabials 8, rarely 9, with 4th and 5th (5th and 6th) entering orbit; infralabials 10; 1 or 2 (rarely) loreal(s); preocular 1; postoculars 2. Temporals basically 1+2, but the first one may be divided in several ways. Ventrals 140-149, anal divided, subcaudals paired, 129-163. Ventrals without lateral keels. Dorsal scales in 15-15-11 oblique rows, smooth, very

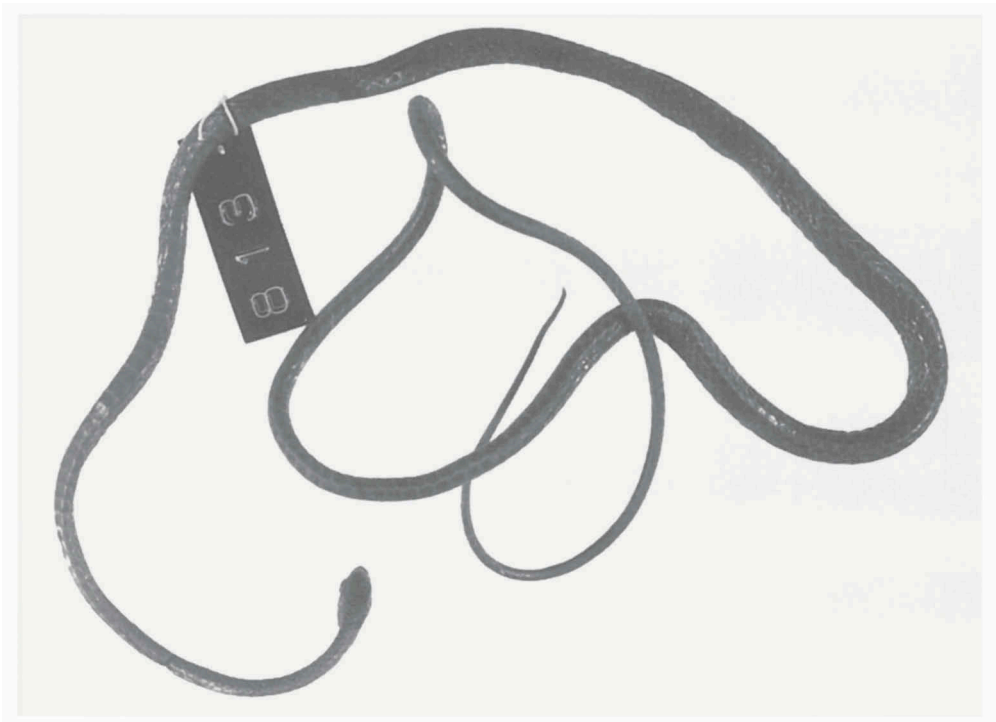


Fig. 1. General view of the holotype of *Cercophis auratus* (Schlegel, 1837), RMNH 813 from Suriname. Length of label 27 mm. Photo A. 't Hooft.

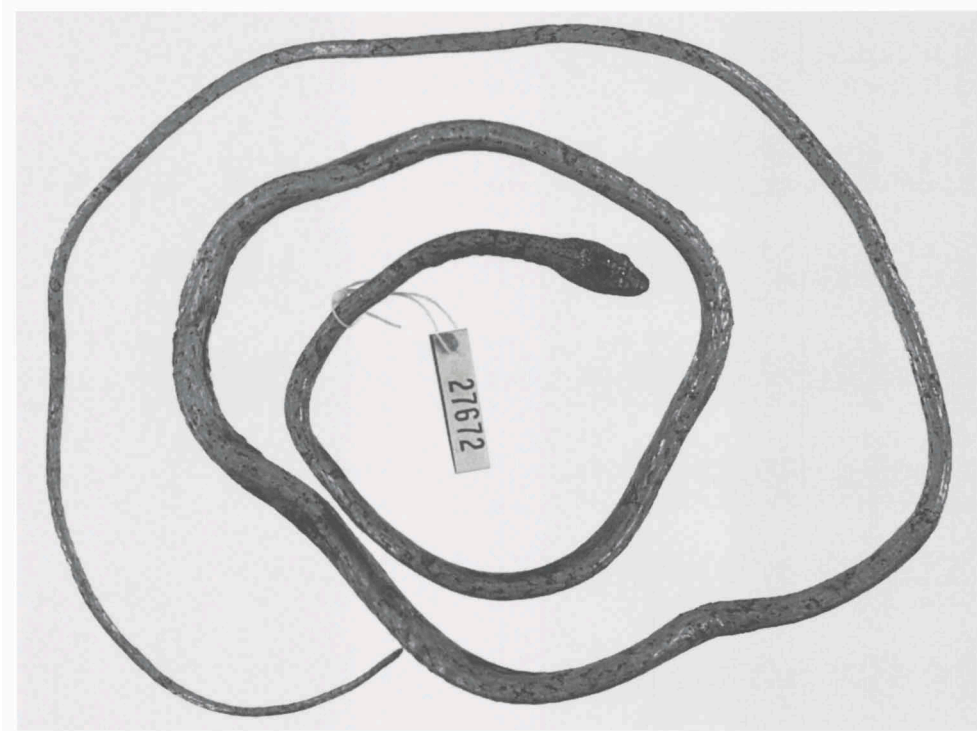


Fig. 2. General view of *Cercophis auratus* (Schlegel, 1837), RMNH 27672 from Porto Real, Brazil. Length of label 23 mm. Photo A. 't Hooft.

narrow, the vertebral one, the paravertebral ones (only from middle of body) and the first row on each side slightly enlarged; no apical pits or anal ridges. Scales on tail in four rows.

Colour pattern.— A light transverse band on the pre-/supraocular region of the head, with dark areas immediately in front and behind it. A light subocular area. A dark, central area on each parietal. Body bronze coloured, with or without darker triangular spots. A black area immediately behind the cloaca. Lower two-thirds of the eye dark golden, upper third light.

