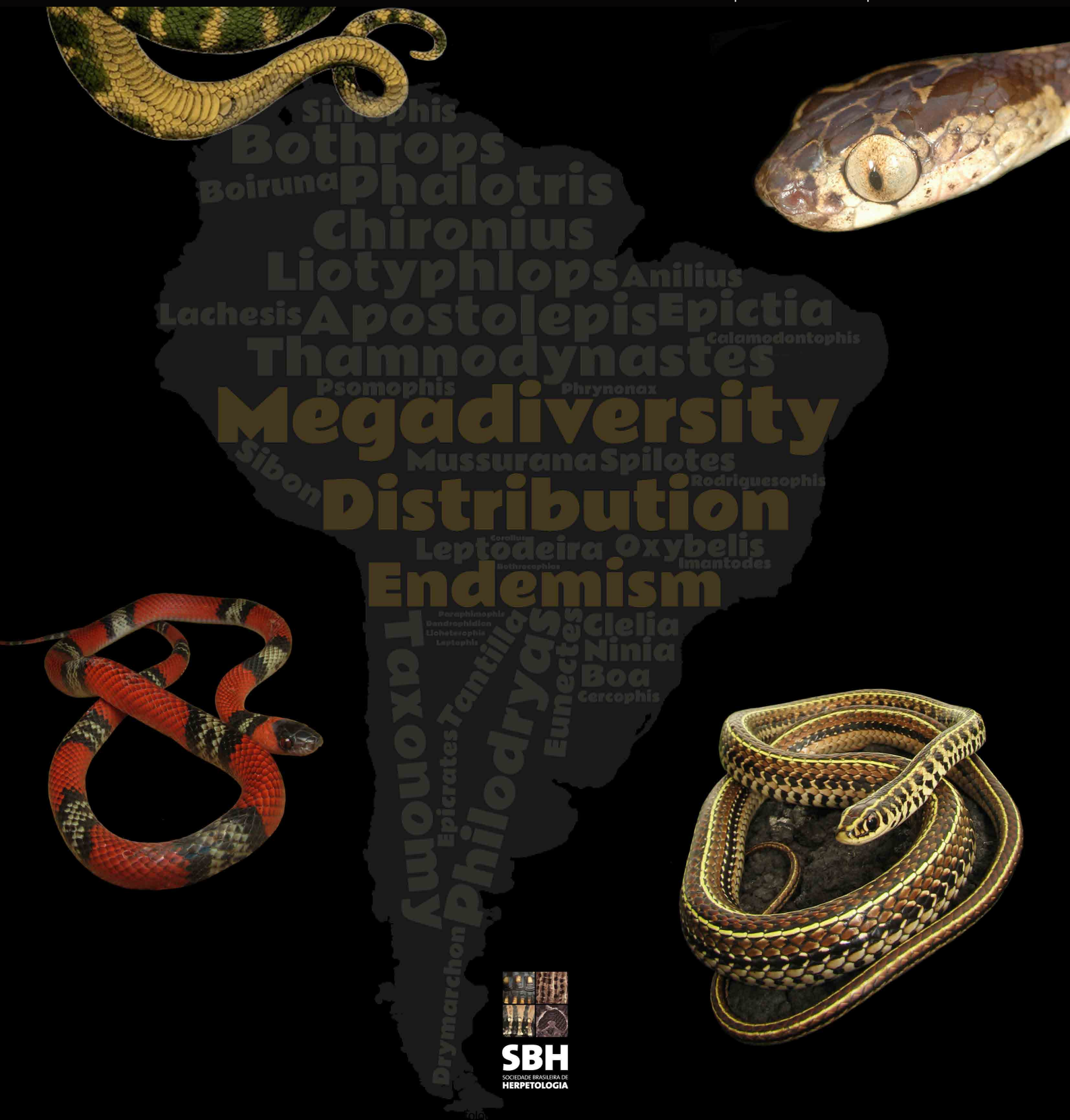
South American Journal of HERPETOLOGY

VOLUME 14 | SPECIAL ISSUE 1 | DECEMBER 2019



SBH
SOCIEDADE BRASILEIRA DE HERPETOLOGIA

South American Journal of Herpetology, 14(Special Issue, 1), 1–274

Atlas of Brazilian Snakes: Verified Point-Locality Maps to Mitigate the Wallacean Shortfall in a Megadiverse Snake Fauna

Cristiano C. Nogueira[1], Antonio J.S. Argôlo[2], Vanesa Arzamendia[3], Josué A. Azevedo[4], Fausto E. Barbo[5], Renato S. Bérnils[6], Bruna E. Bolochio[7], Marcio Borges-Martins[8], Marcela Brasil-Godinho[9], Henrique Braz[10], Marcus A. Buononato[11], Diego F. Cisneros-Heredia[12], Guarino R. Colli[13], Henrique C. Costa[14], Francisco L. Franco[10], Alejandro Giraudo[3], Rodrigo C. Gonzalez[15], Thaís Guedes[4,16], Marinus S. Hoogmoed[17], Otavio A.V. Marques[10], Giovanna G. Montingelli[18], Paulo Passos[15], Ana L.C. Prudente[17], Gilson A. Rivas[19], Paola M. Sanchez[18], Filipe C. Serrano[1], Nelson J. Silva Jr.[20], Christine Strüssmann[21], João Paulo S. Vieira-Alencar[1], Hussam Zaher[18]*, Ricardo J. Sawaya[7]*, Marcio Martins[1]*

[1] *Departamento de Ecologia, Instituto de Biociências, Universidade de São Paulo, 05508-090, São Paulo, São Paulo, Brazil.*
[2] *Departamento de Ciências Biológicas, Universidade Estadual de Santa Cruz, 45662-900, Ilhéus, Bahia, Brazil.*
[3] *Instituto Nacional de Limnología, Facultad de Humanidades y Ciencias, Universidad Nacional del Litoral, 3000, Santa Fe, Argentina.*
[4] *Department of Biological and Environmental Sciences, University of Gothenburg, SE405 30, Gothenburg, Sweden.*
[5] *Laboratório Especial de Coleções Zoológicas, Instituto Butantan, 05503-900, São Paulo, São Paulo, Brazil.*
[6] *Departamento de Ciências Agrárias e Biológicas, Programa de Pós-Graduação em Biodiversidade Tropical, Universidade Federal do Espírito Santo, 29932-540, São Mateus, Espírito Santo, Brazil.*
[7] *Centro de Ciências Naturais e Humanas, Universidade Federal do ABC, 09606-070, São Bernardo do Campo, São Paulo, Brazil.*
[8] *Departamento de Zoologia, Programa de Pós-Graduação em Biologia Animal, Universidade Federal do Rio Grande do Sul, 91540-000, Porto Alegre, Rio Grande do Sul, Brazil.*
[9] *Programa de Pós-Graduação em Evolução e Diversidade, Universidade Federal do ABC, 09606-070, São Bernardo do Campo, São Paulo, Brazil.*
[10] *Divisão de Biologia, Instituto Butantan, 05503-900, São Paulo, São Paulo, Brazil.*
[11] *Naturae Consultoria Ambiental Ltda., 74810-250, Goiânia, Goiás, Brazil.*
[12] *Colegio de Ciencias Biológicas y Ambientales, Universidad San Francisco de Quito, 17-1200-841, Quito, Ecuador.*
[13] *Departamento de Zoologia, Instituto de Ciências Biológicas, Universidade de Brasília, 70910-900, Brasília, Distrito Federal, Brazil.*
[14] *Universidade Federal de Juiz de Fora. Instituto de Ciências Biológicas, Departamento de Zoologia. Rua José Lourenço Kelmer, s/n, São Pedro, Juiz de Fora, 36036-900, Minas Gerais, Brazil.*
[15] *Departamento de Vertebrados, Museu Nacional, Universidade Federal do Rio de Janeiro, 20940-040, Rio de Janeiro, Rio de Janeiro, Brazil.*
[16] *Centro de Estudos Superiores de Caxias, Programa de Pós-Graduação em Biodiversidade, Ambiente e Saúde, Universidade Estadual do Maranhão, 65604-380, Caxias, Maranhão, Brazil.*
[17] *Coordenação de Zoologia, Museu Paraense Emílio Goeldi, 66017-970, Belém, Pará, Brazil.*
[18] *Museu de Zoologia, Universidade de São Paulo, 04263-000, São Paulo, São Paulo, Brazil.*
[19] *Museo de Biología, Facultad Experimental de Ciencias, Universidad del Zulia, Apartado Postal 526, Maracaibo 4011, Venezuela.*
[20] *Programa de Pós-Graduação em Ciências Ambientais e Saúde, Escola de Ciências Agrárias e Biológicas, Pontifícia Universidade Católica de Goiás, 74605-140, Goiânia, Goiás, Brazil.*
[21] *Faculdade de Medicina Veterinária, Universidade Federal de Mato Grosso, 78060-900, Cuiabá, Mato Grosso, Brazil.*
* *Corresponding authors. Email: martinsmrc@usp.br; sawayarj@gmail.com; hzaher@usp.br*

Abstract. Accurate and detailed species distribution maps are fundamental for documenting and interpreting biological diversity. For snakes, an ecologically diverse group of reptiles, syntheses and detailed data on distribution patterns remain scarce. We present the first comprehensive collection of detailed, voucher-based, point-locality, range maps for all described and documented Brazilian snakes, with the major aim of mitigating the Wallacean shortfall and as a contribution towards a better understanding of this rich, threatened, and poorly studied megadiverse fauna. We recorded a total of 412 snake species in Brazil on the basis of an extensive and verified point-locality database of 163,498 entries and 75,681 unique records (available here as Online Supporting Information). Our results reveal previously undocumented patterns of distribution, sampling effort, richness, and endemism levels, resulting in a more objective view of snake diversity in the Neotropics. Apart from these achievements, we understand that the most relevant and enduring contribution of the present atlas is to stimulate researchers to publish corrections, additions, and new discoveries.

Keywords. Biodiversity; Biogeography, Distribution Patterns; Endemism; Megadiversity; Neotropics; Serpentes; Squamata.

How to cite this article: Nogueira C.C., Argôlo A.J.S., Arzamendia V., Azevedo J.A., Barbo F.E., Bérnils R.S., ... Martins M.C.M. 2019. Atlas of Brazilian snakes: verified point-locality maps to mitigate the Wallacean shortfall in a megadiverse snake fauna. *South American Journal of Herpetology* 14(Special Issue 1):1**–274. http://doi.org/10.2994/SAJH-D-19-00120.1**

Submitted: 03 October 2019
Accepted: 22 November 2019
Available Online: 31 December 2019

Handling Editor: Taran Grant
http://doi.org/10.2994/SAJH-D-19-00120.1

INTRODUCTION

Accurate and detailed species distribution maps are fundamental for documenting and interpreting biological diversity (Wallace, 1852; 1876). A wide array of central questions in biogeography, evolutionary biology, and biodiversity science can only be properly formulated and answered if the distribution of species is adequately described and documented in detail (Wallace, 1852; Whittaker et al., 2013).

Detailed, updated, and reliable data on species ranges are even more relevant in regions combining high biological complexity, high anthropogenic pressure, and large gaps in current biological knowledge, such as several regions in the Neotropics (Whittaker et al., 2005; Ficetola et al., 2013). Detailed knowledge of the geographic distribution of life on Earth is also pivotal for biodiversity conservation, providing a critical intersection between biological sciences and a wide array of other disciplines (Jetz et al., 2012; Duputié et al., 2014). High quality distribution maps are even more relevant in times of rampant habitat loss, climate change, and unprecedented biodiversity crisis (Duputié et al., 2014; Pimm et al., 2014). Moreover, species distribution maps are a valuable communication tool between science and the general public (Jetz et al., 2012; Ward, 2012).

Understanding the extremely rich and diverse South American biotas has been a central scientific quest since the early stages of biogeography and biodiversity science (Wallace, 1852; Humboldt and Bonpland, 2009). Brazil ranks among the most biodiverse countries in the world (Mittermeier et al., 1997; Lewinsohn and Prado, 2005). Moreover, Brazil harbors a diverse array of natural landscapes and floristic provinces, from semi-arid scrub and dry forest, grasslands and savannas, to humid evergreen forests and wetlands, forming a very diverse mosaic of ecoregions (Olson et al., 2001). Biological diversity is obviously complex and heterogeneous within and across these landscapes, and two Brazilian ecoregions (Atlantic Forest and Cerrado) stand out as global biodiversity hotspots, combining high endemic richness and high levels of threat (Myers et al., 2000). Approximately 60% of Amazonia lies within Brazilian territory, and some portions of Brazil still rank among the largest remaining blocks of understudied wilderness areas, where human impacts are scarce and negligible (Mittermeier et al., 2002).

In modern times, our capacity to observe the planet and map environmental information, even at very fine spatial grain, far exceeds our knowledge on where a given species is present or absent (Jetz et al., 2012; Beck et al., 2013; Meyer et al., 2015). The lack of detailed data on species ranges is known as the Wallacean shortfall (Whittaker et al., 2005). It represents a major obstacle to understanding and conserving biodiversity (Wallace, 1852; Whittaker et al., 2005; Elith et al., 2006). Species distribution patterns (even at coarse, global scales) are still scarcely documented for most faunal groups except amphibians, birds, and mammals (Ceballos and Ehrlich, 2006; Grenyer et al., 2006; Orme et al., 2006; Jenkins et al., 2013). Even for these well-studied vertebrate groups, available maps and syntheses are based on coarse polygons or expert drawn maps (see Stuart et al., 2004; Ceballos and Ehrlich, 2006; Grenyer et al., 2006; Orme et al., 2006; Jenkins et al., 2013). These polygon maps fail to document the actual data sources and lack any ancillary information on voucher-based point-locality data (the finest possible grain of biodiversity spatial analysis). This lack of detail, transparency and resolution in species distribution data hampers more detailed analyses of biodiversity patterns at continental or regional levels (Elith et al., 2006; Ficetola et al., 2013).

For snakes, an ecologically diverse group of reptiles (Greene, 1997; Roll et al., 2017), syntheses and detailed data on distribution patterns remain scarce, despite recent advances in coarse scale mapping of reptiles at the global scale (Roll et al., 2017). The scarce range data for Neotropical and Brazilian snakes is still based on general political boundaries (e.g., Costa and Bérnils, 2018; Uetz et al., 2019) or general grid maps (e.g., Guedes et al., 2018a).

In groups of rare or poorly documented organisms, species distribution maps represent the most critical tool for understanding diversity and distribution (Elith et al., 2006; Ficetola et al., 2013), which is especially true for elusive organisms like snakes (Greene, 1997), one of the most difficult vertebrate taxa to sample in the wild. The sampling effort required to obtain a single snake record in the field is generally high, especially in the Neotropics. For instance, Martins and Oliveira (1998) reported a mean effort of 15h37min of visual search to find a snake during the day and 04h36min at night, at a central Amazonian site. Fraga et al. (2014) suggested a cost of $120 US dollars to find a single snake at the same site. This provides a general idea of the enormous wealth of data stored in natural history collections and their central role as the empirical basis for biogeography and biodiversity science. Indeed, mapping the accumulated information in natural history collections and scientific literature, combining centuries of basic research, becomes a major tool for understanding biological diversity, especially for poorly known, elusive taxa from megadiverse regions (see Graham et al., 2004). Natural history collections accumulate data from centuries of faunistic inventories, taxonomic revisions, and species descriptions, from pre-Linnaean times to the present (Graham et al., 2004; Ward, 2012). Without museum and literature records used to build detailed and accurate range maps on the basis of fine-grained point-locality records, it would be virtually impossible to understand and describe snake diversity in the Neotropics.

Herein, we present the first comprehensive compilation of detailed, voucher-based, point-locality range maps

for all described and documented Brazilian snakes, with the major aim of mitigating the Wallacean shortfall and as a contribution towards a better understanding of this rich, threatened, and poorly studied megadiverse fauna. By gathering and providing access to high-quality, fine-grained, voucher-based, verified presence records, our maps and point-locality database will serve as a baseline for ecological, evolutionary, and biogeographic studies and shed light on what we know and do not know about the spatial diversity patterns of one of the richest snake faunas on the planet.

MATERIALS AND METHODS

We mapped all snake species with at least one verified, vouchered record within Brazilian territory. We followed the higher-level taxonomy of Zaher et al. (2009; see also Burbrink et al., 2019) and used generic and specific accounts according to the Brazilian List of Reptiles (Costa and Bérnils, 2018), updated whenever necessary. All higher names reflect well-supported clades (see Zaher et al., 2019; Burbrink et al., 2019) except "Scolecophidia," a group recently found to be paraphyletic in molecular analyses (Pyron et al., 2013; Figueroa et al., 2016; Zheng and Wiens, 2016). Nevertheless, we persist in using Scolecophidia for convenience until familial affinities within this large group of fossorial snakes are resolved.

Although we are aware that many taxa treated herein are polytypic, including named subspecies (see Wallach et al., 2014; Costa and Bérnils, 2018; Uetz et al., 2019), we opted to use species as the least inclusive taxonomic level. Most of these taxa represent species complexes, for which taxonomic revisions are badly needed to test the validity of named subspecies. Insofar as such studies are lacking or unpublished, we treated these taxa as single species. We also omitted dubious records in faunistic studies for which we were unable to examine voucher specimens. We considered taxonomic changes and geographic additions until September 2019, and we explained each inclusion, exclusion, or taxonomic change in relation to the list in Costa and Bérnils (2018) in our full species list (Table S1).

All our maps are derived from a georeferenced species occurrence dataset (Table S2) based on vouchered specimens examined in natural history museums or obtained from literature records, especially in lists of examined material in taxonomic studies. All voucher specimens not cited in the taxonomic literature, representing specimens housed in zoological collections, were verified by at least one researcher. Specimens in most major natural history collections in Brazil were examined; voucher numbers for examined material can be found in our database, which also includes citations for literature records (Table S2). The list of acronyms and natural history collections examined follows the list presented in Guedes et al. (2018a), partially based on preliminary data from the present project.

A large portion of the voucher specimens examined in this study were housed in the Instituto Butantan collection (IBSP), the world's largest collection of Neotropical snakes (Franco, 2012). All specimens cited from this collection were examined directly by at least one of the authors prior to the catastrophic fire in 2010 that destroyed most of the specimens were destroyed (Warrel et al., 2010; Franco, 2012). Most of these records were examined as part of large snake or reptile diversity studies in different portions of Brazil and the Neotropics (Arzamendia and Giraudo, 2002; Bérnils, 2009; Nogueira et al., 2010, 2011; Barbo, 2012; Guedes et al., 2014; Cacciali et al., 2016; Prudente et al., 2019). When taxonomic revisions were published after the loss of specimens in the Butantan collection (and not including these specimens) and previous identities could not be validated in the light of the new taxonomy, records form the IBSP collection were discarded. We did not include in our database records obtained from online digitized biodiversity data (GBIF, HerpNet, or similar data repositories), as these often contain raw, error-prone, unverified data, especially in poorly studied taxa (see Beck et al., 2013; Ficetola et al., 2013; Meyer et al., 2015).

We used multiple sources for georeferencing locality data, including detailed field data with GPS coordinates (if available), published country gazetteers (NGA, 2019), online gazetteers in the geoLoc tool of SpeciesLink (2019), and/or coordinates available in the taxonomic or faunistic sources, following general guidelines in Chapman and Wieczorek (2006). We mapped all species throughout cis-Andean South America to avoid truncating ranges and provide a general view of range limits outside the political borders of Brazil.

Our database (Table S2) is composed of multiple entries (rows in the spreadsheet) that comprise species records. A single record (combination of species name and pair of coordinates, resulting in a point on the species map) may be formed by a single entry (row) or multiple entries when there are many specimens of the same species at the same locality.

We intersected our full database with a 1º × 1º (at the equator) grid for cis-Andean South America, using the equal-area conic projection (CRS: "EPSG 102033" in QGIS 3.4), to balance grid cell size across different latitudes. Species range-size was measured as a function of the number of grid cells occupied by a given species (see Gaston et al., 1995; Gaston, 1998). We tested the linear dependence between the description year of a given species and the species range size (correlation implemented in "lessR" package; Gerbing, 2019; see Gaston, 1998). All these analyses were performed in R (R Core Team, 2019).

We also georeferenced all known type localities, whenever place names or locality descriptions were given

in detail in the taxonomic literature (Table S3). We used the most precise coordinates available on the basis of detailed information obtained directly in species descriptions (searched using the Reptile Database; Uetz et al., 2019) and aided by field data, online gazetteers, and GIS tools (QGIS Development Team, 2018). We mapped type localities for all species recorded in Brazil except those that are outside South America.

In order to compare the spatial configuration of species descriptions and discovery across time, we used Kernel distances (9º radius), as implemented in the QGIS Heatmap plugin (QGIS Development Team, 2018), to map clusters of type localities according to three time slices applied to description dates: (i) from the eighteenth to nineteenth century, (ii) twentieth century, and (iii) twenty-first century. In this analysis we used all available georeferenced type localities, including uncertain localities, as long as they were still traceable to a given, well-defined region, such as a state or country (e.g., "Alagoas," "Espírito Santo," "French Guiana," "Suriname," or "Uruguay").

We mapped species according to South American ecoregions (adapted from Olson et al., 2001) and elevation at ~1 km × 1 km resolution (USGS, 2019). We calculated richness, number of records, redundancy (1 – richness/number of records, where values close to 1 are well sampled cells, while 0 means no redundancy in the sampling, i.e., each species has only one record; Laffan et al., 2010), and corrected weighted endemism (sum of the inverse of the range size, divided by richness, in which higher values indicate that a great proportion of richness is composed by small-ranged species; Laffan et al., 2010) in each cell of a 1º × 1º grid covering the Brazilian territory, using the Biodiverse software (Laffan et al., 2010). We used corrected weighted endemism (rather than the similar weighted endemism; Laffan et al., 2010) to avoid potential biases, since weighted endemism and richness are usually strongly correlated due to a higher occurrence of endemic species in rich cells by chance alone. As most of our areas are still poorly sampled, not correcting for richness would result in high endemism values only in well sampled cells. As our species list is restricted to Brazil, we limited our analyses of richness and sampling to the Brazilian territory. Analyses of endemism were conducted for all cis-Andean South America, to avoid artificially high endemism levels near the Brazilian borders, caused by the truncated ranges of widespread species with marginal records in Brazil.

We produced descriptions of the range of each species in our Species Accounts (see below). Each account includes the detailed description of each type locality (if available in the taxonomic literature), and a summary of the range, including: presence in South American countries, endemism in Brazil, presence in ecoregions in Brazil, distribution according to altitudinal variation, and local distribution in major habitat types, based on field data. Occurrence in Brazilian states are not provided in our accounts, given that they are available in Costa and Bérnils (2018). Altitudinal ranges were described according to predominant occurrence in three major altitudinal classes: low elevation (below 250 m above sea level [a.s.l.]), intermediate elevation (250–750 m a.s.l.) and high elevation (above 750 m a.s.l.). General distribution and occurrence in each ecoregion was described using the standardized terms: widespread, partial, marginal, and restricted (Table S4). We used widespread for species with many records covering most of a given area or region; partial for species found with many records only in part of a given region; marginal for species with only a few records near the limits of a given region (often with many records in neighboring regions), and restricted for species known from a few records, concentrated in a relatively small geographical area or small portion of a given ecoregion.

The aim of the accounts is not to provide a thorough description of ranges, their known point-locality data and their published sources, but to describe major features of the distribution of each species, with special attention to the two fundamental and complementary scales of biogeographical inquiry (de Candolle, 1820; see also Nelson, 1978; Egerton, 2010): the continental scale, or the large-scale range within South America and Brazilian ecoregions (e.g., Amazonia, Caatinga, etc.); and the local distribution, at the small scale of the habitat or the particular biotope of a given species (e.g., grasslands, dry forest, primary forest, wetlands, riparian areas). We emphasized these two major scales in species accounts because inferences on local distribution patterns (which depend on detailed natural history data obtained in the field) are often (and erroneously) based solely on continental scale maps, which, by design, fail to accurately represent or describe the local distribution of a species.

RESULTS

We recorded a total of 412 snake species in Brazil (Table S1), based on 163,498 entries and 75,681 unique records in our database (Table S2). All except one of these 412 species are mapped in detail, and a summary of their range is presented below.

"Scolecophidia" Cope, 1864: Typhlopidae Merrem, 1820

Amerotyphlops amoipira (Rodrigues and Juncá, 2002)

Type locality. Ibiraba, left margin of the São Francisco, Barra, state of Bahia, Brazil.

Distribution. Endemic to Brazil (Plt. 1A). Restricted to the Caatinga and its contact areas with the Cerrado and

Atlantic Forest (Plt. 1A) at low elevations (Plt. 1B). Observed in the field in open xeric scrub on sandy soil, in the Caatinga (Rodrigues, 1991).

***Amerotyphlops arenensis* Graboski et al., 2015**

Type locality. Mata do Pau Ferro Ecological Reserve, Areia, state of Paraíba, Brazil.
Distribution. Endemic to Brazil (Plt. 2A). Restricted to the Caatinga and its contact areas with the Atlantic Forest and Cerrado (Plt. 2A), at intermediate to high elevations (Plt. 2B). Observed in the field in upland forest in the Caatinga (Graboski et al., 2015) and open savanna on sandy soil in the Cerrado (Fernandes et al., 2010a).

***Amerotyphlops brongersmianus* (Vanzolini, 1976)**

Type locality. Barra de Itaípe, Ilhéus, state of Bahia, Brazil.
Distribution. Widespread in South America, known from Argentina, Bolivia, Brazil, Colombia, Guyana, Paraguay, Peru, Suriname, Uruguay, and Venezuela (Plt. 3A). In Brazil, recorded in all ecoregions except Araucaria Forest and Pampas Grasslands (Plt. 3A), mostly at low elevations (Plt. 3B). Observed in the field in forest (Martins and Oliveira, 1998), including semideciduous (Ávila et al., 2006) and gallery forest (Nogueira et al., 2011).

***Amerotyphlops minuisquamus* (Dixon and Hendricks, 1979)**

Type locality. Mishana, department of Loreto, Peru.
Distribution. Known from northern portion of South America, in Brazil, Colombia, Guyana, Peru and Venezuela (Plt. 4A). In Brazil, restricted to the northwestern portion of Amazonia (Plt. 4A) at low elevations (Plt. 4B). Observed in the field in forest (Rodrigues, 1991).

***Amerotyphlops paucisquamus* (Dixon and Hendricks, 1979)**

Type locality. State of Pernambuco, Brazil.
Distribution. Endemic to Brazil (Plt. 5A) restricted to the northern portion of the Atlantic Forest and easternmost Amazonia (Plt. 5A), at low elevations (Plt. 5B). No detailed field data on habitat use are available for this species.

***Amerotyphlops reticulatus* (Linnaeus, 1758)**

Type locality. "America."
Distribution. Widespread in northern South America, mostly in Amazonia (Plt. 6A). Recorded in Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela (Plt. 6A). In Brazil, widespread in Amazonia, with marginal records in the Caatinga, Cerrado, and Chiquitano Dry Forest (Plt. 6A), mostly at low elevations (Plt. 6B). Observed in the field in forest (Duellman, 1978; Dixon and Soini, 1986; Cunha and Nascimento, 1993; Martins and Oliveira, 1998).

***Amerotyphlops yonenagae* (Rodrigues, 1991)**

Type locality. Santo Inácio, Gentio do Ouro, right margin of the São Francisco river, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 7A), known from two records in the Caatinga (Plt. 7A) at low elevations (Plt. 7B). Observed in the field in xeric scrubland on sandy soil (Rodrigues, 1991).

"Scolecophidia" Cope 1864: Leptotyphlopidae Stejneger, 1892

***Epictia albifrons* (Wagler, 1824)**

Type locality. Vicinities of Belém, state of Pará, Brazil.
Distribution. Known from Brazil, Guyana, Suriname, Trinidad and Tobago, and Venezuela, mostly in Amazonia (Plt. 8A). In Brazil recorded in Amazonia and Guianan savannas (Plt. 8A) at low elevations (Plt. 8B). Observed in the field in forest (Mohammed et al., 2014).

***Epictia borapeliotes* (Vanzolini, 1996)**

Type locality. Santo Inácio, Gentio do Ouro, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 9A). Widespread in the Caatinga (Plt. 9A), mostly at intermediate to high elevations (Plt. 9B). Observed in the field in xerophitic vegetation and upland forest in Caatinga (Ribeiro et al., 2012; Guedes et al., 2014).

***Epictia clinorostris* Arredondo and Zaher, 2010**

Type locality. Rio das Mortes, Toricoejo, Barra do Garças, state of Mato Grosso, Brazil.
Distribution. Endemic to Brazil (Plt. 10A). Restricted to the central portion of the Cerrado (Plt. 10A) at low elevations of the Araguaia River depression (Plt. 10B). Observed in the field in gallery forest (Arredondo and Zaher, 2010).

***Epictia collaris* Hoogmoed, 1977**

Type locality. Base Camp Nassau Mountains, district Marowijne, Suriname.
Distribution. Known from Brazil, French Guiana, and Suriname on the Guiana Shield (Plt. 11A). In Brazil, known from a single locality in northernmost Amazonia (Plt. 11A) at low elevations (Plt. 11B). Observed in the field in primary forest (Hoogmoed, 1977).

***Epictia munoai* (Orejas-Miranda, 1961)**

Type locality. Pozo Hondo, Tambores, Tacuarembó, Uruguay.
Distribution. Known from Argentina, Brazil, and Uruguay, at the southern portion of the South American open diagonal (Plt. 12A). In Brazil, widespread in the Pampas Grasslands, with marginal records in Araucaria Forest and Atlantic Forest (Plt. 12A), mostly at low elevations (Plt. 12B). Observed in the field in grassland, rock outcrops, and temporarily flooded areas (Giraudo, 1999; Ghizoni-Jr. et al., 2009).

***Epictia striatula* (Smith and Laufe, 1945)**

Type locality. Yanacachi, department of La Paz, Bolivia.
Distribution. Known from Bolivia and Brazil (Plt. 13A). In Brazil, known only from a single record in central Amazonia (Plt. 13A) at a low elevation (Plt. 13B). No detailed field data on habitat use are available for this species.

***Epictia vellardi* (Laurent, 1984)**

Type locality. Ciudad de Formosa, province of Formosa, Argentina.
Distribution. Recorded in Argentina, Brazil, and Paraguay in the southern portion of the South American open diagonal (Plt. 14A). In Brazil, known from only two records in the Amolar and Urucum massifs of the Pantanal (Plt. 14A) at intermediate to low elevations (Plt. 14B). Observed in the field in dry forest and wetland (Cacciali et al., 2016).

***Siagonodon acutirostris* Pinto and Curcio, 2011**

Type locality. Almas, state of Tocantins, Brazil.
Distribution. Endemic to Brazil (Plt. 15A). Restricted to a small portion of the northeastern Cerrado (Plt. 15A) at intermediate elevations of the Jalapão region (Plt. 15B). Observed in the field in grassland and savanna on sandy soils (Recoder et al., 2011).

***Siagonodon cupinensis* (Bailey and Carvalho, 1946)**

Type locality. Barra do Tapirápés, near the mouth of Rio Tapirapés, tributary of the Araguaia, state of Mato Grosso, Brazil. Currently Santa Terezinha, state of Mato Grosso, Brazil.
Distribution. Known from Brazil and Suriname (Plt. 16A). Known only from three records in central Amazonia and the type locality in the Cerrado (Plt. 16A) at low elevations (Plt. 16B). Observed in the field in savanna (Bailey and Carvalho, 1946).

***Siagonodon septemstriatus* (Schneider, 1801)**

Type locality. Suriname (Hoogmoed, 1977).
Distribution. Known from Brazil, French Guiana, Guyana, Suriname, and Venezuela on the Guiana Shield (Plt. 17A). Recorded in northeastern Amazonia and Guianan savannas (Plt. 17A) at low elevations (Plt. 17B). No detailed field data on habitat use are available for this species.

***Trilepida brasiliensis* (Laurent, 1949)**

Type locality. Barreiras, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 18A). Widespread in the Cerrado and its contact with the Caatinga and Pantanal (Plt. 18A), mostly at intermediate to high elevations (Plt. 18B). Observed in the field in savannas and open areas (Borges-Nojosa et al., 2009; Dal Vechio et al., 2013).

***Trilepida dimidiata* (Jan, 1861)**

Type locality. São Marcos, near the confluence of Rio Uriracuera and Rio Tacutu, state of Roraima, Brazil.
Distribution. Known from Brazil, Guyana, and Suriname on the Guiana Shield (Plt. 19A). In Brazil, restricted to Guianan savannas and northernmost Amazonia (Plt. 19A), mostly at low elevations (Plt. 19B). No detailed field data on habitat use are available for this species.

***Trilepida fuliginosa* (Passos, Caramaschi, and Pinto, 2006)**

Type locality. Queimadas hydroelectric power plant, Rio Preto, between Luziânia (Goiás) and Unaí (Minas Gerais) municipalities, Brazil.
Distribution. Endemic to Brazil (Plt. 20A). Restricted to the central portion of the Cerrado, and a single record near its contact with Amazonia (Plt. 20A), mostly at intermediate elevations (Plt. 20B). No detailed field data on habitat use are available for this species.

***Trilepida jani* (Pinto and Fernandes, 2012)**

Type locality. Parque das Mangabeiras, Belo Horizonte, state of Minas Gerais, Brazil.
Distribution. Endemic to Brazil (Plt. 21A), recorded in contact areas between Atlantic Forest and Cerrado along the southern portion of the Espinhaço Range (Plt. 21A), mostly at high elevations (Plt. 21B). No detailed field data on habitat use are available for this species.

***Trilepida koppesi* (Amaral, 1955)**

Type locality. Terenos, state of Mato Grosso do Sul, Brazil.
Distribution. Endemic to Brazil (Plt. 22A), recorded in the southern portion of the Cerrado and its contact with the Atlantic Forest and Pantanal (Plt. 22A). Most re-

cords at intermediate elevations (Plt. 22B). Observed in the field in savannas and grasslands (França and Araújo, 2006; Sawaya et al., 2008; Valdujo et al., 2009; Freitas et al., 2012).

***Trilepida macrolepis* (Peters, 1858)**

Type locality. Puerto Cabello, Caracas, Venezuela.
Distribution. Known from Brazil, Colombia, Guyana, Peru, Suriname, and Venezuela, mainly on the Guiana Shield (Plt. 23A). In Brazil, widespread in Amazonia and Guianan savannas (Plt. 23A) at low elevations (Plt. 23B). No detailed field data on habitat use are available for this species.

***Trilepida salgueiroi* (Amaral, 1955)**

Type locality. Vicinities of Itá railway station, currently Itapina station, Colatina, state of Espírito Santo, Brazil.
Distribution. Endemic to Brazil (Plt. 24A). Recorded in the Atlantic Forest (Plt. 24A), mostly at low elevations (Plt. 24B). No detailed field data on habitat use are available for this species.

"Scolecophidia" Cope 1864: Anomalepididae Taylor, 1939

***Liotyphlops beui* (Amaral, 1924)**

Type locality. Fazenda Butantan, São Paulo, state of São Paulo, Brazil.
Distribution. Known from Argentina, Brazil, and Paraguay (Plt. 25A). In Brazil, recorded in Atlantic Forest, Cerrado, Araucaria Forest, Chiquitano Dry Forest, and Pantanal (Plt. 25A) at low to intermediate elevations (Plt. 25B). Previous maps and taxonomy in Dixon and Kofron (1983). Observed in the field in forest and open and disturbed urban areas (Dixon and Kofron, 1983).

***Liotyphlops caissara* Centeno et al., 2010**

Type locality. Trilha da Água Branca, Ilhabela, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 26A). Restricted to a small coastal portion of the Atlantic Forest (Plt. 26A) at low elevations (Plt. 26B). Previous maps and taxonomy in Centeno et al. (2010). Observed in the field in forest (Centeno et al., 2010).

***Liotyphlops schubarti* Vanzolini, 1948**

Type locality. Cachoeira de Emas, Pirassununga, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 27A), known from only two records in the southern portion of the Cerrado (Plt. 27A) at intermediate elevations (Plt. 27B). Previous maps and taxonomy in Dixon and Kofron (1983). No detailed field data on habitat use are available for this species.

***Liotyphlops sousai* Marra-Santos and Reis, 2018**

Type locality. Passo Maia hydroelectric power plant, Passo Maia, state of Santa Catarina, Brazil.
Distribution. Endemic to Brazil, restricted to Araucaria Forest (Plt. 28A) at intermediate elevations (Plt. 28B). No detailed field data on habitat use are available for this species.

***Liotyphlops taylori* Marra-Santos and Reis, 2018**

Type locality. Serra das Araras Ecological Station, Porto Estrela, state of Mato Grosso, Brazil.
Distribution. Endemic to Brazil, known from a single record at the type locality, in the Cerrado, near its contact with Chiquitano Dry Forest (Plt. 29A) at intermediate elevations (Plt. 29B). Observed in the field in semideciduous forest (CCN, collector of the holotype, pers. obs.).

***Liotyphlops ternetzii* (Boulenger, 1896)**

Type locality. Paraguay.
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay at the southern portion of the South American open diagonal (Plt. 30A). In Brazil, widespread in the Cerrado, with marginal records in Amazonia, Atlantic Forest, Pampas Grasslands, and Chiquitano Dry Forest (Plt. 30A) from low to high elevations (Plt. 30B). Previous maps and taxonomy in Dixon and Kofron (1983). Observed in the field in open areas and gallery forest in Cerrado (Nogueira et al., 2010, 2011).

***Liotyphlops trefauti* Freire et al., 2007**

Type locality. Fazenda Bananeira, Murici, state of Alagoas, Brazil.
Distribution. Endemic to Brazil (Plt. 31A), restricted to the northern portion of the Atlantic Forest at low elevations (Plt. 31B). Observed in the field in forest and cocoa plantations (Freire et al., 2007).

***Liotyphlops wilderi* (Garman, 1883)**

Type locality. São Cyriaco, near the village of Santo Antônio do Rio do Peixe. Currently Alvorada de Minas, Minas Gerais, Brazil.
Distribution. Endemic to Brazil (Plt. 32A), recorded from the Atlantic Forest and its contact with the Cerrado (Plt. 32A) at intermediate to high elevations (Plt. 32B). Previous maps and taxonomy in Dixon and Kofron (1983). No detailed field data available for this species.

***Typhlophis squamosus* (Schlegel, 1839)**

Type locality. Cayenne, French Guiana.
Distribution. Known from Brazil, French Guiana, Guyana, Suriname, and Venezuela on the Guiana Shield (Plt. 33A). In Brazil, recorded in northeastern Amazonia (Plt. 33A), at low elevations (Plt. 33B). Observed in the field in forest (Cunha and Nascimento, 1993; Martins and Oliveira, 1998; Frota et al., 2005).

Alethinophidia Nopcsa, 1923: Amerophidia Vidal et al., 2007: Aniliidae Stejneger, 1907

***Anilius scytale* (Linnaeus, 1758)**

Type locality. "Indiis" (in error). Restricted by Chippaux (1987) to Equatorial America.
Distribution. Widespread in Amazonian South America in Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela (Plt. 34A). In Brazil, widespread in Amazonia with marginal records in the Chiquitano Dry Forest and the northern portion of the Cerrado and an isolated record in the Caatinga (Plt. 34A). Recorded mostly at low elevations (Plt. 34B). Observed in the field in forest (Cunha and Nascimento, 1993; Duellman, 1978; Dixon and Soini, 1986; Martins and Oliveira, 1998), including gallery forest in the Cerrado (Nogueira et al., 2011).

Alethinophidia Nopcsa, 1923: Amerophidia Vidal et al., 2007: Tropidophiidae Brongersma, 1951

***Tropidophis grapiuna* Curcio et al., 2012**

Type locality. Serra da Pedra Lascada, Itajuípe, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 35A). Known from a restricted area in the northern portion of the Atlantic Forest (Plt. 35A) at intermediate to high elevations (Plt. 35B). Observed in the field in upland forest (Curcio et al., 2012).

***Tropidophis paucisquamis* (Müller in Schenkel, 1901)**

Type locality. Salesópolis, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 36A). Restricted to the central portion of the Atlantic Forest (Plt. 36A) from intermediate to high elevations (Plt. 36B). Observed in the field in forest, near wetlands (Antunes and Haddad, 2009; Forlani et al., 2010).

***Tropidophis preciosus* Curcio et al., 2012**

Type locality. Village of Conselheiro Mata, near Diamantina, state of Minas Gerais, Brazil.
Distribution. Endemic to Brazil (Plt. 37A). Restricted to the central portion of the Atlantic Forest, near its contact with the Cerrado, along the Espinhaço Range (Plt. 37A) at intermediate to high elevations (Plt. 37B). Observed in the field in grasslands on rocky outcrops (Curcio et al., 2012).

Alethinophidia Nopcsa, 1923: Afrophidia Vidal et al., 2007: Booidea Gray, 1825: Boidae Gray, 1825

***Boa constrictor* Linnaeus 1758**

Type locality. "Indiis" (in error).
Distribution. Widespread in South America, occurring in Argentina, Bolivia, Brazil, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, Trinidad and Tobago, and Venezuela (Plt. 38A). In Brazil, recorded in most ecoregions, except Araucaria Forest and Pampas Grasslands (Plt. 38A), from low to high elevations (Plt. 38B). Observed in the field in primary and secondary forest, savanna, grasslands, dry forest, and xeric vegetation (Cunha and Nascimento, 1993; Vanzolini et al., 1980; Martins and Oliveira, 1998; Argôlo, 2004; Rodrigues, 2005; Sawaya et al., 2008; Guedes et al., 2014).

***Corallus batesii* (Gray, 1860)**

Type locality. State of Amazonas, Brazil.
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, and Peru, in Amazonia (Plt. 39A). In Brazil, widespread in Amazonia south of the Amazon River, with marginal records in the Chiquitano Dry Forest and the Cerrado (Plt. 39A), mostly at low elevations (Plt. 39B). Previous maps and taxonomy in Henderson et al. (2009). Observed in the field in forest (Santos-Costa et al., 2015).

***Corallus caninus* (Linnaeus, 1758)**

Type locality. "America."
Distribution. Known in the Amazonia of Brazil, French Guiana, Guyana, Suriname, and Venezuela (Plt. 40A). In Brazil, recorded in Amazonia, north of the Amazon River (Plt. 40A), mostly at low elevations but reaching marginal upland portions of the Guiana Shield (Plt. 40B). Previous maps and taxonomy in Henderson et al. (2009). Observed in the field in forest (Martins and Oliveira, 1998).

***Corallus cropanii* (Hoge, 1954)**

Type locality. Miracatu, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 41A). Restricted to a small portion of the southeastern Atlantic Forest

(Plt. 41A) at low elevations of the Ribeira River depression (Plt. 41B). Previous maps and taxonomy in Machado-Filho et al. (2011). Observed in the field in secondary forest (Machado-Filho et al., 2011).

***Corallus hortulanus* (Linnaeus, 1758)**

Type locality. "America."
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, mostly along forested regions (Plt. 42A). In Brazil, it is widespread in Amazonia and Atlantic Forest, also occurring in the Caatinga, Pantanal, and the northern portion of the Cerrado (Plt. 42A), mostly at low elevations (Plt. 42B). Observed in the field in forest, gallery forest, hillside forest, upland forest and dry forest (Martins and Oliveira, 1998; Marques et al., 2001; Dal Vechio et al., 2013; Guedes et al., 2014).

***Epicrates assisi* Machado, 1945**

Type locality. Campina Grande, state of Paraíba, Brazil.
Distribution. Endemic to Brazil (Plt. 43A). Widespread in the Caatinga, with marginal records in the northeastern portion of the Cerrado and the northeastern Atlantic Forest (Plt. 43A) at low to high elevations (Plt. 43B). Previous maps and taxonomy in Passos and Fernandes (2008). Observed in the field in open areas and forest (Passos and Fernandes, 2008; Loebmann and Haddad, 2010; Freitas et al., 2012).

***Epicrates cenchria* (Linnaeus, 1758)**

Type locality. Suriname.
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, along forested regions (Plt. 44A). In Brazil, widespread in Amazonia and the northern portion of the Atlantic Forest, forming a disjunct distribution, with scattered records in the northern portion of the Cerrado (Plt. 44A), mostly at low elevations (Plt. 44B). Previous maps and taxonomy in Passos and Fernandes (2008). Observed in the field in primary and secondary forest and gallery forest (Bernarde and Abe, 2006; Rocha et al., 2004; Passos and Fernandes, 2008; Santana et al., 2008).

***Epicrates crassus* Cope, 1862**

Type locality. Río Paraná, Gardosa, Paraguay. Not located.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay, mainly in the central portion of the South American open diagonal (Plt. 45A). Widespread in the Cerrado, with marginal records in the Atlantic Forest, Chiquitano Dry Forest, and Amazonia (Plt. 45A), mostly at intermediate to high elevations (Plt. 45B). Previous maps and taxonomy in Passos and Fernandes (2008). Observed in the field in open areas, including grassland, savanna, and disturbed areas (Sawaya et al., 2008, Recoder et al., 2011; Valdujo et al., 2009).

***Epicrates maurus* Gray, 1849**

Type locality. Venezuela.
Distribution. Known from Brazil, Colombia, French Guiana, Guyana, Suriname, Trinidad and Tobago, and Venezuela on the Guiana Shield (Plt. 46A). In Brazil, restricted to northern Amazonia and Guianan savanna (Plt. 46A), mostly at low elevations (Plt. 46B). Previous maps and taxonomy in Passos and Fernandes (2008). Observed in the field in savanna (Rodrigues et al., 2016).

***Eunectes deschauenseei* Dunn and Conant, 1936**

Type locality. Ilha do Marajó, state of Pará, Brazil.
Distribution. Known from Brazil and French Guiana (Plt. 47A). In Brazil, recorded in northeastern Amazonia (Plt. 47A) at low elevations (Plt. 47B). Observed in the field in open and forested flooded areas (Nascimento et al., 1991).

***Eunectes murinus* (Linnaeus, 1758)**

Type locality. "America." Restricted to South America by Dirksen (2002).
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, Trinidad, and Venezuela (Plt. 48A). In Brazil, recorded in Amazonia, Atlantic Forest, Cerrado, Pampas Grasslands, and Chiquitano Dry Forest (Plt. 48A), mostly at low elevations (Plt. 48B). Observed in the field in wet and riparian habitats including rivers, swamps, flooded grassland, lakes and lagoons (Carvalho and Nogueira, 1998; Giraudo and Scrocchi, 2002; Bernarde and Abe, 2006; Recoder et al., 2011).

***Eunectes notaeus* Cope, 1862**

Type locality. "South America." Restricted to 50 km south of Forte Coimbra, on the Paraguay River, near the border between Brazil, Bolivia and Paraguay (Dirksen, 2002).
Distribution. Known from Argentina, Bolivia, Brazil, Paraguay, and Uruguay (Plt. 49A) along the Paraguay River depression. In Brazil, recorded in the Pantanal, Cerrado, Atlantic Forest, and Pampas Grasslands (Plt. 49A), at low elevations (Plt. 49B). Observed in the field in wet and riparian habitats including rivers, swamps, flooded grassland, lakes, and lagoons (Waller, 1988; Strüssmann and Sazima, 1993; Giraudo and Scrocchi, 2002; Sousa et al., 2010).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Viperidae Oppel, 1811: Crotalinae Oppel, 1811

***Bothrocophias hyoprora* (Amaral, 1935)**

Type locality. La Pedrera, Colombia.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, and Peru, mostly in Amazonia (Plt. 50A). In Brazil, widespread in western Amazonia (Plt. 50A) at low elevations (Plt. 50B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in forest and disturbed areas (Campbell and Lamar, 2004).

***Bothrocophias microphthalmus* (Cope, 1875)**

Type locality. Between Balso Puerto and Moyabamba, Peru.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, and Peru, mostly in Amazonia (Plt. 51A). In Brazil, recorded from a single locality in western Amazonia (Bernarde et al., 2012a; Plt. 51A) at low elevation (Plt. 51B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in forest (Campbell and Lamar, 2004).

***Bothrops alcatraz* Marques, Martins and Sazima, 2002**

Type locality. Alcatraz island, São Sebastião, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 52A). Recorded only at the type locality (Plt. 52A) at low elevation (Plt. 52B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in forest (Marques et al., 2002).

***Bothrops alternatus* Duméril et al., 1854**

Type locality. Paraguay.
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay in the southern portion of the South American open diagonal (Plt. 53A). In Brazil, recorded in Pampas Grasslands, Araucaria Forest, and the southern portions of the Atlantic Forest and Cerrado (Plt. 53A) at low to high elevations (Plt. 53B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in savanna, wetland, gallery forest, grassland, and disturbed areas (Lema, 1987; Silva Jr. and Sites, 1995; Giraudo and Scrocchi, 2002; Campbell and Lamar, 2004; Sawaya et al., 2008; São-Pedro and Pires, 2009).

***Bothrops atrox* (Linnaeus, 1758)**

Type locality. "Asia" (in error). Restricted to Suriname by Schmidt and Walker (1943).
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela in Amazonia (Plt. 54A). In Brazil, widespread in Amazonia (Plt. 54A), mostly at low elevations (Plt. 54B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in primary forest and disturbed areas (Campbell and Lamar, 2004; Martins and Oliveira, 1998; Bernarde and Abe, 2006).

***Bothrops bilineatus* (Wied, 1821)**

Type locality. Marobá, Nova Viçosa, state of Bahia, Brazil.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, mostly along forested regions (Plt. 55A). In Brazil, it occurs in Amazonia and Atlantic Forest (Plt. 55A) at low to intermediate elevations (Plt. 55B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in forest, forest clearings, and transition areas between flooded and terra firme forest (Doan and Arriaga, 2002; Campbell and Lamar, 2004).

***Bothrops brazili* Hoge, 1954**

Type locality. Rio Acará-mirim, Tomé Açu, state of Pará, Brazil.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela in Amazonia (Plt. 56A; Campbell and Lamar, 2004). In Brazil, widespread in Amazonia (Plt. 56A), mostly at low elevations (Plt. 56B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in primary forest (Martins and Oliveira, 1998; Campbell and Lamar, 2004; Bernarde and Abe, 2006).

***Bothrops cotiara* (Gomes, 1913)**

Type locality. Núcleo colonial Cruz Machado, Mallet, state of Paraná, Brazil.
Distribution. Known from Argentina and Brazil (Plt. 57A). In Brazil recorded mostly in Araucaria Forest, with marginal records in the Atlantic Forest (Plt. 57A), mostly at high elevations (Plt. 57B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in open grasslands, in montane broadleaf forest and Araucaria forest (Martins et al., 2002).

***Bothrops diporus* Cope, 1862**

Type locality. Río Bermejo region, on the boundary between Paraguay and Argentina.
Distribution. Known from Argentina, Brazil, and Paraguay, in the southern portion of the South American open diagonal (Plt. 58A). In Brazil, recorded in Atlantic Forest, Araucaria Forest, and Pampas Grasslands (Plt. 58A) from

low to intermediate elevations (Plt. 58B). Previous maps and taxonomy in Silva and Rodrigues (2008). Observed in the field in semideciduous, flooded and mixed (with Araucaria) forest, and also in dry scrubland, grassland and disturbed areas (Campbell and Lamar, 2004; Giraudo et al., 2008).

***Bothrops erythromelas* Amaral, 1923**

Type locality. Near Juazeiro, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 59A). Widespread in the Caatinga, with marginal records in the Atlantic Forest and Cerrado (Plt. 59A) at low to high elevations (Plt. 59B). Previous maps and taxonomy in Silva and Rodrigues (2008). Observed in the field in open xeric vegetation including herbaceous, arboreal, and bushy caatinga, and also in rocky outcrops (Guedes et al., 2014).

***Bothrops fonsecai* Hoge and Belluomini, 1959**

Type locality. Santo Antônio do Capivari, Rio Claro, state of Rio de Janeiro, Brazil.
Distribution. Endemic to Brazil (Plt. 60A). Recorded in the Atlantic Forest (Plt. 60A), mostly at high elevations (Plt. 60B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in open areas and forest edges (Martins et al., 2002).

***Bothrops insularis* (Amaral, 1922)**

Type locality. Queimada Grande Island, Itanhaém, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 61A). Recorded only at Queimada Grande Island, Itanhaém, state of São Paulo (Plt. 61A), at low elevations (Plt. 61B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in secondary forest (Martins et al., 2008a).

***Bothrops itapetiningae* (Boulenger, 1907)**

Type locality. Itapetininga, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 62A). Recorded in the southern portion of the Cerrado, with marginal records in contact areas with the Atlantic Forest (Plt. 62A) at intermediate to high elevations (Plt. 62B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field grasslands and savannas (Marques et al., 2002; Sawaya et al., 2008; Leão et al., 2014).

***Bothrops jararaca* (Wied, 1824)**

Type locality. Lagoa d'Arara, Mucuri, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 63A). Widespread in Atlantic Forest and Araucaria Forest (Plt. 63A) from low to high elevations (Plt. 63B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in primary and disturbed forest (Campbell and Lamar, 2004; Barbo et al., 2011; Rojas and Serrano, 2019).

***Bothrops jararacussu* Lacerda, 1884**

Type locality. State of Rio de Janeiro, Brazil.
Distribution. Known from Argentina, Brazil, and Paraguay (Plt. 64A). Widespread in Atlantic Forest (Plt. 64A) at low to intermediate elevations (Plt. 64B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in humid forest (Campbell and Lamar, 2004).

***Bothrops leucurus* Wagler in Spix, 1824**

Type locality. State of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 65A). Widespread in the northern portion of the Atlantic Forest, including nearby upland enclaves in the Caatinga (Plt. 65A), mostly at low to intermediate elevations (Plt. 65B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in primary and disturbed forest (Campbell and Lamar, 2004).

***Bothrops lutzi* (Miranda-Ribeiro, 1915)**

Type locality. Santa Maria da Vitória, Rio Corrente, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 66A). Recorded in the northeastern portion of the Cerrado and western Caatinga, with a single isolated record in coastal Atlantic Forest (Plt. 66A), at intermediate to high elevations (Plt. 66B). Previous maps and taxonomy in Silva and Rodrigues (2008). Observed in the field in grassland and savanna on sandy soil (Recoder et al., 2011).

***Bothrops marajoensis* Hoge, 1966**

Type locality. Severino, Marajó Island, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 67A). Restricted to eastern Amazonia (Plt. 67A) at low elevations (Plt. 67B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in primary and secondary forest, flooded areas, savannas, and disturbed open areas (Cunha and Nascimento, 1993).

***Bothrops marmoratus* Silva and Rodrigues, 2008**

Type locality. Ipameri, state of Goiás, Brazil.
Distribution. Endemic to Brazil (Plt. 68A). Recorded in central Cerrado (Plt. 68A), mostly at intermediate to high elevations (Plt. 68B). Previous maps and taxonomy in Sil-

va and Rodrigues (2008). Observed in the field in grassland and savanna (Silva and Rodrigues, 2008).

***Bothrops mattogrossensis* Amaral, 1925**

Type locality. Miranda, state of Mato Grosso, Brazil.
Distribution. Recorded in Bolivia, Brazil, and Paraguay (Plt. 69A). Recorded in western and southern Cerrado, Pantanal, Chaco, and Amazonian savanna (Plt. 69A) at low elevations (Plt. 69B). Previous maps and taxonomy in Silva and Rodrigues (2008). Observed in the field in seasonally flooded open areas adjacent to semidecidual forest (Martins et al., 2002).

***Bothrops moojeni* Hoge, 1966**

Type locality. Brasília, Distrito Federal, Brazil.
Distribution. Recorded in Argentina, Bolivia, Brazil, and Paraguay, at the center of the South American open diagonal (Plt. 70A). In Brazil, widespread in the Cerrado and Pantanal, with marginal records in neighboring ecoregions (Plt. 70A), from low to high elevations (Plt. 70B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in gallery forest, palm marshes, and wet grasslands (Nogueira et al., 2003).

***Bothrops muriciensis* Ferrarezzi and Freire, 2001**

Type locality. Fazenda Bananeira, Murici, state of Alagoas, Brazil.
Distribution. Endemic to Brazil (Plt. 403A). Known from a single site in the northern portion of the Atlantic Forest (Plt. 71A) at low elevation (Plt. 71B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in forest (Freitas et al., 2012).

***Bothrops neuwiedi* Wagler in Spix, 1824**

Type locality. State of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 72A). Recorded in the Atlantic Forest, Araucaria Forest, and southeastern portion of the Cerrado, with an isolated record in the Caatinga (Plt. 72A), mostly at high elevations (Plt. 72B). Previous maps and taxonomy in Silva and Rodrigues (2008). Observed in the field in grassland, savanna, rocky grassland, and disturbed areas (Silva and Rodrigues, 2008; Bérnils, 2009; São-Pedro and Pires, 2009; França et al., 2012).

***Bothrops otavioi* Barbo et al., 2012**

Type locality. Trilha da Vitória, Vitória Island, Ilhabela, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 73A). Recorded only at Vitória Island, Ilhabela, state of São Paulo (Plt. 73A) at low elevation (Plt. 73B). Observed in the field in secondary forest (Barbo et al., 2012).

***Bothrops pauloensis* Amaral, 1925**

Type locality. Leme, state of São Paulo, Brazil.
Distribution. Known from eastern Bolivia, Brazil, and Paraguay (Plt. 74A). Recorded in Cerrado and its contact with the Atlantic Forest and Chiquitano Dry Forest (Plt. 74A). Most records at intermediate to high elevation (Plt. 74B). Previous maps and taxonomy in Silva and Rodrigues (2008). Observed in the field in open savanna and grassland (Valdujo et al., 2002).

***Bothrops pirajai* Amaral, 1923**

Type locality. Ilhéus, Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 75A). Recorded in the Atlantic Forest (Plt. 75B) at low to intermediate elevations (Plt. 75B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in primary forest (Freitas, 2014).

***Bothrops pubescens* (Cope, 1870)**

Type locality. Pozo Hondo, Tambores, Tacuarembó, Uruguay.
Distribution. Known from Brazil and Uruguay, at the southern portion of the South American open diagonal (Plt. 76A). Recorded in Atlantic Forest and Pampas Grasslands (Plt. 76A) at low elevations (Plt. 76B). Previous maps and taxonomy in Silva and Rodrigues (2008). Observed in the field in forest, grassland, restinga, and disturbed areas (Martins et al., 2002; Hartmann et al., 2005; Ghizoni-Jr. et al., 2009; Souza-Filho and Verrastro, 2012).

***Bothrops sazimai* Barbo et al., 2016**

Type locality. Praia de Itaoca, Ilha dos Franceses, Itapemirim, state of Espírito Santo, Brazil.
Distribution. Endemic to Brazil (Plt. 77A). Recorded only at Franceses Island, Itapemirim, state of Espírito Santo (Plt. 77A) at low elevations (Plt. 77B). Observed in the field in secondary forest (Barbo et al., 2016).

***Bothrops taeniatus* Wagler in Spix, 1824**

Type locality. Amazonia.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela in Amazonia (Plt. 78A). In Brazil, widespread in Amazonia (Plt. 78A), mostly at low elevations (Plt. 78B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field in forest and forest edges (Campbell and Lamar, 2004).

***Crotalus durissus* (Linnaeus, 1758)**

Type locality. "America." Restricted to Suriname in Savage et al. (2005).
Distribution. Known from Argentina, Bolivia, Brazil, Colombia, Guyana, Paraguay, Suriname, Venezuela, and Uruguay, along the Guiana Shield and the South American open diagonal (Plt. 79A). In Brazil, widespread in the Cerrado, Caatinga, Araucaria Forest, and Chiquitano Dry Forest, with marginal records in the Pantanal, Pampas Grasslands and open enclaves in Amazonia and Atlantic Forest (Plt. 79A) at low to high elevations (Plt. 79B). Previous maps and taxonomy in Campbell and Lamar (2004). Observed in the field mostly in open vegetation types (grassland, savanna; Campbell and Lamar, 2004; Wüster et al., 2005; França and Araújo, 2006; Uetanabaro et al., 2007), as well as in disturbed open areas (Almeida-Santos and Orsi, 2002; São Pedro and Pires, 2009).

***Lachesis muta* (Linnaeus, 1766)**

Type locality. Suriname. Corrected to Vitória, state of Espírito Santo, Brazil, by Fernandes et al. (2004).
Distribution. Widespread in forested South America, occurring in Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela (Plt. 80A). In Brazil, widespread in Amazonia and northern Atlantic Forest, forming a disjunct distribution, with marginal records in the northern portion of the Cerrado and a single record in upland forest in Caatinga (Plt. 80A). Recorded mostly at low elevations (Plt. 80B). Previous maps and taxonomy in Fernandes et al. (2004). Observed in the field in primary and secondary forest (Martins and Oliveira, 1998; Campbell and Lamar, 2004; Bernarde and Abe, 2006; Bérnils, 2009; Silva-Soares et al., 2011), and also disturbed areas, including pasture, and cocoa plantation (Argôlo, 2004; Bernarde and Abe, 2006).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Elapoidea Boie, 1827: Elapidae Boie, 1827

***Leptomicrurus collaris* (Schlegel, 1837)**

Type locality. Designated as Guianas by Hoge and Romano (1966).
Distribution. Known from Brazil, Colombia, French Guiana, Guyana, Suriname, and Venezuela on the Guiana Shield (Plt. 81A). In Brazil, restricted to northern Amazonia (Plt. 81A) at low elevations (Plt. 81B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in primary and secondary forest (Roze, 1996; Martins and Oliveira, 1998; Campbell and Lamar, 2004; Silva Jr. et al., 2016).

***Leptomicrurus narduccii* (Jan, 1863)**

Type locality. Buena Vista, department of Santa Cruz, Bolivia.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, and Peru in Amazonian forest (Plt. 82A). In Brazil, restricted to westernmost Amazonia (Plt. 82A) at low elevations (Plt. 82B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest (Roze, 1996; Campbell and Lamar, 2004; Silva Jr. et al., 2016).

***Leptomicrurus scutiventris* (Cope, 1868)**

Type locality. Pebas, department of Loreto, Peru.
Distribution. Known from Brazil, Colombia, Ecuador, and Peru in Amazonian forest (Plt. 83A). In Brazil, recorded in northwestern Amazonia, north of the Amazon and west or Rio Negro (Plt. 83A) at low elevations (Plt. 83B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest (Campbell and Lamar, 2004; Silva Jr. et al., 2016).

***Micrurus albicinctus* Amaral, 1925**

Type locality. State of Mato Grosso, Brazil.
Distribution. Known from Brazil and Peru (Plt. 84A). In Brazil, recorded in Amazonia (Plt. 84A) at low elevations (Plt. 84B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest (Cunha and Nascimento, 1991; Roze, 1996; Souza et al., 2011; Silva Jr. et al., 2016).

***Micrurus altirostris* (Cope, 1860)**

Type locality. America do Sul.
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay (Plt. 85A). In Brazil, widespread in Araucaria Forest and Pampas Grasslands, with marginal records in the southern portion of the Atlantic Forest (Plt. 85A), from low to high elevations (Plt. 85B). Previous maps and taxonomy in Roze (1996), Silva Jr. and Sites (1999), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in grassland, savanna, forest, and disturbed areas (Roze, 1996; Campbell and Lamar, 2004; Sestren-Bastos, 2006; Bérnils, 2009).

***Micrurus annellatus* (Peters, 1871)**

Type locality. Pozuzo, department of Pasco, Peru.
Distribution. Known from Bolivia, Brazil, Ecuador, and Peru (Plt. 86A). In Brazil, recorded in western Amazonia (Plt. 86A) at low elevations (Plt. 86B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004),

and Silva Jr. et al. (2016). Observed in the field in forest (Bernarde et al., 2012b).

***Micrurus averyi* Schmidt, 1939**

Type locality. District of Courantyne, Guyana.
Distribution. Known from Brazil, Guyana, and Suriname on the Guiana Shield (Plt. 87A). In Brazil, restricted to central and northern Amazonia, north of the Amazon and east of the Rio Negro (Plt. 87A) at low elevations (Plt. 87B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest (Martins and Oliveira, 1998).

***Micrurus boicora* Bernarde et al., 2018**

Type locality. Rondon II hydroelectric power plant, Pimenta Bueno, state of Rondônia, Brazil.
Distribution. Endemic to Brazil (Plt. 88A). Restricted to southwestern Amazonia (Plt. 88A) at low elevations (Plt. 88B). Observed in the field in forest (Bernarde et al., 2018).

***Micrurus brasiliensis* Roze, 1967**

Type locality. Barreiras, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 89A). Recorded in the northeastern portion of the Cerrado, close to its contact with the Caatinga (Plt. 89A), mostly at low to intermediate elevations (Plt. 89B). A record for "Santa Cruz," Bahia was previously attributed to Santa Cruz da Cabrália (Silva Jr. and Sites, 1999), in error (see Silva Jr., 2007), and is here corrected to a locality in interior Bahia on the basis of the original toponym. Previous maps and taxonomy in Roze (1996), Silva Jr. and Sites (1999), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in savanna (Silva Jr. and Sites, 1999; Campbell and Lamar, 2004; Recoder et al., 2011; Silva Jr. et al., 2016).

***Micrurus corallinus* (Merrem, 1820)**

Type locality. Cabo Frio, state of Rio de Janeiro, Brazil.
Distribution. Known from Argentina, Brazil and Paraguay (Plt. 90A). In Brazil, widespread in the Atlantic Forest with marginal records in the Cerrado (Plt. 90A) at low to intermediate elevations (Plt. 90B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest (Campbell and Lamar, 2004; Condez et al., 2009; Forlani et al., 2010).

***Micrurus decoratus* (Jan, 1858)**

Type locality. "Mexico" (in error).
Distribution. Endemic to Brazil (Plt. 91A). Recorded in the central portion of the Atlantic Forest (Plt. 91A) at intermediate to high elevations (Plt. 91B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest (Marques, 2002; Campbell and Lamar, 2004; Hartmann et al., 2009).

***Micrurus diana* Roze, 1983**

Type locality. "Vicinity of Santiago, provincia Chiquiticos, departmento Santa Cruz, Bolivia." Santiago de Chiquitos, Santa Cruz, Chiquitos, Bolivia.
Distribution. Known from Bolivia and Brazil (Plt. 92A). In Brazil, known from scattered records in the western portion of the Cerrado (Plt. 92A) at low elevations (Plt. 92B). Previous maps and taxonomy in Roze (1996), Silva Jr. and Sites (1999), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in savanna (Pires et al., 2013).

***Micrurus diutius* Burger, 1955**

Type locality. Tunapuna, Trinidad.
Distribution. Known from Brazil, French Guiana, Guyana, Suriname, Trinidad, and Venezuela on the Guiana Shield (Plt. 93A). In Brazil, recorded in northern Amazonia and Guianan savanna (Plt. 93A) at low elevations (Plt. 93B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest (Terribile et al., 2018).

***Micrurus filiformis* (Günther, 1859)**

Type locality. State of Pará, Brazil.
Distribution. Known from Brazil, Colombia, and Peru, mostly in Amazonia (Plt. 94A). In Brazil, recorded in Amazonia and Guianan savanna (Plt. 94A) at low elevations (Plt. 94B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in primary and secondary forest, gallery forest, and savanna (Campbell and Lamar, 2004; Feitosa et al., 2007; Silva Jr. et al., 2016).

***Micrurus frontalis* (Duméril et al., 1854)**

Type locality. Lagoa Santa, Minas Gerais, Brazil (Silva Jr. and Sites, 1999).
Distribution. Known from Argentina, Brazil, and Paraguay, in the southern portion of the South American open diagonal (Plt. 95A). In Brazil, recorded in the Cerrado and the Atlantic Forest (Plt. 95A), mostly at intermediate to high elevations (Plt. 95B). Previous maps and taxonomy in Roze (1996), Silva Jr. and Sites (1999), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the

field in grassland, savanna, and forest (Sazima and Abe, 1991; Roze, 1996; Campbell and Lamar, 2004; Bérnils, 2009, Valdujo et al., 2009; Silva Jr. et al., 2016).

***Micrurus hemprichii* (Jan, 1858)**

Type locality. Colombia.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, mostly throughout Amazonia (Plt. 96A). In Brazil, widespread in Amazonia (Plt. 96A) at low elevations (Plt. 96B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest (Cunha and Nascimento, 1993; Dixon and Soini, 1986; Roze, 1996; Martins and Oliveira, 1998; Silva Jr. et al. (2016).

***Micrurus ibiboboca* (Merrem, 1820)**

Type locality. Mouth of Rio Belmonte, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 97A). Recorded in the northern portion of the Atlantic Forest and widespread in the Caatinga, with marginal records in Amazonia and Cerrado (Plt. 97A), mostly at low elevations (Plt. 97B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest and savanna (Cunha et al., 1985; Cunha and Nascimento, 1993; Roze, 1996; Campbell and Lamar, 2004; Ghizoni-Jr. et al., 2009; Marques et al., 2011; Rodrigues and Prudente, 2011; Silva Jr. et al., 2016).

***Micrurus isozonus* (Cope, 1860)**

Type locality. Caracas, Venezuela.
Distribution. Known from Brazil, Colombia, Guyana, and Venezuela in the Guiana shield (Plt. 98A). In Brazil, restricted to the Guianan savanna (Plt. 98A) at low elevations (Plt. 98B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in savanna and dry forest (Roze, 1996; Campbell and Lamar, 2004; Silva Jr. et al., 2016).

***Micrurus langsdorffi* (Wagler in Spix, 1824)**

Type locality. Region of lower Rio Japurá, State of Amazonas, Brazil.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, and Peru in Amazonia (Plt. 99A). In Brazil, recorded in western Amazonia (Plt. 99A) at low elevations (Plt. 99B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in primary and secondary forest (Roze, 1996; Campbell and Lamar, 2004; Silva Jr. et al., 2016).

***Micrurus lemniscatus* (Linnaeus, 1758)**

Type locality. "Asia" (in error). Restricted to Belém, Pará, Brazil (Schmidt and Walker, 1943).
Distribution. Widespread in South America. Known from Argentina, Bolivia, Brazil, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Trinidad and Tobago, and Venezuela (Plt. 100A). In Brazil, widespread from Amazonia and Guianan savanna to Cerrado and Atlantic Forest, with isolated records in forest enclaves in the Caatinga (Plt. 100A). Most records at low elevations (Plt. 100B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest and savanna (Beebe, 1946; Cunha and Nascimento, 1993; Dixon and Soini, 1986; Duellman, 1978; Roze, 1996; Martins and Oliveira, 1998; Silva Jr. et al. (2016).

***Micrurus mipartitus* (Duméril et al., 1854)**

Type locality. Río Sucio, Colombia.
Distribution. Known from Brazil, Colombia, and Venezuela, often in Andean areas (Plt. 101A). Recorded at a single, isolated locality in Brazil, in southwestern Amazonia (Plt. 101A), al low elevation (Plt. 101B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in low montane forest, semideciduous forest, and areas of secondary growth (Silva Jr., 1993; Campbell and Lamar, 2004).

***Micrurus nattereri* Schmidt, 1952**

Type locality. Between Guaramaco and San Fernando de Atabapo (see Hoge and Lancini, 1960), upper Río Orinoco, Venezuela.
Distribution. Known from Brazil, Colombia, and Venezuela (Plt. 102A). In Brazil, restricted to northwestern Amazonia, north of the Amazon and west or Rio Negro (Plt. 102A), at low elevations (Plt. 102B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest, rivers, and wetlands (Roze, 1996; Silva Jr. et al., 2016).

***Micrurus obscurus* (Jan and Sordelli, 1872)**

Type locality. Lima (in error); designated as Iquitos, Peru, by Schmidt (1953).
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, and Peru, mainly in Amazonian forest (Plt. 103A). In Brazil, recorded in Amazonia (Plt. 103A) at low eleva-

tions (Plt. 103B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest (Martins and Oliveira, 1998).

Micrurus pacaraimae Carvalho, 2002

Type locality. Vila Paracaima, road BR 174, Brazilian-Venezuelan border.
Distribution. Known from a single record at the Brazilian-Venezuelan border, Guiana Shield (Plt. 104A). Recorded in Guianan savannas (Plt. 104A) on high elevation plateus of the Guiana Shield (Plt. 104B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). No detailed field data on habitat use are available for this species.

Micrurus paraensis Cunha and Nascimento, 1973

Type locality. Icoaraci, Belém, state of Pará, Brazil.
Distribution. Known from Brazil and Suriname (Plt. 105A). In Brazil, widespread in Amazonia, with marginal records in Cerrado and Chiquitano Dry Forest (Plt. 105A), at low elevations (Plt. 105B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in primary and secondary forest, as well as disturbed areas (Roze, 1996; Feitosa et al., 2007; Silva Jr. et al., 2016).

Micrurus potyguara Pires et al., 2014

Type locality. Mata do Buraquinho, João Pessoa, state of Paraíba, Brazil.
Distribution. Endemic to Brazil (Plt. 106A). Restricted to the northernmost portion of the Atlantic Forest (Plt. 106A) at low elevations (Plt. 106B). Observed in the field in forest (Pires et al., 2014; Silva Jr. et al., 2016).

Micrurus psyches (Daudin, 1803)

Type locality. Suriname.
Distribution. Known from Brazil, French Guiana, Guyana, Suriname, and Venezuela on the Guiana Shield (Plt. 107A). In Brazil, recorded in northern Amazonia and Guianan savannas (Plt. 107A) at low elevations (Plt. 107B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest edge, savanna, and gallery forest (Roze, 1996; Campbell and Lamar, 2004; Silva Jr. et al., 2016).

Micrurus putumayensis Lancini, 1962

Type locality. Puerto Socorro, Río Putumayo, Iquitos, department of Loreto, Peru.
Distribution. Known from Brazil, Colombia, and Peru in Amazonia (Plt. 108A). In Brazil, restricted to western Amazonia near the borders of Brazil, Colombia, and Peru (Plt. 108A) at low elevations (Plt. 108B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in primary and secondary forest (Roze, 1996; Campbell and Lamar, 2004).

Micrurus pyrrhocryptus (Cope, 1862)

Type locality. Río Bermejo, province of Formosa, Argentina.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay in the southern portion of the South American open diagonal (Plt. 109A). Widespread in the Chaco, occurring marginally in extreme western Brazil (Urucum and Amolar ranges) in Chiquitano Dry Forest and contact zones with the Pantanal (Fig. 109A) at low elevations (Plt. 109B). Previous maps and taxonomy in Roze (1996), Silva Jr. and Sites (1999), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in Chaco shrubland (Sousa et al., 2010).

Micrurus remotus Roze, 1987

Type locality. Base Camp of Cerro de la Neblina, Amazonas, Venezuela.
Distribution. Known from Brazil, Colombia, and Venezuela on the Guiana Shield (Plt. 110A). In Brazil, recorded in western Amazonia (Plt. 110A), mostly at low elevations (Plt. 110B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in forest (França and Venâncio, 2010; Bernarde et al., 2011; Silva Jr. et al., 2016).

Micrurus silviae Di-Bernardo et al., 2007

Type locality. Miranda Stream, Passo Fundo, state of Rio Grande do Sul, Brazil.
Distribution. Known from Argentina, Brazil, and Paraguay, at the southern portion of the South American open diagonal (Plt. 111A). In Brazil, recorded in the Pampas Grasslands (Plt. 111A), mostly at low elevations (Plt. 111B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in grassland (Di-Bernardo et al., 2007b; Silva Jr. et al., 2016).

Micrurus spixii Wagler in Spix, 1824

Type locality. Rio Solimões, state of Amazonas, Brazil.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, and Peru in Amazonia (Plt. 112A). In Brazil, widespread in Amazonia, with marginal records in the northern portion of the Cerrado (Plt. 112A), at low elevations

(Plt. 112B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in primary and secondary forest (Cunha and Nascimento, 1993; Martins and Oliveira, 1998; Campbell and Lamar, 2004; Silva Jr. et al., 2016).

***Micrurus surinamensis* (Cuvier, 1817)**

Type locality. Suriname.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela in Amazonia (Plt. 113A). In Brazil, widespread in Amazonia, with marginal records in the northern portion of the Cerrado (Plt. 113A), at low elevations (Plt. 113B). Previous maps and taxonomy in Roze (1996), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in around ponds and streams in forest (Martins and Oliveira, 1998; Bernarde and Abe, 2006; Silva Jr. et al., 2016).

***Micrurus tikuna* Feitosa et al., 2015**

Type locality. Instituto Nacional de Colonização e Reforma Agrária neighborhood, Tabatinga, state of Amazonas, Brazil.
Distribution. Known from Brazil and Colombia (Plt. 114A). Restricted to a small portion of western Amazonia at the border between Brazil and Colombia (Plt. 114A) at low elevation (Plt. 114B). Previous maps and taxonomy in Silva Jr. et al. (2016). No detailed field data on habitat use are available for this species.

***Micrurus tricolor* Hoge, 1957**

Type locality. Carandazal, Corumbá, Mato Grosso do Sul, Brazil.
Distribution. Known from Brazil and Paraguay (Plt. 115A). In Brazil, recorded in the Pantanal and surrounding Cerrado and Chaco (Plt. 115A) at low elevations (Plt. 115B). Previous maps and taxonomy in Roze (1996), Silva Jr. and Sites (1999), Campbell and Lamar (2004), and Silva Jr. et al. (2016). Observed in the field in savanna, chaco shrubland, and disturbed areas (Strüssmann and Sazima, 1993; Silva Jr. and Sites, 1999; Sousa et al., 2010; Silva Jr. et al., 2016).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Colubridae Oppel, 1811

***Chironius bicarinatus* (Wied, 1820)**

Type locality. Lake near Rio Jucu, Vila Velha, state of Espírito Santo, Brazil.
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay (Plt. 116A). In Brazil, widespread in Atlantic Forest, with marginal records in the Pampas Grassland and isolated records in Cerrado and Caatinga (Plt. 116A), at low to high elevations (Plt. 116B). Doubtful records in Bolivia (Embert, 2008) not mapped. Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in forest (Dixon et al., 1993; Silva Jr. and Sites, 1995; Argôlo, 2004; Loebmann and Haddad, 2010).

***Chironius brazili* Hamdan and Fernandes, 2015**

Type locality. Reserva Particular do Patrimônio Natural Santuário do Caraça, Catas Altas, state of Minas Gerais, Brazil.
Distribution. Endemic to Brazil (Plt. 117A). Recorded in the southern portion of the Cerrado and its contact with the Atlantic Forest, with isolated records in Pampas Grasslands (Plt. 117A), mostly at high elevations (Plt. 117B). Observed in the field in savanna and gallery forest (Hamdan and Fernandes, 2015).

***Chironius carinatus* (Linnaeus, 1758)**

Type locality. "Asia" (in error). Restricted to Suriname by Hoge and Lancini (1962).
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, Trinidad, and Venezuela (Plt. 118A). In Brazil, widespread in Amazonia, northern Atlantic Forest, Caatinga, and Guianan savannas (Plt. 118A), mostly at low elevations (Plt. 118B). Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in open areas, forest edge, and disturbed areas (Dixon et al., 1993; Martins and Oliveira, 1998; Carvalho and Vilar, 2005; Barrio-Amorós and Duellman, 2009).

***Chironius diamantina* Fernandes and Hamdan, 2014**

Type locality. Morro do Chapéu, Chapada Diamantina, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 119A). Restricted to the southern portion of the Caatinga (Plt. 119A), at high elevations of the northern portion of the Espinhaço Range (Plt. 119B). Observed in the field in savanna (Fernandes and Hamdan, 2014).

***Chironius exoletus* (Linnaeus, 1758)**

Type locality. "Ásia" (in error). Restricted to Brazil by Fitzinger (1843).
Distribution. Widespread in South America. Known from Argentina, Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, and Venezuela (Plt. 120A). In Brazil, widespread in Amazonia, Cerrado,

and Atlantic Forest, occurring marginally in Chiquitano Dry Forest, Pantanal, and Caatinga (Plt. 120A), mostly at low elevations (Plt. 120B). Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in dry forest, humid lowland forest, upland forest and gallery forest (Dixon et al., 1993; Centeno et al., 2008; França et al., 2008; Freitas et al., 2018).

***Chironius flavolineatus* (Jan, 1863)**

Type locality. Brazil, fide Hamdan et al., 2014.
Distribution. Known from Bolivia, Brazil, and Paraguay (Plt. 121A). In Brazil, widespread in Cerrado, Atlantic Forest, savanna enclaves in Amazonia, Chiquitano Dry Forest, Pantanal, and Caatinga (Plt. 121A), mostly from intermediate to high elevations (Plt. 121B). Previous maps and taxonomy in Dixon et al. (1993) and Hamdan et al. (2014). Observed in the field in savanna and gallery forest (França et al., 2008; Hamdan et al., 2014).

***Chironius foveatus* Bailey, 1955**

Type locality. Rio Fortuna, Ilhéus, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 122A). Widespread in the Atlantic Forest (Plt. 122A), mostly at low elevations near the coast, with marginal inland records (Plt. 122B). Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in forest (Bérnils, 2009).

***Chironius fuscus* (Linnaeus, 1758)**

Type locality. "Ásia" (in error).
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela (Plt. 123A). In Brazil, widespread in Amazonia and Guianan savannas, with marginal records in the Chiquitano Dry Forest, Cerrado and Pantanal, and an isolated population in the Atlantic Forest, forming a disjunct distribution (Plt. 123A), often at low elevations (Plt. 123B). Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in forest (Dixon et al., 1993).

***Chironius laevicollis* (Wied, 1824)**

Type locality. Fazenda Muribeca, Bom Jesus do Itabapoana, state of Rio de Janeiro, Brazil.
Distribution. Endemic to Brazil (Plt. 124A). Widespread in the Atlantic Forest (Plt. 124A), mostly at low elevations (Plt. 124B). Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in forest (Dixon et al., 1993).

***Chironius laurenti* Dixon et al., 1993**

Type locality. Río Mamoré, ca. 23 km West of San Javier, department of Beni, Bolívia.
Distribution. Known from Bolivia and Brazil, at the central portion of the South American open diagonal (Plt. 125A). In Brazil, recorded in Pantanal, Cerrado, and Chiquitano Dry Forest (Plt. 125A), at low elevations (Plt. 125B). Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in deciduous forest, gallery forest, dry forest, and disturbed areas (Dixon et al., 1993; Carvalho and Nogueira, 1998).

***Chironius maculoventris* Dixon et al., 1993**

Type locality. Province of Corrientes, Argentina.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay, mostly in the Chaco (Plt. 126A). In Brazil, known only from the extreme southwest of Rio Grande do Sul state, Espinilho region (Plt. 126A) at low elevations (Plt. 126B). Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in dry forest and seasonal forest (Dixon et al., 1993).

***Chironius multiventris* Schmidt and Walter, 1943**

Type locality. Río Madre de Diós, departamento Madre de Diós, Peru.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, mostly in Amazonia (Plt. 127A). In Brazil, widespread in Amazonia and also in Guianan savannas (Plt. 127A), mostly at low elevations (Plt. 127B). Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in primary forest (Dixon et al., 1993; Bernarde and Abe, 2006; Martins et al., 2008a).

***Chironius quadricarinatus* (Boie, 1827)**

Type locality. Brazil.
Distribution. Endemic to Brazil (Plt. 128A). Widespread in the Cerrado, Atlantic Forest, and with isolated records in Pantanal and savanna enclaves in Amazonia (Plt. 128A), mostly at intermediate to high elevations (Plt. 128B). Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in grassland, savanna, and coastal grassland (Nascimento et al., 1991; Dixon et al., 1993; França and Araújo, 2006; França et al., 2006).

***Chironius scurrulus* (Wagler in Spix, 1824)**

Type locality. Rio Japurá, state of Amazonas, Brazil.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela in Amazonia (Plt. 129A). In Brazil, widespread in Amazonia and its contact areas with the Cerrado (Plt. 129A), mostly at low elevations (Plt. 129B). Previous maps and taxonomy in Dixon et al. (1993). Observed in the field in primary and secondary forest (Dixon and

Soini, 1977; Duellman, 1978; Dixon et al., 1993; Martins and Oliveira, 1998; Bernarde and Abe, 2006).

***Dendrophidion atlantica* Freire et al., 2010**

Type locality. Mata do Engenho Coimbra, Ibateguara, state of Alagoas, Brazil.
Distribution. Endemic to Brazil (Plt. 130A). Restricted to a small portion of the northeastern Atlantic Forest (Plt. 130A) at low elevations (Plt. 130B). Observed in the field in forest and forest edge (Freire et al., 2010).

***Dendrophidion dendrophis* (Schlegel, 1837)**

Type locality. Cayenne, French Guiana.
Distribution. Known from Bolívia, Brazil, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, mostly in Amazonia (Plt. 131A). In Brazil, it is widespread in Amazonia with marginal records in Chiquitano Dry Forest (Plt. 131A), mostly at low elevations (Plt. 131B). Observed in the field in forest, pasture, and disturbed areas (Martins and Oliveira, 1998; Bernarde and Abe, 2006; Silva et al., 2011).

***Drymarchon corais* (Boie, 1827)**

Type locality. "America."
Distribution. Widespread from Central America (Wallach et al., 2014) to most of South America (Plt. 132A). Known from Bolívia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, Trinidad and Tobago, and Venezuela (Plt. 132A). In Brazil, recorded in all ecoregions, except Araucaria Forest and Pampas Grasslands (Plt. 132A), from low to high elevations (Plt. 132B). Observed in the field in forest, gallery forest, dry forest and savannas (Martins and Oliveira, 1998; Bernarde and Abe, 2006; França and Araújo, 2006).

***Drymobius rhombifer* (Günther, 1960)**

Type locality. Esmeraldas, Ecuador.
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, in Amazonia (Plt. 133A). In Brazil, widespread in Amazonia (Plt. 133A), mostly at low elevations (Plt. 133B). Observed in the field in forest (Bernarde and Abe, 2006).

***Drymoluber brazili* (Gomes, 1918)**

Type locality. Engenheiro Lisboa, Uberaba, Minas Gerais, Brazil.
Distribution. Found in Brazil and Paraguay, central portion of the South American open diagonal (Plt. 134A). In Brazil, widespread in the Cerrado, with scattered records in open areas of Amazonia and upland areas of the Caatinga (Plt. 134A), mostly at intermediate to high elevations (Plt. 134B). Previous maps and taxonomy in Costa et al. (2013). Observed in the field in savanna (Valdujo et al., 2009).

***Drymoluber dichrous* (Peters, 1863)**

Type locality. "Amazonia." According to Costa et al. (2013) the holotype was collected in the states of Minas Gerais, Rio de Janeiro or Espírito Santo, based on the itinerary of the collector, G.W. Freyreiss, in Brazil.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, mostly in forested regions (Plt. 135A). In Brazil, widespread in Amazonia and Atlantic Forest, forming a disjunct distribution (Plt. 135A), mostly at low elevations (Plt. 135B). Previous maps and taxonomy in Costa et al. (2013). Observed in the field in forest and disturbed areas (Cunha and Nascimento, 1993; Martins and Oliveira, 1998; Bernarde and Abe, 2006).

***Leptophis ahaetulla* (Linnaeus, 1758)**

Type locality. Guyana, according to Hoge and Romano (1966).
Distribution. Widespread from Central America (Wallach et al., 2014) to most of South America, occurring in Argentina, Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Surinam, and Venezuela (Plt. 136A). In Brazil, recorded in all ecoregions except Araucaria Forest and Pampas Grasslands (Plt. 136A), mostly at low elevations (Plt. 136B). Observed in the field in forest, including upland forest enclaves in Caatinga, gallery forest in Cerrado, and disturbed areas (Strüssmann and Sazima, 1993; Carvalho and Nogueira, 1998; Martins and Oliveira, 1998; Marques, 2001; Giraudo and Scrocchi, 2002; Rodrigues, 2003; Bernarde and Abe, 2006; Martins et al., 2008b; Oliveira-Santos and Leuchtenberger, 2009; Loebmann and Haddad, 2010).

***Mastigodryas boddaerti* (Sentzen, 1796)**

Type locality. "America," restricted to Suriname (Merrem, 1820).
Distribution. Widespread in northern South America, occurring in Bolivia, Brazil, Colombia, French Guiana, Guyana, Suriname, and Venezuela (Plt. 137A). In Brazil, widespread in eastern and northern Amazonia, east of Rio Negro, with marginal records in the northern portion of the Cerrado, Guianan savannas, Chiquitano Dry Forest, as well as in upland forest enclaves in Caatinga (Plt. 137A). Recorded mostly from low elevations (Plt. 137B). Observed in the field in savanna, forest clearing, and disturbed open areas (Carvalho and Nogueira, 1998; Martins and Oliveira, 1998; Bernarde and Abe, 2006).

***Mastigodryas moratoi* Montingelli and Zaher, 2011**

Type locality. Santa Isabel do Rio Negro, state of Amazonas, Brazil.
Distribution. Known from Brazil and Guyana on the Guiana Shield (Plt. 138A). In Brazil, recorded in Guianan savannas and Amazonia (Plt. 138A), at low elevations (Plt. 138B). Observed in the field in savanna (Montingelli and Zaher, 2011).

***Mastigodryas pleei* (Duméril et al., 1854)**

Type locality. Venezuela.
Distribution. Known from Brazil, Colombia, Peru, and Venezuela, moslty on the Guiana Shield (Plt. 139A). In Brazil, recorded in Amazonia and Guianan savannas (Plt. 139A) at low elevations Plt. 139B). Observed in the field in savanna (França et al., 2006; Montingelli and Zaher, 2011).

***Palusophis bifossatus* (Raddi, 1820)**

Type locality. Rio de Janeiro, state of Rio de Janeiro, Brazil.
Distribution. Widespread in South America, known from Argentina, Bolivia, Brazil, Colombia, French Guiana, Paraguay, Suriname, and Venezuela (Plt. 140A). In Brazil, widespread in Atlantic Forest and Cerrado, with records also in the Pantanal, Chiquitano Dry Forest, Caatinga, Amazonia, the Guianan savannas, and Pampas Grasslands (Plt. 140A) from low to high elevations (Plt. 140B). Taxonomy follows Montingelli et al. (2019). Observed in the field in grassland, savanna, forests, and disturbed areas (Cunha and Nascimento, 1993; Valdujo et al., 2009; Leite et al., 2007).

***Oxybelis aeneus* (Wagler in Spix, 1824)**

Type locality. Rio Solimões, Tefé, state of Amazonas, Brazil.
Distribution. Widespread from Central America (Wallach et al., 2014) to South America, in Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela (Plt. 141A). In Brazil, widespread in Amazonia, Cerrado, Caatinga, to northern and central Atlantic Forest (Plt. 141A), at low to high elevations (Plt. 141B). Observed in the field in forest and open areas, including grasslands (França and Araújo, 2006; Martins et al., 2008b; Recoder et al., 2011; Marques et al., 2017).

***Oxybelis fulgidus* (Daudin, 1803)**

Type locality. Río Santo Domingo, Cuzco, Peru.
Distribution. Known from Bolivia, Brazil, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, mostly in Amazonian forest (Plt. 142A). In Brazil, widespread in Amazonia and Guianan savannas, with marginal records in the Cerrado and Chiquitano Dry Forest (Plt. 142A), mostly at low elevations (Plt. 142B). Observed in the field in forest and disturbed areas (Martins and Oliveira, 1998; Martins et al., 2008b).

***Phrynonax polylepis* (Peters, 1867)**

Type locality. Suriname.
Distribution. Known from Brazil, Colombia, French Guiana, Guyana, Suriname, Trinidad and Venezuela, mostly in Amazonia (Plt. 143A). In Brazil, widespread in Amazonia, with marginal records in Chiquitano Dry Forest and contact areas between Amazonia and Cerrado (Plt. 143A), mostly at low elevations (Plt. 143B). Observed in the field in forest (Farias, 2016).

***Rhinobothryum lentiginosum* (Scopoli, 1785)**

Type locality. Restricted to Tropical South America by Boulenger (1896).
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Suriname, and Venezuela, mostly in Amazonian forest (Plt. 144A). In Brazil, widespread in Amazonia (Plt. 144A), at low elevations (Plt. 144B). Observed in the field in forest (Cunha and Nascimento, 1993; Martins and Oliveira, 1998).

***Simophis rhinostoma* (Schlegel, 1837)**

Type locality. Brazil.
Distribution. Known from Brazil and Paraguay, mostly in upland areas of the Brazilian shield (Plt. 145A). In Brazil, recorded in the southern portion of the Cerrado and its contact with the Atlantic Forest, with an isolated record in Caatinga (Plt. 145A). Most records in areas of intermediate to high elevations (Plt. 145B). Observed in the field in savanna and grassland (Colli et al., 2002; França et al., 2008; Sawaya et al., 2008).

***Spilotes pullatus* (Linnaeus, 1758)**

Type locality. "Asia" (in error).
Distribution. Widespread in South America, known from Argentina, Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, Trinidad and Tobago, and Venezuela (Plt. 146A). In Brazil, recorded in all ecoregions except in Pampas Grasslands (Plt. 146A), from low to high elevations (Plt. 146B). Observed in the field in forest, gallery forest, and disturbed areas (Giraudo and Scrocchi, 2002; Frota et al., 2005; França et al., 2006; Freitas, 2008; Hartmann et al., 2009; Forlani et al., 2010).

***Spilotes sulphureus* (Wagler in Spix, 1824)**

Type locality. Uncertain locality in Rio Japurá, state of Amazonas, Brazil.
Distribution. Known from northern South America in Brazil, Bolivia, Colombia, Ecuador, French Guiana Guyana, Peru, Suriname, Trinidad and Venezuela (Plt. 147A). In Brazil, widespread in Amazonia and the Atlantic Forest, forming a disjunct distribution (Plt. 147A), with marginal records in the northern portion of the Cerrado and the Caatinga (Plt. 147A). Most records at low elevations (Figg 83B). Observed in the field in forest (Martins and Oliveira, 1998).

***Tantilla boipiranga* Sawaya and Sazima, 2003**

Type locality. Serra do Cipó, Santana do Riacho, state of Minas Gerais, Brazil.
Distribution. Endemic to Brazil. Restricted to contact areas between Cerrado and Atlantic Forest (Plt. 148A), at high elevations (Plt. 148B). Observed in the field in grassland with rock outcrops and upland forest (Sawaya and Sazima, 2003).

***Tantilla melanocephala* (Linnaeus, 1758)**

Type locality. "America."
Distribution. Widespread from Central America (Wallach et al., 2014) and the Lesser Antilles (Wilson et al., 2015), to South America in Argentina, Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela, Trinidad and Tobago (Plt. 149A). In Brazil, recorded in Amazonia, Atlantic Forest, Caatinga, Cerrado, Guianan savannas, Araucaria forest, Pantanal, and Pampas Grasslands (Plt. 149A), from low to high elevations (Plt. 149B). Observed in the field in savanna, grassland (Valdujo et al., 2009), and forest (Martins and Oliveira, 1998).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Dipsadinae Bonaparte, 1838: Dipsadini Bonaparte, 1838

***Atractus aboiporu* Melo-Sampaio et al., 2019**

Type locality. Serra do Navio, state of Amapá, Brazil.
Distribution. Endemic to Brazil (Plt. 150A), known only from two nearby localities in eastern Amazonia (Plt. 150A) at low elevations (Plt. 150B). No detailed field data on habitat use are available for this species.

***Atractus albuquerquei* Cunha and Nascimento, 1983a**

Type locality. Vila Nova (on the PA-256 road between Tomé-Açu and Paragominas), near Rio Capim (formerly Rio Timboteua; Cunha and Nascimento, 1983a), Tomé-Açu, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 151A). Widespread in Cerrado and its contacts with Amazonia and Chiquitano Dry Forest (Plt. 151A), at low to intermediate elevations (Plt. 151B). Observed in the field in forest in Amazonia (Cunha and Nascimento, 1983a), and grassland and open savanna in the Cerrado (Zaher et al., 2005; Valdujo et al., 2009; Nascimento et al., 2017).

***Atractus alphonsehogei* Cunha and Nascimento, 1983a**

Type locality. Bela Vista, Nova Timboteua, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 152A), restricted to eastern and northern Amazonia, and a single record in Guianan savannas (Plt. 152A) at low elevations (Plt. 152B). Observed in the field in primary forest (Cunha and Nascimento, 1983a, Passos et al., 2018).

***Atractus altagratiae* Passos and Fernandes, 2008**

Type locality. Upper Rio Cururu, Teles Pires drainage, Jacareacanga, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 153A). Known only from the type locality in south-central Amazonia (Plt. 153A) at low elevation (Plt. 153B). No detailed field data on habitat use are available for this species.

***Atractus badius* (H. Boie in F. Boie, 1827)**

Type locality. "Guiana," Paramaribo, Suriname.
Distribution. Known from Brazil, French Guiana, Guyana, and Suriname on the Guiana Shield (Plt. 154A). In Brazil, restricted to northeastern Amazonia, north of the Amazon River (Plt. 154A), at low elevations (Plt. 154B). Observed in the field in primary and secondary forest (Hoogmoed, 1980).

***Atractus boimirim* Passos et al., 2016**

Type locality. Samuel hydroelectric power plant at rio Jamari, Cachoeira de Samuel, Porto Velho, state of Rondônia, Brazil.
Distribution. Endemic to Brazil (Plt. 155A). Recorded in south-central Amazonia (Plt. 156A) at low elevations (Plt. 155B). No detailed field data on habitat use are available for this species.

***Atractus caete* Passos et al., 2010**

Type locality. Surroundings of the Pedra Talhada Biological Reserve, Quebrangulo, state of Alagoas, Brazil.
Distribution. Endemic to Brazil (Plt. 156A). Known only from two localities locality in the northernmost portion

of the Atlantic Forest, close to its contact with the Caatinga (Plt. 156A), at intermediate elevations (Plt. 156B). No detailed field data on habitat use are available for this species.

***Atractus caxiuana* Prudente and Santos-Costa, 2006**

Type locality. Estação Ecológica Ferreira Penna, Floresta Nacional de Caxiuanã, Melgaço, state of Pará, Brazil.
Distribution. Known from Brazil and Colombia (Plt. 157A). In Brazil, recorded by scattered records in Amazonia (Plt. 157A), at low elevations (Plt. 157B). No detailed field data on habitat use are available for this species.

