

## The Contribution of Andreas Mayer for the Natural History of the State of Paraná, Brazil. V. Reptiles: Relevant Addenda and Corrigenda

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### ABSTRACT

*A study about the herpetological legacy of the German naturalist Andreas Mayer (1907-1986) (Bérnils & Moura-Leite, 1990) raised 83 specimens from 20 reptile species captured in the Brazilian states of Paraná and Mato Grosso do Sul (years 40, 50, and 60) and currently housed at the Museu de História Natural Capão da Imbuia (Curitiba). Just in Mayer's birth centenary, 15 more snakes collected by him and not presented in the former publication were founded. This material is relevant because (1) came from areas currently under human-altered environments; (2) was collected in areas that were poorly sampled at that time; and (3) embraced some species hard to find in Paraná, including the first occurrence of *Phimophis cf. guerini* for the state. Label data for the added snakes and some important corrections to the former article, with taxonomic and geographic updates, are being presented.*

**Key words:** Squamata, Serpentes, Sauria, Andreas Mayer, Paraná, Brazil

### INTRODUCTION

Between 1988 and 1990, a group of zoologists from the natural history museum of Curitiba (Museu de História Natural Capão da Imbuia, MHNCI) prepared five articles regarding the contributions of the German naturalist Andreas Mayer (1907–1986) for the Ornithology, Mammalogy, Herpetology, Ichthyology, and Arachnology to the state of Paraná, Brazil. The results were published in the *Brazilian Archives of Biology and Technology* as a series in honour of

Mayer (Straube & Bornschein, 1989; Lorini & Persson, 1990; Bérnils & Moura-Leite, 1990; Wosiacki, 1990), as well as in independent articles (e.g. Pinto-da-Rocha & Caron, 1989; Straube & Scherer-Neto, 2001), some years later. In the herpetological paper of this series, 83 reptiles of 20 species from the states of Paraná and Mato Grosso do Sul, collected by Mayer between 1939 and 1968 (when he was taxidermist and field naturalist paid by the Museu Paranaense), were presented. All his known specimens were preserved at that museum (1876–1956), later

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called Instituto de História Natural (1956–1963), Instituto de Defesa do Patrimônio Natural (1963–1980) and, at last, MHNCI (1981–today) (Trevisan, 1976; Cordeiro & Corrêa, 1985; Abilhoa & Duboc, 2006).

The surprising finding of 15 more reptiles collected by Andreas Mayer between 1945 and 1963, housed in two Brazilian collections and still unpublished by now, created the opportunity to disseminate these relevant discoveries, just in the Mayer's birth centenary. Some corrections to the 90's paper are also presented.

## MATERIAL AND METHODS

The 15 rediscovered specimens were found in two Brazilian museums: 12 at the Museu de Ciências Naturais – Fundação Zoobotânica do Rio Grande do Sul (MCN), in Porto Alegre, state of Rio Grande do Sul, and three at the Museu de História Natural Capão da Imbuia – Prefeitura Municipal de Curitiba (MHNCI), in Curitiba, state of Paraná. Identifications were made through Peters & Orejas-Miranda (1970), Vanzolini (1986), Dixon (1987; 1989), Di-Bernardo (1992), Fernandes (1996), and Passos & Fernandes (in press), and were confirmed by herpetologists linked with the cited museums: Dr Márcio Borges Martins (Porto Alegre) and Dr Sérgio A. A. Morato (Curitiba). Coordinates were taken from Google Earth 4.2.0198 Beta<sup>®</sup> or literature (Straube & Bornschein, 1989; Bérnils & Moura-Leite, 1990). An annotated gazetteer of the localities is listed after the species survey, with lat-long coordinates and parent division.

## RESULTS

During a recent analysis (August 2007) of some reptiles housed at the MCN, 12 specimens collected by Andreas Mayer in several localities of the state of Paraná were found. These specimens came from a sort of 95 snakes donated to Dr Thales de Lema (36 specimens in 1975, 59 in 1980), by then custos of Herpetology at the MCN, when he visited three zoological institutions in Curitiba: the city Zoo (then Passeio Público, today Zoológico Municipal de Curitiba), the zoological department of an university (then Faculdade de Filosofia, Ciências e Letras do Paraná, today

Universidade Federal do Paraná), and the city's natural history museum (then Instituto de Defesa do Patrimônio Natural, today MHNCI). Among these 95 specimens, it was impossible to determine what came from each institution visited, but Mayer's specimens certainly were taken from the natural history museum, institution that keep all others vertebrates collected by him, including the reptiles presented in Bérnils & Moura-Leite (1990). Moreover, three other snakes collected by Mayer and housed at the MHNCI (not included in the former paper) were found. The surprise was big since no one knew about their existence. From these 15 new specimens, 14 were species not listed among Andreas Mayer contributions already presented. This showed that Mayer's herpetological captures were more important than previously thought.