Because of the poor condition of the holotype, the hemipenis was not dissected.

The above combination of characters distinguishes *Cercophis* from all other Neotropical colubrid genera. The low number of dorsals and the high number of subcaudals, often higher than that of ventrals, are especially noteworthy.

Comment.— Schlegel (1837a: 157, 1837b: 227) described a single specimen of a snake, that in 1831 was sent to the Leiden Museum from Suriname by H. H. Dieperink, as *Dendrophis aurata*. Schlegel (1837a: 157) gave a diagnosis of it, and he (Schlegel, 1837b: 227-228) elaborated this diagnosis into a short description in which he emphasised the similarity in colour and body shape with his *Dryophis aurata* (= *Oxybelis aeneus* (Wagler, 1830)). Fitzinger (1843) made *Dendrophis aurata* Schlegel the type of his genus *Cercophis*. Duméril et al. (1854a: 64), mentioned the genus *Cercophis* on the basis of a manuscript they had received from Fitzinger in 1840, apparently the manuscript of the

book that was published by him in 1843. According to the index of Duméril et al. (1854b) the genus also would be mentioned on p. 533, but I failed to find it there, or on any of the other pages in the volume. As to *Dendrophis aurata*, this species was mentioned by Duméril et al. (1854a: 195) as a species placed in the genus *Dendrophis* by Schlegel (1837), but according to them belonging somewhere else. However, they did not indicate where; they only placed a questionmark in the column for generic allocation, and did not make further mention of it. Apparently they did not realize Fitzinger placed it in his genus *Cercophis*, which Duméril et al. (1854) did not treat. Schlegel (1858), in a schoolbook for the Royal Dutch Military Academy, made a short reference to *Dendrophis auratus*, in which he just said it was from Suriname, that it had a bronze colour, and that it was exceedingly slim. Hoogmoed (1982) pointed out that this species effectively had disappeared from the herpetological literature after Schlegel (1858) had mentioned it for the last time, until Keiser (1974) mentioned it again. Neither Gray (1849), Günther (1858) or Boulenger (1893, 1894, 1896), treating the snakes in the collection of the British Museum (Natural History), mentioned Schlegel's *Dendrophis aurata* again, apparently because it was not represented in the BMNH collections. Jan & Sordelli (1860-66; 1866-70; 1870-1881) did not show it in their iconographie. Werner (1923; 1925; 1928) also did not refer to it. Amaral (1930) did not mention it in his checklist of Neotropical snakes, and neither did Peters & Donoso-Barros (1970). Romer (1956) placed the genus *Cercophis* in the synonymy of *Oxybelis* without commenting on this decision. In short, the names *Dendrophis aurata* and *Cercophis* inexplicably disappeared from the literature since 1857, respectively 1854.

Keiser (1974), as mentioned above, was the first to mention *Dendrophis aurata* Schlegel again. He stated that "Several subsequent workers have mistakenly considered *Dendrophis aurata* Schlegel to be a junior synonym of Bell's *Dryinus auratus*". Unfortunately Keiser did not indicate which workers he was referring to. Keiser (1974) did not place *Dendrophis aurata* in the synonymy of *Oxybelis aeneus*.

Cercophis auratus (Schlegel, 1837)

Dendrophis aurata Schlegel, 1837a: 157; 1837b: 227; Keiser, 1974: 6.

Cercophis aurata: Fitzinger, 1843: 26.

Dendrophis auratus Schlegel, 1858: 46.

Cercophis auratus: Hoogmoed, 1982: 225; Vanzolini, 1986: 5; Vanzolini in Peters & Donoso-Barros, 1986: 5.

Material.— **Suriname**: 1 ♂, RMNH 813 (holotype), leg. H.H. Dieperink, 1831. **Brazil**, Rio de Janeiro, Porto Real: 2 ♀♀, RMNH 27672-73, leg. M.F. Hardy du Dréneuf, 1890.

Diagnosis.— As for the genus.

Description.— Body cylindrical (belly convex), without lateral keels on the ventrals, long and slender, passing gradually into an extremely long tail, 71-81% of the snout-vent length in females, 96% in the single male holotype. Thus, the tail makes up 41-44% of the total length in females, 49% in the male. This is an extremely high proportion of the total length, suggesting an arboreal way of life. There is a slight tendency of the tail to become flattened ventrally (figs. 1-3).

Head long and slender, about twice as long as wide (1.9-2.1 times in females, 1.8

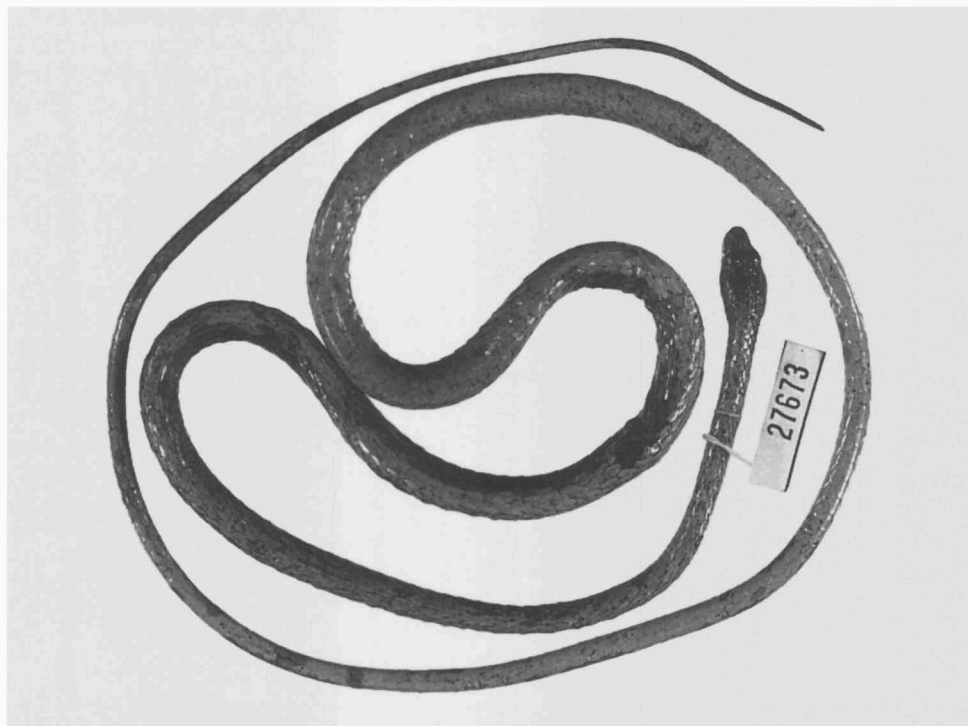


Fig. 3. General view of *Cercophis auratus* (Schlegel, 1837), RMNH 27673 from Porto Real, Brazil. Length of label 23 mm. Photo A. 't Hooft.