***Atractus collaris* Peracca, 1897**

Type locality. Río Cononaco, Province of Pastaza, Ecuador.
Distribution. Known from Brazil, Colombia, Ecuador, and Peru, in western Amazonia (Plt. 158A). In Brazil, known only from two localities in Amazonia (Plt. 158A), at low elevations (Plt. 158B). No detailed field data on habitat use are available for this species.

***Atractus dapsilis* Melo-Sampaio et al., 2019**

Type locality. Platô Teófilo, Floresta Nacional Saracá-Taquera, Oriximiná, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 159A). Recorded in central Amazonia (Plt. 159A), at low elevations (Plt. 159B). Observed in the field in primary forest (Martins and Oliveira, 1993; Melo-Sampaio et al., 2019).

***Atractus edioi* Silva Jr. et al., 2005**

Type locality. Cana Brava hydroelectric power plant, Minaçu, state of Goiás.
Distribution. Endemic to Brazil (Plt. 160A). Known only from the type locality in central Cerrado (Plt. 160A) at intermediate elevations (Plt. 160B). No detailed field data on habitat use are available for this species.

***Atractus elaps* (Günther, 1858)**

Type locality. Guayaquil (in error), Ecuador.
Distribution. Known from Brazil, Colombia, Ecuador, Peru and Venezuela, in Amazonia (Plt. 161A). In Brazil, restricted to Amazonia (Plt. 161A), mostly at low elevations (Plt. 161B). Observed in the field in primary and secondary forest (Hoogmoed and Prudente, 2003; Bernarde, 2004; Silva Haad, 2004; Passos et al., 2009).

***Atractus emmeli* (Boettger, 1888)**

Type locality. Río Mapiri, department of La Paz, Bolivia.
Distribution. Known from Bolivia, Brazil, and Peru, mostly in western Amazonia (Plt. 162A). In Brazil, restricted to Amazonia (Plt. 162A), mostly at low elevations (Plt. 162B). Observed in the field in primary and secondary forest (Passos et al., 2019).

***Atractus flammigerus* (H. Boie in F. Boie, 1827)**

Type locality. Paramaribo, Suriname.
Distribution. Known from Brazil, Guyana, and Suriname on the Guiana Shield (Plt. 163A). In Brazil, restricted to northern Amazonia (Plt. 163A), at low elevations (Plt. 163B). Observed in the field in primary and secondary forest (Hoogmoed, 1980).

***Atractus francoi* Passos et al., 2010**

Type locality. Fazenda Recanto, Serra do Piloto, Mangaratiba, state of Rio de Janeiro, Brazil.
Distribution. Endemic to Brazil (Plt. 164A). In Brazil, restricted to southeastern Atlantic Forest (Plt. 164A) at intermediate elevations (Plt. 164B). No detailed field data on habitat use are available for this species.

***Atractus guentheri* (Wucherer, 1861)**

Type locality. Canavieiras, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 165A). Restricted to northern Atlantic Forest (Plt. 165A), mostly at low elevations (Plt. 165B). Observed in the field in secondary forest (AJSA, pers. obs.).

***Atractus hoogmoedi* Prudente and Passos, 2010**

Type locality. Santa Luzia village, formerly in Capitão Poço, currently Santa Luzia do Pará, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 166A). In Brazil, known only from the type locality, in eastern Amazonia (Plt. 166A), at low elevations (Plt. 166B). No detailed field data on habitat use are available for this species.

***Atractus insipidus* Roze, 1961**

Type locality. M-1 landmark, Serra de Pacaraima, headwaters of Rio Uraricapará on the Brazilian side (state of Roraima) and Río Paraguamusi on the Venezuelan side (estado Bolivar). Brazilian-Venezuelan border.
Distribution. Recorded at the Brazil-Venezuela border on the Guiana Shield (Plt. 167A). Restricted to northern Guianan savannas (Plt. 167A) at intermediate to high elevations (Plt. 167B). No detailed field data on habitat use are available for this species.

***Atractus latifrons* (Günther, 1868)**

Type locality. Pebas, department of Loreto, Peru.
Distribution. Known from Bolivia, Brazil, Colombia, and Peru, in Amazonian forest (Plt. 168A). In Brazil, widespread in Amazonia and northwestern Cerrado (Plt. 168A) at low elevations (Plt. 168B). Observed in the field in primary and secondary forest (Dixon and Soini, 1977, Hoogmoed, 1980, Martins and Oliveira, 1993, Almeida et al., 2014).

***Atractus maculatus* (Günther, 1858)**

Type locality. Brazil.
Distribution. Endemic to Brazil (Plt. 169A). Restricted to northern Atlantic Forest (Plt. 169A) at low elevations (Plt. 169B). Observed in the field in forest and in contact areas between Atlantic Forest and Caatinga (Guedes et al., 2014).

***Atractus major* Boulenger, 1894**

Type locality. Canelos, province of Pastaza, Ecuador.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, Peru, and Venezuela in Amazonian forest (Plt. 170A). In Brazil, widespread in Amazonia (Plt. 170A), mostly at low elevations (Plt. 170B). Observed in the field in primary and secondary forest (Dixon and Soini, 1977; Martins and Oliveira, 1993; Schargel et al., 2013).

***Atractus natans* Hoogmoed and Prudente, 2003**

Type locality. Near the confluence between Rio Apara and Rio Mamirauá, Estação Ecológica de Mamirauá, Melgaço, state of Pará, Brazil.
Distribution. Known from Brazil and Peru in Amazonian forest (Plt. 171A). In Brazil, recorded in central and western Amazonia (Plt. 171A) at low elevations (Plt. 171B). Observed in the field in primary secondary forest (Dixon and Soini, 1986).

***Atractus pantostictus* Fernandes and Puorto, 1993**

Type locality. Franco da Rocha, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 172A). Recorded in the Cerrado and its contact areas with the Atlantic Forest (Plt. 172A), mostly at intermediate to high elevations (Plt. 172B). Observed in the field in gallery forest (Sawaya et al., 2008).

***Atractus paraguayensis* Werner, 1924**

Type locality. Paraguay.
Distribution. Known from Argentina, Brazil, and Paraguay, at the southern portion of the South American open diagonal (Plt. 173A). In Brazil, recorded in the Atlantic Forest and Pampas Grasslands (Plt. 173A) at low elevations (Plt. 173B). Observed in the field in gallery forest and lower montane semi-deciduous forest (Passos et al., 2010) or in humid formations of Chaco (Giraudo, 2001).

***Atractus poeppigi* (Jan, 1862)**

Type locality. Brazil.
Distribution. Known from Brazil, Colombia, and Peru, in Amazonian forest (Plt. 174A). In Brazil, restricted to Amazonia (Plt. 174A) at low to intermediate elevations (Plt. 174B). Observed in the field in primary and secondary forest (Dixon et al., 1976, Martins and Oliveira, 1993).

***Atractus potschi* Fernandes, 1995**

Type locality. Maceió, state of Alagoas, Brazil.
Distribution. Endemic to Brazil (Plt. 175A). Recorded in the Caatinga and Atlantic Forest (Plt. 175A) at low elevations (Plt. 175B). Observed in the field in forest (Guedes et al., 2014).

***Atractus reticulatus* (Boulenger, 1885)**

Type locality. São Lourenço do Sul, state of Rio Grande do Sul, Brazil.
Distribution. Known from Argentina, Brazil, and Uruguay (Plt. 176A). In Brazil, recorded in Pampas Grasslands, Atlantic Forest, Araucaria Forest, and marginally in Cerrado (Plt. 176A), at low to intermediate elevations (Plt. 176B). No detailed field data on habitat use are available for this species.

***Atractus riveroi* Roze, 1961**

Type locality. Cerro Duida, Amazonas, Venezuela.
Distribution. Known from Brazil and Venezuela on the Guiana Shield (Plt. 177A). In Brazil, restricted to the Guianan savanna (Plt. 177A) at intermediate to high elevations (Plt. 177B). Observed in the field in open areas and evergreen forest (Passos et al., 2013).

***Atractus ronnie* Passos et al., 2007**

Type locality. Granja, Serra de Baturité, Pacoti, state of Ceará, Brazil.
Distribution. Endemic to Brazil (Plt. 178A), restricted to the northern portion of the Caatinga (Plt. 178A) at intermediate elevations of isolated Plateaus of northeastern Brazil (Plt. 178B). Observed in the field in upland forest (Loebmann and Haddad, 2010).

***Atractus serranus* Amaral, 1930**

Type locality. Serra de Paranapiacaba, state of São Paulo, Brazil.

Distribution. Endemic to Brazil (Plt. 179A), restricted to southeastern Atlantic Forest (Plt. 179A), at intermediate to high elevations (Plt. 179B). No detailed field data on habitat use are available for this species.

Atractus snethlageae Cunha and Nascimento, 1983a

Type locality. Colônia Nova, 10 km near Gurupi River, on the BR-316 highway, currently within the Cachoeira do Piriá, state of Pará.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, and Peru, in Amazonia, with an isolated record in Argentina (Plt. 180A). In Brazil, widespread in Amazonia (Plt. 180A), mostly at low elevations (Plt. 180B). Observed in the field in primary and secondary forest (Dixon and Soini, 1977, 1986, Martins and Oliveira, 1993; Cunha and Nascimento, 1983a).

Atractus spinalis Passos et al., 2013

Type locality. Alto do Palácio, Parque Nacional da Serra do Cipó, Morro do Pilar, state of Minas Gerais, Brazil.
Distribution. Endemic to Brazil (Plt. 181A), restricted to southeastern Cerrado (Plt. 181A) at high elevations (Plt. 181B). Observed in the field in rocky grassland (Passos et al., 2013).

Atractus stygius Passos et al., 2019

Type locality. Bocaiúva hydroelectric power plant, Rio Cravari (not "Craveri"), Brasnorte, state of Mato Grosso, Brazil.
Distribution. Endemic to Brazil (Plt. 182A), recorded in western Cerrado and its contact with Amazonia and Chiquitano Dry Forest (Plt. 182A) at low to intermediate elevations of the Pareci Plateau (Plt. 182B). No detailed field data on habitat use are available for this species.

Atractus surucucu Prudente and Passos, 2008

Type locality. Serra dos Surucucus, state of Roraima, Brazil.
Distribution. Endemic to Brazil (Plt. 183A). Known only from the type locality in the Guianan savanna (Plt. 183A) at high elevations of the Serra dos Surucucus tepui area (Plt. 183B). No detailed field data on habitat use are available for this species.

Atractus tartarus Passos et al., 2016

Type locality. Vila Palestina, Rondon do Pará, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 184A), restricted to eastern Amazonia and its contact with the Cerrado (Plt. 184A) at low elevations (Plt. 184B). Observed in the field in primary and secondary forest (Passos et al., 2016).

Atractus thalesdelemai Passos et al., 2005

Type locality. Fazenda da Brigada Militar, Passo Fundo, state of Rio Grande do Sul, Brazil.
Distribution. Known from two records, in Brazil and Paraguay (Plt. 185A). In Brazil, restricted to the southern portion of the Atlantic Forest, near its contact with the Araucaria Forest (Plt. 185A), at low to intermediate elevations (Plt. 185B). No detailed field data on habitat use are available for this species.

Atractus torquatus (Duméril et al., 1854)

Type locality. Paramaribo, Suriname.
Distribution. Known from Brazil, Colombia, Peru, Suriname, and Venezuela (Plt. 186A). In Brazil, widespread in northern Amazonia and in its contact with Guianan savanna (Plt. 186A) at low elevations (Plt. 186B). Observed in the field in primary and secondary forest, and savanna (Dixon and Soini, 1977, 1986, Hoogmoed, 1980, Martins and Oliveira, 1993).

Atractus trefauti Melo-Sampaio et al., 2019

Type locality. Route del'Est N2, Roura, French Guiana.
Distribution. Known from Brazil and French Guiana (Plt. 187A). In Brazil, restricted to northeastern Amazonia (Plt. 187A) at low elevations (Plt. 187B). No detailed field data on habitat use are available for this species.

Atractus trihedurus Amaral, 1926

Type locality. São Bento do Sul, state of Santa Catarina, Brazil.
Distribution. Endemic to Brazil (Plt. 188A), restricted to southeastern Atlantic Forest (Plt. 188A) at intermediate to high elevations (Plt. 188B). Observed in the field in forest (Passos et al., 2010).

Atractus trilineatus Wagler, 1828

Type locality. Unknown.
Distribution. Known from Brazil, Guyana, Trinidad and Tobago, and Venezuela on the Guiana Shield (Plt. 189A). In Brazil, restricted to Amazonia, north of the Amazon River (Plt. 189A), at low elevations (Plt. 189B). Observed in the field in forest (Cunha and Nascimento, 1980; Hoogmoed, 1980; Martins and Oliveira, 1993).

Atractus zebrinus (Jan, 1862)

Type locality. Unknown.

Distribution. Endemic to Brazil (Plt. 190A). In Brazil, widespread in the Atlantic Forest, with marginal records in Araucaria Forest (Plt. 190A), mostly at high elevations (Plt. 190B). Observed in the field in forest (Barbo et al., 2011).

Atractus zidoki Gasc and Rodrigues, 1980

Type locality. Trois-Sauts, Haut Oyapock, French Guiana.
Distribution. Known from Brazil, Guyana, and Suriname on the Guiana Shield (Plt. 191A). In Brazil, restricted to northeastern Amazonia (Plt. 191A), at low elevations (Plt. 191B). No detailed field data on habitat use are available for this species.

Dipsas albifrons (Sauvage, 1884)

Type locality. Brazil.
Distribution. Endemic to Brazil (Plt. 192A). Recorded in the southern and central portions of the Atlantic Forest (Plt. 192A), mostly at low elevations (Plt. 192B). Observed in the field in forest (Fernandes et al., 2010b).

Dipsas alternans (Fischer, 1885)

Type locality. Santos, state of São Paulo, Brazil. Corrected to Juquitiba by designation of a neotype in Passos et al. (2004).
Distribution. Endemic to Brazil (Plt. 193A). Recorded in the southern and central portions of the Atlantic Forest (Plt. 193A), mostly at high elevations (Plt. 193B). Observed in the field in forest (Martins et al., 2008b).

Dipsas bucephala (Shaw, 1802)

Type locality. Brazil.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay (Plt. 194A). In Brazil, recorded in the Cerrado and its contacts with the Atlantic Forest and Chiquitano Dry Forest (Plt. 194A), mostly at low to intermediate elevations (Plt. 194B). Observed in the field in forest (Martins et al., 2008b).

Dipsas catesbyi (Sentzen, 1796)

Type locality. "America."
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, in Amazonia (Plt. 195A). In Brazil, widespread in Amazonia and Chiquitano Dry Forest, found also at the northern portion of the Atlantic Forest, forming a disjunct distribution (Plt. 195A). Recorded mostly from low elevations (Plt. 195B). Observed in the field in secondary forest and pasture (Bernarde and Abe, 2006) as well as cocoa plantation in Atlantic Forest (Alves et al., 2005).

Dipsas copei (Günther, 1872)

Type locality. "Suriname."
Distribution. Known from Guyana, French Guiana and from a record at the Brazilian-Venezuelan border, all in the Guiana Shield (Plt. 196A). In Brazil, recorded from Guianan savannas (Plt. 196A; Passos et al., 2004), at intermediate elevations (Plt. 196B). Observed in the field in forest (MacCulloch and Lathrop, 2004).

Dipsas indica Laurenti, 1768

Type locality. Ceylon (in error). Corrected to Amazon region, South America, by Peters (1960).
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela, mostly along forested regions (Plt. 197A). In Brazil, widespread in Amazonia and in the coastal portion of the Atlantic Forest, forming a disjunct distribution (Plt. 197A), mostly at low elevations (Plt. 197B). Observed in the field in primary and secondary forest, humid forest, and disturbed areas (Argôlo and Alves, 2002; Martins and Oliveira, 1998; Strüssmann, 2003; Bernarde and Abe, 2006; Moreira et al., 2009; Shibatta et al., 2009; Fernandes et al., 2010b).

Dipsas lavillai Scrocchi et al., 1993

Type locality. Ten kilometers north of Joaquín V. González and 14.7 kilometers east of the intersection between National Route 16 and Provincial Route 30, Anta Department, province of Salta, Argentina.
Distribution. Known from Argentina, Bolívia, Brazil, and Paraguay, mostly in Chaco (Plt. 198A). In Brazil, known from a single record in the Urucum massif, Chiquitano Dry Forest, near the Brazil-Bolivia border (Plt. 198A), at low to intermediate elevations (Plt. 198B). Observed in the field in a restored area of Chaco (Leynaud and Bucher, 2005).

Dipsas mikanii Schlegel, 1837

Type locality. Brazil. Restricted to southeastern Brazil by Peters (1960).
Distribution. Known from Argentina, Paraguay and Brazil, mostly at the central portion of the South American open diagonal (Plt. 199A). In Brazil, widespread in the Cerrado and its contacts with the Atlantic Forest, with marginal records in Chiquitano Dry Forest, Pantanal, Araucaria Forest and Pampas Grasslands, and isolated records in the Caatinga (Plt. 199A), mostly at intermediate to high elevations (Plt. 199B). Observed in the field in open grasslands and savannas (Valdujo et al., 2009) and disturbed areas (Sousa et al., 2010), being abundant in urban areas of southeastern Brazil (Marques et al., 2009; Barbo et al., 2011).

***Dipsas neuwiedi* (Ihering, 1911)**

Type locality. Uncertain, no designated holotype. Type material from the states of Paraná, São Paulo and Espírito Santo.
Distribution. Endemic to Brazil (Plt. 200A). Widespread in the Atlantic Forest, with marginal records in the Caatinga (Plt. 200A), at low to intermediate elevations (Plt. 200B). Observed in the field in forest (Almeida-Gomes et al., 2014; Marques et al., 2017).

***Dipsas pavonina* Schlegel, 1837**

Type locality. Guyana.
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela, in Amazonian forest (Plt. 201A). In Brazil, widespread in Amazonia (Plt. 201A), mostly at low elevations (Plt. 201B). Observed in the field in primary and secondary forest (Martins and Oliveira, 1998; Silva et al., 2011).

***Dipsas sazimai* Fernandes et al., 2010**

Type locality. Casimiro de Abreu, state of Rio de Janeiro, Brazil.
Distribution. Endemic to Brazil (Plt. 202A). Recorded in the Atlantic Forest (Plt. 202A) at low elevations (Plt. 202B). Observed in the field in forest (Fernandes et al., 2010b).

***Dipsas turgida* (Cope, 1868)**

Type locality. Paraguay.
Distribution. Known from Argentina, Bolivia, Brazil, Paraguay, and Uruguay, mostly in the Chaco and adjacent regions (Plt. 203A). In Brazil, recorded mostly in the Cerrado and Pantanal, with marginal occurrences in the Atlantic Forest, Pantanal, Pampas Grasslands and Chiquitano Dry Forest (Plt. 203A), mostly at low elevations (Plt. 203B). Observed in the field in open habitats, including wet grasslands, savannas, and disturbed areas (Carvalho and Nogueira, 1998; Arzamendia and Giraudo, 2002; Alvarez et al., 1995).

***Dipsas variegata* (Duméril et al., 1854)**

Type locality. Suriname.
Distribution. Known from Bolivia, Brazil, Peru, Suriname (uncertain type locality), Trinidad and Venezuela, along major forested regions (Plt. 204A). In Brazil, widespread in Amazonia, including savanna enclaves, and the Atlantic Forest, forming a disjunct distribution (Plt. 204A), mostly at low elevations (Plt. 204B). Observed in the field in forest (Argôlo, 2004; Barrio-Amorós and Duellman, 2009).

***Dipsas ventrimaculata* (Boulenger, 1885)**

Type locality. Lagoa do Patos, São Lourenço do Sul, Rio Grande do Sul, State Brazil.
Distribution. Known from Argentina, Brazil, and Paraguay, (Plt. 205A). Recorded in Pampas Grasslands, Araucaria Forest and Atlantic Forest, with marginal records in the Cerrado and Chaco (Plt. 205A), from low to high elevations (Plt. 205B). Observed in the field in grassland and savanna (Arzamendia and Giraudo, 2002; Bérnils, 2009; Ghizoni-Jr. et al., 2009).

***Ninia hudsoni* Parker, 1940**

Type locality. New River, Guyana.
Distribution. Known from Brazil, Colombia, Ecuador, Guyana, and Peru, mostly in Amazonia (Plt. 206A). In Brazil, known from scattered records in Amazonia (Plt. 206A) at low elevations (Plt. 206B). Observed in the field in primary forest and pasture (Bernarde and Abe, 2006).

***Sibon nebulatus* (Linnaeus, 1758)**

Type locality. "Africa" (in error). "America" via lectotype selection. Restricted to Jicaltepec, Veracruz, Mexico by Smith and Taylor (1950).
Distribution. Known from Central America (Wallach et al., 2014) to Brazil, Colombia, Ecuador, French Guiana, Guyana, Suriname, Trinidad and Tobago, and Venezuela, mostly in Andean or coastal areas (Plt. 207A). In Brazil, known from eastern Amazonia and marginal upland areas of the Caatinga (Plt. 207A), mostly at low elevations (Plt. 207B). Observed in the field in forest (França et al., 2018).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Dipsadinae Bonaparte, 1838: Imantodini Myers, 2011

***Imantodes cenchoa* (Linnaeus, 1758)**

Type locality. "America." Restricted to Suriname by Myers (1982).
Distribution. Widespread from Central America (Wallach et al., 2014) to South America, occurring in Argentina, Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, and Venezuela (Plt. 208A). In Brazil, recorded in all ecoregions except Araucaria and Pampas Grasslands (Plt. 208A), mostly at low elevations (Plt. 208B). Observed in the field in forest (Martins and Oliveira, 1998).

***Imantodes lentiferus* (Cope, 1894)**

Type locality. Pebas, department of Loreto, Ecuador.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela, in Amazonian forest (Plt. 209A). In Brazil, widespread in Amazonia (Plt. 209A), mostly at low elevations (Plt. 209B). Observed in the field in primary and secondary forest (Alonso et al., 2001; McDiarmid and Donnelly, 2005; Prudente et al., 2010; Ávila et al., 2011; Silva et al., 2011).

***Leptodeira annulata* (Linnaeus, 1758)**

Type locality. "Amazonia," restricted to Rio Amazonas, state of Pará, Brazil, by Duellman (1978).
Distribution. Widespread from Central America (Wallach et al., 2014) to most of cis-Andean South America, except Uruguay (Plt. 210A). In Brazil, recorded in all ecoregions except Pampas Grasslands and Araucaria Forest (Plt. 210A), mostly at low elevations (Plt. 210B). Previous maps and taxonomy in Duellman (1958). Observed in the field in primary and secondary forest, gallery forest, and disturbed areas (Martins and Oliveira, 1998; Giraudo and Scrocchi, 2002; Bernarde and Abe, 2006; Bérnils, 2009; Loebmann and Haddad, 2010).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Caaeteboiini Zaher et al., 2009

***Caaeteboia amarali* (Wettstein, 1930)**

Type locality. Belo Horizonte, state of Minas Gerais, Brazil. Probably in error, given the lack of records outside coastal, lowland areas of the Atlantic Forest.
Distribution. Endemic to Brazil (Plt. 211A). Most records in coastal portions of the Atlantic Forest (Plt. 211A), at low elevations (Plt. 211B). Observed in the field in forest (Marques et al., 2001).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Echinantherini Zaher et al., 2009

***Echinanthera amoena* (Jan, 1863)**

Type locality. Unknown.
Distribution. Endemic to Brazil (Plt. 212A). Recorded in southern and central portions of the Atlantic Forest (Plt. 212A) and marginally in Araucaria Forest at low to high elevations (Plt. 212B). Observed in the field in forest (Marques et al., 2001; Martins et al., 2008b; Marques et al., 2009).

***Echinanthera cephalomaculata* Di-Bernardo, 1994**

Type locality. Pedra Talhada Biological Reserve, Quebrangulo, state of Alagoas, Brazil.
Distribution. Endemic to Brazil (Plt. 213A). Restricted to upland areas in the northernmost portion of the Atlantic Forest (Plt. 213A), at intermediate elevations (Plt. 213B). Observed in the field in forest (Di-Bernardo, 1994).

***Echinanthera cephalostriata* Di-Bernardo, 1996**

Type locality. Serra de Teresópolis, state of Rio de Janeiro, Brazil.
Distribution. Endemic to Brazil (Plt. 214A). Widespread in the Atlantic Forest and Araucaria Forest (Plt. 214A), from low to high elevations (Plt. 214B). Observed in the field in forest (Di-Bernardo, 1996; Martins et al., 2008b).

***Echinanthera cyanopleura* (Cope, 1885)**

Type locality. Montenegro, state of Rio Grande do Sul, Brazil.
Distribution. Known from Argentina and Brazil (Plt. 215A). Widespread in the southern portion of the Atlantic Forest (Plt. 215A), form low to high elevations (Plt. 215B). Observed in the field in forest (Di-Bernardo, 1991; Marques et al., 2001; Martins et al., 2008b).

***Echinanthera melanostigma* (Wagler in Spix, 1824)**

Type locality. State of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 216A). Recorded in the central portion of the Atlantic Forest (Plt. 216A), mostly from intermediate to high elevations (Plt. 216B). Observed in the field in forest (Marques et al., 2001; Hartmann et al., 2009; Martins et al., 2008b; Bérnils, 2009).

***Echinanthera undulata* (Wied, 1824)**

Type locality. "Parahyba" (= vicinity of Rio Paraíba do Sul, Campos dos Goytacazes; see Vanzolini and Myers, 2015), state of Rio de Janeiro, Brazil.
Distribution. Endemic to Brazil (Plt. 217A). Widespread in the southern part of the southern Atlantic Forest, with marginal records in Cerrado and Araucaria Forest (Plt. 217A), from low to high elevations (Plt. 217B). Observed in the field in primary and secondary forest (Hartmann et al., 2009; Barbo et al., 2011).

***Sordellina punctata* (Peters, 1880)**

Type locality. Restricted to Poá, state of São Paulo, Brazil, by Hoge and Romano (1978).
Distribution. Endemic to Brazil (Plt. 218A). Restricted to the southern portion of the Atlantic Forest (Plt. 218A), mostly from low to intermediate elevations (Plt. 218B). Observed in the field in open areas (restinga), wetlands, lakes, rivers, and riparian vegetation (Pereira et al., 2007).

***Taeniophallus affinis* (Günther, 1858)**

Type locality. State of Rio de Janeiro, Brazil, by lectotype designation (Myers, 1974).
Distribution. Endemic to Brazil (Plt. 219A). Widespread in the Atlantic Forest and Araucaria Forest, with marginal records in the Cerrado and the Caatinga (Plt. 219A), mostly at high elevation (Plt. 219B). Observed in the field in forest, secondary forest, and urban areas (Hartmann et al., 2009; Zacariotti and Gomes, 2010; Trevine, 2011; França et al., 2012).

***Taeniophallus bilineatus* (Fischer, 1885)**

Type locality. Santos, São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 220A) restricted to the southern portion of the Atlantic Forest and its contact with the Araucaria Forest (Plt. 220A), mostly at intermediate to high elevations (Plt. 220B). Observed in the field in secondary forest (Trevine, 2011; Fiorillo, 2016).

***Taeniophallus brevirostris* (Peters, 1863)**

Type locality. Near Quito (in error), Ecuador.
Distribution. Known from Brazil, Colombia, Ecuador, French Guiana, Guyana, and Peru, mostly in Amazonian forest (Plt. 221A). In Brazil, widespread in Amazonia (Plt. 221A) at low elevations (Plt. 221B). Observed in the field in forest and disturbed areas (Martins and Oliveira, 1998; Morais et al., 2010).

***Taeniophallus nicagus* (Cope, 1868)**

Type locality. Brazil.
Distribution. Known from northern South America in Brazil, French Guiana, and Suriname in Amazonian forest (Plt. 222A). In Brazil, recorded in the northern portion of Amazonia and in Guianan savannas (Plt. 222A), mostly at low elevations (Plt. 222B). Observed in the field in forest and disturbed areas (Martins and Oliveira, 1998; Starace, 2015; Morais et al., 2010).

***Taeniophallus occipitalis* (Jan, 1863)**

Type locality. State of Bahia, Brazil.
Distribution. Known from Argentina, Bolivia, Brazil, Paraguay, Peru, and Uruguay, mostly along the South American open diagonal (Plt. 223A). In Brazil, recorded in all ecoregions south of the Amazon River, being widespread in the Cerrado and Pampas Grasslands and their contacts with Atlantic Forest, Pantanal, and Caatinga, including scattered records in Amazonia (Plt. 223A), from low to high elevations (Plt. 223B). Observed in the field in secondary forest, savanna, coastal dunes (restinga), and disturbed areas (Santos et al., 2008; França et al., 2012; Serrano et al., 2019).

***Taeniophallus persimilis* (Cope, 1869)**

Type locality. Rio de Janeiro, State of Rio de Janeiro, Brazil.
Distribution. Endemic to Brazil (Plt. 224A). Restricted to the southern portion of the Atlantic Forest (Plt. 224A), mostly at high elevations (Plt. 224B). Observed in the field in secondary forest (Hartmann et al., 2009; Barbo et al., 2011).

***Taeniophallus poecilopogon* (Cope, 1863)**

Type locality. Paysandu, Uruguay.
Distribution. Known from southern South America in Argentina, Brazil, and Uruguay (Plt. 225A). In Brazil, widespread in Pampas Grasslands, with marginal records in Atlantic Forest and Araucaria Forest (Plt. 225A), mostly at low elevations (Plt. 225B). Observed in the field in grassland and disturbed areas (Etchepare and Zaracho, 2009; Nenda and DiPietro, 2009).

***Taeniophallus quadriocellatus* Santos et al., 2008**

Type locality. Floresta Nacional Caxiuanã, Estação Científica Ferreira Penna, Portel, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 226A). Restricted to eastern Amazonia, south of the Amazon River (Plt. 226A), at low elevations (Plt. 226B). Observed in the field in primary and secondary forest (Santos et al., 2008; Rodrigues et al., 2016).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Elapomorphini Jan, 1862

***Apostolepis adhara* França et al., 2018**

Type locality. São Salvador hydroelectric power plant, state of Tocantins, Brazil.

Distribution. Endemic to Brazil (Plt. 227A). Known only from the type locality, in the central portion of the Cerrado (Plt. 227A), at low elevations of the Tocantins River depression (Plt. 227B). No detailed field data on habitat use are available for this species.

***Apostolepis albicollaris* Lema, 2002**

Type locality. Parque Zoológico de Brasília, Brasília, Distrito Federal, Brazil.
Distribution. Endemic to Brazil (Plt. 228A), restricted to the central portion of the Cerrado (Plt. 228A) at intermediate to high elevations (Plt. 228B). Previous maps and taxonomy in Nogueira et al. (2012). Observed in the field in open interfluvial savannas (Nogueira et al., 2012).

***Apostolepis ambiniger* (Peters, 1869)**

Type locality. Paraguay.
Distribution. Known from Brazil and Paraguay (Plt. 229A). In Brazil, known from the Pantanal and the southwestern portion of the Cerrado, including an isolated and questionable record in Ipanema Farm, Iperó, São Paulo state (Plt. 229A), at intermediate elevations (Plt. 229B). Previous maps and taxonomy in Lema et al. (2005a). Observed in the field in open savannas on sandy soils (CS, pers. obs.).

***Apostolepis ammodites* Ferrarezzi et al., 2005**

Type locality. Luís Eduardo Magalhães hydroelectric power plant, Palmas, state of Tocantins, Brazil.
Distribution. Endemic to Brazil (Plt. 230A), restricted to the eastern portion of the Cerrado (Plt. 230A), mostly from mid to high elevations (Plt. 230B). Observed in the field in grassland and savanna on sandy soil (Ferrarezzi et al., 2005; Nogueira et al., 2011).

***Apostolepis arenaria* Rodrigues, 1993**

Type locality. Village of Alagoado, Casa Nova, left margin of the São Francisco River, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 231A). Known only from the type locality in the Caatinga (Plt. 231A) at low elevations of the São Francisco River depression (Plt. 231B). Observed in the field in xeric scrubland on sandy soil (Rodrigues, 1993).

***Apostolepis assimilis* (Reinhardt, 1861)**

Type locality. Fazenda Capão do Porcos, near Brumado, "Campos region," west of Serra do Espinhaço, State of Minas Gerais, Brazil.
Distribution. Known from Argentina, Brazil and Paraguay (Plt. 232A), recorded in the southern portion of the Cerrado and its contact areas with the Atlantic Forest, with marginal records in the Pantanal and Caatinga (Plt. 232A), mostly at intermediate to high elevations (Plt. 232B). Observed in the field in open areas, forest border and disturbed areas (Giraudo and Scrocchi, 1998; Giraudo and Scrocchi, 2002; Marques et al., 2009; Moreira et al., 2009; Sousa et al., 2010).

***Apostolepis barrioi* Lema, 1987**

Type locality. Cororó, Río Ypané, province of Concepción, Paraguay.
Distribution. Known from Brazil and Paraguay (Plt. 233A). In Brazil, recorded in the southern portion of the Cerrado and contact areas with the Atlantic Forest (Plt. 233A), mostly at intermediate elevations (Fig. 233B). No detailed field data on habitat use are available for this species.

***Apostolepis borellii* Peracca, 1904**

Type locality. Urucum, Corumbá, state of Mato Grosso do Sul, Brazil.
Distribution. Endemic to Brazil (Plt. 234A). Known from two records in the western border of the Pantanal (Plt. 234A), at low to intermediate elevations (Plt. 234B). No detailed field data on habitat use are available for this species.

***Apostolepis cearensis* Gomes, 1915**

Type locality. Uncertain locality in the state of Ceará, Brazil.
Distribution. Endemic to Brazil (Plt. 235A). Widespread in the Caatinga with marginal occurrences in the Atlantic Forest, Amazonia, and Cerrado (Plt. 235A), from low to high elevations (Plt. 235B). Observed in the field in open areas associated with dry vegetation and disturbed areas (Ferrarezzi et al., 2005; Guedes et al., 2014).

***Apostolepis cerradoensis* Lema, 2003**

Type locality. Serra da Mesa hydroelectric power plant, Minaçu, state of Goiás, Brazil.
Distribution. Endemic to Brazil (Plt. 236A), known only from the type locality in the central portion of the Cerrado (Plt. 236A) at intermediate elevation of the upper Tocantins drainage (Plt. 236B). No detailed field data on habitat use are available for this species.

***Apostolepis christineae* Lema, 2002**

Type locality. Serra das Araras Ecological Station, Porto Estrela, state of Mato Grosso, Brazil.
Distribution. Endemic to Brazil (Plt. 237A). Dubious records in Bolivia in Entiauspe-Neto and Lema (2015) are

not based on direct examination of specimens and were not included in our maps. Restricted to the Serra das Araras ridge, in western portion of the Cerrado and its contact with the Chiquitano Dry Forests (Plt. 237A) at intermediate elevations (Plt. 237B). No detailed field data on habitat use are available for this species.

***Apostolepis dimidiata* (Jan, 1862)**

Type locality. Brazil.
Distribution. Known from southeastern South America in Brazil, Paraguay, and eastern Argentina (Plt. 238A). In Brazil, recorded in the Cerrado and the Atlantic Forest, with marginal records in the Chaco and Pantanal (Plt. 238A), mostly at intermediate to high elevation (Plt. 238A). Observed in the field in open savanna and disturbed areas (Sawaya et al., 2008).

***Apostolepis flavotorquata* (Duméril et al., 1854)**

Type locality. "L'íntérieur de l'Amérique meridional," restricted to Goiás state, Brazil (Lema and Renner, 2005).
Distribution. Endemic to Brazil (Plt. 239A), widespread in the Cerrado and its contact with Amazonia (Plt. 239A), from intermediate to high elevations (Plt. 239B). Observed in the field in dry forest (França and Araújo, 2006).

***Apostolepis gaboi* Rodrigues, 1993**

Type locality. Village of Queimadas, left margin of the São Francisco River, Pilão Arcado, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 240A). Known only from three nearby localities in the Caatinga (Fig. 240A) at low elevations (Fig. 240B). Observed in the field in xeric scrubland on sandy soil (Rodrigues, 2003; Guedes et al., 2018b).

***Apostolepis goiasensis* Prado, 1943**

Type locality. Rio Verde, state of Goiás, Brazil.
Distribution. Endemic to Brazil (Plt. 241A). Restricted to the Cerrado (Plt. 241A), mostly at high elevations (Fig. 241B). Observed in the field in savanna on sandy soils (Dalmolin, 2000).

***Apostolepis intermedia* Koslowsky, 1898**

Type locality. Miranda, state of Mato Grosso do Sul, Brazil.
Distribution. Known from Brazil and Paraguay (Plt. 242A). In Brazil, restricted to the southwestern portion of the Cerrado (Plt. 242A), mostly at low elevations (Plt. 242B). Observed in open savanna (Entiauspe-Neto et al., 2014).

***Apostolepis kikoi* Santos et al., 2018**

Type locality. Manso hydroelectric power plant, Chapada dos Guimarães, state of Mato Grosso, Brazil.
Distribution. Endemic to Brazil (Plt. 243A), recorded only from the type locality in the northwestern portion of the Cerrado (Plt. 243A) at intermediate elevations near Chapada dos Guimarães Plateau (Plt. 243B). No detailed field data on habitat use are available for this species.

***Apostolepis lineata* Cope, 1887**

Type locality. "Village of Chupada." Chapada dos Guimarães, state of Mato Grosso, Brazil.
Distribution. Endemic to Brazil (Plt. 244A), recorded only from the type locality in the northwestern portion of the Cerrado (Plt. 244A), at intermediate elevation (Plt. 244B). No detailed field data on habitat use are available for this species.

***Apostolepis longicaudata* Gomes in Amaral, 1921**

Type locality. Village of Engenheiro Dodt, currently Santa Filomena, state of Piauí, Brazil.
Distribution. Endemic to Brazil (Plt. 245A). restricted to the northeastern portion of the Cerrado (Plt. 245A) at low to intermediate elevations (Plt. 245B). Previous maps and taxonomy in Curcio et al. (2011). Observed in the field in savanna and grassland on sandy soil and gallery forest (CCN pers. obs.; Curcio et al., 2011).

***Apostolepis mariae* Borges-Nojosa et al., 2017**

Type locality. Sítio Olho d'Água dos Tangarás, Maciço de Baturité, Pacotí, state of Ceará, Brazil.
Distribution. Endemic to Brazil (Plt. 246A), known only from a restricted upland area in the northern portion of the Caatinga (Plt. 246A) at intermediate to high elevations (Plt. 246B). Observed in the field in upland forest (Borges-Nojosa et al., 2017).

***Apostolepis nelsonjorgei* Lema and Renner, 2004**

Type locality. Serra da Mesa hydroelectric power plant, Minaçu, state of Goiás, Brazil.
Distribution. Endemic to Brazil (Plt. 247A). Restricted to the northeastern portion of the Cerrado (Plt. 247A) at low to intermediate elevations (Plt. 247B). Previous maps and taxonomy in Curcio et al. (2011). Observed in the field in savanna grassland on sandy soil (Recoder et al., 2011).

***Apostolepis nigrolineata* (Peters, 1869)**

Type locality. Brazil.

Distribution. Endemic to Brazil (Plt. 248A). Recorded in eastern and southern Amazonia (Plt. 248A), at low elevations (Plt. 248B). Taxonomy in Curcio et al. (2011). Observed in the field in primary and secondary forest (Santos-Costa et al., 2015).

Apostolepis nigroterminata Boulenger, 1896

Type locality. Calleria, Ucayali, Peru.
Distribution. Known from Bolivia, Brazil, and Peru, mostly along the Chiquitano Dry Forest and surrounding regions (Plt. 249A). In Brazil, found in the Cerrado and Chiquitano Dry Forest (Plt. 249A) at low elevations (Plt. 249B). Observed in the field in seasonally dry forest (Lema and Renner, 2016).

Apostolepis phillipsi Harvey, 1999

Type locality. Estancia El Refugio, Parque Nacional Noel Kempff Mercado, Velasco Province, Santa Cruz, Bolívia.
Distribution. Known from Bolivia and Brazil (Plt. 250A). In Brazil, restricted to the Huanchaca/Ricardo Franco Plateau at the border of Bolivia and Brazil and the contact between the Cerrado and Chiquitano Dry Forest (Plt. 250A) at intermediate elevations (Plt. 250B). We retain the species epithet *Apostolepis phillipsi,* based on the principle of taxonomic stability (Colli et al., 2019). Observed in the field in seasonally dry hillside forest (Harvey, 1999; Colli et al., 2019).

Apostolepis polylepis (Amaral, 1922)

Type locality. Village of Engenheiro Dodt, currently Santa Filomena, state of Piauí, Brazil.
Distribution. Endemic to Brazil (Plt. 251A), restricted to the northeastern portion of the Cerrado (Plt. 251A) at low to intermediate elevations (Plt. 251B). Observed in the field in open savanna and grassland on sandy soils (Nogueira et al., 2011; Recoder et al., 2011).

Apostolepis quinquelineata Boulenger, 1896

Type locality. Demerara, Guyana.
Distribution. Known from Brazil, French Guiana, Guyana, and Suriname on the Guiana Shield (Plt. 252A). Map and taxonomy follow Curcio et al. (2011). In Brazil, it is found in Amazonia north of the Amazon River (Plt. 252A) at low elevations (Plt. 252B). Recorded in the field in forests (Martins and Oliveira, 1998).

Apostolepis quirogai Giraudo and Scrocchi, 1998

Type locality. Posadas, Misiones Province, Argentina.
Distribution. Known from southern South America, in Argentina and Brazil (Plt. 318A). In Brazil, recorded in the Pampas Grasslands (Plt. 318A) at low elevations (Plt. 253B). Observed in the field in urban areas within a matrix of seasonal subtropical forest and grassland (Giraudo and Scrocchi, 1998).

Apostolepis roncadori Lema, 2016

Type locality. Base Camp of the Xavantina- Cachimbo expedition, Serra do Roncador, Ribeirão Cascalheira, state of state of Mato Grosso, Brazil, according to specimen label in the NHM.
Distribution. Endemic to Brazil (Plt. 254A). Known only from the type locality in the northwestern portion of the Cerrado (Plt. 254A) at intermediate elevations (Plt. 254B). No detailed field data on habitat use are available for this species.

Apostolepis serrana Lema and Renner, 2006

Type locality. Base Camp of the Xavantina- Cachimbo expedition, Serra do Roncador, Ribeirão Cascalheira, state of state of Mato Grosso, Brazil, according to specimen label in the NHM.
Distribution. Endemic to Brazil (Plt. 255A). Known only from the type locality in the northwestern portion of the Cerrado (Plt. 255A) at intermediate elevations (Plt. 255B). No detailed field data on habitat use are available for this species.

Apostolepis striata Lema, 2004

Type locality. Gleba Corumbiara, near Planalto farm, 15 km north of Vilhena on road to Juína, Vilhena, state of Rondônia, Brazil (GRC, collector of the holotype, pers. obs.).
Distribution. Endemic to Brazil (Plt. 256A). Known only from the type locality in the Cerrado (Plt. 256A) at intermediate elevations of the Parecis Plateau (Plt. 256B). Observed in the field in open savanna enclaves surrounded by forests (GRC, pers. obs.).

Apostolepis tertulianobeui Lema, 2004

Type locality. Uberlândia, state of Minas Gerais, Brazil, fide Costa and Bérnils (2015).
Distribution. Endemic to Brazil (Plt. 257A). Known from the central portion of the Cerrado and its contact with the Atlantic Forest (Plt. 257A) at low to intermediate elevations (Plt. 257B). No detailed field data on habitat use are available for this species.

Apostolepis thalesdelemai Borges-Nojosa et al., 2016

Type locality. Murimbeca, Planalto da Ibiapaba, Ubajara, state of Ceará, Brazil.

Distribution. Endemic to Brazil (Plt. 258A). Recorded in the northern portion of the Caatinga (Plt. 258A) at intermediate to high elevations (Plt. 258B). Observed in the field in upland forest (Borges-Nojosa et al., 2017).

***Apostolepis vittata* (Cope, 1887)**

Type locality. "Village of Chupada." Currently Chapada dos Guimarães, state of Mato Grosso, Brazil.
Distribution. Endemic to Brazil (Plt. 259A). Recorded in the Cerrado, restricted to the Chapada dos Guimarães Plateau and vicinities (Plt. 259A) at intermediate to high elevations (Plt. 259B). No detailed field data on habitat use are available for this species.

***Coronelaps lepidus* (Reinhardt, 1861)**

Type locality. "Arrayal de Bicudo" (= Rio da Casca), state of Minas Gerais, Brazil.
Distribution. Endemic to Brazil (Plt. 260A). Recorded in the Atlantic Forest (Plt. 260A) at low to high elevations (Plt. 260B). Observed in the field in forest (Lema and Deiques, 2010).

***Elapomorphus quinquelineatus* (Raddi, 1820)**

Type locality. State of Rio de Janeiro, Brazil.
Distribution. Endemic to Brazil (Plt. 261A). Recorded in the central portion of the Atlantic Forest (Plt. 261A) at low to high elevations (Plt. 261B). Observed in the field in forest and disturbed areas (Cardoso et al., 2001; Pontes et al., 2008; Marques et al., 2009).

***Elapomorphus wuchereri* Günther, 1861**

Type locality. State of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 262A). Recorded in northern Atlantic Forest (Plt. 262A), mostly at low elevations (Plt. 262B). Observed in the field in forest and disturbed areas (Entiauspe-Neto et al., 2017).

***Phalotris concolor* Ferrarezzi, 1993**

Type locality. Rio Itacambiruçu, Cristália, state of Minas Gerais, Brazil.
Distribution. Endemic to Brazil (Plt. 263A). Restricted to eastern Cerrado (Plt. 263A), at low to intermediate elevations along the Espinhaco Range and São Francisco River headwaters (Plt. 263B). Observed in the field in riparian areas (Moura et al., 2013).

***Phalotris labiomaculatus* Lema, 2002**

Type locality. Buriti Grande, Porto Franco, state of Maranhão, Brazil.
Distribution. Endemic to Brazil (Plt. 264A). Restricted to northeastern Cerrado (Plt. 264A), at low to intermediate elevations (Plt. 264B). No detailed field data on habitat use are available for this species.

***Phalotris lativittatus* Ferrarezzi, 1994**

Type locality. Matão, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 265A). Restricted to southeastern Cerrado, with marginal records in its contact areas with the Atlantic Forest (Plt. 265A), mostly at intermediate elevations (Plt. 265B). Observed in the field in grassland and savanna (Sawaya et al., 2008).

***Phalotris lemniscatus* (Duméril et al., 1854)**

Type locality. Restricted to Montevideo, Uruguay (Lema, 1984).
Distribution. Known from southern South America, in Argentina, Brazil, and Uruguay (Plt. 266A). In Brazil, widespread in Pampas Grasslands and Araucaria Forest, with isolated records in the contact between Atlantic Forest and Cerrado (Plt. 266A), from low to high elevations (Plt. 266B). Observed in the field in open areas of rock outcrop and coastal vegetation (Morais, 2010; Santos et al., 2012).

***Phalotris matogrossensis* Lema et al., 2005b**

Type locality. Coophema, Cuiabá, state of Mato Grosso, Brazil.
Distribution. Known from Brazil and Paraguay (Plt. 267A). In Brazil, occurs mostly in the western portion of Cerrado, with marginal records in Pantanal, Chiquitano Dry Forest, and Atlantic Forest (Plt. 267A), often at low elevations (Plt. 267B). Observed in the field in open areas and disturbed areas (Lema et al., 2005b; Sena Santos et al., 2017).

***Phalotris mertensi* (Hoge, 1955)**

Type locality. Serra Azul, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 268A). Recorded in the southern portion of the Cerrado and its contact with the Atlantic Forest (Plt. 268A), mostly at intermediate to high elevations (Plt. 268B). Observed in the field in seasonal forest, savanna, and disturbed areas (Sawaya et al., 2008; Barros et al., 2017).

***Phalotris multipunctatus* Puorto and Ferrarezzi, 1994**

Type locality. Fazenda Elba, Brotas, state of São Paulo, Brazil.
Distribution. Known from Brazil and Paraguay (Plt. 269A). In Brazil, it is only known from two widely separated locali-

ties in the southern portion of the Cerrado (Plt. 269A) at low to intermediate elevations (Plt. 269B). Observed in the field in savanna on sandy soil (Atkinson et al., 2018).

***Phalotris nasutus* (Gomes, 1915)**

Type locality. Paineiras, Uberaba, state of Minas Gerais, Brazil.
Distribution. Endemic to Brazil (Plt. 270A). Widespread in the Cerrado, with marginal records in Amazonia, Chiquitano Dry Forest and Pantanal (Plt. 270A), mostly at intermediate to high elevations (Plt. 270B). Observed in the field in grassland and savanna (Valdujo and Nogueira, 2001; Valdujo et al., 2009: Nogueira et al., 2011).

***Phalotris reticulatus* (Peters, 1860)**

Type locality. Brazil.
Distribution. Known from Argentina and Brazil (Plt. 271A). Recorded in Araucaria Forest, with marginal records in Atlantic Forest (Plt. 271A), mostly at high elevations (Plt. 271B). Observed in the field in rock outcrop and grassland (Ghizoni-Jr. et al., 2009).

***Phalotris tricolor* (Duméril et al., 1854)**

Type locality. Santa Cruz de la Sierra, Santa Cruz, Bolívia.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay, mostly along the Chaco (Plt. 272A). In Brazil, known from a restricted area in the Pantanal-Chiquitano Dry Forest contact area, at the Urucum massif, near the Brazil-Bolivia border (Plt. 272A), at low to intermediate elevations (Plt. 272B). Observed in the field in open areas with dry vegetation, shrubland, and wetland (Zilio, 2006; Cabral and Cacciali, 2015).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Hydrodynastini Zaher et al., 2009

***Hydrodynastes bicinctus* (Herrmann, 1804)**

Type locality. Novo Progresso, state of Pará, Brazil.
Distribution. Known from Brazil, French Guiana, Guyana, and Venezuela (Plt. 273A). In Brazil, recorded in Amazonia, Cerrado, and Atlantic Forest (Plt. 273A) at low to intermediate elevations (Plt. 273B). Observed in the field in rivers and riparian areas (Bernarde and Abe, 2006; Alho, 2008).

***Hydrodynastes gigas* (Duméril et al., 1854)**

Type locality. Province of Corrientes, Argentina.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay (Plt. 274A). In Brazil, recorded in the Cerrado, Atlantic Forest, Pantanal, Chiquitano Dry Forest and Amazonia (Plt. 274A), mostly at low elevations (Plt. 274B). Observed in the field in wetlands, in gallery forest, and savanna (Santos-Costa, 2003; Bernarde and Abe, 2006).

***Hydrodynastes melanogigas* Franco et al., 2007**

Type locality. Palmas, Tocantins State, Brazil.
Distribution. Endemic to Brazil (Plt. 275A). Restricted to the northern portion of the Cerrado, close to its contact with Amazonia, in the mid Tocantins River drainage (Plt. 275A). All records at low elevations (Plt. 275B). Observed in the field in riparian habitats including wetlands, palm marshes, and gallery forest (Franco et al., 2007).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Hydropsini Dowling, 1975

***Helicops angulatus* (Linnaeus, 1758)**

Type locality. "Asia" (in error).
Distribution. Widespread in the northern portion of South America, occurring in Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, Trinidad, and Venezuela (Plt. 276A). In Brazil, widespread in Amazonia, Chiquitano Dry Forest, Cerrado, Caatinga, and northern portion of the Atlantic Forest (Plt. 276A), mostly at low elevations (Plt. 276B). Observed in the field in streams in forest (Martins and Oliveira, 1998) and savanna (Dal Vechio et al., 2013).

***Helicops apiaka* Kawashita-Ribeiro et al., 2013**

Type locality. Rio Teles Pires, Paranaíta, state of Mato Grosso, Brazil.
Distribution. Endemic to Brazil (Plt. 277A). Restricted to southeastern Amazonia (Plt. 277A) at low elevations (Plt. 277B). Observed in the field in streams and rivers in forest (Kawashita-Ribeiro et al., 2013).

***Helicops boitata* Moraes-da-Silva et al., 2019**

Type locality. Transpantaneira road, Poconé, state of Mato Grosso, Brazil.
Distribution. Endemic to Brazil (Plt. 278A). Known from a single record in northern Pantanal (Plt. 278A) at a low elevation (Plt. 278B). Observed in the field in seasonally flooded open areas (Moraes-da-Silva et al., 2019).

***Helicops carinicaudus* (Wied, 1825)**

Type locality. Rio Itapemirim, state of Espírito Santo, Brazil.
Distribution. Endemic to Brazil (Plt. 279A). Restricted to coastal Atlantic Forest (Plt. 279A) at low elevations (Plt. 279B). Observed in the field in preserved or disturbed water bodies, including urban areas (Dixon and Soini, 1977; Hartmann et al., 2009; Pontes et al., 2009).

***Helicops gomesi* Amaral, 1922**

Type locality. Estação Costa Pinto, Piracicaba, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 280A) recorded only in the southern portion of the Cerrado and its contact areas with Atlantic Forest (Plt. 280A) at intermediate to high elevations of the upper Paraná basin (Plt. 280B). Observed in the field in wet grassland and palm marshes (Valdujo et al., 2009).

***Helicops hagmanni* Roux, 1910**

Type locality. Santarém, state of Pará, Brazil.
Distribution. Known from Brazil, Colombia, and Venezuela (Plt. 281A). In Brazil, recorded in Amazonia (Plt. 281A) at low elevations (Plt. 281B). Observed in the field in streams and flooded forest areas (Cunha and Nascimento, 1993; Silva Jr., 1993; Martins and Oliveira, 1998).

***Helicops infrataeniatus* Jan, 1865**

Type locality. Suriname (in error).
Distribution. Known from Argentina, Brazil, Uruguay, and Paraguay (Plt. 282A). In Brazil, recorded in southern portion of the Atlantic Forest, Araucaria Forest, and Pampas Grasslands, with marginal records in the Cerrado (Plt. 282A), mostly at low elevations (Plt. 282B). Observed in the field in lentic and lotic waters in open areas (Lema, 1994).

***Helicops leopardinus* (Schlegel, 1837)**

Type locality. Unknown.
Distribution. Widespread in South America, occurring in Argentina, Bolivia, Brazil, Ecuador, French Guiana, Guyana, Paraguay, Peru, and Suriname (Plt. 283A). In Brazil, widespread in Amazonia, Cerrado, Pantanal, and Caatinga, with marginal records in the northern portion of the Atlantic Forest (Plt. 283A), mostly at low elevations (Plt. 283B). Observed in the field in rivers, flooded grasslands, and gallery forest, as well as disturbed areas (Strüssmann and Sazima, 1993; Yanosky et al., 1996; Carvalho and Nogueira, 1998; Giraudo and Scrocchi, 2002).

***Helicops modestus* Günther, 1861**

Type locality. America.
Distribution. Endemic to Brazil (Plt. 284A), recorded in the central portion of the Atlantic Forest and the southern portion of the Cerrado (Plt. 284A), at intermediate to high elevations (Plt. 284B). Observed in the field in lentic waters of flooded areas (Costa et al., 2016).

***Helicops nentur* Costa et al., 2016**

Type locality. Fazenda Papa Capim, São José da Safira, state of Minas Gerais, Brazil.
Distribution. Endemic to Brazil (Plt. 285A), recorded in the central Atlantic Forest and its contact with the Cerrado and Caatinga (Plt. 285A) at low to intermediate elevations (Plt. 285B). Observed in the field in flooded areas, lakes, and rivers (Costa et al., 2016).

***Helicops polylepis* Günther, 1861**

Type locality. State of Amazonas, Brazil.
Distribution. Widespread in the northern portion of South America, recorded in Bolivia, Brazil, Colombia, and Peru (Plt. 286A). In Brazil, it was recorded in Amazonia and western Cerrado (Plt. 286A), mostly at low elevations (Plt. 286B). Observed in the field in water bodies, including disturbed areas (Cortez-Fernandez, 2005; França and Venâncio, 2010).

***Helicops tapajonicus* Frota, 2005**

Type locality. "Parauá, margem direita do rio Tapajós, município de Santarém, estado do Pará, Brasil." Corrected to Parauá, left margin (not right) of the Tapajós River, Santarém, Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 287A), restricted to eastern Amazonia (Plt. 287A) at low elevations near the mouth of the Tapajós River (Plt. 287B). Observed in the field in wet areas around streams, lakes and rivers in forest regions (Frota, 2005).

***Helicops trivittatus* (Gray, 1849)**

Type locality. "India ?" (in error).
Distribution. Endemic to Brazil (Plt. 288A), recorded in eastern Amazonia and its contact areas with Cerrado (Plt. 288A) at low elevations of the Tocantins, Xingu, and Araguaia basins (Plt. 288B). Observed in the field in small streams and wetlands within riparian forest (Cunha and Nascimento, 1993).

***Helicops yacu* Rossman and Dixon, 1975**

Type locality. Iquitos, department of Loreto, Peru.

Distribution. Restricted to northwestern South America in Brazil, and Peru (Plt. 289A). In Brazil, known from a single record in western Amazonia, near the border with Peru, in the Juruá drainage (Plt. 289A) at a low elevation (Plt. 289B). No detailed field data on habitat use for this species.

***Hydrops caesurus* Scrocchi et al., 2005**

Type locality. "Isla Paloma, Canal de los Jesuitas, Rio Paraná, Itapúa, Paraguay."
Distribution. Known from Argentina, Brazil, and Paraguay, along the Paraguay River drainage (Plt. 290A). In Brazil, recorded in the Pantanal and Cerrado (Plt. 290A) at low elevations (Plt. 290B). Observed in the field in rivers and seasonally flooded areas (Scrocchi et al., 2005; Duleba et al., 2015).

***Hydrops martii* (Wagler in Spix, 1824)**

Type locality. Rio Itapecuru, state of Maranhão, Brazil.
Distribution. Known from Brazil, Colombia, Ecuador, Guyana, Peru, and Venezuela, in Amazonian forests (Plt. 291A). In Brazil, widespread in Amazonia (Plt. 291A) at low elevations (Plt. 291B). Observed in the field in lakes, rivers, and flooded forest (Scartozzoni, 2010).

***Hydrops triangularis* (Wagler in Spix, 1824)**

Type locality. Lago Tefé, Rio Amazonas, Tefé, state of Amazonas, Brazil.
Distribution. Widespread in the northern portion of South America, in Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, Trinidad, and Venezuela, in Amazonian forests (Plt. 292A). In Brazil, recorded widely in Amazonia and marginally in the Cerrado (Plt. 292A) at low elevations (Plt. 292B). Observed in the field in lakes, rivers, and flooded forest and savanna (Scartozzoni, 2010; von May et al., 2019).

***Pseudoeryx plicatilis* (Linnaeus, 1758)**

Type locality. "Ternataeis" (= Ternate island, Indonesia; in error).
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, and Venezuela (Plt. 293A). In Brazil, widespread in Amazonia and Pantanal, with marginal records in the Cerrado (Plt. 293A), at low elevations (Plt. 293B). Observed in the field in wetlands and seasonally flooded areas (Strüssmann and Sazima, 1993; Giraudo and Scrocchi, 2002; França et al., 2006; Scartozzoni et al., 2010).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Philodryadini Cope, 1886

***Ditaxodon taeniatus* (Peters in Hensel, 1868)**

Type locality. Porto Alegre, Rio Grande do Sul, Brazil. Possibly in error (Bérnils et al., 2008).
Distribution. Endemic to Brazil (Plt. 294A). Known from few and scattered records, mostly in Araucaria Forest, and marginally in the Cerrado and Atlantic Forest (Plt. 294A), mostly at high elevations (Plt. 294B). Observed in the field in montane grassland (Thomas et al., 2006).

***Philodryas aestiva* (Duméril et al., 1854)**

Type locality. Santa Catarina, Brazil.
Distribution. Known from the southern portion of South America, in Argentina, Brazil, Paraguay, and Uruguay (Plt. 295A). In Brazil, widespread in the southern portion of the Atlantic Forest, Pampas Grasslands, Araucaria Forest, and Cerrado, with marginal isolated records in Pantanal and upland areas in the Caatinga (Plt. 295A). Recorded mostly in low areas in the southern part of the range, and in intermediate to high elevation areas near its northern limits (Plt. 295B). Observed in the field in grassland and savanna (Vaz-Silva et al., 2007; Ghizoni-Jr. et al., 2009; Valdujo et al., 2009; Freitas et al., 2012).

***Philodryas agassizii* (Jan, 1863)**

Type locality. "Uruguay" (in error, according to Wallach et al., 2014). Corrected to Paraguay fide original data tag and MCZ Catalogue (Wallach et al., 2014).
Distribution. Known from the southern portion of South America, in Argentina, Brazil, Paraguay, and Uruguay (Plt. 296A). In Brazil, widespread in Pampas Grasslands and the southern portion of the Cerrado, with marginal records in Araucaria Forest, Atlantic Forest, and Caatinga (Plt. 296A). Recorded mostly in low areas in the southern part of the range, and in intermediate to high elevation areas near its northern limits (Plt. 296B). Observed in the field in grassland and savanna (Nogueira, 2001; Marques et al., 2006; Winck et al., 2007).

***Philodryas argentea* (Daudin, 1803)**

Type locality. Unknown.
Distribution. Known from Brazil, Colombia, French Guiana, Peru, Suriname and Venezuela, in Amazonian forest (Plt. 297A). In Brazil, widespread in Amazonia (Plt. 297A), mostly at low elevations (Plt. 297B). Observed in the field in forest (Martins and Oliveira, 1998; Rodrigues et al.,

2010; Ávila and Kawashita-Ribeiro, 2011; Bernarde et al., 2011).

***Philodryas arnaldoi* (Amaral, 1933)**

Type locality. São Bento do Sul, state of Santa Catarina, Brazil.
Distribution. Endemic to Brazil (Plt. 298A). Recorded in Araucaria Forest and marginally in Atlantic Forest and one isolated record in the Cerrado (Plt. 298A), mostly at intermediate to high elevations (Plt. 298B). Observed in the field in forest (Di-Bernardo et al., 2003; Morato, 1995; Morato et al., 2003; Bérnils et al., 2007).

***Philodryas georgeboulengeri* Grazziotin et al., 2012**

Type locality. Río Mamoré, Trinidad, Bolivia.
Distribution. Known from Bolivia, Brazil, and Peru (Plt. 299A). In Brazil, recorded in southwestern Amazonia and Beni savannas (Plt. 299A), mostly at low elevations (Plt. 299B). Observed in the field in forest (Bernarde et al., 2011).

***Philodryas laticeps* Werner, 1900**

Type locality. "Santa Catharina, Brasilien," tentatively located as Ilha de Santa Catarina, Florianópolis, Brazil, in Zaher et al. (2008b). However, a similarly named village (Santa Catarina, currently in Juramento municipality) is also found in northeastern Minas Gerais, close to confirmed records of this rare snake.
Distribution. Known from few and scattered records in Bolivia and Brazil (Plt. 300A). Apparently two disjunct populations, in Bolivia and southeastern Brazil, including eastern Minas Gerais and Espírito Santo. In Brazil, recorded in the Atlantic Forest (Plt. 300A), mostly at intermediate to high elevations (Plt. 300B). No detailed field data on habitat use are available for this species.

***Philodryas livida* (Amaral, 1923)**

Type locality. Vicinities of Guaicurus railway station, currently in Miranda, state of Mato Grosso do Sul, Brazil.
Distribution. Known from Brazil and Paraguay (Plt. 301A). Recorded in the southern portion of the Cerrado and in its contacts with the Pantanal (Plt. 301A), at intermediate to high elevations (Plt. 301B). Observed in the field in grassland (Valdujo and Nogueira, 1999; Valdujo et al., 2009, Smith et al., 2014).

***Philodryas mattogrossensis* Koslowsky, 1898**

Type locality. Miranda, state of Mato Grosso do Sul, Brazil.
Distribution. Known from Brazil and Paraguay (Plt. 302A). Restricted to the southwestern portion of Cerrado and its contact with the Pantanal and Chaco (Plt. 302A) at low to intermediate elevations (Plt. 302B). Map and taxonomy in Cacciali et al. (2016). Observed in the field in savanna and semideciduous forest (CCN, pers. obs.).

***Philodryas nattereri* Steindachner, 1870**

Type locality. State of Mato Grosso, Brazil.
Distribution. Known from Brazil and Paraguay, along the northern part of the South American open diagonal (Plt. 303A). In Brazil, widespread in the Cerrado, Caatinga, and Chiquitano Dry Forest, with marginal records in Amazonia (Plt. 303A), mostly at intermediate elevations (Plt. 303B). Observed in the field in savanna, grassland, dry vegetation, and disturbed areas (Carvalho and Nogueira, 1998; Carvalho and Vilar, 2005; Hartmann and Marques, 2005; Recoder and Nogueira, 2007; Loebmann and Haddad, 2010).

***Philodryas olfersii* (Lichtenstein, 1823)**

Type locality. Brazil.
Distribution. Widespread in South America, known from Argentina, Bolivia, Brazil, Colombia, French Guiana, Paraguay, and Venezuela (Plt. 304A). In Brazil, recorded in all ecoregions, mainly in the Atlantic Forest, Caatinga and Cerrado, with scattered records in Amazonia (Plt. 304A), at low to high elevations (Plt. 304B). Observed in the field in forest, gallery forest, savanna, and disturbed areas (Sazima and Manzini, 1995; Carvalho and Nogueira, 1998; França et al., 2008; Sawaya et al., 2008).

***Philodryas patagoniensis* (Girard, 1858)**

Type locality. "About the mouth of the Rio Negro." Mouth of Río Negro, between Río Negro and Buenos Aires provinces, Argentina.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay (Plt. 305A). In Brazil, widespread in Pampas Grasslands, Araucaria Forest, Atlantic Forest, and Cerrado, with marginal records in the Caatinga and Amazonian savannas (Plt. 305A), at low to high elevations (Plt. 305B). Observed in the field in grassland, wetland, savanna, and disturbed areas (Giraudo and Scrocchi, 2002; Sawaya et al., 2008; França et al., 2008; Bérnils, 2009; São-Pedro and Pires, 2009).

***Philodryas psammophidea* (Günther, 1872)**

Type locality. Province of Tucumán, Argentina.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay, mostly along the Chaco region (Plt. 306A).

In Brazil, recorded in the western portion of the Cerrado (Plt. 306A), mostly from intermediate elevations (Plt. 306B). Observed in the field in grassland and open savanna on sandy soils (CS and GRC, pers. obs.).

***Philodryas viridissima* (Linnaeus, 1758)**

Type locality. Suriname.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, mostly in Amazonia (Plt. 307A). In Brazil, widespread in Amazonia, with marginal records in the Cerrado, Caatinga and Chiquitano Dry Forest, and a single isolated record in the Atlantic Forest of Bahia (Plt. 307A), at low elevations (Plt. 307B). Observed in the field in forest (Cunha and Nascimento, 1993; Martins and Oliveira, 1998).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Pseudoboini Bailey, 1967

***Boiruna maculata* (Boulenger, 1896)**

Type locality. Uruguay.
Distribution. Known from Argentina, Bolivia, Brazil, Paraguay, and Uruguay, mostly along the southern portion of the South American open diagonal (Plt. 308A). In Brazil, recorded in the Atlantic Forest, Cerrado, Chaco, Chiquitano Dry Forest, Pampas Grasslands, and Pantanal (Plt. 308A), at low to high elevations (Plt. 308B). Observed in the field in open habitats including grassland and savanna (Gaiarsa et al., 2013; Sawaya et al., 2008).

***Boiruna sertaneja* Zaher, 1996**

Type locality. Barreiras, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 309A). Widespread in the Caatinga and recorded marginally in the Cerrado and Atlantic Forest (Plt. 309A) from low to high elevations (Plt. 309A). Observed in the field in open areas, associated with dry vegetation, including herbaceous, arboreal, and bushy caatinga, and savanna (Zaher, 1996; Guedes et al., 2014).

***Clelia clelia* (Daudin, 1803)**

Type locality. Suriname.
Distribution. Known from Argentina, Bolívia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, Trinidad, and Venezuela, mainly in Amazonia and in the Atlantic Forest of the Paraná River drainage (Plt. 310A). In Brazil, widespread in Amazonia and marginally in the Pantanal (Plt. 310A), mostly at low elevations (Plt. 310B). Previous maps and taxonomy in Zaher (1996). Observed in the field in forest (Gaiarsa et al., 2013).

***Clelia hussami* Morato et al., 2003**

Type locality. Cruz Machado, state of Paraná, Brazil.
Distribution. Endemic to Brazil (Plt. 311A). Restricted to Araucaria Forest (Plt. 311A) at intermediate to high elevations (Plt. 311A). Observed in the field in forest (Morato et al., 2003).

***Clelia plumbea* (Wied, 1820)**

Type locality. São João, Cabo Frio, state of Rio de Janeiro, Brazil.
Distribution. Known from Argentina, Brazil, and Paraguay (Plt. 312A). In Brazil, recorded in the Atlantic Forest, with isolated records in the Cerrado and Amazonia (Plt. 312A), at low to intermediate elevations (Plt. 312B). Previous maps and taxonomy in Zaher (1996). Observed in the field in forest (Gaiarsa et al., 2013).

***Drepanoides anomalus* (Jan, 1863)**

Type locality. "Amérique meridionale," restricted to Peru by Schätti (1986).
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela (Plt. 313A). In Brazil, widespread in Amazonia (Plt. 313A), mostly at low elevations (Plt. 313B). Observed in the field in primary and secondary forests (Cunha and Nascimento, 1993; Duellman, 1978, 2005; Dixon and Soini, 1986; Martins and Oliveira, 1998; Bernarde and Abe, 2006).

***Mussurana bicolor* (Peracca, 1904)**

Type locality. Santa Fé, province of Buenos Aires, Argentina.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay (Plt. 314A). In Brazil, recorded in the western portion of the Cerrado, Pantanal, and Chiquitano Dry Forest (Plt. 314A) at low elevations (Plt. 314B). Previous maps and taxonomy in Zaher (1996). Observed in the field in open savannas, wetlands, and disturbed areas (Strüssmann and Sazima, 1993; Couturier and Faivovich, 1996).

***Mussurana montana* (Franco et al., 1997)**

Type locality. Sodré hydroelectric power plant, Guaratinguetá, state of São Paulo, Brazil.

Distribution. Endemic to Brazil (Plt. 315B). Restricted to the central Atlantic Forest (Plt. 315A), mostly at high elevations (Plt. 315B). Observed in the field in forest (Martins et al., 2008b; Hartmann et al., 2009).

***Mussurana quimi* (Franco et al., 1997)**

Type locality. Fazenda Santo Antônio, Itu, state of São Paulo, Brazil.
Distribution. Known from Argentina, Brazil, and Paraguay (Plt. 316A). In Brazil, recorded in the southern portion of the Cerrado, central portion of the Atlantic Forest and its contact with Araucaria Forest, with isolated records in the Caatinga and Pampas Grassland (Plt. 316A), mostly at intermediate to high elevations (Plt. 316B). Observed in the field in open areas near gallery forest and wetlands (Vaz-Silva et al., 2007; Nogueira et al., 2011).

***Oxyrhopus clathratus* Duméril et al., 1854**

Type locality. Brazil.
Distribution. Known from Argentina and Brazil (Plt. 317A). In Brazil, widespread in Atlantic Forest and Araucaria Forest (Plt. 317A), mostly from intermediate to high elevations (Plt. 317B). Observed in the field in forest and open disturbed areas (Hartmann, 2005; Morato, 2005; Di-Bernardo et al., 2007a; Hartmann and Giasson, 2008).

***Oxyrhopus formosus* (Wied, 1820)**

Type locality. State of Bahia, Brazil.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guiana, Suriname, and Venezuela (Plt. 318A). In Brazil, widespread in Amazonia and in the coastal region of northern Atlantic Forest (Plt. 318A), forming a disjunct distribution, mostly at low elevations (Plt. 318B). Observed in the field in forest (Martins and Oliveira, 1998; Argôlo, 2004; Bernarde et al., 2011).

***Oxyrhopus guibei* Hoge and Romano, 1978**

Type locality. Londrina, state of Paraná, Brazil.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay (Plt. 319A). In Brazil, widespread in the Cerrado and Atlantic Forest, with isolated records in the Caatinga and Amazonia (Plt. 319A), from low to high elevations (Plt. 319B). Previous maps and taxonomy in Zaher and Caramaschi (1992). Observed in the field in forest, gallery forest edges, savanna, and disturbed urban areas (Martins and Oliveira, 1998; Martins et al., 2008b; Sawaya et al., 2008; Nogueira et al., 2010; Barbo et al., 2011).

***Oxyrhopus melanogenys* (Tschudi, 1845)**

Type locality. Peru.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, and Venezuela (Plt. 320A). In Brazil, widespread in Amazonia, with marginal records in Chiquitano Dry Forest, upland areas of the Caatinga, and Cerrado (Plt. 320A), mostly at low elevations (Plt. 320B). Observed in the field in primary forest (Martins and Oliveira, 1998; Bernarde and Abe, 2006; Martins et al., 2008b).

***Oxyrhopus petolarius* (Linnaeus, 1758)**

Type locality. "Africa" (in error).
Distribution. Known from Argentina, Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guiana, Paraguay, Suriname, Trinidad and Tobago, and Venezuela (Plt. 321A). In Brazil, widespread in Amazonia, Atlantic Forest, and Cerrado, with marginal occurrences in Caatinga, Araucaria Forest, Guianan savannas, Chiquitano Dry Forest, and Pantanal (Plt. 321A) at low to high elevations (Plt. 321B). Observed in the field in open areas, savanna, forest, and disturbed areas (Cunha and Nascimento, 1993, 1983b; Valdujo and Nogueira, 2001; Argôlo, 2004; Bernarde and Abe, 2006).

***Oxyrhopus rhombifer* Duméril et al., 1854**

Type locality. Province of Corrientes, Argentina.
Distribution. Known from Argentina, Bolivia, Brazil, Paraguay, and Uruguay (Plt. 322A). In Brazil, widespread in Pampas Grassland, Cerrado, central and southern Atlantic Forest, and Araucaria Forest, with marginal records in Chiquitano Dry Forest, Pantanal, Caatinga, and Amazonian savannas (Plt. 322A) at low to high elevations (Plt. 322B). Observed in the field in grassland, savanna and disturbed areas (Cunha and Nascimento, 1993; Lema, 1994; Giraudo and Scrocchi, 2002; França and Araújo, 2006; França et al., 2006; Sawaya et al., 2008; Forlani et al., 2010),

***Oxyrhopus trigeminus* Duméril et al., 1854**

Type locality. Bahia State, Brazil (via lectotype selection designated by Zaher and Caramaschi, 1992).
Distribution. Known from Bolivia and Brazil (Plt. 323A). In Brazil, widespread in the Cerrado, and Caatinga and most of the Atlantic Forest, with marginal records in Pantanal, Chiquitano Dry Forest, Amazonia, and Araucaria Forest (Plt. 323A), mostly at intermediate to high elevations (Plt. 323B). Previous maps and taxonomy in Zaher and Caramaschi (1992). Observed in the field in grasslands, savannas, and xeric scrub (Carvalho and Vilar, 2005; Vaz-Silva et al., 2007; Recoder et al., 2011; Guedes et al., 2014).

***Oxyrhopus vanidicus* Lynch, 2009**

Type locality. Km 10 of the Leticia–Tarapacá Road, Leticia, Department of Amazonas, Colombia.

Distribution. Known from Brazil, Colombia, Ecuador, and Peru (Plt. 324A). In Brazil, recorded in northwestern Amazonia (Plt. 324A) at low elevations (Plt. 324B). Observed in the field in primary forest (Duellman, 1978; Dixon and Soini, 1986; Pérez-Santos and Moreno, 1988).

***Paraphimophis rusticus* (Cope, 1878)**

Type locality. Argentina.
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay (Plt. 325A). In Brazil, widespread in Araucaria Forest and Pampas Grasslands, with marginal records in the Cerrado and Atlantic Forest (Plt. 325A), mostly at intermediate to high elevations (Plt. 325B). Observed in the field in grasslands and open areas (Giraudo, 2001; Scott et al., 2006).

***Phimophis guerini* (Duméril et al., 1854)**

Type locality. Bahia, Brazil (Serié, 1936).
Distribution. Known from Argentina, Brazil, and Paraguay (Plt. 326A). In Brazil, widespread in the Cerrado and Chiquitano Dry Forest, with marginal records in savanna enclaves in Atlantic Forest, Caatinga, Amazonia and Pantanal (Plt. 326A), mostly at intermediate to high elevations (Plt. 326B). Observed in the field in grassland, savanna and disturbed areas (Sawaya et al., 2008; França et al., 2008; Valdujo et al., 2009).

***Phimophis guianensis* (Troschel, 1848)**

Type locality. Savannah near Pirara, Guyana (fide Kornacker, 1999).
Distribution. Known from Brazil, Colombia, French Guiana, Guyana, Suriname, and Venezuela (Plt. 327A). In Brazil, recorded in Amazonia, north of the Amazon River, and in Guianan savannas (Plt. 327A), at low elevations (Plt. 327B). Observed in the field in savanna and open areas (Rueda-Solano and Castellanos-Barliza, 2010; Swanson, 1945).

***Pseudoboa coronata* Schneider, 1801**

Type locality. "America."
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Suriname, Peru, and Venezuela (Plt. 328A). In Brazil, widespread in Amazonia, with marginal records in Cerrado and Pantanal (Plt. 328A), at low elevations (Plt. 328B). Observed in the field in forest and disturbed areas (Beebe, 1946, Cunha and Nascimento, 1993; Dixon and Soini, 1986; Duellman, 1978; 2005; Martins and Oliveira, 1998; Silva Jr., 1993).

***Pseudoboa haasi* (Boettger, 1905)**

Type locality. Palmas, state of Paraná, Brazil.
Distribution. Known from Argentina and Brazil (Plt. 329A). In Brazil, restricted to southern Atlantic Forest and Araucaria Forests (Plt. 329A), mostly at intermediate to high elevations (Plt. 329B). Observed in the field in forest, urban habitats, and plantation (RSB, pers. obs.).

***Pseudoboa martinsi* Zaher et al., 2008a**

Type locality. Fazenda Porto Alegre, Manaus, state of Amazonas, Brazil.
Distribution. Endemic to Brazil (Plt. 330A). Restricted to western Amazonia (Plt. 330A), at low elevations (Plt. 330B). Observed in the field in primary and secondary forest, and riparian areas (Martins and Oliveira, 1998; Zaher et al., 2008b).

***Pseudoboa neuwiedii* (Duméril et al., 1854)**

Type locality. Cumaná, state of Sucre, Venezuela.
Distribution. Known from Brazil, Colombia, French Guiana, Guyana, Suriname, Trinidad and Tobago, and Venezuela (Plt. 331A). In Brazil, widespread in Amazonia and Guianan savannas, with marginal records in northernmost Cerrado (Plt. 331A), at low elevations (Plt. 331B). Observed in the field in forest and open areas (Cunha and Nascimento, 1983b; Martins and Oliveira, 1998; França et al., 2006).

***Pseudoboa nigra* (Duméril et al., 1854)**

Type locality. State of Bahia, Brazil.
Distribution. Known from Argentina, Bolivia, Paraguay, and Brazil (Plt. 332A). In Brazil, widespread in Cerrado, Caatinga, Atlantic Forest, and southern and eastern Amazonia (Plt. 332A) from low to high elevations (Plt. 332B). Observed in the field in open areas, savanna and forest (Strüssmann and Sazima, 1993, Argôlo, 2004; França et al., 2008).

***Pseudoboa serrana* Morato et al., 1995**

Type locality. Serra dos Órgãos National Park, Teresópolis, state of Rio de Janeiro, Brazil.
Distribution. Endemic to Brazil (Plt. 333A). Restricted to southeastern Atlantic Forest (Plt. 333A) at intermediate to high elevations (Plt. 333B). Observed in the field in forest and disturbed areas (Sousa et al., 2010).

***Rhachidelus brazili* Boulenger, 1908**

Type locality. Uncertain locality "near São Paulo," Brazil.
Distribution. Known Brazil, Paraguay and Argentina (Plt. 334A). In Brazil, recorded in the western and central portion of the Cerrado and its contact areas with the Atlantic Forest (Plt. 334A), mostly at intermediate to high

elevations (Plt. 334B). Observed in the field in grassland and open savanna (França et al., 2008; Valdujo et al., 2009; Nogueira et al., 2011).

***Rodriguesophis chui* (Rodrigues, 1993)**

Type locality. Santo Inácio, right margin of the São Francisco River, Gentio do Ouro, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 335A). Known only from two records in the Caatinga (Plt. 335A) at low elevations along the São Francisco River depression (Plt. 335B). Observed in the field in grassland and shrubland on sandy soil (Rodrigues, 1993; Guedes et al., 2014).

***Rodriguesophis iglesiasi* (Gomes, 1915)**

Type locality. Regeneração, State of Piauí, Brazil.
Distribution. Endemic to Brazil (Plt. 336A). Restricted to the northeastern portion of the Cerrado and western portion of the Caatinga (Plt. 336A) at intermediate to high elevations (Plt. 336B). Observed in the field in savanna and grassland on sandy soil (Recoder and Nogueira, 2007, Recoder et al., 2011).

***Rodriguesophis scriptorcibatus* (Rodrigues, 1993)**

Type locality. Ibiraba, left margin of the São Francisco River, Barra, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 337A). Known only from three records in Caatinga (Plt. 337A), mostly at low elevations long the São Francisco River depression (Plt. 337B). Observed in the field in grassland and shrubland on sandy soil (Rodrigues, 1993; Guedes et al., 2014).

***Siphlophis cervinus* (Laurenti, 1768)**

Type locality. "America."
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, Trinidad, and Venezuela (Plt. 338A). In Brazil, widespread in Amazonia (Plt. 338A) at low elevations (Plt. 338B). Observed in the field in forest (Cunha and Nascimento, 1993; Martins and Oliveira, 1998).

***Siphlophis compressus* (Daudin, 1803)**

Type locality. Suriname.
Distribution. Known from Bolívia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, Trinidad, and Venezuela (Plt. 339A). In Brazil, widespread in Amazonia, with marginal records in Chiquitano Dry Forest, with a disjunct northern Atlantic Forest population (Plt. 339A). Most records at low elevations (Plt. 339B). Observed in the field in forest (Cunha and Nascimento, 1993; Martins and Oliveira, 1998; Bernarde and Abe, 2006).

***Siphlophis leucocephalus* (Günther, 1863)**

Type locality. State of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 340A). Recorded in the northern portion of the Atlantic Forest and marginally in the Cerrado (Plt. 340A) at low to high elevations (Plt. 340B). Observed in the field in forest, including cocoa plantation (Argôlo, 2004).

***Siphlophis longicaudatus* (Andersson, 1901)**

Type locality. Brazil.
Distribution. Endemic to Brazil (Plt. 341A). Recorded in the southern portion of the Atlantic Forest and marginally in the Cerrado (Plt. 341A) at low to high elevations (Plt. 341B). Observed in the field in forest (Lema, 1964; Prudente and Feio, 2001; Forlani et al., 2010).

***Siphlophis pulcher* (Raddi, 1820)**

Type locality. Rio de Janeiro, state of Rio de Janeiro, Brazil.
Distribution. Endemic to Brazil (Plt. 342A). Recorded in the southern Atlantic Forest, with a disjunct population in Bahia (Plt. 342A), mostly at low elevations (Plt. 342B). Observed in the field in forest and disturbed areas (Sazima and Argôlo, 1994; Argôlo, 2004; Hartmann, 2005; Duarte and Sena, 2007).

***Siphlophis worontzowi* (Prado, 1940)**

Type locality. Rio Amanã, near its confluence with the Parauari, Maués, state of Amazonas, Brazil (fide Costa et al., 2010b).
Distribution. Known from Bolivia, Brazil, and Peru (Plt. 343A). Widespread in southern Amazonia, with marginal records in the Cerrado (Plt. 343A), at low elevations (Plt. 343B). Observed in the field in forest, flooded forest, open areas, and disturbed sites (Silva, 1993; Bernarde and Abe, 2006; Costa et al., 2010b; Dal Vechio et al., 2015).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Psomophiini Zaher et al., 2009

***Psomophis genimaculatus* (Sauvage, 1884)**

Type locality. Paraguay.
Distribution. Known from Argentina, Bolívia, Brazil, and Paraguay (Plt. 344A). In Brazil, recorded in the Pantanal and western portion of the Cerrado (Plt. 344A), mostly at low elevations (Plt. 344B). Observed in the field in forest

and open areas (Giraudo and Scrocchi, 2002; Sousa et al., 2010).

***Psomophis joberti* (Boettger, 1885)**

Type locality. Ilha do Marajó, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 345A). Recorded in the central and northeastern portion of the Cerrado, and in the Caatinga, with marginal records in Amazonia and Atlantic Forest (Plt. 345A), at low to intermediate elevations (Plt. 345B). Observed in the field in savanna and grassland on sandy soil (Nogueira et al., 2011; CCN, pers. obs.).

***Psomophis obtusus* (Cope, 1863)**

Type locality. Paysandu, Uruguay.
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay (Plt. 346A). In Brazil, widespread in the Pampas Grasslands (Plt. 346A) at low elevations (Plt. 346B). Observed in the field in grassland and disturbed areas (Yanosky et al., 1996).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Tachymenini Bailey, 1967

***Calamodontophis paucidens* (Amaral, 1936)**

Type locality. São Simão (nowadays Remonta railroad station), Cacequi, state of Rio Grande do Sul, Brazil.
Distribution. Known from Brazil and Uruguay (Plt. 347A). In Brazil, recorded in the Pampas Grasslands (Plt. 347A) at low elevations (Plt. 347B). Observed in the field in grassland and disturbed areas (Franco et al., 2001).

***Calamodontophis ronaldoi* Franco et al., 2006**

Type locality. General Carneiro, state of Paraná, Brazil.
Distribution. Endemic to Brazil (Plt. 348A). Recorded in Atlantic Forest (Plt. 348A) at intermediate to high elevations (Plt. 348B). Observed in the field in mosaics of grassland and forest (Franco et al., 2006).

***Gomesophis brasiliensis* (Gomes, 1918)**

Type locality. Pindamonhangaba, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 349A). Recorded in Araucaria Forest, Atlantic Forest, and adjacent Pampas Grasslands, with isolated records in Cerrado (Plt. 349A), often at high elevations (Plt. 349B). Found in grasslands and wetlands (Lema, 2002; França and Araújo, 2006).

***Ptychophis flavovirgatus* Gomes, 1915**

Type locality. São Bento do Sul, state of Santa Catarina, Brazil.
Distribution. Endemic to Brazil (Plt. 350A). Widespread in Araucaria Forest, with marginal records in the Atlantic Forest and Pampas Grasslands (Plt. 350A), mostly at high elevations (Plt. 350B). Observed in the field in aquatic habitats in open areas (Scartozzoni and Marques, 2004).

***Thamnodynastes almae* Franco and Ferreira, 2002**

Type locality. Luiz Gonzaga hydroelectric Power Plant, rio São Francisco, Rodelas, state of Bahia, Brazil.
Distribution. Endemic to Brazil, recorded in Caatinga (Plt. 351A), at low elevations (Plt. 351B). Observed in the field in open areas (Hamdan and Lira-da-Silva, 2012; Guedes et al., 2014).

***Thamnodynastes* cf. *nattereri* (Mikan, 1820)**

Type locality. "Sebastianópolis," currently Rio de Janeiro, state of Rio de Janeiro, Brazil, (U. Caramaschi, pers. comm. in Franco and Ferreira, 2002). *Coluber nattereri* was formerly in the synonymy of *T. strigilis* (Thunberg, 1787), a name adopted for many *Thamnodynastes* species with 19 keeled dorsal scale rows (Franco and Ferreira, 2002). The type specimen is lost, and ongoing taxonomic studies (V. Trevine, pers. comm.) will clarify the association of a name to this species, which is diagnosable from all known congeners with 19 dorsal scale rows by its weakly keeled dorsals and the immaculate ventral portion of head (Franco and Ferreira, 2002).
Distribution. Known from Brazil and Uruguay (Plt. 352A). In Brazil, widespread in the Atlantic Forest, with marginal records in Pampas Grasslands, Araucaria Forest, and Caatinga (Plt. 352A). Recorded from low to intermediate elevations (Plt. 352B). Observed in the field in forest (Marques and Sazima, 2004; Hartmann et al., 2009; Dorigo et al., 2014) and open areas (Guedes et al., 2014).

***Thamnodynastes chaquensis* Bergna and Alvarez, 1993**

Type locality. Colonia la Mercedes, San Fernando, province of Buenos Aires, Argentina.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay (Plt. 353A). In Brazil, widespread in the Pantanal, with marginal records in the western portion of the Cerrado (Plt. 353A), mostly at low elevations (Plt. 353B). Observed in the field in dry forest, wetland, and wet savanna (Bellini et al., 2014).

***Thamnodynastes hypoconia* (Cope, 1860)**

Type locality. Buenos Aires, Argentina.
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay (Plt. 354A). In Brazil, widespread in the Cerrado, Pantanal, Atlantic Forest, and Pampas Grasslands, with marginal records in the Araucaria Forest and the Caatinga (Plt. 354A) from low to high elevations (Plt. 354B). Observed in the field in wet grasslands, palm marshes, and gallery forest (França and Araújo, 2006; Martins et al., 2008b; Hartmann et al., 2009; Guedes et al., 2014).

***Thamnodynastes lanei* Bailey et al., 2005**

Type locality. Salobra, Miranda, state of Mato Grosso do Sul, Brazil.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay (Plt. 355A). In Brazil, recorded in Amazonia, Pantanal, and the western portion of the Cerrado (Plt. 355A) at low elevations (Plt. 355B). Maps and taxonomy in Bailey et al. (2005). Observed in the field in seasonally flooded areas (Bailey et al., 2005).

***Thamnodynastes longicaudus* Franco et al., 2003**

Type locality. São Lourenço da Serra, state of São Paulo, Brazil.
Distribution. Endemic to Brazil, restricted to the southeastern portion of the Atlantic Forest (Plt. 356A), at intermediate to high elevations (Plt. 356B). No detailed field data on habitat use are available for this species.

***Thamnodynastes pallidus* (Linnaeus, 1758)**

Type locality. "Indiis" (in error).
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela (Plt. 357A). In Brazil, widespread in Amazonia and the northern part of the Atlantic Forest, with marginal records near its contact with the Caatinga, forming a disjunct distribution (Plt. 357A). Recorded mostly at low elevations (Plt. 357B). Maps and taxonomy in Bailey et al. (2005). Observed in the field in wet forest (Silveira et al., 2017), close to water (Cunha and Nascimento, 1993; McDiarmid and Donelly, 2005; Santana et al., 2008) and open areas (Guedes et al., 2014).

***Thamnodynastes phoenix* Franco et al., 2017**

Type locality. Petrolina, state of Pernambuco, Brazil.
Distribution. Endemic to Brazil (Plt. 358A). Widespread in the Caatinga, with marginal records in the northeastern portion of the Cerrado (Plt. 358A), mostly at intermediate to high elevations (Plt. 358B). Observed in the field in savanna, grasslands on sandy soils, and gallery forest (Recoder et al., 2011, Dal Vechio et al., 2013; Silveira et al., 2017).

***Thamnodynastes ramonriveroi* Manzanilla and Sánchez, 2005**

Type locality. Cerro La Laguna, Turimiquire massif, Freites, Anzoátegui, Venezuela.
Distribution. Known from Brazil, French Guiana, Guyana, Suriname, and Venezuela (Plt. 359A). In Brazil, restricted to northeastern Amazonia and Guianan savannas (Plt. 359A) at low to high elevations (Plt. 359B). Observed in the field in forest (Manzanilla et al., 2006).

***Thamnodynastes rutilus* (Prado, 1942)**

Type locality. Gália, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 360A), known from only from the southern portion of the Cerrado (Plt. 360A) at intermediate to high elevations (Plt. 360B). Observed in the field in gallery forest and riparian habitats (Silva Jr. and Sites, 1995; Franco and Ferreira, 2003b, França and Araújo, 2006; França et al., 2008; Nogueira et al., 2010).

***Thamnodynastes sertanejo* Bailey et al., 2005**

Type locality. Rio Curaçá, Caraíba, state of Bahia, Brazil.
Distribution. Endemic to Brazil (Plt. 361A). Widespread in the Caatinga and its contact areas with the Atlantic Forest and Cerrado (Plt. 361A), mostly at low to intermediate elevations (Plt. 361B). Maps and taxonomy in Bailey et al. (2005). Observed in the field in open areas (Guedes et al., 2014).

***Thamnodynastes strigatus* (Günther, 1858)**

Type locality. "India" (in error). Corrected to South America by Hoge (1953).
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay (Plt. 362A). In Brazil, widespread in Pampas Grasslands and the southern portion of the Atlantic Forest, with marginal records in the Araucaria Forest and Cerrado (Plt. 362A). Found mostly at low elevations along the southern part of the range, but restricted to high elevation areas near its northern limits (Plt. 362B). Observed in the field in forest (Franco and Ferreira, 2003a; Martins et al., 2008b; Marques et al., 2009).

***Tomodon dorsatus* Duméril et al., 1854**

Type locality. America, probably Brazil.
Distribution. Known from Argentina and Brazil (Plt. 363A). In Brazil, widespread in the Pampas Grasslands, southeastern Atlantic Forest and Araucaria Forest (Plt. 363A), mostly at intermediate to high elevations

(Plt. 363B). Observed in the field in open areas and forests (Martins et al., 2008b; Bérnils, 2009; Araújo et al., 2010; Forlani et al., 2010).

***Tomodon ocellatus* Duméril et al., 1854**

Type locality. Brazil.
Distribution. Known from Argentina, Brazil, and Uruguay (Plt. 364A). In Brazil, widespread and restricted to Pampas Grasslands (Plt. 364A) at low elevations (Plt. 364B). Observed in the field in open areas and forest (Martins et al., 2008b; Bérnils, 2009; Araújo et al., 2010; Forlani et al., 2010).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Tropidodryadini Zaher et al., 2009

***Tropidodryas serra* (Schlegel, 1837)**

Type locality. Unknown.
Distribution. Endemic to Brazil (Plt. 365A). Widespread in the Atlantic Forest (Plt. 365A), mostly at low elevations (Plt. 365B). Observed in the field in forest (Rocha et al., 2008, 2009; Hartmann et al., 2009; Marques et al., 2009; Forlani et al., 2010; Silva-Soares et al., 2011).

***Tropidodryas striaticeps* (Cope, 1870)**

Type locality. Brazil.
Distribution. Endemic to Brazil (Plt. 366A). Widespread in the Atlantic Forest and its contact area with the Cerrado and Caatinga (Plt. 366A), mostly at intermediate to high elevations (Plt. 366B). Observed in the field in forest and disturbed areas (Sazima and Puorto, 1993; Barbo, 2008; Guedes et al., 2014).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Xenodontini Bonaparte, 1845

***Erythrolamprus aesculapii* (Linnaeus, 1758)**

Type locality. "Indiis" (in error).
Distribution. Known from Argentina, Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, Trinidad, and Venezuela (Plt. 367A). In Brazil, recorded in most ecoregions, except Pantanal and Caatinga (Plt. 367A), from low to high elevations (Plt. 367B). Observed in the field in gallery forest, semideciduous forest, forest and disturbed areas (Martins and Oliveira, 1998; Bernarde and Abe, 2006; França and Araújo, 2006; Martins et al., 2008b; Costa et al., 2010a).

***Erythrolamprus almadensis* (Wagler, 1824)**

Type locality. Almada, Itajuipe, state of Bahia, Brazil.
Distribution. Known from Argentina, Bolivia, Brazil, Uruguay, and Paraguay (Plt. 368A). In Brazil, widespread in the Cerrado, Pampa Grasslands and most of the Atlantic Forest, with marginal records in the Caatinga, Amazonia, Araucaria Forest, and Chiquitano Dry Forest (Plt. 368A) from low to high elevations (Plt. 368B). Previous map and taxonomy in Dixon (1989). Observed in the field in grasslands, wet grasslands, and palm marshes (Strüssmann and Sazima, 1993; Recoder et al., 2011).

***Erythrolamprus atraventer* (Dixon and Thomas, 1985)**

Type locality. Boraceia, Salesópolis, state of São Paulo, Brazil.
Distribution. Endemic to Brazil (Plt. 369A). Restricted to the southeastern Atlantic Forest along the Serra do Mar range (Plt. 369A) at intermediate to high elevations (Plt. 369B). Observed in the field in forest, forest edge and open areas (Fernandes et al., 2003; Condez et al., 2009; Hartmann et al., 2009).

***Erythrolamprus breviceps* (Cope, 1860)**

Type locality. Suriname.
Distribution. Known from Brazil, Colombia, Ecuador, Guyana, Suriname, and Venezuela (Plt. 370A). In Brazil, widespread in Amazonia (Plt. 370A), mostly at low elevations (Plt. 370B). Observed in the field in forest (Martins and Oliveira, 1998).

***Erythrolamprus carajasensis* (Cunha et al., 1985)**

Type locality. N1 mining field, Serra Norte, Serra dos Carajás, Parauapebas, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 371A). Restricted to the southern portion of Amazonia, in open savanna enclaves close to its contact with the Cerrado (Plt. 371A) at low to intermediate elevations (Plt. 371B). Observed in the field in savanna and grassland on lateritic soils ("cangas"; Cunha et al., 1985; Dixon, 1989).

***Erythrolamprus cobellus* (Linnaeus, 1758)**

Type locality. "America."
Distribution. Known from Brazil, French Guiana, Guyana, Suriname, Trinidad, and Venezuela (Plt. 372A). In

Brazil, known only from northern Amazonia and Guianan savannas, north of the Amazon River (Plt. 372A), mostly at low elevations (Plt. 372B). Maps and taxonomy in Fernandes et al. (2002), see also Dixon (1983). Observed in the field in primary and secondary forest, and also in grassland, often near water bodies (França et al., 2006; Dixon, 1983).