### Additions to the former list

Order Serpentes, Family Boidae:

01) *Epicrates crassus* Cope, 1862. MCN 7772  
“Vila Velha”. December 01, 1969.

Order Serpentes, Family Colubridae:

02) *Atractus reticulatus* (Boulenger, 1885). MCN 7750. “Castro, Terra Nova”. October 10, 1965.

03) *Echinanthera cyanopleura* (Cope, 1885). MCN 7740. “Santa Cruz”. July 1948.

04) *Echinanthera undulata* (Wied, 1824). MCN 7742. “Castro, Terra Nova”. August 1954.

05) *Erythrolamprus aesculapii monozona* Jan, 1863. MCN 3373. “Reserva Florestal Santa Cruz”, without date [probably June, 1946 or July, 1948].

06) *Erythrolamprus aesculapii monozona* Jan, 1863. MCN 3961. “Santa Cruz [do Sul (sic)]”, July 1948.

07) *Liophis jaegeri* (Günther, 1858). MCN 7739. “Lago Azul (Zona de Pinheirinhos)”, April 07, 1963.

08) *Liophis miliaris* (Linnaeus, 1758). MHNCI 386. “Caiobá”, February 1946.

09) *Liophis poecilogyrus schottii* (Schlegel, 1837). MCN 3311. “Sertão Zoaf” (sic), August 1945.

10) *Oxyrhopus clathratus* Duméril, Bibron & Duméril, 1854 (melanistic altitudinal form). MCN 3310. “Curitiba, Portão”, January 02, 1963.

11) *Phimophis* cf. *guerini* (Duméril, Bibron & Duméril, 1854). MCN 3308. “Vila Velha”, September 06, 1967.

12) *Spilotes pullatus anomalepis* Bocourt, 1888. MHNCI 404. “Caiobá”, April 1946.

13) *Taeniophallus bilineatus* (Fischer, 1885). MCN 3321. "Santa Cruz", without date [probably June, 1946 or July, 1948].

14) *Taeniophallus persimilis* (Cope, 1869). MCN 7741. "Marumbi", July 13, 1953.

15) *Xenodon neuwiedii* Günther, 1863. MHNCI 382. "Castro, Fazenda Lagoa", July 1947.

### Annotated gazetteer

All localities are in the state of Paraná, Brazil:

- "Caiobá": 25°50'40" S, 48°32'30" W; bathing beach and urban administrative district of the municipality of Matinhos, south coast of the state of Paraná.

- "Castro, Terra Nova" or "Castro, Fazenda Lagoa": 24°53'00" S, 49°54'00" W; Terra Nova was a German colony in the municipality of Castro, not far from the large Dutch colony of Carambé. Andreas Mayer lived some years there (Straube & Scherer-Neto, 2001) and was buried in the colony (F. C. Straube pers. com.).

- "Curitiba, Portão": 25°28'00" S, 49°17'30" W; district of the municipality of Curitiba.

- "Lago Azul (Zona de Pinheirinhos)": toponym not located. Probably in the southern portion of Curitiba, between the districts of Pinheirinho and Umbará, where a great series of lakes exists (in Portuguese, lake = *lago*), besides others known records of the same species of MCN 7739 (*Liophis jaegeri*, MHNCI 2144, 7861, and 9308).

- "Marumbi": 25°26'23" S, 48°55'10" W; well-known train station located at the foothills of the Marumbi Peak, in the slopes of the Serra do Mar; municipality of Morretes.

- "Reserva Florestal Santa Cruz"; "Santa Cruz"; "Santa Cruz [do Sul]": 25°35'08" S, 48°37'00" W; extinct forested reserve near an old Polish colony (Colônia Santa Cruz, funded in 1896; IBGE, 1973), at the bottom of the Serra da Prata Slopes, in the border of the municipalities of Paranaguá and Guaratuba. The records from this toponym were irregularly noted as *Reserva Florestal Santa Cruz* or simply *Santa Cruz*., but never *Santa Cruz do Sul*, as erroneously reported in the MCN 3961.