times in the male), wider than deep. Head distinctly wider than the neck. Head very flattened with large eyes that cause the supraoculars to be domed. Snout truncate in dorsal view, rounded in lateral view, projecting over the mouth. Snout in lateral view separated from the more posterior part of the head by a distinct change in slope in the ocular region. Rostral visible from above. Internasals triangular, smaller than the prefrontals. Frontal pentagonal, longer than broad, anteriorly widest with nearly parallel, posteriorly slightly converging, sides; as long as its distance to the tip of the snout or slightly longer; narrower than the supraoculars; convex from anteriorly to posteriorly. Parietals large, longer than frontal, as wide as frontal plus one supraocular. Supraoculars narrowest anteriorly, widest posteriorly, domed in an antero-posterior direction; as long as, or slightly longer than, the frontal. Nostril large, trapezoid, with an extended posteroventral corner; in a large, undivided nasal. One elongate loreal, twice as long as deep, in RMNH 813 and 27673 (fig. 4); two small loreals behind each other (first larger than second) in RMNH 27672 (fig. 5). One large preocular that reaches the top of the head, but does not contact the frontal. Two postoculars, the upper one quadrangular to rectangular, larger than the lower one which is lozenge shaped to pentagonal. Basic pattern of temporals 1+2+3, but in RMNH 27672 the anterior temporal on both sides is broken up and the postoculars are followed by two differently shaped small scales above each other, followed by a large scale (fig. 5). In RMNH 813 the anterior temporal on the right hand side is divided obliquely

(Hoogmoed, 1982: 226) and at its posterior end there is an additional small scute. Supralabials eight, with fourth and fifth bordering the eye, except in RMNH 27673, which on the left side has nine supralabials, with the fifth and sixth bordering the eye (fig. 4). Often dorsal and lateral head scales are not juxtaposed, but separated by some interstitial tissue. Eye large, with round pupil, placed laterally, brille protruding and visible from below and above. Infralabials 10, the first pair in contact between mental and first pair of chinshields, five bordering the first pair of chinshields. First pair of chinshields as long as the second pair, but distinctly wider.

Dorsal scales in 15-15-11 oblique rows; the vertebral row and the rows bordering the ventrals distinctly wider than the rest throughout the body; in anterior part of body six lateral rows (rows 2-7) of long and narrow scales; in the middle of the body the paravertebral rows are enlarged as well and there only remain five (rows 2-6) lateral rows of long and very narrow scales (fig. 6), posteriorly more lozenge-shaped. Scales smooth, without pits. No supra-anal ridges. Scales on tail just after the cloaca abruptly different from the scales on the body, rhomboidal, larger, wider and shorter, in four rows only. Ventrals 146-149 in females, 140 in the male. Anal divided (fig. 7). Subcaudals paired, 129-157 in females, 163 in the male. In RMNH 27672 the tip of the tail may have been regenerated and the original number of subcaudals could be marginally higher than the 129 now counted. In RMNH 27673 the tip of the tail is damaged, but the only part that seems to be missing is the terminal scale. RMNH 813 has the tail undamaged, ending in a sharp-tipped terminal scale.

The general colour of the two females is bronze, caused by the scales having a very pale (cream) background with irregularly placed wavy brown lines and spots. RMNH 27672 has widely spaced, ill-defined black-edged triangular spots on the sides, with the apex pointing towards the vertebral line. The spots are more or less arranged in pairs, 15 on the body, 15 on the tail. Belly anteriorly with a mid-ventral line of black spots, further posteriorly black spots more or less forming two indistinct longitudinal stripes. Subcaudal scales bordering the cloaca with black spots, causing a narrow black area directly posterior of the cloaca, widest laterally. A transverse dark band on supraoculars and frontal, snout in front distinctly lighter than rest of head. Parietals with two longitudinal lines of black spots. An indication of a light vertebral line bordered by black/brown spots starting on the parietals and continued for some distance on the neck. Large cream spot under the eye, with a dark spot in it straddling the suture between the supralabials bordering the eye, continued posteriorly on the anteroventral part of the following supralabial. Light and dark part of supralabial 6 or 7 separated by a narrow line of small black spots. All bronze parts of the scales on the head are caused by small brown areas containing brown points on a light background. Infralabials 1 to 4 have dark spots towards the commissure of the mouth.