***Erythrolamprus dorsocorallinus* (Esqueda et al., 2007)**

Type locality. Pica 8 auxiliar, ULA (Universidad de Los Andes) experimental unit. Caparo forest reserve, approximately 40 km from El Cantón village, Andrés Eloy Blanco, Barinas, Venezuela.
Distribution. Known from Brazil, Colombia, Peru, and Venezuela (Plt. 373A). In Brazil, recorded only in western Amazonia (Plt. 373A), often at low elevations (Plt. 373B). Previous map and taxonomy in Ascenso et al. (2019). Observed in the field in open areas and secondary forest (Araújo et al., 2012).

***Erythrolamprus frenatus* (Werner, 1909)**

Type locality. Paraguay.
Distribution. Known from Argentina, Brazil, and Paraguay (Plt. 374A). In Brazil, recorded in the Atlantic Forest and southern portion of the Cerrado (Plt. 374A), at low to intermediate elevations mostly in the in the upper Paraná drainage (Plt. 374B). Previous map and taxonomy in Fernandes et al. (2002), see also Dixon (1983). Observed in the field in wet grassland near palm marshes in Cerrado, near water bodies (CCN, pers. obs.).

***Erythrolamprus jaegeri* (Günther, 1858)**

Type locality. Brazil.
Distribution. Known from Argentina, Bolivia, Brazil, Paraguay, and Uruguay at the southern portion of the South American open diagonal (Plt. 375A). In Brazil, widespread in southern Atlantic Forest, Pampas Grasslands, and Araucaria forest, with marginal records in the Cerrado and Pantanal, (Plt. 375A), from low to high elevations (Plt. 375B). Previous map and taxonomy in Dixon (1989). Observed in the field in grasslands, forest edge, lakes, wetlands, and gallery forest (Martins et al., 2008b; Sawaya et al., 2008; Bérnils, 2009; Marques et al., 2009; Costa et al., 2010).

***Erythrolamprus macrosomus* (Amaral, 1935)**

Type locality. Cana Brava, Minaçu, state of Goiás, Brazil, according to Ascenso et al. (2019). Corrected to Cana Brava, near Rio São Domingos, currently in Nova Roma municipality, Paranã River valley, based on the itinerary and toponyms in the original description.
Distribution. Known from Argentina, Brazil, and Paraguay (Plt. 376A). Widespread in the Cerrado and the southern portion of the Atlantic Forest, with marginal records in Chaco and Araucaria Forest (Plt. 376A), mostly at intermediate to high elevations (Plt. 376B). Previous map and taxonomy in Ascenso et al. (2019). Observed in the field savanna, in forest, dry forest and gallery forest (Valdujo et al., 2009; Morais et al., 2011; Almeida-Gomes et al., 2014).

***Erythrolamprus maryellenae* (Dixon, 1985)**

Type locality. Anápolis, state of Goiás, Brazil.
Distribution. Endemic to Brazil (Plt. 377A). Recorded in the Cerrado and its contact areas with the Atlantic Forest, and isolated records in upland savanna enclaves in the Caatinga (Plt. 377A), mostly at high elevations (Plt. 377B). Previous map and taxonomy in Dixon (1989). Observed in the field in wet grassland, grassland, savanna, and gallery forest (Cassimiro and Bertoluci, 2003; Vaz-Silva et al., 2007; Cintra et al., 2009, Valdujo et al., 2009).

***Erythrolamprus miliaris* (Linnaeus, 1758)**

Type locality. "Indiis" (in error).
Distribution. Known from Argentina, Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Suriname, and Venezuela, mainly along open biomes (Plt. 378A). In Brazil, widespread in the Atlantic Forest, with scattered records in all ecoregions, except Pampas Grasslands (Plt. 378A), from low to high elevations (Plt. 378B). Previous map and taxonomy in Dixon (1989). Observed in the field in open and disturbed areas (Martins and Oliveira, 1998; Santos-Jr. and Frota, 2002; Rodrigues, 2003; Oliveira and Silva, 2007; Martins et al., 2008b; São-Pedro and Pires, 2009; Araujo et al., 2010).

***Erythrolamprus mossoroensis* (Hoge and Lima-Verde, 1973)**

Type locality. Mossoró, state of Rio Grande do Norte, Brazil.
Distribution. Endemic to Brazil (Plt. 379A). Widespread in the Caatinga, with marginal records in the Cerrado and Atlantic Forest south of the Amazon (Plt. 379A), at low to intermediate elevations (Plt. 379B). Previous map and taxonomy in Dixon (1989). Observed in the field in open, xeric vegetation, including herbaceous, arboreal, and bushy caatinga (Vanzolini et al., 1980; Dixon, 1989; Guedes et al., 2014).

***Erythrolamprus oligolepis* (Boulenger, 1905)**

Type locality. Igarapé-Açu, state of Pará, Brazil.
Distribution. Endemic to Brazil (Plt. 380A). In Brazil, widespread in Amazonia, south of the Amazon River

(Plt. 380A), at low elevations (Plt. 380B). Previous map and taxonomy in Ascenso et al. (2019). Observed in the field in forest (Cunha and Nascimento, 1993).

***Erythrolamprus poecilogyrus* (Wied, 1825)**

Type locality. Barra do Jucu, Vila Velha, state of Espírito Santo, Brazil.
Distribution. Found in Argentina, Uruguay, Paraguay, Bolivia, Brazil, Guyana, and Venezuela, mainly at the South American open diagonal (Plt. 381A). In Brazil, widespread in the Atlantic Forest, Cerrado, Caatinga, Pampas grasslands, and Pantanal, with scattered records in Amazonia and Guianan savannas (Plt. 381A), from low to high elevations (Plt. 381B). Previous map and taxonomy in Dixon (1989). Observed in the field in open grassland, gallery forest, dry forest, wetland, and disturbed areas (França and Araújo, 2006; Martins et al., 2008b; Sawaya et al., 2008; Loebmann and Haddad, 2010).

***Erythrolamprus pygmaeus* (Cope, 1868)**

Type locality. District of Napo, department of Loreto, Peru.
Distribution. Known from Brazil, Ecuador, and Peru, in Amazonia (Plt. 382A). In Brazil, widespread in Amazonia (Plt. 382A), at lowlands (Plt. 382B). Observed in the field in forest (Dixon and Soini, 1986; Fernandes et al., 1999; Ávila-Pires et al., 2010; Bernarde et al., 2011; Kawashita-Ribeiro et al., 2011) and disturbed areas (Dixon and Soini, 1986), in lakes, open areas, and secondary forest (Martins and Oliveira, 1998).

***Erythrolamprus reginae* (Linnaeus, 1758)**

Type locality. Suriname.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, along major forest biomes (Plt. 383A). In Brazil, widespread in Amazonia and its contact with the Cerrado and with scattered records in upland Caatinga, and also widespread in the Atlantic Forest, forming a disjunct distribution (Plt. 383A), mostly at low elevations (Plt. 383B). Previous map and taxonomy in Ascenso et al. (2019). Observed in the field in forest, gallery forest, upland forest enclaves in the Caatinga, seasonally flooded areas, and disturbed areas (Martins and Oliveira, 1998; Bernarde and Abe, 2006).

***Erythrolamprus rochai* Ascenso et al., 2019**

Type locality. Serra do Navio, state of Amapá, Brazil.
Distribution. Endemic to Brazil (Plt. 384A). Known only from the type locality in a mountain range of central Amapá in the vicinity of the Amapari River, a tributary of the Araguari River (Ascenso et al., 2019), in eastern Amazonia (Plt. 384A), at low elevations (Plt. 384B). No detailed field data on habitat use are available for this species.

***Erythrolamprus semiaureus* (Cope, 1862)**

Type locality. "Paraguay," probably from the mouth of the Paraguay River according to Gans, 1964. See also Giraudo et al., 2006.
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay, at the southern portion of the South American open diagonal (Plt. 385A). In Brazil, widespread in Pampas Grasslands, with marginal records in the Atlantic Forest (Plt. 385A), mostly at low elevations (Plt. 385B). Previous map and taxonomy in Giraudo et al. (2006). Observed in the field in seasonally flooded grassland (Giraudo et al., 2006; Arzamendia and Giraudo, 2009; Quintela et al., 2011a; Santos et al., 2010) and grassland (Cacciali et al., 2016).

***Erythrolamprus taeniogaster* (Jan, 1863)**

Type locality. Brazil.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, and Peru, along major forest biomes (Plt. 386A). In Brazil, widespread in Amazonia south of the Amazon River, and in northern Atlantic Forest, forming a disjunct distribution (Plt. 386A), with scattered records in the Caatinga and the Cerrado (Plt. 386A), mostly at low elevations (Plt. 386B). Previous map and taxonomy in Fernandes et al. (2002), see also Dixon (1983). Observed in the field in forest, gallery forest, upland forest and open and disturbed areas (Loebmann and Haddad, 2010; França and Bezerra, 2010; Frota et al., 2005; Luiselli, 2006).

***Erythrolamprus trebbaui* (Roze, 1958)**

Type locality. Auyantepui, Bolivar, Venezuela.
Distribution. Known from Brazil and Venezuela (Plt. 387A). In Brazil, recorded in Guianan savannas, at the border between Brazil and Venezuela (Plt. 387A), at high elevations (Plt. 387B). Previous map and taxonomy in Dixon (1983, 1989). Observed in the field in a rocky stream in dense and humid evergreen forest and in boggy meadows, both on top of sandstone tepuis above 1,700 m (Myers and Donnely, 2008).

***Erythrolamprus typhlus* (Linnaeus, 1758)**

Type locality. "Asia" (in error).
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, and Venezuela, mainly at forested biomes (Plt. 388A). In

Brazil, widespread in Amazonia and the southern portion of the Atlantic Forest, with scattered records in the Cerrado, Pantanal and Chiquitano Dry Forest (Plt. 388A), mostly at low elevations (Plt. 388B). Previous map and taxonomy in Dixon (1989). Observed in the field in forest, dry forest, and disturbed areas (Cunha and Nascimento, 1993; Martins and Oliveira, 1998; Marques et al., 2001).

***Erythrolamprus viridis* (Günther, 1862)**

Type locality. State of Pernambuco, Brazil.
Distribution. Endemic to Brazil (Plt. 389A), recorded in the Caatinga and its contact areas with the Cerrado and Atlantic Forest (Plt. 389A), mostly at low to intermediate elevations (Plt. 389B). Previous map and taxonomy in Dixon (1985, 1989). Observed in the field in dry forest, xeric scrub, and rock outcrops in the Caatinga (Guedes et al., 2014).

***Lygophis anomalus* (Günther, 1858)**

Type locality. Banks of the Paraná River, probably near Santa Fé, Argentina (Dixon, 1985).
Distribution. Known from Argentina, Uruguay, and Brazil, mostly at the southern portion of the South American open diagonal (Plt. 390A). In Brazil, restricted to Pampas Grasslands (Plt. 390A) at low elevations (Plt. 390B). Previous map and taxonomy in Dixon (1989). Observed in the field in grassland, savanna, and open forest, as well as in disturbed areas (Arzamendia and Giraudo, 2002; Santos et al., 2005; Kacoliris, 2006).

***Lygophis dilepis* Cope, 1862**

Type locality. Paraguay.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay mostly at the South American open diagonal (Plt. 391A). In Brazil, widespread in the Caatinga, and restricted to the western portion of the Cerrado and its contact with the Chaco and Pantanal, forming a disjunct distribution along the open diagonal of South America (Plt. 391A). Recorded from low to intermediate elevations (Plt. 391B). Previous map and taxonomy in Dixon (1989). Observed in the field in xerophytic forest and semi arid shrubland (Giraudo, 2001; Giraudo and Scrocchi, 2002; Guedes et al., 2014).

***Lygophis flavifrenatus* Cope, 1862**

Type locality. Río Bermejo, province of Formosa, Argentina.
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay, mostly at the southern portion of the South American open diagonal (Plt. 392A). In Brazil, recorded in southern Atlantic Forest, Pampas Grasslands, and from one record in contact zones between Cerrado and Pantanal (Plt. 392A), at low to intermediate elevations (Plt. 392B). Previous map and taxonomy in Dixon (1989). Observed in the field in open areas, forest, and grassland (Cacciali et al., 2016).

***Lygophis lineatus* (Linnaeus, 1758)**

Type locality. "Asia" (in error, Hoge and Romano, 1978).
Distribution. Known from Brazil, French Guiana, Guyana, Suriname, and Venezuela, on open portions of the Guiana Shield (Plt. 393A). In Brazil, recorded in northern Amazonia and in Guianan savannas (Plt. 393A) at low elevations (Plt. 393B). Previous map and taxonomy in Dixon (1989). Observed in the field in grassland (Staton and Dixon, 1977).

***Lygophis meridionalis* (Schenkel, 1901)**

Type locality. "Mount Sociedad, Balmacue." Bernal Cué, Paraguay (fide Cabral Beconi and Cacciali, 2018).
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay, mostly at the South American open diagonal (Plt. 394A). In Brazil, widespread in the Cerrado and its contact areas with the Atlantic Forest and Amazonian savannas (Plt. 394A), mostly at intermediate elevations (Plt. 394B). Previous map and taxonomy in Dixon (1989). Observed in the field in grassland, savanna and wetland (Strüssmann, 2000; Sawaya et al., 2008; Cacciali and Wüest, 2009; Valdujo et al., 2009; Forlani et al., 2010).

***Lygophis paucidens* Hoge, 1953**

Type locality. Village of Mato Verde, near Ilha do Bananal. Currently Luciara, state of Mato Grosso, Brazil.
Distribution. Known from Brazil and Paraguay, at the central portion of the South American open diagonal (Plt. 395A). In Brazil, recorded in Cerrado and marginally in Caatinga (Plt. 395A), mostly at intermediate to high elevations (Plt. 395B). Previous map and taxonomy in Dixon (1989). Observed in the field in savanna or grasslands on sandy soils (Recoder and Nogueira, 2007; Recoder et al., 2011; Rodrigues and Prudente, 2011).

***Xenodon dorbignyi* (Bibron in Duméril et al., 1854)**

Type locality. "South America." Type series collected in Buenos Aires, Argentina; Montevideo, Uruguay and Santa Catarina, Brazil.
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay, mostly along open biomes (Plt. 396A). In Brazil, widespread in Pampas Grasslands (Plt. 396A), at low elevations (Plt. 396B). Taxonomy in Hoge et al. (1975). Observed in the field in grassland (Lema et al., 1983; Oliveira et al., 2001; Winck et al., 2007; Ghizoni-Jr. et al., 2009; Tozetti et al., 2009; Quintela et al., 2011b).

***Xenodon guentheri* Boulenger, 1894**

Type locality. Lagos, Timbó, state of Santa Catarina, Brazil.
Distribution. Endemic to Brazil (Plt. 397A). Restricted to the Araucaria Forest (Plt. 397A), mostly at high elevations (Plt. 397B). Observed in the field in grassland, upland forest, and disturbed areas (Abegg et al., 2018).

***Xenodon histricus* (Jan, 1863)**

Type locality. South America fide Jan and Sordelli (1865).
Distribution. Known from Argentina, Brazil, Paraguay, and Uruguay, mostly along open biomes (Plt. 398A). In Brazil, widespread in the Pampas Grassland, with marginal records in the Araucaria Forest, Atlantic Forest, and Cerrado (Plt. 398A), at low to high elevations (Plt. 398B). Previous map and taxonomy in Hoge et al. (1975). Observed in the field in grassland and savanna (Di-Bernardo et al., 2003).

***Xenodon matogrossensis* (Scrocchi and Cruz, 1993)**

Type locality. Miranda, state of Mato Grosso do Sul, Brazil.
Distribution. Endemic to Brazil (Plt. 399A). Widespread in the Pantanal and its contact areas with the southwestern portion of the Cerrado (Plt. 399A), at low elevations of the upper Paraguay River depression (Plt. 399B). Observed in the field in dry forest (Ferrarezzi, 1993).

***Xenodon merremii* (Wagler in Spix, 1824)**

Type locality. Salvador, state of Bahia, Brazil.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay and Venezuela, associated to the open South American diagonal (Plt. 400A). In Brazil, widespread in Atlantic Forest, Araucaria Forest, Pampa Grasslands, Cerrado, Pantanal, Caatinga, with marginal records in Amazonia and Chiquitano Dry Forest (Plt. 400A), from low to high elevations (Plt. 400B). Observed in the field in open areas, including grassland, savanna, and disturbed areas (Sawaya et al., 2008; Valdujo et al., 2009).

***Xenodon nattereri* (Steindachner, 1867)**

Type locality. Brazil.
Distribution. Endemic to Brazil (Plt. 401A). Widespread in the Cerrado, and in tis contact areas with the Atlantic Forest and Chiquitano Dry Forest. An isolated record in upland grassland areas within the Caatinga (Plt. 401A), mostly at intermediate to high elevations (Plt. 401B). Observed in the field in savannas and grasslands (França et al., 2008; Sawaya et al., 2008, Valdujo et al., 2009).

***Xenodon neuwiedii* Günther, 1863**

Type locality. Rio de Janeiro, state of Rio de Janeiro, Brazil.
Distribution. Known from Argentina and Brazil along the Atlantic forest (Plt. 402A). In Brazil, widespread in Atlantic Forest and Araucaria Forest (Plt. 402A), from low to high elevations (Plt. 402B). Observed in the field in open areas, forest edges, and disturbed areas (Giraudo and Scrocchi, 2002; Morato, 2005; Bérnils, 2009; Hartmann et al., 2009).

***Xenodon pulcher* (Jan, 1863)**

Type locality. Bolivia.
Distribution. Known from Argentina, Bolivia, Brazil, and Paraguay along the Chaco (Plt. 403A). In Brazil, a single record in a small portion of the Chaco east of the Paraguay River (Plt. 403A) at a low elevation (Plt. 403B). No detailed field data on habitat use are available for this species.

***Xenodon rabdocephalus* (Wied, 1824)**

Type locality. "Sertão of Bahia, Brazil."
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, largely associated to South American major forested biomes (Plt. 404A). In Brazil, widespread in Amazonia, and in central and southern Atlantic Forest, forming a disjunct distribution, with marginal records in the Chiquitano Dry Forest, northwestern Cerrado and its contact areas with the Pantanal (Plt. 404A), mostly at low elevations (Plt. 404B). Observed in the field in wetlands and gallery forest in (Martins and Oliveira, 1998; Martins et al., 2008b; Nogueira et al., 2010).

***Xenodon severus* (Linnaeus, 1758)**

Type locality. "Asia" (in error). Corrected to South America by Günther (1863).
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela, largely associated to Amazonian forest (Plt. 405A). In Brazil, widespread in Amazonia and Guianan savannas, with marginal records in Chiquitano Dry Forest and the northern portion of the Cerrado (Plt. 405A), mostly at low elevations (Plt. 405B). Observed in the field in forested areas near creeks (Ávila-Pires et al., 2010).

***Xenodon werneri* Eiselt, 1963**

Type locality. "Africa" (in error).
Distribution. Known from Brazil, French Guiana, and Suriname, restricted to the Guiana Shield (Plt. 406A). In

Brazil, restricted to northeastern Amazonia, (Plt. 406A) at low elevations (Plt. 406B). Observed in the field in forested areas near creeks (Ávila-Pires et al., 2010).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Xenodontinae Bonaparte, 1845: Xenodontinae Incertae sedis

***Amnesteophis melanauchen* (Jan, 1863)**

Type locality. "Bahia." Known only from the type specimen deposited at the Leiden Museum. According to Myers (2011), the original catalog entry for the holotype is "Bahia au Brésil," which could refer to the city of Salvador, to its surrounding districts, or to the old administrative province that gave name to the present state of Bahia in Brazil. Therefore, the precise locality where the only known specimen was collected cannot be defined with certainty.
Distribution. Unknown. Given the uncertainties on the type locality, no map was provided for this enigmatic species, possibly occurring in the state of Bahia, northeastern Brazil. We follow Myers (2011) in tentatively assigning *Amnesteophis* to the Xenodontinae. However, this is based merely on geographic grounds rather than morphological or molecular affinities (Myers, 2011). No detailed field data on habitat use are available for this species.

***Xenopholis scalaris* (Wucherer, 1861)**

Type locality. Not defined. Type series formed by two specimens (no holotype designated), one from Canavieiras, state of Bahia, Brazil, and another from Mata de São João, Bahia, Brazil.
Distribution. Known from Bolivia, Brazil, Colombia, Ecuador, and Peru, largely associated to South American major forested biomes (Plt. 407A). In Brazil, widespread in Amazonia and the Atlantic Forest, forming a disjunct distribution (Plt. 407A), mostly at low elevation (Plt. 407B). Observed in the field in primary forest (Martins and Oliveira, 1998).

***Xenopholis undulatus* (Jensen, 1900)**

Type locality. Lagoa Santa, state of Minas Gerais, Brazil.
Distribution. Known from Brazil and Paraguay, mostly along the South American open diagonal (Plt. 408A). In Brazil, widespread in the Cerrado, with marginal isolated records in the Atlantic Forest, Araucaria Forest, and contact areas between Caatinga and Atlantic Forest (Plt. 408A), mostly at intermediate to high elevations (Plt. 408B). Observed in the field in gallery forest and upland forest (França et al., 2008; Loebmann and Haddad, 2010).

***Xenopholis werdingorum* Jansen et al., 2009**

Type locality. Hacienda San Sebastián, Ñuflo de Chávez, department of Santa Cruz, Bolivia.
Distribution. Known from Bolivia and Brazil, in the central portion of South America (Plt. 409A). In Brazil, restricted to the western portion of the Cerrado and its contact areas with the Pantanal and Chiquitano Dry Forest (Plt. 409A) at low elevations (Plt. 409B). Observed in the field in savanna enclave within dry forest, primary forest, and disturbed areas (Carvalho and Nogueira, 1998; Jansen et al., 2009; Powell et al., 2016).

Alethinophidia Nopcsa, 1923: Caenophidia Hoffstetter, 1939: Endoglyptodonta Zaher et al., 2009: Colubroidea Oppel, 1811: Dipsadidae Bonaparte, 1838: Dipsadidae Incertae sedis

***Cercophis auratus* (Schlegel, 1837)**

Type locality. Suriname, restricted to surroundings of Paramaribo by Hoogmoed et al. (2019).
Distribution. Known in Brazil, and Suriname, mostly along coastal forested areas of South America (Plt. 410A). In Brazil, widespread in southern and central Atlantic Forest, as well as in eastern Pará (Plt. 410A), at low elevations (Plt. 410B). Map and taxonomy in Hoogmoed et al. (2019). Observed in the field in forest (Pontes et al., 2008).

***Lioheterophis iheringi* Amaral, 1936**

Type locality. Campina Grande, state of Paraíba, Brazil.
Distribution. Endemic to Brazil (Plt. 411A). Known from a single locality within the Caatinga (Plt. 411A) at intermediate elevations (Plt. 411B). No detailed field data on habitat use for this species.

Syntheses and general patterns

Sampling, richness, and endemism levels

Sampling effort is not homogeneously distributed in the Brazilian territory (Fig. 1A). There are large sampling gaps in many parts of northern Brazil, especially in Amazonia, with smaller gaps in northeastern and central Brazil. The best sampled areas are concentrated in eastern and southeastern Brazil, mostly in the Atlantic Forest and especially in eastern São Paulo and southeastern Ba-

hia (Fig. 1A). Well-sampled areas tend to be concentrated near large urban centers, such as the cities of São Paulo, Rio de Janeiro, Salvador, and Porto Alegre (all in the Atlantic Forest), but also near Brasília, Campo Grande, and Belém, located in less intensely sampled ecoregions such as the Cerrado and Amazonia (Fig. 1A).

Recorded richness is higher near well-sampled regions, and richness peaks in southeastern Brazil and especially in the eastern region of the state of São Paulo (Fig. 1B). Other areas with high richness include eastern Amazonia near Belém, the central portion of the Atlantic Forest, and parts of central and western Cerrado (Fig. 1B). Although relatively well sampled (Fig. 1A) and showing high redundancy (Fig. 1C), both Pampas Grasslands and the Caatinga of southern and northeastern Brazil, respectively, harbor lower richness. Most areas in Amazonia have low richness and limited sampling, with large interfluvial and remote areas completely unsampled, except for a few scattered areas near large river channels and urban areas that contain moderate to high richness (Fig. 2B), despite being moderately sampled (Fig. 1A and B).

A different pattern emerges in our analyses of endemism (Fig. 1D). Endemism was much less affected by sampling or richness, and areas of high corrected weighted endemism are scattered throughout the Brazilian territory (Fig. 1D). These included at least a large portion of the southern Atlantic Forest and its contact with Araucaria and Pampas Grasslands (Fig. 1D), which might be composed of many different units, such as Araucaria Forest, Espinhaço Range, Pampas Grasslands, and Serra do Mar range. Other areas of high endemism are the northern portion of the Atlantic Forest, including central and southeastern Bahia, and the northernmost portion of the Atlantic Forest, near its contact with the Caatinga region (Fig. 1D). At least two areas in the northeastern Brazilian Caatinga also presented high levels of endemism: the São Francisco depression and isolated upland areas in Ceará state (Fig. 1D). The Cerrado region also includ-

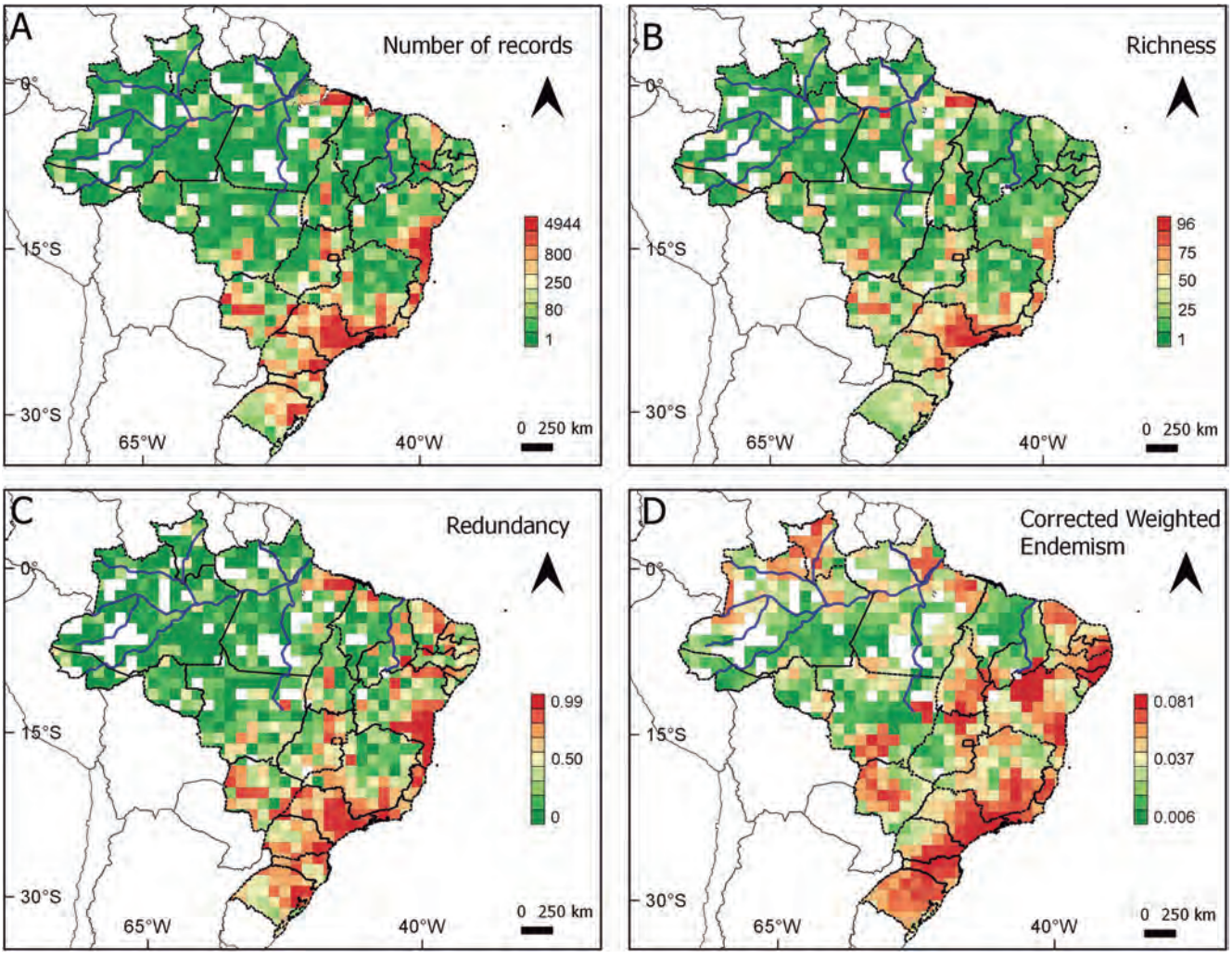


Figure 1. (A) Number of records, **(B)** richness, **(C)** redundancy, and **(D)** corrected weighted endemism in each cell of a 1° × 1° grid covering the Brazilian territory.

ed at least three clusters of high endemism: the upper Tocantins basin (including Jalapão region and Serra da Mesa, which appear to form distinct biogeographical areas), Serra do Roncador highlands in northeastern Mato Grosso, and a large cluster of areas in the western portion of the Cerrado, near the Pantanal. Endemism in Amazonia was restricted to its northern portion, from eastern Amazonia near Belém to areas in the Guiana Shield, including Amapá and Roraima states, and the Brazilian-Colombian border (Fig. 1D). All these Amazonian areas with high endemism are still relatively poorly sampled (see Fig. 1A and *C*).

Range size, spatial rarity, and description dates

Most recorded species are spatially rare, occupying few grid cells in cis-Andean South America (Fig. 2; see also Table S1 and S4). More than half of the 412 recorded and mapped species occupied fewer than 30 grid cells, and fewer than 10 species were widespread, being found in more than 300 grid cells (Fig. 2).

We found a strong negative relationship between description date and range size inferred from the number of occupied grid cells (r = -0.601, P < 0.001). Recently described species (twenty-first century) tend to be narrowly distributed, occupying a small number of grid cells (Fig. 3), while widespread species tend to be described earlier, especially before the twentieth century (Fig. 3). Species descriptions occurred in discrete pulses before the twentieth century (Fig. 3). From the mid-nineteenth century onwards, species discovery tended to occur more regularly, without noticeable pulses but with signs of acceleration, as many species were described in the last two decades, most with relatively small ranges (Fig. 3). Since the publication in 2018 of the updated Brazilian List of Reptiles, 14 new species with valid records for Brazil were described (see Table S1, taxonomic changes).

Type localities and species descriptions through time

We were able to map the type localities of 254 species (Table S3). Spatial clusters of type localities have expanded and shifted from the eighteenth century to present (Fig. 4). In the early days of taxonomy, most type localities were concentrated near coastal areas of southeastern Brazil (Fig. 4A). Smaller clusters of type localities were found in the Guianan region and southern Brazil (Fig. 4A). Most inland portions of South America, including large areas in central, northeastern, and northern Brazil, from the Cerrado and Caatinga to Amazonia, remained poorly explored (Fig. 4A). Over the course of the twentieth century, type locality clusters shifted to interior regions of Brazil and South America, expanding to parts of central and northeastern Brazil and larger areas

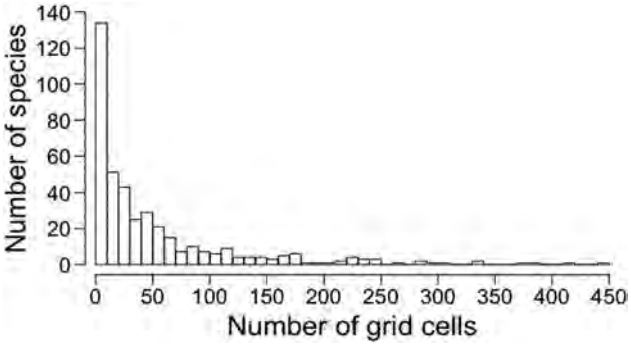


Figure 2. Number of species in relation to number of occupied cells in a 1° × 1° grid covering cis-Andean South America.

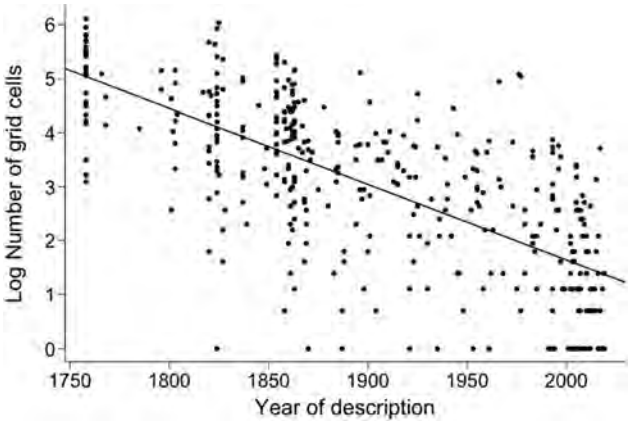


Figure 3. Number of occupied cells in a 1° × 1° grid covering cis-Andean South America according to date of description for each species.

of southeastern Brazil (Fig. 4B). Most of northern Brazil and Amazonia (except a small area near Belém, in eastern Amazonia) remained poorly covered by type locality clusters (Fig. 4B). In the twenty-first century, type locality clusters have continued shifting towards central parts of the country, expanding to the western portion of the Cerrado and its contacts with southern Amazonia (Fig. 4C). However, most regions in Amazonia remain poorly covered by type locality clusters, indicating relatively poor sampling efforts and fragmentary taxonomic knowledge (Fig. 4C).

Richness in ecoregions and endemism in Brazil

Of the 412 species recorded in Brazil, 163 (39%) are endemic to the Brazilian territory (Table S4). The richest ecoregions were the Atlantic Forest and Cerrado (208 recorded species each), followed by Amazonia (189). Intermediate richness levels were recorded for the Caatinga (103), Chiquitano Dry Forests (88), Pantanal (84), and Araucaria Forest (75). Guianan savannas (59) and Pampas Grasslands (48) presented the lowest recorded richness levels.

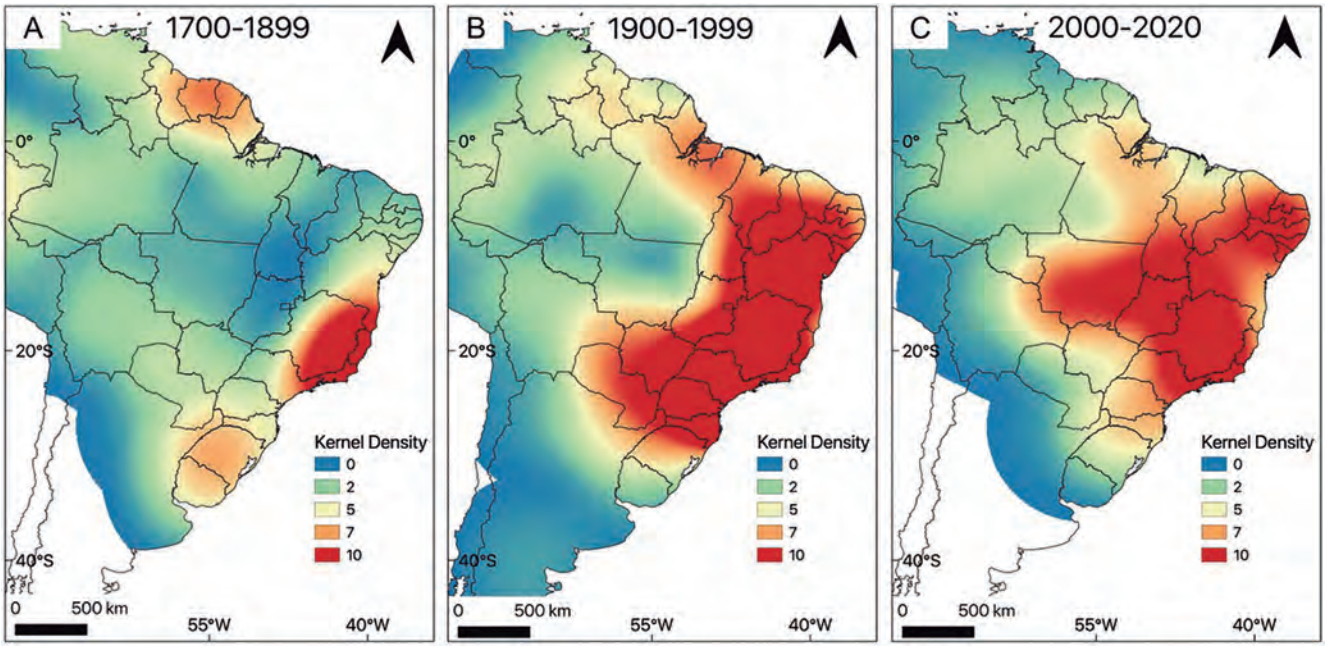


Figure 4. Spatial clusters of type localities (Kernel densities, 9° radius) according to three time slices: **(A)** eighteenth to nineteenth century, **(B)** twentieth century, and **(C)** twenty-first century.

DISCUSSION

Our results indicate that the complex and extremely diverse Brazilian snake fauna is far from poorly studied, despite the unbalanced sampling. Indeed, a database of more than 75,000 verified, unique records, spanning the entire country and its many distinct ecoregions, attests to the enormous effort of centuries of basic research and generations of herpetologists, within and outside Brazil. Especially noteworthy is the extremely valuable material from the Instituto Butantan collection, resulting from a successful snake collection initiative that spanned most of the twentieth century and covered most of the Brazilian territory (Franco, 2012). This resulted in the world's largest and most representative collection of Neotropical snakes (Franco, 2012), forming a great part of the data for this study. The accumulated data provide a comprehensive view of spatial patterns of diversity, despite the well-known paucity and bias of distribution data, especially in highly diverse tropical regions like the Brazilian territory (see Ficetola et al., 2013).

Nevertheless, much remains to be discovered and mapped, given the wide sampling gaps (Fig. 1A) and recent high rates of species discovery (Fig. 3), especially in remote and relatively pristine areas of Amazonia. New snake inventories can now focus on the large distribution gaps detected by our synthesis, making better use of available financial and human resources (Brooks et al., 2004; Funk et al., 2005).

The Wallacean shortfall has many guises. It is widely accepted that the Neotropics and most tropical areas are poorly covered by biological inventories (Jetz et al., 2012; Meyer et al., 2015). This primary lack of inventories and, consequently, specimens in natural history collections is the main aspect of the Wallacean shortfall. It is simply impossible to provide credible maps (i.e., with verified, voucher-based presence data) where no biological inventory has ever been conducted. However, another prominent form of the Wallacean shortfall is the neglect of biodiversity data that already exist (Brooks et al., 2006). This is related to the voluntary or involuntary omission of work and data which has already been gathered, checked, and compared in natural history collections and the scientific literature. It ultimately means omitting the work of generations of researchers who spent valuable time, physical effort, and financial resources expended to collect and study specimens in order to carefully describe and finally publish verified presence data in inventories, faunistic studies, or taxonomic revisions (see Graham et al., 2005).

This enormous amount of data and effort is scattered among different sources, deposited in many different museums and institutions around the globe, and published in a vast and heterogeneous array of scientific papers spanning centuries of basic research (Ward, 2012; Duputié et al., 2014). Moreover, species presence data are sometimes deemed too coarse, error-prone, and even unreliable, being replaced by remote sensing data on habitat types and environmental classifications as substitutes for species occurrence data (see discussions in Brooks et al., 2006). However, species point-locality data are often an irreplaceable source of information to highlight biodiversity areas. Here, we emphasize that, like the highly unique

areas they help detect and describe, species point-locality data also represent an irreplaceable source of information for biodiversity sciences as a whole and biogeography in particular.

Recent and important efforts were made to unify and provide free access to the trove of raw data stored in natural history collections via electronic databases (Graham et al., 2005; Meyer et al., 2015). However, the challenge involved in gathering high quality data and verified point-locality databases from the scientific literature requires years of integrative, collective efforts in natural history museums and, often, the field. In fact, the database compiled and verified in this study took years of work to materialize and benefited directly from previous studies on snake distribution focused on different regions of Brazil and South America (Arzamendia and Giraudo, 2002; Embert, 2008; Bérnils, 2009; Nogueira et al., 2010, 2011; Zaher et al., 2011; Barbo, 2012; Guedes et al., 2014; Caccialli et al., 2016). This sort of compilation, and the assembly of carefully verified and comprehensive point-locality databases, has been traditionally neglected and should, on the contrary, receive more support.

Our results and maps provide the first detailed vision of the evolution of scientific knowledge on Neotropical snake distribution patterns. During the first centuries of taxonomic research, Brazilian snake species descriptions occurred in pulses (Fig. 3), coincident with the fundamental studies of Linnaeus (1758), Wagler and Spix (Spix, 1824), Duméril et al. (1854), and Boulenger (1894, 1896). In more recent years, new species descriptions have tended to reveal restricted ranges (Fig. 3) and more fine-grained endemism and biodiversity patterns, a common trend in macroecology (Gaston et al., 1995). As in many previous studies, recent taxonomic advances are shedding light on more refined biogeographical areas, providing new and previously unavailable information for biogeography and biodiversity planning (see Roll et al., 2017). However, our results also indicate the need to act quickly to preserve these newly detected biogeographical and biodiversity patterns, since narrow-ranged species are more prone to extinction than widespread ones (Mace et al., 2008; Staude et al., 2019). We must emphasize, however, that the data and maps presented here are intended to provide a broad, continental view on ranges and distribution patterns. Although far more refined than polygon maps, we caution that our point-localities and presence records should not be used as the only source of information for local, site-scale studies. Such studies must complement our data with local studies, in the form of site-scale field inventories and detailed habitat use data.

If we use richness as the main biological currency, we are challenged by the enormous gaps in knowledge and sampling effort for most of Brazil, resulting in artificially low richness values. However, richness levels at continental scales are highly influenced by mapping protocols (Graham and Hijmans, 2006) due to the opposing effects of false positives (commission errors) and false negatives (omission errors). In our maps, based solely on verified point-locality records, many areas within the range of a given species lack presence records, resulting in a strong trend toward omission errors (false negatives) in poorly sampled regions. This artificially deflates richness values for most of the study area (see Fig. 1A) and especially for remote or inaccessible regions (Funk et al., 2005; Duputié et al., 2014). As with most presence datasets worldwide, our point-locality records tend to be concentrated near urban centers and large research institutions, with major gaps in remote areas (e.g., the large unsampled areas in Amazonian interfluves in Fig. 1A). However, information on better sampled localities within the same ecoregion (see Fig. 1B and C) can aid in the interpretation of local richness, indicating that low richness values are an artifact of sampling.

Balancing errors of omission and commission in range maps is far from trivial, and finding the best mapping procedure for a given region, taxon, or research priority is a complex challenge (Graham and Hijmans, 2006, Duputié et al., 2014). By providing high-quality, verified, point-locality data, our results provide a solid basis for future studies, allowing the use of polygon maps (see Roll et al., 2007), gridded maps (Guedes et al., 2018a), expert-drawn maps (Graham and Hijmans, 2006; Ficetola et al., 2014), and species distribution models (Elith et al., 2006; Costa et al., 2007). In other words, although verified, voucher-based, point-locality maps for regions with high variation in sampling effort might not be the best overall option for describing species ranges and resulting emergent patterns, especially richness-related metrics (see Graham and Hijmans, 2006), they can provide the best fundamental data for understanding distribution data (Beck et al., 2013), generating the grain and high-quality starting point for different approaches to mapping distributions, a central task of biogeography and biodiversity sciences (Wallace, 1852; Duputié et al., 2014).

Although central to evolutionary biology, biogeography, and conservation, mapping species distributions is not a simple task, even for well-studied, data-rich species and areas (Graham and Hijmans, 2006; Jetz et al., 2012). There is a heated debate between data-driven approaches that rely directly on species occurrence data and species distribution models (Peterson et al., 2016) versus assumption-based methods based on expert drawn maps (Pimm et al., 2017) using subjective inferences on range limits and species absence and presence. This latter approach is widely used in polygon range maps adopted by the International Union for Conservation of Nature (IUCN), BirdLife International, and NatureServe (IUCN, 2012). Our view is that access to reliable, carefully compiled, validated species occurrence data is pivotal to both

mapping procedures. Models with low quality input data, including unchecked presence points, outdated or erroneous taxonomy, and positional errors (which are often the case in raw museum data), will inevitably result in poor outputs (Lozier et al., 2009). On the other hand, expert-drawn maps, not guided by validated and reliable species occurrence data, often produce poor depictions of range limits, with very limited use and potentially misleading interpretations. Moreover, expert-drawn maps often omit data sources, failing to provide replicable depictions of ranges (Townsend Peterson et al., 2016).

We are fully aware that point-localities have limitations, especially omission errors. Many of our point records are currently in localities that no longer harbor populations of the mapped species. However, only by having access to the original, historic distribution data can biogeographers and biodiversity scientists understand changes in species distributions over time. Moreover, only by having access to data on historical presences can current maps correctly depict the effects of habitat loss and range fragmentation.

Nevertheless, we are confident that two of the most serious and pervasive problems of point-locality records have at least been minimized in our database: taxonomic errors and positional errors. All our records are based on verified specimens or were obtained from reliable taxonomic revisions or faunistic studies backed up by vouchers, and all our localities were carefully georeferenced to the most precise coordinates available. We are aware that even verified, well-curated, georeferenced point records are not error-free. Some localities can only be traced to relatively imprecise coordinates, including municipalities, cities, especially older records not aided by GPS technologies, and every taxonomic determination or decision can involve errors. We must, however, emphasize that even older records can allow quite precise georeferencing when collectors carefully described collection sites for properly labeled specimens (see Wallace, 1876). Besides recording accurate GPS coordinates for each collected specimen, we urge herpetologists to pay attention to carefully report locality data, including detailed verbal descriptions of places, itineraries, and collection sites, which, if well documented, can be traced to relative detail (Chapman and Wieczorek, 2006).

We believe that the best range depictions can only be produced by combining different approaches, or so-called hybrid maps (see Graham and Hijmans, 2006), that trim or calibrate statistical modeling with expert opinion and with reference to validated, high quality presence (and absence) records. Although point-locality databases emphasize presence records, well-sampled sites can be used as guidelines for describing where a given species is *not* present. For instance, the absence of records of three widespread Amazonian pitvipers (*Bothrops bilineatus, B. brazili,* and *B. taeniatus*) in the Manaus region (north of the Amazon River, west of the Negro River, east of the Uatumã River and south Presidente Figueiredo municipality, at least) is not an artifact of sampling effort and appears to reflect true absences (e.g., Martins and Oliveira, 1998; Fraga et al., 2013).

Raxworthy et al. (2003) demonstrated that historical, voucher-based records were effective in detecting modeled areas of current species occurrence and were even useful in detecting new potential areas for species discovery. Based on areas of overprediction (commission errors) detected in modeled ranges, new inventories were directed to areas occupied not by the modeled species, but by closely related, still unknown species (Raxworthy et al., 2003). We are confident that our maps and data will provide the basic elements for refined inventories and will be decisive in future species discoveries.

Our results based on endemism patterns (Fig. 1D) offer a promising line of research in biogeography and regionalization patterns in the Neotropics and provide a contrasting scenario to our analyses of richness patterns (see Fig. 1B and D). It is well established that different biodiversity metrics yield different, poorly overlapping spatial priority patterns (see Orme et al., 2005). The many areas of high endemism detected herein correspond to a new vision of snake and biodiversity distribution and highlight previously undetected areas of high biological importance and potential conservation priority. Recently, new areas of high conservation priority for tetrapods emerged as a result of global initiatives to map reptile diversity at the global scale (Roll et al., 2017). Our results reinforce these new patterns, revealing at least 14 areas of high endemism, some of which were previously undetected. These areas are scattered across Brazil, including poorly sampled, remote areas. These results are a clear statement that species presence data are an extremely valuable tool for biogeography and conservation planning. Despite the wide gaps in knowledge and wide areas with few documented records, the accumulated data mapped herein reveal complex endemism patterns that demand further, more refined analyses. Will new species discoveries be clustered around these same areas, or will they reveal new, previously undetected patterns? Are these clusters of endemism the core areas of wider, still undetected biogeographical regions? Are these natural units formed by the same general processes or simply the accumulation of narrow ranged species due to many different and independent biogeographical events? What are the current pressures faced by these different and highly irreplaceable areas? Are they equally protected? All of these questions can only be answered by new analyses of the maps and database provided here.

Preliminary versions and coarse scale versions of our maps and data have already been used in previous studies on Neotropical snake diversity (see Guedes et al., 2018a) or global reptile diversity (Roll et al., 2017). An-

other major contribution of our preliminary maps was to provide scientific support and quantified, objective, range data for the Brazilian Snake Red List (ICMBio, 2018). Our preliminary maps were used to quantify range sizes (via extent of occurrence estimates; see IUCN, 2012) and calculate the percentage of habitat loss within each range and were ready and available before the actual assessment workshops. This resulted in a much more objective view of diversity and threats to Brazilian snakes, with relatively few species classified as Data Deficient, than otherwise would have been possible. Our maps and data have already served as scientific background for conservation assessments and decisions and, once published, will hopefully continue to serve as a baseline for future conservation and biodiversity assessments.

We understand that the most relevant and enduring contribution of the present atlas is to stimulate researchers to publish corrections, additions, and new discoveries. The more corrections and new discoveries emerge in the years to come, the more we will be confident that our atlas has fulfilled its major role: to stimulate the generation of better distribution data towards a more accurate view of snake diversity and distribution in Brazil and in the Neotropics.

ACKNOWLEDGMENTS

The authors are indebted to the curators and staff of all visited natural history collections. Without their constant dedication for the collections and databases under their care, this Atlas would never be possible. We emphasize the critical role of Natural History Collections and feel deeply concerned about the lack of support and recognition that has plagued these foundational institutions in recent decades. Without the specimens housed in natural history collections, our society and culture will never fully value and understand biodiversity. Many generations of researchers have learned from their direct, daily contact with the Instituto Butantan (IBSP) snake collection, the world's largest repository of Neotropical snakes, whose loss was sadly witnessed in 2010. Valdir J. Germano and Joaquim Cavalheiro kindly verified and validated the identification of countless specimens in IBSP. Dirk Embert kindly provided his full database of Bolivian snake point-locality records, which was crucial for our maps and data. Juan Camilo Arredondo verified vouchered records for species of Philodryadini. Vivian Ühlig helped with preliminary maps and GIS procedures. We thank the reptile and amphibian group of the Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio-RAN) for all the logistic support during Brazilian Red List workshops (2012–2019), where our general ideas and maps started to take shape. We thank Philip Bowles, coordinator of The International Union for Conservation of Nature Snake and Lizard Red List Authority, for discussions on taxonomy, distribution, and conservation of Neotropical snakes. Anthony B. Rylands kindly reviewed previous versions of the manuscript. The World Wide Fund for Nature, Brazilian Ministry of the Environment, and NatureServe provided funds for the first workshop of Brazilian Snake Distributions, held at Universidade de São Paulo in 2014, which was crucial for the development of this project. CCN, FEB, HBB, HZ, MM, MBG, and RJS were funded by the São Paulo Research Foundation (FAPESP grants 2012/19858-2 and 2015/20215-7 to CCN, 2008/50068-2 and 2012/09156-0 to FEB, 2009/54478-3 to HBB, 2011/50206-9 to HZ, 2015/21259-8, 2018/14091-1 to MM, 2018/15926-0 to MBG, 2014/23677-9 to RJS and 2013/04170-8 and 2014/18837-7 to TBG). HZ, MM, ALCP, CS, PP, NSJ, and RJS thank the Brazilian Research Council (CNPq) for research fellowships (grants 309950/2018-0 to HZ, 310885/2017-5 to MM, 30.2611/2018-5 to ALCP, 3123038/2018-1 to CS, 439375/2016-9, 302611/2018-5, 309560/2018-7 to PP, 309320/2016-0, to NJS and 312795/2018-1 and 405447/2016-7 to RJS). ALCP was funded by the Fundação Amazônia de Amparo a Estudos e Pesquisa (FAPESPA PROTAX 2016/111449). PP was funded by Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro (E-26/202.737/2018). TBG thanks the State University of Maranhão for a Senior Researcher fellowship. MBM was supported by CNPq (research grant 312968/2013-2), "Programa de Capacitação em Taxonomia" PROTAX-CNPq (grant 562355/2010-3), and Fundação Grupo O Boticário (Project 0838_20092). MBG was funded also by Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES Finance Code 001).

REFERENCES

Abegg A.D., Deron K., Lhano F.H. 2018. *Xenodon guentheri* (Günther's false fer-de-lance) defensive behavior. *Herpetological Review* 49:141–142.

Alho C.J.R. 2008. Biodiversity of the Pantanal: response to seasonal flooding regime and to environmental degradation. *Brazilian Journal of Biology* 68:957–966. DOI

Almeida-Gomes M., Siqueira C.C., Borges-Júnior V.N.T., Vrcibradic D., Fusinatto L.A., Rocha C.F.D. 2014. Herpetofauna of the Reserva Ecológica de Guapiaçu (REGUA) and its surrounding areas, in the state of Rio de Janeiro, Brazil. *Biota Neotropica* 14:1–15. DOI

Almeida P.C., Feitosa D.T., Passos P., Prudente A.L.C. 2014. Morphological variation and taxonomy of *Atractus latifrons* (Günther, 1868) (Serpentes: Dipsadidae). *Zootaxa* 3860:64–80. DOI

Almeida-Santos S.M., Orsi A.M. 2002. Ciclo reprodutivo de *Crotalus durissus* e *Bothrops jararaca* (Serpentes, Viperidae): morfologia e função do oviduto. *Revista Brasileira de Reprodução Animal* 26:109–112.

Alonso A., Dallmeier F., Campbell P. 2001. Urubamba: The Biodiversity of a Peruvian Rain Forest. SI/MAB Series # 7, Smithsonian Institution, Washington, D.C.

Alvarez B.B., Lions M.L., Aguirre R., Céspedez J., Hernando A. 1995. Herpetofauna del área de influencia del embalse de la represa Yacyretá (Argentina-Paraguay). *Facena* 11:57–73.

Alves F.Q., Argolo A.J.S., Jim J. 2005. Biologia reprodutiva de *Dipsas neivai* Amaral e *D. catesbyi* (Sentzen) (Serpentes, Colubridae) no sudeste da Bahia, Brasil. *Revista Brasileira de Zoologia* 22:573–579. DOI

Amaral A. 1921. Últimos trabalhos inéditos de J. Florencio Gomes: Duas novas espécies de Colubrideos opistoglyphos brasileiros (*Philodryas oligolepis* e *Apostolepis longicaudata*). *Annaes Paulistas de Medicina e Cirurgia* 9:157–163.

Amaral A. 1922. Contribuição para o conhecimento dos ofídios do Brasil. Parte I. Quatro novas espécies de serpentes brasileiras. *Anexos das Memórias do Instituto de Butantan, São Paulo Seção de Ofidiologia* 1:1–88. DOI

Amaral A. 1923. New genera and species of snakes. *Proceedings of the New England Zoological Club* 8:85–105. DOI

Amaral A. 1924. Contribuição à biologia dos ophidios brasileiros (habitat, hábitos e alimentação). 1ª Nota prévia. *Collectânea de Trabalhos do Instituto Butantan* 2:177–181.

Amaral A. 1925. Ophidios de Mato Grosso (Contribuição II para o conhecimento dos ophidios do Brasil). *Comissão de Linhas Telegráficas Estratégicas de Matto Grosso ao Amazonas* 84:1–30.

Amaral A. 1926. Sobre a *Lachesis muta* Daudi, 1803, especie ovipara. *Revista do Museu Paulista* 15:43–45.

Amaral A. 1930. Notes on *Spilotes pullatus. Bulletin of the Antivenin Institute of America* 3:96–99.

Amaral A. 1933. Estudos sobre lacertílios neotrópicos. I. Novos gêneros e espécies de lagartos do Brasil. *Memórias do Instituto Butantan* 7:51–75.

Amaral A. 1935. Collecta herpetológica no centro do Brasil. *Memórias do Instituto Butantan* 9:235–246.

Amaral A. 1936. Contribuição ao conhecimento dos ophidios do Brasil. VII. Novos gêneros e especies de colubrideos opisthoglyphos. *Memórias do Instituto Butantan* 9:203–207

Amaral A. 1955. Contribuição ao conhecimento dos ofídios neotrópicos: 14. Descrição de duas espécies novas de "cobra-cega" (fam. Leptotyphlopidae). *Memórias do Instituto Butantan* 26:203–205.

Andersson L.G. 1901. Some new species of snakes from Cameroon and South America, belonging to the collections of the Royal Museum in Stockholm. *Bihang till Kongliga Svenska vetenskaps-akademiens Handlingar* 27:1–26.

Antunes A.P., Haddad C.F.B. 2009. *Tropidophis paucisquamis* (Brazilian dwarf boa). Diet and caudal luring. *Herpetological Review* 40:104.

Araujo C.O., Condez T.H., Bovo R.P., Centeno F.C., Luiz A.M. 2010. Amphibians and reptiles of the Parque Estadual Turístico do Alto Ribeira (PETAR), SP: an Atlantic Forest remnant of Southeastern Brazil. *Biota Neotropica* 10:257–274. DOI

Araújo J., Souza M., Farias T., Silva D., Venâncio N., Maciel J., Melo-Sampaio P. 2012. *Liophis dorsocorallinus* Esqueda, Natera, La Marca and Ilija-Fistar, 2007 (Squamata: Dipsadidae): distribution extension in southwestern Amazonia, state of Acre, Brazil. *Check List* 8:518–519. DOI

Argôlo A.J.S. 2004. As Serpentes dos Cacauais do Sudeste da Bahia. Editus, Ilhéus.

Argôlo A.J.S., Alves F.Q. 2002. Geographic distribution. *Dipsas indica indica*. *Herpetological Review* 33:323–324.

Arredondo J.C., Zaher H. 2010. A new species of *Epictia* (Serpentes: Leptotyphlopidae) from Central Brazil. *South American Journal of Herpetology* 5:189–198. DOI

Arzamendia V., Giraudo A.R. 2002. Lista y distribución de los ofidios (Reptilia: Serpentes) de Santa Fé, Argentina. *Cuadernos de Herpetología* 16:15–32.

Arzamendia V., Giraudo A. 2009. Influence of large South American rivers of the Plata Basin on distributional patterns of tropical snakes: a panbiogeographical analysis. *Journal of Biogeography* 36:1739–1749. DOI

Ascenso A.C., Costa J.C.L., Prudente A.L.C. 2019. Taxonomic revision of the *Erythrolamprus reginae* species group, with description of a new species from Guiana Shield (Serpentes: Xenodontinae). *Zootaxa* 4586:65–97. DOI

Atkinson K., Smith P., Dickens J.K., Lee-Zuck C. 2018. Rediscovery of the 'lost' snake *Phalotris multipunctatus* (Serpentes: Dipsadidae) in Paraguay with behavioral notes and reference to the importance of Rancho Laguna Blanca for its conservation. *Current Herpetology* 37:75–80. DOI

Ávila R.W., Ferreira V.L., Souza V.B. 2006. Biology of the blindsnake *Typhlops brongersmianus* (Typhlopidae) in a semideciduous forest from central Brazil. *The Herpetological Journal* 16:403–405.

Ávila-Pires T.C.S., Hoogmoed M.S., Rocha W.A. 2010. Notes on the Vertebrates of northern Pará, Brazil: a forgotten part of the Guianan Region, I. Herpetofauna. *Boletim do Museu Paraense Emílio Goeldi Série Ciência Natural* 5:13–112.

Ávila R.W., Kawashita-Ribeiro R.A. 2011. Herpetofauna of São João da Barra hydroelectric plant, state of Mato Grosso, Brazil. *Check List* 7:750–755. DOI

Bailey J.R. 1955. The snakes of the genus *Chironius* in southeastern South America. *Occasional Papers of the Museum of Zoology, University of Michigan* 571:1–21.

Bailey J.R. 1967. The synthetic approach to Colubrid classification. *Herpetologica* 23:155–161.

Bailey J.R., Carvalho A.L. 1946. A new *Leptotyphlops* from Mato Grosso, with notes on *Leptotyphlops tenella* Klauber. *Boletim do Museu Nacional, Nova Série Zoologia* 52:1–7.

Bailey J.R., Thomas R.A., Silva N.J. 2005. A revision of the South American snake genus *Thamnodynastes* Wagler, 1830 (Serpentes, Colubridae, Tachymenini). I. Two new species of *Thamnodynastes* from Central Brazil and adjacent areas, with a redefinition of and neotype designation for *Thamnodynastes pallidus* (Linnaeus, 1758). *Phyllomedusa* 4:83–101. DOI

Barbo F.E. 2008. Os répteis no município de São Paulo: aspectos históricos, diversidade e conservação. Pp. 234–267, in Malagoli L.R., Bajestero F.B., Whately M. (Eds.), Além do Concreto: Contribuições para a Proteção da Biodiversidade Paulistana. Editora Instituto Socioambiental, São Paulo.

Barbo F.E. 2012. Biogeografia Histórica das Serpentes na Floresta Pluvial Atlântica Costeira do Brasil. Ph.D. Dissertation, Universidade Estadual Paulista, Brazil.

Barbo F.E., Marques O.A.V., Sawaya R.J. 2011. Diversity, natural history, and distribution of snakes in the municipality of São Paulo. *South American Journal of Herpetology* 6:135–160. DOI

Barbo F.E., Grazziotin F.G., Sazima I., Martins M.R.C., Sawaya R.J. 2012. A new and threatened insular species of Lancehead from southeastern Brazil. *Herpetologica* 68:418–429. DOI

Barbo F.E., Gasparini J.L., Almeida A.P., Zaher H., Grazziotin F.G., Gusmão R.B., ... Sawaya R.J. 2016. Another new and threatened species of lancehead genus *Bothrops* (Serpentes, Viperidae) from Ilha dos Franceses, Southeastern Brazil. *Zootaxa* 4097:511–529. DOI

Barrio-Amorós C.L., Duellman W.E. 2009. Herpetofauna de la Sierra de Lema, Estado Bolívar, Venezuela. Pp. 137–155, in Lasso C.A., Señaris J.C., Rial A., Flores A.L. (Eds.), Evaluación Rápida de la Biodiversidad de los Ecosistemas Acuáticos de La Cuenca Alta Del Río Cuyuní, Guayana Venezolana. Conservation International, Arlington. DOI

Barros A.B., Menezes F.A., Falconi J.R., Giovanelli J.G.R. 2017. Fauna de répteis dos remanescentes florestais e cultivos agrícolas da Fazenda Cambuhy, municípios de Matão, Nova Europa e Tabatinga, região Noroeste do estado de São Paulo. *Biotemas* 30:79–90. DOI

Beck J., Ballesteros-Mejia L., Nagel P., Kitching I.J. 2013. Online solutions and the 'Wallacean shortfall': what does GBIF contribute to our knowledge of species' ranges? *Diversity and Distributions* 19:1043–1050. DOI

Beebe W. 1946. Field notes on the snakes of Kartabo, British Guiana, and Caripito, Venezuela. *Zoologica: scientific contributions of the New York Zoological Society* 31:11–52.

Bellini G.P., Giraudo A.R., Arzamendia V. 2014. Comparative ecology of three species of *Thamnodynastes* (Serpentes, Dipsadidae) in subtropical-temperate South America. *The Herpetological Journal* 24:87–96.

Bergna S., Alvarez B. 1993. Descripción de una nueva especie de *Thamnodynastes* (Reptilia: Serpentes, Colubridae) del Nordeste Argentino. *Facena* 10:5–18.

Bernarde P.S., Abe A.S. 2006. A snake community at Espigão do Oeste, Rondônia, Southwestern Amazon, Brazil. *South American Journal of Herpetology* 1:102–113. DOI

Bernarde P.S., Machado R.A., Turci L.C.B. 2011. Herpetofauna of Igarapé Esperança area in the Reserva Extrativista Riozinho da Liberdade, Acre – Brazil. *Biota Neotropica* 11:117–144. DOI

Bernarde P.S., Albuquerque S., Barros T.O., Turci L.C.B. 2012a. Serpentes do estado de Rondônia, Brasil. *Biota Neotropica* 12:154–182. DOI

Bernarde P.S., de Souza M.B., de França D.P.F., de Freitas M.A. 2012b. *Micrurus annellatus annellatus* (Peters, 1871) (Serpentes: Elapidae): Distribution extension in the state of Acre, northern Brazil. *Check List* 8:516–517. DOI

Bernarde P.S., Turci L.C.B., Abegg A.D., Franco F.L. 2018. A remarkable new species of coralsnake of the *Micrurus hemprichii* species group from the Brazilian Amazon. *Salamandra* 54:249–258.

Bérnils R.S. 2009. Composição e Padrões de Distribuição de Caenophidia (Squamata, Serpentes) das Serras Atlânticas e Planaltos do Sudeste da América do Sul. Ph.D. Dissertation, Museu Nacional, Universidade Federal do Rio de Janeiro, Brazil.

Bérnils R.S., Giraudo A.R., Carreira S., Cechin S.Z. 2007. Répteis das porções Subtropical e Temperada da região neotropical. *Ciência & Ambiente* 35:101–136.

Bérnils R.S., Kucharzewski C., de Moura-Leite J.C., Kwet A. 2008. Rediscovery of the holotype of *Ditaxodon taeniatus* (Peters in Hensel, 1868)(Serpentes: Colubridae) and invalidation of the neotype designation. *Zootaxa* 1764:66–68. DOI

Boettger O. 1885. Liste von Reptilien und Batrachiern aus Paraguay. *Zeitschrift für die Gesammten Naturwissenschaft* 58:213–248.

Boettger O. 1888. Beitrag zur Reptilfauna des oberen Beni in Bolivia. *Bericht über die Senckenbergische Naturforschende Gesellschaft in Frankfurt am Main* 1888:191–199.

Boettger O. 1905. Neue Reptilien aus dem Staat Parana. *Zoologischer Anzeiger* 29:373–375.

Boie F. 1827. Bemerkungen über Merrem's Versuch eines Systems der Amphibien, Marburg, 1820. Erste Lieferung: Ophidier. *Isis von Oken* 20:508–566.

Bonaparte C.L. 1838. Amphibiorum tabula analytica. *Nuovi Annali delle Scienze Naturali* 1:391–397.

Bonaparte C.L. 1845. Specchio Generale dei Sistemi Erpetologico, Anfibiologico ed Ittiologico. Luigi di Giacomo Pirola, Milan.

Borges-Nojosa D.M., Oliveira C.A., Maia A.P.B. 2009. *Leptotyphlops brasiliensis* (blind snake) - Geographic distribution. *Herpetological Review* 40:238.

Borges-Nojosa D.M., Lima D.C., Bezerra C.H., Harris D.J. 2016. Two new species of *Apostolepis* Cope, 1862 (Serpentes: Elapomorphini) from brejos de altitude in northeastern Brazil. *Revista Nordestina de Zoologia* 10:74–94.

Borges-Nojosa D.M., Borges-Leite M.J., Maia J.P., Zanchi-Silva D., Braga R.R., Harris D.J. 2017. A new species of *Hepatozoon* Miller, 1908 (Apicomplexa: Adelerina) from the snake *Philodryas nattereri* Steindachner (Squamata: Dipsadidae) in northeastern Brazil. *Systematic Parasitology* 94:65–72. DOI

Boulenger G.A. 1885. Second list of reptiles and batrachians from the province Rio Grande do Sul, Brazil, sent to the Natural- History Museum by Dr. H. von Ihering. *Annals and Magazine of Natural History, London (Series 5)* 16:85–88. DOI

Boulenger G.A. 1894. Catalogue of the Snakes in the British Museum (Natural History). Volume II, Containing the Conclusion of the Colubridae Aglyphae. British Museum (Natural History), London.

Boulenger G.A. 1896. Catalogue of the Snakes in the British Museum (Natural History). Volume III, Containing the Colubridae (Opisthoglyphae and Proteroglyphae), Amblycephalidae, and Viperidae. British Museum (Natural History), London.

Boulenger G.A. 1905. LVII.—Descriptions of new snakes in the collection of the British Museum. *Annals and Magazine of Natural History, London (Series 7)* 15:453–456. DOI

Boulenger G.A. 1907. XLIV.—Description of a new pit-viper from Brazil. *Annals and Magazine of Natural History, London (Series 7)* 20:338. DOI

Boulenger G.A. 1908. On a new genus of snake from Brazil. *Annals and Magazine of Natural History, London (Series 8)* 2:31–32.

Brongersma L.D. 1951. Some remarks on the pulmonary artery in snakes with two lungs. *Zoologische Verhandelingen* 14:1–36.

Brooks T., Fonseca G.A.B., Rodrigues A.S.L. 2004. Species, data, and conservation planning. *Conservation Biology* 18:1682–1688. DOI

Brooks T.M., Mittermeier R.A., Fonseca G.A.B., Gerlach J., Hoffmann M., Lamoreux J.F., … Rodrigues A.S.L. 2006. Global biodiversity conservation priorities. *Science* 313:58–61. DOI

Burbrink F.T., Grazziotin F.G., Pyron R.A., Cundall D., Donnellan S., Irish F., … Zaher H. 2019. Interrogating genomic-scale data for Squamata (lizards, snakes, and amphisbaenians) shows no support for key traditional morphological relationships. *Systematic Biology.* DOI

Burger W.L. 1955. A new subspecies of the coral snake *Micrurus lemniscatus* from Vénézuela, British Guiana and Trinidad, and a key for the identification of associated species of coral snakes. *Boletin del Museo de Ciencias Naturales, Caracas* 1:35–40.

Cabral H., Cacciali P. 2015. A new species of *Phalotris* (Serpentes: Dipsadidae) from the Paraguayan Chaco. *Herpetologica* 71:72–77. DOI

Cabral Beconi H., Cacciali P. 2018. On the type locality of *Atractus paraguayensis* Werner, 1924 (Serpentes: Dipsadidae). *Cuadernos de Herpetología* 32:59–60. DOI

Cacciali P., Wüest U. 2009. Reptilia, Squamata, Colubridae, *Lygophis meridionalis:* type locality. *Check List* 5:383–385. DOI

Cacciali P., Scott N.J., Ortíz A.L.A., Fitzgerald L.A., Smith P. 2016. The reptiles of Paraguay: literature, distribution, and an annotated taxonomic checklist. *Special Publication of the Museum of Southwestern Biology* 11:1–373.

Campbell J.A., Lamar W.W. 2004. The Venomous Reptiles of the Western Hemisphere. Comstock Publishing Associates, Ithaca.

Cardoso S.R.T., Rocha M.M.T., Puorto G. 2001. *Elapomorphus quinquelineatus* (Raddi's Lizard-eating Snake). Reproduction. *Herpetological Review* 32:262–263.

Carvalho C.M. 2002. Descrição de uma nova espécie de *Micrurus* do estado de Roraima, Brasil (Serpentes, Elapidae). *Papéis Avulsos de Zoologia* 42:183–192. DOI

Carvalho M.A., Nogueira F.N. 1998. Snakes from the urban area of Cuiabá, Mato Grosso: ecological aspects and associated snakebites. *Cadernos de Saúde Pública* 14:753–763. DOI

Carvalho C.M., Vilar J.C. 2005. Parque Nacional Serra de Itabaiana: Levantamento da Biota. Universidade Federal de Sergipe/IBAMA, São Cristóvão/Aracaju.

Cassimiro J., Bertoluci J. 2003. Natural history notes. *Liophis maryellenae* (Cobra d'água). Diet. *Herpetological Review* 34:69.

Ceballos G., Ehrlich P.R. 2006. Global mammal distributions, biodiversity hotspots, and conservation. *Proceedings of the National Academy of Sciences of the United States of America* 103:19374–19379. DOI

Centeno F.C., Sawaya R.J., Marques O.A.V. 2008. Snake assemblage of Ilha de São Sebastião, southeastern Brazil: comparison to mainland. *Biota Neotropica* 8:63–68. DOI

Centeno F.C., Sawaya R.J., Germano V.J. 2010. A new species of *Liotyphlops* (Serpentes: Anomalepididae) from the Atlantic Coastal forest in southeastern Brazil. *Herpetologica* 66:86–91. DOI

Chapman A.D., Wieczorek J. 2006. Guide to Best Practices for Georeferencing. Global Biodiversity Information Facility, Copenhagen.

Chippaux J.P. 1987. Les Serpents de la Guyane Française. Institute Français de Recherche Scientifique pour le development en Coperación, Paris.

Cintra C.E.D., Silva H.L.R., Silva N.J. Jr. 2009. Herpetofauna, Santa Edwiges I and II hydroelectric power plants, state of Goiás, Brazil. *Check List* 5:570–576. DOI

Colli G.R., Bastos R.P., Araujo A.F.B. 2002. The character and dynamics of the Cerrado herpetofauna. Pp. 223–241, in Oliveira P.S., Marquis R.J. (Eds.), The Cerrados of Brazil: Ecology and Natural History of a Neotropical Savanna. Columbia University Press, New York.

Colli G.R., Barreto-Lima A.F., Dantas P.T., Morais C.J.S., Pantoja D.L., De Sena A., Sousa H.C. 2019. On the occurrence of *Apostolepis phillipsi* (Serpentes, Elapomorphini) in Brazil, with the description of a new specimen from Mato Grosso. *Zootaxa* 4619:580–588. DOI

Condez T.H., Sawaya R.J., Dixo M. 2009. Herpetofauna dos remanescentes de Mata Atlântica da região de Tapiraí e Piedade, SP, sudeste do Brasil. *Biota Neotropica* 9:157–185. DOI

Cope E.D. 1860. Catalogue of the Colubridae in the Museum of the Academy of Natural Sciences of Philadelphia, with notes and descriptions of new species. Part II. *Proceedings of the Academy of Natural Sciences of Philadelphia* 12:241–266.

Cope E.D. 1862. Catalogues of the reptiles obtained during the explorations of the Parana, Paraguay, Vermejo and Uruguay Rivers, by Capt. Thos. J. Page, U.S.N.; and of those procured by Lieut. N. Michler, U.S. Top. Eng., Commander of the expedition conducting the survey of the Atrato River. I. The Paraguay collection. *Proceedings of the Academy of Natural Sciences of Philadelphia* 14:346–359.

Cope E.D. 1863. Descriptions of new american Squamata in the Museum of the Smithsonian Institution, Washington. *Proceedings of the Academy of Natural Sciences of Philadelphia* 15:100–106.

Cope E.D. 1864. Contributions to the herpetology of tropical America. *Proceedings of the Academy of Natural Sciences of Philadelphia* 16:166–181.

Cope E.D. 1868. An examination of the Reptilia and Batrachia obtained by the Orton Expedition to Equador and the Upper Amazon, with notes on other species. *Proceedings of the Academy of Natural Sciences of Philadelphia* 20:96–140.

Cope E.D. 1869. Sixth contribution to the herpetology of tropical America. *Proceedings of the Academy of Natural Sciences of Philadelphia* 20:305–313.

Cope E.D. 1870. Seventh contribution to the herpetology of tropical America. *Proceedings of the American Philosophical Society* 11:147–169.

Cope E.D. 1875. Report on the reptiles brought by Professor James Orton from the middle and upper Amazon and western Peru. *Journal of the Academy of Natural Sciences of Philadelphia N.S.* 8:159–183.

Cope E.D. 1877. Tenth contribution to the herpetology of Tropical America. *Proceedings of the American Philosophical Society* 17:85–98.

Cope E.D. 1885. Twelfth contribution to the herpetology of tropical America. *Proceedings of the American Philosophical Society* 22:167–194.

Cope E.D. 1886. An analytical table of the genera of snakes. *Proceedings of the American Philosophical Society* 23:479–499.

Cope E.D. 1887. Synopsis of the Batrachia and Reptilia obtained by H.H. Smith in the Province of Mato Grosso, Brazil. *Proceedings of the American Philosophical Society* 24:44–60.

Cope E.D. 1894. On the species of *Himantodes* Dumeril and Bibron. *The American Naturalist* 28:612–614.

Cortez-Fernandez C. 2005. Herpetofauna de la zona norte del Parque Nacional y Area Natural de Manejo Integrado Madidi (PNANMI-Madidi). *Ecología en Bolivia* 40:10–26.

Costa H.C., Bérnils R.S. 2015. Répteis brasileiros: lista de espécies 2015. *Herpetologia Brasileira* 4:75–93.

Costa H.C., Bérnils R.S. 2018. Répteis do Brasil e suas Unidades Federativas: lista de espécies. *Herpetologia Brasileira* 7:11–57.

Costa G.C., Nogueira C., Machado R.B., Colli G.R. 2007. Squamate richness in the Brazilian Cerrado and its environmental-climatic associations. *Diversity and Distributions* 13:714–724. DOI

Costa H.C., Pantoja D.L., Pontes J.L., Feio R.N. 2010a. Serpentes do município de Viçosa, Mata Atlântica do sudeste do Brasil. *Biota Neotropica* 10:353–377. DOI

Costa H.C., São-Pedro V.A., Feio R.N. 2010b. A new record of the poorly known Amazonian snake *Siphlophis worontzowi*. *Herpetology Notes* 3:97–100.

Costa H.C., Moura M.R., Feio R.N. 2013. Taxonomic revision of *Drymoluber* Amaral, 1930 (Serpentes: Colubridae). *Zootaxa* 3716:349–394. DOI

Costa H.C., Santana D.J., Leal F., Koroiva R., Garcia P.C.A. 2016. A new species of *Helicops* (Serpentes: Dipsadidae: Hydropsini) from Southeastern Brazil. *Herpetologica* 72:157–166. DOI

Couturier G., Faivovich J. 1996. *Clelia bicolor* (Peracca) en la provincia de Santa Fe. *Cuadernos de Herpetología* 10:1–9.

Cunha O.R., Nascimento F.P. 1973. Ofídios da Amazônia. IV. As cobras corais (gênero *Micrurus*) da região leste do Pará (Ophidia: Elapidae). *Nota preliminar. Publicações Avulsas do Museu Paraense Emílio Goeldi* 20:273–286.

Cunha O.R., Nascimento F.P. 1980. Ofídios da Amazônia. XI. Ofídios de Roraima e notas sobre *Erythrolamprus bauperthuisii* (Linnaeus, 1752). *Boletim do Museu Paraense Emílio Goeldi* 102:1–21.

Cunha O.R., Nascimento F.P. 1983a. Ofídios da Amazônia. XX. As espécies de *Atractus* Wagler, 1928 na Amazônia oriental e Maranhão (Ophidia: Colubridae). *Boletim do Museu Paraense Emílio Goeldi, Nova Série, Zoologia* 128:1–39.

Cunha O.R., Nascimento F.P. 1983b. Ofídios da Amazônia. XIX. As espécies de *Oxyrhopus* Wagler, com uma subespécie nova, e *Pseudoboa* Schneider, na Amazônia Oriental e Maranhão (Ophidia: Colubridae). *Boletim do Museu Paraense Emílio Goeldi* 122:1–42.

Cunha O.R., Nascimento F.P. 1991. Ofídios da Amazônia. XXII. Revalidação e redescrição de *Micrurus albicinctus* Amaral, de Rondônia, e sobre a validade de *Micrurus waehnerorum* Meise, do amazonas (Ophidia: Elapidae). *Boletim do Museu Paraense Emílio Goeldi, Nova Série, Zoologia* 7:43–52.

Cunha O.R., Nascimento F.P. 1993. Ofídios da Amazônia. As cobras da região leste do Pará. *Boletim do Museu Paraense Emílio Goeldi, Série Zoologia* 9:1–191.

Cunha O.R., Nascimento F.P., Ávila-Pires T.C.S. 1985. Os répteis da área de Carajás, Pará, Brasil (Testudines e Squamata). I. *Publicações Avulsas do Museu Paraense Emílio Goeldi* 40:9–92.

Curcio F.F., Nunes P.M.S., Harvey M.B., Rodrigues M.T. 2011. Redescription of *Apostolepis longicaudata* (Serpentes: Xenodontinae) with comments on its hemipenial morphology and natural history. *Herpetologica* 67:318–331. DOI

Curcio F.F., Nunes P.M.S., Argôlo A.J.S., Skuk G., Rodrigues M.T. 2012. Taxonomy of the South American Dwarf boas of the genus *Tropidophis* Bibron, 1840, with the description of two new species from the Atlantic Forest (Serpentes: Tropidophiidae). *Herpetological Monographs* 26:80–121. DOI

Cuvier G. 1817. Le Règne Animal Distribué D'Après Son Organisation, Pour Servir de Base à L'Histoire Naturelle des Animaux et D'Introduction à L'Anatomie Comparée. Vol. 2. Les Reptiles, les Poissons, les Mollusques et les Annélides. Déterville, Paris.

Dalmolin P.C. 2000. Composição e História Natural da Comunidade de Serpentes da Estação Ecológica de Jataí e Outras Áreas do Município de Luiz Antônio, (SP). M.Sc. Thesis, Universidade Federal de São Carlos, Brazil.

Dal Vechio F., Recoder R., Rodrigues M.T., Hussam Z. 2013. The herpetofauna of the Estação Ecológica de Uruçuí-Una, state of Piauí, Brazil. *Papéis Avulsos de Zoologia* 53:225–243. DOI

Dal Vechio F., Teixeira M. Jr., Neto A.M., Rodrigues M.T. 2015. On the snake *Siphlophis worontzowi* (Prado, 1940): notes on its distribution, diet and morphological data. *Checklist* 11:1534. DOI

Daudin F.M. 1803. Histoire Naturelle, Générale et Particulière des Reptiles; ouvrage faisant suite à l'Histoire naturelle générale et particulière, composée par Leclerc de Buffon; et rédigee par C.S. Sonnini, membre de plusieurs sociétés savantes, Tome 6. F. Dufart, Paris.

de Candolle E.P. 1820. Essai élémentaire de géographie botanique. Pp. 359–422, in Dictionnaire des Sciences Naturelles, Vol. 18. F. Levrault, Strasbourg and Paris.

Di-Bernardo M. 1991. Estudo Revisivo de *Natrix melanostigma* Wagler, 1824, com a Revalidação de *Echinanthera* Cope, 1894 e Análise Cladística dos Táxons Afins (Serpentes, Colubridae, Xenodontinae). M.Sc. Thesis, Pontifícia Universidade Católica do Rio Grande do Sul, Brazil.

Di-Bernardo M. 1994. Uma nova espécie de *Echinanthera* Cope, 1894 (Serpentes, Colubridae) do nordeste do Brasil. *Biociências* 2:75–81.

Di-Bernardo M. 1996. A new species of the Neotropical snake genus *Echinanthera* Cope 1894 from southeastern Brazil (Serpentes, Colubridae). *The Snake* 27:120–126.

Di-Bernardo M., Borges-Martins M., Oliveira R.B. 2003. Répteis. Pp. 165–188, in Fontana C.S., Bencke G.A., Reis R. (Eds.), Livro Vermelho da Fauna Ameaçada de Extinção no Rio Grande do Sul. Edipucrs, Porto Alegre.

Di-Bernardo M., Borges-Martins M., Oliveira R.B., Pontes G.M.F. 2007a. Taxocenoses de serpentes de regiões temperadas do Brasil. Pp. 222–263, in Nascimento L.B., Oliveira M.E. (Eds.), Herpetologia no Brasil II. Sociedade Brasileira de Herpetologia, Belo Horizonte.

Di-Bernardo M., Borges-Martins M., Silva N.J. JR. 2007b. A new species of coralsnake (*Micrurus:* Elapidae) from southern Brazil. *Zootaxa* 1447:1–26. DOI

Dirksen L. 2002. Anakondas. Monographische Revision der Gattung *Eunectes* (Wagler, 1830). Natur und Tier Verlag, Münster.

Dixon J.R. 1983. The *Liophis cobella* group of the Neotropical Colubrid snake genus *Liophis*. *Journal of Herpetology* 17:149–165. DOI

Dixon J.R. 1985. A review of *Liophis anomalus* and *Liophis elegantissimus,* and the description of a new species (Serpentes: Colubridae). *Copeia* 1985:565–573. DOI

Dixon J.R. 1989. A key and checklist to the Neotropical snake genus *Liophis* with country lists and maps. *Smithsonian Herpetological Information Service* 79:1–40. DOI

Dixon J.R., Hendricks F.S. 1979. The wormsnakes (family Typhlopidae) of the neotropics, exclusive of the Antilles. *Zoologische Verhandelingen* 173:3–39.

Dixon J.R., Kofron C.P. 1983. The Central and South American anomalepid snakes of the genus *Liotyphlops*. *Amphibia-Reptilia* 4:241–264. DOI

Dixon J.R., Soini P. 1977. The reptiles of the upper Amazon basin, Iquitos region, Peru. II. Crocodilians, turtles, and snakes. *Milwaukee Public Museum, Contributions in Biology and Geology* 12:1–71.

Dixon J.R., Soini P. 1986. The Reptiles of the Upper Amazon Basin, lquitos Region, Peru. Milwaukee Public Museum, Milwaukee.

Dixon J.R., Thomas R.A. 1985. A new species of South American water snake (genus *Liophis*) from southeastern Brazil. *Herpetologica* 41:259–262.

Dixon J.R., Thomas R.A., Greene H.W. 1976. Status of the Neotropical snake *Rhabdosoma poeppigi* Jan, with notes on variation in *Atractus elaps* (Günther). *Herpetologica* 32:221–227.

Dixon J.R., Wiest J.A. Jr., Cei J.M. 1993. Revision of the Neotropical snake genus *Chironius* Fitzinger (Serpentes, Colubridae). Monographie XIII. Museo Regionale di Scienze Naturali, Torino.

Doan T.M., Arriaga W.A. 2002. Microgeographic variation in species composition of the herpetofaunal communities of Tambopata Region, Peru. *Biotropica* 34:101–117. DOI

Dorigo T.A., Vrcibradic D., Borges-Junior V.N.T., Rocha C.F.D. 2014. New records of anuran predation by snakes of the genus *Thamnodynastes* Wagler, 1830 (Colubridae: Dipsadinae) in the Atlantic rainforest of southeastern Brazil. *Herpetology Notes* 7:261–264.

Dowling H.G. 1974. A provisional classification of snakes. Pp. 167–170, in Dowling H.G., (Ed.), Yearbook of Herpetology. HISS Publications, New York.

Duarte M.R., Sena M.A. 2007. *Siphlophis pulcher* (NCN). Prey. *Herpetological Review* 38:211.

Duellman W.E. 1958. A monographic study of the colubrid snake genus *Leptodeira*. *Bulletin of the American Museum of Natural History* 114:1–152.

Duellman W.E. 1978. The biology of an equatorial herpetofauna in Amazonian Ecuador. *Miscellaneous Publications, University of Kansas Museum of Natural History* 65:1–352.

Duellman W.E. 2005. Cusco Amazónico: The Lives of Amphibians and Reptiles in an Amazonian Rainforest. Comstock, Ithaca.

Duleba S., Campos Filho L.V.S., Strüssmann C. 2015. *Hydrops caesurus* (Reptilia, Serpentes, Dipsadidae): new records and evidences of habitat use and diet in the Brazilian Pantanal. *Herpetologia Brasileira* 4:97–99.

Duméril A.M.C., Bibron G., Duméril A. 1854. Erpétologie Générale ou Histoire Naturelle Complète des Reptiles. Tome Septième, Duexiéme Partie. Librarie Enclyclopedique de Roret, Paris. DOI

Dunn E.R., Conant R. 1936. Notes on anacondas, with descriptions of two new species. *Proceedings of the Academy of Natural Sciences of Philadelphia* 88:503–506.

Duputié A., Zimmermann N.E., Chuine I. 2014. Where are the wild things? Why we need better data on species distribution. *Global Ecology and Biogeography* 23:457–467. DOI

Egerton F.N. 2010. History of ecological sciences, Part 34: a changing economy of nature. *Bulletin of the Ecological Society of America* 91:21–41. DOI

Eiselt J. 1963. Zur Kenntnis der colubriden Schlangengattungen Procteria und Xenodon. *Annalen des Naturhistorischen Museums in Wien* 66:279–282.

Elith J., Graham C.H., Anderson R.P., Dudík M., Ferrier S., Guisan A., … Li J. 2006. Novel methods improve prediction of species' distributions from occurrence data. *Ecography* 29:129–151. DOI

Embert D. 2008. Distribution, Diversity and Conservation Status of Bolivian Reptiles. Ph.D. Dissertation, Universität Bonn, Germany.

Entiauspe-Neto O.M., Lema T. 2015. *Apostolepis christineae* Lema, 2002 (Serpentes: Xenodontinae: Elapomorphini): first record for Bolivia. *Check List* 11:1814. DOI

Entiauspe-Neto O.M., de Lema T., Beconi H.E.C. 2014. *Apostolepis intermedia* Koslowsky, 1898 (Serpentes: Xenodontinae: Elapomorphini): first records for Paraguay. *Check List* 10:600–601. DOI

Entiauspe-Neto O.M., Renner M.F., Mario-Da-Rosa C., Abegg A.D., Loebmann D., De Lema T. 2017. Redescription, geographic distribution and ecological niche modeling of *Elapomorphus wuchereri* (Serpentes: Dipsadidae). *Phyllomedusa* 16:225–242. DOI

Esqueda L.F., Natera M., la Marca E., Ilija-Fistar M. 2007. Nueva especie de serpiente (Reptilia: Colubridae: *Liophis*) de un bosque tropical relictual en el estado Barinas, Venezuela. *Herpetotropicos* 2:95–103.

Etchepare E.G., Zaracho V.H. 2009. Serpentes, Colubridae, *Taeniophallus poecilopogon* (Cope, 1863): rediscovery in Corrientes, Argentina, and natural history. *Check List* 5:770–772. DOI

Farias R.E.S. 2016. Taxocenose de Serpentes em Ambientes Aquáticos de Áreas de Altitude em Roraima (Squamata: Serpentes). M.Sc. Thesis, Instituto Nacional de Pesquisas da Amazônia, Brazil.

Feitosa D.T., Passos P.P., Prudente A.L.C. 2007. Taxonomic status and geographic variation of the slender coralsnake *Micrurus filiformis* (Günther, 1859) (Serpentes, Elapidae). *South American Journal of Herpetology* 2:149–156. DOI

Feitosa D.T., Silva N.J. Jr., Pires M.G., Zaher H., Prudente A.L.C. 2015. A new species of monadal coral snake of the genus *Micrurus* (Serpentes, Elapidae) from western Amazon. *Zootaxa* 3974:538–554. DOI

Fernandes R. 1995. Variation and taxonomy of the *Atractus reticulatus* complex (Serpentes: Colubridae). *Comunicações do Museu de Ciências e Tecnologia da Pontifícia Universidade Católica do Rio Grande do Sul, Série Zoologia* 8:37–53.

Fernandes D.S., Hamdan B. 2014. A new species of *Chironius* Fitzinger, 1826 from the state of Bahia, Northeastern Brazil (Serpentes: Colubridae). *Zootaxa* 3881:563–575. DOI

Fernandes R., Puorto G. 1993. A new species of *Atractus* from Brazil and the status of *A. guentheri* (Serpentes: Colubridae). *Memórias do Instituto Butantan* 55:7–14.

Fernandes D.S., Franco F.L., Germano V.J. 1999. Geographic distribution. *Umbrivaga pygmaea*. *Herpetological Review* 30:175.

Fernandes D.S., Germano V.J., Fernandes R., Franco F.L. 2002. Taxonomic status and geographic distribution of the lowland species of the *Liophis cobella* group with comments on the species from the Venezuelan tepuis (Serpentes, Colubridae). *Boletim do Museu Nacional, Nova Série, Zoologia* 481:1–14.

Fernandes D.S., Passos P., Franco F.L., Germano V.J. 2003. *Liophis atraventer* Dixon and Thomas, 1985 (Serpentes: Colubridae): new localities, pholidosis variation, and notes on natural history. *Herpetological Review* 34:317–320.

Fernandes D.S., Franco F.L., Fernandes R. 2004. Systematic revision of the genus *Lachesis* Daudin, 1803 (Serpentes, Viperidae). *Herpetologica* 60:245–260. DOI

Fernandes V.D., Moura M.R., Dayrell J.S., Santana D.J., Lima L.H.R. 2010a. Reptilia Squamata, Serpentes, Typhlopidae, *Typhlops amoipira* Rodrigues and Juncá, 2002: range extension and new state record. *Check List* 6:268–269. DOI

Fernandes D.S., Marques O.A.V., Argôlo A.J.S. 2010b. A new species of *Dipsas* Laurenti from the Atlantic Forest of Brazil (Serpentes: Dipsadidae). *Zootaxa* 2691:57–66. DOI

Ferrarezzi H. 1994. Nota sobre o gênero *Phalotris* com revisão do grupo *nasutus* e descrição de três novas espécies (Serpentes, Colubridae, Xenodontinae). *Memórias do Instituto Butantan* 55:21–38.

Ferrarezzi H., Freire E.M.X. 2001. New species of *Bothrops* Wagler, 1824 from the Atlantic forest of northeastern Brazil (Serpentes, Viperidae, Crotalinae). *Boletim do Museu Nacional, Nova Série, Zoologia* 440:1–10.

Ferrarezzi H., Barbo F.E., Albuquerque C.E. 2005. Phylogenetic relationships of a new species of *Apostolepis* from Brazilian Cerrado with notes on the *assimilis* group (Serpentes: Colubridae: Xenodontinae: Elapomorphini). *Papéis Avulsos de Zoologia* 45:215–229. DOI

Ficetola G.F., Bonardi A., Sindaco R., Padoa-Schioppa E. 2013. Estimating patterns of reptile biodiversity in remote regions. *Journal of Biogeography* 40:1202–1211. DOI

Ficetola G.F., Rondinini C., Bonardi A., Katariya V., Padoa-Schioppa E., Angulo A. 2014. An evaluation of the robustness of global amphibian range maps. *Journal of Biogeography* 41:211–221. DOI

Figueroa A., McKelvy A.D., Grismer L.L., Bell C.D., Lailvaux S.P. 2016. A species-level phylogeny of extant snakes with description of a new colubrid subfamily and genus. *PLoS One* 11: e0161070. DOI

Fiorillo B.F. 2016. Estrutura da comunidade de Serpentes da Região da Fazenda Etá. M.Sc. Thesis, Universidade Estadual Paulista Júlio de Mesquita Filho, Brazil.

Fischer J.G. 1885. Ichthyologische und herpetologische Bemerkungen. V. Herpetologische Bemerkungen. *Jahrbuch der Hamburgischen Wissenschaftlichen Anstalten* 2:82–121.

Fitzinger L.J. 1843. Systema Reptilium. Fasciculus Primus. Braumüller et Seidel, Wien. DOI

Forlani M.C., Bernardo P.H., Haddad C.F.B., Zaher H. 2010. Herpetofauna of the Carlos Botelho State Park, São Paulo State, Brazil. *Biota Neotropica* 10:265–309. DOI

Fraga R., Lima A.P., Prudente A.L.C., Magnusson W.E. 2013. Guide to the Snakes of the Manaus Region, Central Amazonia. Editora INPA, Manaus.

Fraga R., Stow A.J., Magnusson W.E., Lima A.P. 2014. The costs of evaluating species densities and composition of snakes to assess development impacts in Amazonia. *PloS One* 9:e105453. DOI

França F.G.R., Araújo A.F.B. 2006. The conservation status of snakes in Central Brazil. *South American Journal of Herpetology* 1:25–36. DOI

França F.G.R., Bezerra E.S. 2010. Reptilia, Serpentes, Dipsadidae, *Liophis taeniogaster* Jan, 1863: distribution extension, new state record and geographic distribution map. *Check List* 6:614–615. DOI

França F.G.R., Venâncio N.M. 2010. Reptiles and amphibians of a poorly known region in southeastern Amazonia. *Biotemas* 23:71–84. DOI

França F.G.R., Mesquita D.O., Colli G.R. 2006. A checklist of snakes from Amazonian Savannas in Brazil, housed in the Coleção Herpetológica da Universidade de Brasília, with new distribution records. *Occasional Papers of the Oklahoma Museum of Natural History* 17:1–13.

França F.G.R., Mesquita D.O., Nogueira C.C., Araújo A.F.B. 2008. Phylogeny and ecology determine morphological structure in a snake assemblage in the Central Brazilian Cerrado. *Copeia* 2008 1:23–38. DOI

França F.G.R., França R.C., Germano C.E.S., Filho J.M.O. 2012. *Bothropoides neuwiedi* (Wagler, 1824) (Squamata: Serpentes: Viperidae): distribution extension for the Atlantic Forest, first vouchered record for Paraíba, and geographic distribution map. *Check List* 8:170–171. DOI

França D.P.F., Barbo F.E., Silva N.J. Jr., Silva H.L.R., Zaher H. 2018. A new species of *Apostolepis* (Serpentes, Dipsadidae, Elapomorphini) from the Cerrado of Central Brazil. *Zootaxa* 4521:438–552. DOI

Franco F.L. 2012. A coleção herpetológica do Instituto Butantan: da sua origem ao incêndio ocorrido em 15 de maio de 2010. *Herpetologia Brasileira* 1:22–31.

Franco F.L., Ferreira T.G. 2002. Descrição de uma nova espécie de *Thamnodynastes* Wagler, 1830 (Serpentes, Colubridae) do nordeste brasileiro, com comentários sobre o gênero. *Phyllomedusa* 1:57–74. DOI

Franco F.L., Ferreira T.G. 2003a. Ocorrência de *Thamnodynastes strigatus* (Serpentes, Colubridae) no Escudo das Guianas, estados do Pará e Roraima, Brasil. *Phyllomedusa* 2:117–119. DOI

Franco F.L., Ferreira T.G. 2003b. Descrição de uma nova espécie de *Thamnodynastes* Wagler, 1830 (Serpentes, Colubridae) do nordeste brasileiro, com comentários sobre o gênero. *Phyllomedusa* 1:57–74. DOI

Franco F.L., Marques O.A.V., Puorto G. 1997. Two new species of Colubrid snakes of the genus *Clelia* from Brazil. *Journal of Herpetology* 31:483–490. DOI

Franco F.L., Salomão E.L., Borges-Martins M., Di-Bernardo M., Meneghel M.D., Carreira S. 2001. New records of *Calamodontophis paucidens* (Serpentes: Colubridae: Xenodontinae) from Brazil and Uruguay. *Cuadernos de Herpetología* 14:155–159.