- "Sertão Zoai": some point west of 52°41'00" W, (*apud* Straube & Bornschein, 1989; Lorini & Persson, 1990) probably not far from the Ivaí River, in the northwestern portion of the state of Paraná. The specimen MCN 3311 was mistakenly labeled as *Sertão Zoai*, but the date confirms that it is another Mayer's collection, consistent with mammals, birds, and reptiles recorded in MHNCI as *Sertão do Ivaí* ("Ivaí River backwoods").

- "Vila Velha": 25°15'00" S, 50°00'00" W; well-known State Park in the municipality of Ponta Grossa where various naturalists of the Museu Paranaense and MHNCI collected throughout all decades of the last century.

### Updates

Three corrections of our previous herpetological publication in honour of Andreas Mayer:

- Bérnils & Moura-Leite (1990) listed MHNCI 132–135 as *Anisolepis undulatus* (Wiegmann, 1834), but Dr Paulo E. Vanzolini, after examine the specimens, showed that all four are *Anisolepis grilli* Boulenger, 1891.

- Two others lizards had its names modified since 1990: Following Ávila-Pires (1995), the name *Tupinambis teguixin* is restrict to an Amazonian form, resulting call *Tupinambis merianae* the specimens cited in Bérnils & Moura-Leite (1990). After Frost (1992), *Stenocercus caducus* must be adopted instead of *Ophryoesoides caducus*.

- In the map caption lacked some toponyms; is necessary to add: "15) São João do Cruzeiro; 16) Serra Negra; 17) Serra da Prata; 18) Terra Nova; 19) Vale do Rio Ivaí; and 20) Vila Velha".

### DISCUSSION

In the referred series in honour of Andreas Mayer, the birds and mammals were exhibited only in part. His effort to capture homoeothermic animals were better, generating less representative collections of lower vertebrates. So, the papers about his fishes and reptiles thought complete contributions, which was not true at all.

The colubrid *Phimophis* cf. *guerini* cited in "Results" (MCN 3308) is being cited for the first time for the Paraná and it is the only testimony of that species for the state. The record could be more relevant if the specimen did not belong to *Phimophis guerini*, but to a new species - possibility raised by Dr Márcio Borges Martins after evaluating the southernmost Brazilian specimens of the genus. The significance of the ca. 100 reptiles collected and prepared by Mayer could be uttered at least in three fronts: (1) the animals were obtained between 1939 and 1968, period poorly sampled by others naturalists in Paraná; (2) the animals were collected in several natural areas currently altered and poorly sampled; and (3) some animals collected are naturally rare and quite difficult to find in nature, at least in the

state of Paraná — such as *Echinanthera undulata*, *Taeniophallus bilineatus*, *T. persimilis*, and, in particular, the first and still unique records of *Stenocercus caducus* (see Bérnils & Moura-Leite, 1990) and *Phimophis* cf. *guerini* (present article) for the state. The correction of the identity of four specimens listed by mistake as *Anisolepis undulatus* in the former publication (Bérnils & Moura-Leite, 1990) is in fact congruent with the geographic distribution described by Etheridge & Williams (1991) for *Anisolepis grilli*.

In the birth centenary of Andreas Mayer, the merit of the material jointed by him is still far from its real valuation, not only because part of his captures of birds and mammals became unpublished, but also because some other animals were only recently discovered, as shown here.

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## RESUMO

Um estudo sobre o legado herpetológico do naturalista alemão Andreas Mayer (1907-1986) para o estado do Paraná (Bérnils & Moura-Leite, 1990) levantou 83 exemplares de 20 espécies de répteis, obtidos por ele no Paraná e no Mato Grosso do Sul (anos 40, 50 e 60) e tombados no atual Museu de História Natural Capão da Imbuia (Curitiba). Acreditava-se serem os únicos répteis coletados por Mayer e guardados em coleção científica, mas justamente no centenário de seu nascimento foram encontradas 15 serpentes coletadas por ele e não listadas na publicação anterior. O material é relevante, pois procede de áreas que atualmente se encontram ambientalmente degradadas, foi obtido numa época com raros registros de répteis para o Paraná, e contém espécies de difícil captura no Estado,

entre as quais se destaca a primeira ocorrência de *Phimophis* cf. *guerini* para o Paraná. As 15 serpentes são arroladas com seus dados de etiqueta e tombo, e são corrigidas informações incompletas ou equivocadas no artigo de 1990, com a devida atualização taxonômica.

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