In RMNH 27673 there are no dark triangles on the back. Anteriorly there are some ill-defined and indistinct, black-edged spots on the paravertebral area. Further posteriorly there are isolated black spots. It only has three indistinct black spots on the central part of the posterior chin area and on the first two ventrals, with some indistinct spots at the very lateral end of some ventrals. Subcaudal scales bordering the cloaca with black spots, larger than in RMNH 27672, forming two more or less triangular spots laterally (fig. 7). Dark band between the eyes on supraoculars and frontal more distinct (fig. 4). A dark spot on each prefrontal near the midline. The light area under

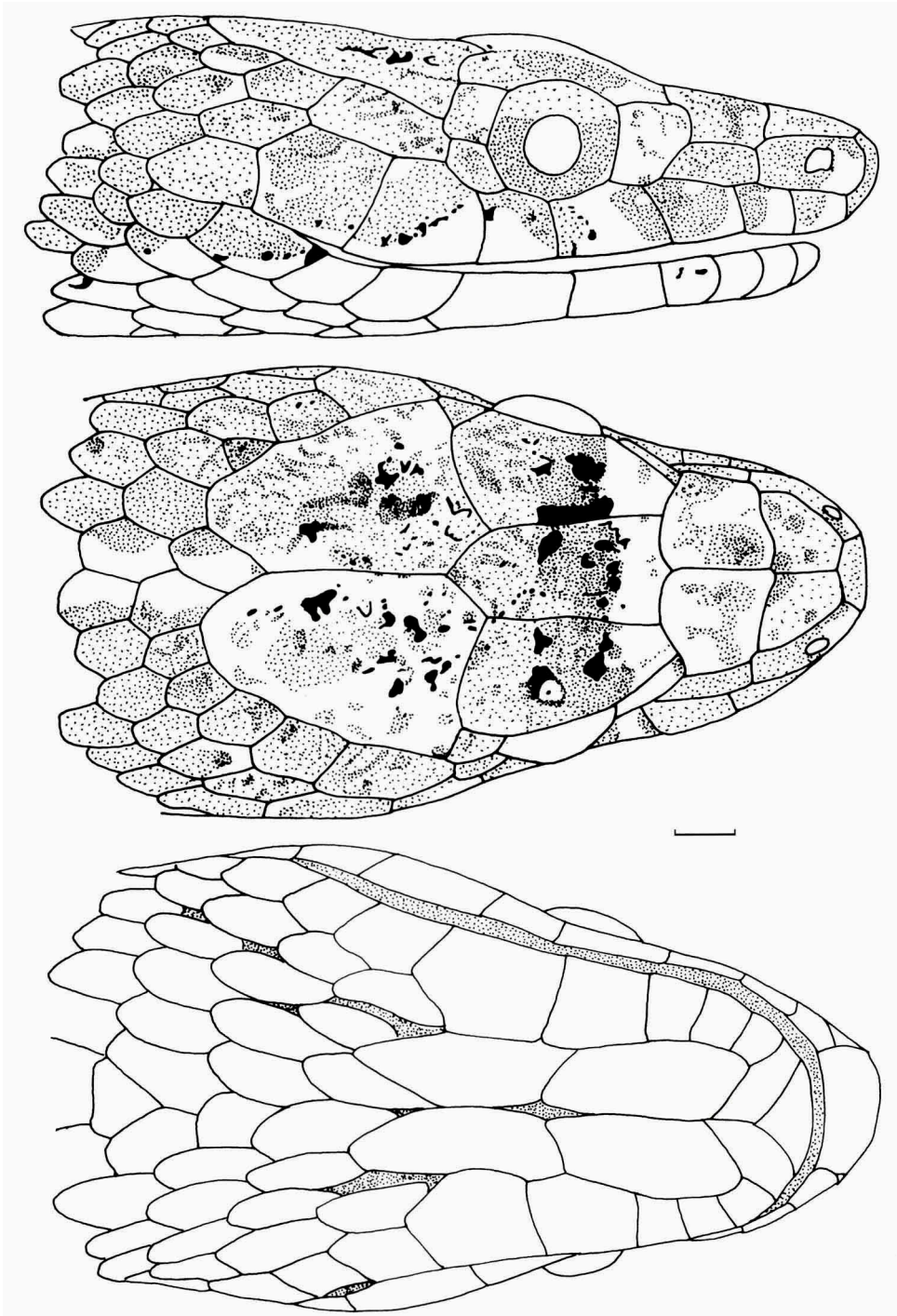


Fig. 4. Head of *Cercophis auratus* (Schlegel, 1837), RMNH 27673 from Porto Real, Brazil in right lateral, dorsal and ventral view. Scale bar 1 mm.