Franco F.L., Ferreira T.G., Marques O.A.V., Sazima I. 2003. A new species of hood-displaying *Thamnodynastes* (Serpentes: Colubridae) from the Atlantic forest in southeast Brazil. *Zootaxa* 334:1–7. DOI

Franco F.L., Cintra L.A.C., Lema T. 2006. A new species of *Calamodontophis* Amaral, 1963 (Serpentes, Colubridae, Xenodontinae) from Southern Brazil. *South American Journal of Herpetology* 1:218–226. DOI

Franco F.L., Fernandes D.S., Bentim B.M. 2007. A new species of *Hydrodynastes* Fitzinger, 1843 from central Brazil (Serpentes: Colubridae: Xenodontinae). *Zootaxa* 1613:57–65. DOI

Franco F.L., Trevine V.C., Montingelli G.G., Zaher H. 2017. A new species of *Thamnodynastes* from the open areas of central and northeastern Brazil (Serpentes: Dipsadidae: Tachymenini). *Salamandra* 53:339–350.

Freire E.M.X., Caramaschi U., Argôlo A.J.S. 2007. A new species of *Liotyphlops* (Serpentes: Anomalepididae) from the Atlantic Rain Forest of Northeastern Brazil. *Zootaxa* 1393:19–26. DOI

Freire E.M.X., Caramaschi U., Gonçalves U. 2010. A new species of *Dendrophidion* (Serpentes: Colubridae) from the Atlantic Rain Forest of Northeastern Brazil. *Zootaxa* 1858:62–68. DOI

Freitas M.A. 2008. Distribuição Geográfica, História Natural e Avaliação do Status de Conservação da Jaracuçu-tapete, *Bothrops pirajai* Amaral, 1923. M.Sc. Thesis, Universidade Estadual de Santa Cruz, Brazil.

Freitas M.A. 2014. Squamate reptiles of the Atlantic Forest of northern Bahia, Brazil. *Check List* 10:1020–1030. DOI

Freitas M.A., França D.P.F., Graboski R., Uhlig V., Veríssimo D. 2012. Notes on the conservation status, geographic distribution and ecology of *Bothrops muriciensis* Ferrarezzi & Freire, 2001 (Serpentes, Viperidae). *North-Western Journal of Zoology* 8:338–343.

Freitas M.A., Abegg A.D., Dias I.R., Moraes E.P.F. 2018. Herpetofauna from Serra da Jibóia, an Atlantic Rainforest remnant in the state of Bahia, northeastern Brazil. *Herpetology Notes* 11:59–72.

Frota J.G. 2005. Nova espécie de *Helicops* Wagler, 1830 (Serpentes, Colubridae) do rio Tapajós, Amazônia, Brasil. *Phyllomedusa* 4:61–67. DOI

Funk V.A., Richardson K.S., Ferrier S. 2005. Survey-gap analysis in expeditionary research: where do we go from here? *Biological Journal of the Linnean Society* 85:549–567. DOI

Frota J.G., Santos-Jr. A.P., Chalkidis H.M., Guedes A.G. 2005. As serpentes da região do Baixo Rio Amazonas, Oeste do Estado do Pará, Brasil (Squamata). *Biociências, Porto Alegre* 13:211–220.

Gaiarsa M.P., Alencar L.R.V., Martins M. 2013. Natural history of pseudoboine snakes. *Papéis Avulsos de Zoologia* 53:261–283. DOI

Gans C. 1964. A redescription of, and geographic variation in, *Liophis miliaris* Linné, the common water snake of southeastern South America. *American Museum Novitates* 2178:1–58.

Garman S. 1883. On certain reptiles from Brazil and Florida. *Science Observer, Boston* 4:47–48.

Gasc J.P., Rodrigues M.T. 1980. Liste préliminaire des serpents de la Guyane Française. *Bulletin du Muséum National d' Histoire Naturelle, Paris* 2:559–598.

Gaston K.J. 1998. Species-range size distributions: products of speciation, extinction and transformation. *Philosophical Transactions of the Royal Society of London Series B, Biological Sciences* 323:219–230. DOI

Gaston K.J., Blackburn T.M., Loder N. 1995. Which species are described first?: the case of North American butterflies. *Biodiversity and Conservation* 4:119–127. DOI

Gerbing D.W. 2019. lessR: Less Code, More Results. R package version 3.8.9. Available from: https://cran.r-project.org/web/packages/lessR/index.html.

Ghizoni-Jr. I.R., Kunz T.S., Cherem J.J., Bérnils R.S. 2009. Registros notáveis de répteis de áreas abertas naturais do planalto e litoral do Estado de Santa Catarina, sul do Brasil. *Biotemas* 22:129–141.

Girard C. 1858. Descriptions of some new Reptiles, collected by the US. Exploring Expedition under the command of Capt. Charles Wilkes, U.S.N. Third Part. *Proceedings of the Academy of Natural Sciences of Philadelphia* 9:181–182.

Giraudo A.R. 1999. New records of snakes from Argentina. *Herpetological Review* 30:179–181.

Giraudo A.R. 2001. La Diversidad de Serpientes de la Selva Paranaense y del Chaco Húmedo (Argentina) Taxonomía, Biogeografía y Conservación. LOLA, Corrientes.

Giraudo A.R., Scrocchi G.J. 1998. A new species of *Apostolepis* (Serpentes: Colubridae) and comments on the genus in Argentina. *Herpetologica* 54:470–476.

Giraudo A.R., Scrocchi G.J. 2002. Argentinian snakes: an annotated checklist. *Smithsonian Herpetological Information Service* 132:1–53. DOI

Giraudo A.R., Arzamendia V., Cacciali P. 2006. Geographic variation and taxonomic status of the southernmost populations of *Liophis miliaris* (Linnaeus, 1758) (Serpentes: Colubridae). *Herpetological Journal* 16:213–220.

Giraudo A.R., Arzamendia V., Lopez S.M., Quaini R.O., Prieto Y., Leiva L.A., … Urban J.M. 2008. Serpientes venenosas de Santa Fe, Argentina: conocimientos sobre su historia natural aplicados para la prevención de ofidismo. *Fabicib* 12:69–89. DOI

Gomes J.F. 1913. Uma nova cobra venenosa do Brasil. *Annaes Paulistas de Medicina e Cirurgia* 1:65–67.

Gomes J.F. 1915. Contribuição para o conhecimento dos ophidios do Brasil. 1. Descrição de quatro espécies novas e um novo gênero de opisthóglyphos. 2. Ophidios do Museu Rocha (Ceará). *Annaes Paulistas de Medicina e Cirurgia* 4:121–129.

Gomes J.F. 1918. Contribuição para o conhecimento dos ofidios do Brasil. III (1). *Memórias do Instituto Butantan* 1:57–83.

Graboski R., Pereira-Filho G.A., Silva A.A.A., Prudente A.L.C., Zaher H. 2015. A new species of *Amerotyphlops* from Northeastern Brazil, with comments on distribution of related species. *Zootaxa* 3920:443–452. DOI

Graham C.H., Hijmans R.J. 2006. A comparison of methods for mapping species ranges and species richness. *Global Ecology and Biogeography* 15:578–587. DOI

Graham C.H., Ferrier S., Huettman F., Moritz C., Peterson A.T. 2004. New developments in museum-based informatics and applications in biodiversity analysis. *Trends in Ecology & Evolution* 19:497–503. DOI

Graham C.H., Smith T.B., Languy M. 2005. Current and historical factors influencing patterns of species richness and turnover of birds in the Gulf of Guinea highlands. *Journal of Biogeography* 32:1371–1384. DOI

Gray J.E. 1825. A synopsis of the genera of reptiles and Amphibia, with a description of some new species. *Annals of Philosophy, London (Series 2)* 10:193–217.

Gray J.E. 1849. Catalogue of the Specimens of Snakes in the Collection of the British Museum. Printed by Order of the Trustees, London. DOI

Gray J.E. 1860. Description of a new genus of Boidae discovered by Mr. Bates on the Upper Amazon. *Annals and Magazine of Natural History* 6:131–132.

Grazziotin F.G., Zaher H., Murphy R.W., Scrocchi G., Benavides M.A., Zhang Y.P., Bonatto S.L. 2012. Molecular phylogeny of the new world Dipsadidae (Serpentes: Colubroidea): a reappraisal. *Cladistics* 28:437–459. DOI

Greene H.W. 1997. Snakes: The Evolution of Mystery in Nature. University of California Press, Berkeley.

Grenyer R., Orme C.D.L., Jackson S.F., Thomas G.H., Davies R.G., Davies T.J., … Owens I.P.F. 2006. Global distribution and conservation of rare and threatened vertebrates. *Nature* 444:93–96. DOI

Guedes T.B., Nogueira C., Marques O.A.V. 2014. Diversity, natural history, and geographic distribution of snakes in the Caatinga, Northeastern Brazil. *Zootaxa* 3863:1–93. DOI

Guedes T.B., Sawaya R.J., Zizka A., Laffan S., Faurby S., Pyron R.A., … Antonelli A. 2018a. Patterns, biases and prospects in the distribution and diversity of Neotropical snakes. *Global Ecology and Biogeography* 27:14–21. DOI

Guedes T.B., Barbo F.E., França D., Zaher H. 2018b. Morphological variation of the rare psammophilous species *Apostolepis gaboi* (Serpentes: Dipsadidae: Elapomorphini). *Zootaxa* 4418:469–480. DOI

Günther A.C.L.G. 1858. Catalogue of Colubrine Snakes in the Collection of the British Museum. British Museum (Natural History), London. DOI

Günther A.C.L.G. 1859. On the genus *Elaps* of Wagler. *Proceedings of the Zoological Society of London* 27:79–89.

Günther A.C.L.G. 1860. Third list of cold-blooded vertebrata collected by Mr. Fraser in Ecuador. *Proceedings of the Zoological Society of London* 28:233–240.

Günther A.C.L.G. 1861. Account of the reptiles sent by Dr. Wucherer from Bahia. *Annals and Magazine of Natural History, London (Series 3)* 7:412–417.

Günther A.C.L.G. 1862. On new species of snakes in the collection of the British Museum. *Annals and Magazine of Natural History, London (Series 3)* 9:52–59. DOI

Günther A.C.L.G. 1863. Third account of new species of snakes in the collection of the British Museum. *Annals and Magazine of Natural History, London (Series 3)* 12:348–365. DOI

Günther A.C.L.G. 1868. Sixth account of new species of snakes in the collection of the British Museum. *Annals and Magazine of Natural History, London (Series 4)* 1:413–429. DOI

Günther A.C.L.G. 1872. Seventh account of new species of snakes in the collection of the British Museum. *Annals and Magazine of Natural History, London (Series 4)* 9:13–37. DOI

Hamdan B., Fernandes D.S. 2015. Taxonomic revision of *Chironius flavolineatus* (Jan, 1863) with description of a new species (Serpentes: Colubridae). *Zootaxa* 4012:97–119. DOI

Hamdan B., Lira-da-Silva R.M. 2012. The snakes of Bahia State, northeastern Brazil: species richness, composition and biogeographical notes. *Salamandra* 48:31–50.

Hamdan B., Scali S., Fernandes D.S. 2014. On the identity of *Chironius flavolineatus* (Serpentes: Colubridae). *Zootaxa* 3794:134–142. DOI

Hartmann M.T., Hartmann P.A., Cechin S.Z., Martins M. 2005. Feeding habits and habitat use in *Bothrops pubescens* (Viperidae, Crotalinae) from Southern Brazil. *Journal of Herpetology* 39:664–667. DOI

Hartmann P.A. 2005. História Natural e Ecologia de Duas Taxocenoses de Serpentes na Mata Atlântica. Ph.D. Thesis, Universidade Estadual Paulista Júlio de Mesquita Filho, Brazil.

Hartmann P.A., Giasson L.O. 2008. Répteis. Pp. 111–130, in Cherem J.J., Kammers M. (Eds.), A Fauna das Áreas de Influência da Usina Hidrelétrica Quebra Queixo. Editora Habilis, Erechim.

Hartmann P.A., Marques O.A.V. 2005. Diet and habitat use of two sympatric species of *Philodryas* (Colubridae), in south Brazil. *Amphibia-Reptilia* 26:25–31. DOI

Hartmann P.A., Hartmann M.T., Martins M. 2009. Ecologia e história natural de uma taxocenose de serpentes no Núcleo Santa Virgínia do Parque Estadual da Serra do Mar, no sudeste do Brasil. *Biota Neotropica* 9:173–184. DOI

Hartmann P.A., Hartmann M.T., Martins M. 2009. Ecology of a snake assemblage in the Atlantic Forest of southeastern Brazil. *Papéis Avulsos de Zoologia* 49:343–360. DOI

Harvey M.B. 1999. Revision of Bolivian *Apostolepis* (Squamata: Colubridae). *Copeia* 1999:388–409. DOI

Henderson R.W., Passos P., Feitosa D. 2009. Geographic variation in the Emerald Treeboa, *Corallus caninus* (Squamata: Boidae). *Copeia* 2009:572–582. DOI

Hensel R. 1868. Beiträge zur Kenntniss der Wirbelthiere SüdBrasiliens. *Arkiv Naturgesellschafte Berlin* 1868:323–356.

Herrmann J. 1804. Observationes Zoologicae: quibus novae complures aliaeque animalium species, describuntur et illustrantur (opus posthumum) edidit Fridericus Ludovicus Hammer. Amandum Koenig, Paris. DOI

Hoffstetter R. 1939. Contribution à l'étude des Elapidae actuels et fossiles et de l'ostéologie des ophidians. *Archives du Muséum d'Histoire Naturelle de Lyon* 15:1–78.

Hoge A.R. 1953. Notas herpetólogicas. 1a. Contribuição ao conhecimento dos ofídios do Brasil Central. *Memórias do Instituto Butantan* 24:179–214.

Hoge A.R. 1954. A new *Bothrops* from Brazil, *Bothrops brazili* sp. nov. *Memóri sas do Instituto Butantan* 25:15–21.

Hoge A.R. 1955. Eine neue Schlange der Gattung Elapomorphus aus Brasilien. *Senckenbergiana Biologica* 36:301–304.
Hoge A.R. 1957. Uma nova espécie de *Micrurus* (Serp. Elap.) do Brasil. *Memórias do Instituto Butantan* 27:67–72.
Hoge A.R. 1966. Preliminary account on Neotropical Crotalinae (Serpentes: Viperidae). *Memórias do Instituto Butantan* 32:109–184.
Hoge A.R., Belluomini H.E. 1959. Uma nova espécie de *Bothrops* do Brasil (Serpentes). *Memórias do Instituto Butantan* 28:195–206.
Hoge A.R., Lancini A.R. 1959. Nota sobre *Micrurus surinamensis nattereri* Schmidt e *Micrurus pyrrhocryptus* Cope. *Memórias do Instituto Butantan* 29:9–13.
Hoge A.R., Lancini A.R. 1962. Sinopsis de las serpientes venenosas de Venezuela. *Publicaciones Ocasionales del Museo de Ciencias Naturales, Caracas, Venezuela, Zoologia* 1:1–24.
Hoge A.R., Lima-Verde J.S. 1973. *Liophis mossoroensis* nov. sp. do Brasil (Serpentes: Colubridae). *Memórias do Instituto Butantan* 36:215–220.
Hoge A.R., Romano S.A.R.W.L. 1966. *Leptomicrurus* in Brasil (Serpentes–Elapidae). *Memorias do Instituto Butantan* 32:1–8.
Hoge A.R., Romano S.A.R.W.L. 1978. Redescription and range of *Sordellina punctata* (Peters)(Serpentes: Colubridae). *Memórias do Instituto Butantan* 40/41:63–70.
Hoge A.R., Cordeiro C.L., Romano S.A.R.W.L. 1975. Posição taxonômica de *Lystrophis nattereri* (Steindachner) (Serpentes, Colubridae). *Memórias do Instituto Butantan* 39:37–50.
Hoogmoed M.S. 1977. Notes on the herpetofauna of Surinam. V. On a new species of *Leptotyphlops* from Surinam, with notes on the other Surinam species of the genus (Leptotyphlopidae, Serpentes). *Zoologische Mededelingen* 51:99–123.
Hoogmoed M.S. 1980. Revision of the genus *Atractus* in Surinam, with the resurrection of two species (Colubridae, Reptilia). *Zoologische Verhandelingen* 175:3–47.
Hoogmoed M.S., Prudente A.L.C. 2003. A new species of *Atractus* (Reptilia: Ophidia: Colubridae: Dipsadinae) from the Amazon forest region in Brazil. *Zoologische Mededelingen, Leiden* 77:425–439.
Hoogmoed M.S., Fernandes R., Kucharzewski C., Moura-Leite J.C., Bérnils R.S., Entiauspe-Neto O.M., Rêgos dos Santos F.P. 2019. Synonymization of *Uromacer ricardinii* Peracca, 1897 with *Dendrophis aurata* Schlegel, 1837 (Reptilia: Squamata: Colubridae: Dipsadinae), a rare South American snake with a disjunct distribution. *South American Journal of Herpetology* 14:88–102. DOI
Humboldt A. von, Bonpland A. 2009. Essay on the Geography of Plants. University of Chicago Press, Chicago. DOI
ICMBio (Instituto Chico Mendes de Conservação da Biodiversidade). 2018. Livro Vermelho da Fauna Brasileira Ameaçada de Extinção: Volume IV – Répteis. ICMBio/MMA, Brasília.
Ihering R. 1911. As cobras do Brazil. Primeira parte. *Revista do Museu Paulista* 8:273–379.
IUCN 2012. IUCN Red List Categories and Criteria: Version 3.1. 2nd ed. IUCN Species Survival Commission. IUCN, Gland and Cambridge.
Jan G. 1858. Plan d'une iconographie descriptive des ophidiens et description sommaire de nouvelles espèces des serpents. *Revue et Magasin de Zoologie, Paris* 10:438–449.
Jan G. 1861. Iconographie Générale des Ophidiens. Deuxième Livraison. J.B. Baillière et Fils, Paris. DOI
Jan G. 1862. Enumerazione sistematica delle specie d'ofidi del gruppo Calamaridae. *Archivio per la Zoologia, l'Anatomia ed la Fisiologia* 2:1–76.
Jan G. 1863. Enumerazione sistematica degli ofidi appartenenti al gruppo Coronellidae. *Archivio per la Zoologia, l'Anatomia ed la Fisiologia* 2:213–330.
Jan G. 1865. Iconographie Générale des Ophidiens. Onzième Livraison. J.B. Baillière et Fils, Paris. DOI
Jan G., Sordelli M.F. 1872. Iconographie Générale des Ophidiens. 41ème Livraison. J.B. Baillière et Fils, Paris. DOI
Jan G., Sordelli F. 1865. Iconographie Générale des Ophidiens. V.1, Livr. 9–14. Édition des Auteurs, Milano.
Jansen M., Álvarez L.G., Köhler G. 2009. Description of a new species of *Xenopholis* (Serpentes: Colubridae) from the Cerrado of Bolivia, with comments on *Xenopholis scalaris* in Bolivia. *Zootaxa* 2222:31–45. DOI
Jenkins C.N., Pimm S.L., Joppa L.N. 2013. Global patterns of terrestrial vertebrate diversity and conservation. *Proceedings of the National Academy of Sciences of the United States of America* 110:E2602–E2610. DOI
Jensen A.S. 1900. Lagoa Santa Egnens Slanger. *Videnskabelige meddelelser fra den Dansk Naturhistorisk forening i Kjøbenhavn* 1899:99–111.
Jetz W., McPherson J.M., Guralnick R.P. 2012. Integrating biodiversity distribution knowledge: toward a global map of life. *Trends in Ecology & Evolution* 27:151–159. DOI
Kacoliris F.P., Berkunsky I., Williams J. 2006. Herpetofauna of the Argentinean impenetrable Great Chaco. *Phyllomedusa* 5:149–157. DOI
Kawashita-Ribeiro R.A., Ávila R.W., Morais D.H. 2013. A new snake of the genus *Helicops* Wagler, 1830 (Dipsadidae, Xenodontinae) from Brazil. *Herpetologica* 69:80–90. DOI
Kawashita-Ribeiro R.A., Carvalho V.T., Lima A.C., Ávila R.W., Fraga R. 2011. Morphology and geographical distribution of the poorly known snake *Umbrivaga pygmaea* (Serpentes: Dipsadidae) in Brazil. *Phyllomedusa* 10:177–182. DOI
Kornacker P.M. 1999. Checklist and Key to the Snakes of Venezuela/ Lista Sistemática y Claves para las Serpientes de Venezuela. PaKo-Verlag, Rheinbach.
Koslowsky J. 1898. Ofidios de Matto-Grosso (Brasil). *Revista del Museo de La Plata* 8:25–33.
Lacerda J.B. 1884. Leçons sur le Venin des Serpents du Brésil et sur la Méthode de Traitement des Morsures Venimeuses par le Permanganate de Potasse. Lombaerts & C., Rio de Janeiro.
Laffan S.W., Lubarsky E., Rosauer D.F. 2010. Biodiverse, a tool for the spatial analysis of biological and related diversity. *Ecography* 33:643–647. DOI
Lancini A.R. 1962. Una nueva especie de serpiente coral (Serpentes: Elapidae) del Peru. *Publicaciones Ocasionales del Museo de Ciencias Naturales, Caracas* 2:1–3.
Laurent R.F. 1949. Note sur quelques reptiles appartenant à la collection de l'Institut Royal des Sciences Naturelles de Belgique. III. Formes américaines. *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique* 25:1–20.
Laurent R.F. 1984. El género *Leptotyphlops* en la colección de la Fundación Miguel Lillo. *Acta Zoologica Lilloana* 38:29–34.
Laurenti J.N. 1768. Specimen medicum, exhibens synopsin reptilium emendatam cum experimentis circa venena et antidota reptilium austriacorum. Joan Thomae, Viennae. DOI
Leão S.M., Pelegrin N., Nogueira C.C., Brandão R.A. 2014. Natural history of *Bothrops itapetiningae* Boulenger, 1907 (Serpentes: Viperidae: Crotalinae), an endemic species of the Brazilian Cerrado. *Journal of Herpetology* 48:324–331. DOI
Leite P.T., Nunes S.F., Cechin S.Z. 2007. Dieta e uso de habitat da jararaca-do-brejo, *Mastigodryas bifossatus* Raddi (Serpentes, Colubridae) em domínio subtropical do Brasil. *Revista Brasileira de Zoologia* 24:729–734. DOI
Lema T. 1964. Uma nova espécie de serpente do gênero *Siphlophis* Fitzinger, 1843 do Brasil Meridional (Colubridae, Xenodontinae). *Revista Brasileira de Biologia* 24:221–228.
Lema T. 1984. Sobre o gênero *Elapomorphus* Wiegmann, 1843 (Serpentes, Colubridae, Elapomorphinae). *Iheringia* 64:53–86.
Lema T. 1987. Lista preliminar das serpentes registradas para o Estado do Rio Grande do Sul (Brasil Meridional) (Reptilia, Lepidosauria, Squamata). *Acta Biologica Leopoldensia* 9:225–240.
Lema T. 1994. Lista comentada dos répteis do Rio Grande do Sul. *Comunicações do Museu de Ciências e Tecnologia da Pontifícia Universidade Católica do Rio Grande do Sul, Série Zoologia* 7:41–150.
Lema T. 2002. Redescription of *Apostolepis sanctaeritae* (Serpentes, Colubridae), and a comparison with related species. *Copeia* 2002:1147–1151. DOI
Lema T. 2003. Descrição de nova espécie de *Apostolepis* Cope do cerrado do Brasil, pertencente ao grupo *dimidiata* (Serpentes, Elapomorphinae). *Acta Biologica Leopoldensia* 25:123–131.
Lema T. 2004. New species of *Tantilla* Baird & Girard from northeastern Brazil (Serpentes, Colubrinae). *Acta Biologica Leopoldensia* 26:267–283.

Lema T. 2016. Description of new species of *Apostolepis* (Serpentes: Dipsadidae: Xenodontinae: Elapomorphini) from Serra do Roncador, Central Brazil. *Caderno de Pesquisa, Série Biologia* 28:1–12.

Lema T., Deiques C.H. 2010. Description of a new genus for allocation of *Elapomorphus lepidus* and the status of *Elapomorphus wuchereri* (Serpentes: Dipsadidae: Xenodontinae: Elapomorphini). *Neotropical Biology and Conservation* 5:113–119. DOI

Lema T., Renner M.F. 2004. New species of *Apostolepis* from Alto Tocantins, Brazil, with comments on the striped pattern species (Serpentes, Elapomorphinae). *Biociências* 12:139–145.

Lema T., Renner M.F. 2005. Contribuição ao conhecimento taxonômico de *Apostolepis flavotorquata* (Serpentes, Elapomorphinae). *Biociências* 13:163–175.

Lema T., Renner M.F. 2006. A new species of *Apostolepis* with striped pattern from Mato Grosso, Brasil (Serpentes, Elapomorphine). *Ciência em Movimento* 8:13–18.

Lema T., Renner M.F. 2016. Status of *Apostolepis borellii* Peracca 1904 (Serpentes, Xenodontinae), with restriction of the *A. nigroterminata* concept. *Neotropical Biology and Conservation* 11:62–71. DOI

Lema T., Araújo M.L., Azevedo A.C.P. 1983. Contribuição ao conhecimento da alimentação e do modo alimentar de serpentes do Brasil. *Comunicações do Museu de Ciências e Tecnologia da Pontifícia Universidade Católica do Rio Grande do Sul* 26:41–121.

Lema T., Renner M.F., Nascimento-Silva C. 2005a. Contribution to the knowledge of *Apostolepis ambiniger* (Peters, 1869) (Serpentes: Elapomorphinae). *Comunicações do Museu de Ciência e Tecnologia da Pontifícia Universidade Católica do Rio Grande do Sul* 18:21–36.

Lema T., D'Agostini F.M., Cappellari L.H. 2005b. Nova espécie de *Phalotris,* redescrição de *P. tricolor* e osteologia craniana (Serpentes, Elapomorphinae). *Iheringia, Série Zoologia* 95:65–78. DOI

Lewinsohn T.M., Prado P.I. 2005. How many species are there in Brazil? *Conservation Biology* 19:619–624. DOI

Leynaud G.C., Bucher E.H. 2005. Restoration of degraded Chaco woodlands: effects on reptile assemblages. *Forest Ecology and Management* 213:384–390. DOI

Lichtenstein H. 1823. Verzeichniss der Doubletten des zoologischen Museums der Königl. Universität zu Berlin nebst Beschreibung vieler bisher unbekannter Arten von Säugethieren, Vögeln, Amphibien und Fischen. Königl. T. Trautwein, Berlin. DOI

Linnaeus C. 1758. Systema naturæ per regna tria naturæ, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio decima, reformata. Laurentii Salvii, Holmiae. DOI

Linnaeus C. 1766. Systema naturæ per regna tria naturæ, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio duodecima, Reformata. Laurentii Salvii, Holmiae. DOI

Loebmann D., Haddad C.F.B. 2010. Amphibians and reptiles from a highly diverse area of the Caatinga domain: composition and conservation implications. *Biota Neotropica* 10:227–256. DOI

Lozier J.D., Aniello P., Hickerson M.J. 2009. Predicting the distribution of Sasquatch in western North America: anything goes with ecological niche modelling. *Journal of Biogeography* 36:1623–1627. DOI

Luiselli L. 2006. Testing hypotheses on the ecological patterns of rarity using a novel model of study: snake communities worldwide. *Web Ecology* 6:44–58. DOI

Lynch J.D. 2009. Snakes of the genus *Oxyrhopus* (Colubridae: Squamata) in Colombia: taxonomy and geographic variation. *Papéis Avulsos de Zoologia* 49:319–337. DOI

MacCulloch R.D., Lathrop A. 2004. A new species of *Dipsas* (Squamata: Colubridae) from Guyana. *Revista de Biologia Tropical* 52:239–247. DOI

Mace G.M., Collar N.J., Gaston K.J., Hilton-Taylor C., Akçakaya H.R., Leader-Williams N., ... Stuart S.N. 2008. Quantification of extinction risk: IUCN's system for classifying threatened species. *Conservation Biology* 22:1424–1442. DOI

Machado O. 1945. Estudos comparativos sobre ofídios do Brasil. *Boletim do Instituto Vital Brazil* 5:17–36.

Machado-Filho P.R., Duarte M.R., do Carmo L.F., Franco F.L. 2011. New record of *Corallus cropanii* (Boidae, Boinae): a rare snake from the vale do Ribeira, State of São Paulo, Brazil. *Salamandra* 47:112–115.

Manzanilla J., Sánchez D. 2005. Una nueva especie de *Thamnodynastes* (Serpentes: Colubridae) del macizo del Turimiquire, noreste de Venezuela. *Memorias de la Fundación La Salle de Ciencias Naturales* 161/162:61–75.

Manzanilla J., Sánchez D., Martinez-Solano I., Buckley D., Souza L. 2006. Historia natural, notas taxonómicas y estado de conservación de *Mabuya croizati* Horton, 1973 (Reptilia: Scincidae). *Herpetotropicos* 3:41–50.

Marques O.A.V. 2002. Natural history of the coral snake *Micrurus decoratus* (Elapidae) from the Atlantic Forest in southeast Brazil, with comments on possible mimicry. *Amphibia-Reptilia* 23:228–232.

Marques O.A.V., Sazima I. 2004. História natural dos répteis da Estação Ecológica Juréia-Itatins. Pp. 257–277, in Marques O.A.V., Duleba W. (Eds.), Estação Ecológica Juréia-Itatins. Ambiente Físico, Flora e Fauna. Editora Holos, Ribeirão Preto.

Marques O.A.V., Eterovic A., Sazima I. 2001. Serpentes da Mata Atlântica: Guia Ilustrado para a Serra do Mar. Editora Holos, Ribeirão Preto.

Marques O.A.V., Martins M., Sazima I. 2002. A new insular species of pitviper from brazil, with comments on evolutionary biology and conservation of the *Bothrops jararaca* group (Serpentes, Viperidae). *Herpetologica* 58:303–312. DOI

Marques O.A.V., Almeida-Santos S.M., Rodrigues M.G. 2006. Activity patterns in coral snakes, genus *Micrurus* (Elapidae), in South and Southeastern Brazil. *South American Journal of Herpetology* 1:114–120. DOI

Marques O.A.V., Pereira D.N., Barbo F.E., Germano V.J., Sawaya R.J. 2009. Os répteis do município de São Paulo: diversidade e ecologia da fauna pretérita e atual. *Biota Neotropica* 9:139–150. DOI

Marques R., Tinôco M.S., Couto-Ferreira D., Fazolato C.P., Browne-Ribeiro H.C., Travassos M.L.O., ... Mota J.V.L. 2011. Reserva Imbassaí Restinga: inventory of snakes on the northern coast of Bahia, Brazil. *Journal of Threatened Taxa* 3:2184–2191. DOI

Marques R., Rödder D., Solé M., Tinôco M.S. 2017. Diversity and habitat use of snakes from the coastal Atlantic rainforest in northeastern Bahia, Brazil. *Salamandra* 53:34–43.

Marra-Santos F.J., Reis R.E. 2018. Two new blind snake species of the genus *Liotyphlops* (Serpentes: Anomalepididae), from Central and South Brazil. *Copeia* 106:507–514. DOI

Martins M., Oliveira M.E. 1993. The snakes of the genus *Atractus* Wagler (Reptilia: Squamata: Colubridae) from the Manaus region, central Amazonia, Brazil. *Zoologische mededelingen* 67:21–40.

Martins M., Oliveira M.E. 1998. Natural history of snakes in forests of the Manaus region, central Amazonia, Brazil. *Herpetological Natural History* 6:78–150.

Martins M., Marques O.A.V., Sazima I. 2002. Ecological and phylogenetic correlates of feeding habits in Neotropical pitvipers of the genus *Bothrops*. Pp. 307–328, in Schuett G.W., Höggren M., Douglas M.E., Greene H.W. (Eds.), Biology of the Vipers. Eagle Mountain Publishing, Eagle Mountain.

Martins M., Sawaya R.J., Marques O.A.V. 2008a. A first estimate of the population size of the critically endangered lancehead, *Bothrops insularis*. *South American Journal of Herpetology* 3:168–174. DOI

Martins M., Marques O.A.V., Sazima I. 2008b. How to be arboreal and diurnal and still stay alive: microhabitat use, time of activity, and defense in neotropical forest snakes. *South American Journal of Herpetology* 3:58–67. DOI

McDiarmid R.W., Donnelly M.A. 2005. The herpetofauna of the Guayana Highlands: amphibians and reptiles of the Lost World. Pp. 461–560, in Donnelly M.A., Crother B.I., Guyer C., Wake M.H., White M.E. (Eds.), Ecology and Evolution in the Tropics: a Herpetological Perspective. University of Chicago Press, Chicago.

Melo-Sampaio P.R., Passos P., Fouquet A., Prudente A.L.C., Torres-Carvajal O. 2019. Systematic review of *Atractus schach* (Serpentes: Dipsadidae) species complex from the Guiana Shield with description of three new species. *Systematics and Biodiversity* 17:207–229. DOI

Merrem B. 1820. Versuch eines Systems der Amphibien I.J.C. Kriegeri, Marburg. DOI

Meyer C., Kreft H., Guralnick R., Jetz W. 2015. Global priorities for an effective information basis of biodiversity distributions. *Nature Communications* 6:8221. DOI

Mikan J.C. 1820. Delectus Florae et Faunae Brasiliensis. Antonii Strauss, Wien.

Miranda-Ribeiro A. 1915. *Lachesis lutzi,* uma variedade de *Lachesis pictus* Tschudi. *Arquivos do Museu Nacional, Rio de Janeiro* 17:3–4.

Mittermeier R.A., Robles-Gil P., Mittermeier C.G. 1997. Megadiversity: Earth's Biologically Wealthiest Nations. CEMEX, Mexico City.

Mittermeier R.A., Mittermeier C.G., Pilgrim J., Fonseca G., Konstant W.R. 2002. Wilderness: Earth's Last Wild Places. CEMEX, Mexico City.

Mohammed R.S., Manickchan S.A., Charles S.P., Murphy J.C. 2014. The herpetofauna of Southeast Trinidad, Trinidad and Tobago. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 2014:12–20.

Montingelli G.G., Zaher H. 2011. New species of *Mastigodryas* Amaral, 1934 from Brazilian Amazonia and Guyana (Serpentes: Colubridae). *Journal of Herpetology* 45:111–119. DOI

Montingelli G.G., Grazziotin F.G., Battilana J., Murphy R.W., Zhang Y.P., Zaher H. 2019. Higher-level phylogenetic affinities of the Neotropical genus *Mastigodryas* Amaral, 1934 (Serpentes: Colubridae), species-group definition and description of a new genus for *Mastigodryas bifossatus. Journal of Zoological Systematics and Evolutionary Research* 57:205–239. DOI

Moraes-da-Silva A., Amaro R.C., Nunes P.M.S., Strüssmann C., Teixeira M.J., Andrade A.J., ... Curcio F.F. 2019. Chance, luck and a fortunate finding: a new species of watersnake of the genus *Helicops* Wagler, 1828 (Serpentes: Xenodontinae), from the Brazilian Pantanal Wetlands. *Zootaxa* 4651:445–470. DOI

Morais D.H., Mott T., Kawashita-Ribeiro R.A., Santos-Jr. A.P. 2010. Reptilia, Squamata, Dipsadidae, Xenodontinae, *Taeniophallus brevirostris* (Peters, 1863): distribution extension and new state record. *Check List* 6:456–457. DOI

Morais S.M.R. 2010. Levantamento da Taxocenose de Squamata em uma Área de Pampa em Santana do Livramento, RS, Brasil. B.Sc. Thesis, Universidade Federal do Rio Grande do Sul, Brazil.

Morais A.R., Bastos R.P., Vieira R., Signorelli L. 2011. Herpetofauna da Floresta Nacional de Silvânia, um remanescente de Cerrado no Brasil Central. *Neotropical Biology and Conservation* 7:114–121. DOI

Morato S.A.A. 1995. Padrões de Distribuição da Fauna de Serpentes da Floresta de Araucária e Ecossistemas Associados na Região Sul do Brasil. M.Sc. Thesis, Universidade Federal do Paraná, Brazil.

Morato S.A.A. 2005. Serpentes da Região Atlântica do Estado do Paraná, Brasil: Diversidade, Distribuição e Ecologia. Ph.D. Dissertation, Universidade Federal do Paraná, Brazil.

Morato S.A.A., Franco F.L., Sanches E.J. 2003. Uma nova espécie de *Clelia* (Serpentes, Colubridae) do sul do Brasil. *Phyllomedusa* 2:93–100. DOI

Morato S.A.A., Moura-Leite J.C., Prudente A.L.C., Bérnils R.S. 1995. A new species of *Pseudoboa* Schneider, 1801 from southeastern Brazil (Serpentes:Colubridae: Xenodontinae: Pseudoboini). *Biociências* 3:253–264.

Moreira L.A., Fenolio D.B., Silva H.L.R., Silva N.J. Jr. 2009. A preliminary list of the herpetofauna from termite mounds of the Cerrado in the Upper Tocantins river valley. *Papeis Avulsos de Zoologia* 49:183–189. DOI

Myers C.W. 1974. The systematics of *Rhadinaea* (Colubridae), a genus of New World snakes. *Bulletin of the American Museum of Natural History* 153:1–262.

Myers C.W. 1982. Blunt-headed vine snakes (*Imantodes*) in Panama, including a new species and other revisionary notes. *American Museum Novitates* 2738:1–50.

Myers C.W. 2010. A new genus and new tribe for *Enicognathus melanauchen* Jan, 1863, a neglected South American snake (Colubridae: Xenodontinae), with taxonomic notes on some Dipsadinae. *American Museum Novitates* 3715:1–33. DOI

Myers C.W. 2011. A new genus and new tribe for *Enicognathus melanauchen* Jan, 1863, a neglected South American snake (Colubridae: Xenodontinae), with taxonomic notes on some Dipsadinae. *American Museum Novitates* 3715:1–33. DOI

Myers C.W., Donnelly M.A. 2008. The summit herpetofauna of Auyantepui, Venezuela: report from the Robert G. Goelet American Museum–Terramar Expedition. *Bulletin of the American Museum of Natural History* 2008:1–147. DOI

Myers N., Mittermeier R.A., Mittermeier C.G., Fonseca G.A.B., Kent J. 2000. Biodiversity hotspots for conservation priorities. *Nature* 403:853–858. DOI

Nascimento B.T.M., Maffei F., Moya G.M., Donatelli R.J. 2017. *Atractus albuquerquei* Cunha & Nascimento, 1983 (Serpentes, Dipsadidae): first record for the state of Minas Gerais, southeastern Brazil. *Check List* 13:2078. DOI

Nascimento F.P., Ávila-Pires T.C.S., Santos I.N.F.F., Lima A.C.M. 1991. Répteis de Marajó e Mexiana, Pará, Brasil. I. Revisão Bibliográfica e novos registros. *Boletim do Museu Paraense Emílio Goeldi, Série Zoologia* 7:25–41.

Nelson G. 1978. From Candolle to Croizat: comments on the history of biogeography. *Journal of the History of Biology* 11:269–305. DOI

Nenda S.J., Di Pietroi D.O. 2009. Serpentes, Dipsadidae, Echinantherini, *Taeniophallus poecilopogon* (Cope, 1863): Rediscovery in Argentina. *Check List* 5:503–506. DOI

NGA. 2019. Geonet names server - GNS. Country Files. Vol. 2019. Accessible at http://geonames.nga.mil/gns/html. Accessed: 10 September 2019.

Nopcsa F.B. 1923. Die Familien der Reptilien. Fortschritte der Geologie und Paleontologie. Gebrüder Borntraeger, Berlin.

Nogueira C.C. 2001. New records of Squamate reptiles in Central Brazilian Cerrado II: Brasília Region. *Herpetological Review* 32:285–287.

Nogueira C., Sawaya R.J., Martins M. 2003. Ecology of the pitviper, *Bothrops moojeni,* in the Brazilian Cerrado. *Journal of Herpetology* 37:653–659. DOI

Nogueira C., Colli G.R., Costa G., Machado R.B. 2010. Diversidade de répteis Squamata e evolução do conhecimento faunístico no Cerrado. Pp. 331–371, in Diniz I.R., Marinho-Filho J., Machado R.B., Cavalcanti R.B. (Eds.), Cerrado: Conhecimento Científico Quantitativo como Subsídio para Ações de Conservação. Editora UnB, Brasília.

Nogueira C., Ribeiro S., Costa G.C., Colli G.R. 2011. Vicariance and endemism in a Neotropical savanna hotspot: distribution patterns of Cerrado squamate reptiles. *Journal of Biogeography* 38:1907–1922. DOI

Nogueira C., Barbo F.E., Ferrarezzi H. 2012. Redescription of *Apostolepis albicollaris* Lema, 2002, with a key for the species groups of the genus *Apostolepis* (Serpentes: Dipsadidae: Elapomorphini). *South American Journal of Herpetology* 7:213–225. DOI

Oliveira I.S., Silva M.O. 2007. *Phrynohyas* spp. (Golden-eyed Treefrogs). Predation. *Herpetological Review* 38:70.

Oliveira J.L. 2001. Ecologia de Três Espécies de Dormideira, *Sibynomorphus* (Serpentes: Colubridae). M.Sc. Thesis, Universidade de São Paulo, Brazil.

Oliveira R.B., Di-Bernardo M., Pontes G.M.F., Maciel A.P., Krause L. 2001. Dieta e comportamento alimentar da cobra nariguda, *Lystrophis dorbignyi* (Duméril, Bibron & Duméril, 1854), no Litoral Norte do Rio Grande do Sul, Brasil. *Cuadernos de Herpetologia* 14:117–122.

Oliveira-Santos L.G., Leuchtenberger C. 2009. *Tupinambis merianae* (White Tegu), *Tupinambis teguixin* (Golden Tegu). Predation on snakes. *Herpetological Review* 40:92.

Olson D.M., Dinerstein E., Wikramanayake E.D., Burgess N.D., Powell G.V.N., Underwood E.C., ... Kassem K.R. 2001. Terrestrial ecoregions of the world: a new map of life on Earth. A new global map of terrestrial ecoregions provides an innovative tool for conserving biodiversity. *BioScience* 51:933–938. DOI

Oppel M. 1811. Mémoire sur la classification des reptiles. Ordre II. Reptiles à écailles. Section II. Ophidiens. *Annales du Muséum d'Histoire Naturelle de Paris* 16:254–295.

Orejas-Miranda B.R. 1961. Una nueva especie de ofidio de la familia Leptotyphlopidae. *Acta Biologica Venezuelica, Caracas* 3:83–97.

Orme C.D.L., Davies R.G., Burgess M., Eigenbrod F., Pickup N., Olson V.A., ... Owens I.P.F. 2005. Global hotspots of species rich-

ness are not congruent with endemism or threat. *Nature* 436:1016–1019. DOI

Orme C.D.L., Davies R.G., Olson V.A., Thomas G.H., Ding T.S., Rasmussen P.C., ... Gaston K.J. 2006. Global patterns of geographic range size in birds. *PLoS Biology* 4:1276–1283. DOI

Parker H.W. 1940. Undescribed anatomical structures and new species of reptiles and amphibians. *Annals and Magazine of Natural History (Series 11)* 5:257–274. DOI

Passos P., Fernandes R., Bérnils R.S., Moura-Leite J.C. 2010. Taxonomic revision of the Brazilian Atlantic Forest *Atractus* (Reptilia: Serpentes: Dipsadidae). *Zootaxa* 2364:1–63. DOI

Passos P., Fernandes R. 2008. Revision of the *Epicrates cenchria* complex (Serpentes: Boidae). *Herpetological Monographs* 22:1–30. DOI

Passos P., Fernandes D.S., Caramaschi U. 2004. The taxonomic status of *Leptognathus incertus* Jan, 1863, with revalidation of *Dipsas alternans* (Fischer, 1885) (Colubridae: Dipsadinae). *Amphibia-Reptilia* 25:381–393. DOI

Passos P., Fernandes R., Zanella N. 2005. A new species of *Atractus* (Serpentes: Colubridae) from Southern Brazil. *Herpetologica* 61:209–218. DOI

Passos P., Caramaschi U., Pinto R.R. 2006. Redescription of *Leptotyphlops koppesi* Amaral, 1954, and description of a new species of the *Leptotyphlops dulcis* group from Central Brazil (Serpentes: Leptotyphlopidae). *Amphibia-Reptilia* 27:347–357. DOI

Passos P., Fernandes D.S., Borges-Nojosa D.M. 2007. A new species of *Atractus* (Serpentes: Dipsadinae) from a relictual forest in Northeastern Brazil. *Copeia* 2007:788–797. DOI

Passos P., Mueses-Cisneros J.J., Lynch J.D., Fernandes R. 2009. Pacific lowland snakes of the genus *Atractus* (Serpentes: Dipsadidae), with description of three new species. *Zootaxa* 1835:1–34. DOI

Passos P., Fernandes R., Bernils R.S., Moura-Leite J.C. 2010. Taxonomic revision of the Brazilian Atlantic Forest *Atractus* (Reptilia: Serpentes: Dipsadidae). *Zootaxa* 2364:1–63. DOI

Passos P., Teixeira M. Jr., Recoder R.S., Sena M.A., Dal Vechio F., Pinto H.B.A., ... Rodrigues M.T. 2013. A new species of *Atractus* (Serpentes: Dipsadidae) from Serra do Cipó, Espinhaço Range, Southeastern Brazil, with proposition of a new species group to the genus. *Papéis Avulsos de Zoologia* 53:75–85. DOI

Passos P., Prudente A.L.C., Lynch J.D. 2016. Redescription of *Atractus punctiventris* and description of two new *Atractus* (Serpentes: Dipsadidae) from Brazilian Amazonia. *Herpetological Monographs* 30:1–20. DOI

Passos P., Prudente A.L.C., Ramos L.O., Caicedo-Portilla J.R., Lynch J.D. 2018. Species delimitations in the *Atractus collaris* complex (Serpentes: Dipsadidae). *Zootaxa* 4392:491–520. DOI

Passos P., Azevedo J.A.R., Nogueira C., Fernandes R., Sawaya R.J. 2019. An integrated approach to delimit species in the puzzling *Atractus emmeli* complex (Serpentes: Dipsadidae). *Herpetological Monographs* 33:1–25. DOI

Peracca M.G. 1897. Intorna ad una piccola raccolta di Rettili di Cononacco (Perù orientale). *Bollettino dei Musei di Zoologia e di Anatomia Comparata della R. Università di Torino* 12:1–7.

Peracca M.G. 1904. Viaggio del Dr. A. Borelli nel Matto Grosso brasiliano e nel Paraguay, 1899. IX. Rettili ed anfibi. *Bolletino del Museo Regionale de Torino* 19:1–15.

Pereira D.N., Stender-Oliveira F., Rodrigues M.G., Bérnils R.S. 2007. Distribution and habitat use of *Sordellina punctata* (Serpentes, Colubridae), with a new record from State of São Paulo, Brazil. *Herpetological Bulletin* 100:18–22.

Pérez-Santos C., Moreno A.G. 1988. Ofidios de Colombia. Monografia VI. Museo Regionale di Scienze Naturali di Torino, Turin.

Peters J.A. 1960. The snakes of the subfamily Dipsadinae. Miscellaneous Publications, Museum of Zoology, University of Michigan 114:1–224.

Peters W.C.H. 1858. Vier neue amerikanische Schlangen aus der Familie der Typhlopinen vor und machte darüber einige vorläusige Mittheilungen. *Monatsberichte der königlich Akademie der Wissenschaften zu Berlin* 1857:402–403.

Peters W.C.H. 1863. Über einige neue oder weniger bekannte Schlangenarten des zoologischen Museums zu Berlin. *Monatsberichte der königlich Akademie der Wissenschaften zu Berlin* 1863:272–289.

Peters W.C.H. 1867. Über Flederthiere (*Pteropus gouldii, Rhinolophus deckenii, Vespertilio lobipes, Vesperugo temminckii*) und Amphibien (*Hypsilurus godeffroyi, Lygosoma scutatum, Stenostoma narirostre, Onychocephalus unguirostris, Ahaetulla poylepis, Pseudechis scutella*). *Monatsberichte der königlich Akademie der Wissenschaften zu Berlin* 1867:703–712.

Peters W.C.H. 1869. Über neue Gattungen und neue oder weniger bekannte Arten von Amphibien (*Eremias, Dicrodon, Euprepes, Lygosoma, Typhlops, Eryx, Rhynchonyx, Elapomorphus, Achalinus, Coronella, Dromicus, Xenopholis, Anoplodipsas, Spilotes, Tropidonotus*). *Monatsberichte der königlich Akademie der Wissenschaften zu Berlin* 1869:432–445.

Peters W.C.H. 1871. Über eine von Hrn. Dr. Robert Abendroth in dem Hochlande von Peru gemachte Sammlung von Amphibien, welche derselbe dem Königl. zoologischen Museum geschenkt hat. *Monatsberichte der königlich Akademie der Wissenschaften zu Berlin* 1871:397–404.

Peters W.C.H. 1880. Eine Mittheilung über neue oder weniger bekannte Amphibien des Berliner Zoologischen Museums (*Leposoma dispar, Monopeltis* (*Phractogonus jugularis, Typhlops depressus, Leptocalamus drilineatus, Xenodon punctatus, Elapomorphus erythronotus, Hylomantis*). *Monatsberichte der königlich Akademie der Wissenschaften zu Berlin* 1880:217–224.

Peterson A.T., Navarro-Sigüenza A.G., Gordillo A. 2018. Assumption-versus data-based approaches to summarizing species' ranges. *Conservation Biology* 32:568–575. DOI

Pimm S.L., Jenkins C.N., Abell R., Brooks T.M., Gittleman J.L., Joppa L.N., ... Sexton J.O. 2014. The biodiversity of species and their rates of extinction, distribution, and protection. *Science* 344:987–997. DOI

Pimm S.L., Harris G., Jenkins C.N., Ocampo-Peñuela N., Li B.V. 2017. Unfulfilled promise of data-driven approaches: response to Peterson et al. *Conservation Biology* 31:944–947. DOI

Pinto R.R., Curcio F.F. 2011. On the generic identity of *Siagonodon brasiliensis,* with the description of a new Leptotyphlopid from Central Brazil (Serpentes: Leptotyphlopidae). *Copeia* 2011:53–63. DOI

Pinto R.R., Fernandes R. 2012. A new blind snake species of the genus *Tricheilostoma* from Espinhaço Range, Brazil and taxonomic status of *Rena dimidiata* (Jan, 1861) (Serpentes: Epictinae: Leptotyphlopidae). *Copeia* 2012:37–48. DOI

Pires M.G., Feitosa D.T., Prudente A.L.C., Silva N.J. 2013. First record of *Micrurus diana* Roze, 1983 (Serpentes: Elapidae) for Brazil and extension of its distribution in Bolivia, with notes on morphological variation. *Check List* 9:1556–1560. DOI

Pires M.G., Silva N.J. Jr., Feitosa D.T., Prudente A.L.C., Pereira-Filho G.A., Zaher H. 2014. A new species of triadal coral snake of the genus *Micrurus* Wagler, 1824 (Serpentes: Elapidae) from northeastern Brazil. *Zootaxa* 3811:569–584. DOI

Pontes J.A.L., Figueiredo J.P., Pontes R.C., Rocha C.F.D. 2008. Snakes from the Atlantic rainforest area of Serra do Mendanha, in Rio de Janeiro state, southeastern Brazil: a first approximation to the taxocenosis composition. *Brazilian Journal of Biology* 68:601–609. DOI

Pontes J.A.L., Gazêta G.S., Vrcibradic D., Rocha C.F.D. 2009. Ecology of ticks in a taxocenosis of snakes from the Serra do Mendanha, Rio de Janeiro, Brazil, with new host records. *Zoologia* 26:328–333. DOI

Powell R.L., Eversole C.B., Crocker A.V., Lizarro D., Bravo R.C. 2016. *Xenopholis werdingorum* Jansen, ÁLvarez & Köhler, 2009 (Squamata: Dipsadidae): range extension with comments on distribution. *Check List* 12:1985. DOI

Prado A. 1940. Notas Ofiológicas 2. Observações sobre os ofídios da fauna amazônica, com a descrição de um novo gênero e espécie. *Memórias do Instituto Butantan* 13:1–7.

Prado A. 1943. Notas Ofiológicas 14. Comentários acerca de algumas serpentes opistóglifas do gênero *Apostolepis,* com a descrição de uma nova espécie. *Memórias do Instituto Butantan* 16:7–12.

Prudente A.L.C., Feio R.N. 2001. *Siphlophis longicaudatus.* Geographic Distribution. *Herpetological Review* 32:125.

Prudente A.L.C., Passos P. 2008. New species of *Atractus* Wagler, 1828 (Serpentes: Dipsadinae) from Guyana Plateau in Northern Brazil. *Journal of Herpetology* 42:723–732. DOI

Prudente A.L.C., Passos P. 2010. New cryptic species of *Atractus* (Serpentes: Dipsadidae) from Brazilian Amazonia. *Copeia* 3:397–404. DOI

Prudente A.L.C., Santos-Costa M.C. 2006. A new species of *Atractus* Wagler, 1828 (Serpentes: Colubridae) from Eastern Amazonia, Brazil. *Zootaxa* 1285:21–29. DOI

Prudente A.L.C., Maschio G.F., Santos-Costa M.C., Feitosa D.T. 2010. Serpentes da Bacia Petrolífera de Urucu, Município de Coari, Amazonas, Brasil. *Acta Amazonica* 40:381–386. DOI

Prudente A.L.C., Ramos L.A.C., Silva T.M., Sarmento J.F.M., Dourado A.C.M., Silva F.M., … Sousa M. 2019. Dataset from the Snakes (Serpentes, Reptiles) collection of the Museu Paraense Emílio Goeldi, Pará, Brazil. *Biodiversity Data Journal* 7: e34013. DOI

Puorto G., Ferrarezzi H. 1994. Uma nova especie de *Phalotris* Cope, 1862, com comentários sobre o grupo *bilineatus* (Serpentes: Colubridae: Xenodontinae). *Memórias do Instituto Butantan* 55:39–46.

Pyron R.A., Burbrink F., Wiens J. 2013. A phylogeny and revised classification of Squamata, including 4161 species of lizards and snakes. *BMC Evolutionary Biology* 13:93. DOI

QGIS Development Team. 2018. Quantum GIS Geographic Information System. Version 2.18. Available from: www.qgis.org.

Quintela F.M., Martins R.P., Loebmann D. 2011a. Composição e uso do habitat pela herpetofauna em uma área de mata paludosa da Planície Costeira do Rio Grande do Sul, extremo sul do Brasil. *Revista Brasileira de Biociências* 9:6–11.

Quintela F.M., Medvedovsky I.G., Ibarra C., Neves L.F.D.M. Figueiredo M.R.C. 2011b. Reptiles recorded in Marinheiros Island, Patos Lagoon estuary, southern Brazil. *Herpetological Notes* 4:57–62.

Raddi G. 1820. Di alcune specie nuovi di rettili e piante brasiliana. *Memorie di Matematica e di Fisica della Società Italiana delle Scienze residente in Modena* 18:313–343.

Raxworthy C.J., Martinez-Meyer E., Horning N., Nussbaum R.A., Schneider G.E., Ortega-Huerta M.A., Peterson A.T. 2003. Predicting distributions of known and unknown reptile species in Madagascar. *Nature* 426:837–841 DOI

R Core Team. 2019. R: a language and environment for statistical computing. Version 3.3.1. Vienna, Austria: R Foundation for Statistical Computing. Available from: http://www.R-project.org.

Recoder R.S., Nogueira C. 2007. Composição e diversidade de répteis Squamata na região sul do Parque Nacional Grande Sertão Veredas, Brasil Central. *Biota Neotropica* 7:267–278. DOI

Recoder R.S., Teixeira M., Camacho A., Nunes P.M.S., Mott T., Valdujo P.H., … Rodrigues M.T. 2011. Répteis da Estação Ecológica Serra Geral do Tocantins, Brasil Central. *Biota Neotropica* 11:263–281. DOI

Reinhardt J. 1861. Herpetologiske Middelelser. II. Beskrivelser af nogle nye til Calamariernes Familie henhörende Slänger. *Videnskabelige Meddelelser fra den Naturhistoriske Forening i Kjöbenhavn* 2:229–250.

Ribeiro S.C., Roberto I.J., Sales D.L., Ávila R.W., de Oliveira Almeida W. 2012. Amphibians and reptiles from the Araripe bioregion, northeastern Brazil. *Salamandra* 48:133–146.

Rocha C.F.D., Bergallo H.G., Pombal J.P. Jr., Geise L., Van Sluys M., Fernandes F., Caramaschi U. 2004. Fauna de anfíbios, répteis e mamíferos do estado do Rio de Janeiro, Sudeste do Brasil. *Publicações Avulsas do Museu Nacional do Rio de Janeiro* 104:3–23.

Rocha C.F.D., Bergallo H.G., Vera Y Conde C.F., Bittencourt E.B., Santos H.C. 2008. Richness, abundance, and mass in snake assemblages from two Atlantic Rainforest sites (Ilha do Cardoso, São Paulo) with differences in environmental productivity. *Biota Neotropica* 8:117–122. DOI

Rocha C.F.D., Bergallo H.G., Alves M.A.S., Van Sluys M., Mazzoni R., Santos S.B. 2009. Fauna de ambientes interiores. Pp. 163–245, in Bastos M., Callado C.H. (Eds.), O Ambiente da Ilha Grande. Universidade Estadual do Rio de Janeiro, Rio de Janeiro.

Rodrigues F.S., Prudente A.L.C. 2011. The snake assemblage (Squamata: Serpentes) of a Cerrado-Caatinga transition area in Castelo do Piauí, state of Piauí, Brazil. *Zoologia* 28:440–448. DOI

Rodrigues G.M., Maschio G.F., Prudente A.L.C. 2016. Snake assemblages of Marajó Island, Pará state, Brazil. *Zoologia* 33:e20150020. DOI

Rodrigues M.T. 1991. Herpetofauna das dunas interiores do Rio São Francisco, Bahia, Brasil. IV. Uma nova espécie de *Typhlops* (Ophidia, Typhlopidae). *Papéis Avulsos de Zoologia* 37:343–346.

Rodrigues M.T. 1993. Herpetofauna of palaeoquaternary sand dunes of the middle Sao Francisco River: Bahia: Brazil. VI. Two new species of *Phimophis* (Serpentes: Colubridae) with notes on the origin of psammophilic adaptations. *Papéis Avulsos de Zoologia* 38:187–198.

Rodrigues M.T. 2003. Herpetofauna da Caatinga. Pp. 181–236, in Leal I.R., Tabarelli M., Silva J.M.C. (Eds.), Ecologia e Conservação da Caatinga. Universidade Federal de Pernambuco, Recife.

Rodrigues M.T. 2005. A biodiversidade dos Cerrados: conhecimento atual e perspectivas, com uma hipótese sobre o papel das matas galerias na troca faunística durante ciclos. Pp. 235–246, in Scariot A., Sousa-Silva J.C., Felfili J.M. (Eds.), Cerrado: Ecologia, Biodiversidade e Conservação. Ministério do Meio Ambiente, Brasília.

Rodrigues M.T., Juncá F.A. 2002. Herpetofauna of the quaternary sand dunes of the middle Rio São Francisco: Bahia: Brazil. VII. *Typhlops amoipira* sp. nov., a possible relative of *Typhlops yonenagae* (Serpentes, Typhlopidae). *Papéis Avulsos de Zoologia* 42:325–333. DOI

Rojas A., Serrano F. 2019. *Bothrops jararaca.* (Jararaca Pitviper). Diet. *Herpetological Review* 50:386.

Roll U., Feldman A., Novosolov M., Allison A., Bauer A.M., Bernard R., … Meiri S. 2017. The global distribution of tetrapods reveals a need for targeted reptile conservation. *Nature Ecology and Evolution* 1:1677–1682. DOI

Rossman D.A., Dixon J.R. 1975. A new colubrid snake of the genus *Helicops* from Peru. *Herpetologica* 31:412–414.

Roux J. 1910. Eine neue *Helicops*-Art aus Brasilien. *Zoologischer Anzeiger* 36:439–440.

Roze J.A. 1958. Resultados zoológicos de la expedición de la Universidad Central de Venezuela a la región del Auyantepui en la Guayana Venezolana, abril de 1956. 5. Los reptiles del Auyantepui, Venezuela, basándose en las colecciones de las expediciones de Phelps-Tate, del American Museum of Natural History, 1937–1938, y de la Universidad Central de Venezuela, 1956. *Acta Biologica Venezuelica* 2:243–270.

Roze J.A. 1961. El genero *Atractus* (Serpentes: Colubridae) en Venezuela. *Acta Biologica Venezuelica* 3:103–119.

Roze J.A. 1967. A checklist on the New World venomous coral snakes (Elapidae), with descriptions of new forms. *American Museum Novitates* 2287:1–60.

Roze J.A. 1983. New World coral snakes (Elapidae): a taxonomic and biological summary. *Memórias do Instituto Butantan* 46:305–338.

Roze J.A. 1987. Summary of coral snakes (Elapidae) from Cerro de la Neblina, Venezuela, with description of a new subspecies. *Revue Française d'Aquariologie* 14:109–112.

Roze J.A. 1996. Coral snakes of the Americas: Biology, identification and venoms. Krieger Publishing Company, Malabar.

Rueda-Solano L.A., Castellanos-Barliza J. 2010. Herpetofauna de Neguanje, Parque Nacional Natural Tayrona, caribe colombiano. *Acta Biologica Colombiana* 15:195–206.

Santana G.G., Vieira W.L.S., Pereira-Filho G.A., Delfim F.R., Lima Y.C., Vieira K.S. 2008. Herpetofauna em um fragmento de Floresta Atlântica no Estado da Paraíba, Região Nordeste do Brasil. *Biotemas* 21:75–84. DOI

Santos A.P. Jr., Frota J.G. 2002. *Liophis miliaris amazonicus* (Common Watersnake). Geographic Distribution. *Herpetological Review* 33:324.

Santos A.P., Di-Bernardo M., Lema T. 2008. New species of the *Taeniophallus occipitalis* group (Serpentes, Colubridae) from eastern Amazonia, Brazil. *Journal of Herpetology* 42:419–426. DOI

Santos F.M., Entiauspe-Neto O.M., Araújo J.S., Souza M.B., Lema T., Strussmann C, Albuquerque N.R. 2018. A new species of burrowing snake (Serpentes: Dipsadidae: *Apostolepis*) from the state of Mato Grosso, Central-West region of Brazil. *Zoologia* 35:1–10. DOI

Santos M.B., Huckembeck S., Bergmann F.B., Tozetti A.M. 2010. Aquatic feeding behavior of *Liophis jaegeri* (Günther 1858)(Serpentes, Dipsadidae) in captivity. *Biota Neotropica* 10:343–346. DOI

Santos M.B.D., Oliveira M.C.L.M.D., Tozetti A.M. 2012. Diversity and habitat use by snakes and lizards in coastal environments of southernmost Brazil. *Biota Neotropica* 12:78–87. DOI

Santos T.G., Kopp K.A., Spies M.R., Trevisan R., Cechin S.Z. 2005. Répteis do Campus da Universidade Federal de Santa Maria, RS, Brasil. *Biota Neotropica* 5:171–178. DOI

Santos-Costa M.C. 2003. História Natural das Serpentes da Estação Científica Ferreira Penna, Floresta Nacional de Caxiuanã, Melgaço, Pará Brasil. Ph.D. Thesis, Pontifícia Universidade Católica de Porto Alegre, Brazil.

Santos-Costa M.C., Maschio G.F., Prudente A.L.C. 2015. Natural history of snakes from Floresta Nacional de Caxiuanã, eastern Amazonia, Brazil. *Herpetology Notes* 8:69–98.

São-Pedro V.D.A., Pires M.R.S. 2009. As serpentes da região de Ouro Branco, extremo sul da Cadeia do Espinhaço, Minas Gerais. *Ceres* 56:166–171.

Sauvage H.E. 1884. Sur quelques Reptiles de la collection du Muséum d'Histoire Naturelle. *Bulletin de la Société Philomathique de Paris* 8:142–147.

Savage J.M., Campbell J.A., Lamar W.W. 2005. On names for neotropical rattlesnakes (Reptilia: Serpentes: Viperidae: *Crotalus*). *Herpetological Review* 36:369–371.

Sawaya R.J., Sazima I. 2003. A new species of *Tantilla* (Serpentes: Colubridae) from southeastern Brazil. *Herpetologica* 59:119–126. DOI

Sawaya R.J., Marques O.A.V., Martins M. 2008. Composition and natural history of a Cerrado snake assemblage at Itirapina, São Paulo state, southeastern Brazil. *Biota Neotropica* 8:127–149. DOI

Sazima I., Abe A.S. 1991. Habits of five Brazilian snakes with coral-snake pattern, including a summary of defensive tactics. *Studies on Neotropical Fauna and Environment* 26:159–164. DOI

Sazima I., Argôlo A.J. 1994. *Siphlophis pulcher. Herpetological Review* 25:126.

Sazima I., Manzini P.R. 1995. As cobras que vivem numa reserva florestal urbana. Pp. 78–82, in Morellato L.P.C., Leitão-Filho H.F. (Eds.), Ecologia e Preservação de uma Floresta Tropical Urbana. Editora da Unicamp, Campinas.

Sazima I., Puorto G. 1993. Feeding technique of juvenile *Tropidodryas striaticeps:* probable caudal luring in a colubrid snake. *Copeia* 1993:222–226. DOI

Scartozzoni R.R. 2010. Estratégias reprodutivas e ecologia alimentar de serpentes aquáticas da tribo Hydropsini (Dipsadidae, Xenodontinae). Ph.D. Dissertation, Universidade de São Paulo, Brazil.

Scartozzoni R.R., Marques O.A.V. 2004. Sexual dimorphism, reproductive cycle, and fecundity of the Brazilian water snake *Ptychophis flavovirgatus* (Serpentes, Colubridae). *Phyllomedusa* 3:69–71. DOI

Scartozzoni R.R., Trevine V.C., Germano V.J. 2010. Reptilia, Squamata, Serpentes, Dipsadidae, *Pseudoeryx plicatilis* (Linnaeus, 1758): new records and geographic distribution map. *Check List* 6:534–537. DOI

Schargel W.E., Lamar W.W., Passos P., Valencia J.H., Cisneros-Heredia D.F., Campbell J.A. 2013. A new giant *Atractus* (Serpentes: Dipsadidae) from Ecuador, with notes on some other large Amazonian congeners. *Zootaxa* 3721:455–474. DOI

Schätti B. 1986. Catalogue des types et des exemplaires figures du Musée d'Histoire Naturelle de Neuchâtel. II. Ophidiens. *Bibliothèques et Musées de la Ville de Neuchâte* 1985:98–108.

Schenkel E. 1901. Achter Nachtrag zum Katalog der herpetologischen Sammlung des Basler Museums. *Verhandlungen der Naturforschenden Gesellschaft in Basel* 13:142–199.

Schlegel H. 1837. Essai sur la Physionomie des Serpents. I. Partie Générale. II. Partie Descriptive. Atlas, 21 Planches et 3 Cartes. Arnz Arnz & Comp., Leiden. DOI

Schlegel H. 1839. Abbildungen neuer oder unvollständig bekannter Amphibien, nach der Natur oder dem Leben entworfen herausgegeben und mit einem erläuternden Texte begleitet. Arnz & Comp., Düsseldorf.

Schmidt K.P. 1939. A new coral snake from British Guyana. *Field Museum of Natural History Publications, Zoological Series* 24:45–47. DOI

Schmidt K.P. 1952. The surinam coral snake. *Fieldiana Zoology* 34:25–34.

Schmidt K.P. 1953. The Amazonian coral snake, *Micrurus spixi. Fieldiana Zoology* 34:171–180. DOI

Schmidt K.P., Walker W.F. Jr. 1943. Peruvian snakes from the University of Arequipa. *Field Museum of Natural History Publications, Zoological Series* 24:279–296. DOI

Schneider J.G. 1801. Historiae Amphibiorum naturalis et literariae. Fasciculus secundus continens Crocodilos, Scincos, Chamaesauras, Boas, Pseudoboas, Elapes, Angues, Amphisbaenas et Caecilias. Fried. Frommann, Jenae. DOI

Scopoli G.A. 1785. Deliciae Florae et Faunae Insubricae. Vol. III. Monast. S. Salvatoris, Ticino.

Scott N.J. Jr., Giraudo A.R., Scrocchi G., Aquino A.L., Cacciali P., Motte M. 2006. The genera *Boiruna* and *Clelia* (Serpentes: Pseudoboini) in Paraguay and Argentina. *Papéis Avulsos de Zoologia* 46:77–105. DOI

Scrocchi G.J., Cruz F.B. 1993. Description of a new species of the genus *Lystrophis* Cope and a revalidation of *Lystrophis pulcher* (Jan, 1863), (Serpentes; Colubridae). *Papéis Avulsos de Zoologia* 38:171–185.

Scrocchi G.J., Porto M., Rey L. 1993. Descripción de una especie nueva y situación del género *Sibynomorphus* (Serpentes: Colubridae) en la Argentina. *Revista Brasileira de Biologia* 53:197–208.

Scrocchi G.J., Ferreira V.L., Giraudo A.R., Ávila R.W., Motte M. 2005. A new species of *Hydrops* (Serpentes: Colubridae: Hydropsini) from Argentina, Brazil, and Paraguay. *Herpetologica* 61:468–477. DOI

Sena Santos A.S., Meneses A.S.O., Horta G.F., Rodrigues P.G.A., Brandão R.A. 2017. Predation attempt of *Tropidurus torquatus* (Squamata, Tropiduridae) on *Phalotris matogrossensis* (Serpentes, Dipsadidae). *Herpetology Notes* 10:341–343.

Sentzen U.J. 1796. Ophiologische Fragmente. *Zoologisches Archiv herausgegeben von Friedrich Albrecht Anton Meyer* 2:49–73.

Serié P. 1936. Nueva enumeración sistemática y distribución de los ofidios argentinos. *Obra del Cincuentenario del Museo de La Plata* 2:33–61.

Serrano F., Vieira-Alencar J.P.S., Díaz-Ricaurte J.C. 2019. *Tropidurus hispidus*. (Peters' Lava Lizard). Prey-Predator Interaction. *Herpetological Review* 50:581–582.

Sestren-Bastos M.C. 2006. Plano de Manejo Participativo do Parque Natural Morro do Osso. Secretaria Municipal do Meio Ambiente, Porto Alegre.

Shaw G. 1802. General Zoology, or Systematic Natural History. Vol. III. Part II. Amphibia. G. Kearsley, London.

Shibatta O.A., Galves W., Carmo W.P.D., Lima I.P., Lopes E.V., Machado R.A. 2009. A fauna de vertebrados do campus da Universidade Estadual de Londrina, região norte do estado do Paraná, Brasil. *Semina: Ciências Biológicas e da Saúde* 30:3–26. DOI

Silva F.M., Menks A.C., Prudente A.L.C., Costa J.C.L., Travassos A.E.M., Galatti U. 2011. Squamate Reptiles from Barcarena and surroundings, state of Pará, north of Brazil. *Check List* 7:220–226. DOI

Silva N.J. Jr. 1993. The snakes from Samuel Hydroelectric power plant and vicinity, Rondônia, Brazil. *Herpetological Natural History* 1:37–86.

Silva N.J. Jr. 2007. Novas ocorrências de *Micrurus brasiliensis* Roze, 1967 (Serpentes: Elapidae) em áreas de tensão ambiental no centro-oeste brasileiro. *Revista EVS-Revista de Ciências Ambientais e Saúde* 34:931–956. DOI

Silva N.J. Jr., Sites J.W. Jr. 1995. Patterns of diversity of Neotropical Squamate reptile species with emphasis on the Brazilian Amazon and the conservation potential of indigenous reserves. *Conservation Biology* 9:873–901. DOI

Silva N.J. Jr., Sites J.W. Jr. 1999. Revision of the *Micrurus frontalis* complex (Serpentes: Elapidae). *Herpetological Monographs* 13:142–194. DOI

Silva N.J. Jr., Silva H.L.R., Ribeiro R.S., Souza I., Souza C.A. 2005. Uma nova espécie do gênero *Atractus* Wagler, 1928 (Colubridae: Dipsadinae) do cerrado do Brasil central. *Papéis Avulsos de Zoologia* 45:33–39. DOI

Silva N.J. Jr., Pires M.G., Feitosa D.T. 2016. Diversidade das cobras-corais do Brasil. Pp. 78–167, in Silva N.J. Jr. (Ed). As Cobras-Corais do Brasil: Biologia, Taxonomia e Envenenamentos. PUC Goiás, Goiânia.

Silva V.X., Rodrigues M.T. 2008. Taxonomic revision of the *Bothrops neuwiedi* complex (Serpentes, Viperidae) with description of a new species. *Phyllomedusa* 7:45–90. DOI

Silva Haad J.J. 2004. Las serpientes del género *Atractus* Wagler, 1828 (Colubridae, Xenodontinae) en la Amazonia Colombiana. *Revista de la Academia Colombiana de Ciencias Fisicas, Exactas y Naturales* 28:409–446.

Silva-Soares T., Ferreira R.B., Salles R.O.L., Rocha C.F.D. 2011. Continental, insular and coastal marine reptiles from the Vitória, state of Espírito Santo, southeastern Brazil. *Check List* 7:290–298. DOI

Silveira A.L., Vieira J.B., Lemos A.W.S., Santos C.L., Santos T.B.A., Menks A.C., ... Rolim S.G. 2017. Notas sobre a ocorrência das serpentes *Thamnodynastes pallidus* e *T. hypoconia* (Dipsadidae) no estado do Maranhão, Nordeste do Brasil. *Brazilian Journal of Biosciences* 15:90–95.

Smith H.M., Laufe L.E. 1945. A new South American *Leptotyphlops*. *Proceedings of the Biological Society of Washington* 58:29–32.

Smith H.M., Taylor E.H. 1950. Type localities of Mexican Reptiles and Amphibians. *The University of Kansas Science Bulletin* 8:334–345.

Smith P., Cacciali Sosa P., Scott N.J., Castillo H., Pheasey H., Atkinson K. 2014. First record of the globally-threatened Cerrado endemic snake *Philodryas livida* (Amaral, 1923) (Serpentes, Dipsadidae) from Paraguay, and the importance of the Reserva Natural Laguna Blanca to its conservation. *Cuadernos de Herpetologia* 28:169–171.

Sousa B.M., Nascimento A.E.R., Gomides S.C., Rios C.H.V., Hudson A.A., Novelli I.A. 2010. Répteis em fragmentos de Cerrado e Mata Atlântica no Campo das Vertentes, Estado de Minas Gerais, Sudeste do Brasil. *Biota Neotropica* 10:129–138. DOI

Souza S.M., Junqueira A.B., Jakovac A.C.C., Assunção P.A., Correia J.A. 2011. Feeding behavior and ophiophagous habits of two poorly known Amazonian coral snakes, *Micrurus albicinctus* Amaral 1926 and *Micrurus paraensis* Cunha and Nascimento 1973 (Squamata, Elapidae). *Herpetology Notes* 4:369–372.

Souza-Filho G.A., Verrastro L. 2012. Reptiles of the Parque Estadual de Itapuã, state of Rio Grande do Sul, southern Brazil. *Check List* 8:847–851. DOI

Specieslink. 2019. *geoLoc* tool from speciesLink network. Accessible at http://splink.cria.org.br/geoloc(data). Accessed: 05 September 2019.

Spix J.B. von. 1824. Animalia nova sive species novae lacertarum quas in itinere per Brasiliam annis MDCCCXVII–MDCCCXX jussu et auspicius Maximiliani Josephi I Bavariae Regis suscepto collegit et descripsit Dr. J.B. de Spix. Typis Franc. Seraph. Hubschmanni, Monachii. DOI

Starace F. 2015. Serpents et amphisbènes de Guyane française. Ibis Rouge Éditions, Matoury.

Staton M.A., Dixon J.R. 1977. The herpetofauna of the Central Llanos of Venezuela: noteworthy records, a tentative checklist and ecological notes. *Journal of Herpetology* 11:17–24. DOI

Staude I.R., Navarro L.M., Pereira H.M. 2019. Range size predicts the risk of local extinction from habitat loss. *Global Ecology and Biogeography* 29:16–25. DOI

Steindachner F. 1867. Reise der österreichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859 unter den Befehlen des Commodore B. von Wüllerstorf-Urbair. Zologischer Theil. Erster Band. Reptilien. K.K. Hof- und Staatsdruckerei, Wien. DOI

Steindachner F. 1870. Herpetologischen Notizen (II). I. Reptilien gesammelt während einer Reise in Senegambien (October bis December 1868). *Sitzungsberichte der Akademie der Wissenschaften in Wien, Mathematisch-Naturwissenschaftliche Klasse, Wien* 62:326–335.

Stejneger L.H. 1891. Notes on some North American snakes. *Proceedings of the United States National Museum* 14:501–505. DOI

Stejneger L.H. 1907. Herpetology of Japan and adjacent territory. *Bulletin of the United States National Museum* 58:1–577. DOI

Strüssmann C. 2000. Herpetofauna. Pp. 153–189, in Alho C.R.J., Conceição P.N., Constantino R., Schlemmermeyer T., Strüssmann C., Vasconcellos L.A.S., ... Schneider M. (Eds.), Fauna Silvestre da Região do Rio Manso, MT. Ministério do Meio Ambiente/Edições IBAMA/Centrais Elétricas do Norte do Brasil, Brasília.

Strüssmann C. 2003. Herpetofauna da Área sob Influência do Reservatório de Manso (Chapada dos Guimarães, Mato Grosso, Brasil): Composição Taxonômica, Padrões de Abundância e de Distribuição em Diferentes Unidades de Paisagem. Ph.D. Dissertation, Pontifícia Universidade Católica do Rio Grande do Sul, Brazil.

Strussmann C., Sazima I. 1993. The snake assemblage of the Pantanal at Poconé, Western Brazil: faunal composition and ecological summary. *Studies on Neotropical Fauna and Environment* 28:157–168. DOI

Stuart S.N., Chanson J.S., Cox N.A., Young B.E., Rodrigues A.S.L., Fischman D.L., Waller R.W. 2004. Status and trends of amphibian declines and extinctions worldwide. *Science* 306:1783–1786. DOI

Swanson P.L. 1945. Herpetological notes from Panamá. *Copeia* 1945:210–216. DOI

Taylor E.H. 1939. Two new species of the genus *Anomalepis* Jan, with a proposal of a new family of snakes. *Proceedings of the New England Zoölogical Club* 17:87–96.

Terribile L.C., Feitosa D.T., Pires M.G., Almeida P.C.R., Oliveira G., Diniz-Filho J.A.F., Silva N.J. Jr. 2018. Reducing Wallacean shortfalls for the coral snakes of the *Micrurus lemniscatus* species complex: present and future distributions under a changing climate. *PLoS One* 13:e0205164. DOI

Thomas R.A., Bérnils R.S., Moura-Leite J.C., Morato S.A.A. 2006. Redescription of *Ditaxodon taeniatus* (Hensel, 1868) (Serpentes, Colubridae, Xenodontinae): variation, relationships, and distribution. *South American Journal of Herpetology* 1:94–101. DOI

Thunberg C.P. 1787 Museum Naturalium Academiae Upsaliensis cujus partem primam. Typis Edmannianis, Upsaliae. DOI

Tozetti A.M., Oliveira R.B., Pontes G.M.F. 2009. Defensive repertoire of *Xenodon dorbignyi* (Serpentes, Dipsadidae). *Biota Neotropica* 9:157–163. DOI

Trevine V.C. 2011. Levantamento da Herpetofauna do Parque Municipal Nascentes de Paranapiacaba, Santo André, SP. M.Sc. Thesis, Universidade Estadual Paulista, Brazil.

Troschel F.H. 1848. Amphibien. Pp. 645–661, in Schomburgk M.R. (Ed.), Reisen in Britisch-Guiana in den Jahren 1840–1844. Versuch einer Fauna und Flora von Britisch-Guiana. Dritter Theil. J.J. Weber, Leipzig.

Tschudi J.J. von. 1845. Reptilium conspectum quae in Republica Peruana reperiuntur et pleraque observata vel collecta sunt in itinere a Dr. J.D de Tschudi. Archiv für Naturgeschichte 11:150–168. DOI

Uetanabaro M., Souza F.L., Landgref P. Filho, Beda A.F., Brandão R.A. 2007. Anfíbios e répteis do Parque Nacional da Serra da Bodoquena, Mato Grosso do Sul, Brasil. *Biota Neotropica* 7:279–289. DOI

Uetz P., Freed P., Hošek J. 2019. The Reptile Database. Accessible at: http://www.reptile-database.org. Accessed: 23 September 2019.

USGS. 2019. Earth Explorer. Elevation data for South America. Accessible at https://earthexplorer.usgs.gov. Accessed: 22 August 2019.

Valdujo P.H., Nogueira C. 1999. *Philodryas livida.* Geographic Distribution. *Herpetological Review* 30:55.

Valdujo P.H., Nogueira C. 2001. New records of Squamate reptiles in the central Brazilian Cerrado: Emas National Park Region. *Herpetological Review* 32:128–130.

Valdujo P., Nogueira C., Martins M. 2002. Ecology of *Bothrops neuwiedi pauloensis* (Serpentes: Viperidae: Crotalinae) in the Brazilian Cerrado. *Journal of Herpetology* 36:169–176. DOI

Valdujo P.H., Nogueira C.C., Baumgarten L., Rodrigues F.H.G., Brandão R.A., Eterovic A., ... Marques O.A.V. 2009. Squamate reptiles from Parque Nacional das Emas and surroundings, Cerrado of Central Brazil. *Check List* 5:405–417. DOI

Vanzolini P.E. 1948. Notas sobre ofídios e lagartos da Cachoeira de Emas, no município de Pirassununga, estado de São Paulo. *Revista Brasileira de Biologia* 8:377–400.

Vanzolini P.E. 1976. On the lizards of a cerrado-caatinga contact: evolutionary and zoogeographical implications (Sauria). *Papéis Avulsos de Zoologia* 29:111–119.

Vanzolini P.E. 1996. A new (and very old) species of *Leptotyphlops* from northeastern Brasil (Serpentes, Leptotyphlopidae). *Papéis Avulsos de Zoologia* 39:281–291.

Vanzolini P.E., Myers C.W. 2015. The herpetological collection of Maximilian, Prince of Wied (1782–1867), with special reference to Brazilian materials. *Bulletin of the American Museum of Natural History* 395:1–155. DOI

Vanzolini P.E., Ramos-Costa A.M.M., Vitt L. 1980. Répteis das Caatingas. Academia Brasileira de Ciências, Rio de Janeiro. DOI

Vaz-Silva W., Guedes A.G., Azevedo-Silva P.L., Gontijo F.F., Barbosa R.S., Aloísio G.R., Oliveira F.C.G. 2007. Herpetofauna, Espora hydroelectric power plant, state of Goiás, Brazil. *Check List* 3:338–345. DOI

Vidal N., Delmas A.S., Hedges S.B. 2007. The higher-level relationships of alethinophidian snakes inferred from seven nuclear and mitochondrial genes. Pp. 27–33, in Henderson R.W., Powell R. (Eds.), Biology of the Boas and Pythons. Eagle Mountain Publishing, Eagle Mountain.

Von May R., Albuquerque N.R., Braz H.B., Santa-Cruz R., Biggi E., Tomasinelli F., Rabosky D.L. 2019. Distribution of the Neotropical water snakes *Hydrops caesurus, H. marti,* and *H. triangularis* in South America, with new records from Peru and Brazil. *Amphibian and Reptile Conservation* 13:122–142.

Wagler J. 1824. Serpentum brasiliensium species novae ou Histoire Naturelle des espèces nouvelles de serpens, recueillis et observées pendant le voyage dans l'intérieur du Brésil dans les années 1817, 1818, 1819, 1820 executé par ordre de Sa Majesté le Roi de Bavière, publiée par Jean de Spix, écrite d'après les notes du voyageur. Typis franc. Seraph. Hübschmanni, Monachii. DOI

Wagler J. 1828. Auszüge aus seinem Systema Amphibiorum. *Isis von Oken* 21:740–744.

Wallace A.R. 1852. On the monkeys of the Amazon. *Proceedings of the Zoological Society of London* 20:107–110.

Wallace A.R. 1876. The geographical distribution of animals; with a study of the relations of living and extinct faunas as elucidating the past changes of the Earth's surface. Harper & Brothers, New York. DOI

Wallach V., Williams K.L., Boundy J. 2014. Snakes of the World: A Catalogue of Living and Extinct Species. CRC Press, Boca Raton. DOI

Waller T. 1986. La Boa Curiyú. Fauna Argentina 103, Centro Editor de América Latina (CEAL), Buenos Aires.

Ward D.F. 2012. More than just records: analysing natural history collections for biodiversity planning. *PLoS ONE* 7:e50346. DOI

Warrell D.A., Theakston R.D.G., Wüster W. 2010. Destruction of the collection of reptiles and arthropods at Butantan Institute: a view from the United Kingdom. *The Journal of Venomous Animals and Toxins including Tropical Diseases* 16:534–536. DOI

Werner F. 1900. Beschreibung einiger noch unbekannter neotropischer und indischer Reptilien. *Zoologischer Anzeiger* 23:196–198.

Werner F. 1909. Über neue oder seltene Reptilien des Naturhistorischen Museums in Hamburg. *Jahrbuch der Hamburgischen Wissenschaftlichen Anstalten* 26:205–247.

Werner F. 1924. Neue oder wenig bekannte Schlangen aus dem Naturhistorischen Staatsmuseum in Wien. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften* 133:29–56.

Wettstein O. 1930. Eine neue colubridae Schlange aus Brasilien. *Zoologischer Anzeiger* 88:93–94.

Whittaker R.J., Araújo M.B., Jepson P., Ladle R.J., Willis K.J. 2005. Conservation biogeography: assessment and prospect. *Diversity and Distributions* 11:3–23. DOI

Whittaker R.J., Riddle B.R., Hawkins B.A., Ladle R.J. 2013. The geographical distribution of life and the problem of regionalization: 100 years after Alfred Russel Wallace. *Journal of Biogeography* 40:2209–2214. DOI

Wied M. 1820. Über die Cobra Coral oder Cobra Coraes der brasilianer. *Nova Acta Physico-Medica Academiae Caesareae Leopoldino-Carolinae Naturae Curiosorum, Halle* 10:105–110.

Wied M. 1821. Reise nach Brasilien in den Jahren 1815 bis 1817. Heinrich Ludwig Bronner, Frankfurt. DOI

Wied M. 1824. Verzeichniss der Amphibien, welche im zwerten Bande der Naturgeschichte Brasiliens vom Prinz Mac von Neuwied werden beschrieben werden. (Nach Merrems Versuch eines Systems der Amphibien.) *Isis von Oken, Jena* 14:661–673.

Wied M. 1825. Beiträge zur Naturgeschichte von Brasilien. *Isis von Oken, Jena* 17:1335–1340. DOI

Winck G.R., Santos T.G., Cechin S.Z. 2007. Snake assemblage in a disturbed grassland environment in Rio Grande do Sul State, southern Brazil: population fluctuations of *Liophis poecilogyrus* and *Pseudablabes agassizii*. *Annales Zoologici Fennici* 44:321–332.

Wucherer O. 1861. Description of the new species of *Elapomorphus* from Brazil. *Proceedings of the Zoological Society of London* 1861:325–326.

Wüster W., Ferguson J.E., Quijada-Mascareñas J.A., Pook C.E., Salomão M.D.G., Thorpe R.S. 2005. Tracing an invasion: landbridges, refugia, and the phylogeography of the Neotropical rattlesnake (Serpentes: Viperidae: *Crotalus durissus*). *Molecular Ecology* 14:1095–1108. DOI

Yanosky A.A., Dixon J.R., Mercolli C. 1996. Ecology of the snake community at El Bagual Ecological Reserve, Northeastern Argentina. *Herpetological Natural History* 4:97–110.

Zacariotti R.L., Gomes C.A. 2010. Diet of the black-headed forest racer *Taeniophallus affinis* Günther, 1858 in the Brazilian Atlantic forest. *Herpetology Notes* 3:11–12.

Zaher H. 1996. A new genus and species of pseudoboine snake, with a revision of the genus *Clelia* (Serpentes, Xenodontinae). *Bollettino Museo Regionale Di Scienze Naturali* 14:289–337.

Zaher H., Caramaschi U. 1992. Sur le statut taxinomique d'*Oxyrhopus trigeminus* et *O. guibei* (Serpentes, Xenodontinae). *Bulletin du Muséum National d'Histoire Naturelle* 4:805–827.

Zaher H., Souza I., Gower D.J., Hingst-Zaher E., Silva N.J. Jr. 2005. Redescription of *Atractus albuquerquei* (Serpentes: Colubridae: Dipsadidae), with comments on geographical distribution and intraspecific variation. *Papéis Avulsos de Zoologia* 45:19–32. DOI

Zaher H., Scrocchi G., Masiero R. 2008a. Rediscovery and redescription of the type of *Philodryas laticeps* Werner, 1900 and the taxonomic status of *P. oligolepis* Gomes, 1921 (Serpentes, Colubridae). *Zootaxa* 1940:25–40. DOI

Zaher H., Oliveira M.E., Franco F.L. 2008b. A new, brightly colored species of *Pseudoboa* Schneider, 1801 from the Amazon Basin (Serpentes, Xenodontinae). *Zootaxa* 1674:27–37. DOI

Zaher H., Grazziotin F.G., Cadle J.E., Murphy R.W., Moura-Leite J.C., Bonatto S.L. 2009. Molecular phylogeny of advanced snakes (Serpentes, Caenophidia) with an emphasis on South American Xenodontines: a revised classification and descriptions of new taxa. *Papéis Avulsos de Zoologia* 49:115–153. DOI

Zaher H., Barbo F.E., Martínez P.S., Nogueira C., Rodrigues M.T., Sawaya R.J. 2011. Répteis do estado de São Paulo: conhecimento atual e perspectivas. *Biota Neotropica* 11:67–82. DOI

Zaher H., Murphy R.W., Arredondo J.C., Graboski R., Machado-Filho P.M., Mahlow K., … Grazziotin F.G. 2019. Large-scale molecular phylogeny, morphology, divergence-time estimation, and the fossil record of advanced caenophidian snakes (Squamata: Serpentes). *PLoS One* 14:e0216148. DOI

Zilio F. 2006. *Phalotris trilineatus*. Predation. *Herpetological Review* 37:234–235.

Zheng Y., Wiens J.J. 2016. Combining phylogenomic and supermatrix approaches, and a time-calibrated phylogeny for squamate reptiles (lizards and snakes) based on 52 genes and 4162 species. *Molecular Phylogenetics and Evolution* 94:537–547. DOI

ONLINE SUPPORTING INFORMATION

The following Supporting Information is available for this article online:

Table S1. List of Brazilian snakes, including data on range size, altitudinal range, altitudinal mode and presence in the Brazilian Snake list (Costa and Bérnils, 2018, see Taxonomical Changes).

Table S2. Species record database, including all verified records for the snakes reported herein.

Table S3. Textual description and precise coordinates of all mappable type- localities of Brazilian snakes.

Table S4. List of Brazilian snake species in relation to endemism in Brazil and presence in major South American ecoregions (Olson et al., 2001).

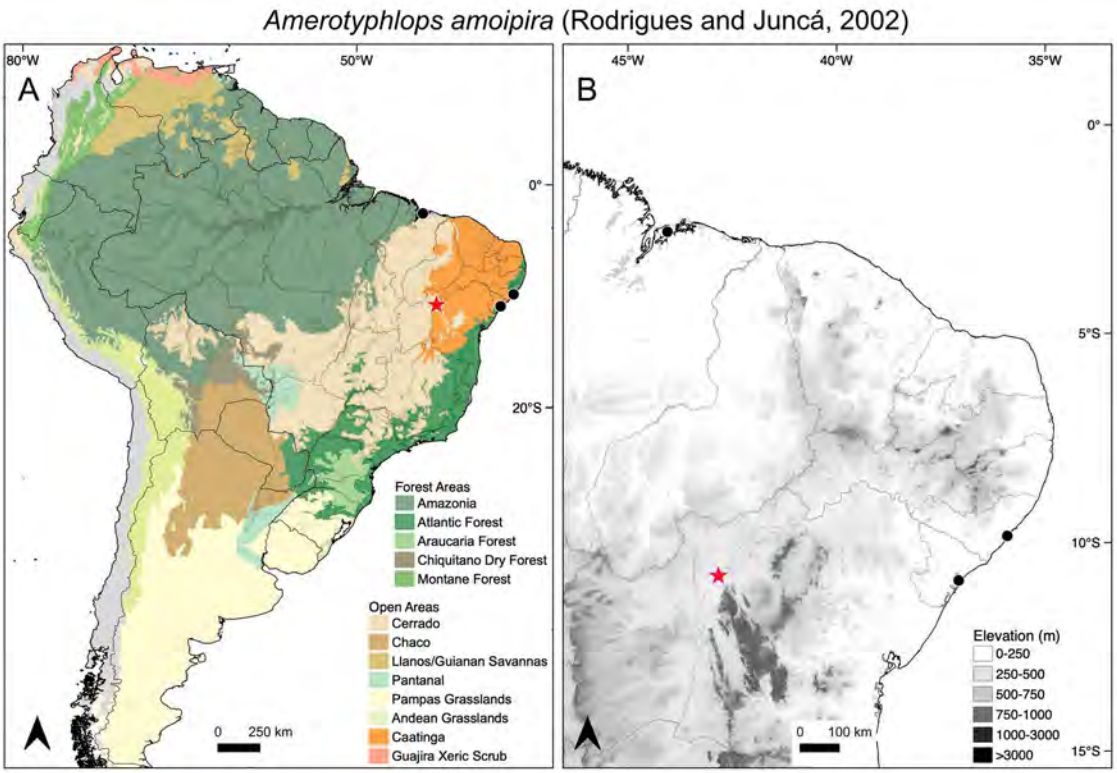


Plate 1. Distribution map of *Amerotyphlops amoipira* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

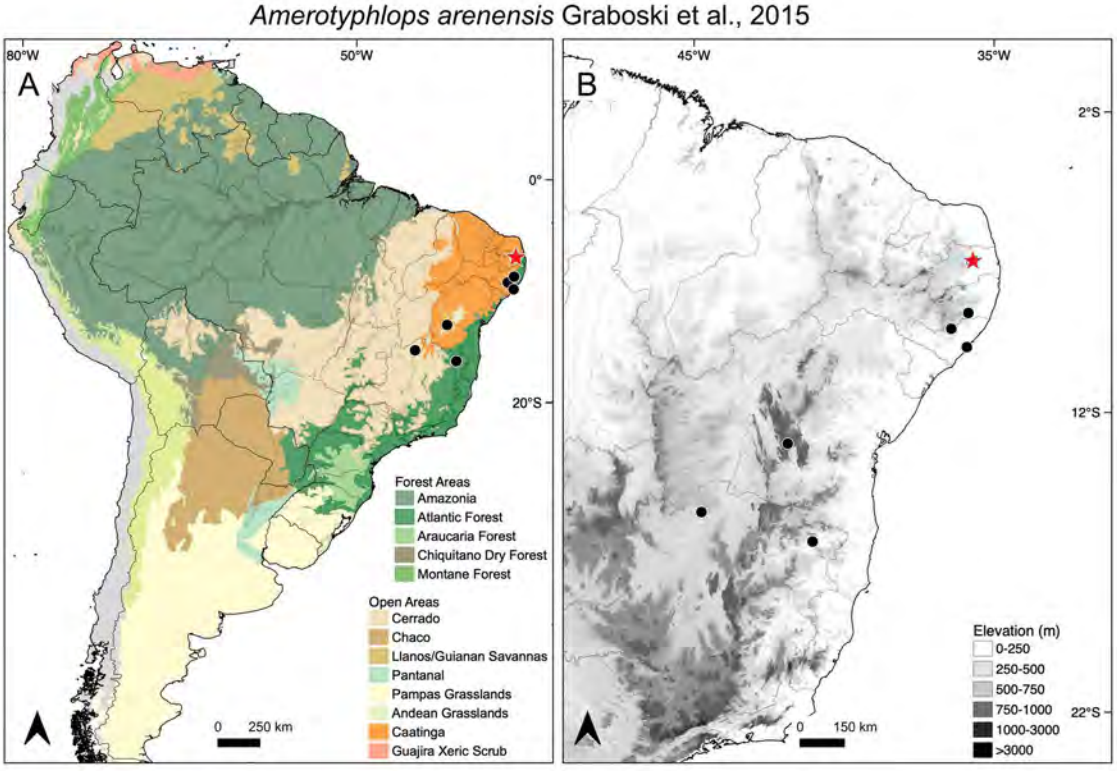


Plate 2. Distribution map of *Amerotyphlops arenensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

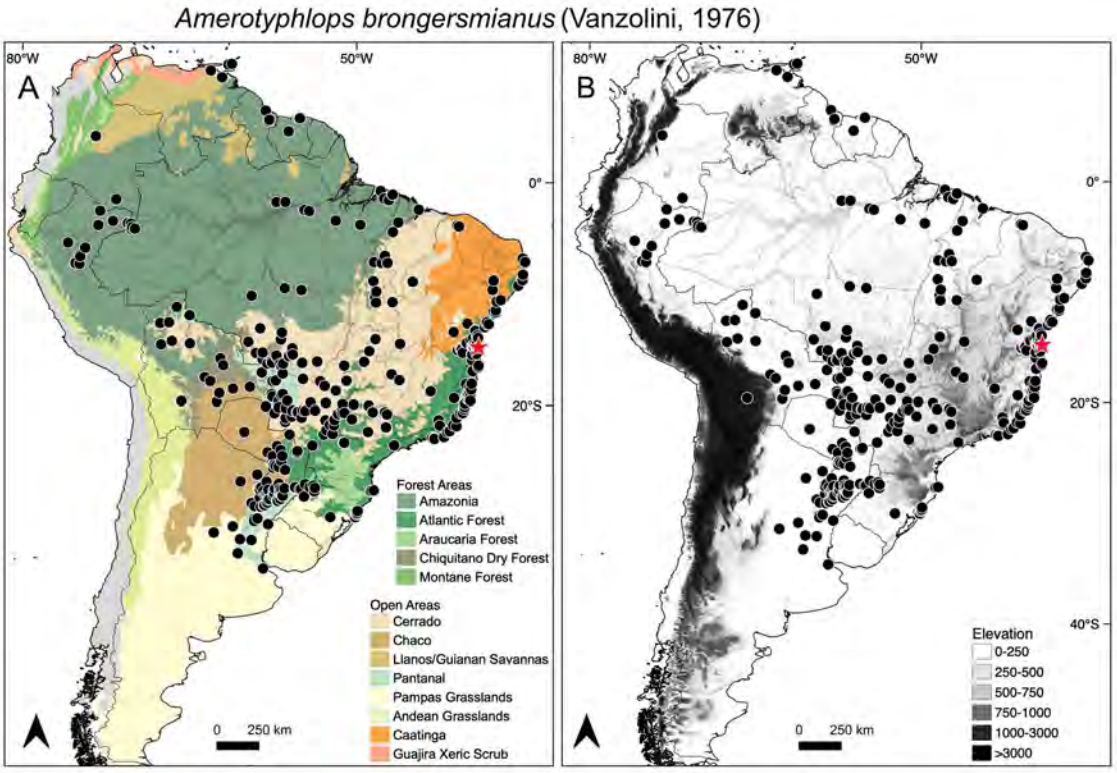


Plate 3. Distribution map of *Amerotyphlops brongersmianus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

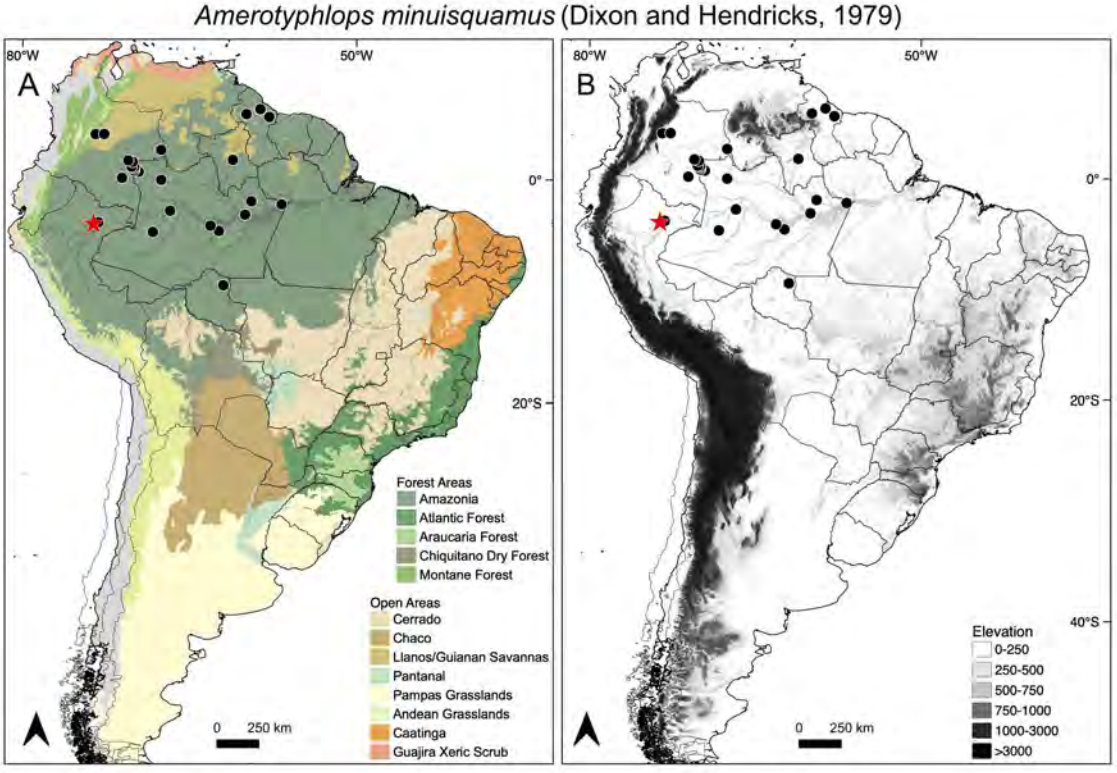


Plate 4. Distribution map of *Amerotyphlops minuisquamus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

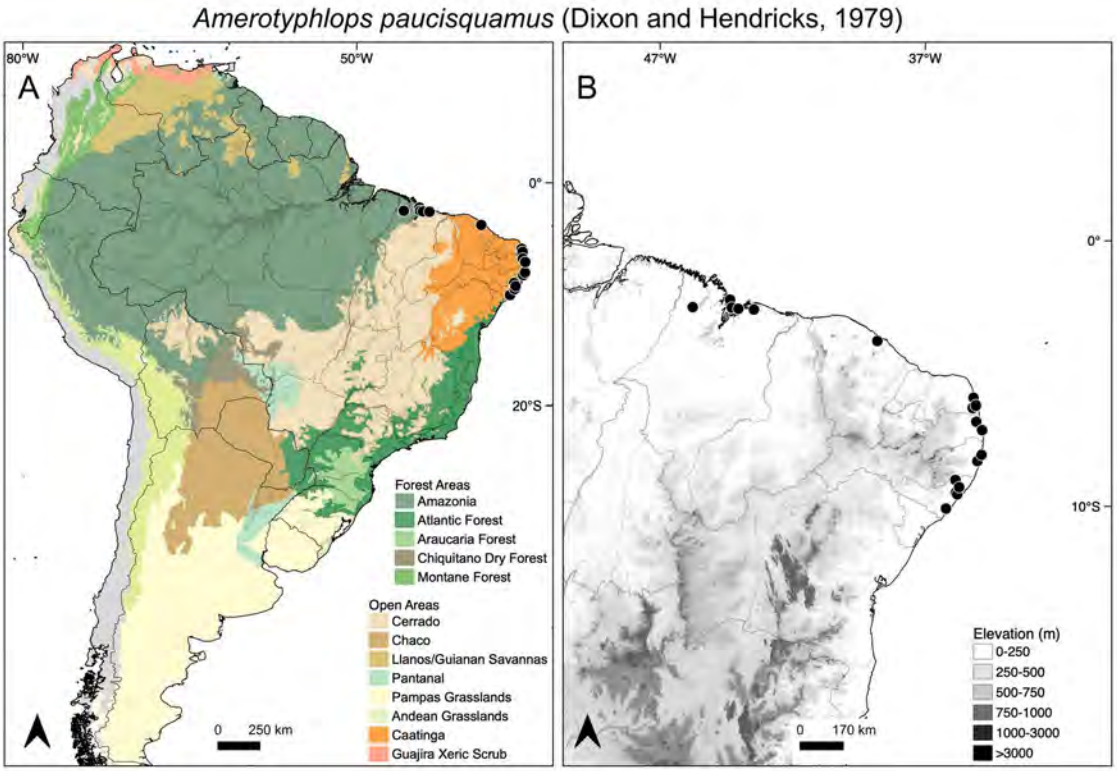


Plate 5. Distribution map of *Amerotyphlops paucisquamus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

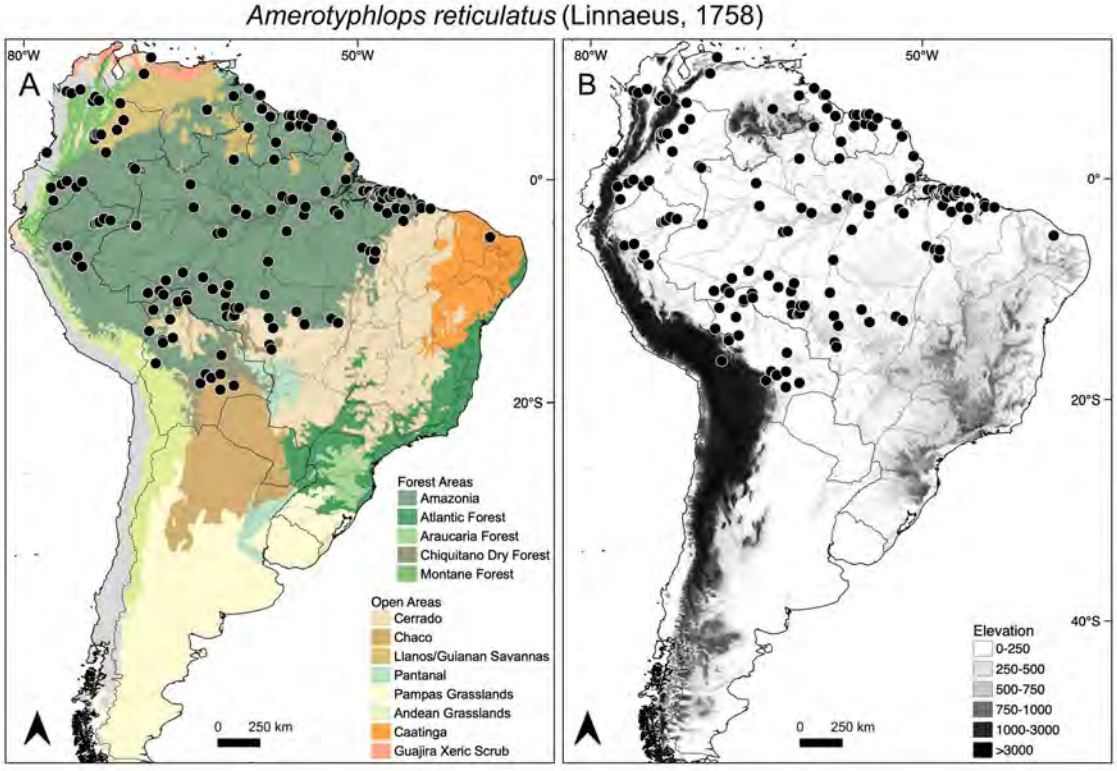


Plate 6. Distribution map of *Amerotyphlops reticulatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

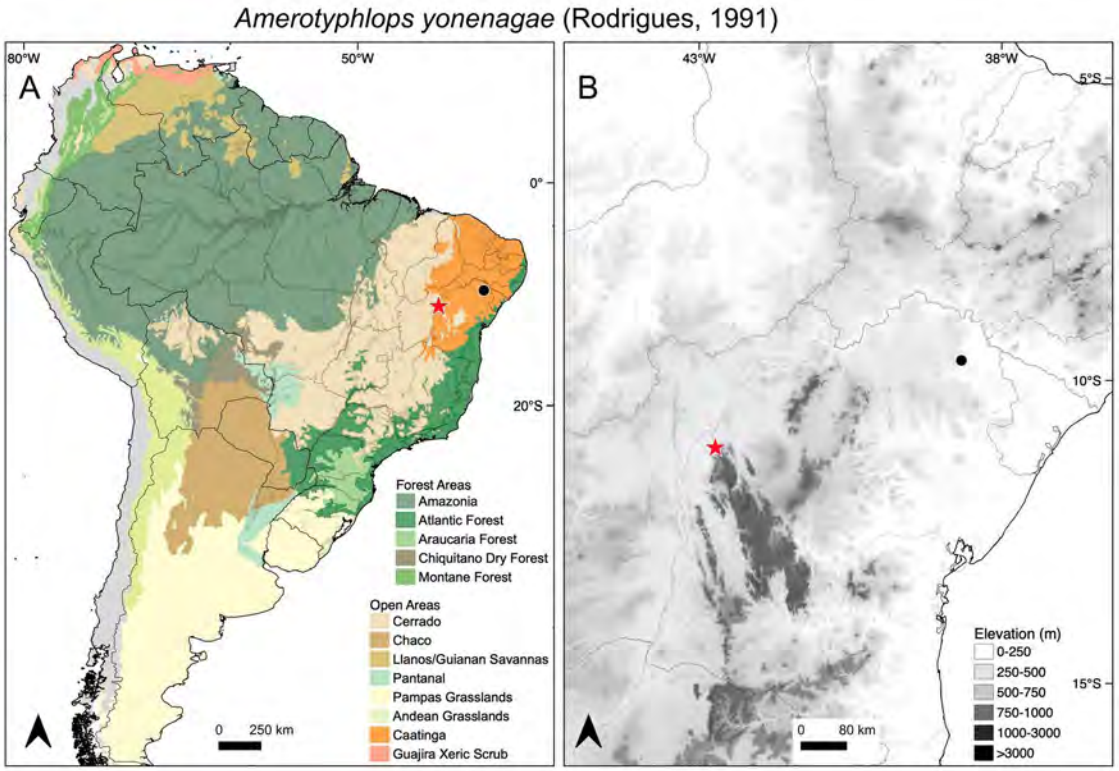


Plate 7. Distribution map of *Amerotyphlops yonenagae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

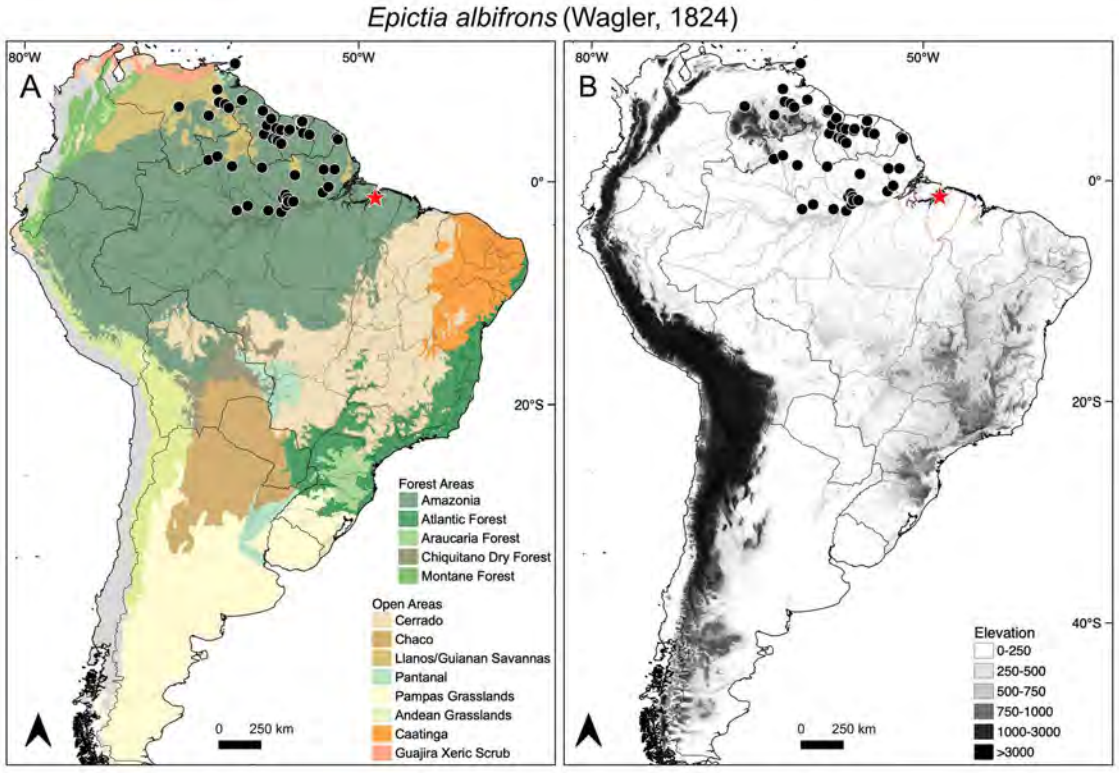


Plate 8. Distribution map of *Epictia albifrons* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

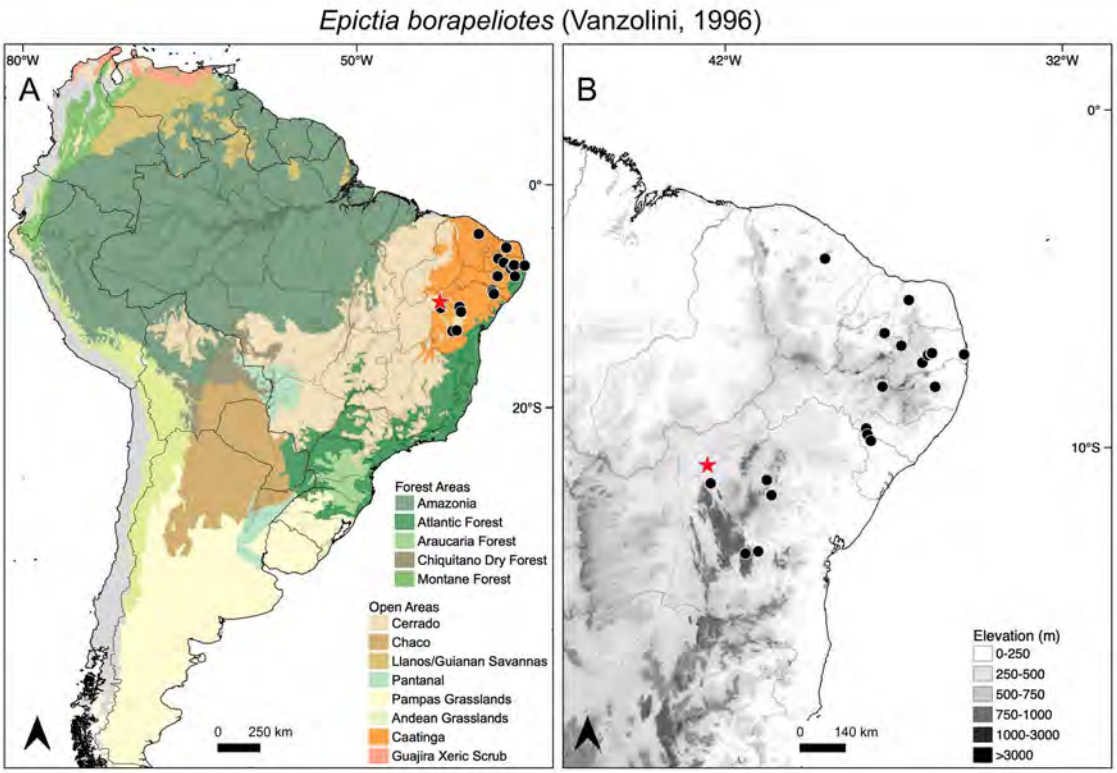


Plate 9. Distribution map of *Epictia borapeliotes* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

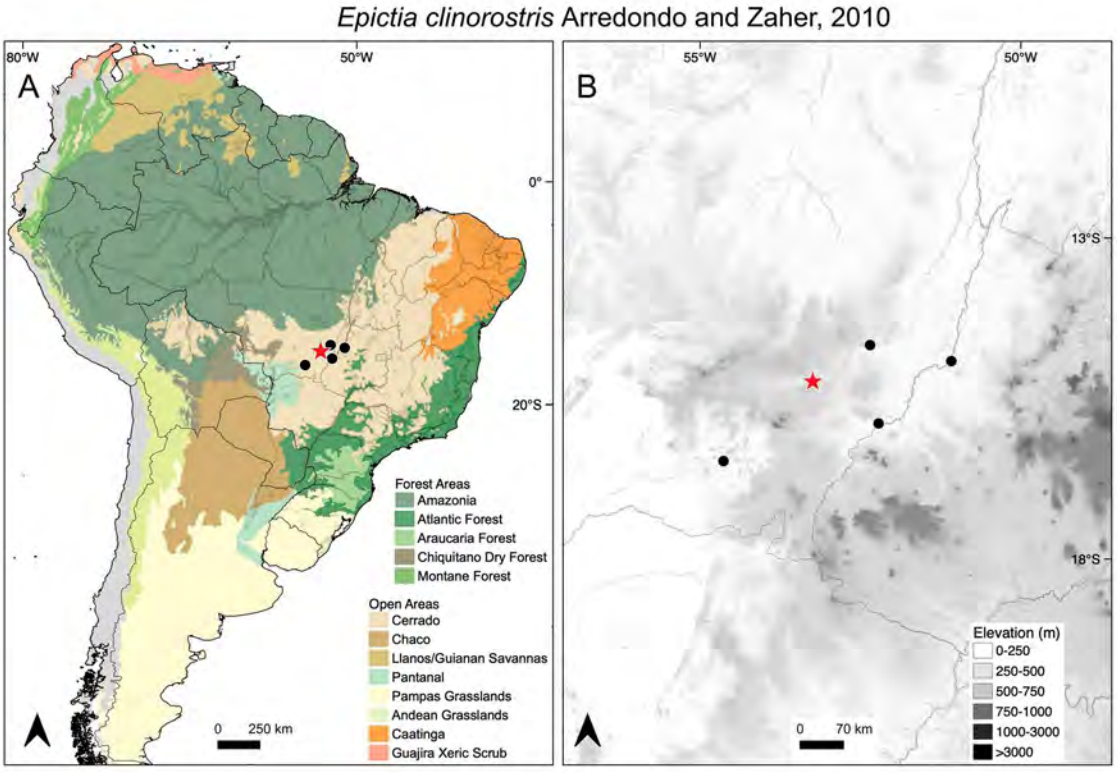


Plate 10. Distribution map of *Epictia clinorostris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

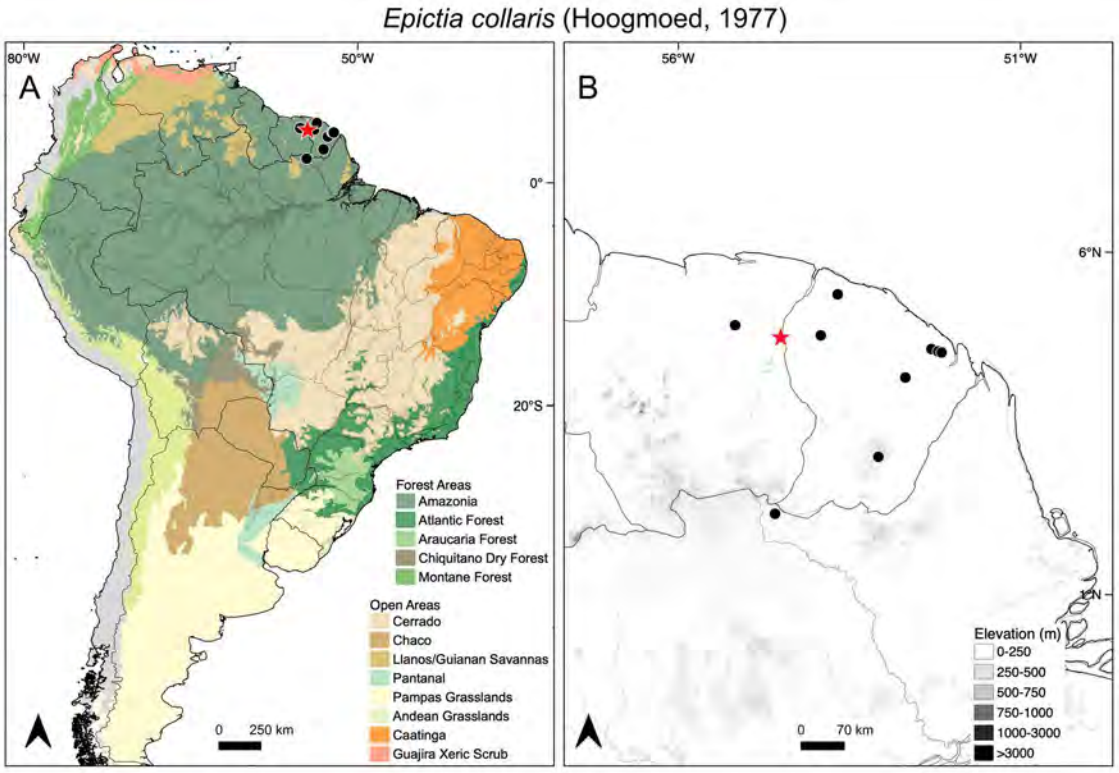


Plate 11. Distribution map of *Epictia collaris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

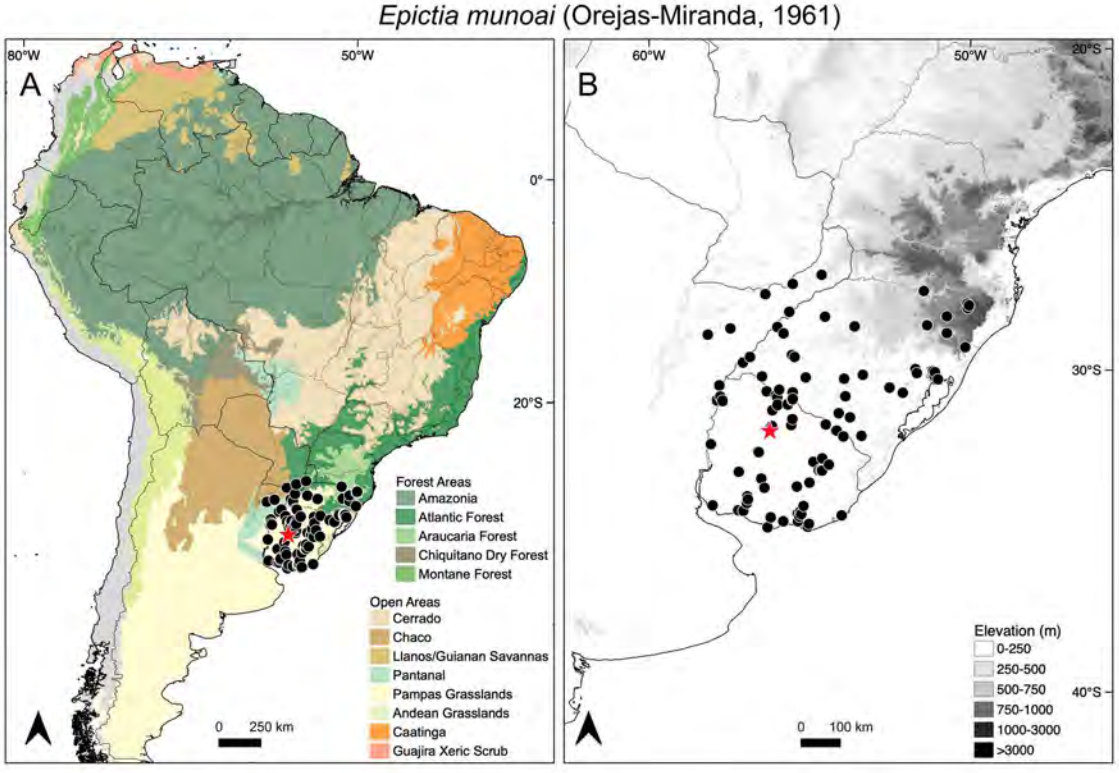


Plate 12. Distribution map of *Epictia munoai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

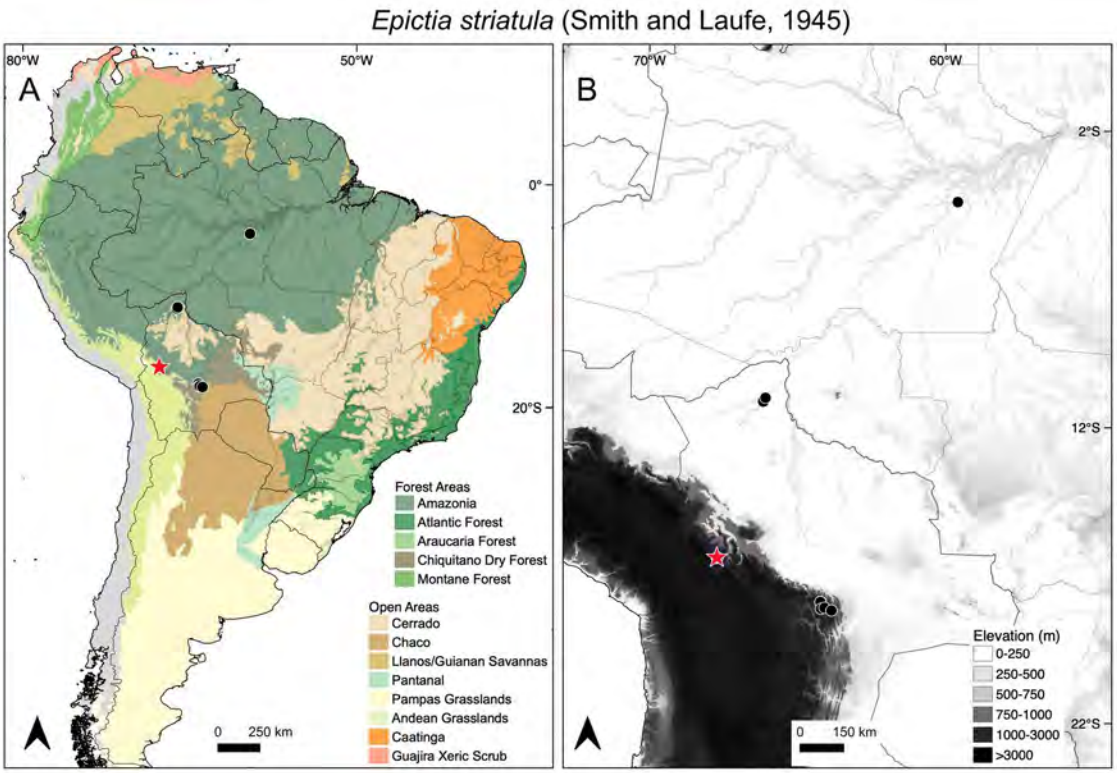


Plate 13. Distribution map of *Epictia striatula* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

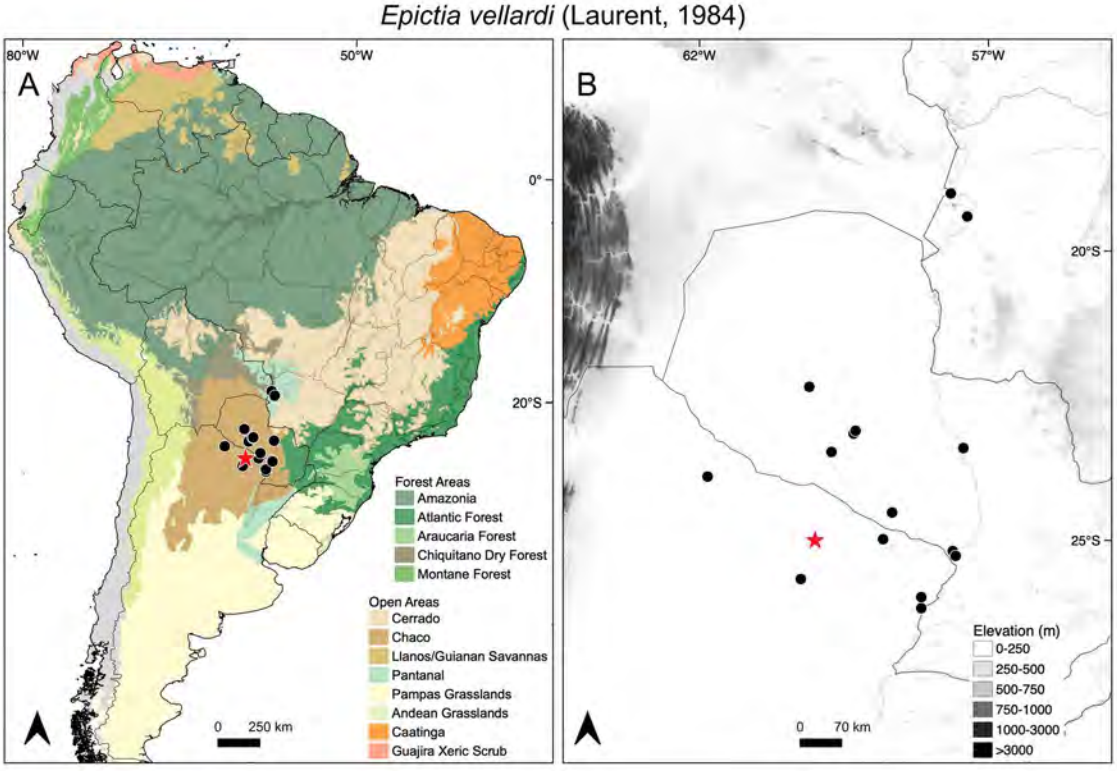


Plate 14. Distribution map of *Epictia vellardi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

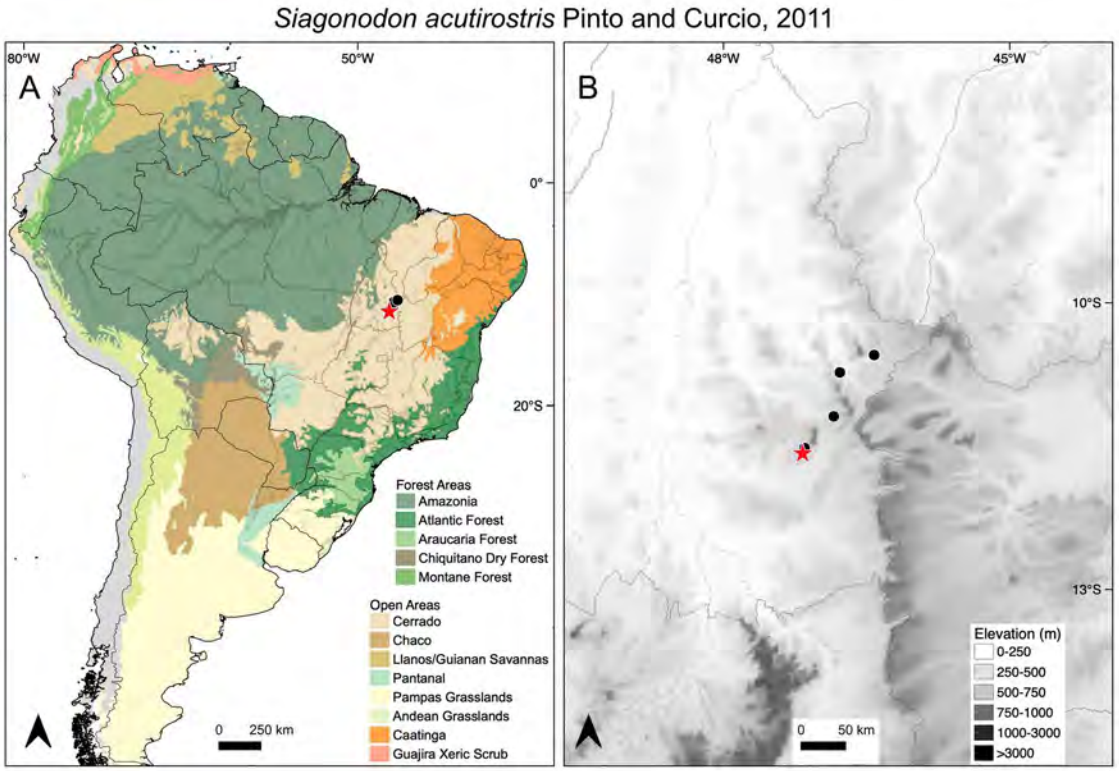


Plate 15. Distribution map of *Siagonodon acutirostris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

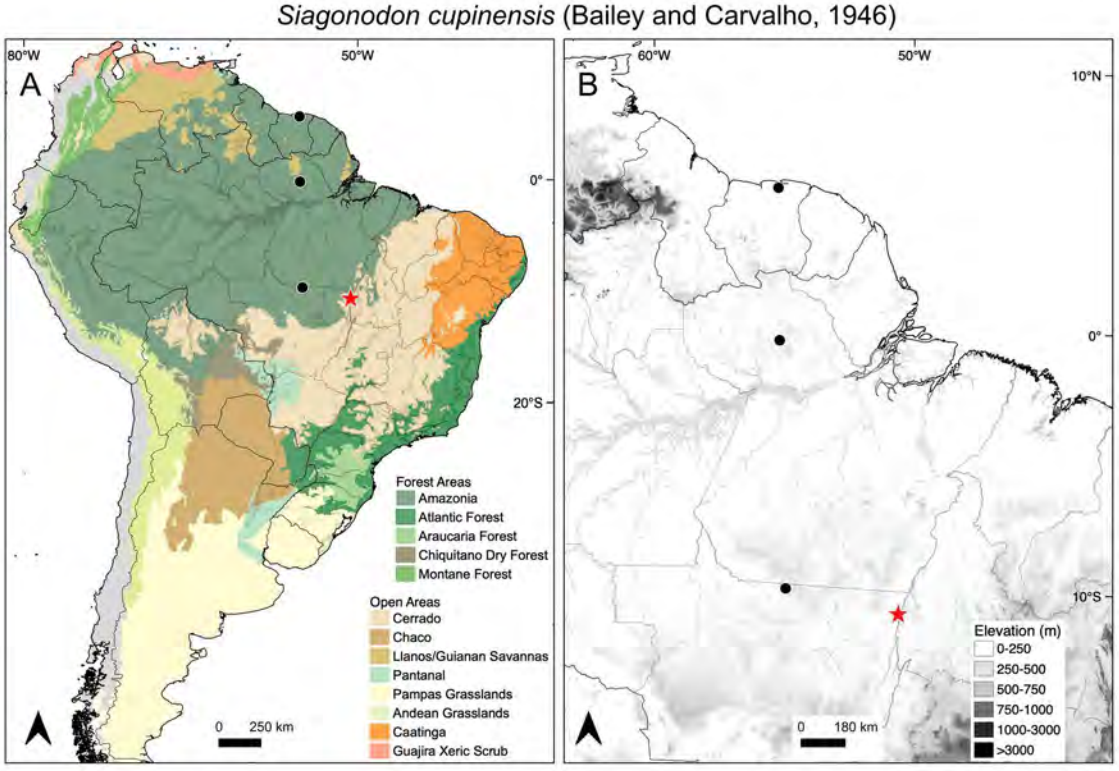


Plate 16. Distribution map of *Siagonodon cupinensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

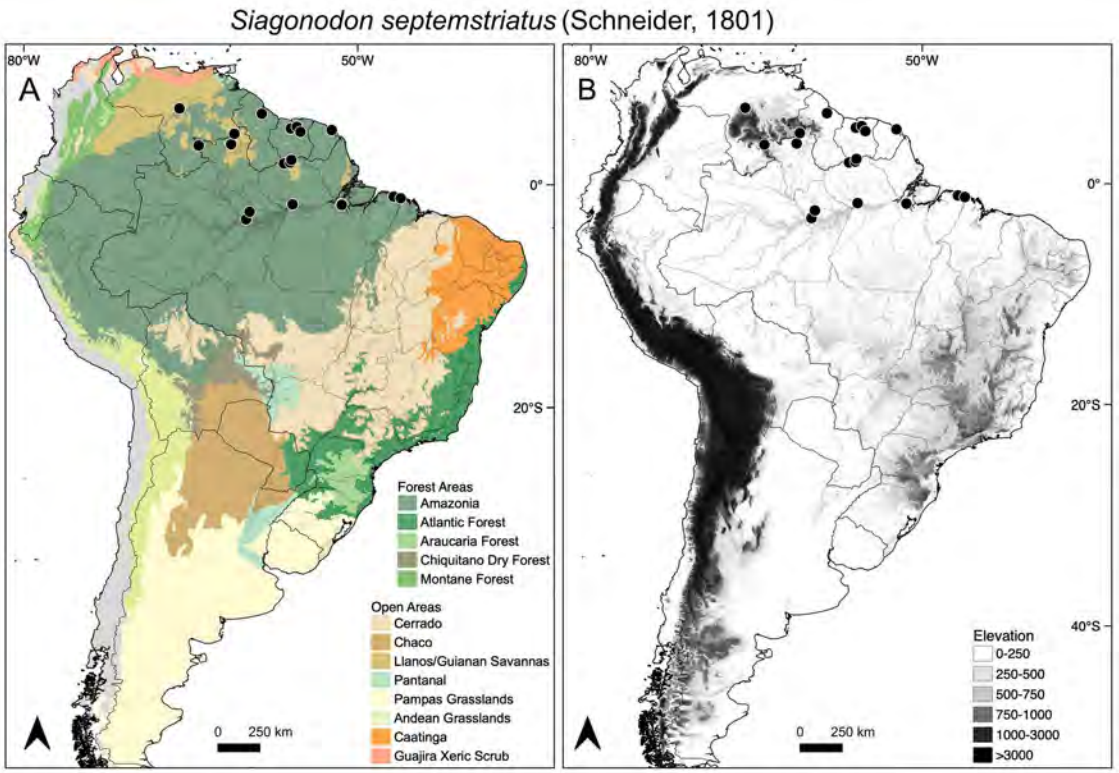


Plate 17. Distribution map of *Siagonodon septemstriatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

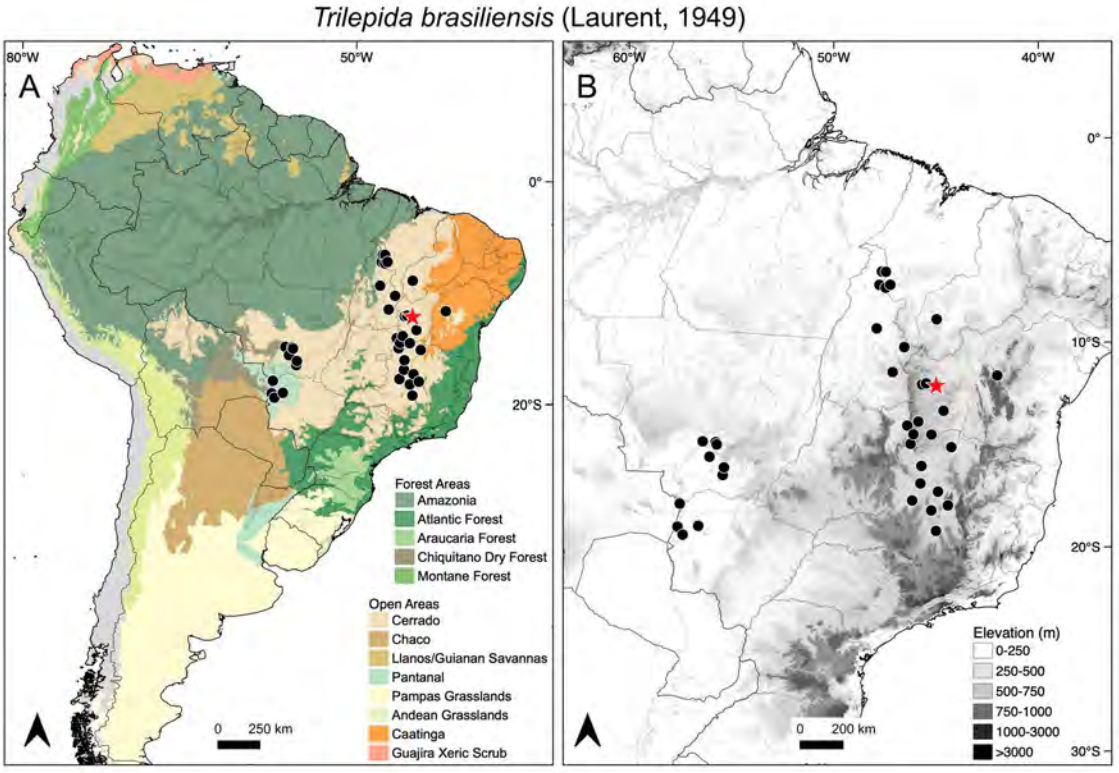


Plate 18. Distribution map of *Trilepida brasiliensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

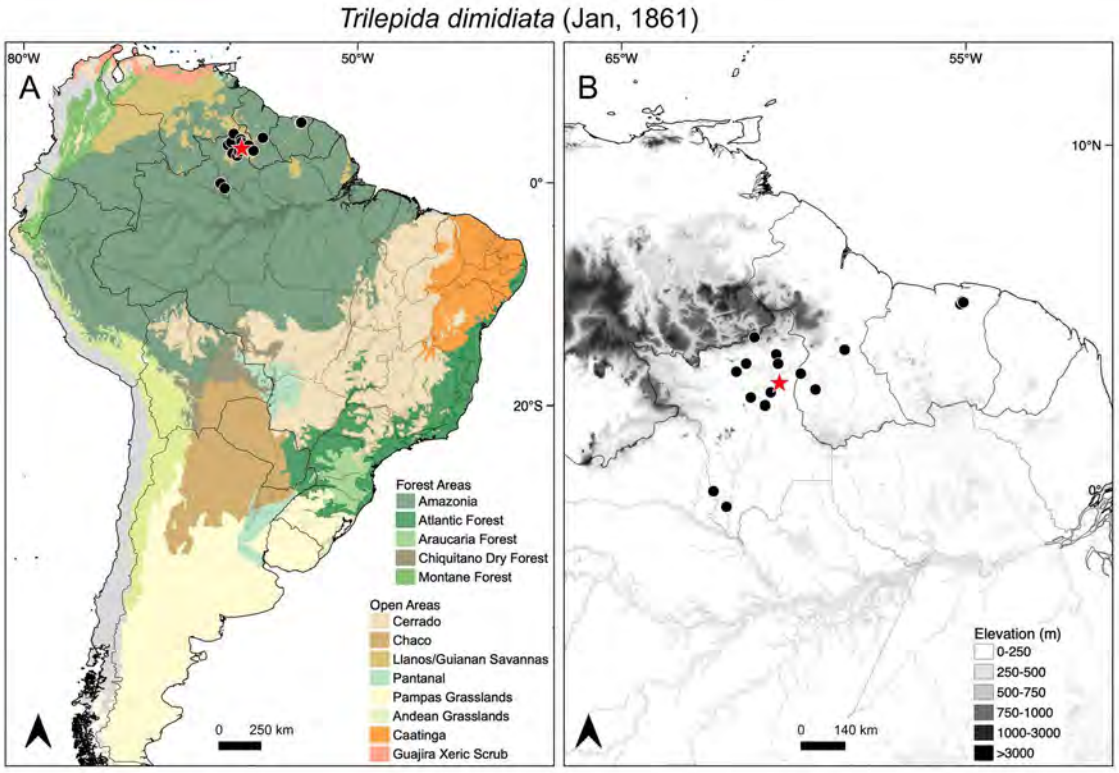


Plate 19. Distribution map of *Trilepida dimidiata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

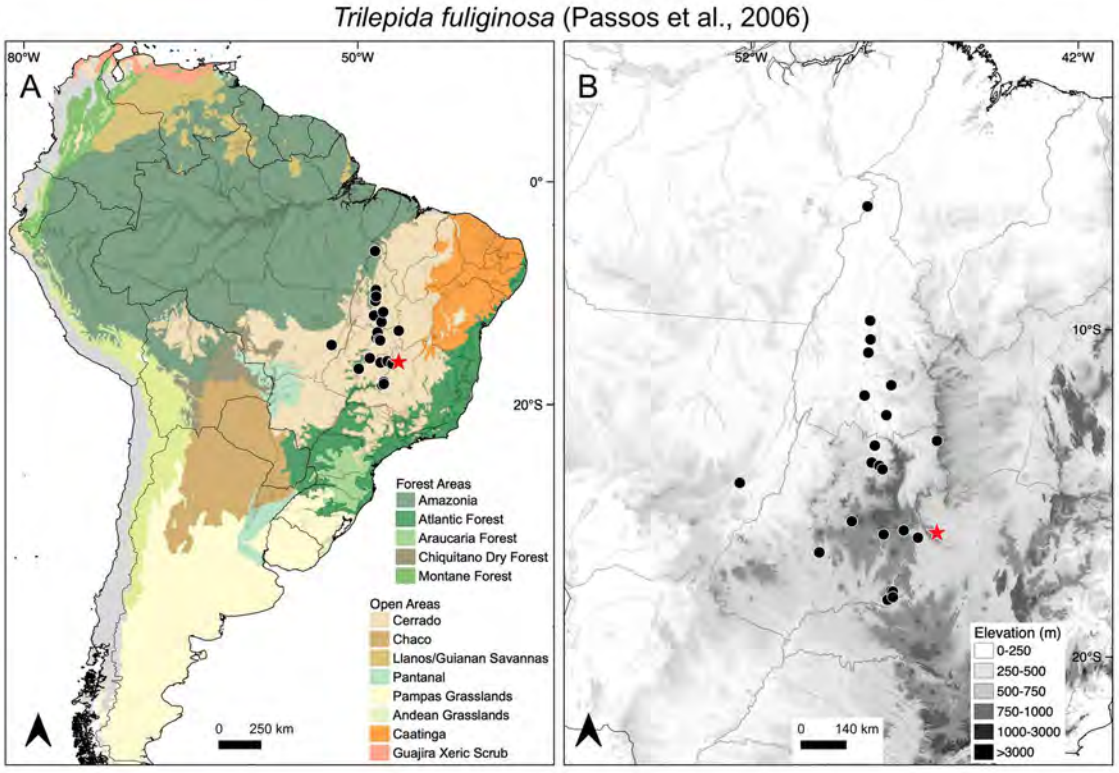


Plate 20. Distribution map of *Trilepida fuliginosa* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

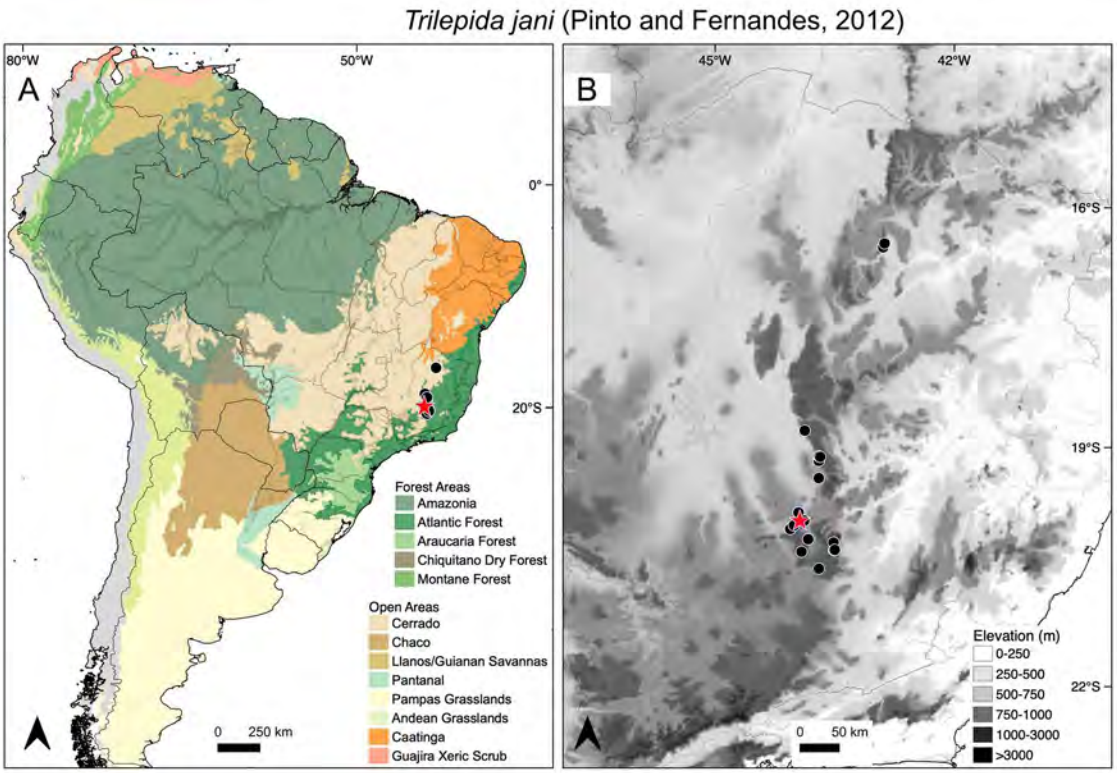


Plate 21. Distribution map of *Trilepida jani* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

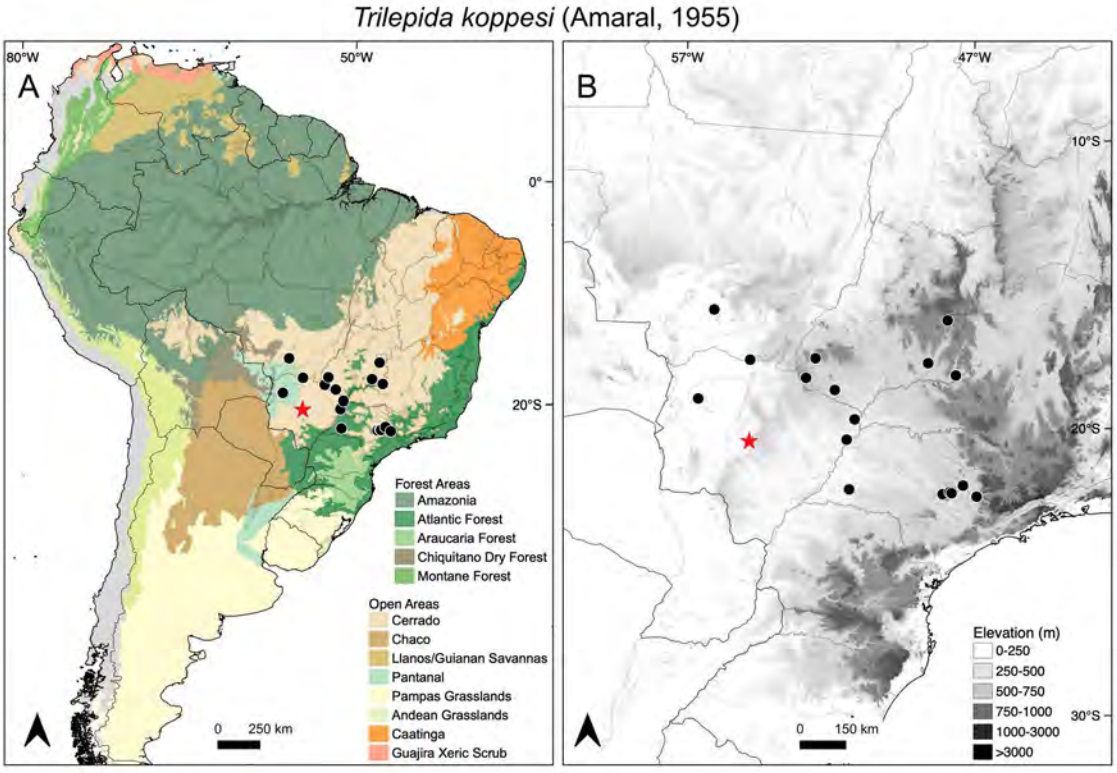


Plate 22. Distribution map of *Trilepida koppesi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

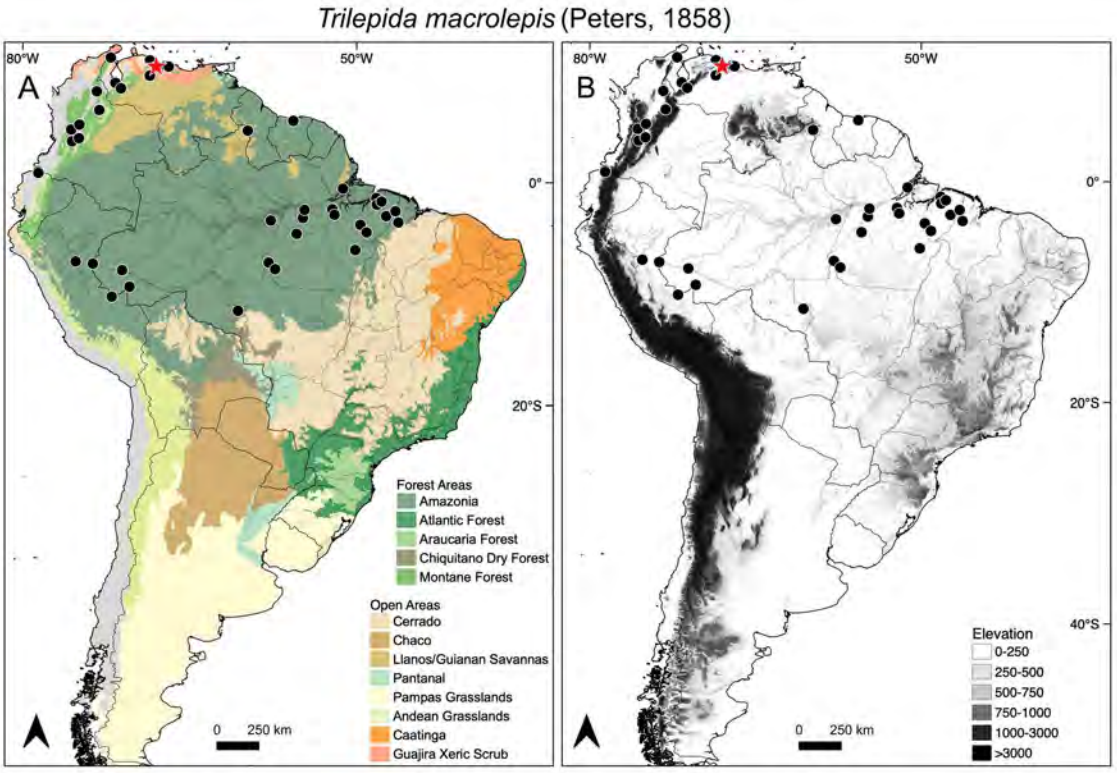


Plate 23. Distribution map of *Trilepida macrolepis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

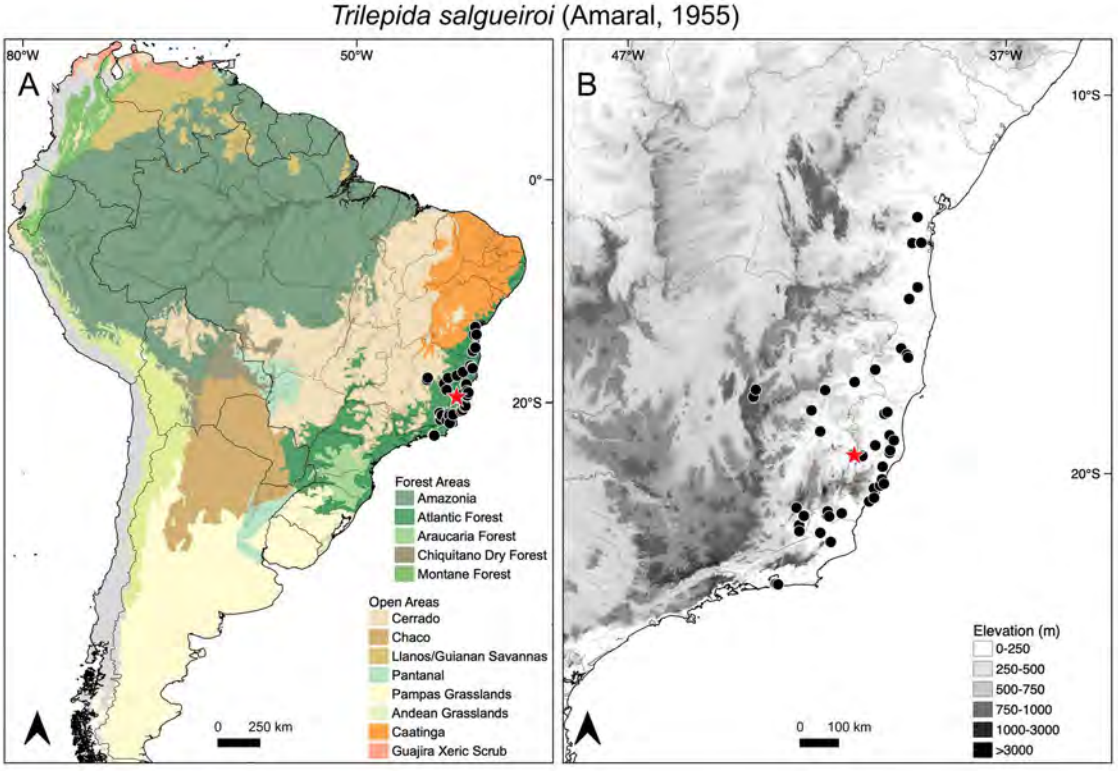


Plate 24. Distribution map of *Trilepida salgueiroi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

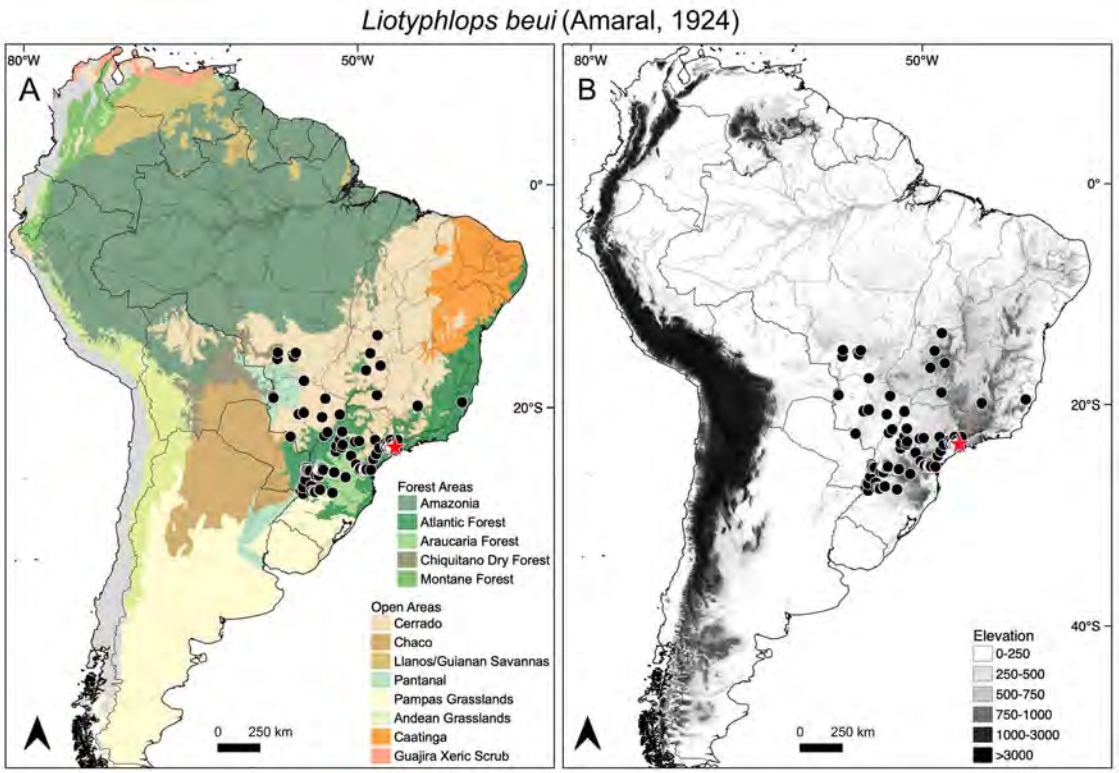


Plate 25. Distribution map of *Liotyphlops beui* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

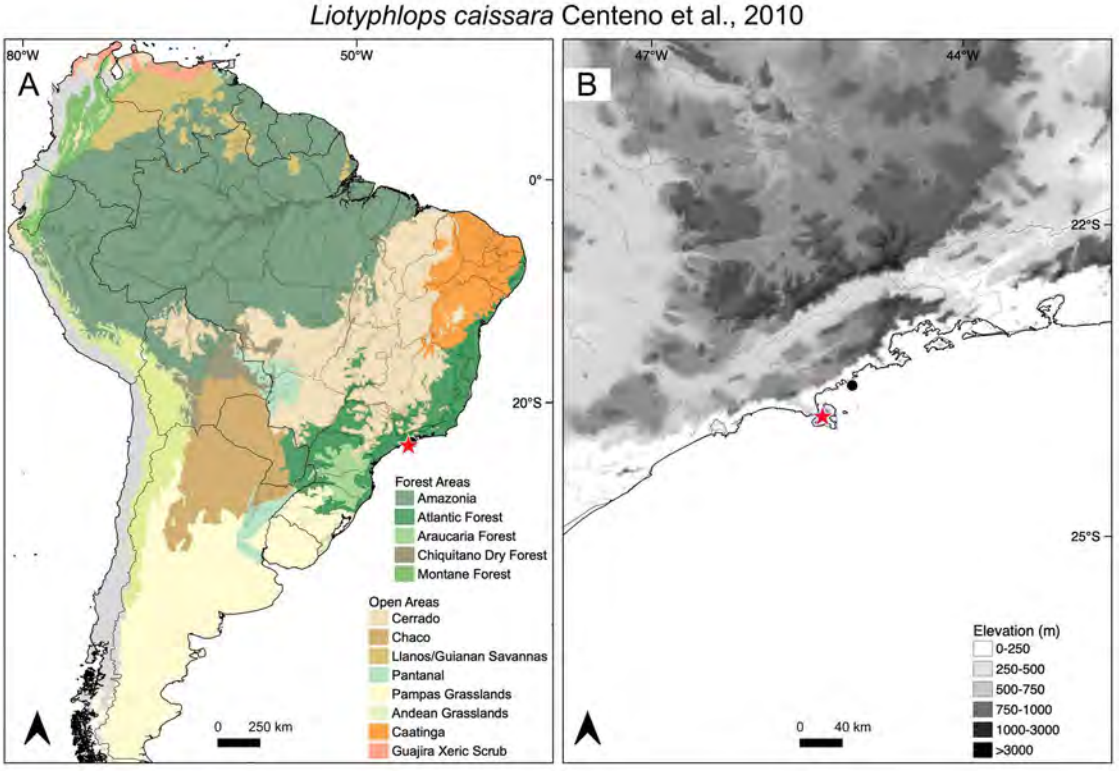


Plate 26. Distribution map of *Liotyphlops caissara* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

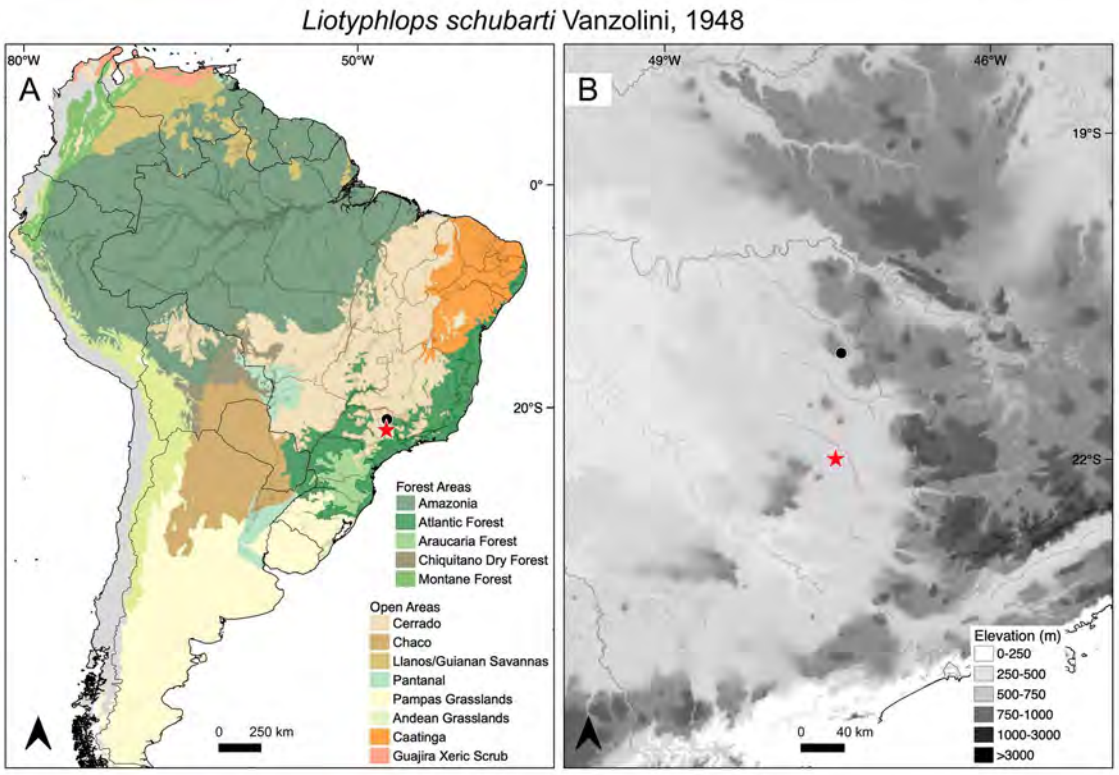


Plate 27. Distribution map of *Liotyphlops schubarti* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

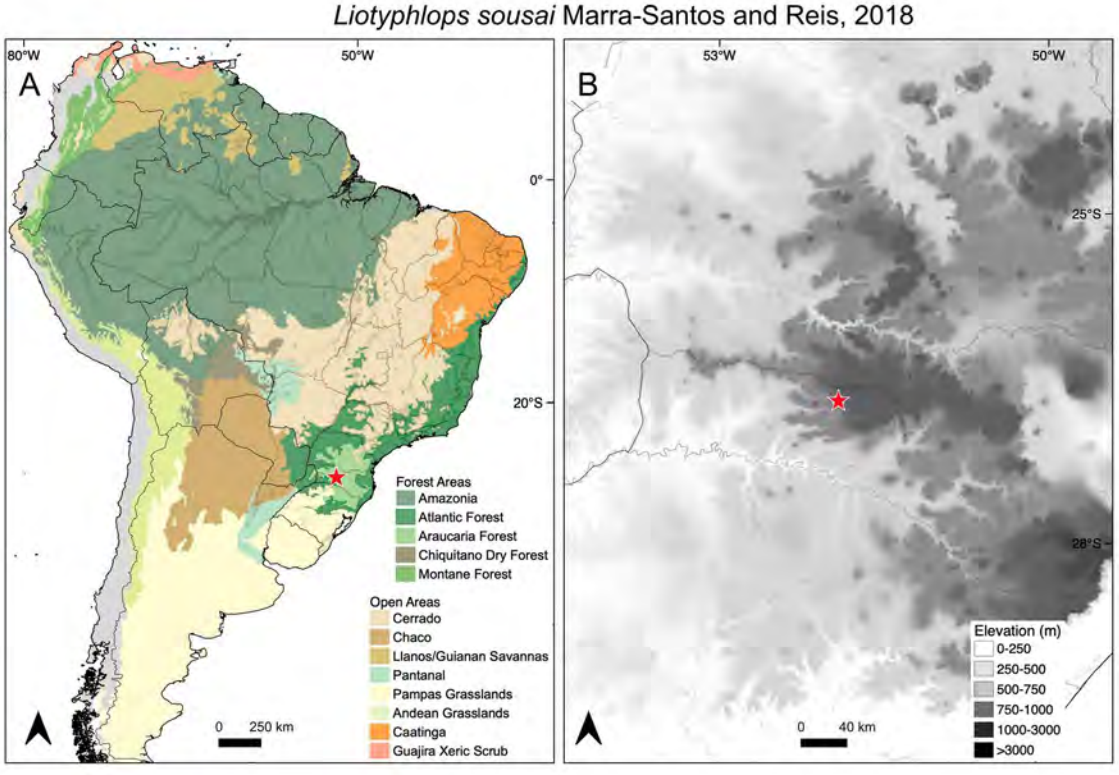


Plate 28. Distribution map of *Liotyphlops sousai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

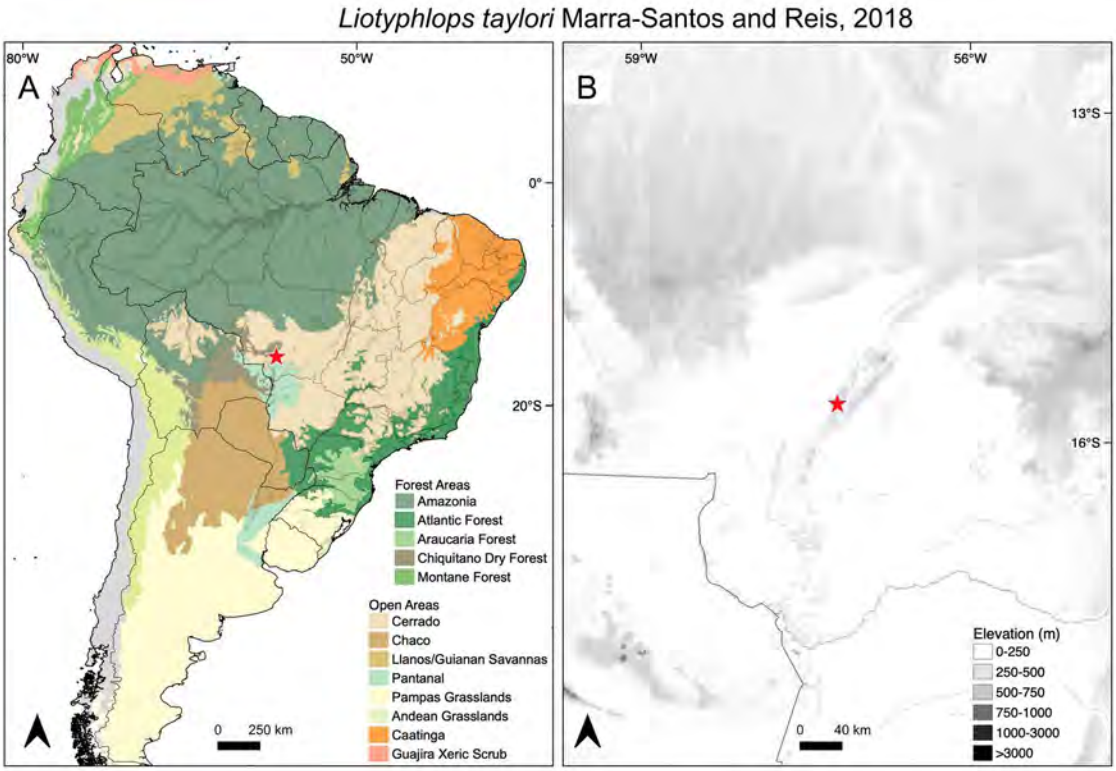


Plate 29. Distribution map of *Liotyphlops taylori* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

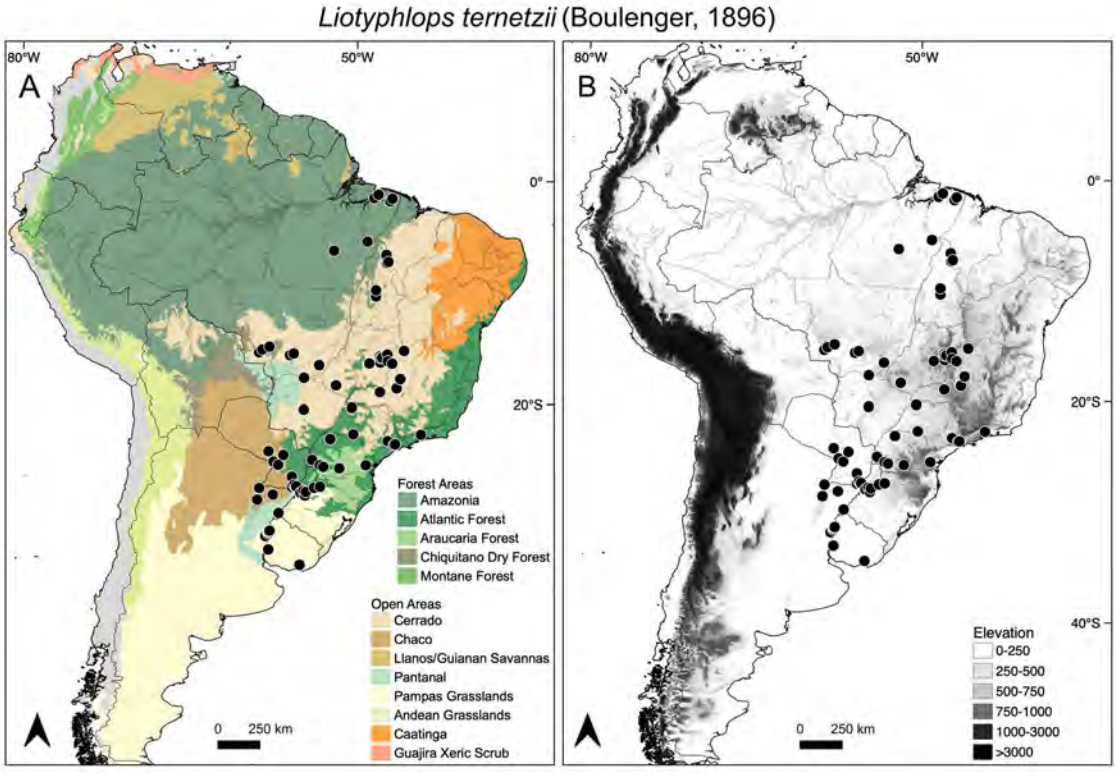


Plate 30. Distribution map of *Liotyphlops ternetzii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

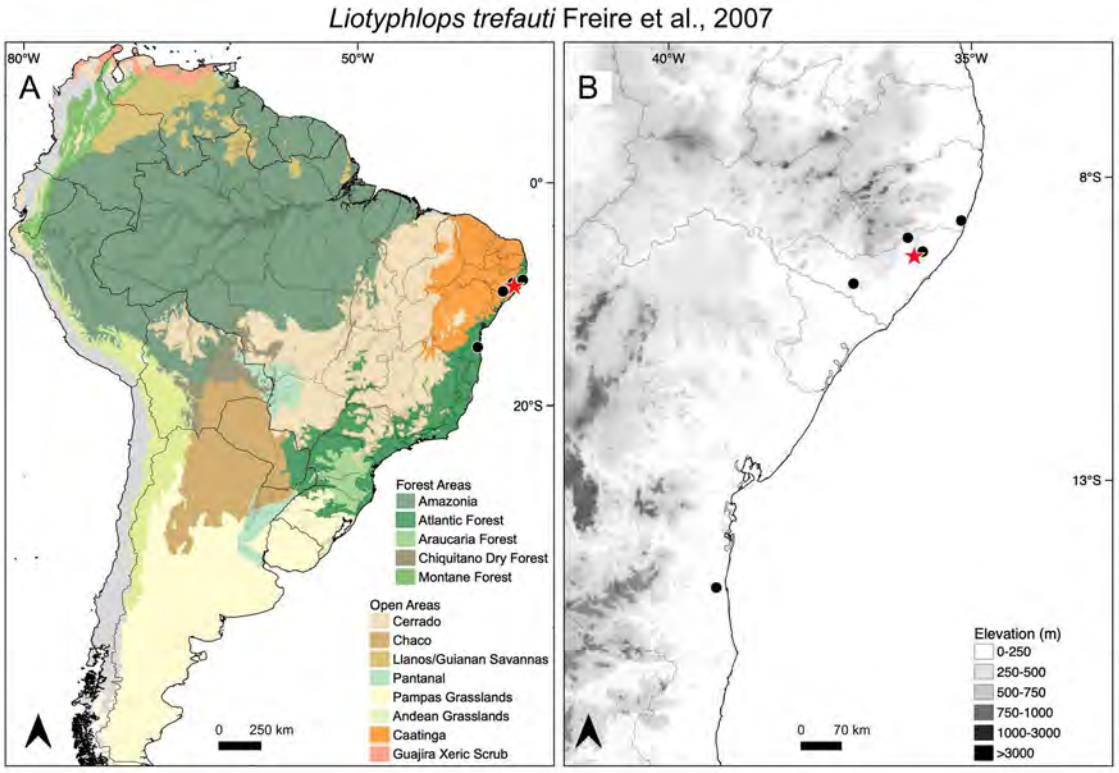


Plate 31. Distribution map of *Liotyphlops trefauti* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

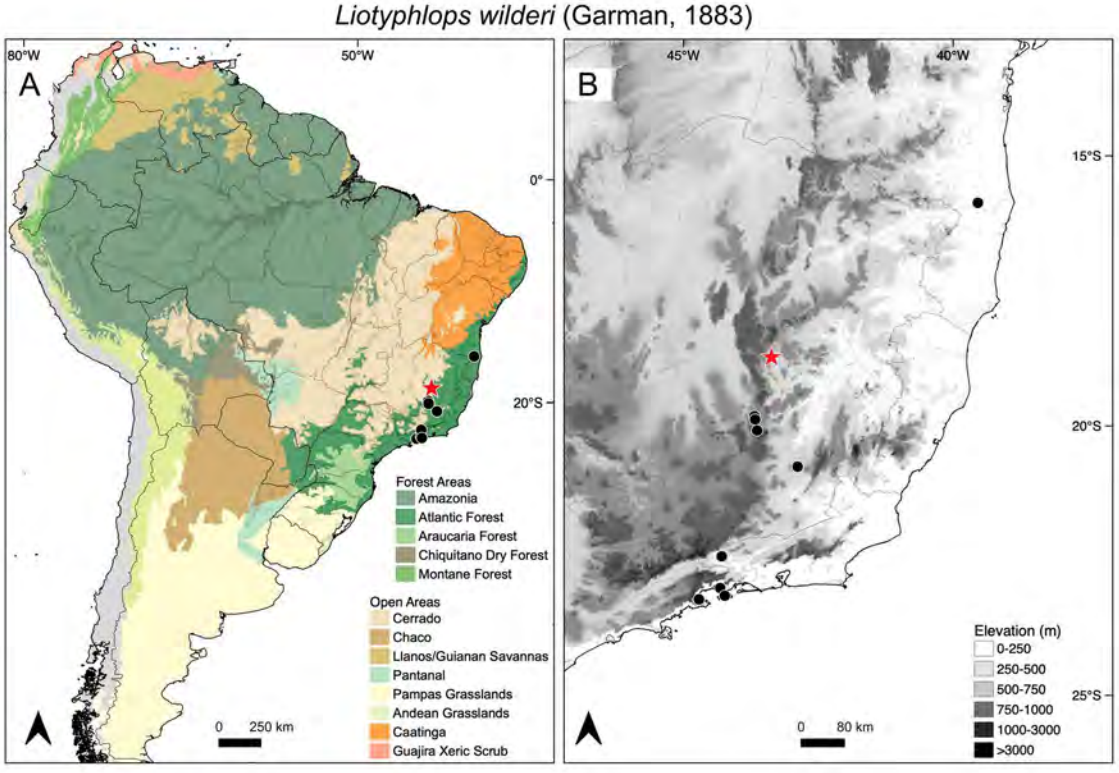


Plate 32. Distribution map of *Liotyphlops wilderi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

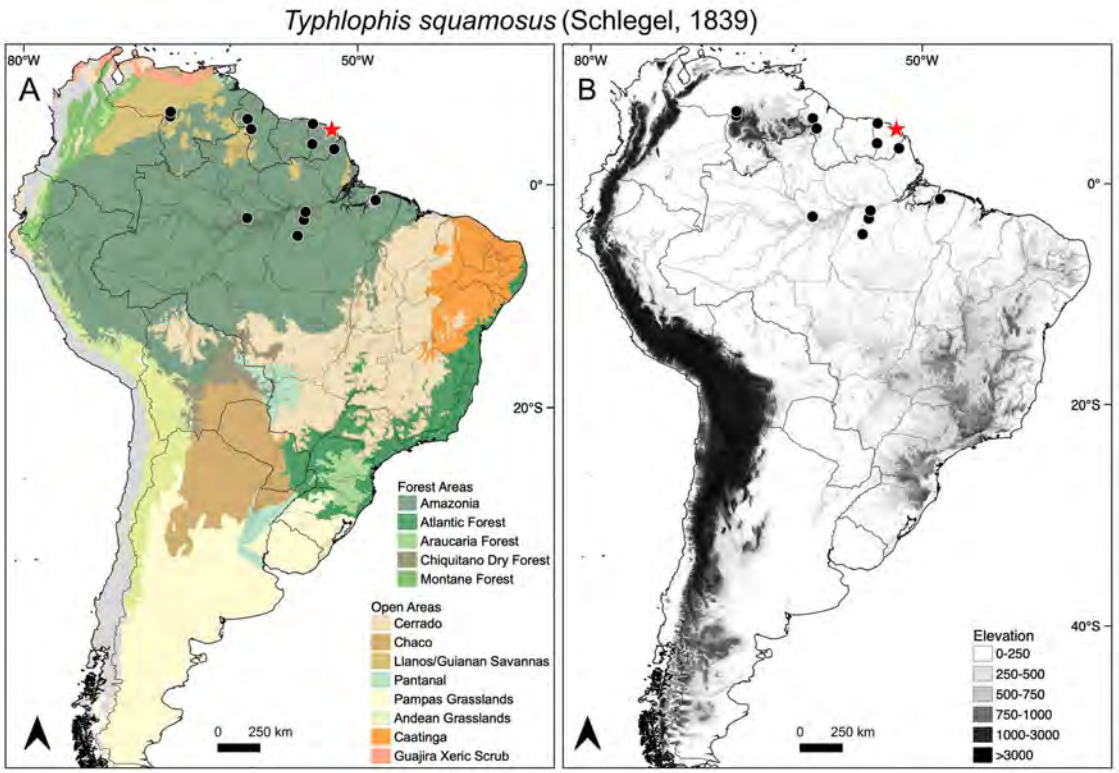


Plate 33. Distribution map of *Typhlophis squamosus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

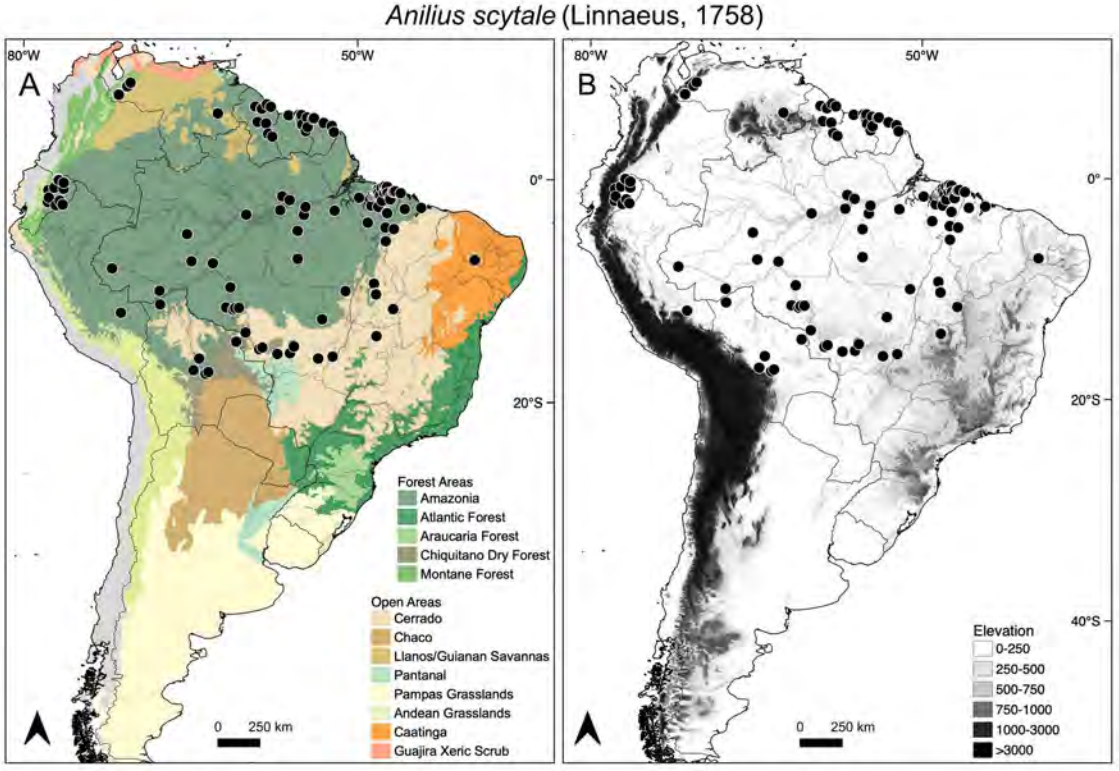


Plate 34. Distribution map of *Anilius scytale* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

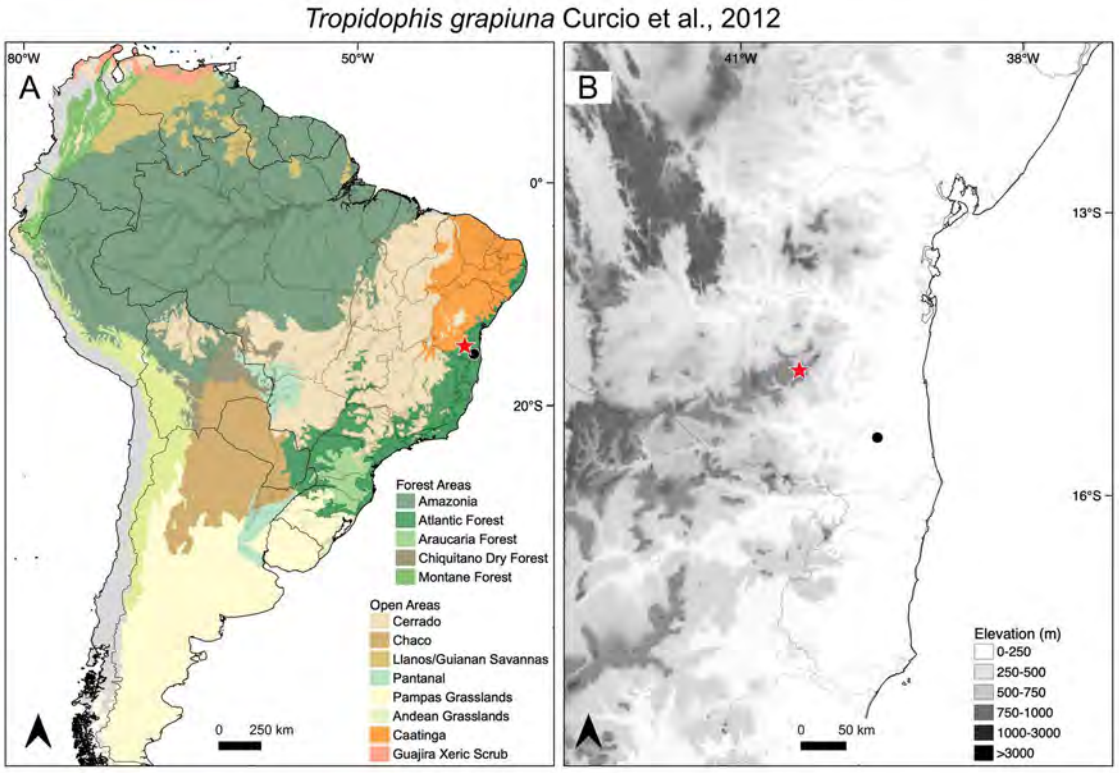


Plate 35. Distribution map of *Tropidophis grapiuna* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

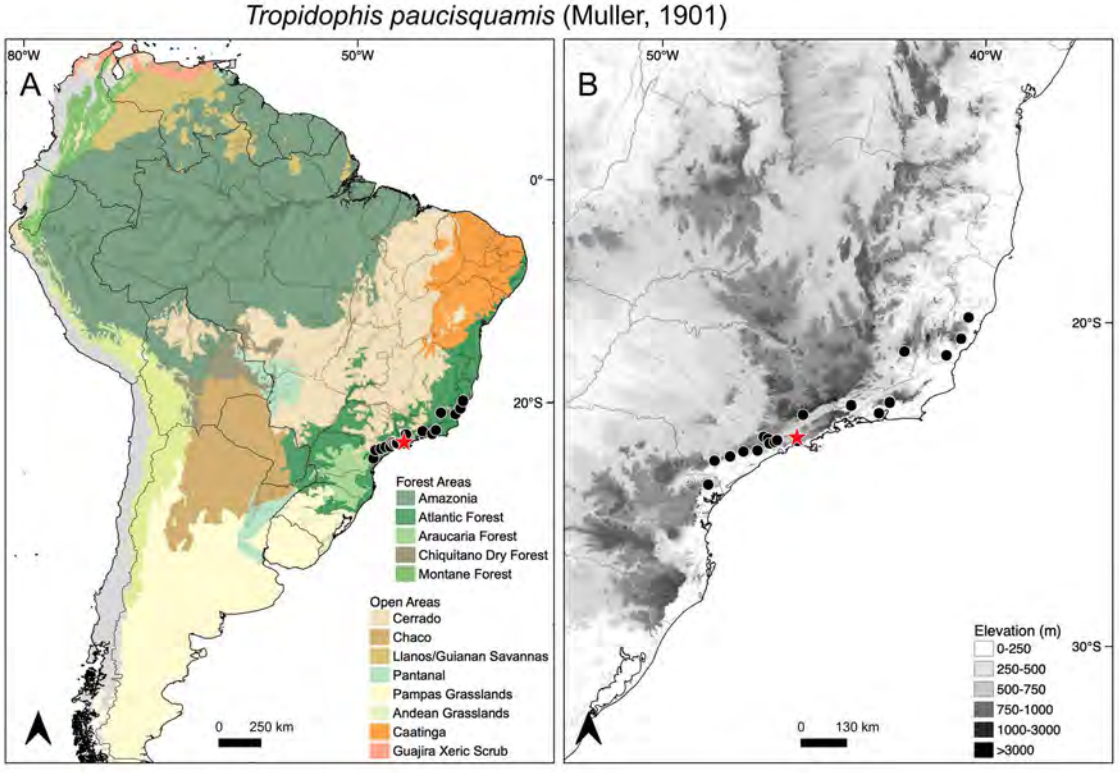


Plate 36. Distribution map of *Tropidophis paucisquamis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

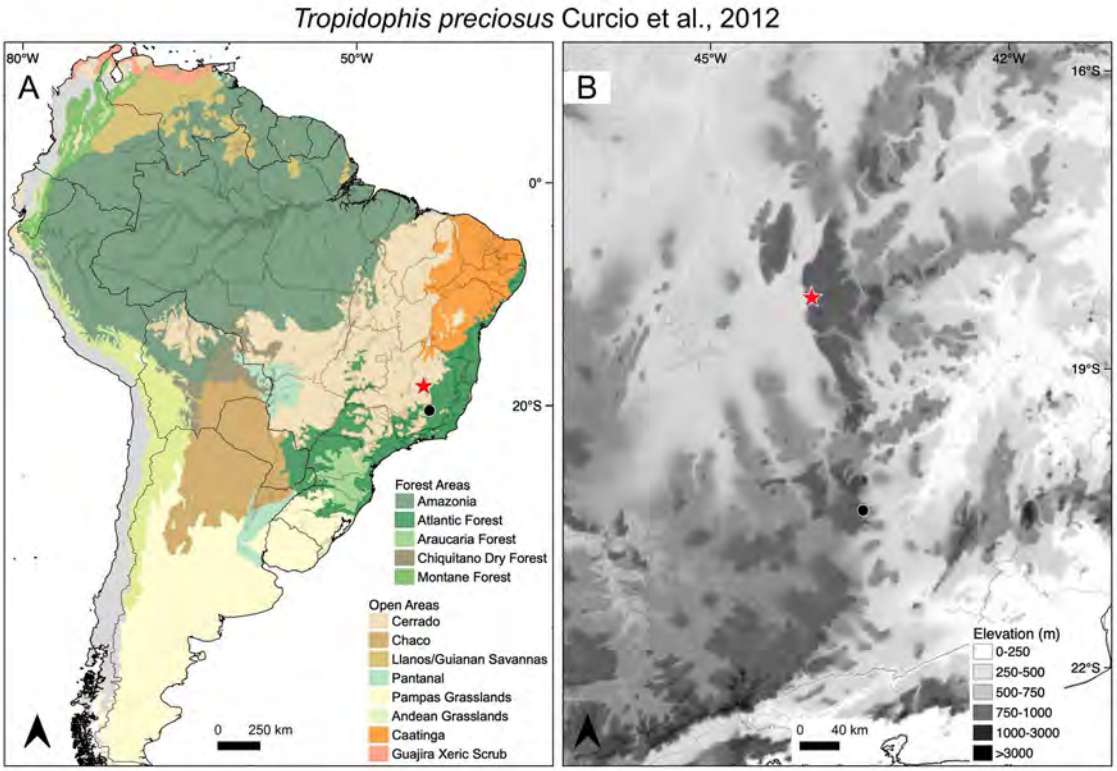


Plate 37. Distribution map of *Tropidophis preciosus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

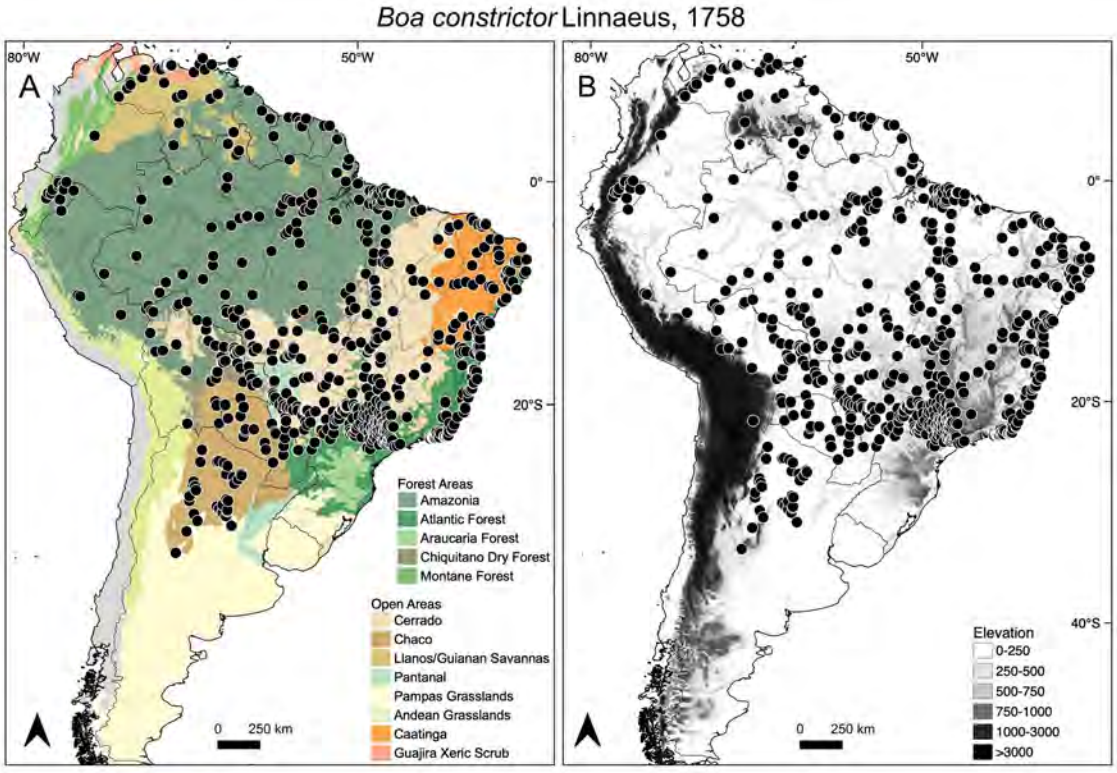


Plate 38. Distribution map of *Boa constrictor* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