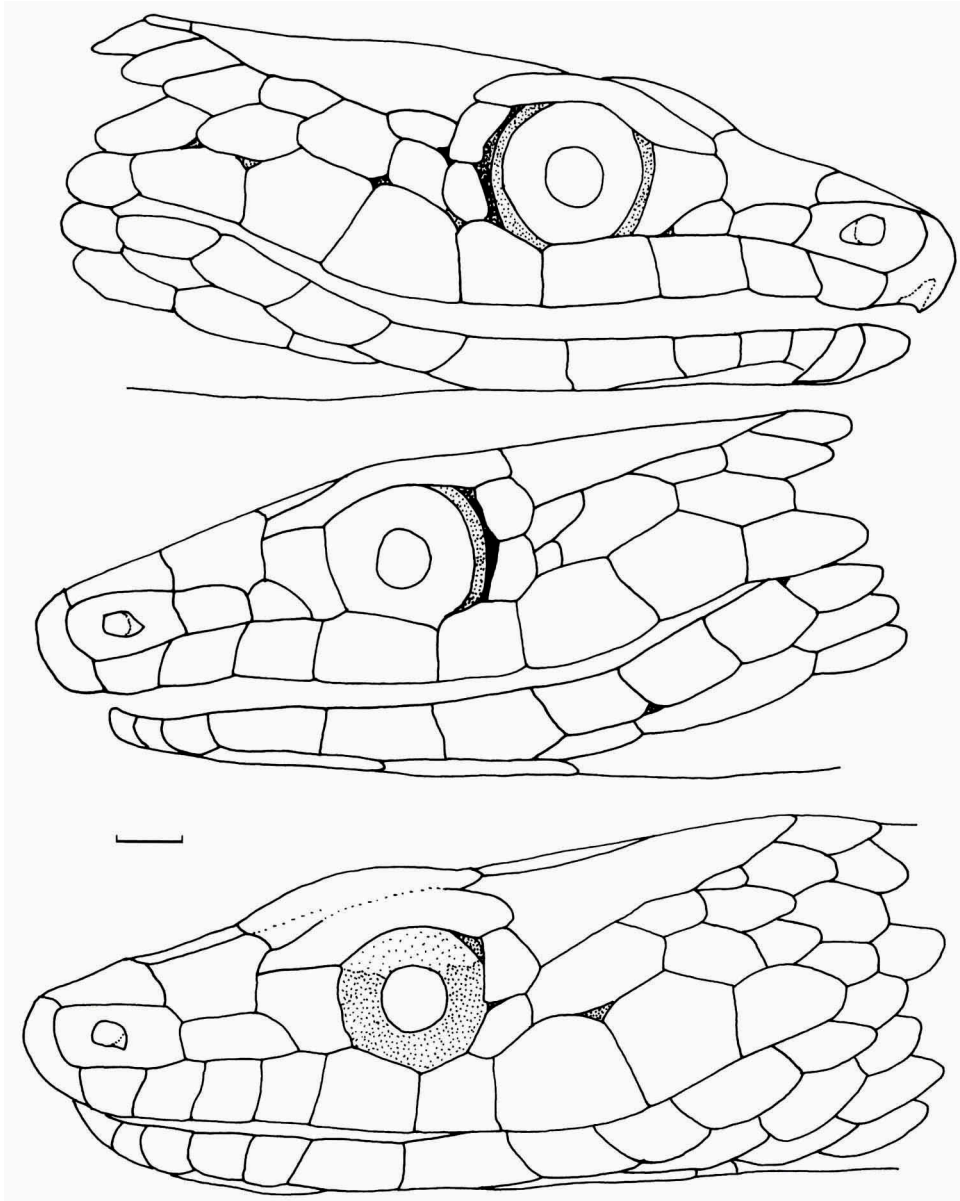


Fig. 5. Head of *Cercophis auratus* (Schlegel, 1837), from Porto Real, Brazil: upper two figures RMNH 27672 in left and right lateral view, showing the division of the loreal and the first supratemporal; lower figure RMNH 27673 in left lateral view. Scale bar 1 mm.

the eye of both sides is connected by a light band on the preocular, on the anterior part of the frontal and supraoculars and on the adjacent posterior part of the prefrontals. In the light subocular area there is a darker spot straddling the suture between the scales bordering the eye ventrally. Parietals with ill-defined darker central area consisting of darker brown and black spots. Infralabials 1 to 4 with small darker areas

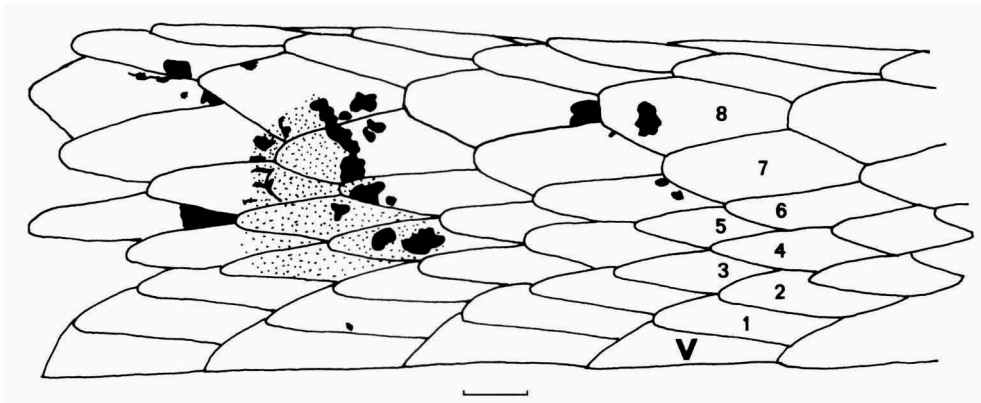


Fig. 6. Dorsal scales of *Cercophis auratus* (Schlegel, 1837), RMNH 27672 from Porto Real, Brazil, at mid-body, right hand side. The numbers indicate the different rows, with 1 being the row bordering on the ventrals, 7 the paravertebral row and 8 the vertebral row. V = ventral. Scale bar 1 mm.

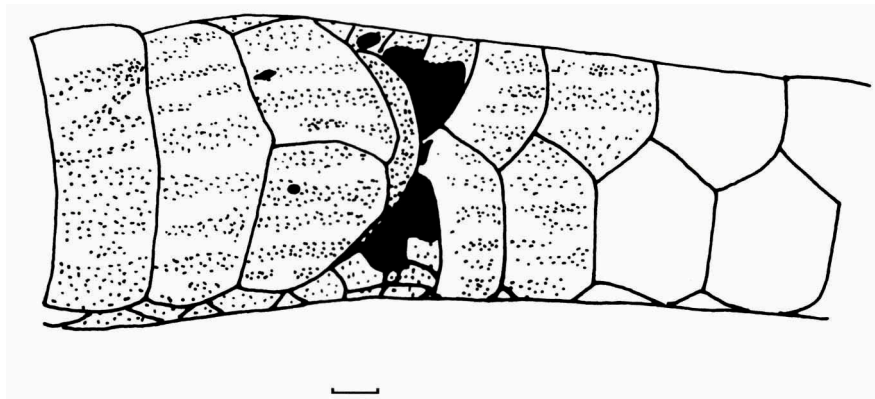


Fig. 7. Cloacal region of *Cercophis auratus* (Schlegel, 1837), RMNH 27673 from Porto Real, Brazil, showing the black postcloacal spot. Scale bar 1 mm.

towards the commissure of the mouth. There is an indication of a light vertebral stripe starting on the parietals and continuing for a short distance on the neck (fig. 4). The lower two-thirds of the eye are dark golden brown, the upper third is light.

Distribution.— Only known from the type-locality "Suriname", where it was probably collected in the coastal area near Paramaribo, and from Porto Real, Rio de Janeiro, Brazil (fig. 8). These localities are roughly 3300 km apart. This, of course, is a considerable distance, but as many species present in Suriname also reach SE Brazil, it is not surprising. The species may well have been overlooked in the intervening area because of a possible confusion with snakes such as *Oxybelis aeneus* (Wagler, 1824), which is superficially similar.