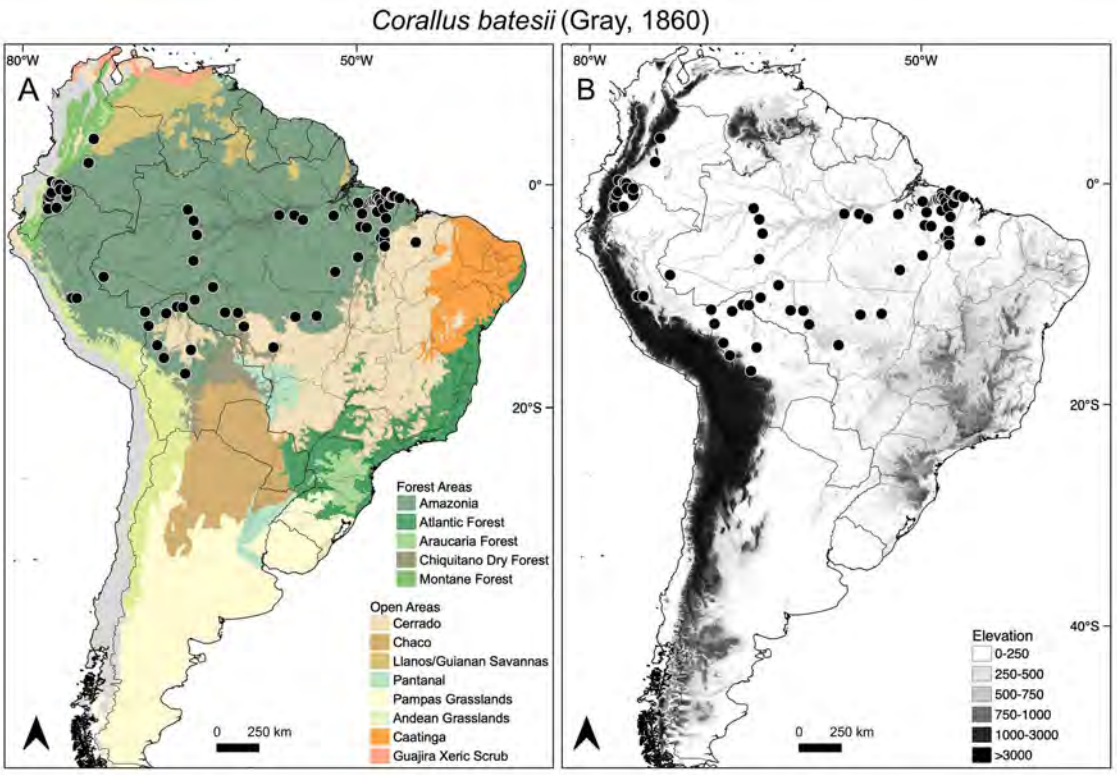


Plate 39. Distribution map of *Corallus batesii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

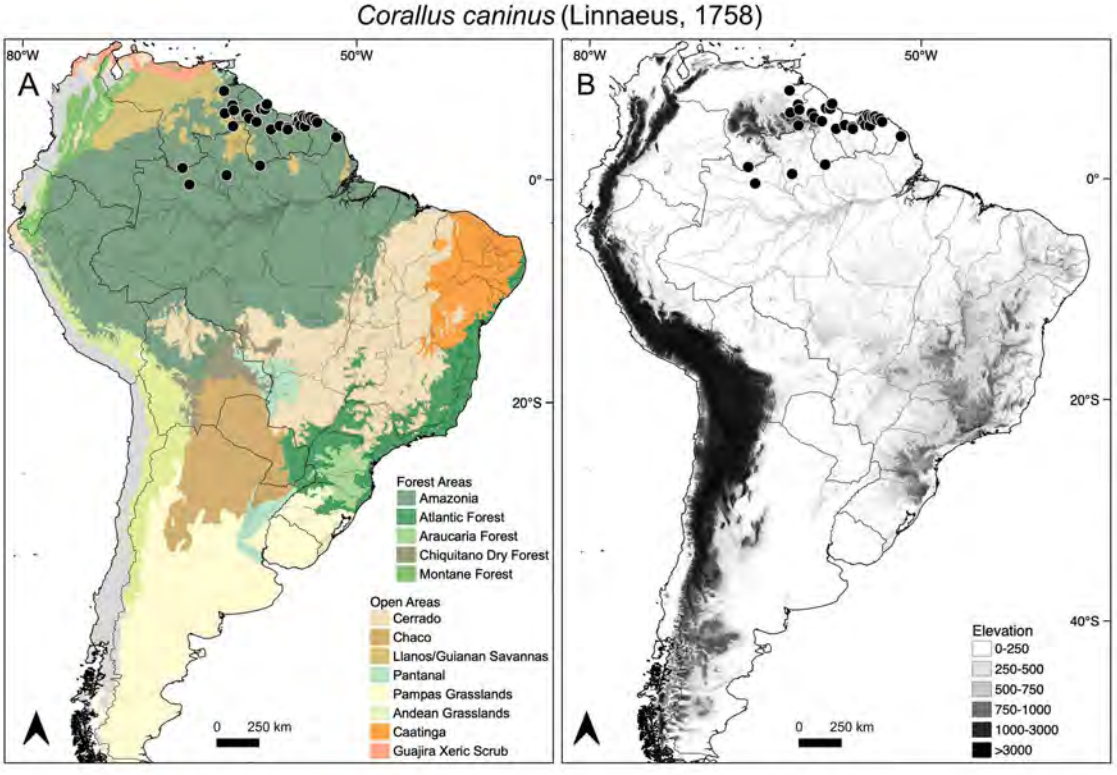


Plate 40. Distribution map of *Corallus caninus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

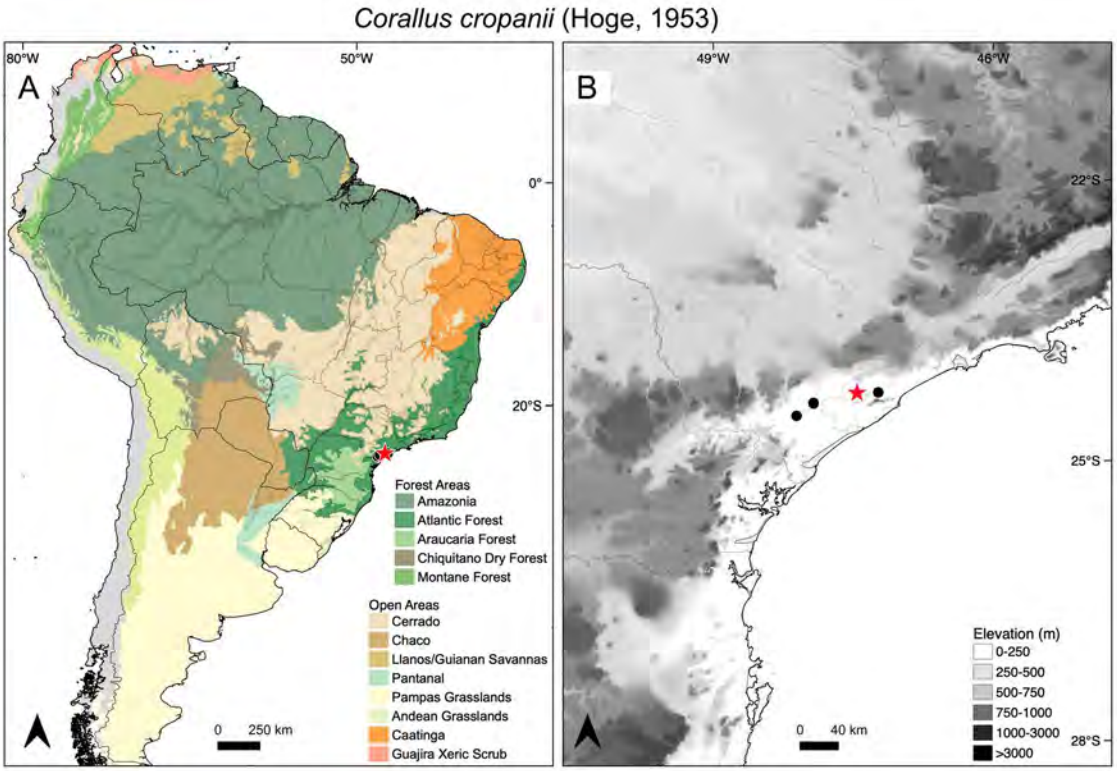


Plate 41. Distribution map of *Corallus cropanii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

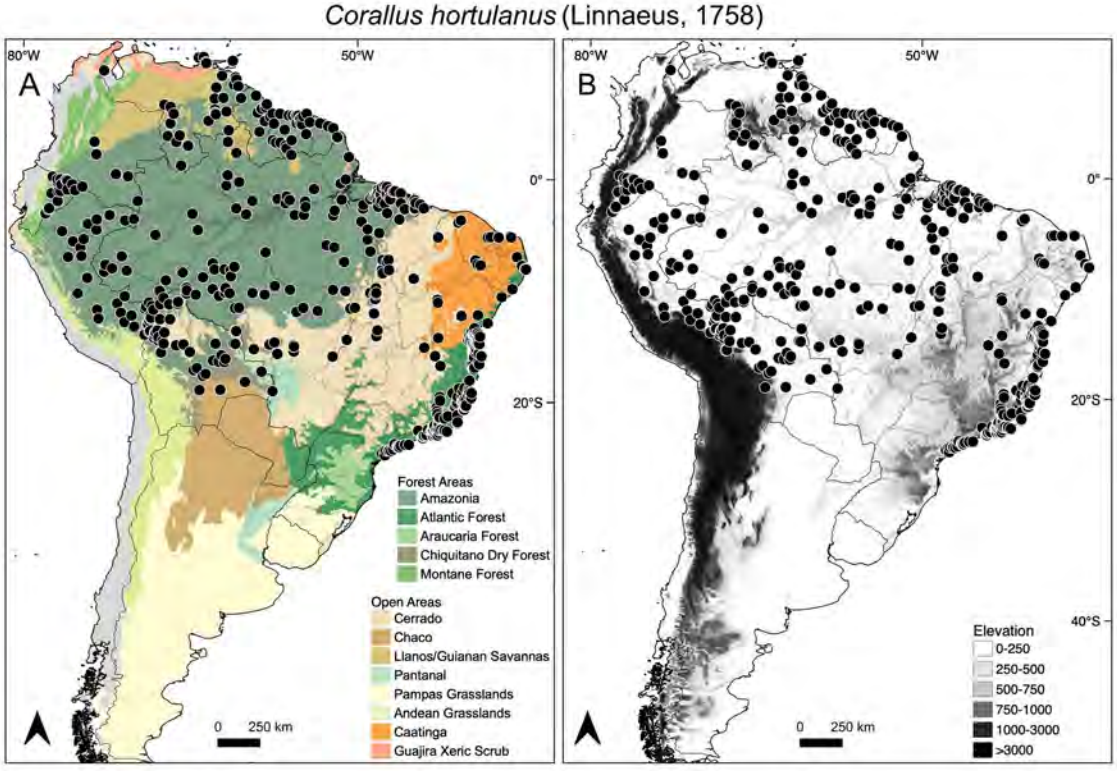


Plate 42. Distribution map of *Corallus hortulanus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

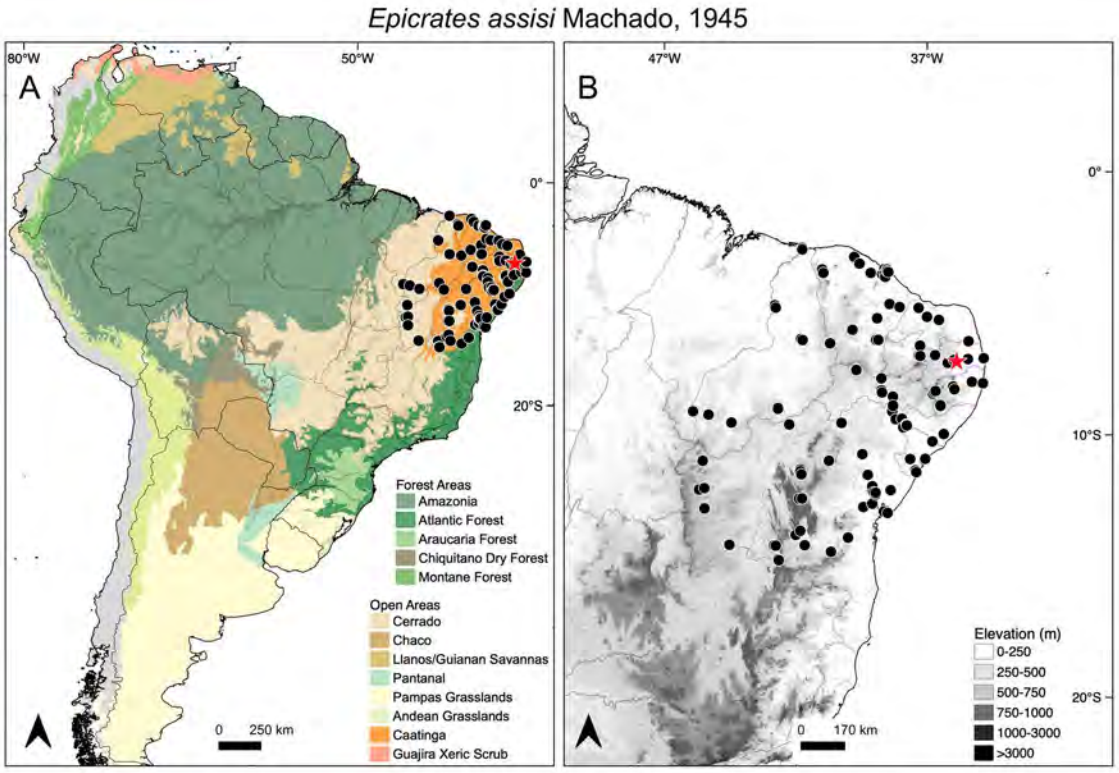


Plate 43. Distribution map of *Epicrates assisi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

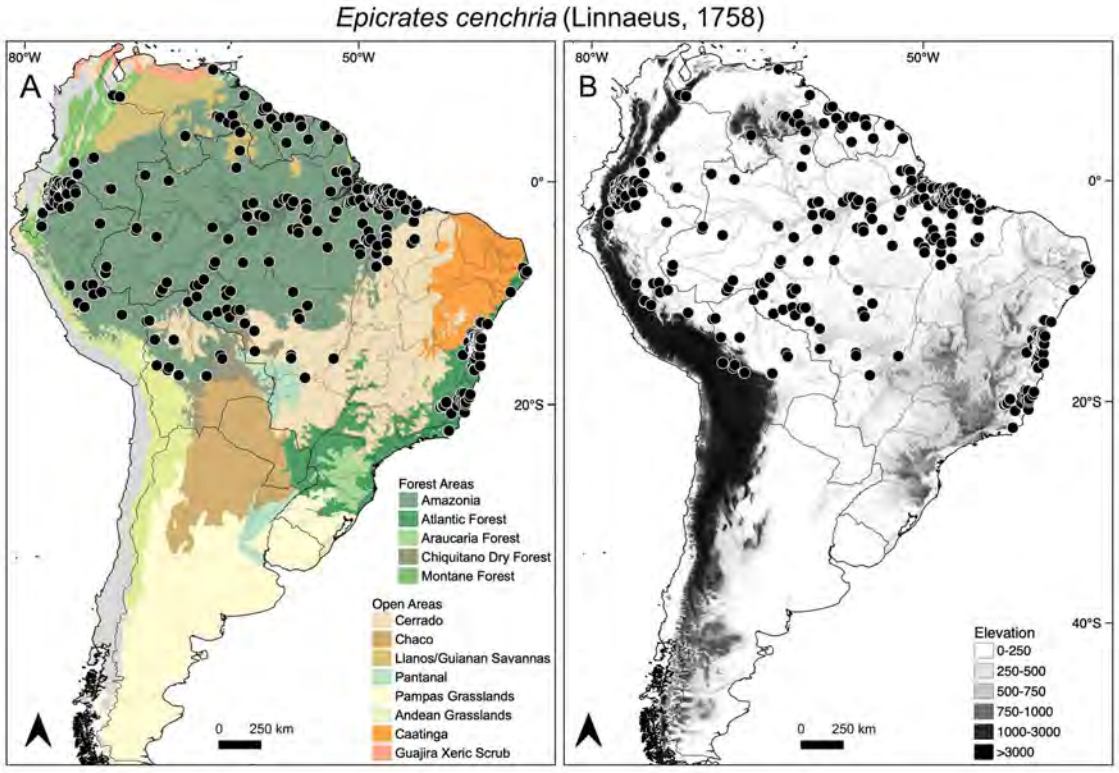


Plate 44. Distribution map of *Epicrates cenchria* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

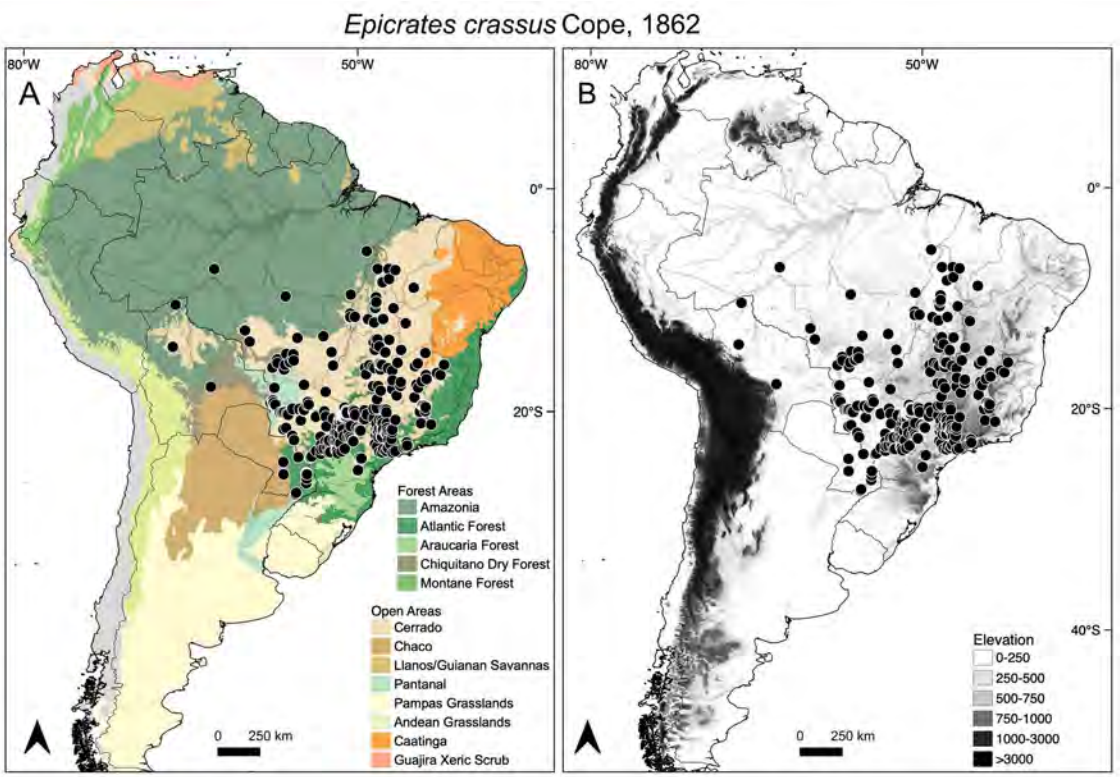


Plate 45. Distribution map of *Epicrates crassus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

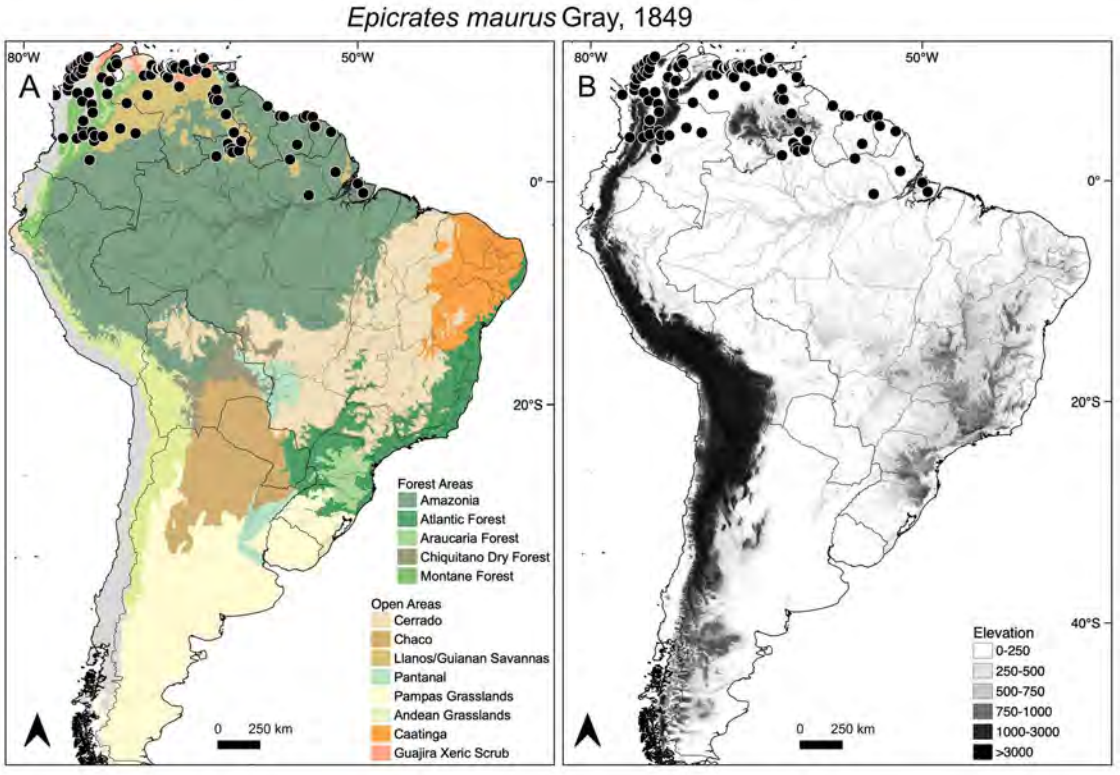


Plate 46. Distribution map of *Epicrates maurus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

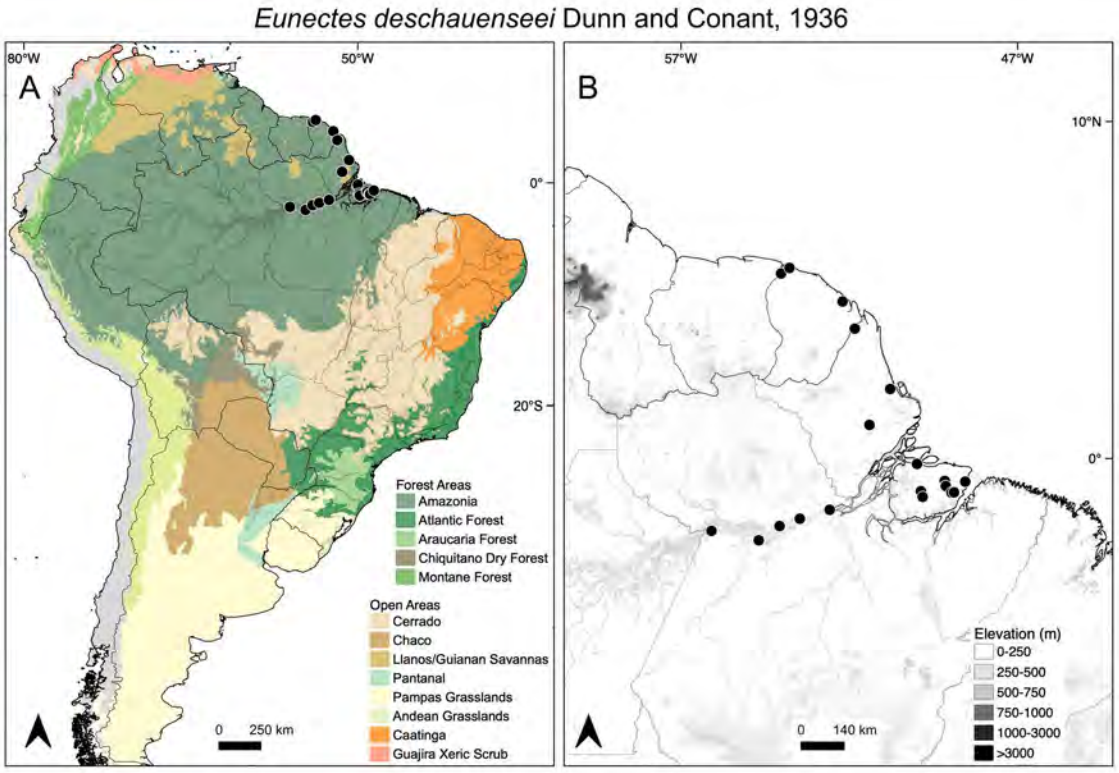


Plate 47. Distribution map of *Eunectes deschauenseei* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

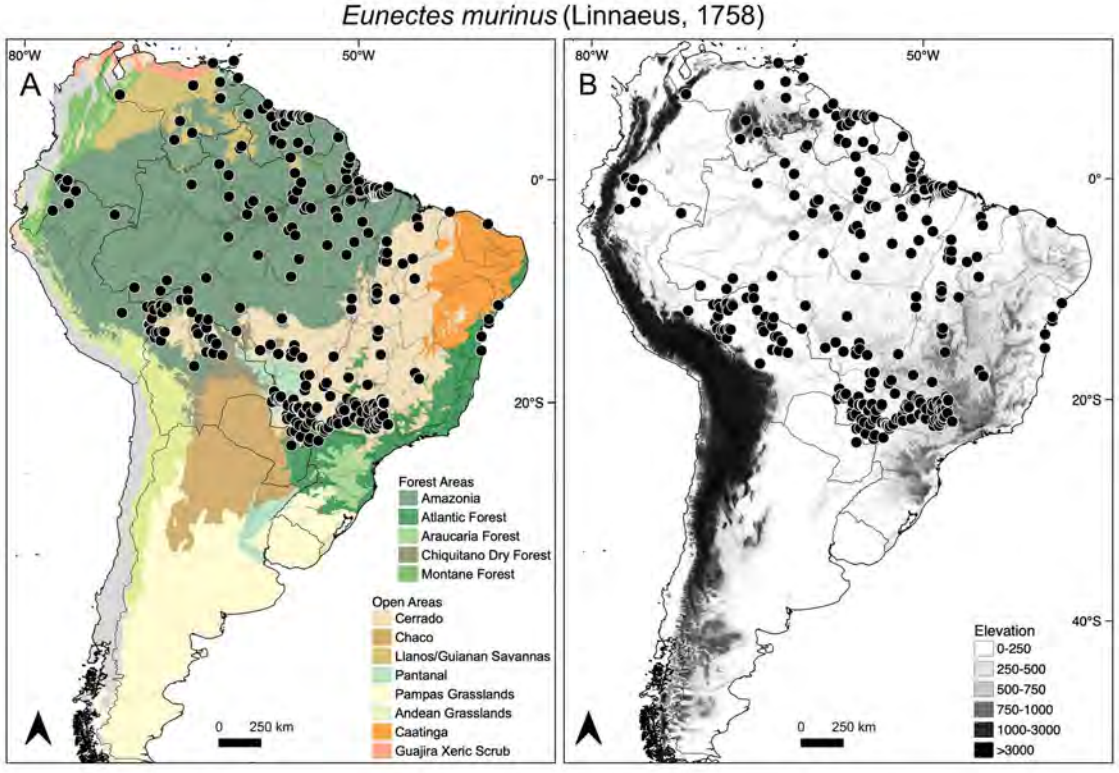


Plate 48. Distribution map of *Eunectes murinus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

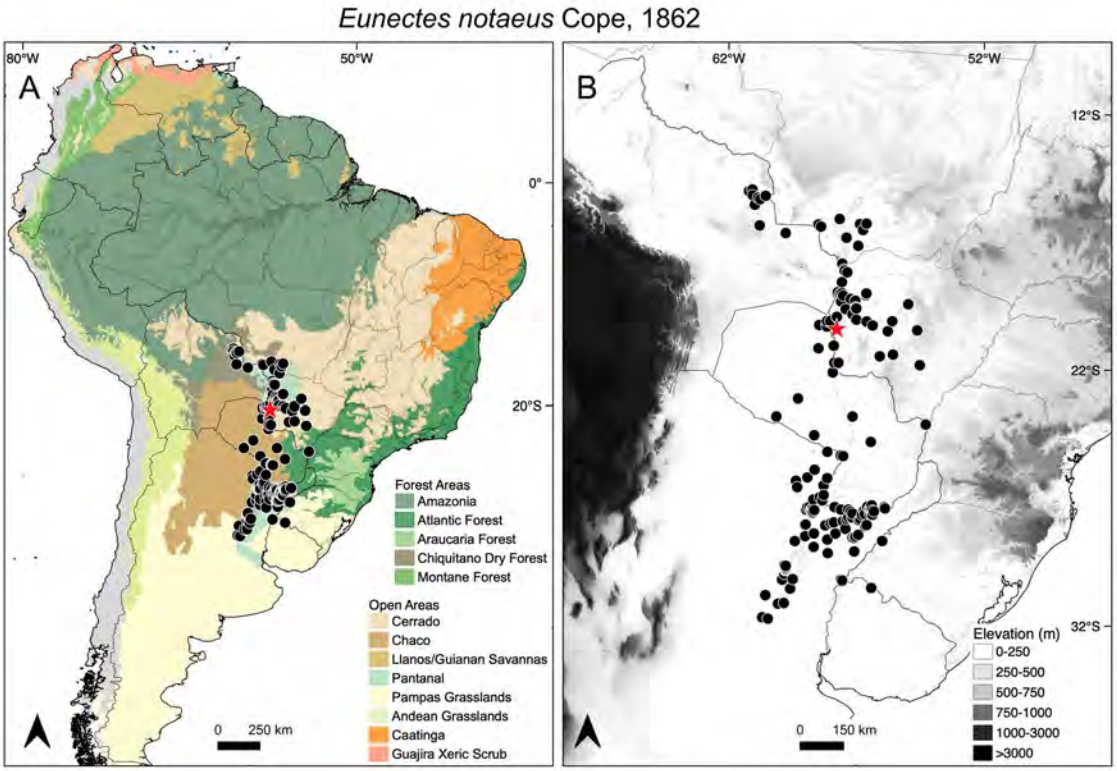


Plate 49. Distribution map of *Eunectes notaeus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

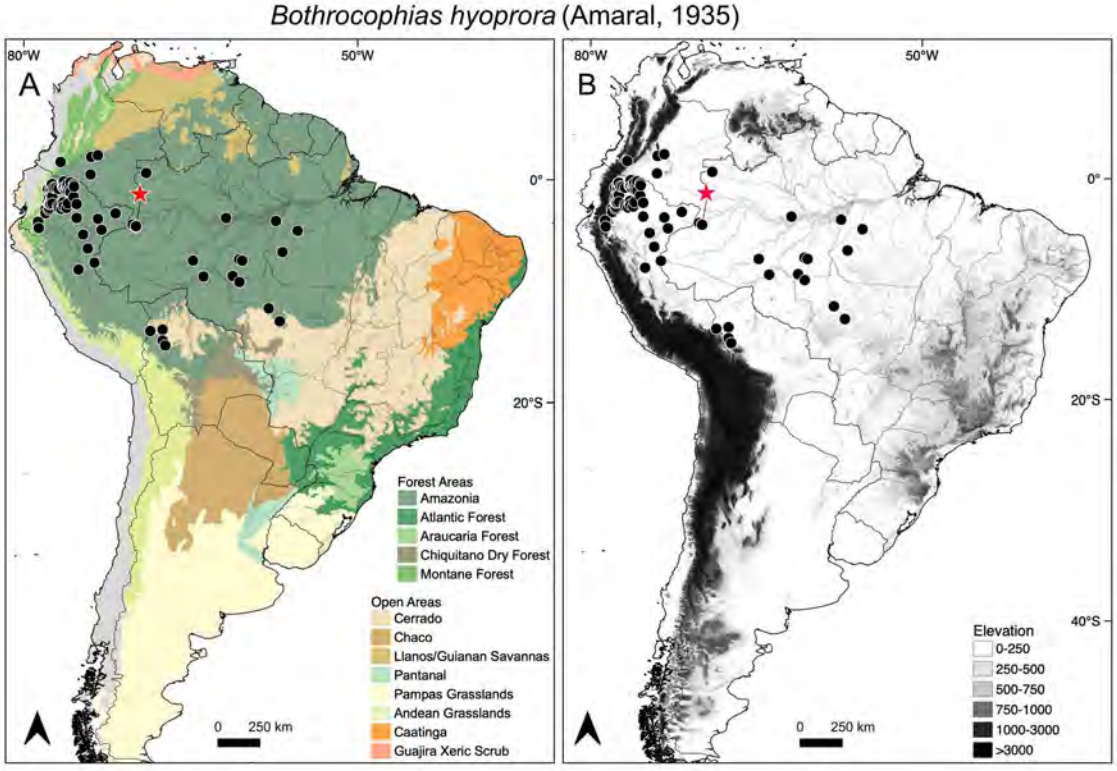


Plate 50. Distribution map of *Bothrocophias hyoprora* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

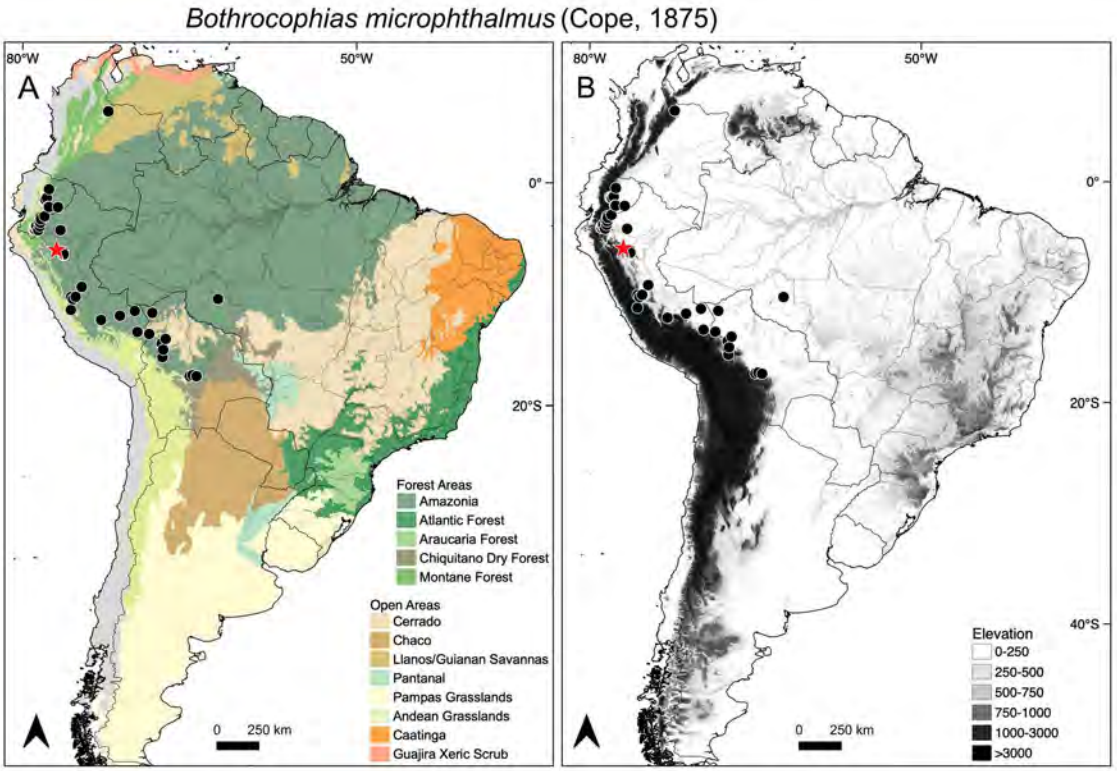


Plate 51. Distribution map of *Bothrocophias microphthalmus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

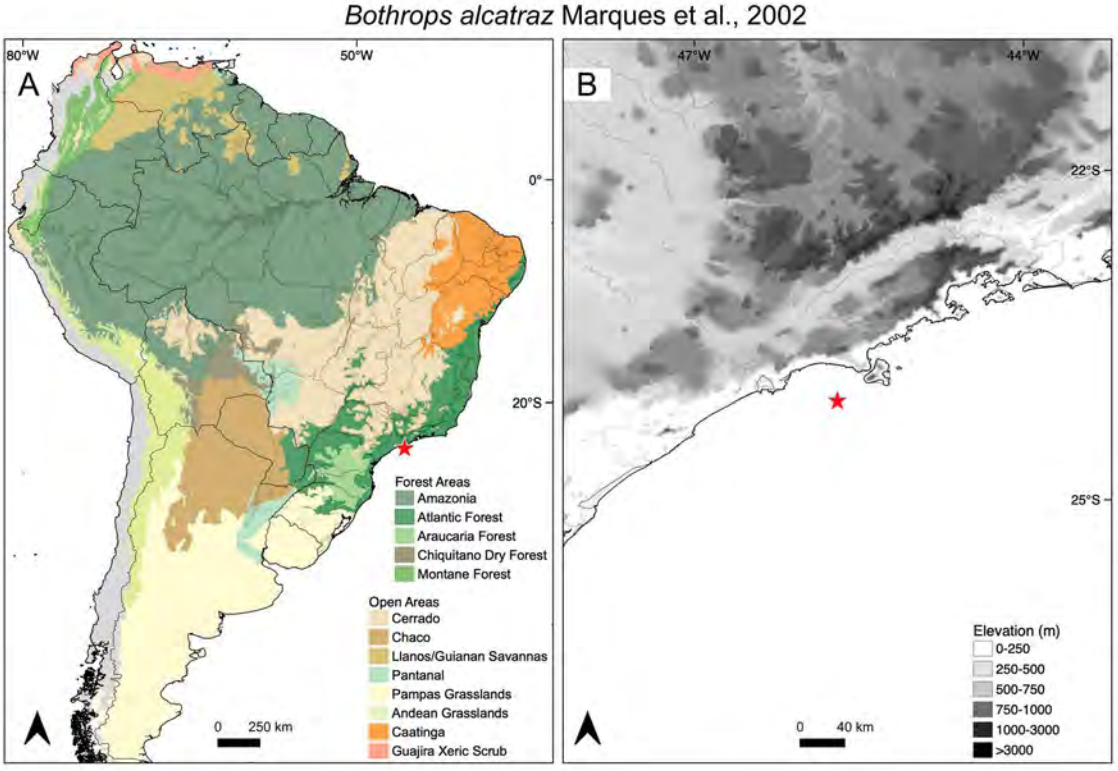


Plate 52. Distribution map of *Bothrops alcatraz* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

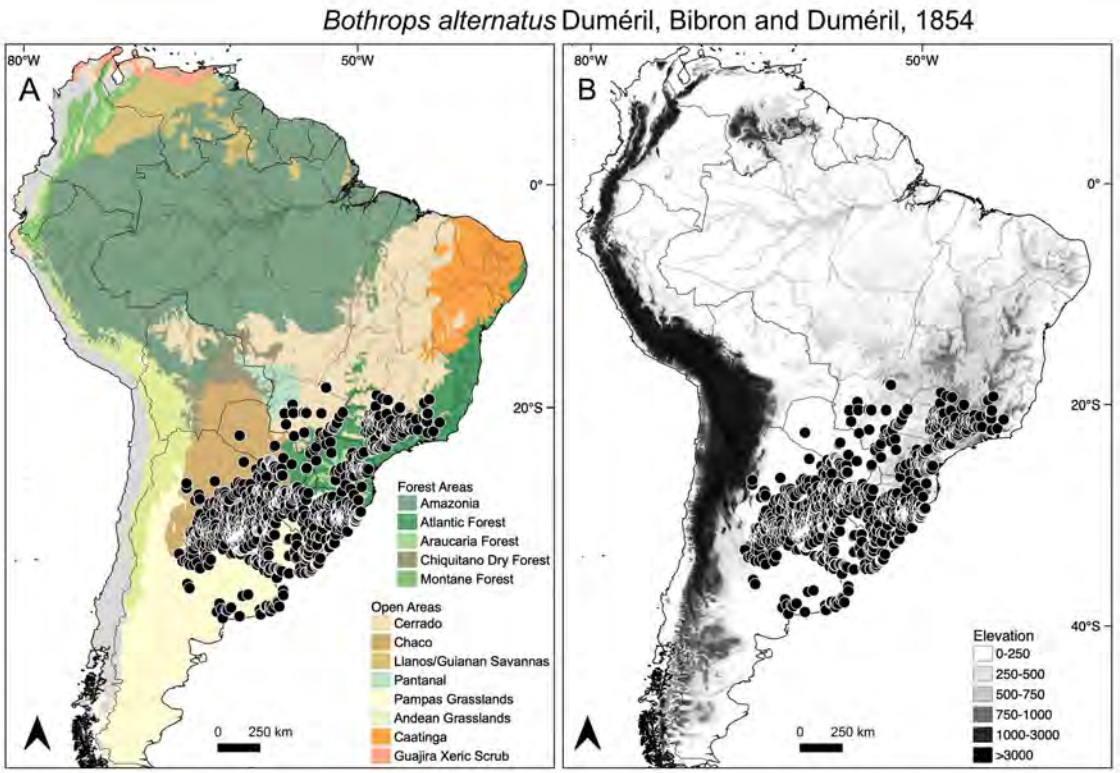


Plate 53. Distribution map of *Bothrops alternatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

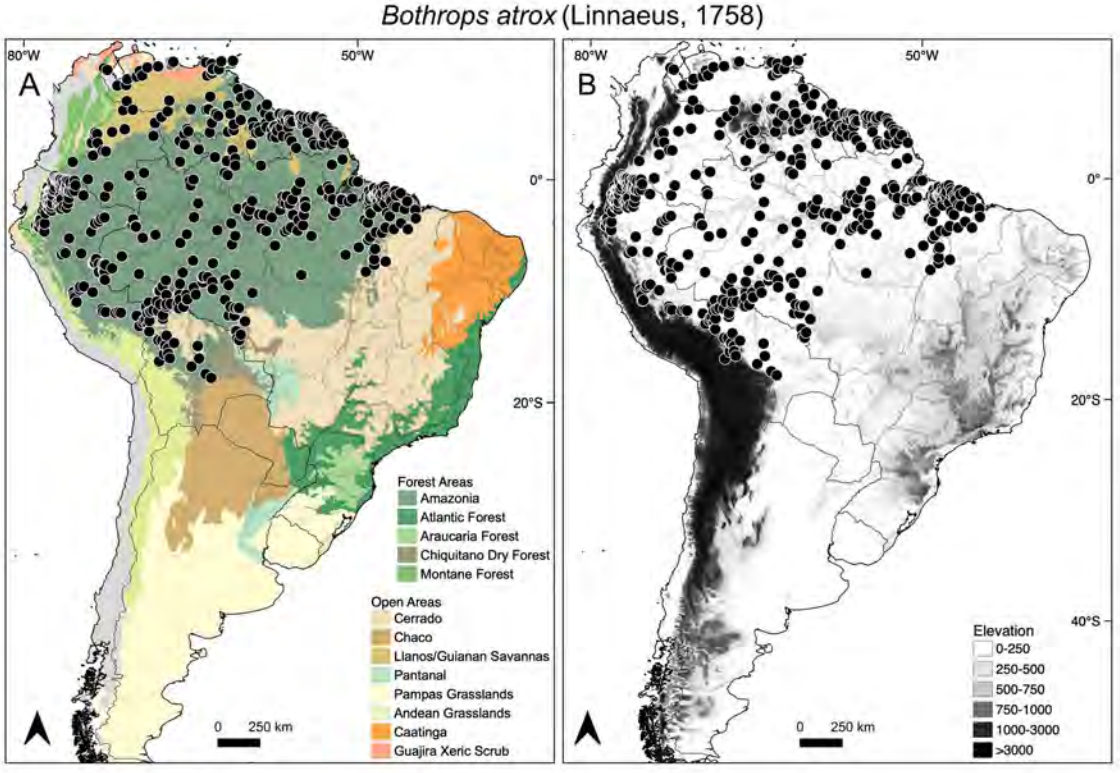


Plate 54. Distribution map of *Bothrops atrox* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

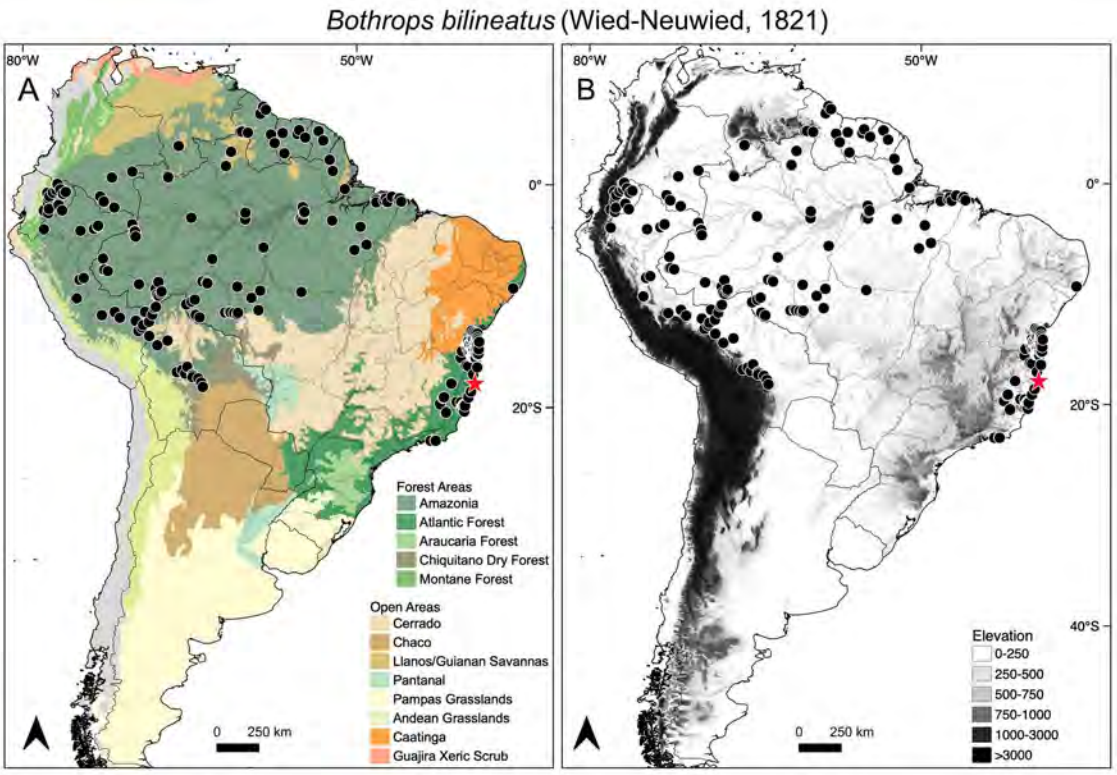


Plate 55. Distribution map of *Bothrops bilineatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

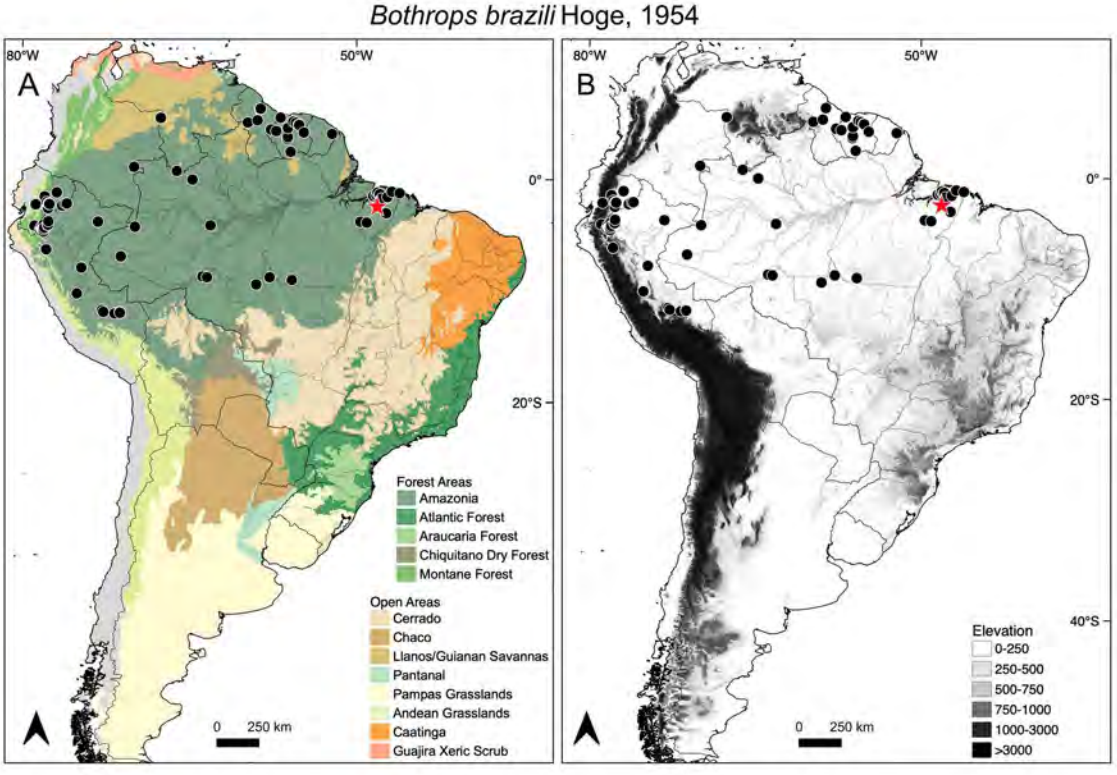


Plate 56. Distribution map of *Bothrops brazili* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

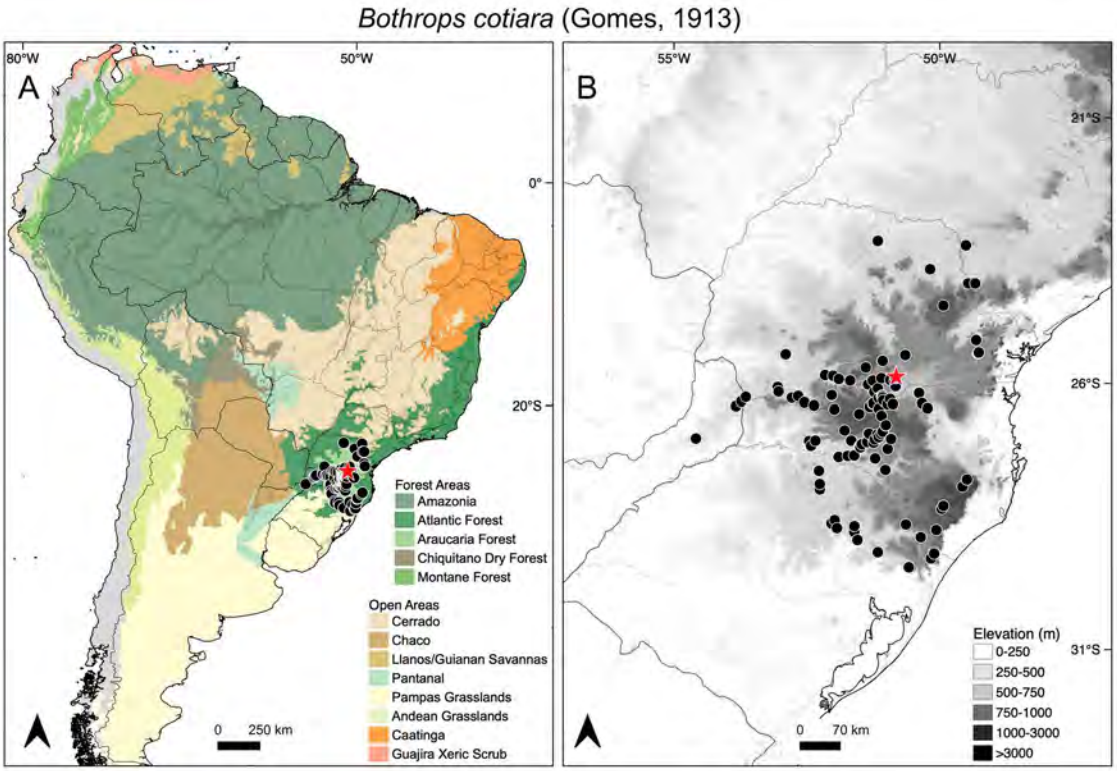


Plate 57. Distribution map of *Bothrops cotiara* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

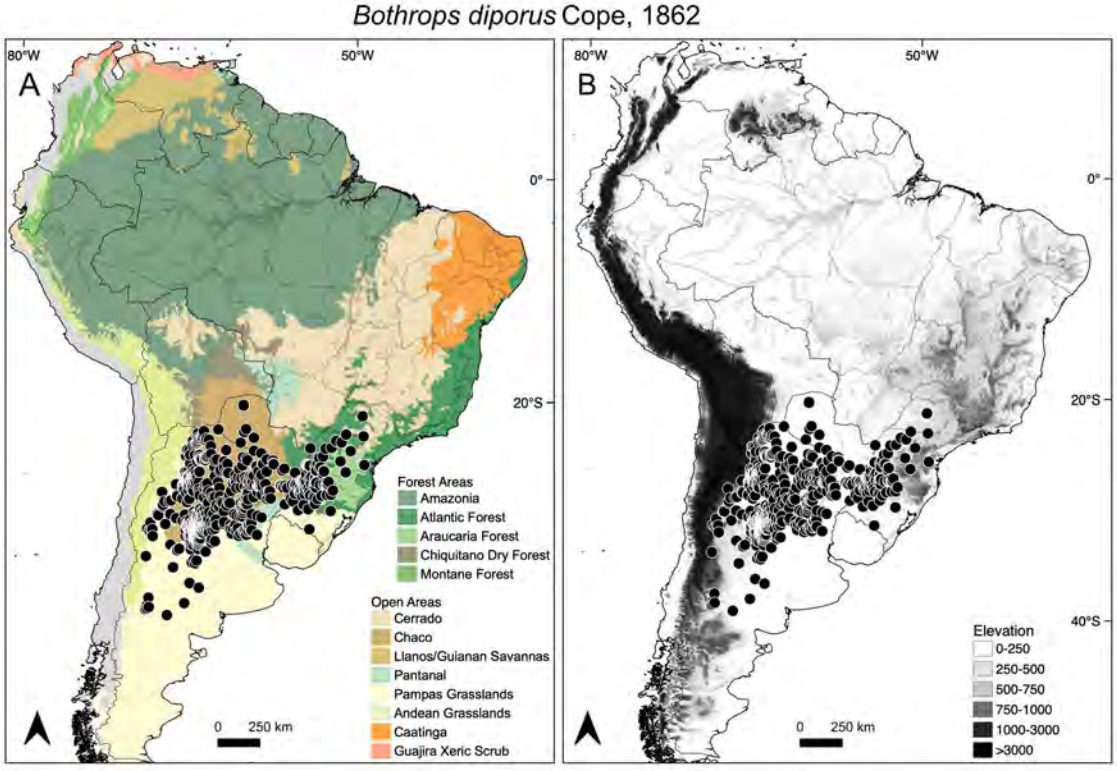


Plate 58. Distribution map of *Bothrops diporus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

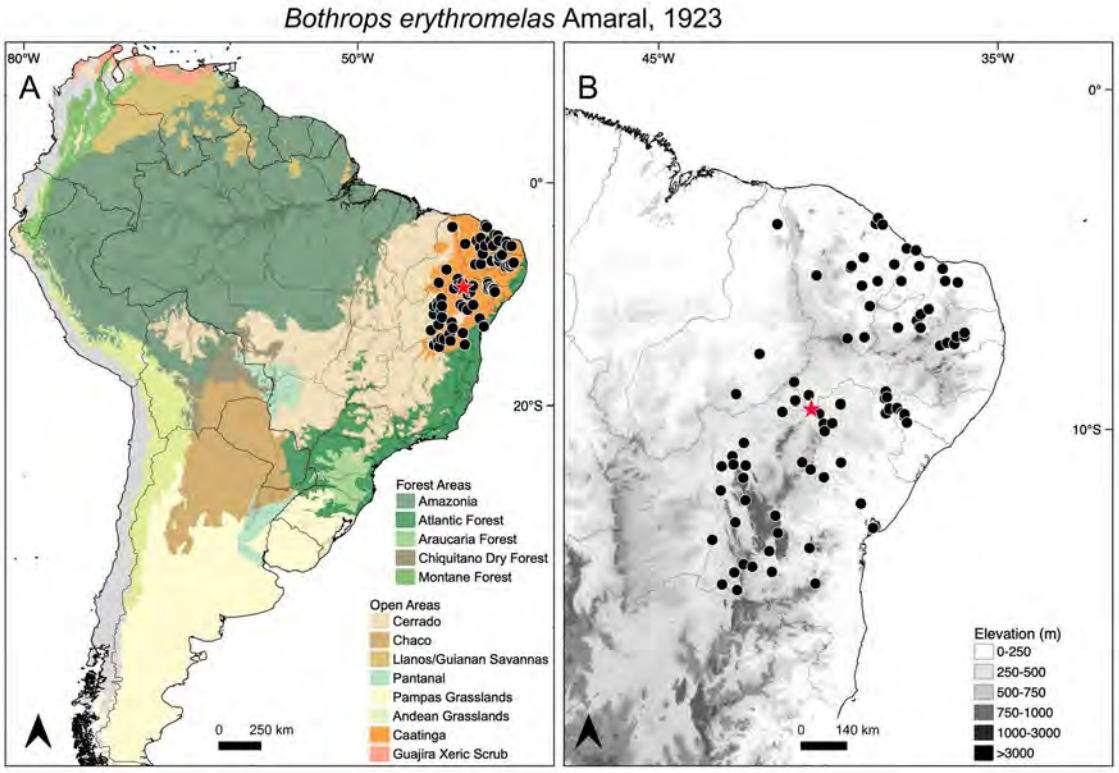


Plate 59. Distribution map of *Bothrops erythromelas* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

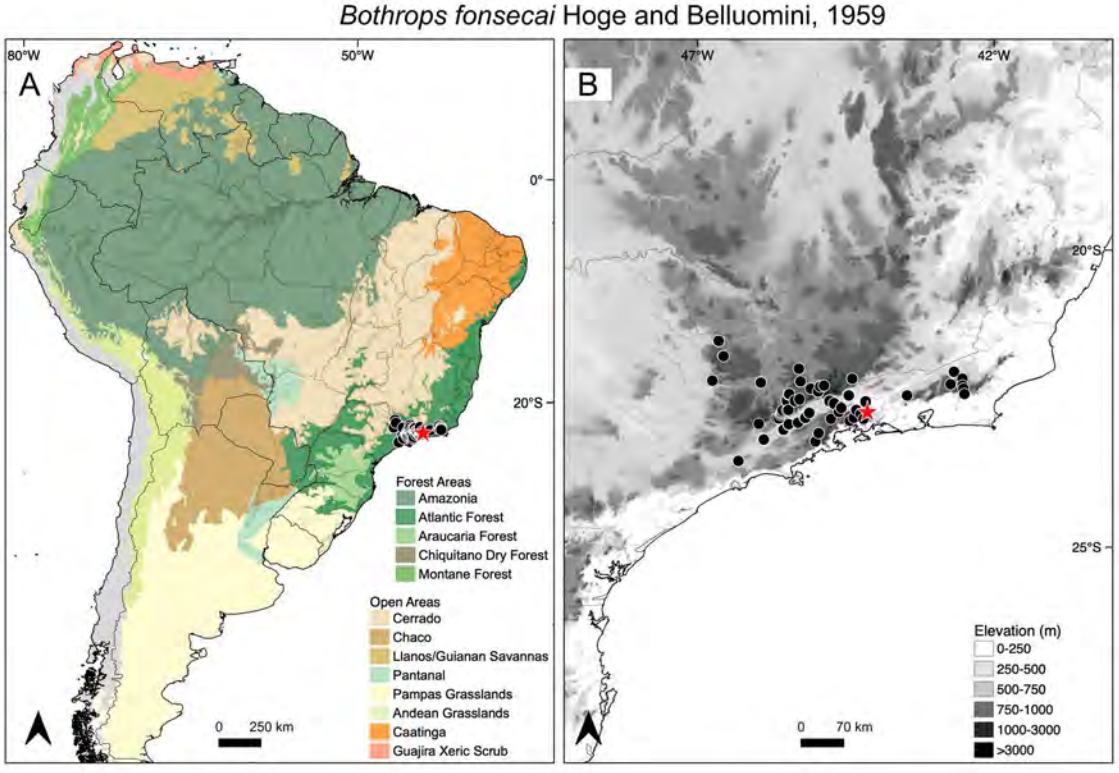


Plate 60. Distribution map of *Bothrops fonsecai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

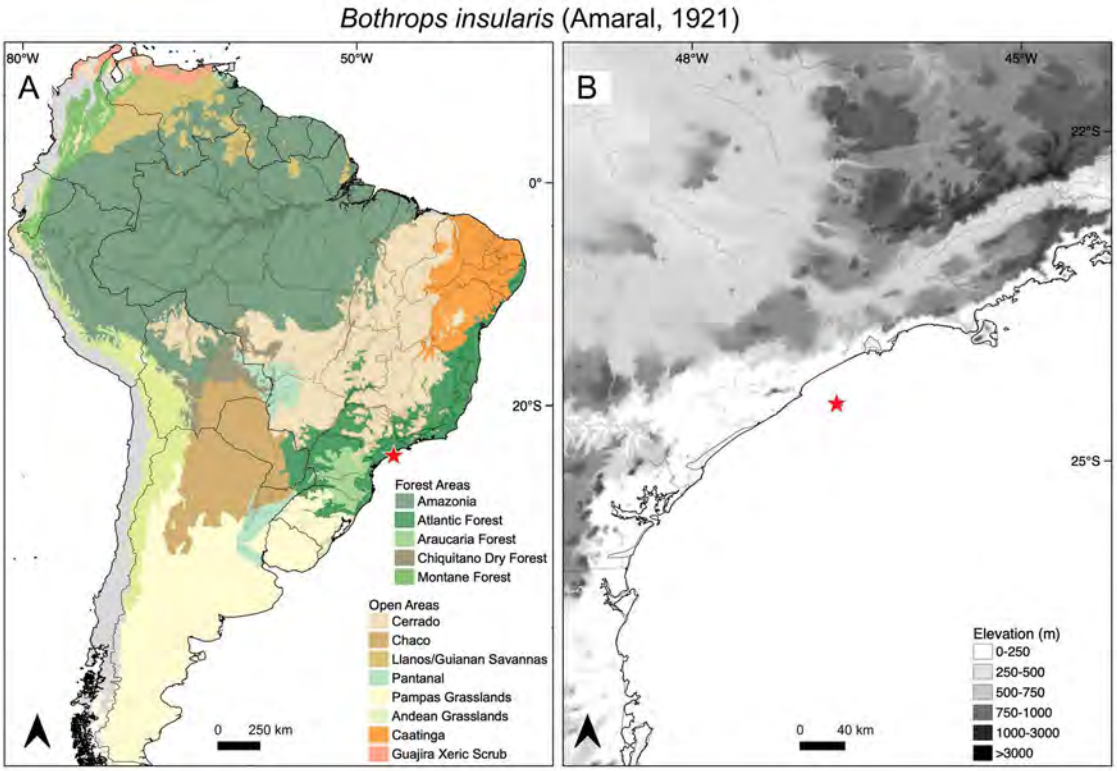


Plate 61. Distribution map of *Bothrops insularis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

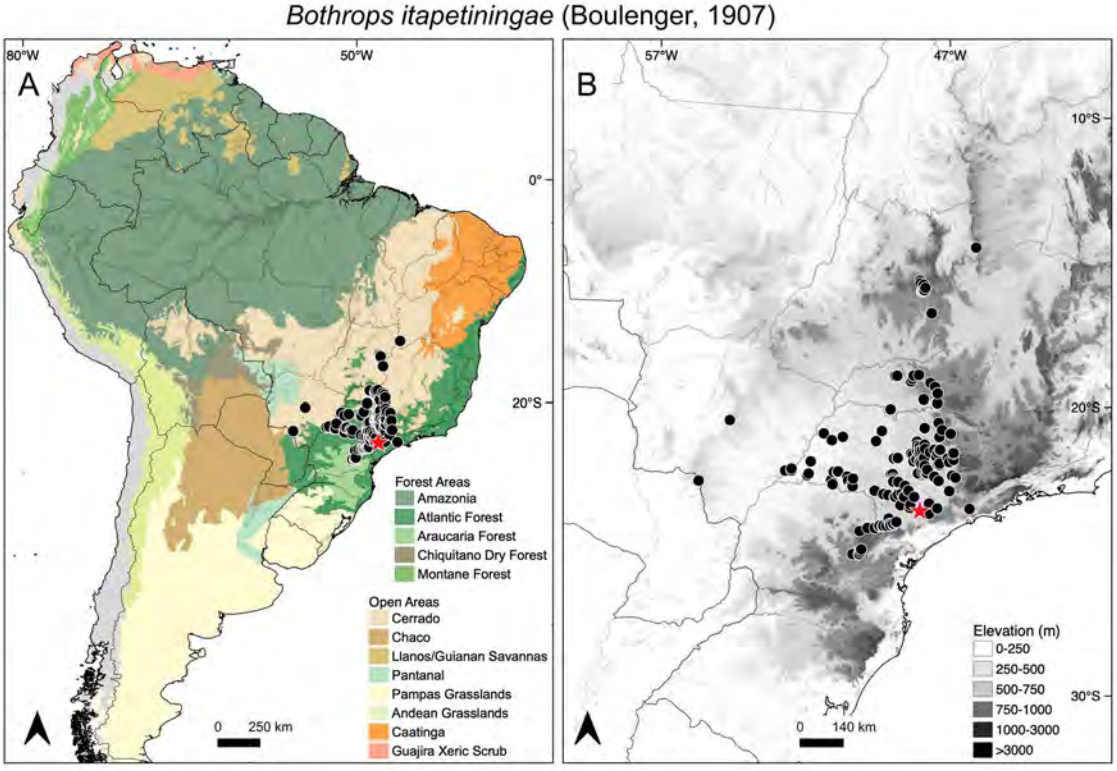


Plate 62. Distribution map of *Bothrops itapetiningae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

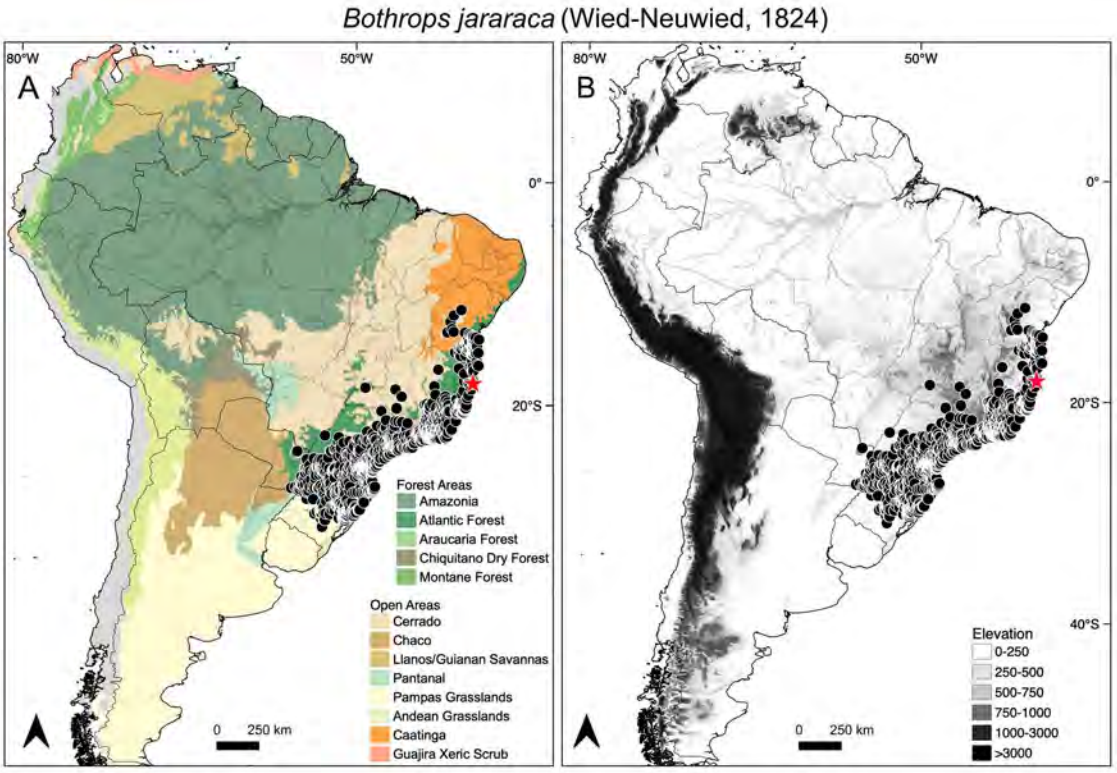


Plate 63. Distribution map of *Bothrops jararaca* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

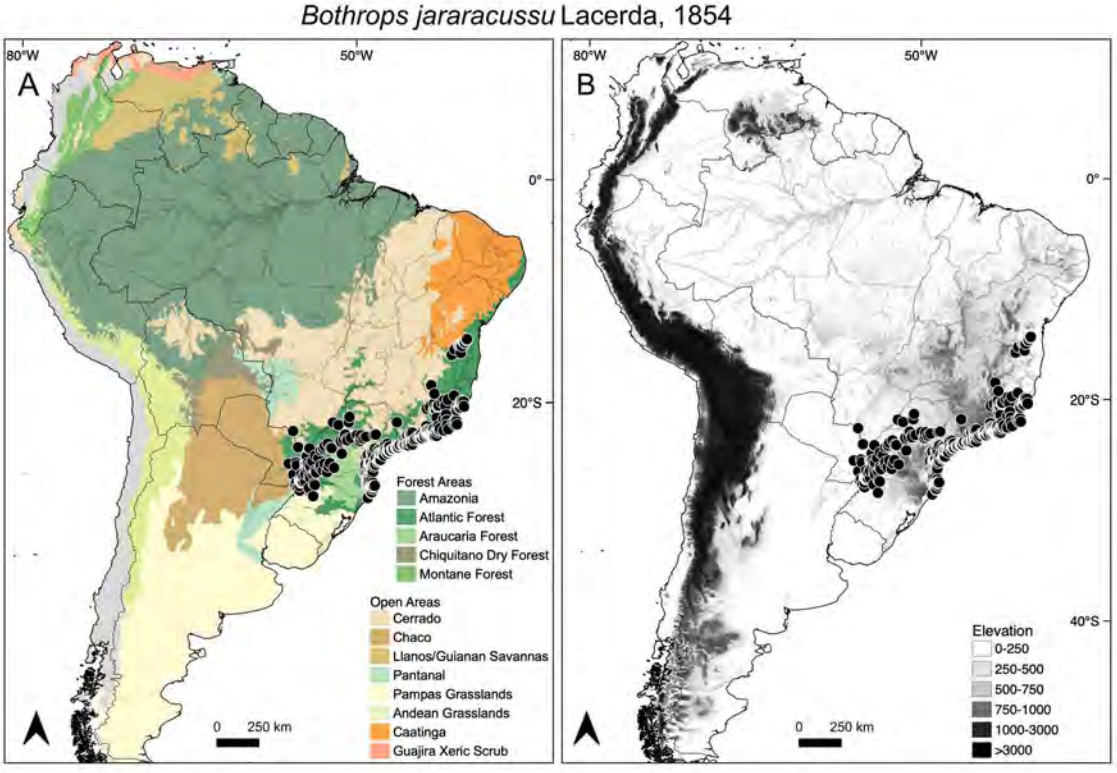


Plate 64. Distribution map of *Bothrops jararacussu* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

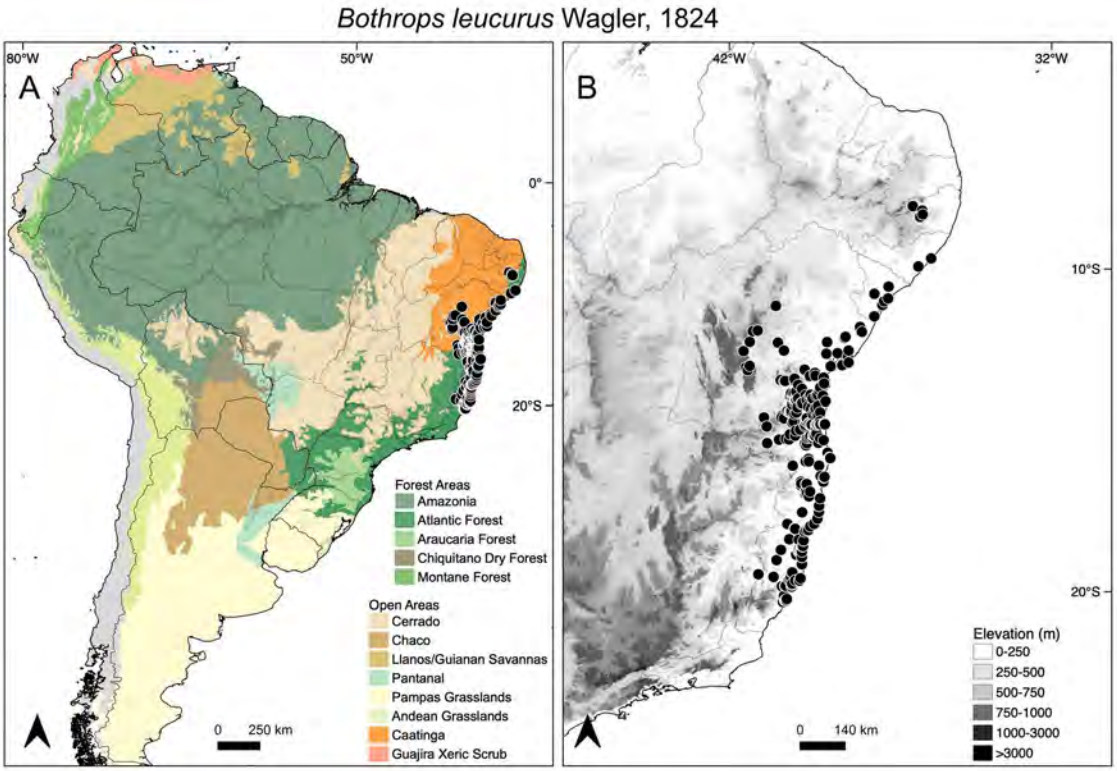


Plate 65. Distribution map of *Bothrops leucurus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

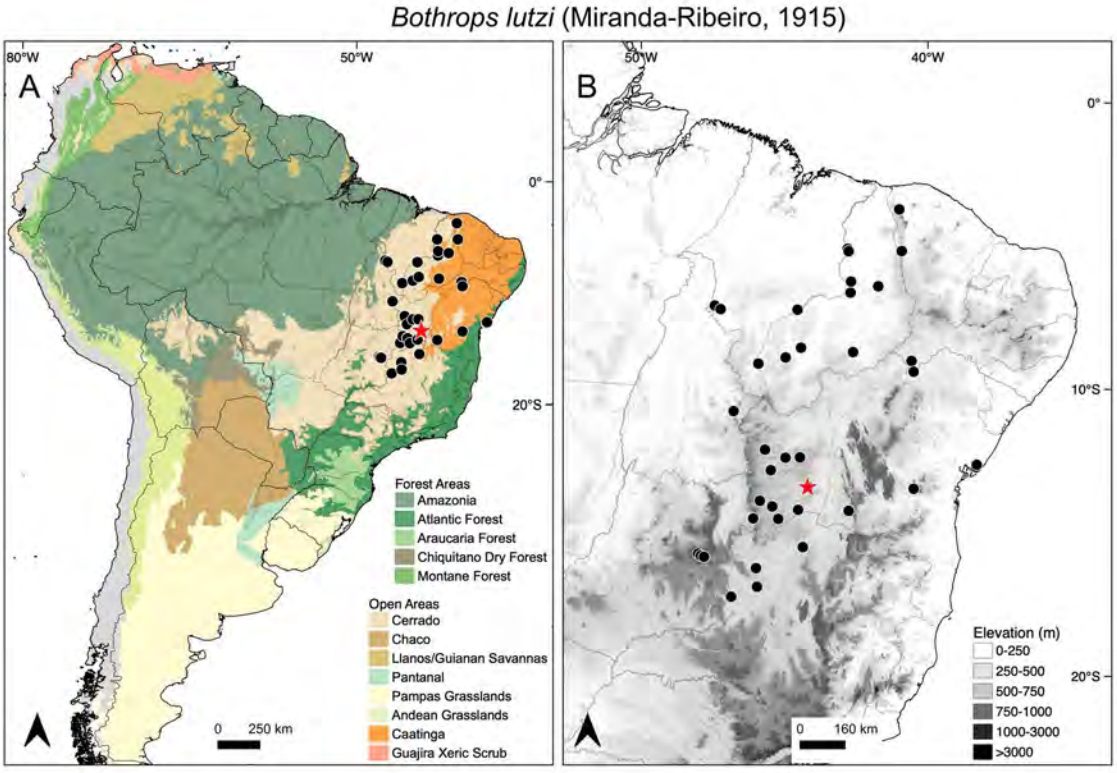


Plate 66. Distribution map of *Bothrops lutzi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

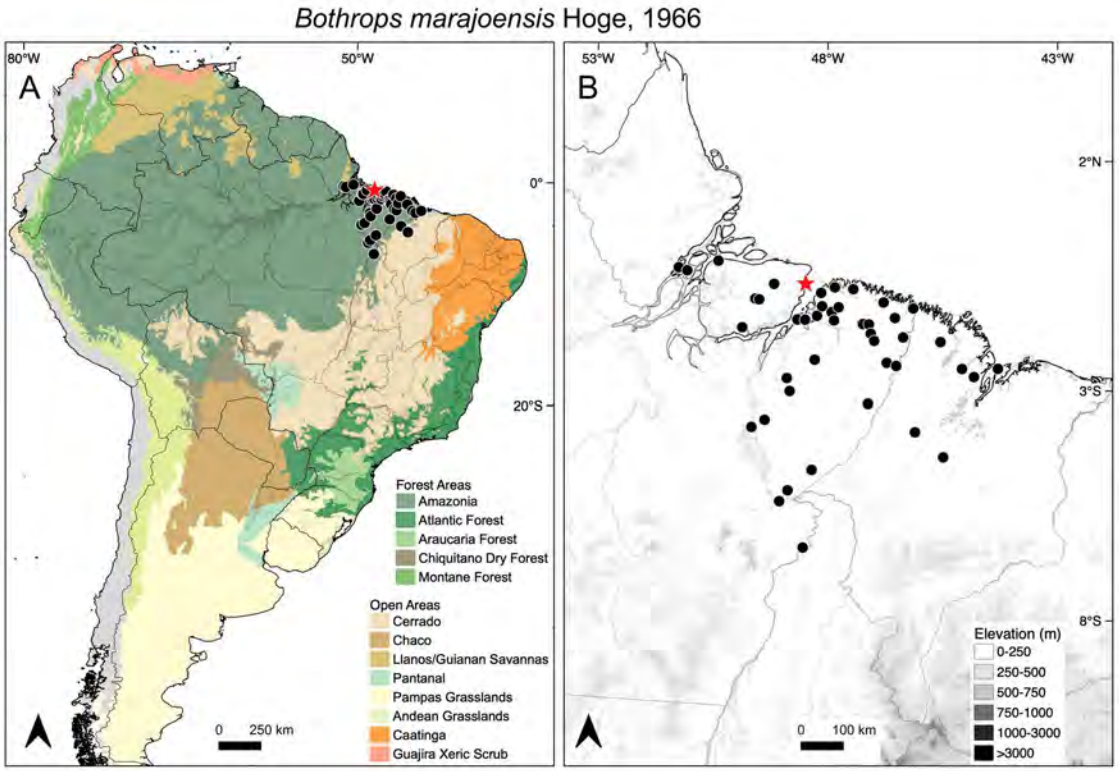


Plate 67. Distribution map of *Bothrops marajoensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

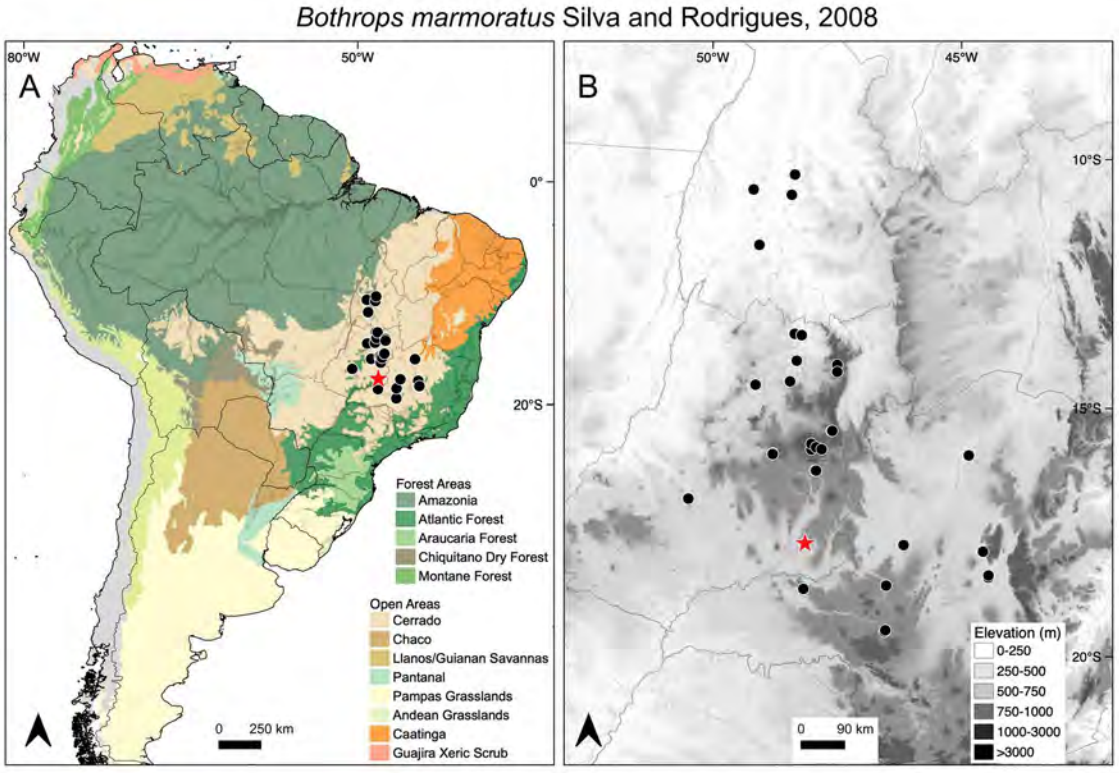


Plate 68. Distribution map of *Bothrops marmoratus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

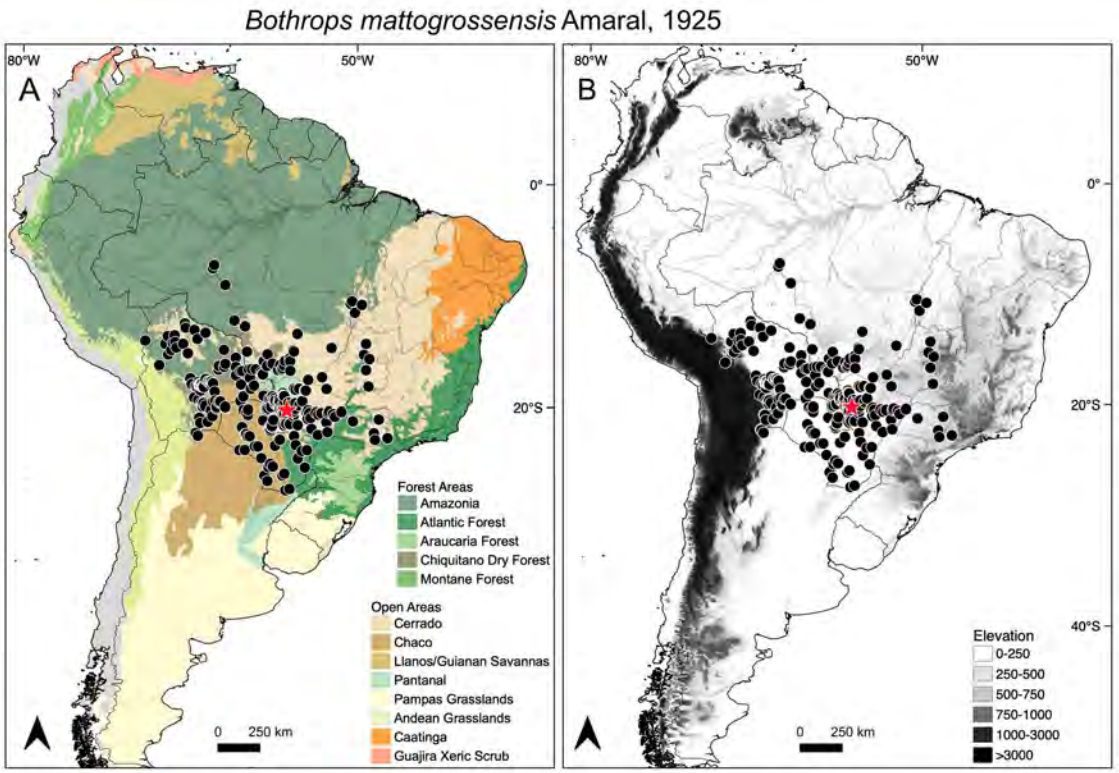


Plate 69. Distribution map of *Bothrops mattogrossensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

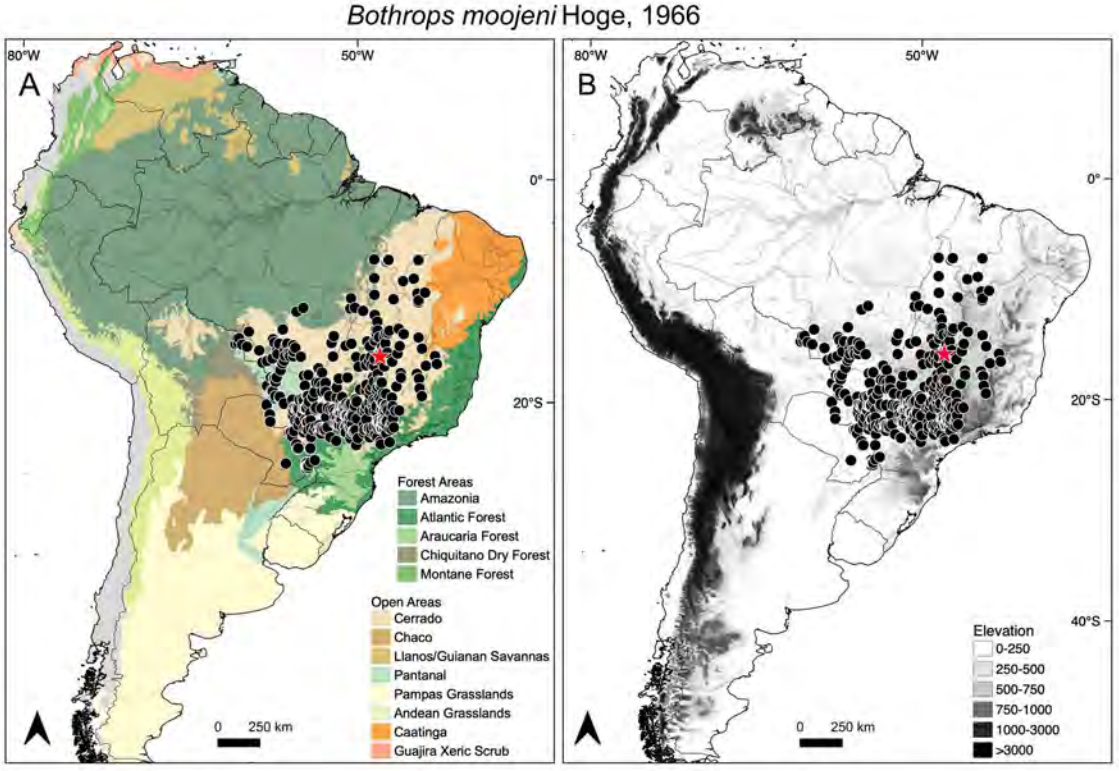


Plate 70. Distribution map of *Bothrops moojeni* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

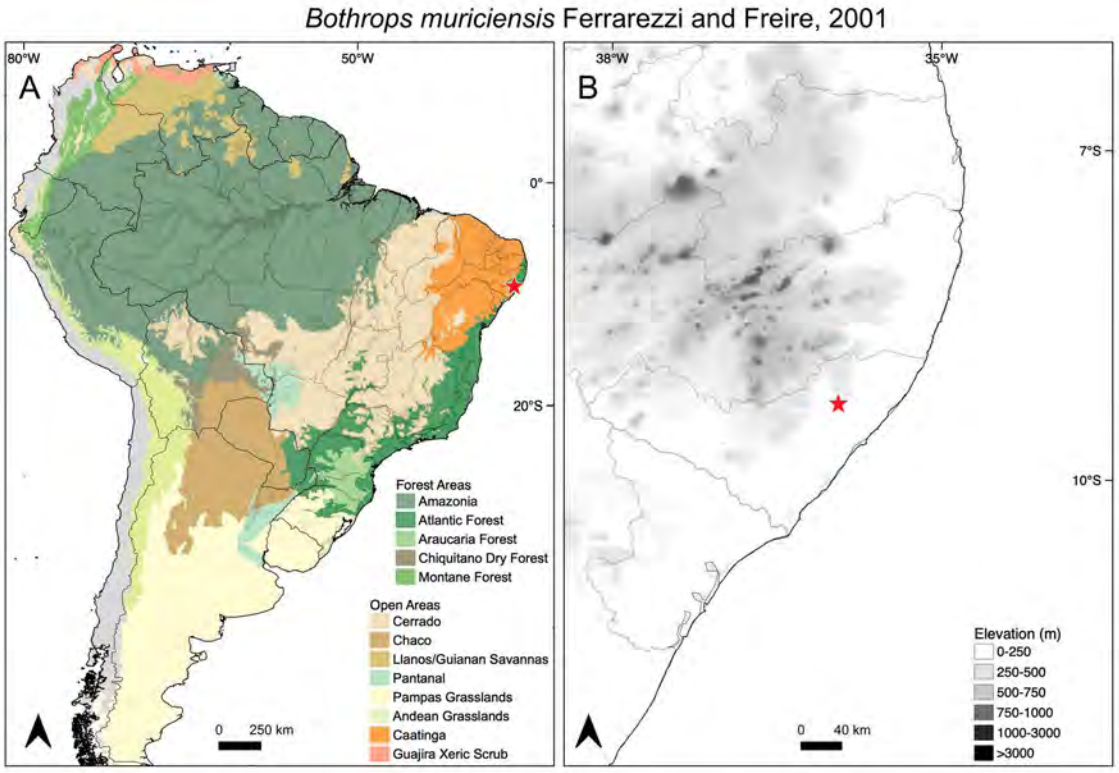


Plate 71. Distribution map of *Bothrops muriciensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

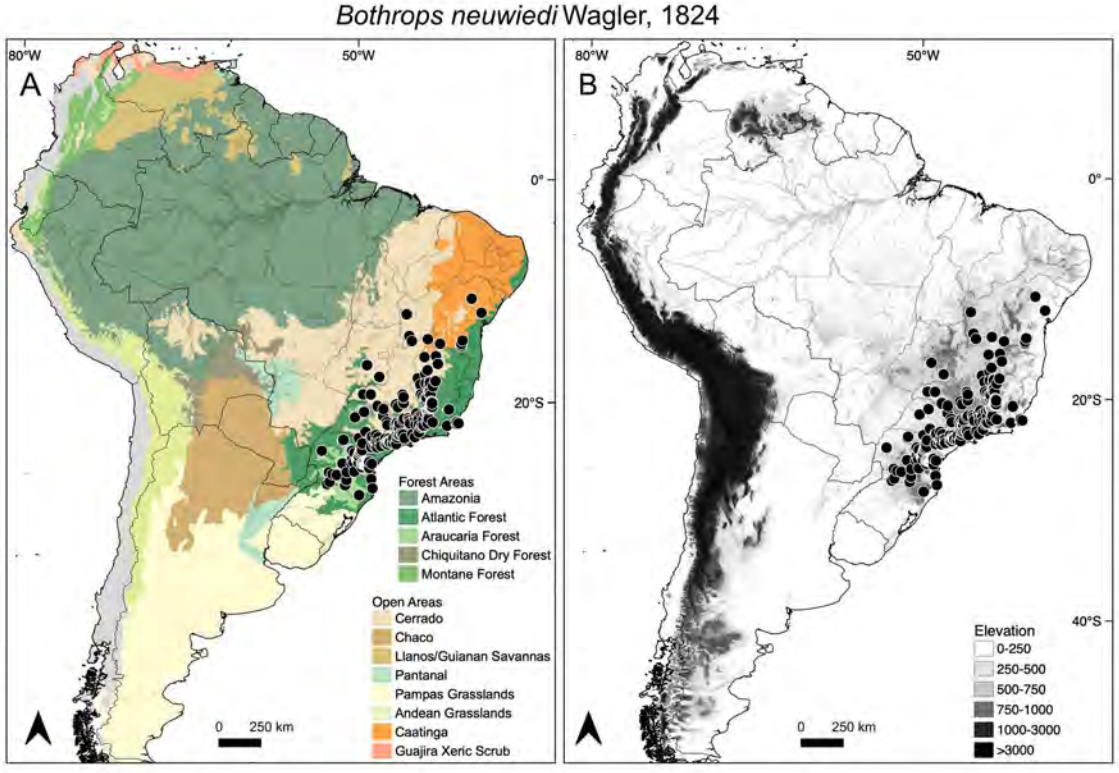


Plate 72. Distribution map of *Bothrops neuwiedi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

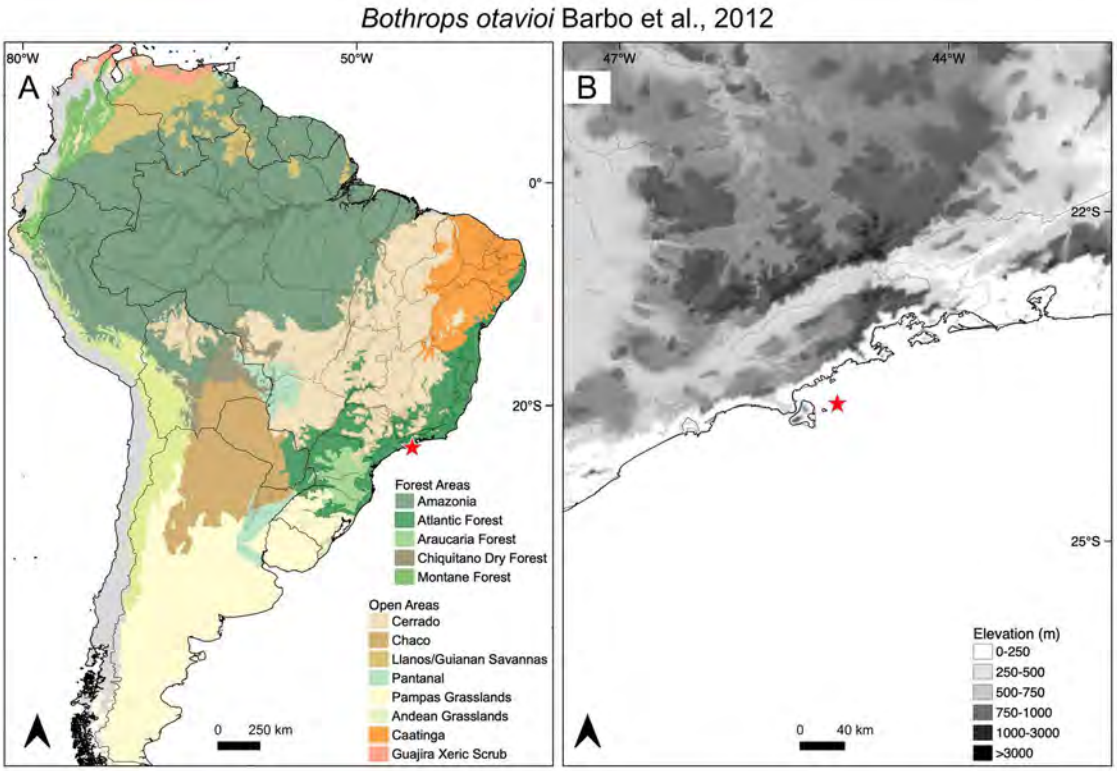


Plate 73. Distribution map of *Bothrops otavioi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