Habitat.— No data accompany the material. However, based on the shape and the dimensions of this snake an arboreal way of life seems very likely. Whether this would be in forest or in more open vegetation remains to be discovered.



Fig. 8. Map showing the known localities of *Cercophis auratus* (Schlegel, 1837). 1 = Paramaribo, Suriname; 2 = Porto Real, RJ, Brazil.

Other snakes in the Porto Real collection

COLUBRIDAE

Chironius bicarinatus (Wied, 1820): 9 ex., RMNH 27704-12.

Chironius laevicollis (Wied, 1824): 1 ex., RMNH 27713.

Chironius quadricarinatus (Boie, 1827): 8 ex., RMNH 27714-21.

All *Chironius* were identified using the recent monograph of this genus by Dixon et al., 1993.

Elapomorphus quinquelineatus (Raddi, 1820): 5 ex., RMNH 27679-83.

Erythrolamprus aesculapii (Linnaeus, 1766): 4 ex., RMNH 27663-65, 27723.

Helicops c. carinicaudus (Wied, 1825): 1 ex., RMNH 27689.

Liophis jaegeri (Günther, 1858): 1 ex., RMNH 27688.

The specimen was identified with keys provided by Dixon (1987, 1989) and by checking some descriptions. Although the combination of most characters indicates this to be *L. jaegeri*, some characters do not entirely fit the description, such as the very low number of subcaudals (48), just outside the range (52-71, \bar{x} = 60.4) given by Dixon (1987), but within the range (40-49, \bar{x} = 44.4) of *L. typhlus brachyurus* (Cope, 1887), which occurs in the same general area. The number of dorsal scales (17-17-15), although rare in *L. jaegeri*, does not agree with that of *L. t. brachyurus*, because all *L. typhlus* do have a dorsal scale formula of 19-19-15. The number of ventrals is 149 which is within the range (146-169, \bar{x} = 157.5) of *L. jaegeri* given by Dixon (1987), but just outside the range (151-171, \bar{x} = 162.2) of *L. t. brachyurus*. All characters of headscapes agree with the description given by Dixon (1987). Thus, despite the minor discrepancies, the specimen was identified as *L. jaegeri*.

Liophis miliaris orinus (Griffin, 1916): 4 juvs., RMNH 27684-87.

Dixon (1983) provided a map with the distribution of the seven subspecies of *Liophis miliaris*. It may be noted here that in the map provided by Dixon (1989) for *Liophis miliaris* and *L. melanotus* the symbols for the distribution areas have been switched. Thus, the species occurring in northwestern South America is *L. melanotus* and the one occurring in the Guianas, the Amazon area and eastern Brazil south to Argentina is *L. miliaris*. Moreover it is noteworthy that in this map (Dixon, 1989) the region of the Río Madeira and that between the Río Xingu and Río Araguaia have been indicated as distribution area for *L. miliaris*, whereas in Dixon (1983: fig. 1) these areas were not considered as part of the distribution area, but on the contrary the area between the Madeira and Xingu was considered as such. The text in Dixon (1989: 18) still agrees with the distribution area given by Dixon (1983) and actually refers to the map in that publication for the distribution areas of the subspecies. What caused this discrepancy between the two publications remains unclear. The specimens present the typical juvenile pattern as described by Gans (1964) and depicted by Dixon (1983).

Liophis poecilogyrus (Wied, 1825): 30 ex., RMNH 27729-27758.

Dixon (1989) stated that he did "not recognise subspecies of this taxon because of the mosaic nature of the variation examined thus far." He also indicated that there possibly might be nine subspecies.

Dixon & Markezich (1992) recognized four subspecies, of which the nominate one occurs in the area of Porto Real. They mentioned that a "large series" (BM 92.11.22.7, 87.12.29.9-17) from Porto Real suggests intergradation between *L. p. poecilogyrus* and *L. p. schotti* (Schlegel, 1837). However, on which characters they exactly based this statement is not clear, although they mentioned a mixing of pattern elements of both taxa, with three specimens lacking transverse body bands at midbody and cephalic plate edging, having a posterior light stripe and one lacking a posterior [light] body stripe: "All others have posterior body stripes with anterior transverse bands and cephalic plate edging, and a mixture of characters defining both races" (Dixon & Markezich, 1992:151). Apparently they are referring to the material that Boulenger (1894) listed as having been collected by M.F. Hardy du Dréneuf. Thus, I checked our more extensive series from the same locality and collector to see how the pattern of these specimens varied. Of 30 specimens 17 had light posterior dorsolateral stripes, in RMNH 27753 the light stripes already start on the anterior part of the body, in RMNH 27733, 27738, 27741 and 27757 the light stripes start at midbody, in RMNH 27743 the stripes are vague and in seven specimens they are lacking altogether. In three specimens (RMNH 27730, 27737 and 27738) there are no transverse dark body bands, in 6 specimens these are vague, in RMNH 27729 a few posterior bands can be distinguished, and in the remaining 20 there are distinct transverse bands, which posteriorly are broken into spots by the light stripes. Cephalic black edging is absent only in two (RMNH 27735, 27736) specimens, present in 28, with heavy edging in six and vague edging in another six specimens. All specimens have black patches on the ventrals, only in RMNH 27729 and 27737 there are a few spots only. In nearly all specimens there is a characteristic pair of black spots on the throat on the median tip of the sixth infralabial. These findings seem to corroborate those by Dixon & Markezich (1992) and because of the possible intergradation of two subspecies, I refrain from applying a subspecific name to these specimens.

Echinanthera undulata (Wied, 1824): 1 ex., RMNH 27728.

The number of subcaudals (55/55 +1) is lower than mentioned in the key by Di-Bernardo (1992), but all other characters (scales 17-17-17, V 143, anal divided, prediastemal teeth 22, a pair of small, light parietal spots, two large postoccipital light spots, dorsal pattern) seem to agree with this taxon. Dixon (1980) considered *Coluber undulatus* Wied, 1824, as a taxon of unknown generic allocation, and did not treat it further in his series of papers on species of *Liophis*. Myers (1974: 22) in his thorough revision of *Rhadinaea* said about this taxon: "Also in this category is "*Liophis*" *undulatus* and its several relatives, which comprise an undescribed genus according to Joseph R. Bailey (personal commun.), who has data on the group.". The taxon is not further dealt with in the revision. Di-Bernardo (1992) revalidated the genus *Echinanthera* Cope, 1894, and amplified its concept by including several species of *Liophis*, *Lygophis* and *Rhadinaea*. Di-Bernardo (1992) included "*Liophis undulatus* (Wied)" in this genus. It is at his authority that I use this combination. Myers & Cadle (1994) criticized Di-Bernardo (1992) and removed the "*Rhadinaea*" *brevirostris* group from *Echinanthera* Cope, 1894, as interpreted by Di-Bernardo, 1992, and resurrected *Taeniophallus* Cope, 1895, to accommodate that group. They maintained *Echinanthera undulata*.

Mastigodryas bifossatus (Raddi, 1820): 4 ex., RMNH 27724-27.

Philodryas patagoniensis (Girard, 1857): 8 ex. (juvs, ads), RMNH 27691-98.

The juveniles have the typical pattern of black blotches on a grey-green background. The adults have all dorsal scales with a light central area.

Sibynomorphus mikanii newwiedi Ihering, 1910: 4 ex., RMNH 27690, 27769-71.

The specimens agree well with the description given by Peters (1960). Lema (1994) is of the opinion that the recognition of subspecies within *S. mikanii* is premature because of the large geographical distribution and its large variation. He treated *S. m. newwiedi* as a species and indicated that it is being studied by Francisco Luís Franco. As far as I am aware the results of this study have not been published to date. Therefore I stay with the current opinion that considers *newwiedi* a subspecies of *S. mikanii*.

This seems to be the opportunity to correct a mistake originating from Peters (1960), concerning the type specimen of *Sibynomorphus mikanii* (Schlegel, 1837a, b). Peters (1960) assumed that the type series would be in the Vienna museum and he selected the specimen mentioned by Schlegel (1837a, b) to have 167 ventrals and 46 subcaudals as lectotype. However, Schlegel (1837b: 277) only said that the Leiden Museum had received (in the context of that publication with this wording he always meant as a donation or as an exchange) under the name *Dipsas Mikanii* from the Vienna Museum one of the specimens collected by Natterer in Brazil. Thus, one of the specimens he described is part of the RMNH collection, the other specimen he described was part of the Paris collection. The other specimens in Vienna collected by Natterer were not examined by Schlegel and are no syntypes. What happened was that Schlegel (inadvertently) validated a labelname proposed by Natterer, but never published by that author. RMNH 999 agrees well with the description given by Schlegel (1837 b: 277-278) and has 166 ventrals, an undivided anal, 43 paired subcaudals and 15-15-15 scales. The differences observed between the actual numbers and Schlegel's counts are well within the margin of error and completely acceptable in view of different counting techniques and optical instruments used. Thus, RMNH 999 is the lectotype of *Dipsas Mikanii* Schlegel, 1837. The other specimen examined by Schlegel and collected by Méneštier automatically becomes the paralectotype. According to Guibé & Roux-Estève (1972) this specimen is in the Paris museum (MNHN 7305). These authors make the same mistake as Peters (1960) by saying that the other syntypes are in the Vienna Museum. As explained above, this is not the case, Schlegel's description was only based on two specimens (one in Leiden, one in Paris), and no Vienna material was involved. The lectotype is well preserved, but has been subject to rough anatomical research, with lower jaws and one upper jaw missing, the mouth having been cut open till well into the neck region. Further there are two long slits in the belly. Possibly the specimen was used by Brongersma (1958) for his anatomical research, as this is the only specimen in the registered RMNH collection. He probably did not realise this was the type-specimen, because until now it had not been indicated as such.

It should be mentioned there is a discrepancy in the description of this taxon between Schlegel (1837a:162), where in the summary of the more extensive description in the second part of his book he mentions 170+58 as scale count,

whereas Schlegel (1837b: 278) in the extensive description itself mentions 170+71 and 167+46. Apparently 58 is the average of the two subcaudal values. It is not clear why Schlegel did not do the same for the ventrals, maybe because the values are so close together he did not bother about it.

Thamnodynastes strigatus (Günther, 1858): 3 ex., RMNH 27699-701.

I am aware that several taxa within *Thamnodynastes* are still awaiting description (R.A. Thomas, pers. comm.), but pending this these specimens were identified as *T. strigatus*.

Xenodon newwiedii (Günther, 1863): 1 juv., 1 ad., RMNH 27702-03.

ELAPIDAE

Micrurus corallinus (Merrem, 1820): 7 ex., RMNH 27666-71, 27722.

VIPERIDAE

Bothrops jararaca (Wied, 1820): 6 ex., RMNH 27662, 27674-78. RMNH 26675 just before being preserved swallowed a small mouse (*Oryzomys spec.*).

SAURIA

POLYCHROTIDAE

Polychrus marmoratus (Linnaeus, 1758): 1 juv., RMNH 27580.

According to the map provided by Vanzolini (1983: 126) which shows the distribution of *P. marmoratus* and *P. acutirostris* Spix, 1825, the area of Porto Real seems to be slightly west of the localities for *P. marmoratus* in Rio de Janeiro indicated in that map. The Porto Real area seems to be completely occupied by *P. acutirostris*. According to Vanzolini (1983) *P. marmoratus* is a strict inhabitant of closed formations, although my own observations in the Guianas and Amazonia suggest that this species is more an inhabitant of the forest edge where it borders open areas (savannas, rivers, ponds) and in perianthropic situations of gardens (Hoogmoed, 1973, 1975; Avila Pires, 1995). Whether the present specimen indicates that the species has disappeared from the Porto Real area since 1890 due to deforestation, or whether it still exists there remains a matter of interest.