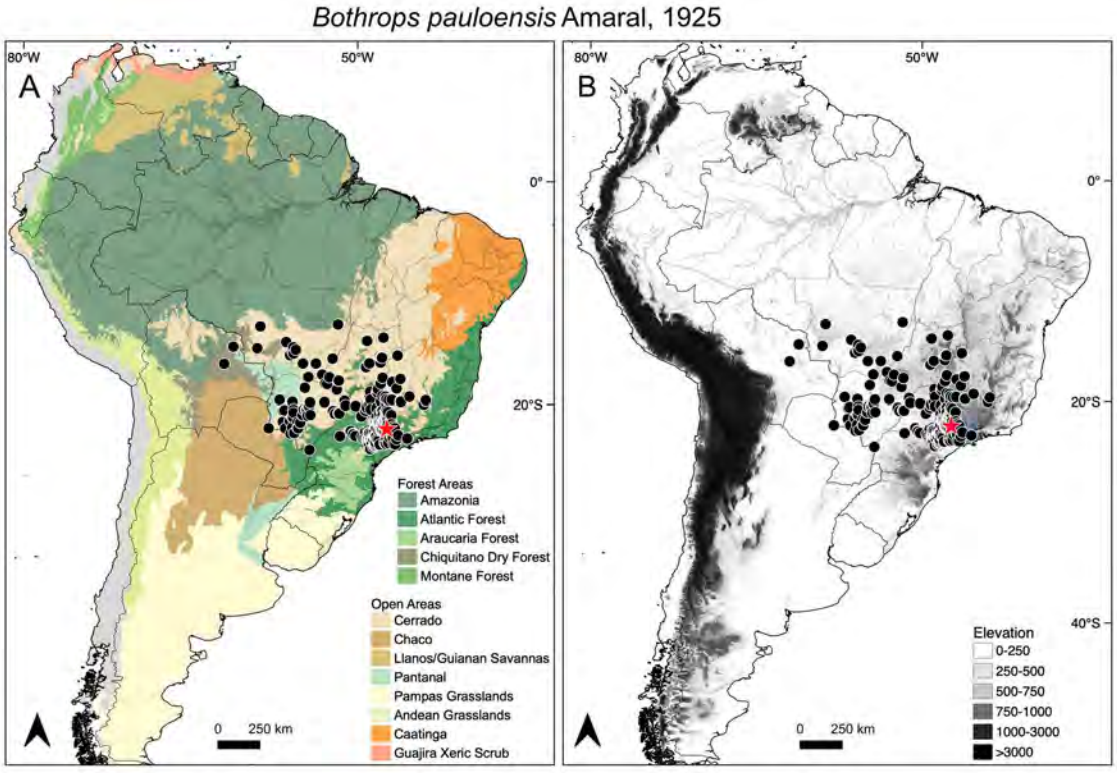


Plate 74. Distribution map of *Bothrops pauloensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

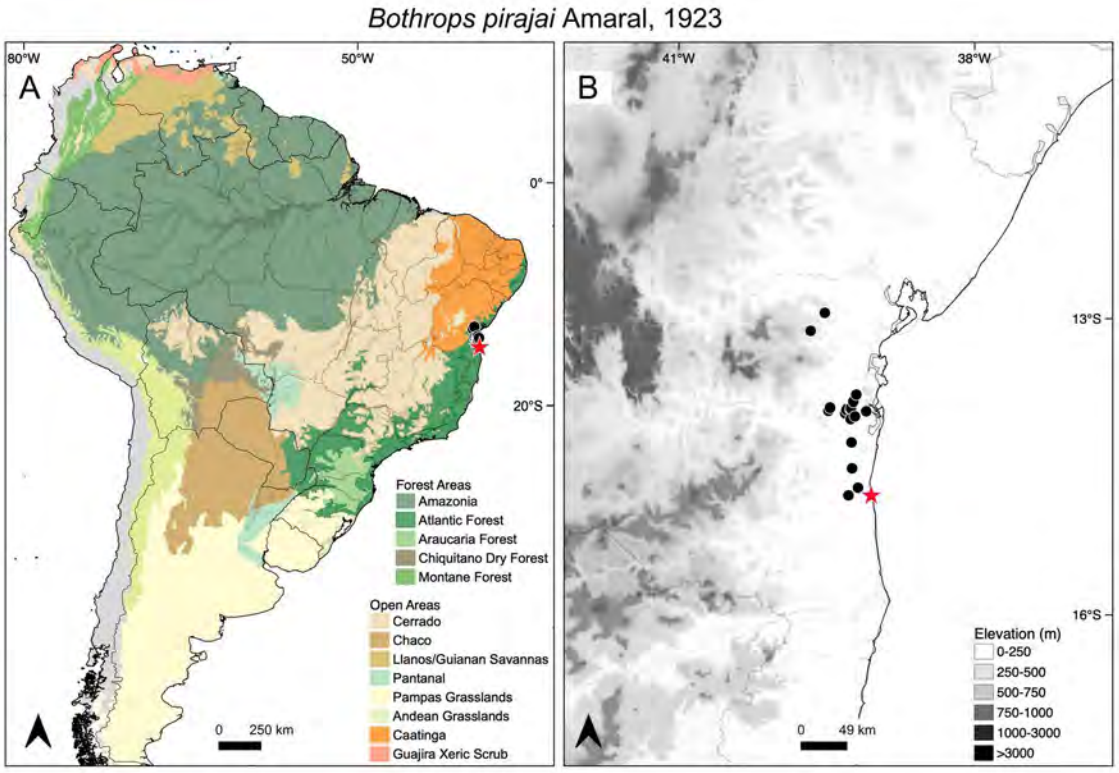


Plate 75. Distribution map of *Bothrops pirajai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

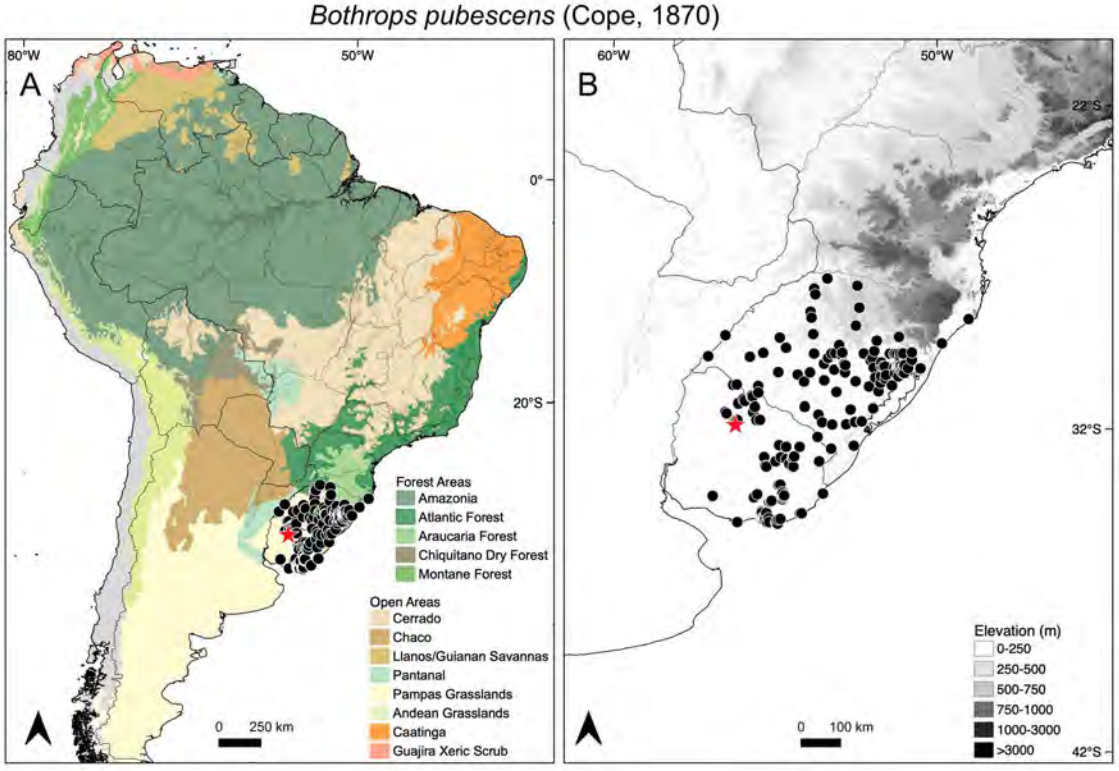


Plate 76. Distribution map of *Bothrops pubescens* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

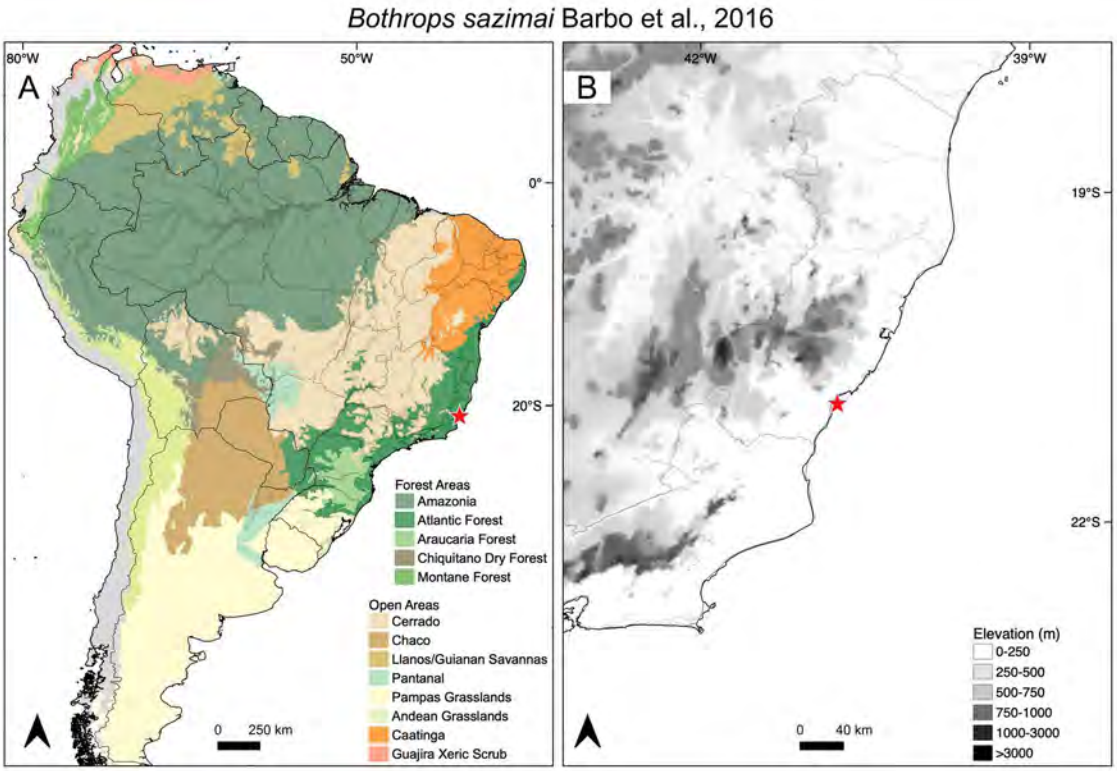


Plate 77. Distribution map of *Bothrops sazimai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

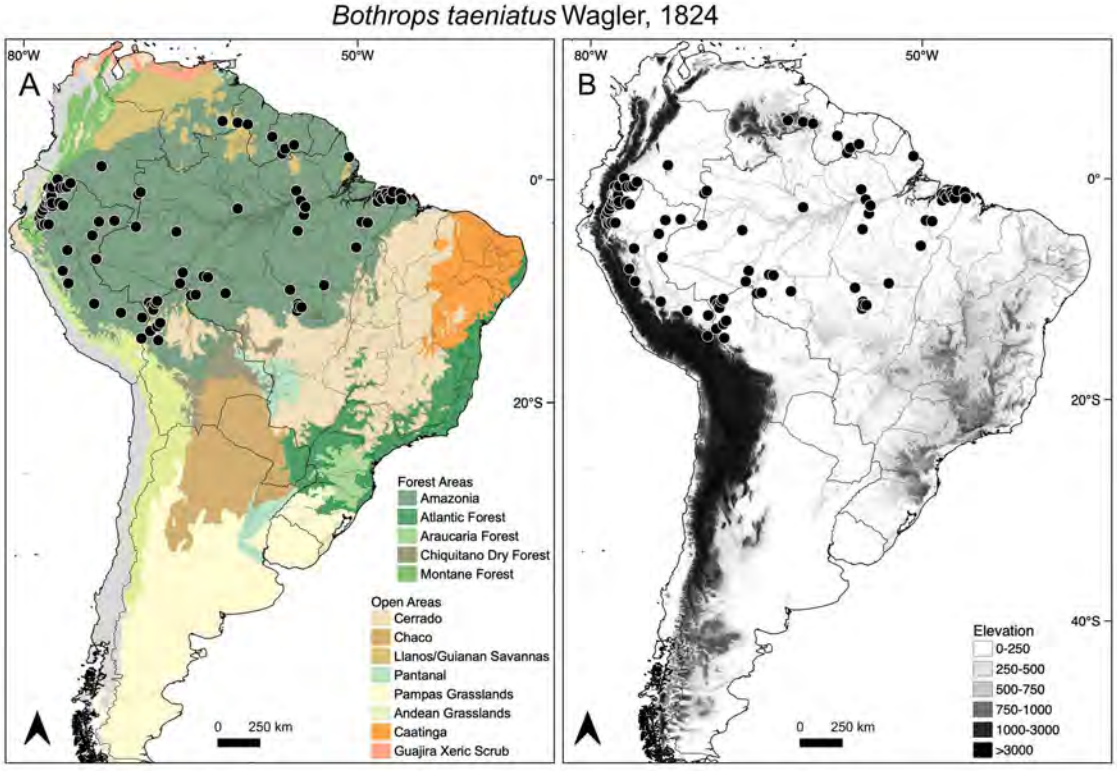


Plate 78. Distribution map of *Bothrops taeniatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

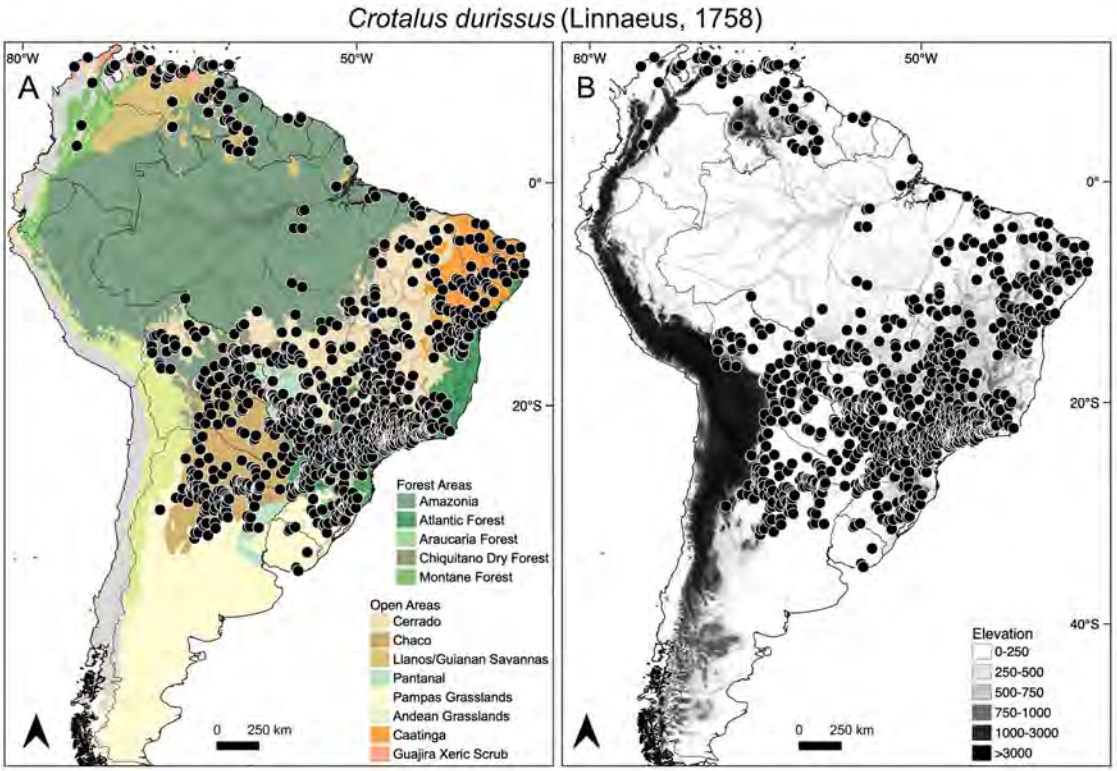


Plate 79. Distribution map of *Crotalus durissus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

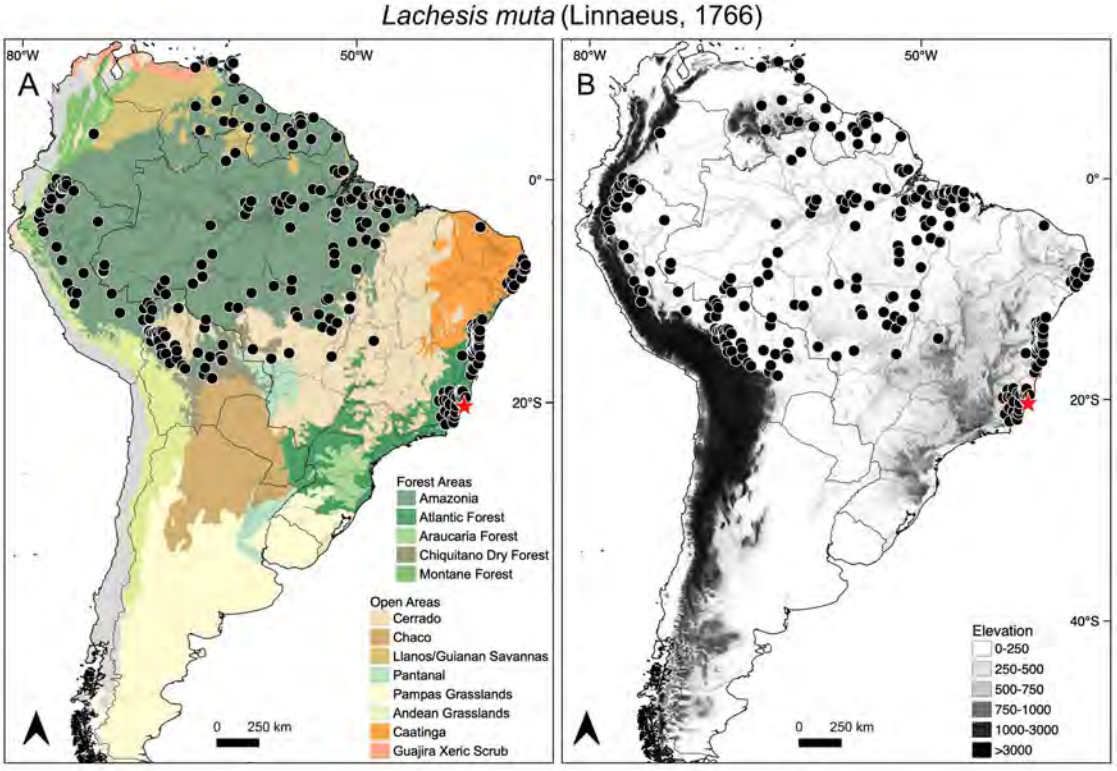


Plate 80. Distribution map of *Lachesis muta* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

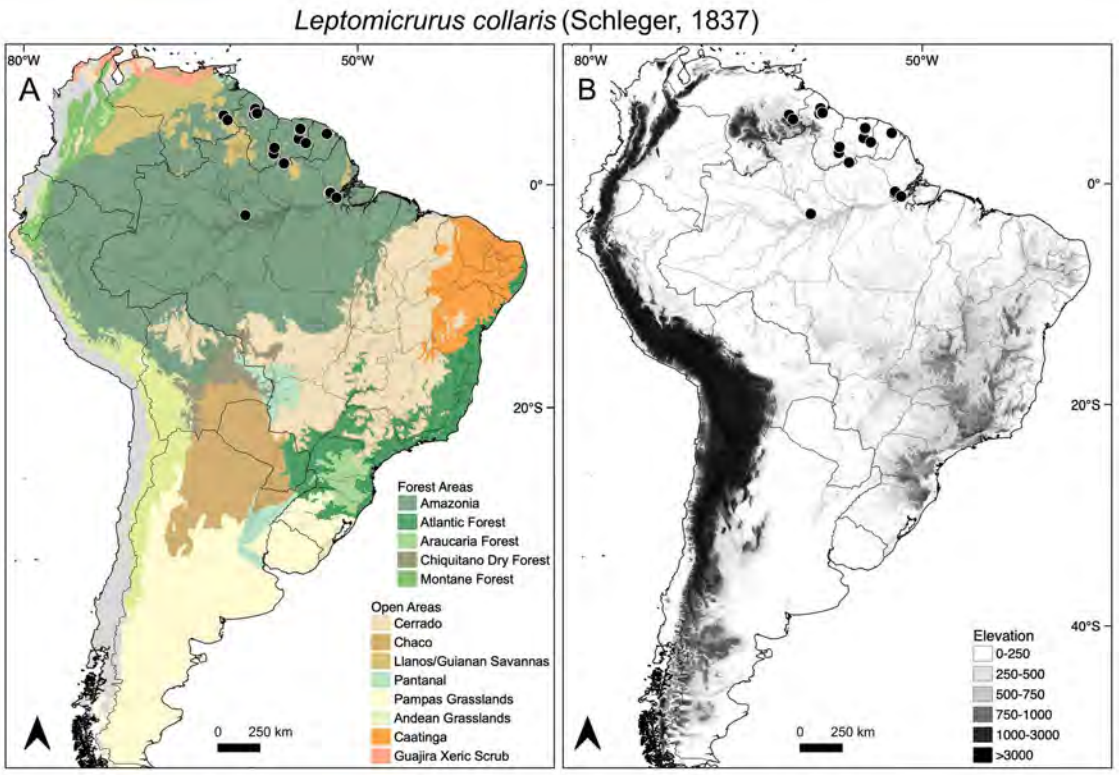


Plate 81. Distribution map of *Leptomicrurus collaris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

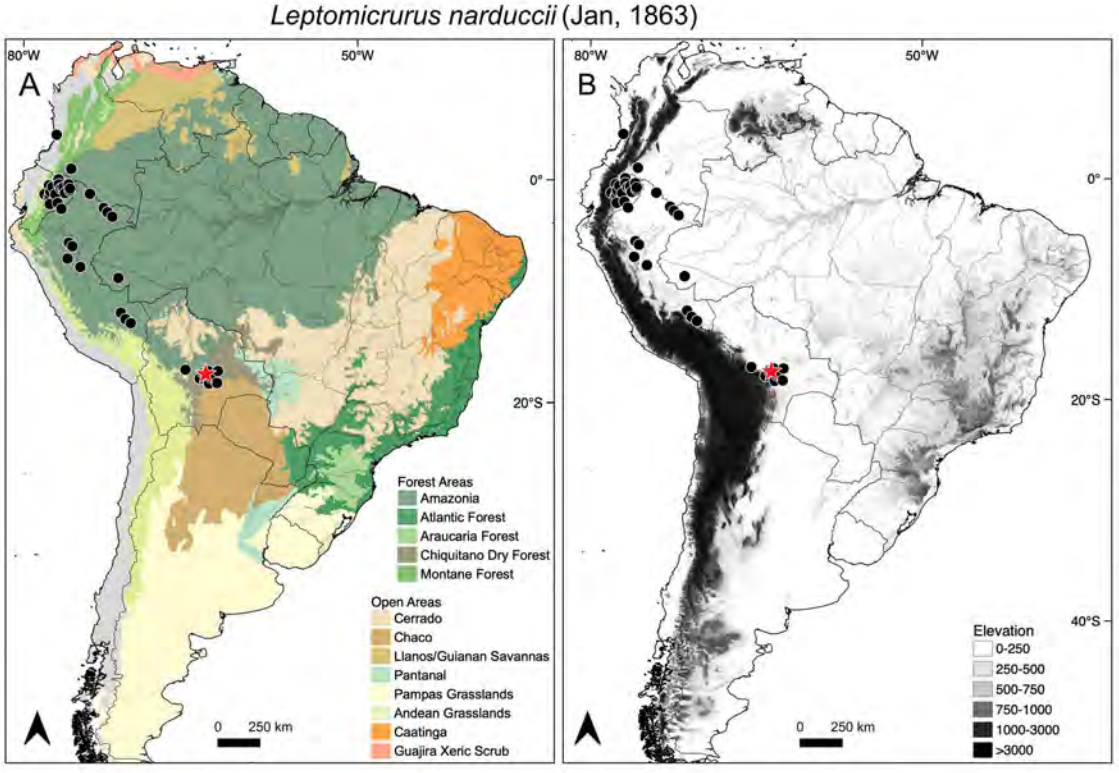


Plate 82. Distribution map of *Leptomicrurus narduccii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

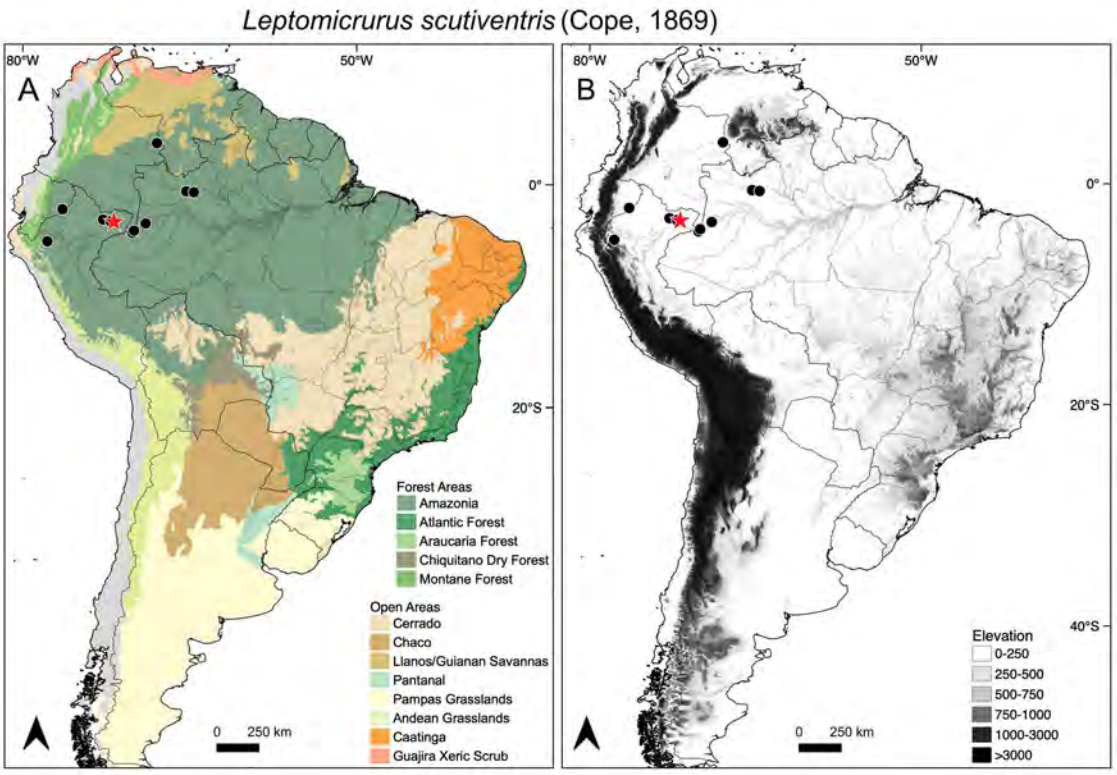


Plate 83. Distribution map of *Leptomicrurus scutiventris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

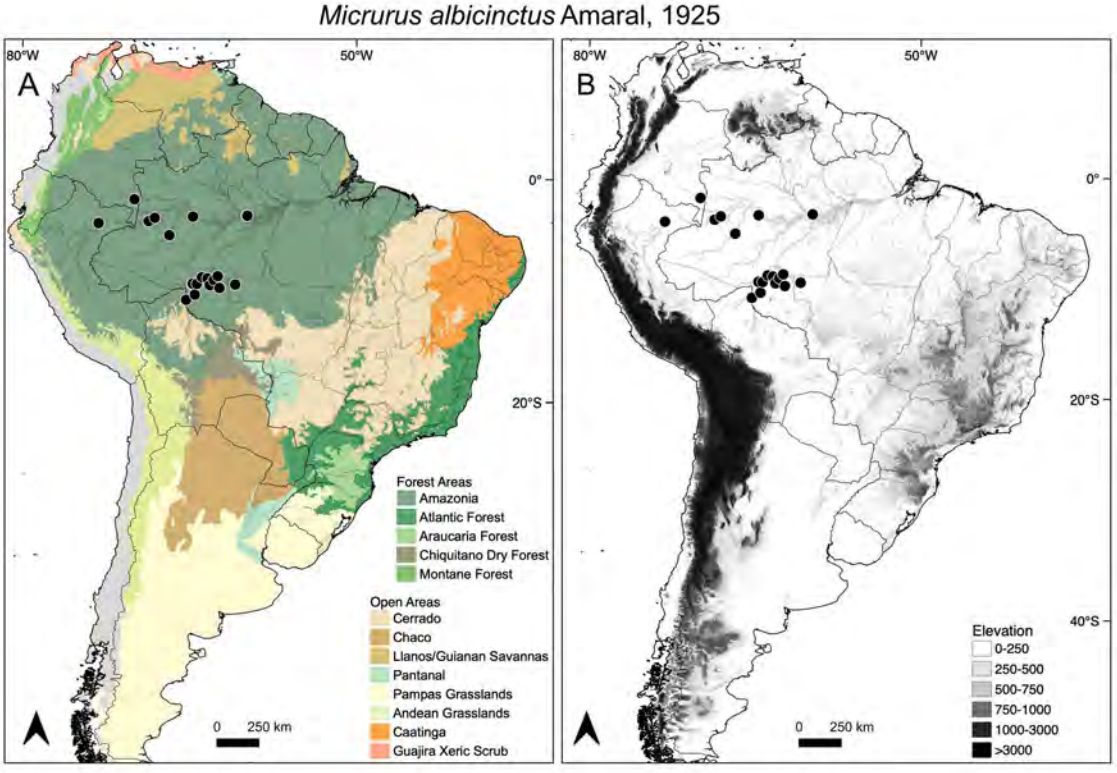


Plate 84. Distribution map of *Micrurus albicinctus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

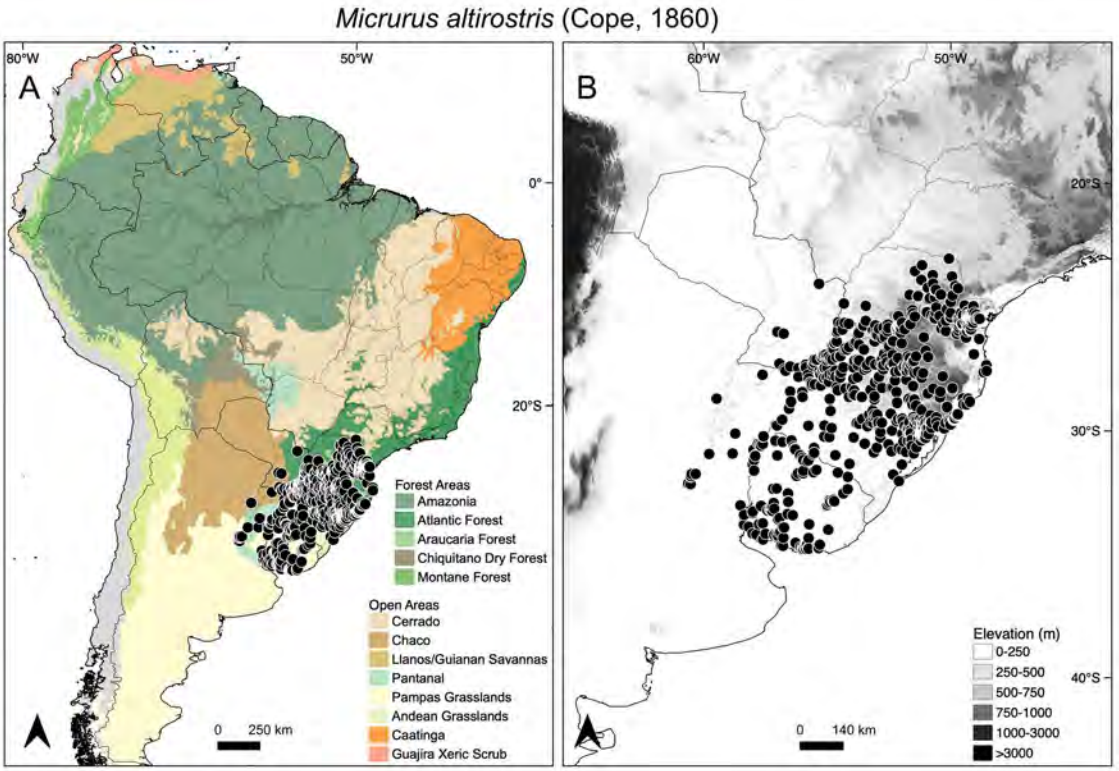


Plate 85. Distribution map of *Micrurus altirostris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

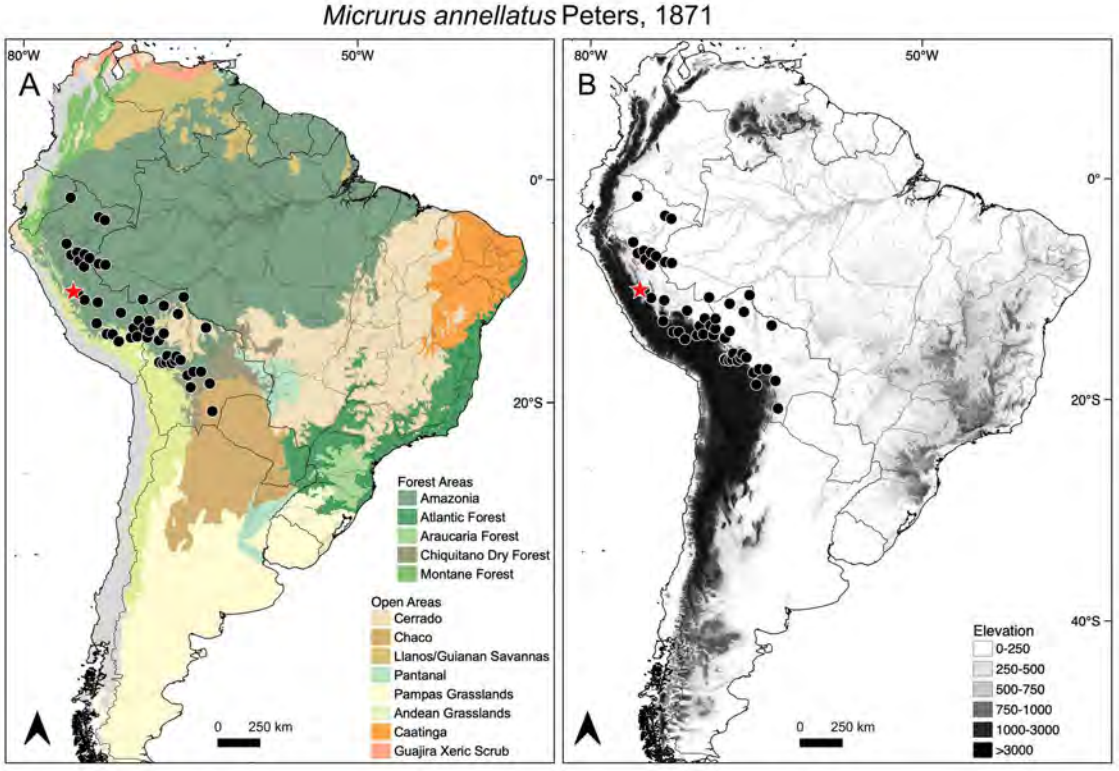


Plate 86. Distribution map of *Micrurus annellatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

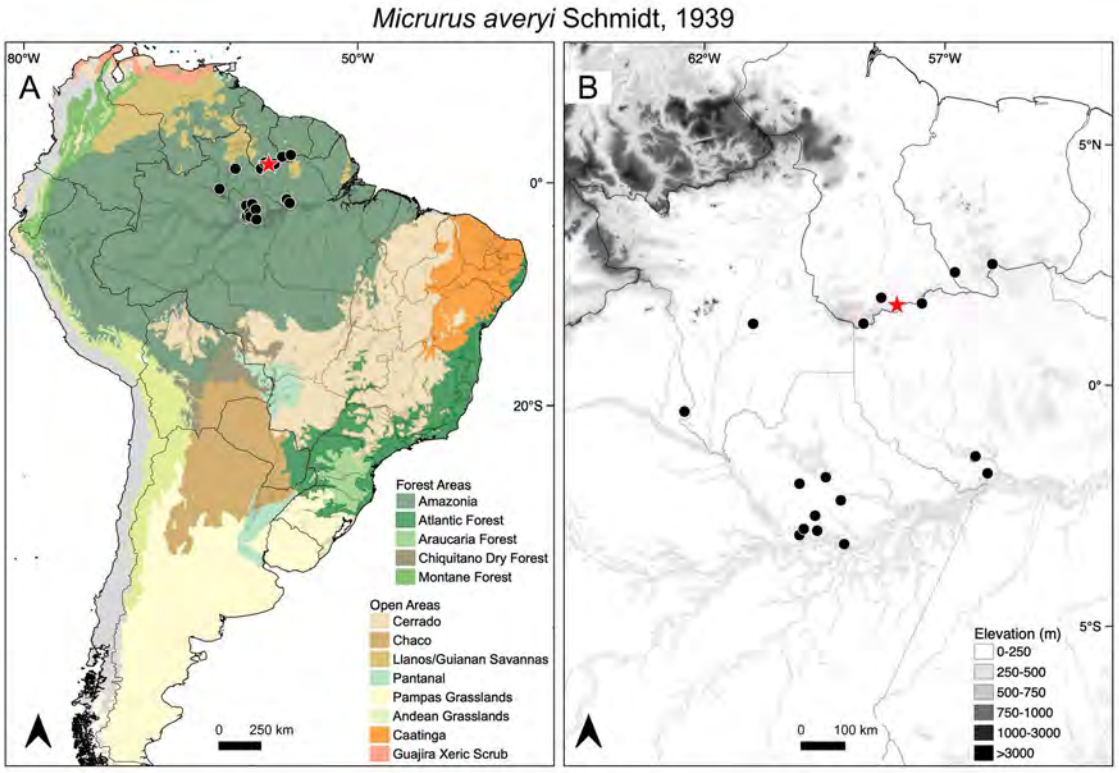


Plate 87. Distribution map of *Micrurus averyi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

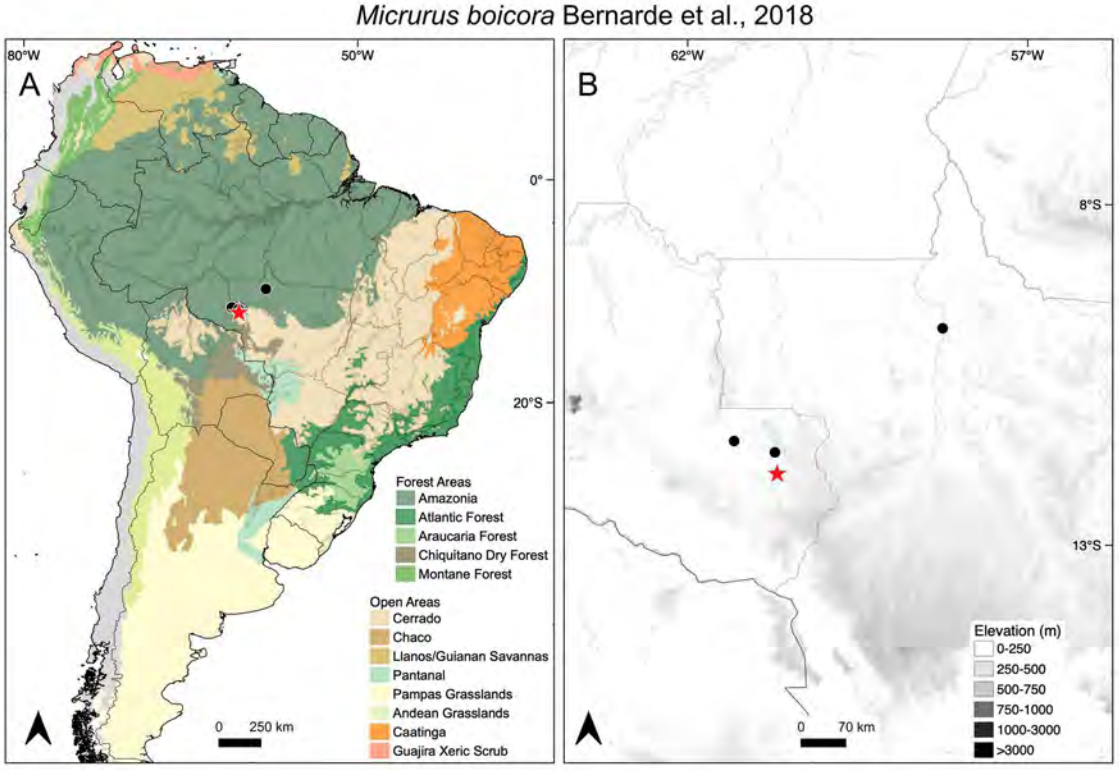


Plate 88. Distribution map of *Micrurus boicora* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

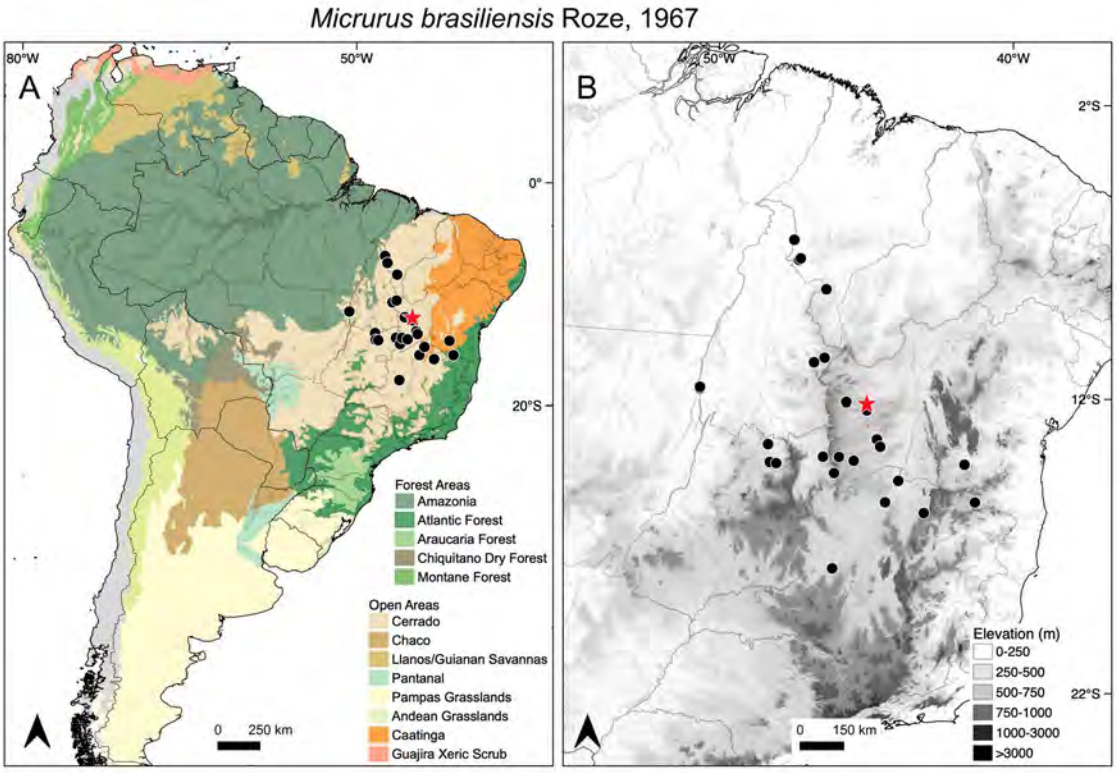


Plate 89. Distribution map of *Micrurus brasiliensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

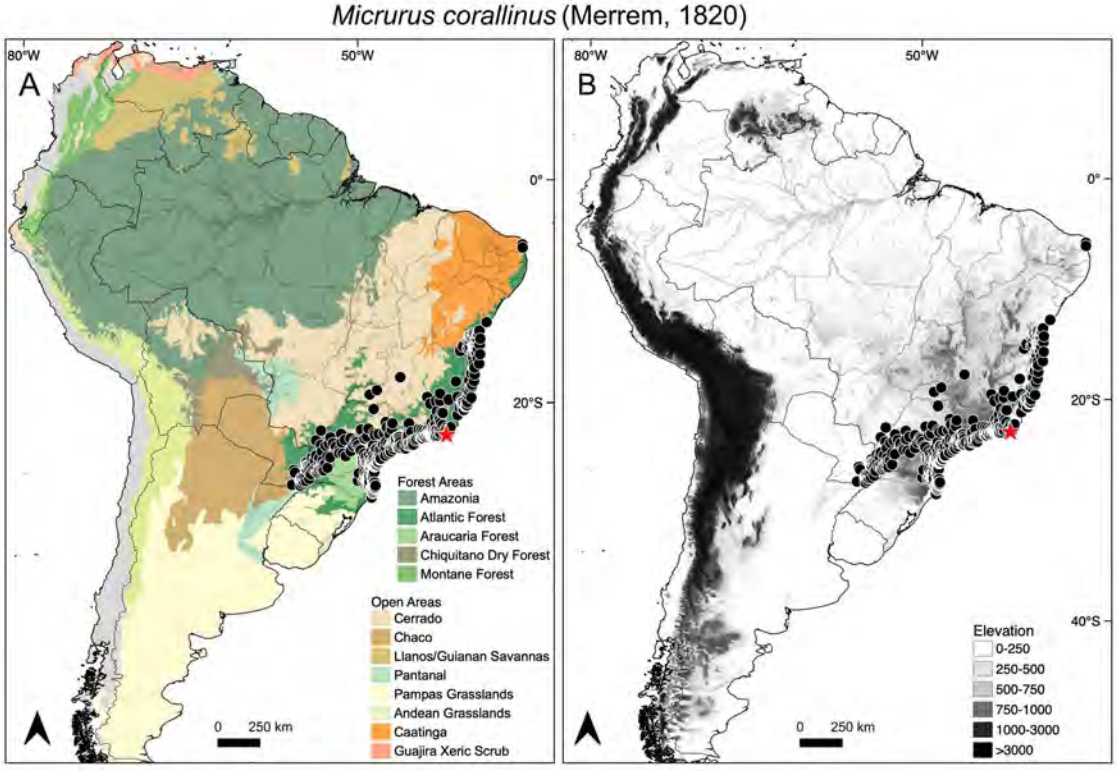


Plate 90. Distribution map of *Micrurus corallinus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

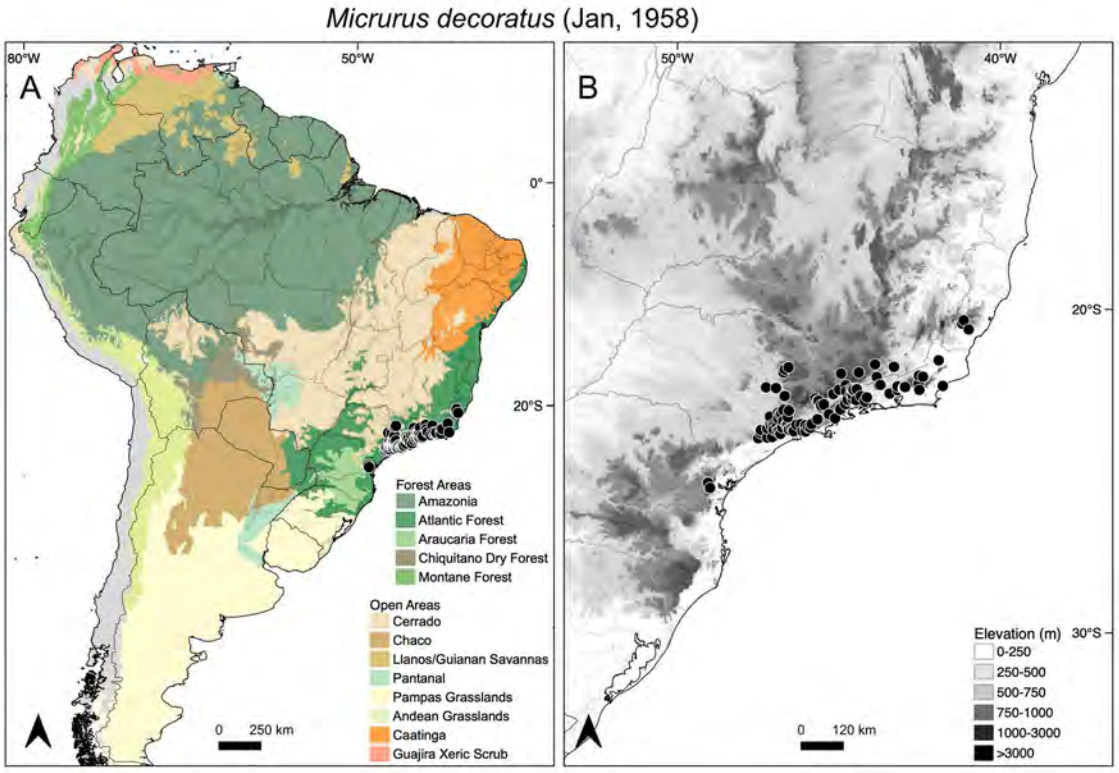


Plate 91. Distribution map of *Micrurus decoratus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

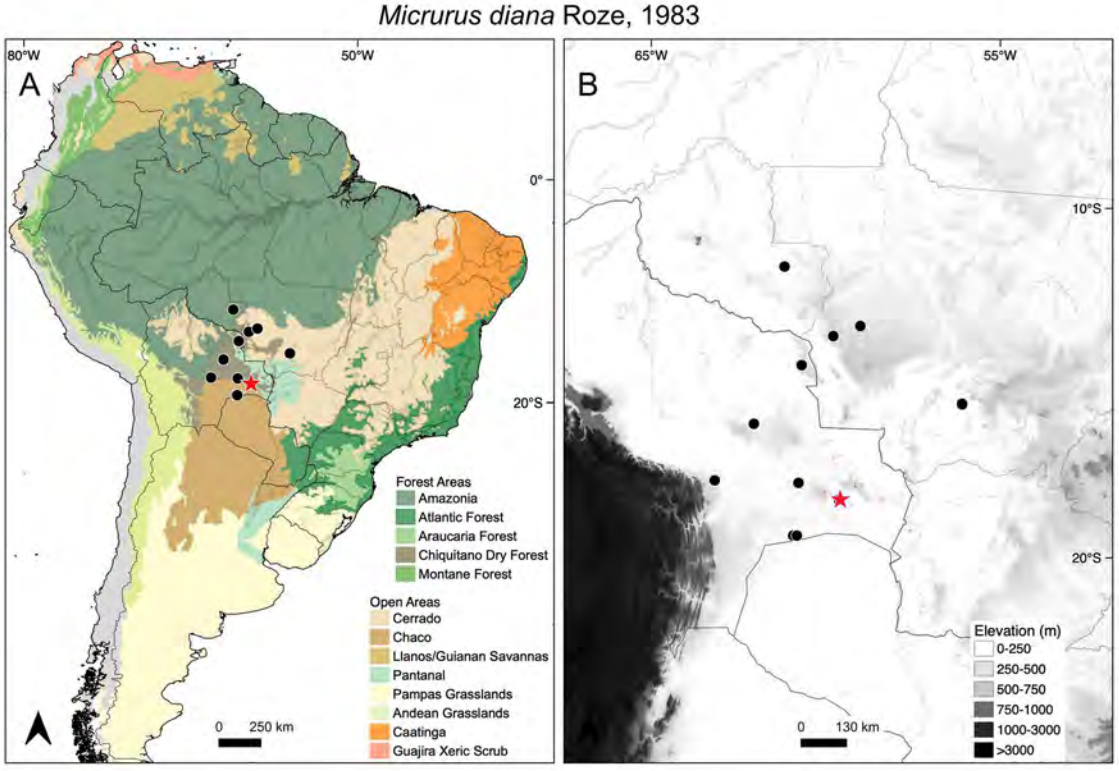


Plate 92. Distribution map of *Micrurus diana* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

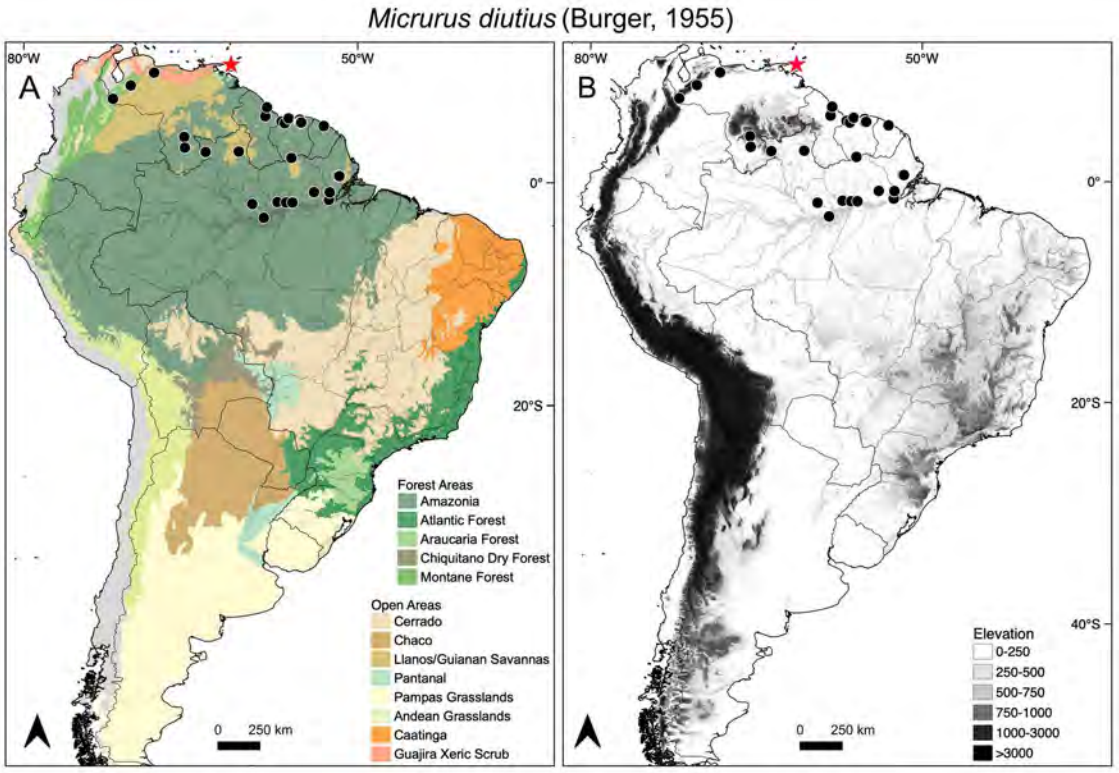


Plate 93. Distribution map of *Micrurus diutius* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

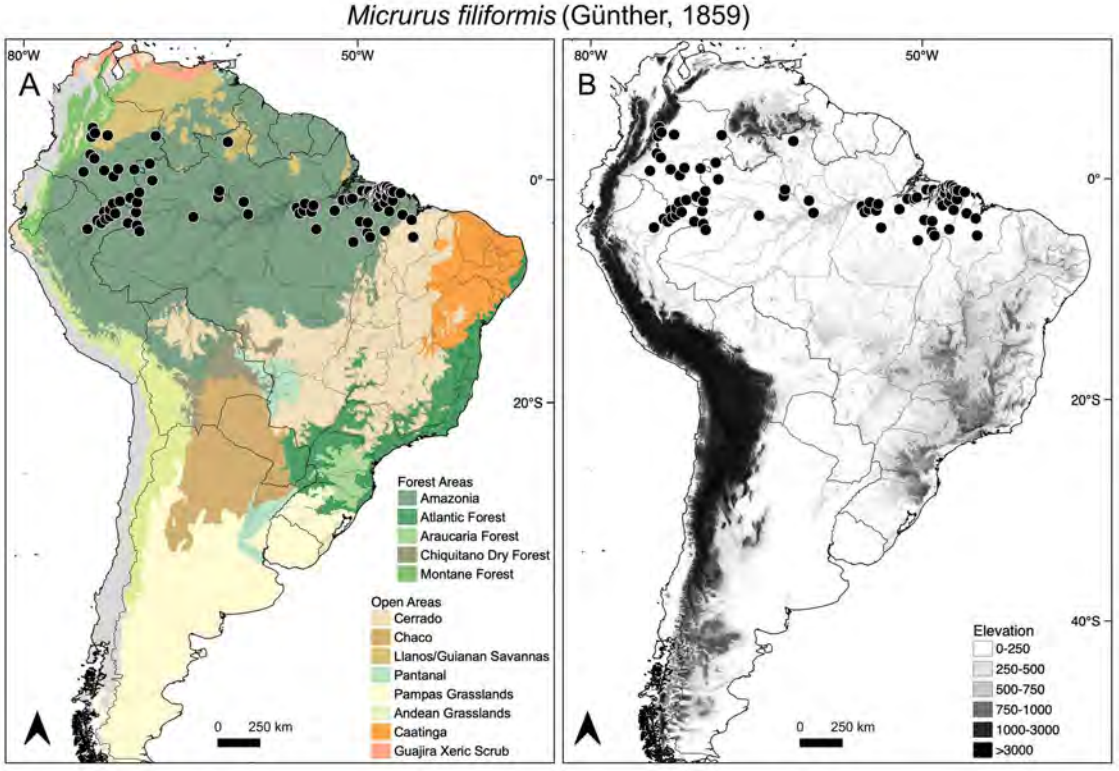


Plate 94. Distribution map of *Micrurus filiformis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

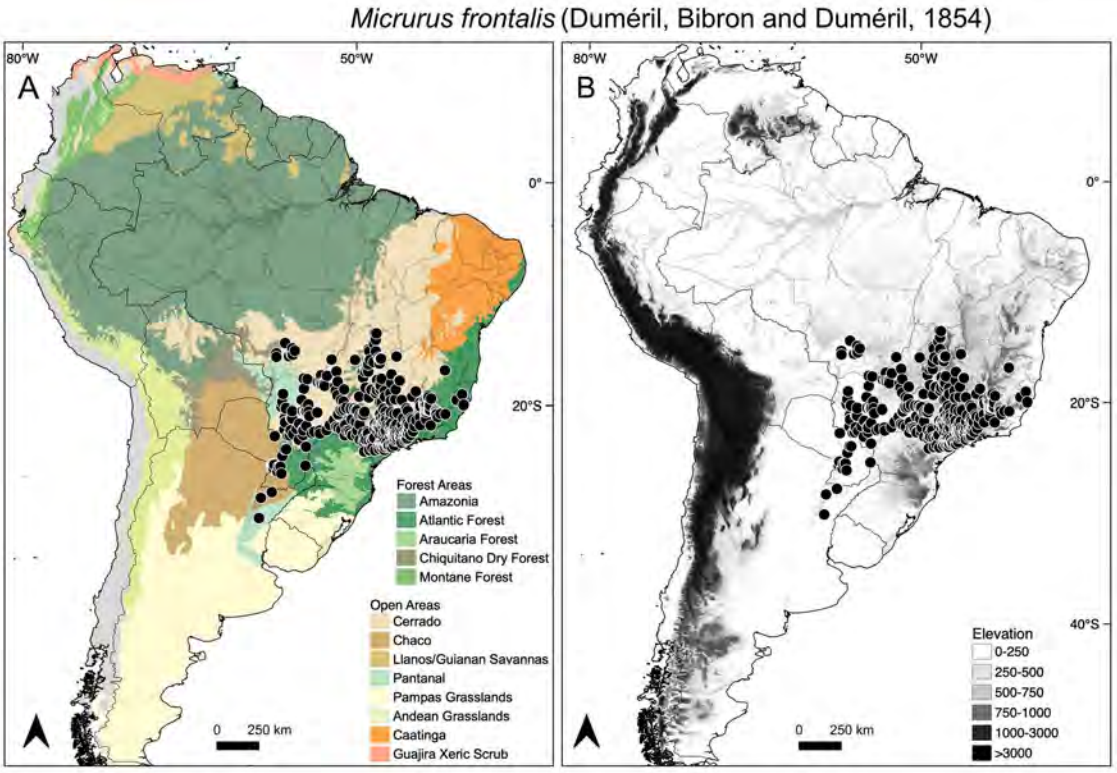


Plate 95. Distribution map of *Micrurus frontalis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

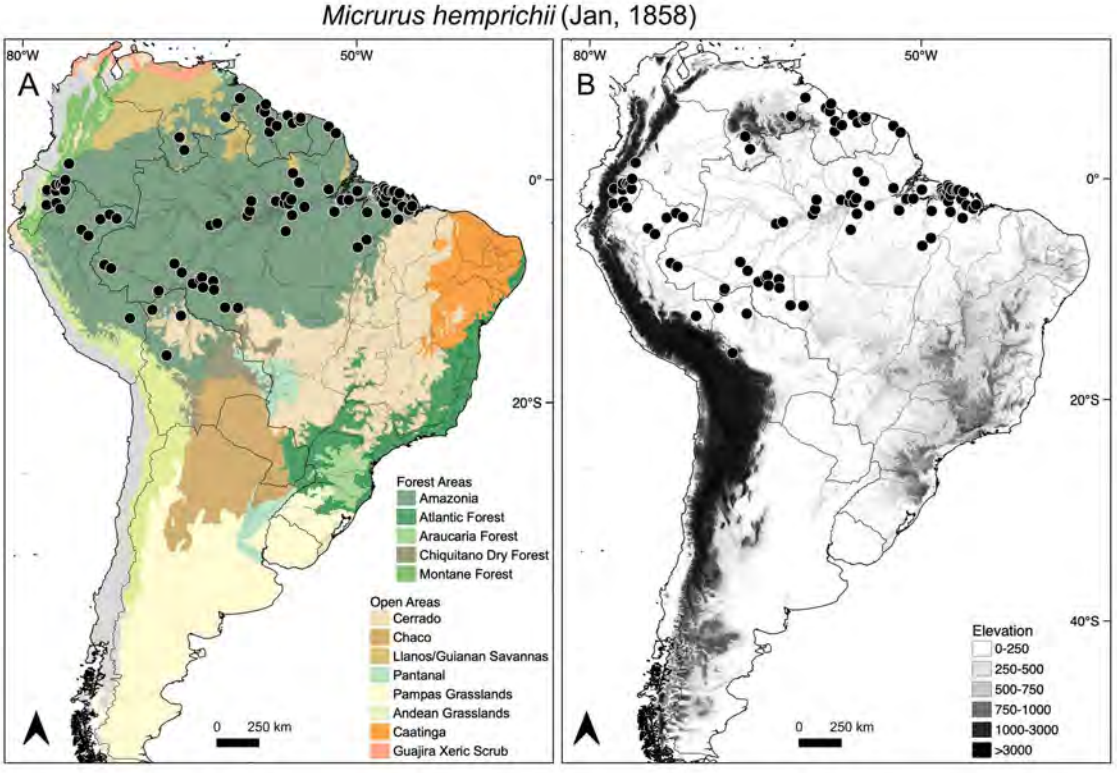


Plate 96. Distribution map of *Micrurus hemprichii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

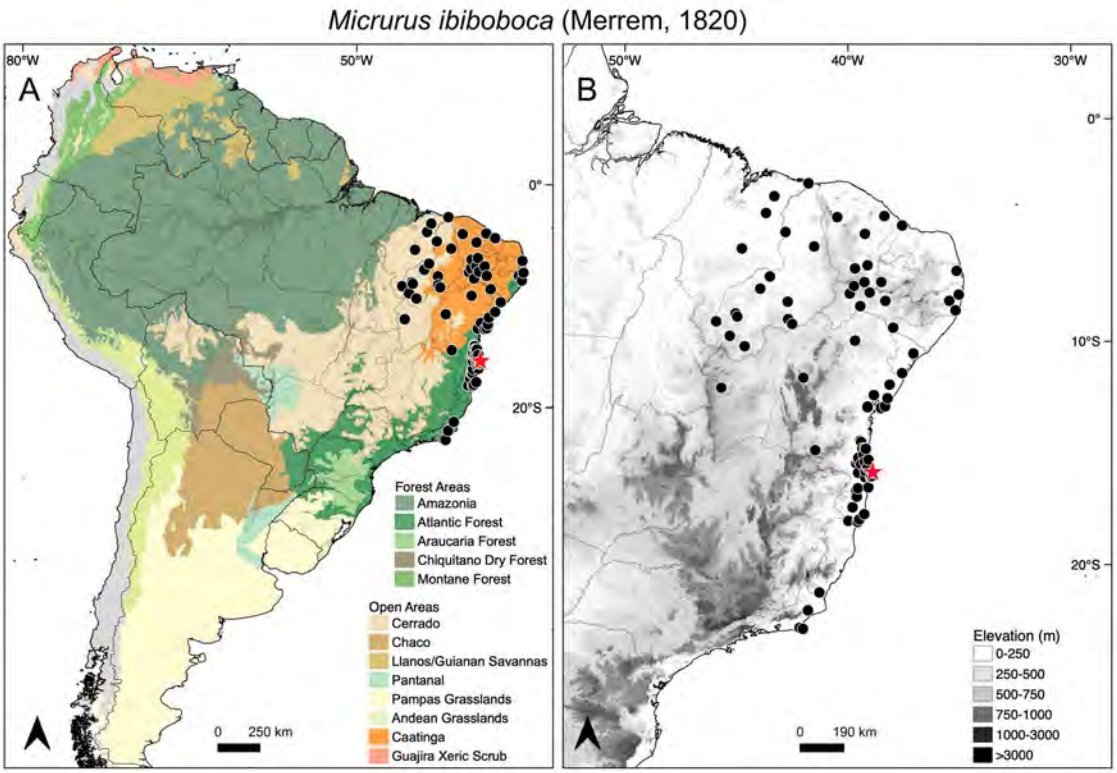


Plate 97. Distribution map of *Micrurus ibiboboca* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

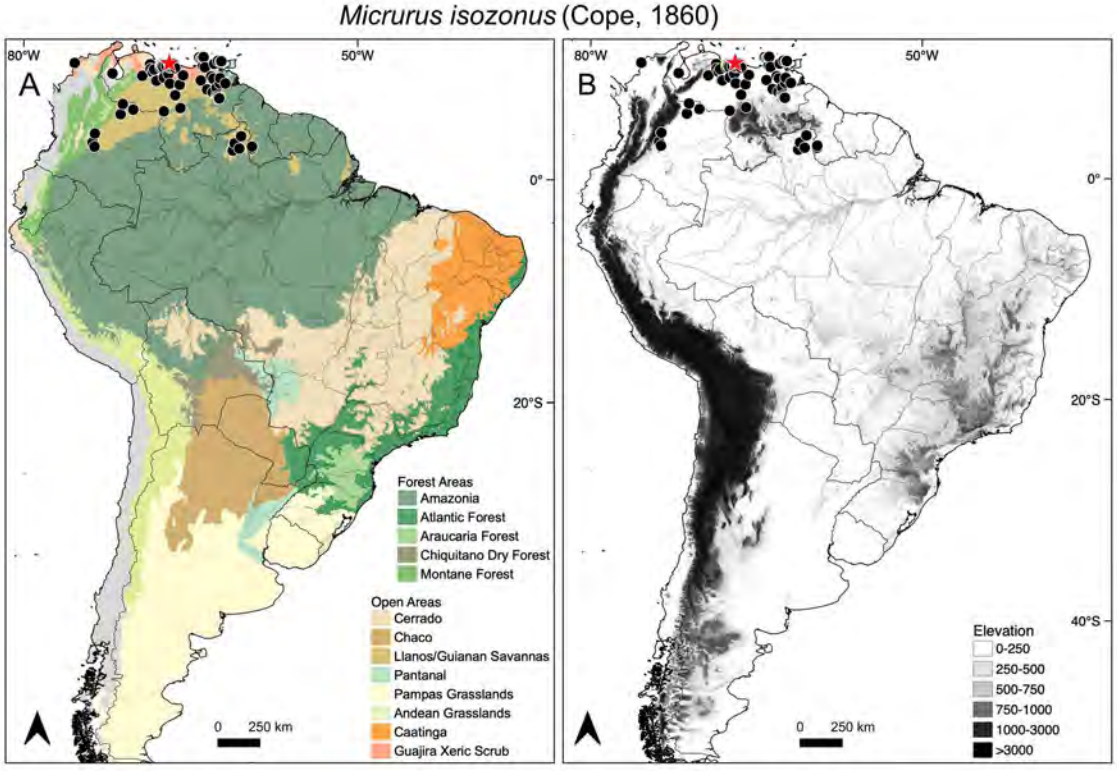


Plate 98. Distribution map of *Micrurus isozonus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

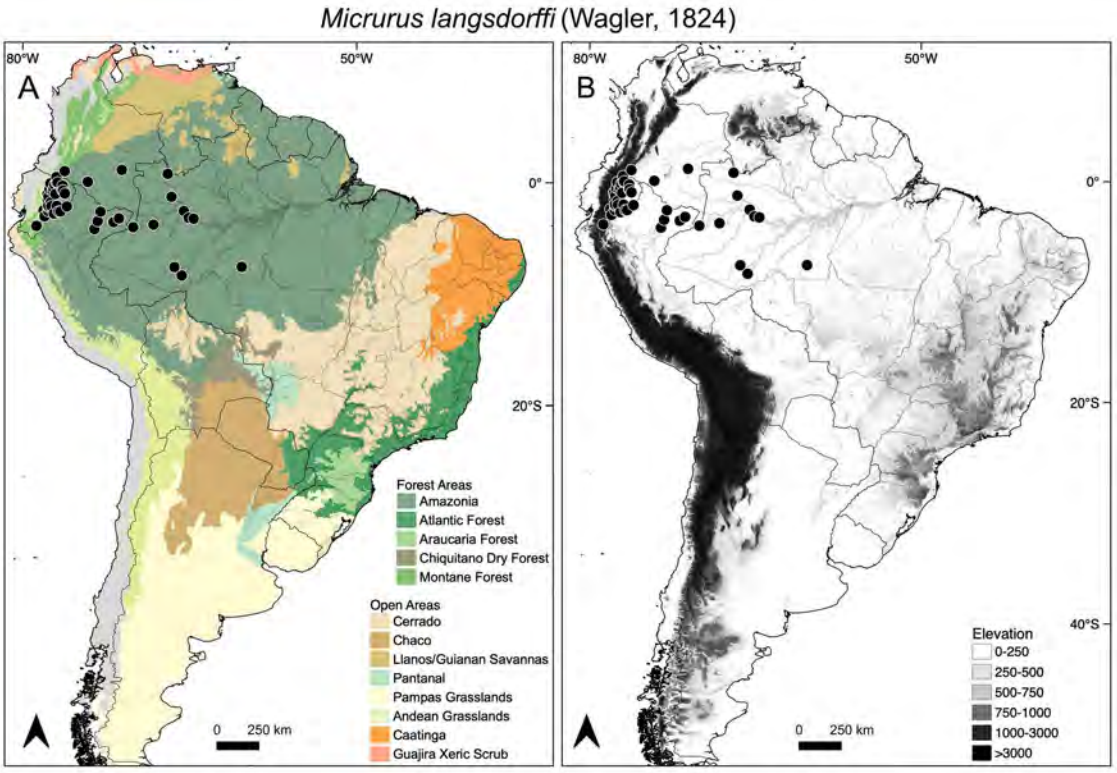


Plate 99. Distribution map of *Micrurus langsdorffi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

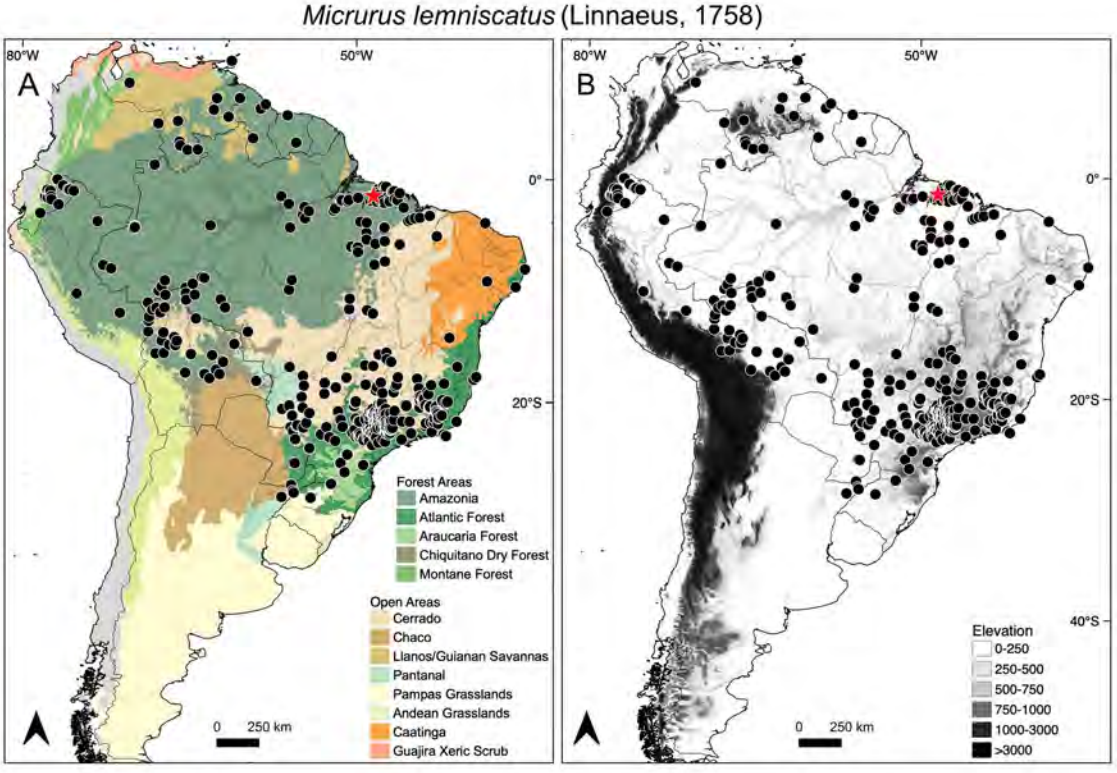


Plate 100. Distribution map of *Micrurus lemniscatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

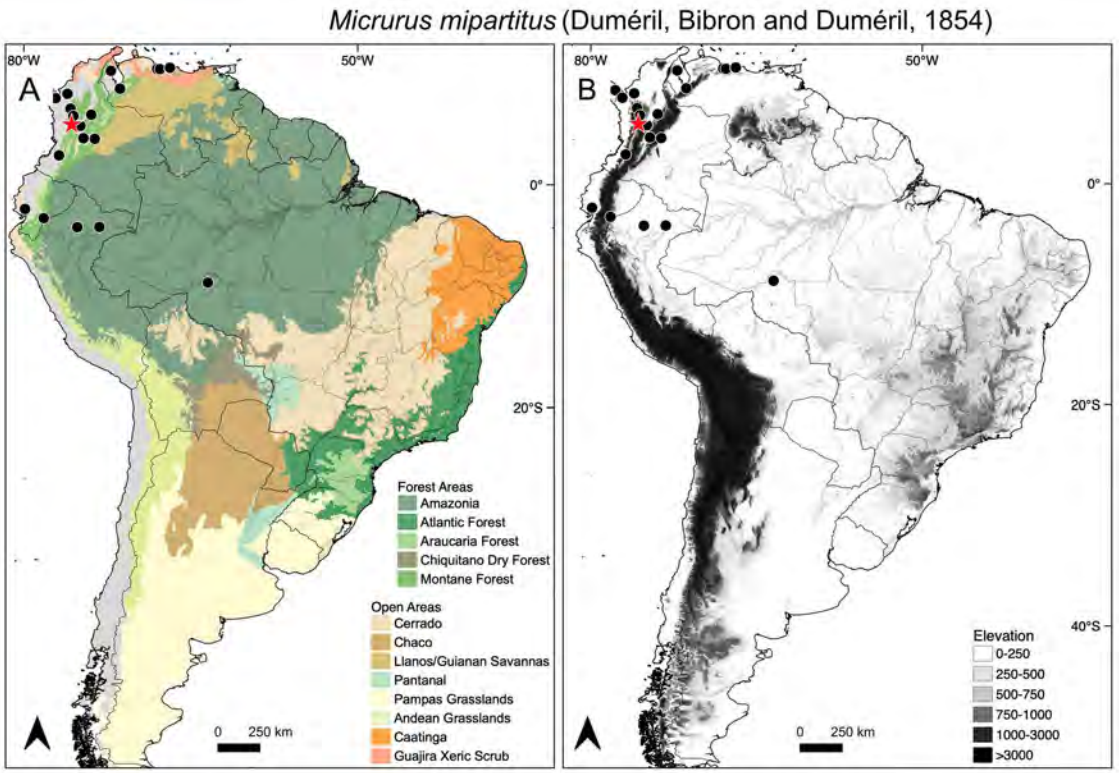


Plate 101. Distribution map of *Micrurus mipartitus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

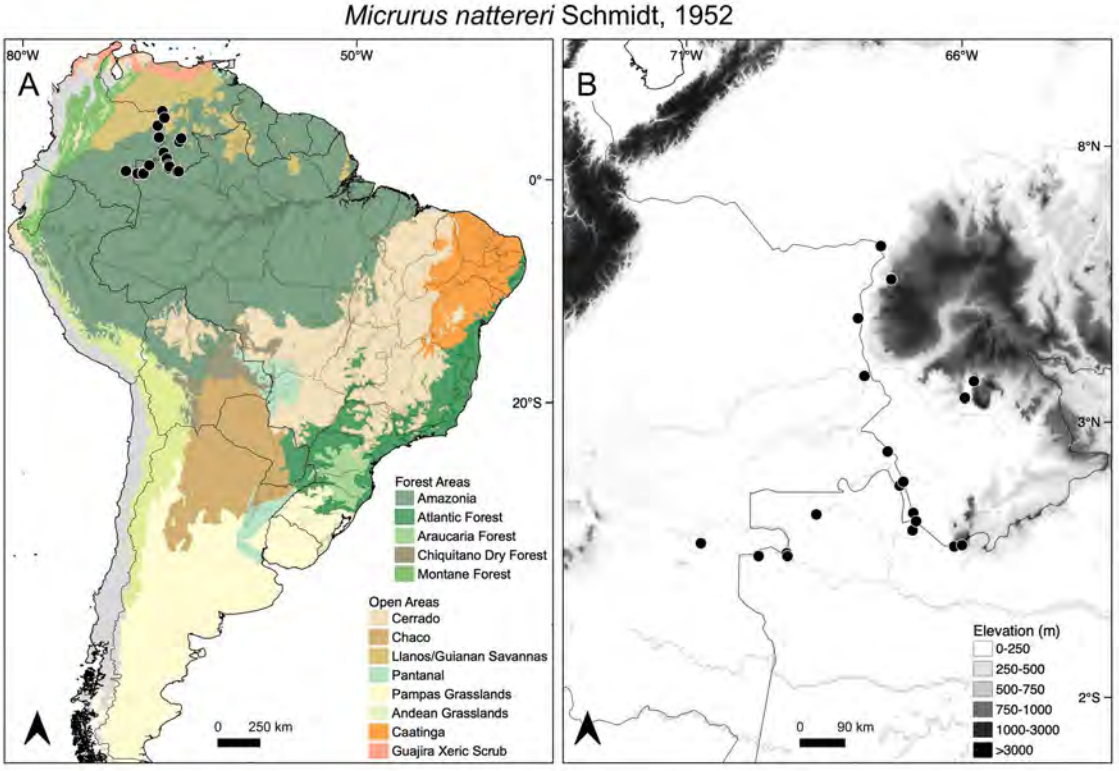


Plate 102. Distribution map of *Micrurus nattereri* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

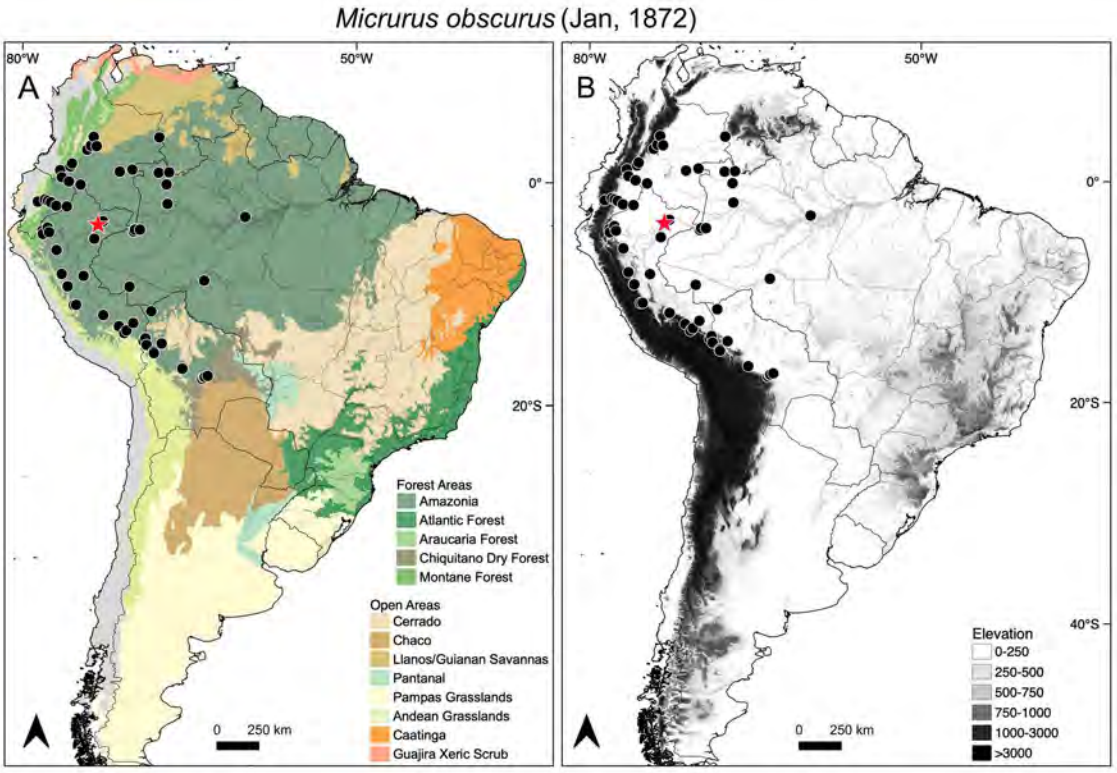


Plate 103. Distribution map of *Micrurus obscurus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

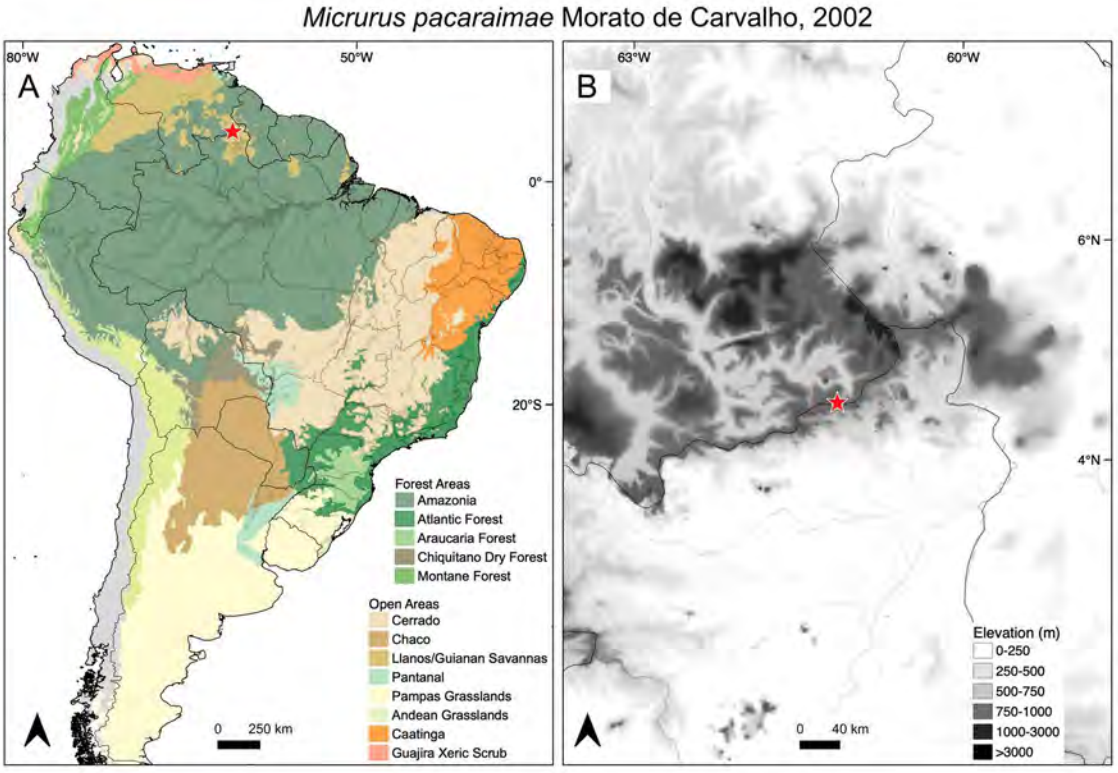


Plate 104. Distribution map of *Micrurus pacaraimae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

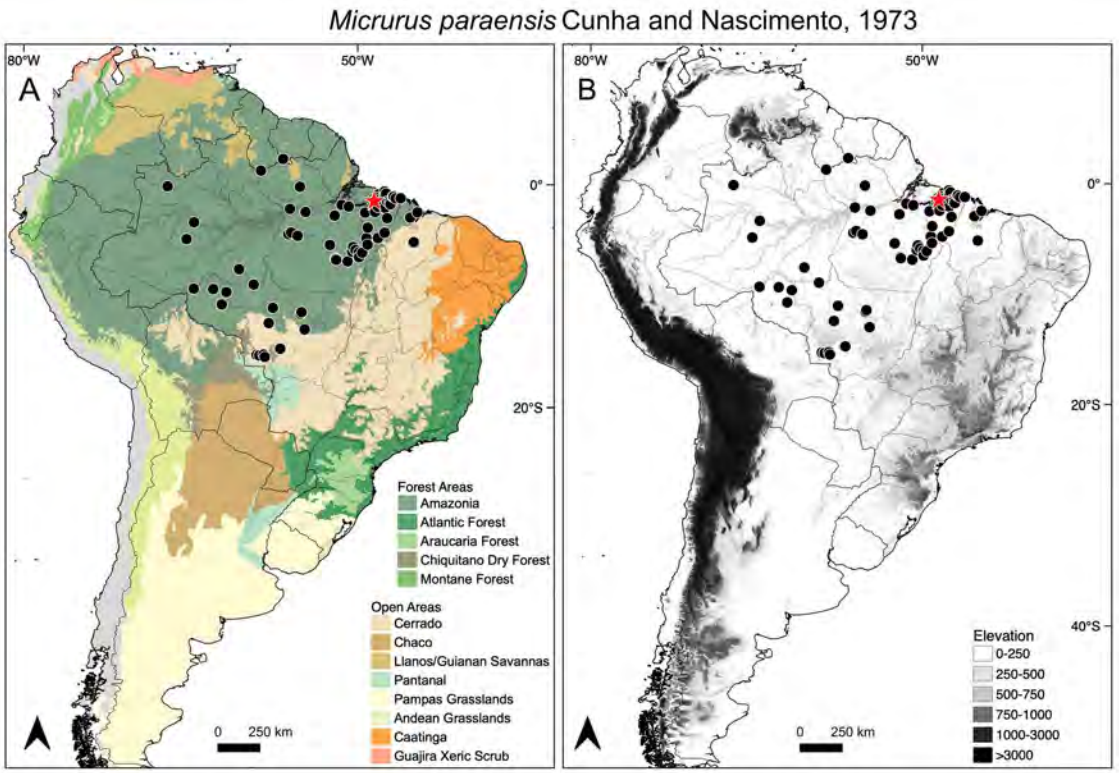


Plate 105. Distribution map of *Micrurus paraensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

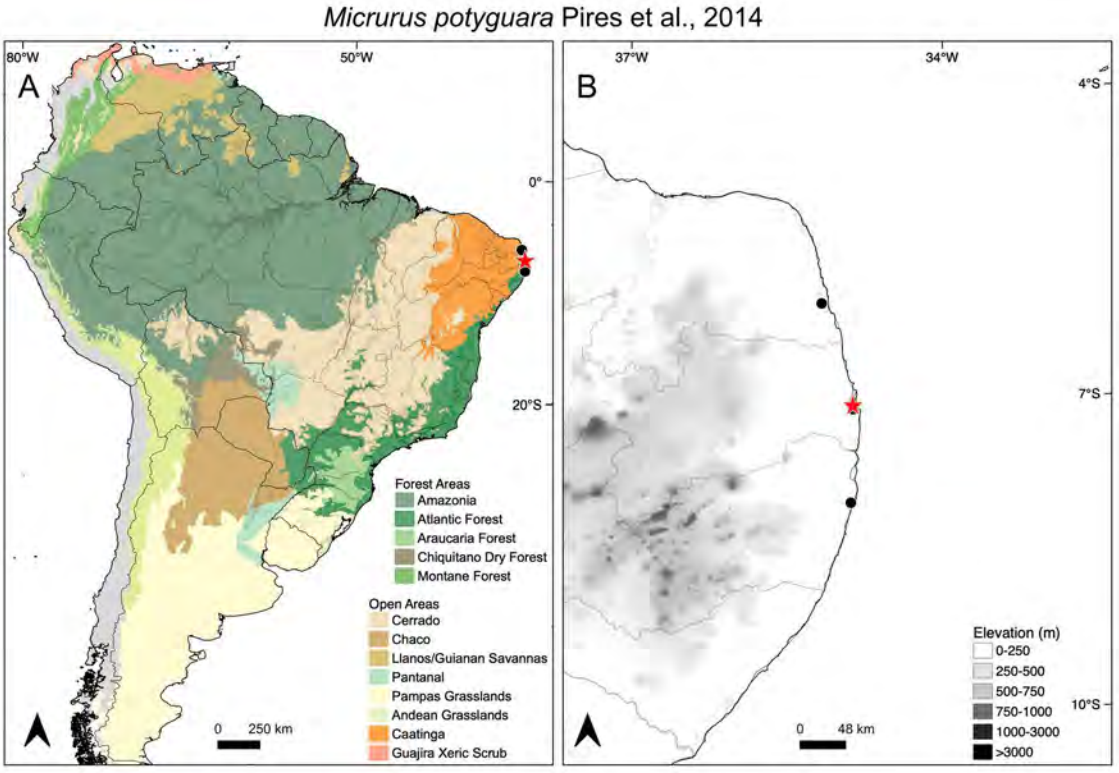


Plate 106. Distribution map of *Micrurus potyguara* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

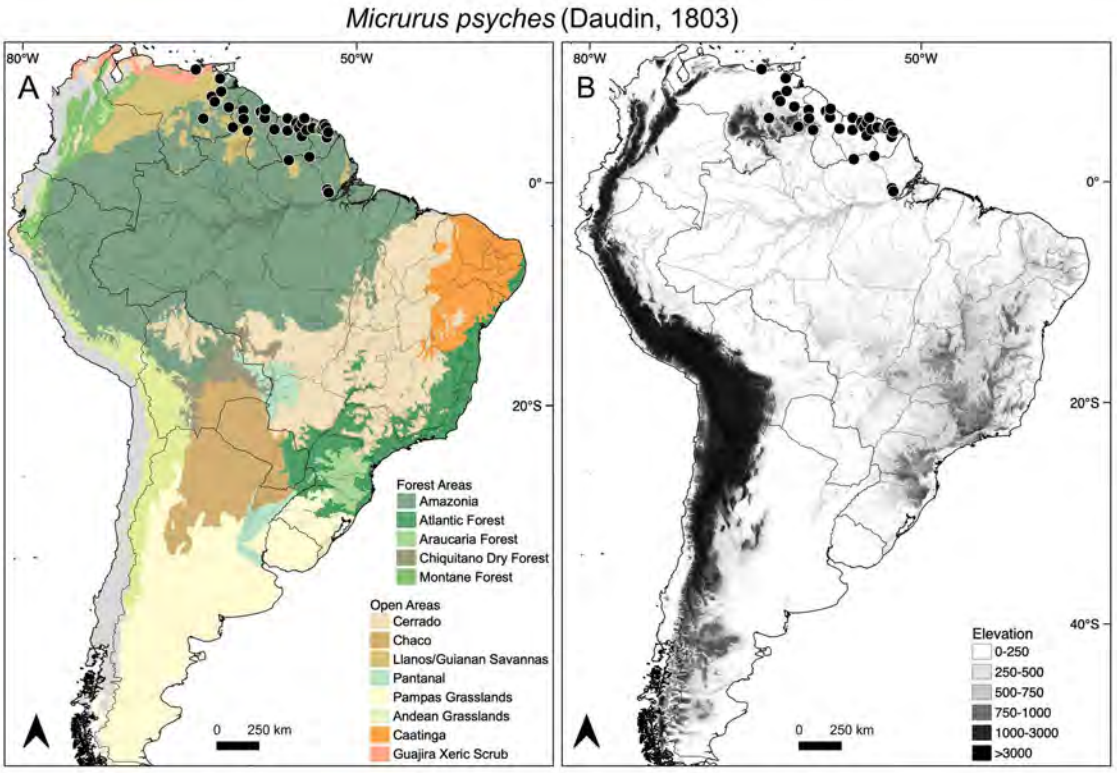


Plate 107. Distribution map of *Micrurus psyches* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

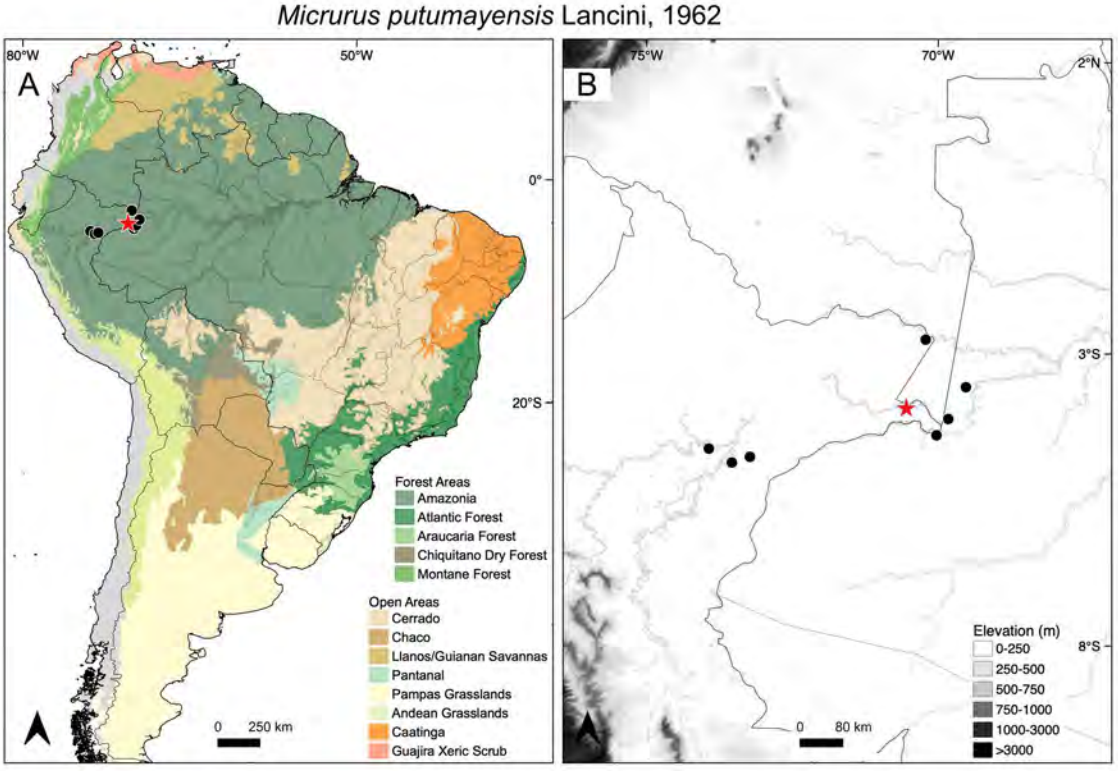


Plate 108. Distribution map of *Micrurus putumayensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

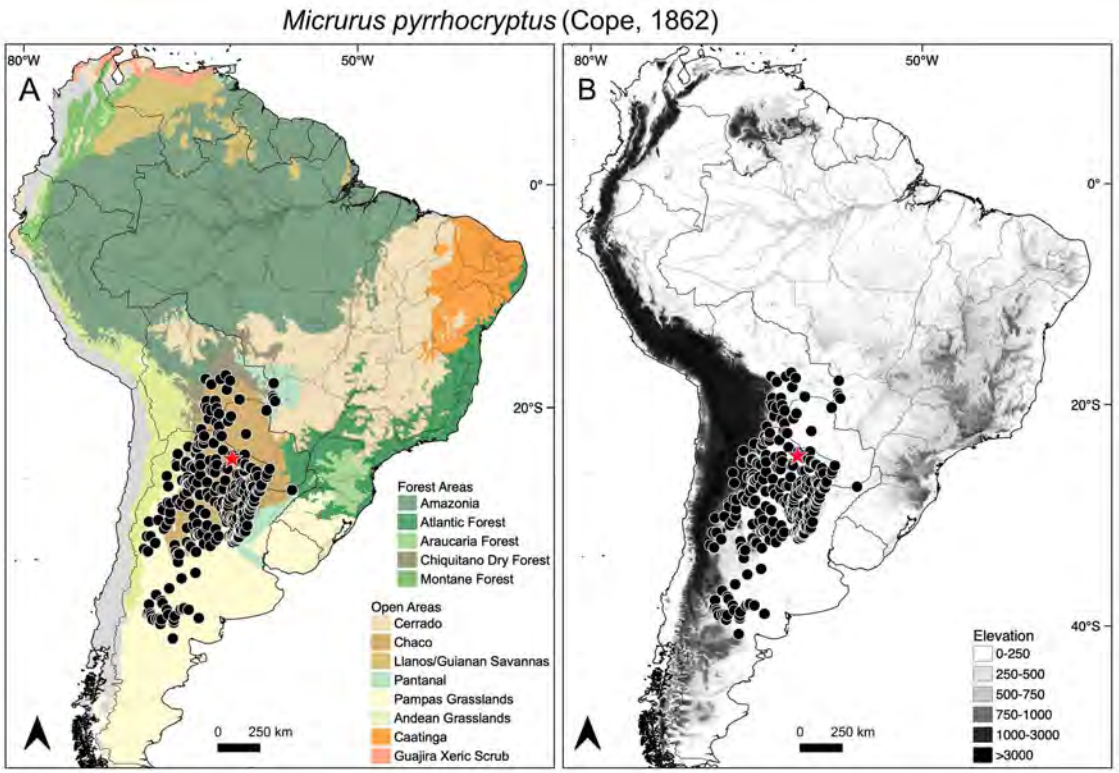


Plate 109. Distribution map of *Micrurus pyrrhocryptus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