Enyalius perditus Jackson, 1978: 3 ♂♂, RMNH 21062-64 (Paratypes).

These specimens are listed (Jackson, 1978: 41) under specimens examined as "RMNH without numbers" from Porto Real. Jackson (1978: 24) when describing this species listed the holotype, a number of specimens as paratypes and at the end of the text of the article in an appendix "specimens examined". As he used data of all specimens in his description and analysis, and did not expressly exclude any specimens, under the rules of the International Code of Zoological Nomenclature valid at that time (2nd edition), all specimens mentioned by him should be regarded as paratypes.

AMPHIBIA
ANURA

BUFONIDAE

Bufo crucifer Wied, 1821: 13 ex., RMNH 27540-52.

Bufo ictericus Spix, 1824: 28 ex., RMNH 27512-39.

HYLIDAE

Hyla albopunctata Spix, 1824: 1 ex., RMNH 27643.

Hyla circumdata (Cope, 1867): 1 ex., RMNH 27579.

Hyla elegans Wied, 1824: 23 ex., RMNH 27553-75.

Cochran (1954) and Lutz (1973) still treat this species under the name *H. leucophyllata* (Beireis, 1783), although Lutz (1973) recognized a "southern form", which she equaled with *H. elegans*. Frost (1985) noted that Caramaschi & Jim (1985, Cienc. Cult., Supl. 7: 848; publication not seen by me and not mentioned in the Zoological Record), removed *H. elegans* from the synonymy of *H. leucophyllata*. The colour pattern of this species differs distinctly from that of *H. leucophyllata* and consists of a single, long, more or less rectangular dark spot on the middle of the back, without a dark line extending posteriorly from each of the posterior corners to the groin, enclosing an oval sacral white spot, as in most Guianan and Amazonian specimens of *H. leucophyllata* seen by me. I accept the taxonomy proposed by Caramaschi & Jim (1985).

Hyla faber Wied, 1821: 26 ex., RMNH 27612-29, 27651-58.

Hyla geographica Spix, 1824: 23 ex., RMNH 27594-610, RMNH 27645-50.

Osteocephalus langsdorfii (Duméril & Bibron, 1841): 1 ex., RMNH 27644.

Phyllomedusa burmeisteri Boulenger, 1882: 11 ex., RMNH 27583-93.

Phyllomedusa hypocondrialis (Daudin, 1802): 1 ex., RMNH 27582.

This species was not reported for SE Brazil by Cochran (1954) in her monograph of the frogs of this area, whereas Funkhouser (1957) (who was far from complete) only mentioned it from the Guianas, coastal Bahian localities, and from the far western interior of Brazil and Bolivia. Frost (1985) gives as its distribution "South America east of the Andes from Bolivia, Colombia, and the Guianas southward to Argentina, Paraguay, and southeastern Brazil. There are no hard data proving the existence of the species in the Porto Real area. Therefore I am not convinced the RMNH specimen of this species really comes from Porto Real, it may well have been collected elsewhere.

Phyllomedusa rohdei Mertens, 1925: 3 ex., RMNH 27576-78.

Scinax x-signata Spix, 1824: RMNH 27661.

LEPTODACTYLIDAE

Eleutherodactylus binotatus Spix, 1824: 1 ex., RMNH 27659.

Leptodactylus fuscus Schneider, 1799: 1 ex., RMNH 27611.

Leptodactylus ocellatus (Linnaeus, 1758): 8 ex., RMNH 27630-37.

Leptodactylus poecilochilus Cope, 1862: 3 ex., RMNH 27436-38.

Leptodactylus podicipinus Cope, 1862: 5 ex., RMNH 27638-42.

Physalaemus cuvieri Fitzinger, 1826: 1 ex., RMNH 27581.

MICROHYLIDAE

Elachistocleis ovalis (Schneider, 1799): 1 ex., RMNH 27660.

This specimen has a uniformly white (probably yellow in life) belly.

Discussion

Although the area of Porto Real is situated in one of the more populous and relatively well known areas of Brazil, little seems to be known of total herpetofaunas in the region. The exhaustive inventory of the frogs of the "Estação Biológica de Boracéia" (Heyer et al., 1990), though relatively closeby, is left out of consideration here, because it concerns a "coastal" Serra do Mar locality with Atlantic forest endemics. One similar interior locality where an inventory has been made is the Serra do Japi in SE São Paulo (Morellato, 1992). This area is located NW of the city of São Paulo at an elevation of about 800-1100 m. Porto Real is located at an altitude between 200 and 500 m, close to the mountain range Serra de Mantiqueira, which in that region reaches about 1500 m, whereas a peak in the Parque Nacional de Itatiaia slightly further west reaches to an altitude of 2787 m. Judging by the material in the collection I have the impression that all material indeed was collected in the immediate surroundings of Porto Real itself at relatively low altitudes and in human influenced habitat.

Haddad & Sazima (1992) treated the frogs of an area of the Serra do Japi, collected at an altitude of 870 m. From their paper it is clear that they expect at least 10 more species from the area. They mention a total of 24 species in the original vegetation, with three more species known from human influenced areas, thus a total of 27 (known) species. Sazima & Haddad (1992) discussed the reptiles of the Serra do Japi. They reported a total of 14 species of snakes but the species listed suggest their inventory is far from complete, because quite a number of species that could be expected in the area are absent from the collection. We have to keep in mind that the work in Serra do Japi was mainly ecologically oriented and the authors conclude that a thorough inventory is necessary. The Porto Real collection here discussed contains 19 species of frogs and 18 of snakes. When comparing the two areas it can be noted that there are relatively few species in common: 8 frogs and 7 snakes. The only conclusions that can be drawn from these observations are: 1, the collecting of frogs in Serra do Japi was done by professionals who searched certain habitats, whereas the collection from Porto Real contains many perianthropoc generalists, apparently collected by a non-specialist; 2, both areas have been undercollected and in order to make a useful comparison, much more material should become available; and 3, the collection made in 1890 in Porto Real, although far from complete, is interesting for comparison with the present day situation.

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