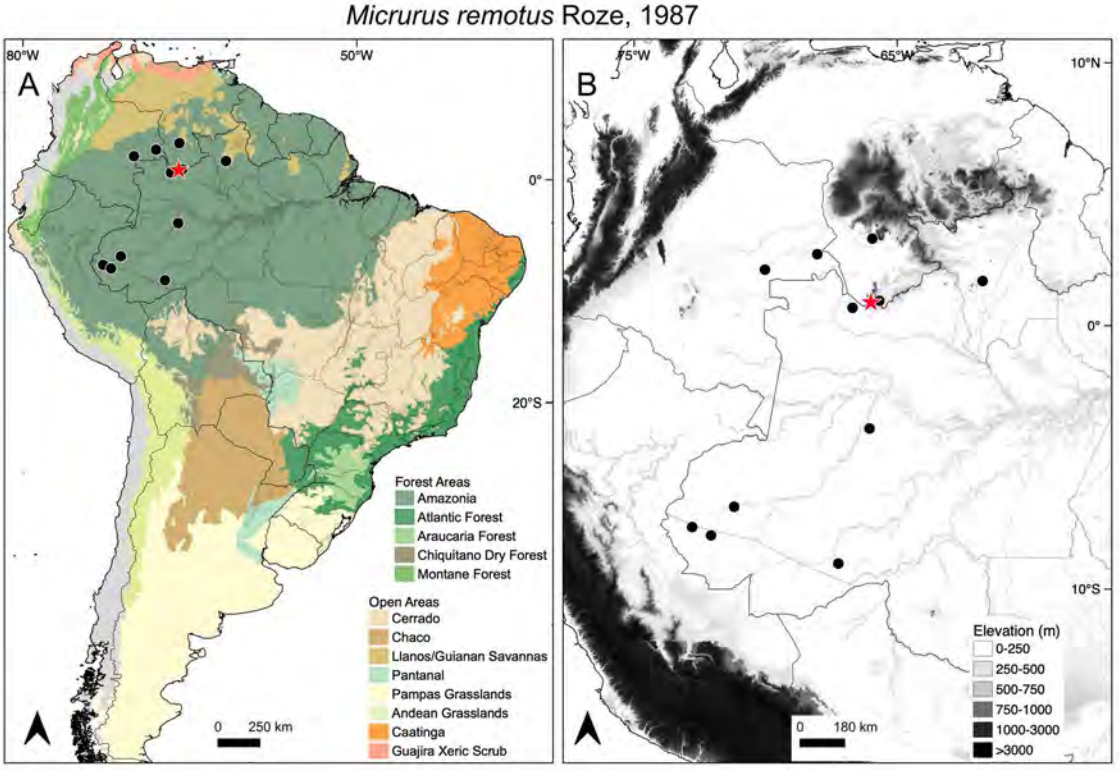


Plate 110. Distribution map of *Micrurus remotus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

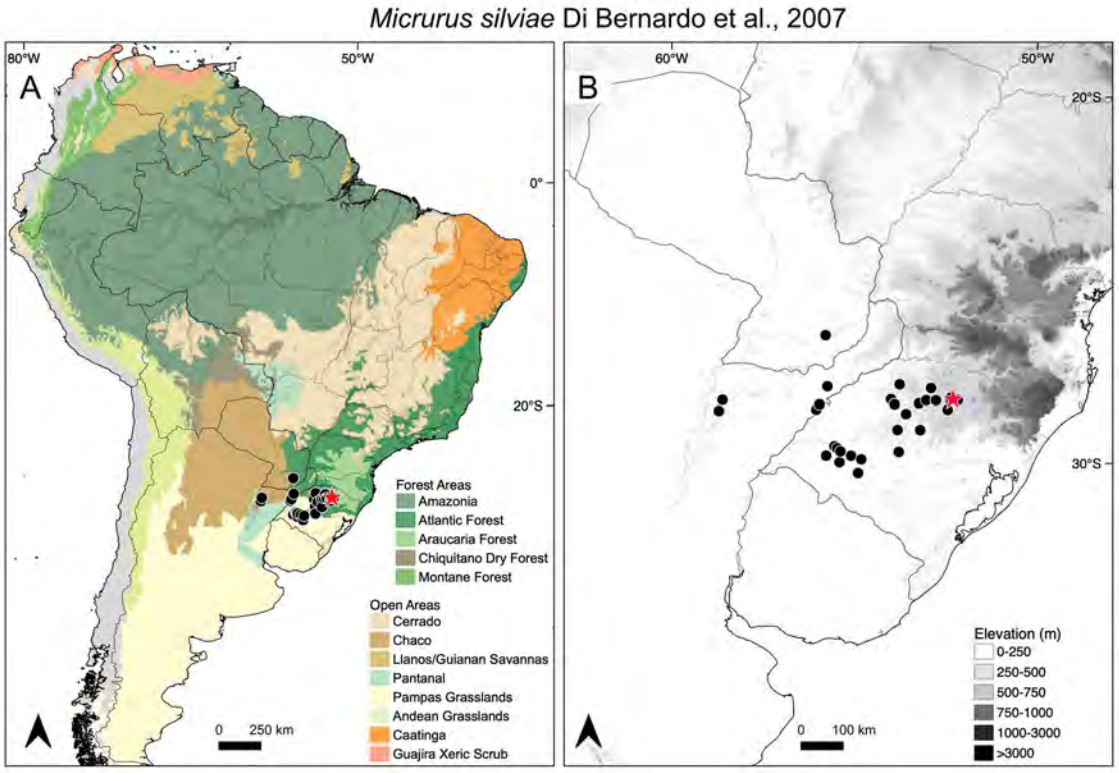


Plate 111. Distribution map of *Micrurus silviae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

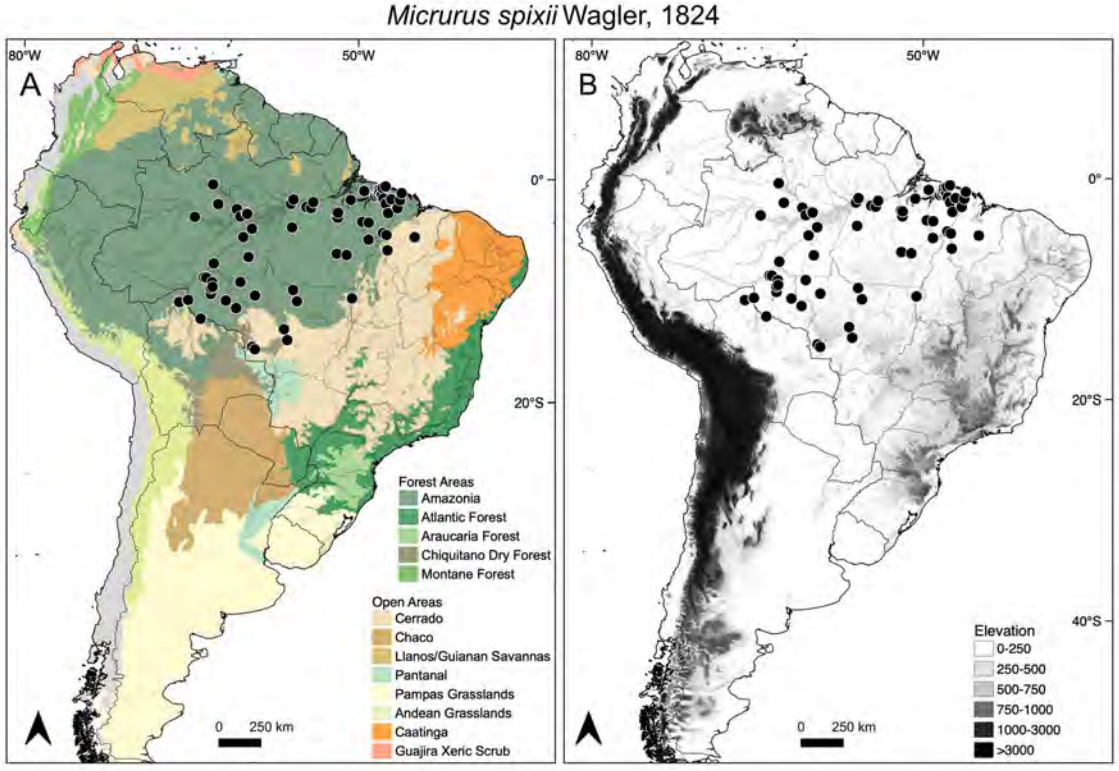


Plate 112. Distribution map of *Micrurus spixii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

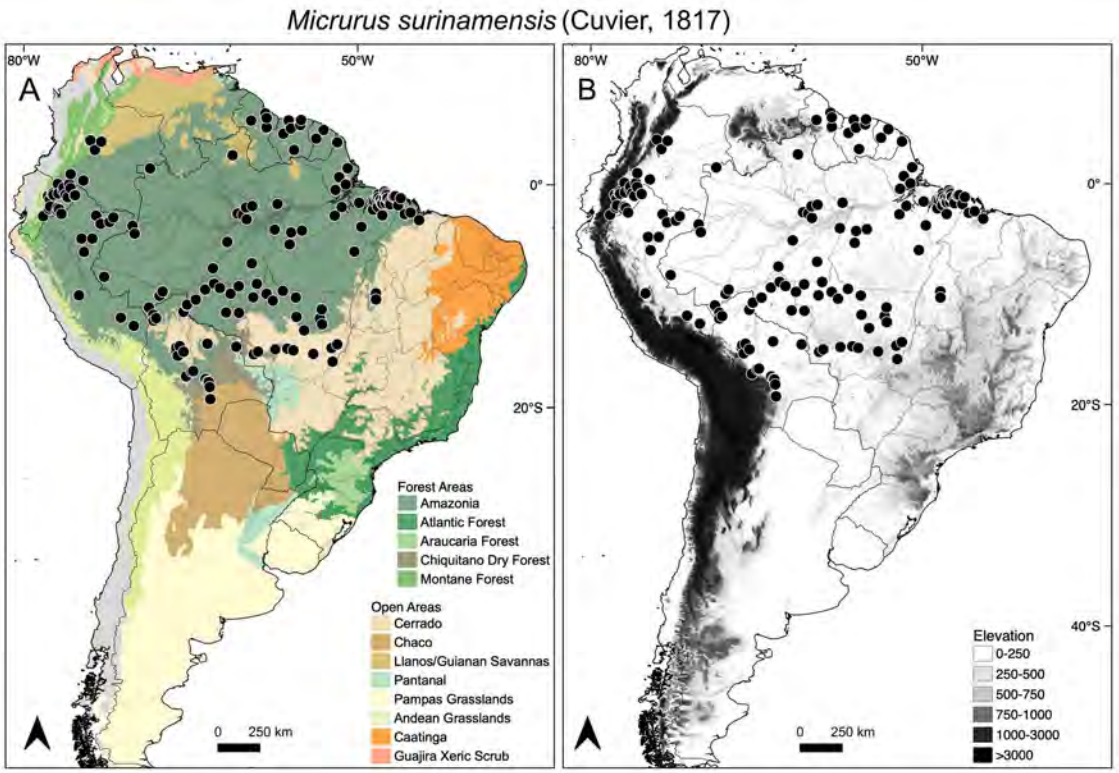


Plate 113. Distribution map of *Micrurus surinamensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

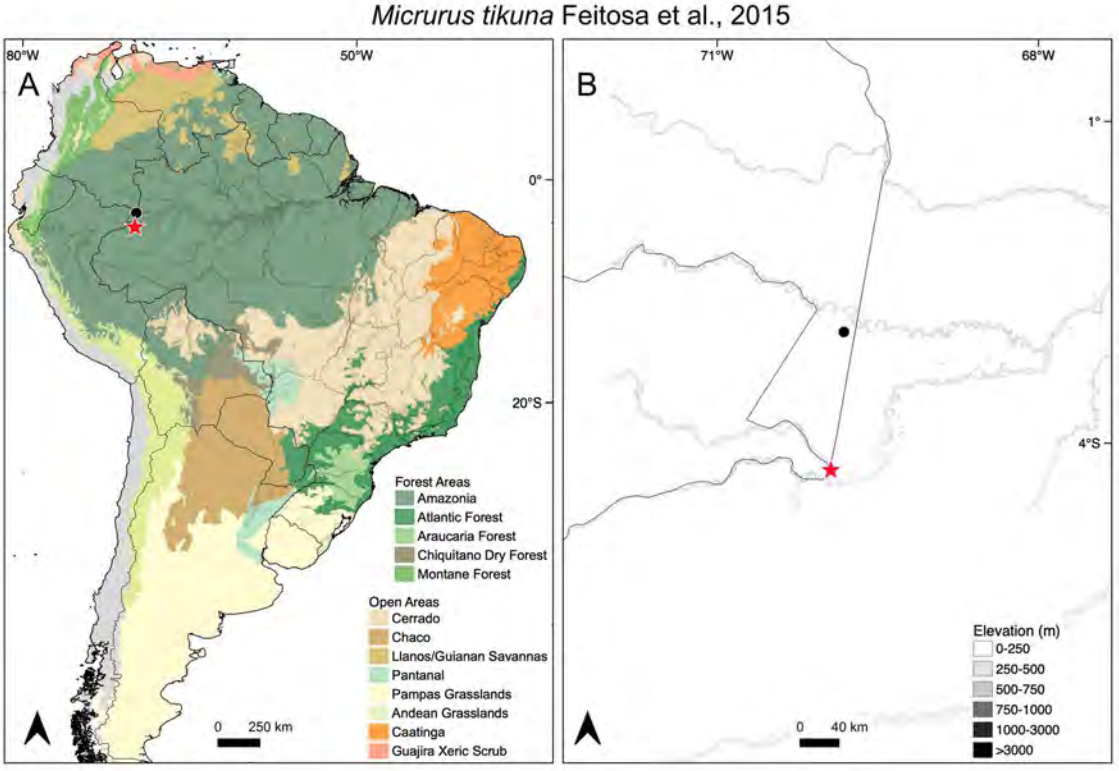


Plate 114. Distribution map of *Micrurus tikuna* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

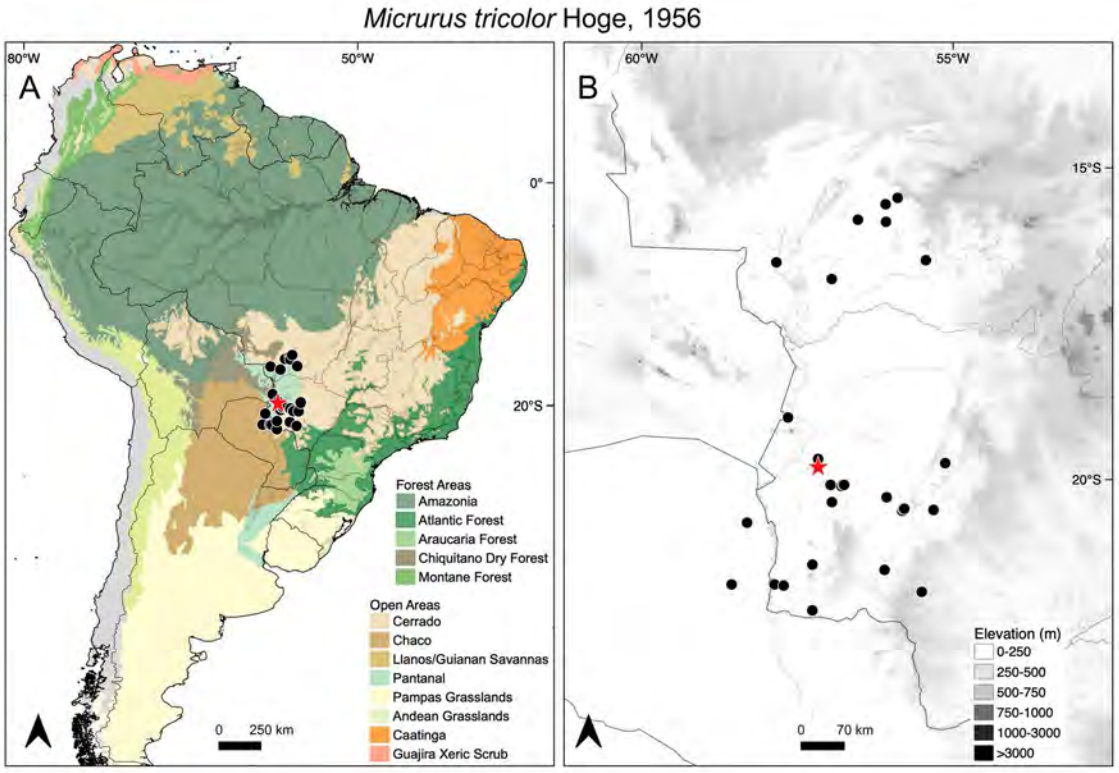


Plate 115. Distribution map of *Micrurus tricolor* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

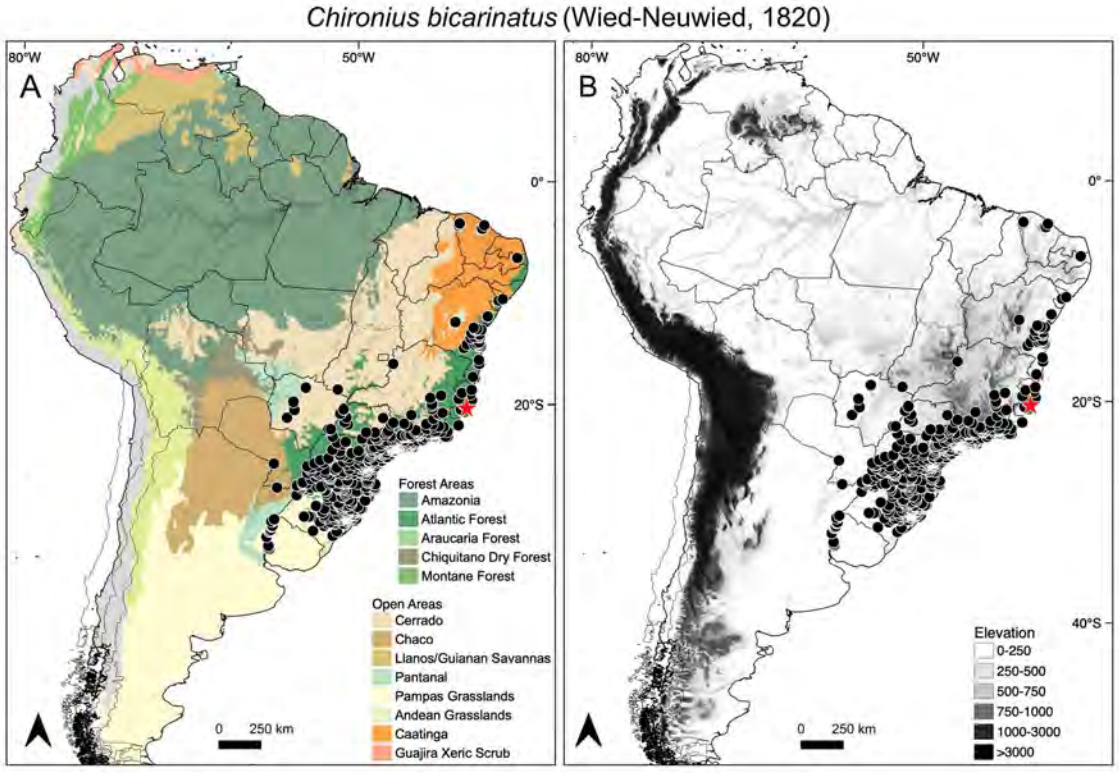


Plate 116. Distribution map of *Chironius bicarinatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

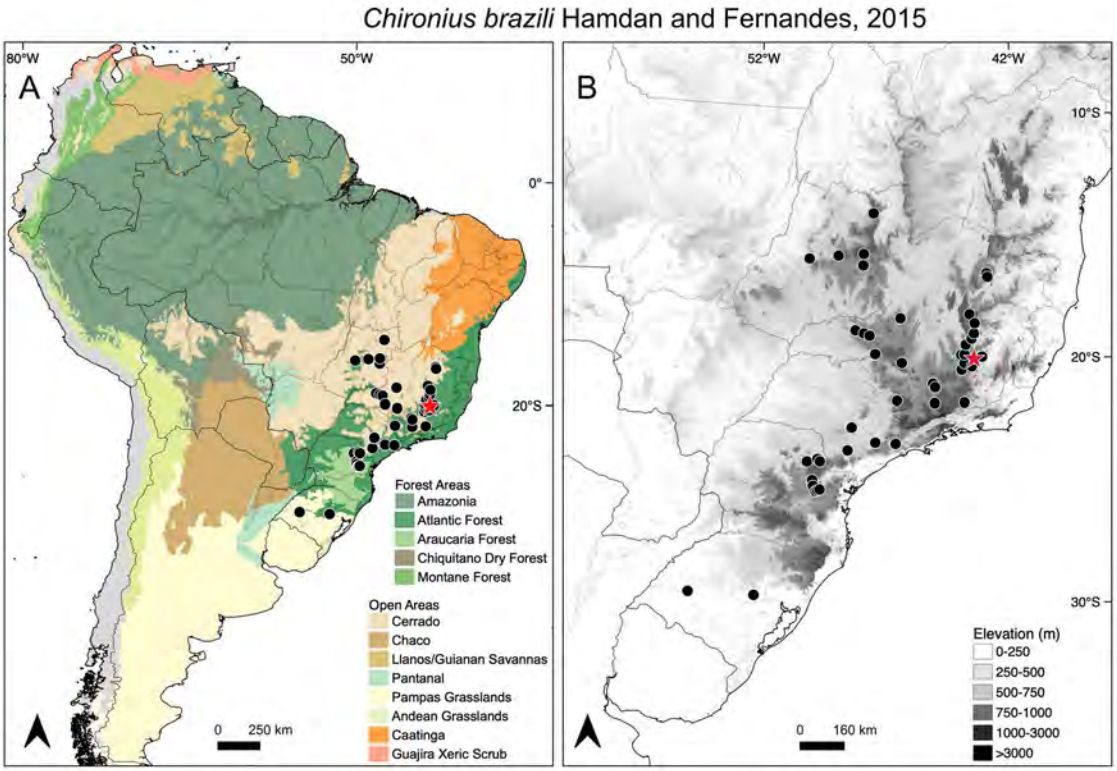


Plate 117. Distribution map of *Chironius brazili* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

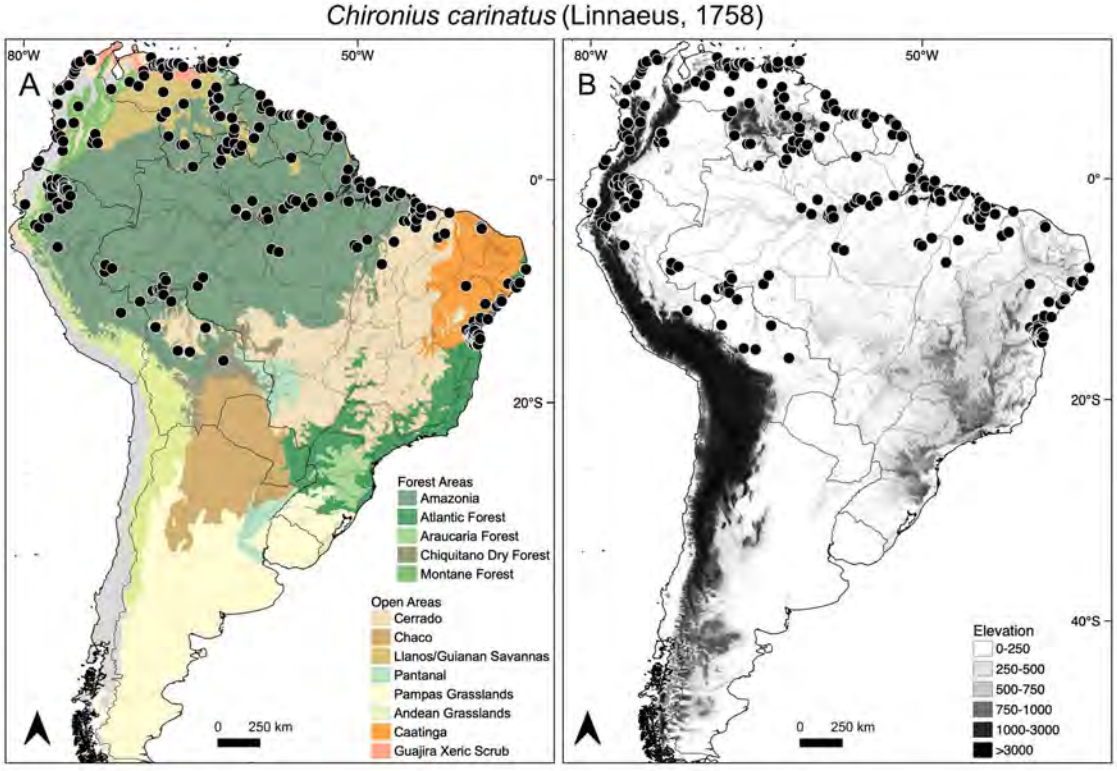


Plate 118. Distribution map of *Chironius carinatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

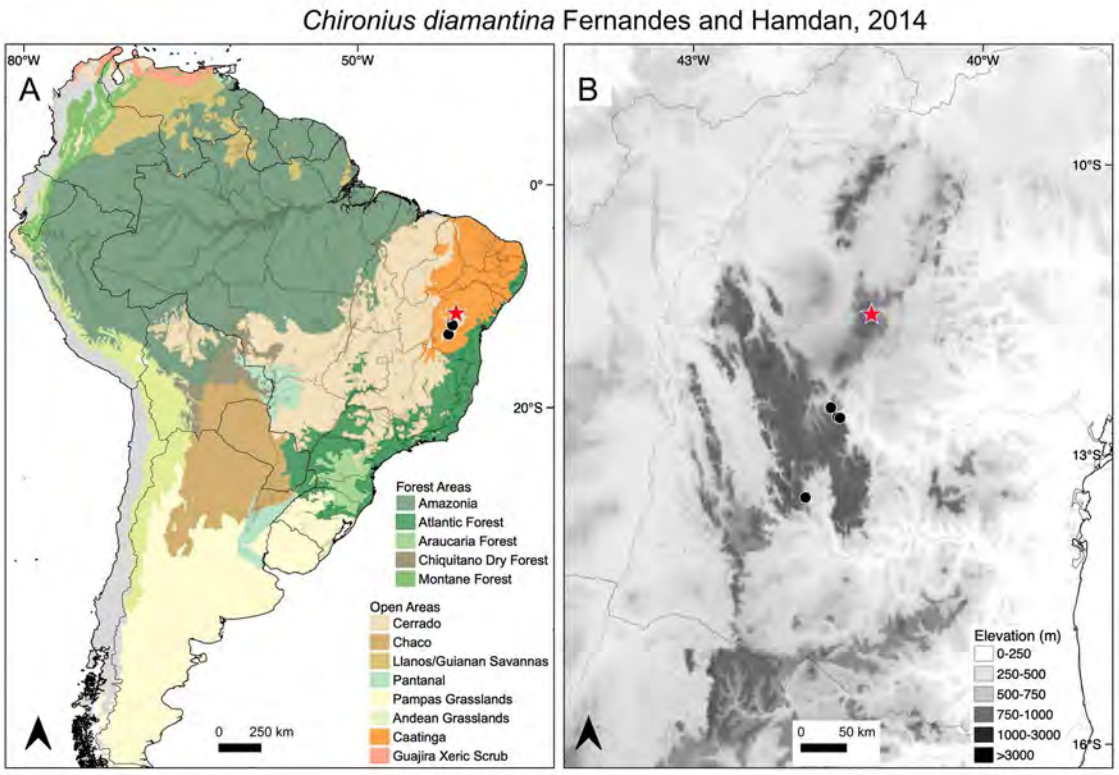


Plate 119. Distribution map of *Chironius diamantina* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

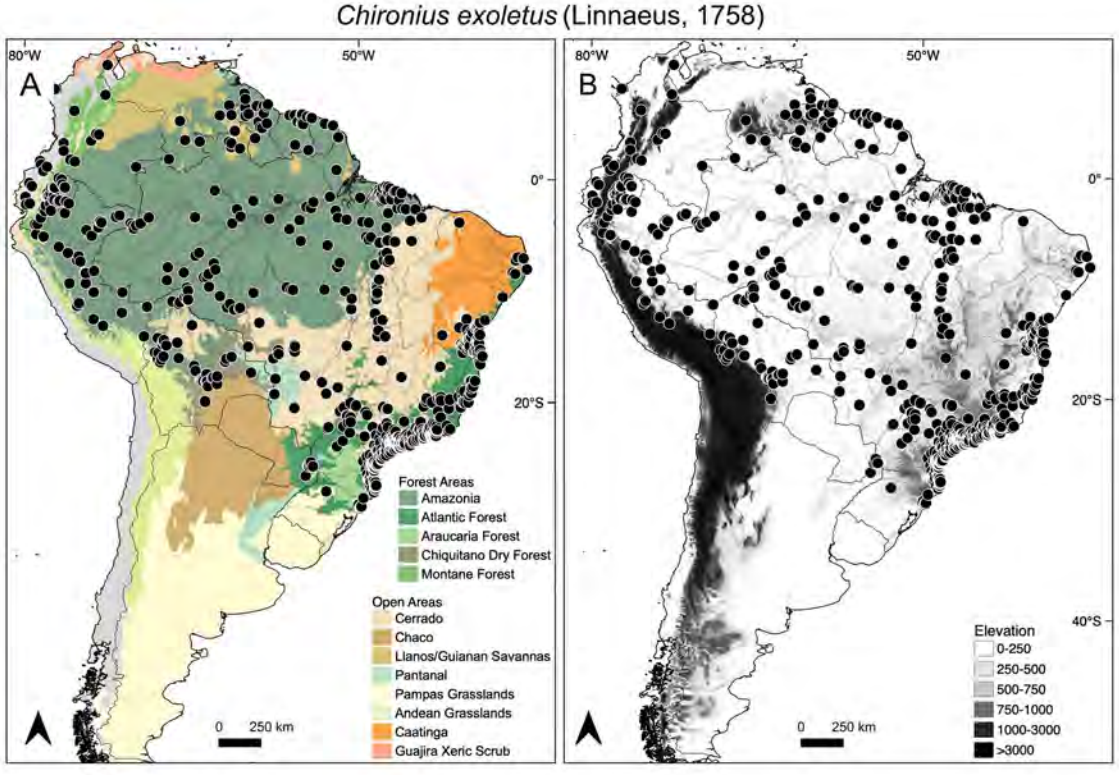


Plate 120. Distribution map of *Chironius exoletus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

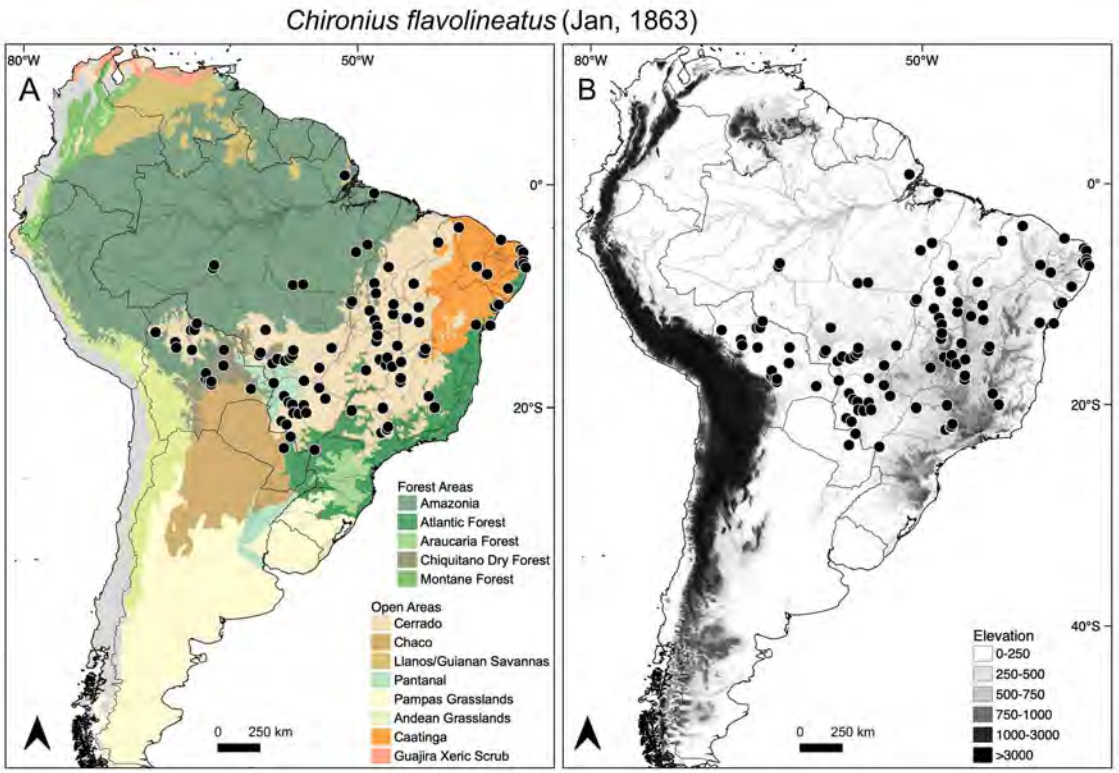


Plate 121. Distribution map of *Chironius flavolineatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

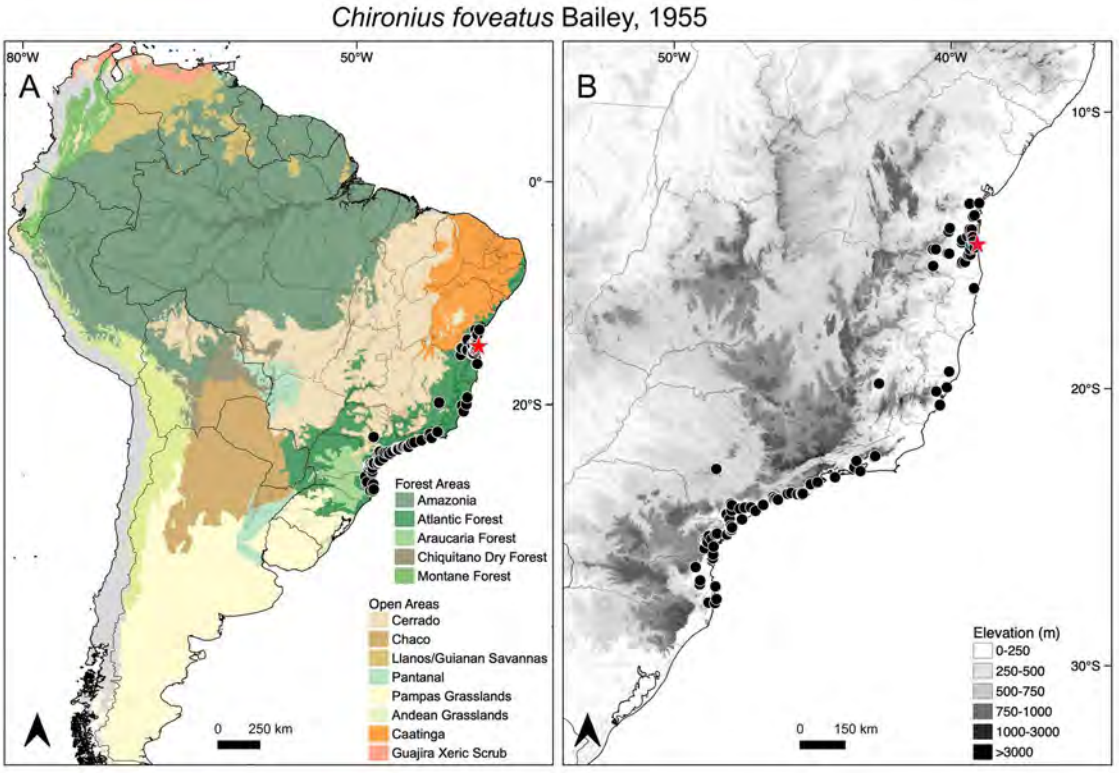


Plate 122. Distribution map of *Chironius foveatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

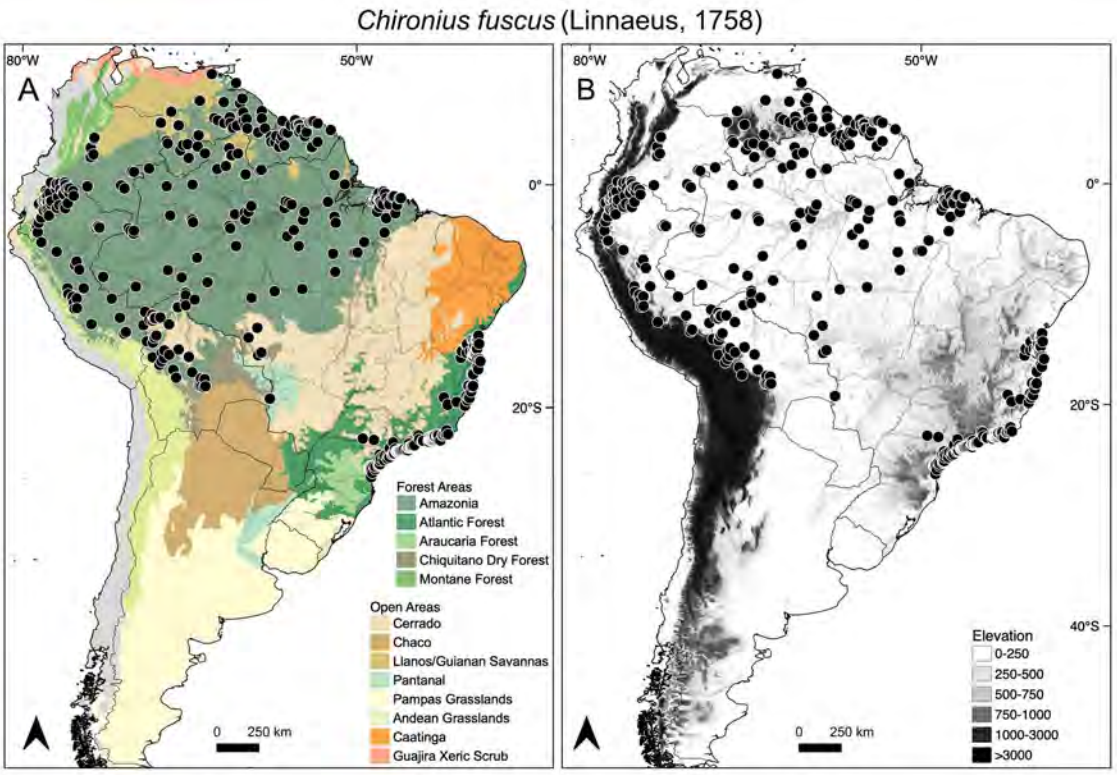


Plate 123. Distribution map of *Chironius fuscus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

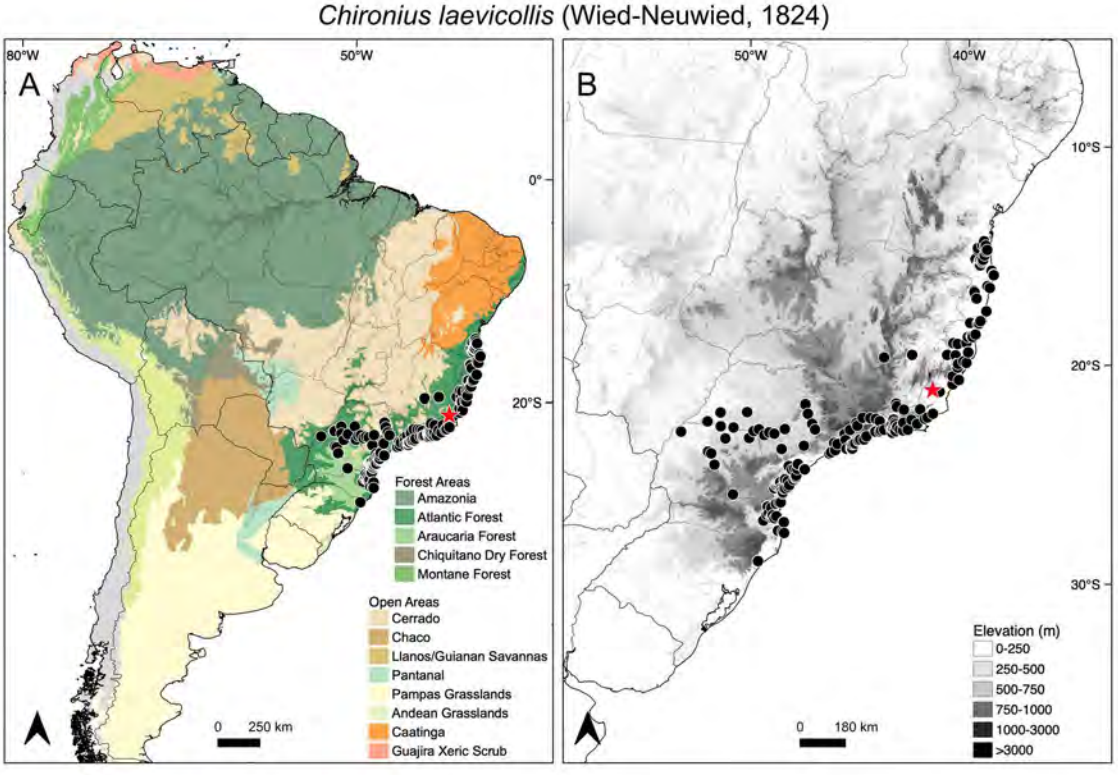


Plate 124. Distribution map of *Chironius laevicollis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

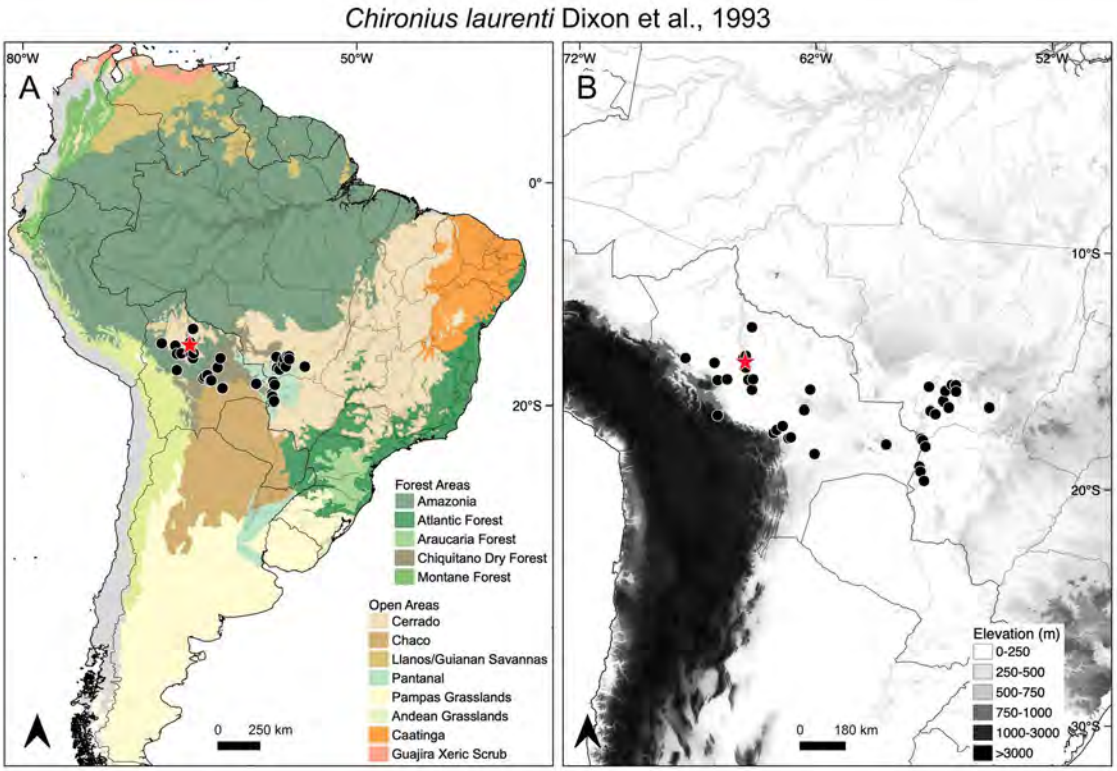


Plate 125. Distribution map of *Chironius laurenti* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

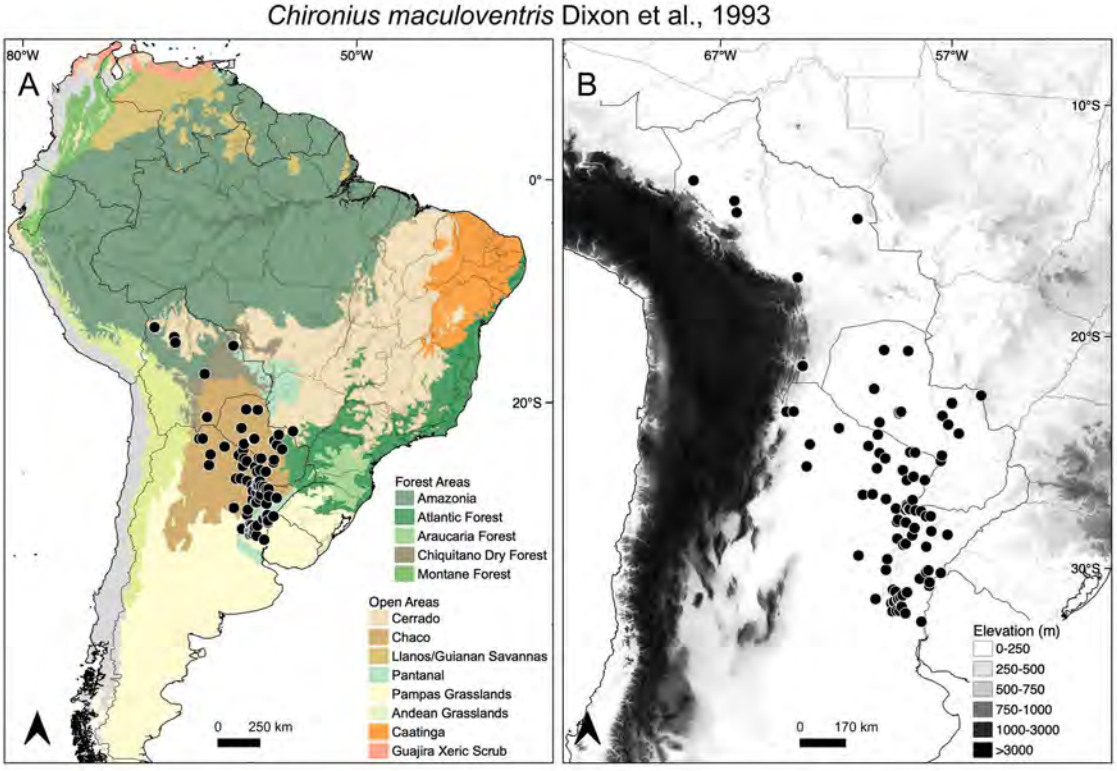


Plate 126. Distribution map of *Chironius maculoventris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

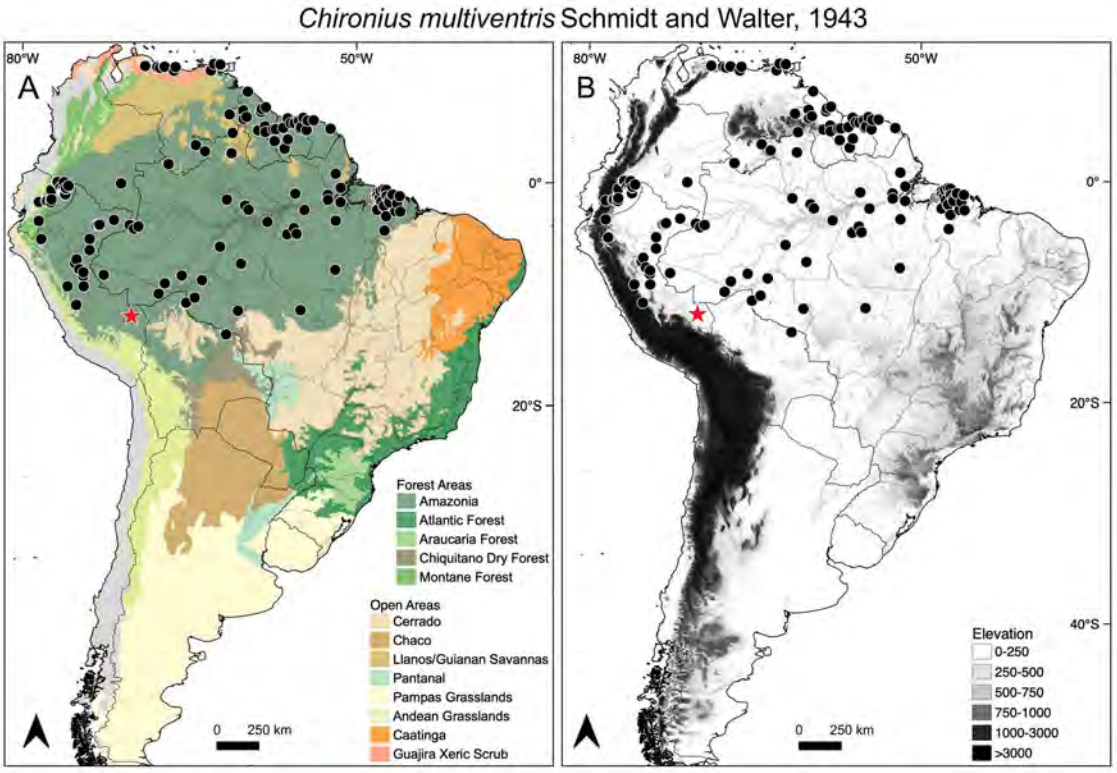


Plate 127. Distribution map of *Chironius multiventris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

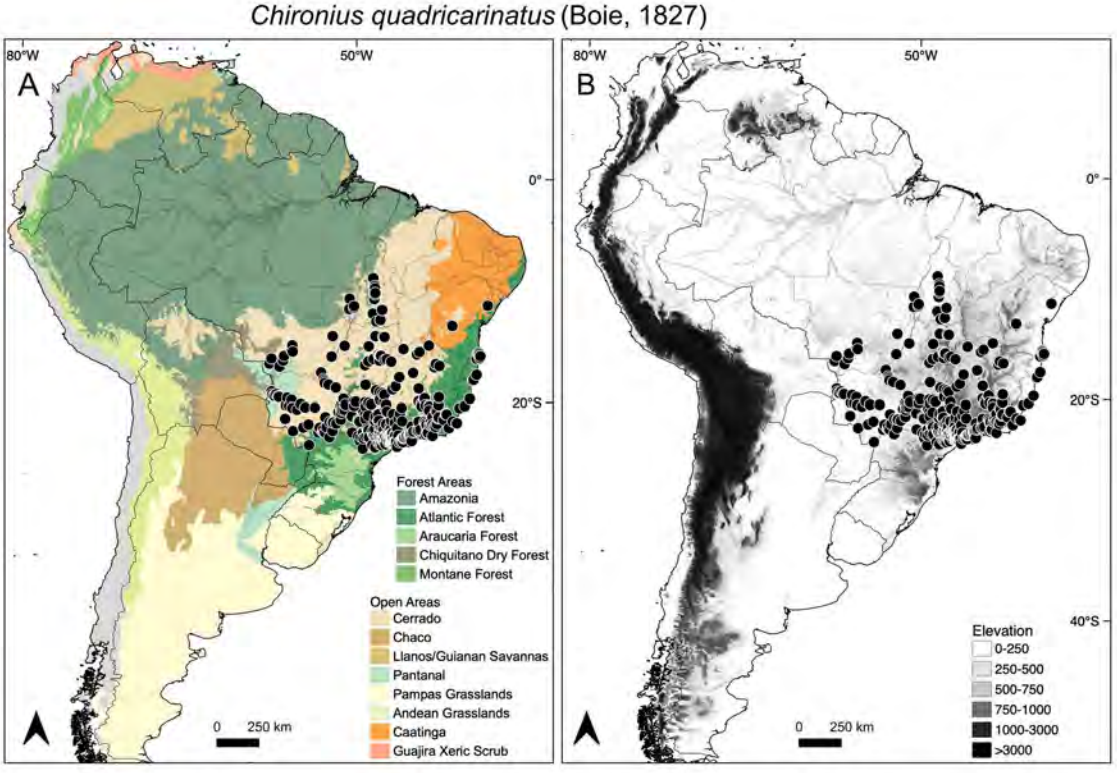


Plate 128. Distribution map of *Chironius quadricarinatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

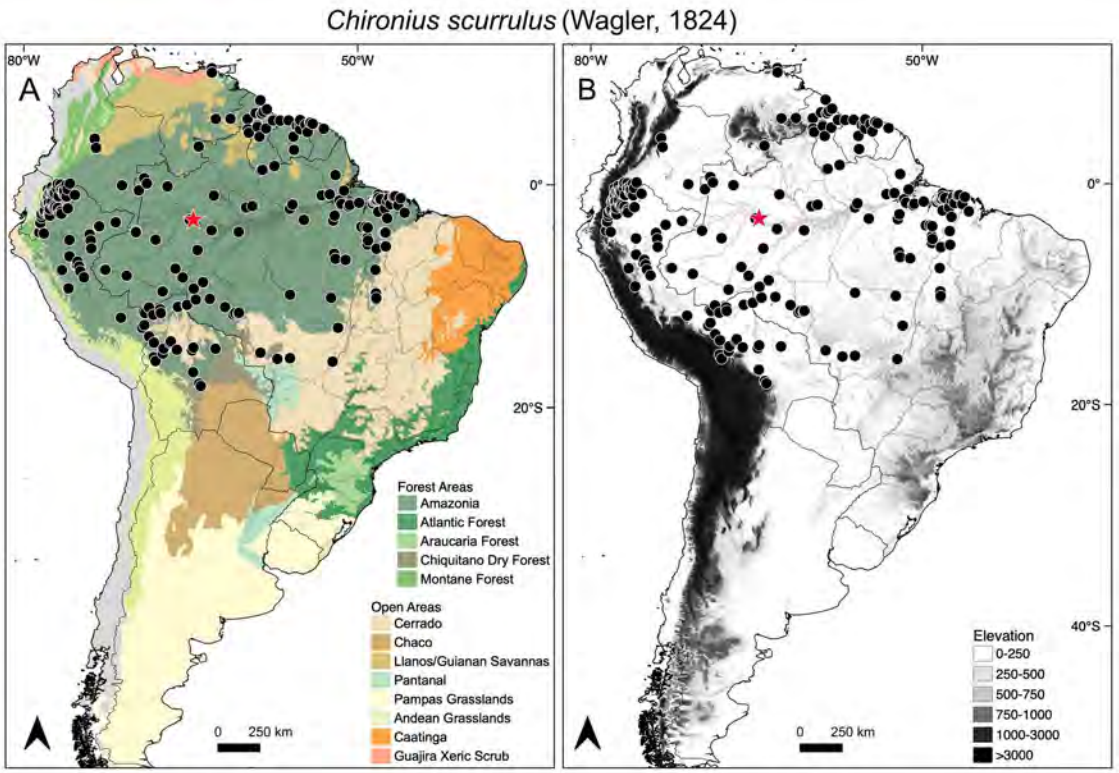


Plate 129. Distribution map of *Chironius scurrulus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

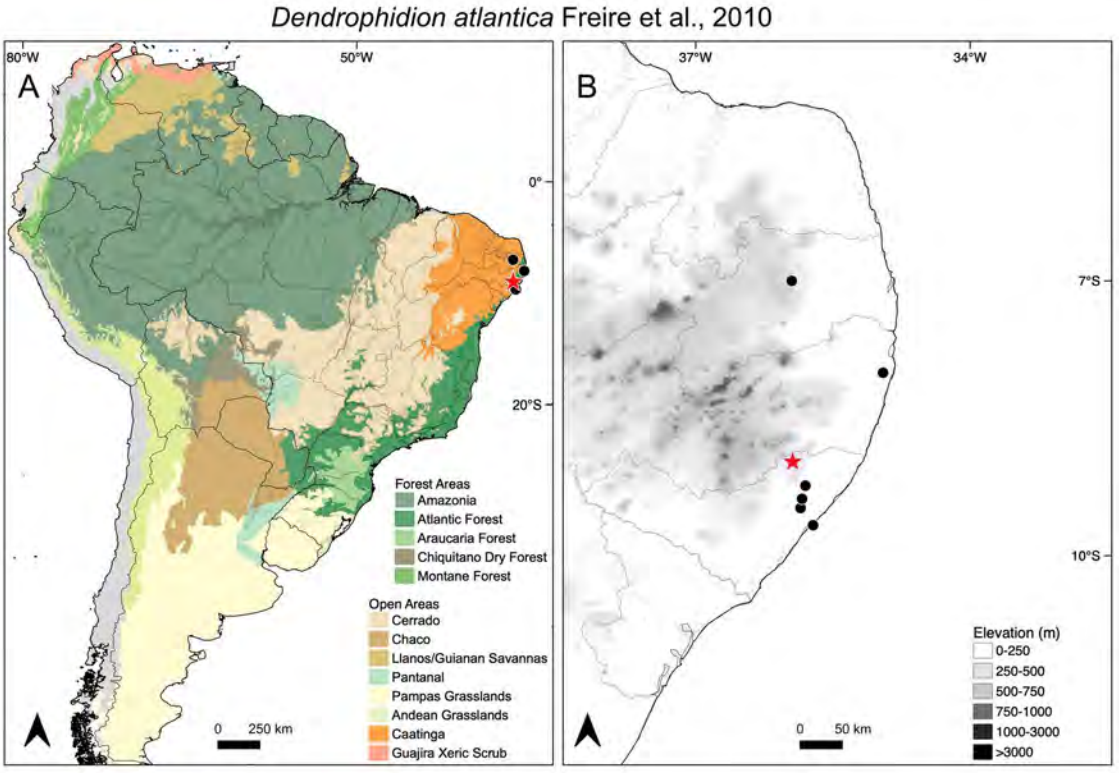


Plate 130. Distribution map of *Dendrophidion atlantica* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

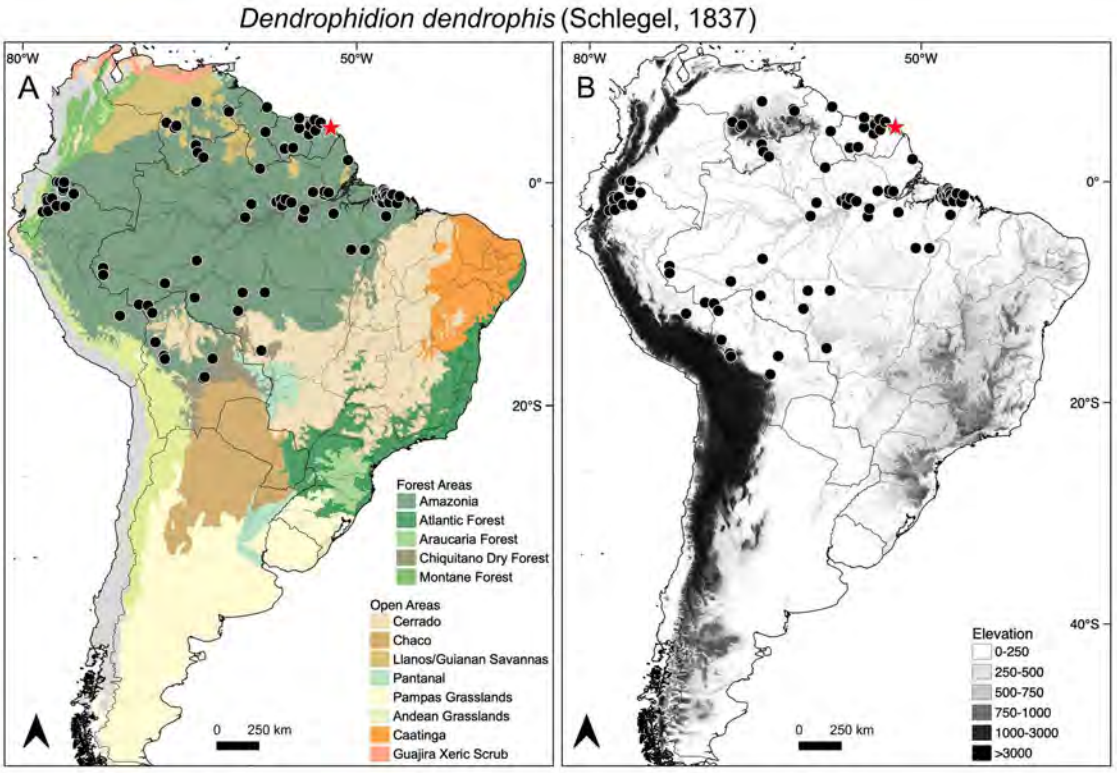


Plate 131. Distribution map of *Dendrophidion dendrophis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

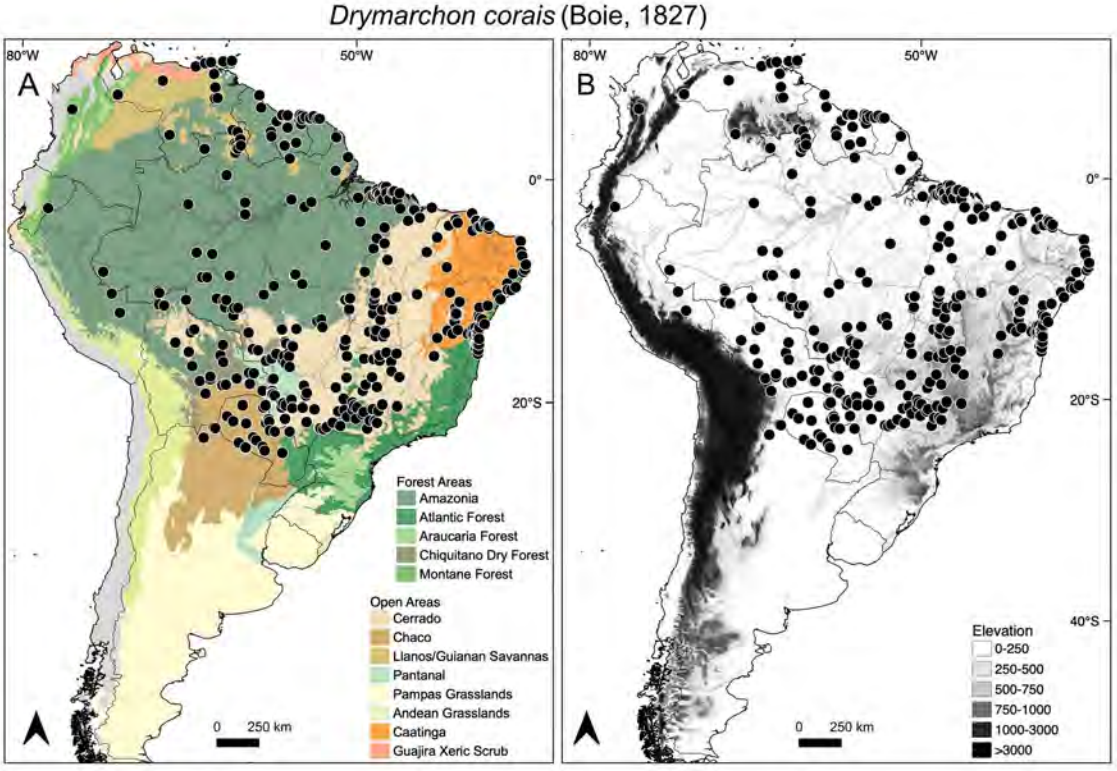


Plate 132. Distribution map of *Drymarchon corais* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

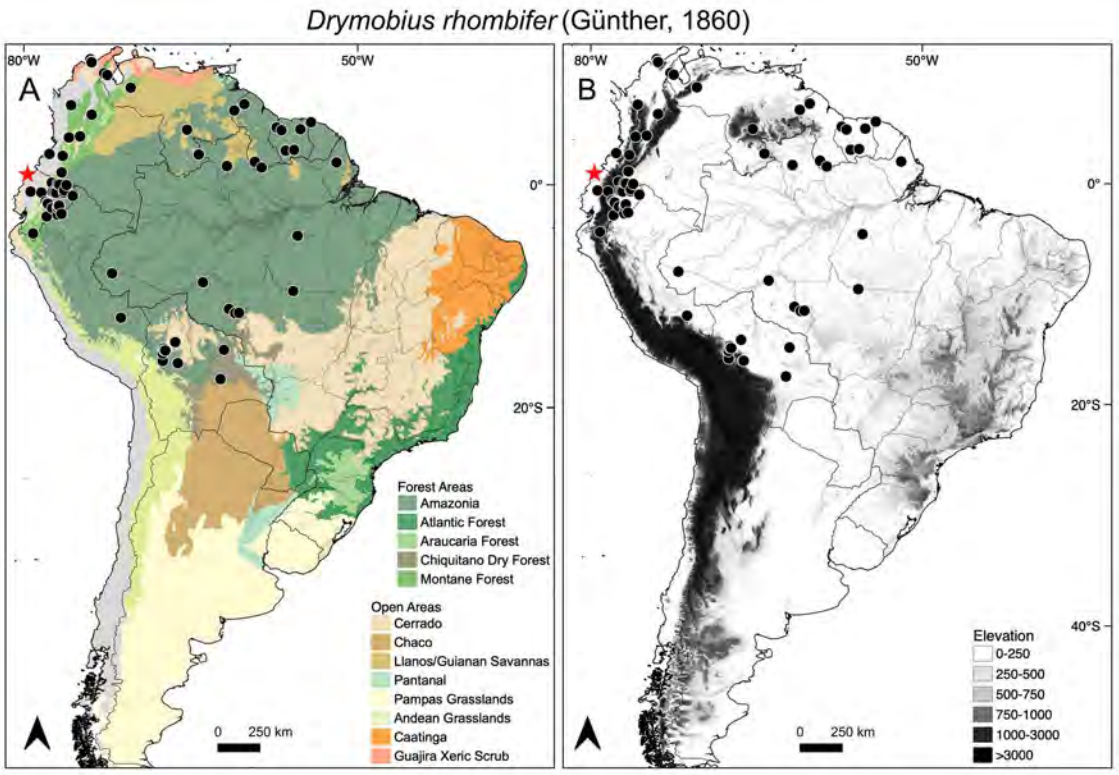


Plate 133. Distribution map of *Drymobius rhombifer* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

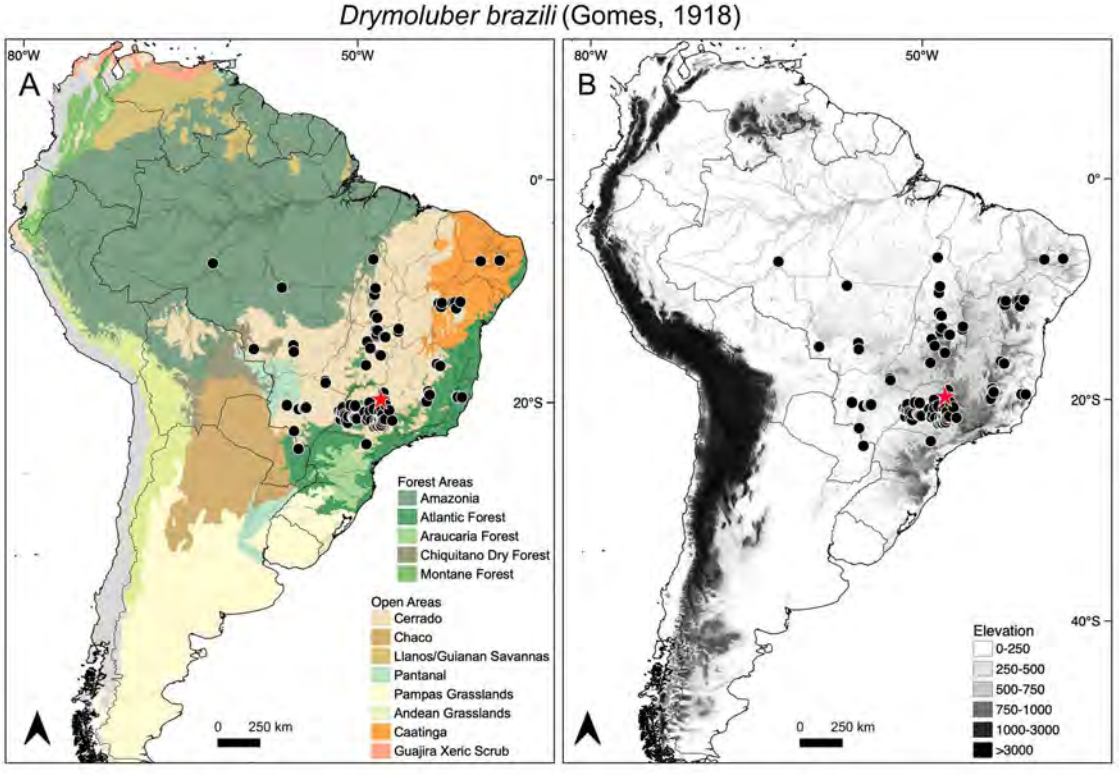


Plate 134. Distribution map of *Drymoluber brazili* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

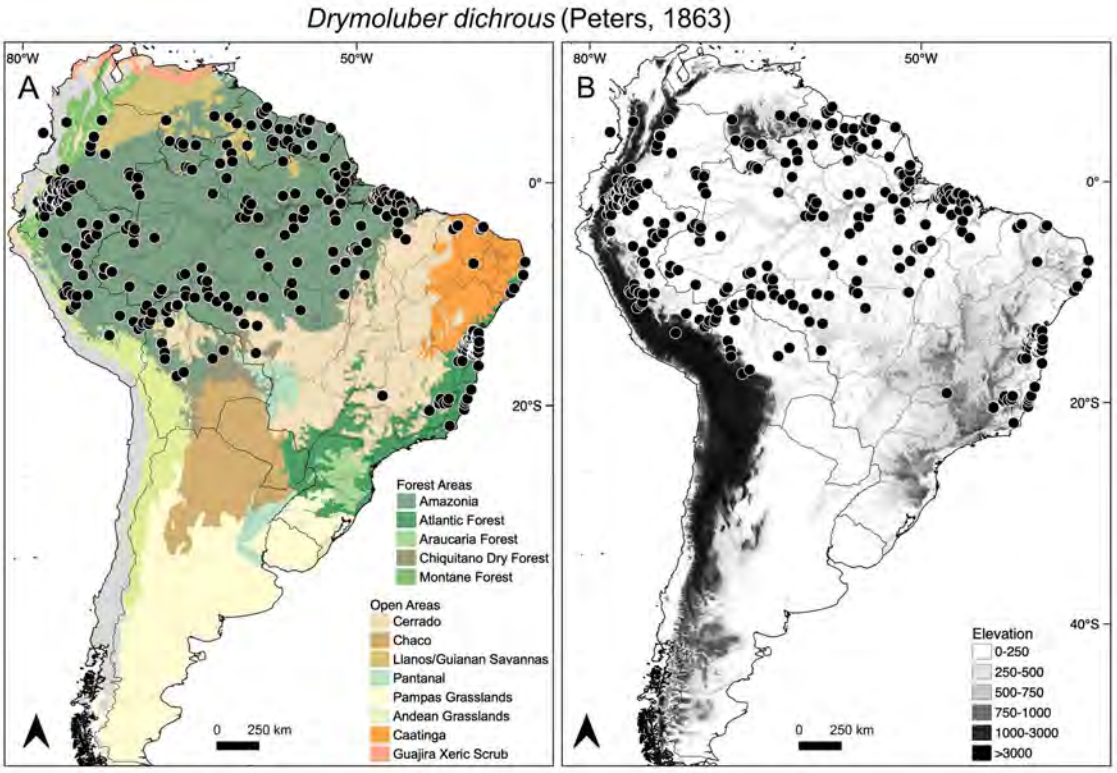


Plate 135. Distribution map of *Drymoluber dichrous* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

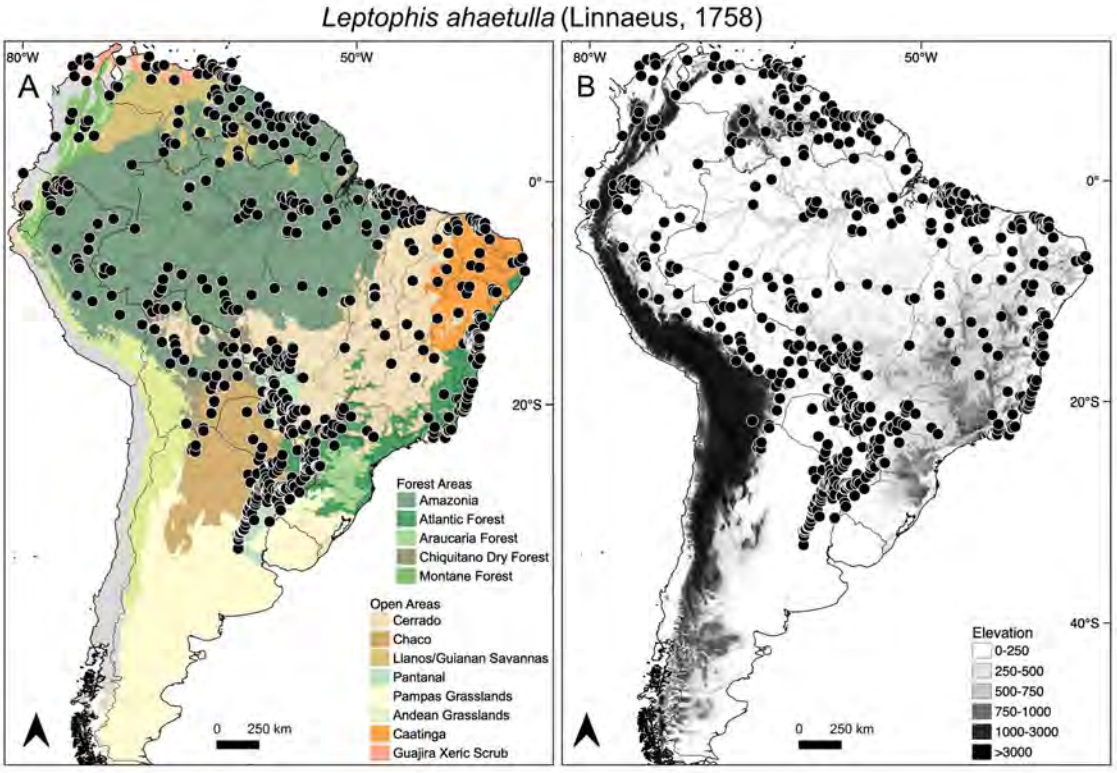


Plate 136. Distribution map of *Leptophis ahaetulla* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

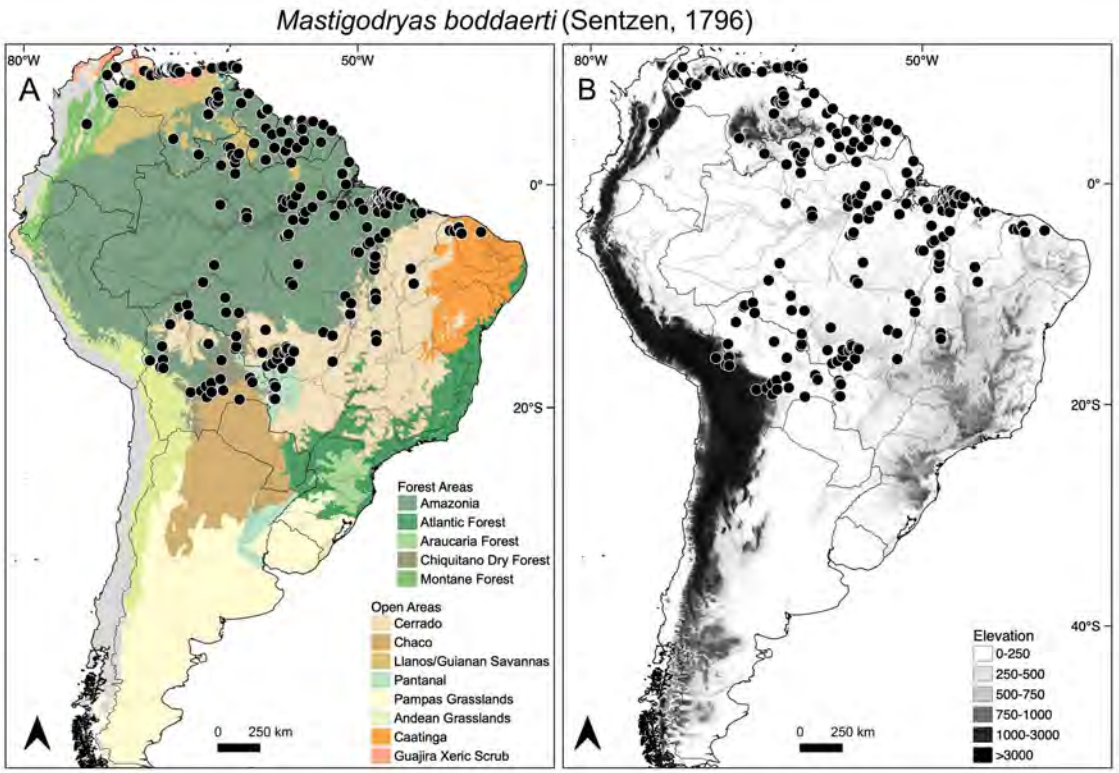


Plate 137. Distribution map of *Mastigodryas boddaerti* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

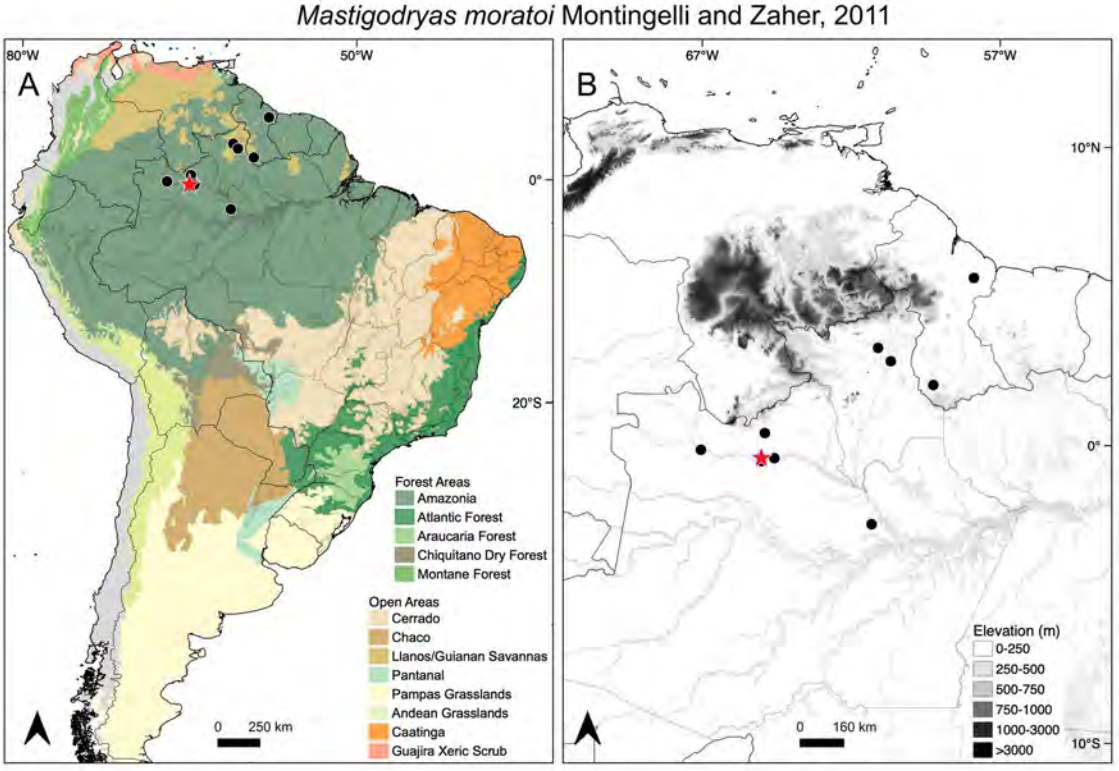


Plate 138. Distribution map of *Mastigodryas moratoi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

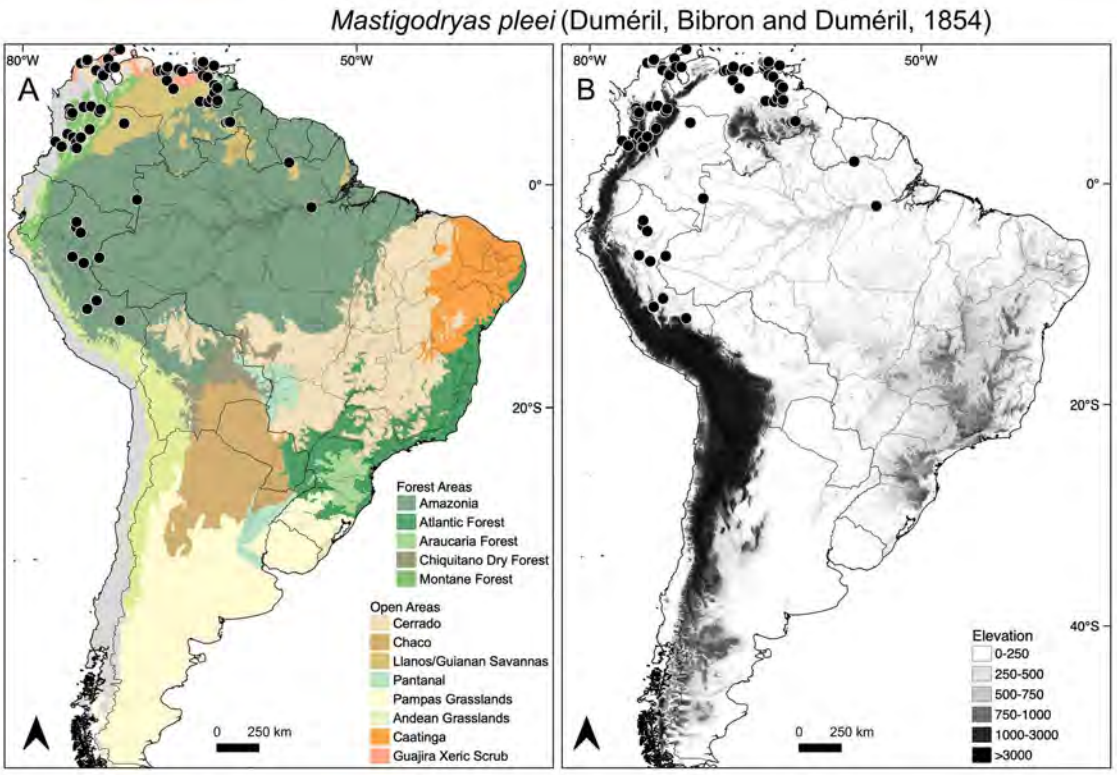


Plate 139. Distribution map of *Mastigodryas pleei* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

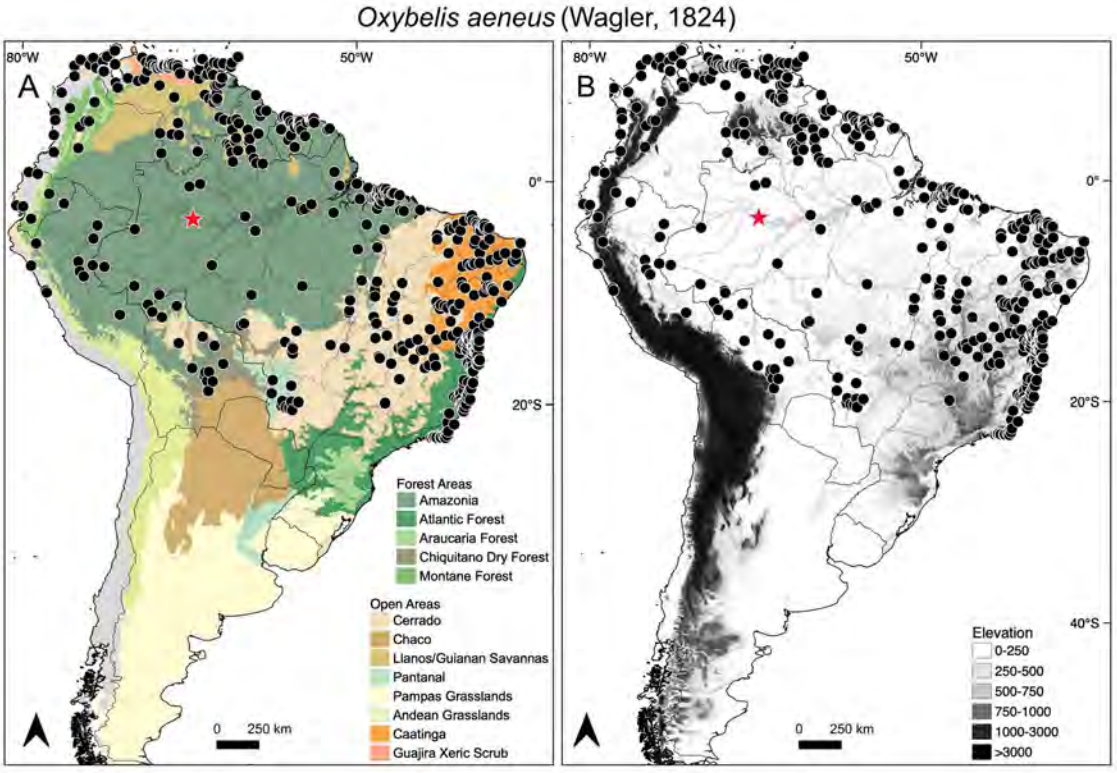


Plate 140. Distribution map of *Oxybelis aeneus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

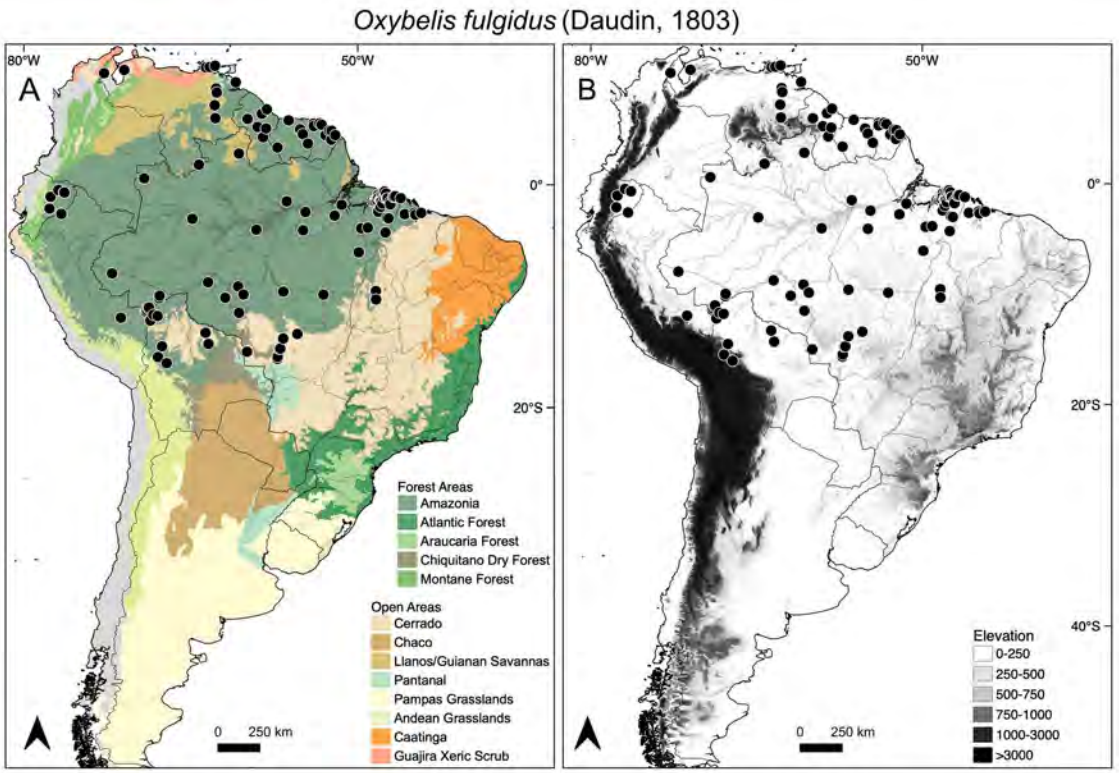


Plate 141. Distribution map of *Oxybelis fulgidus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

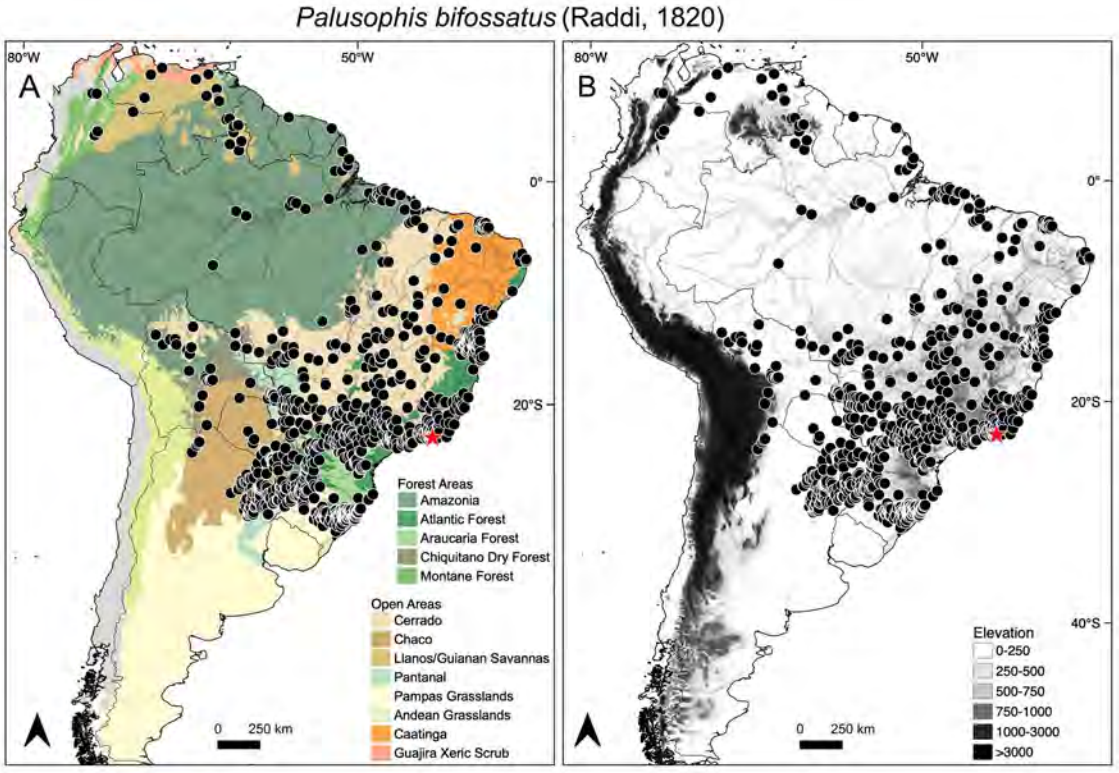


Plate 142. Distribution map of *Palusophis bifossatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

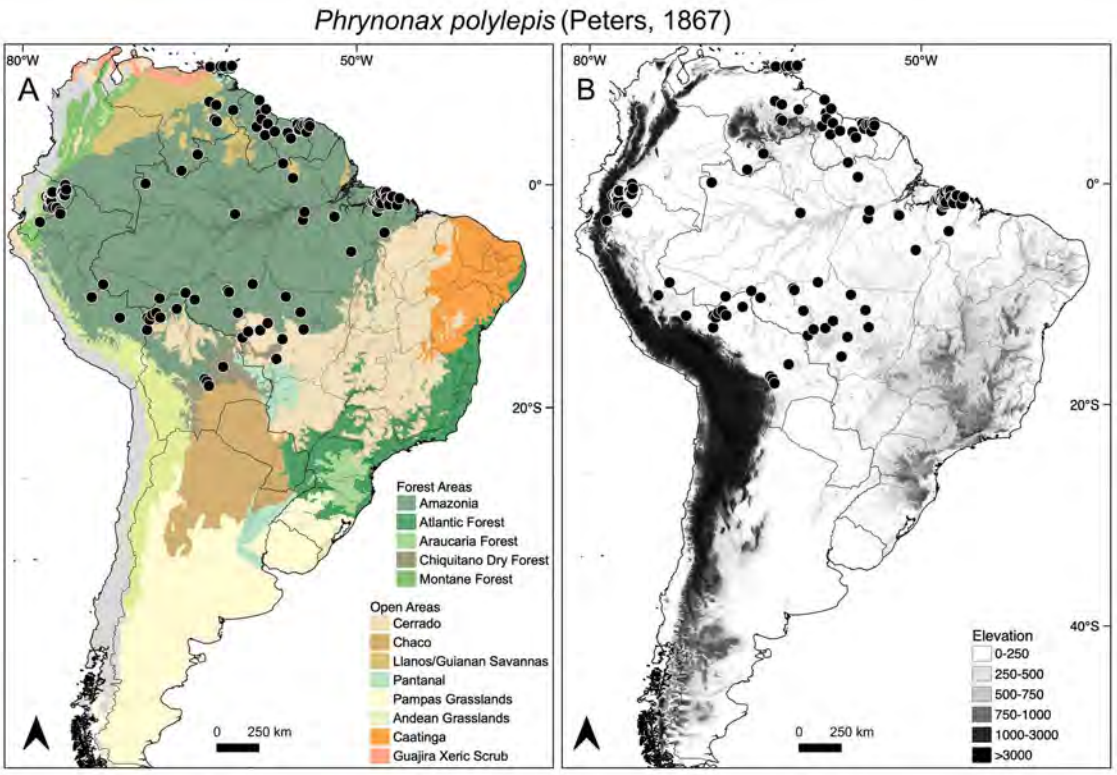


Plate 143. Distribution map of *Phrynonax polylepis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

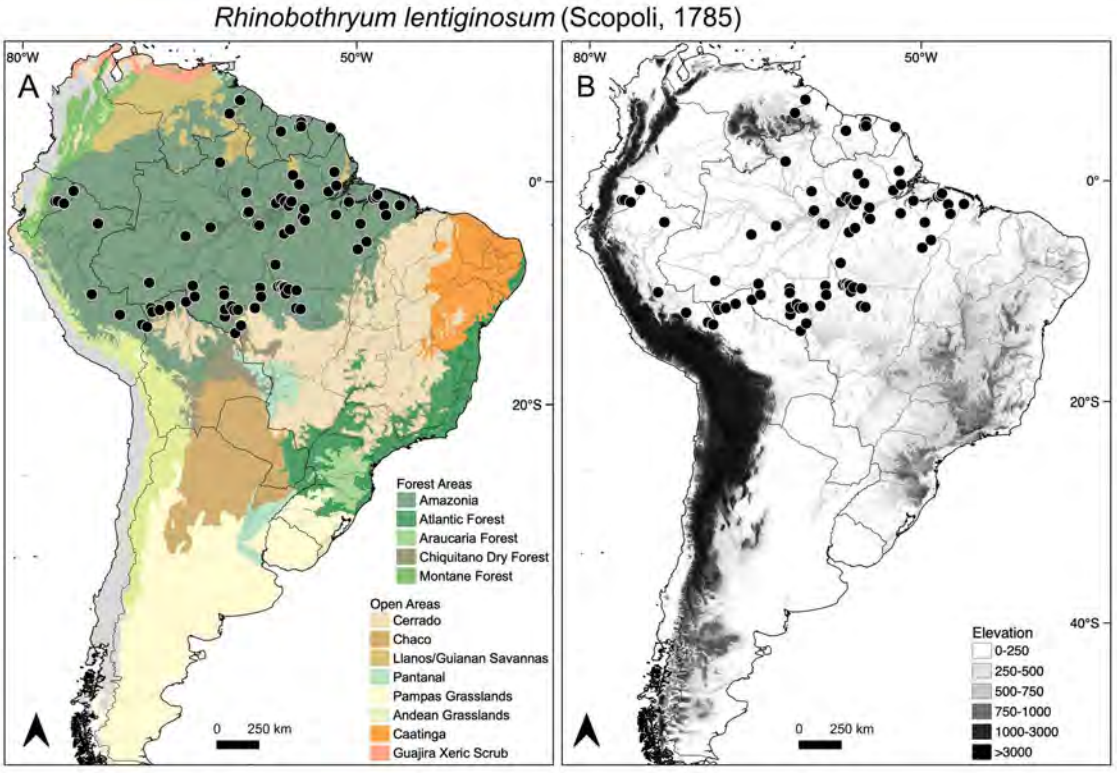


Plate 144. Distribution map of *Rhinobothryum lentiginosum* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

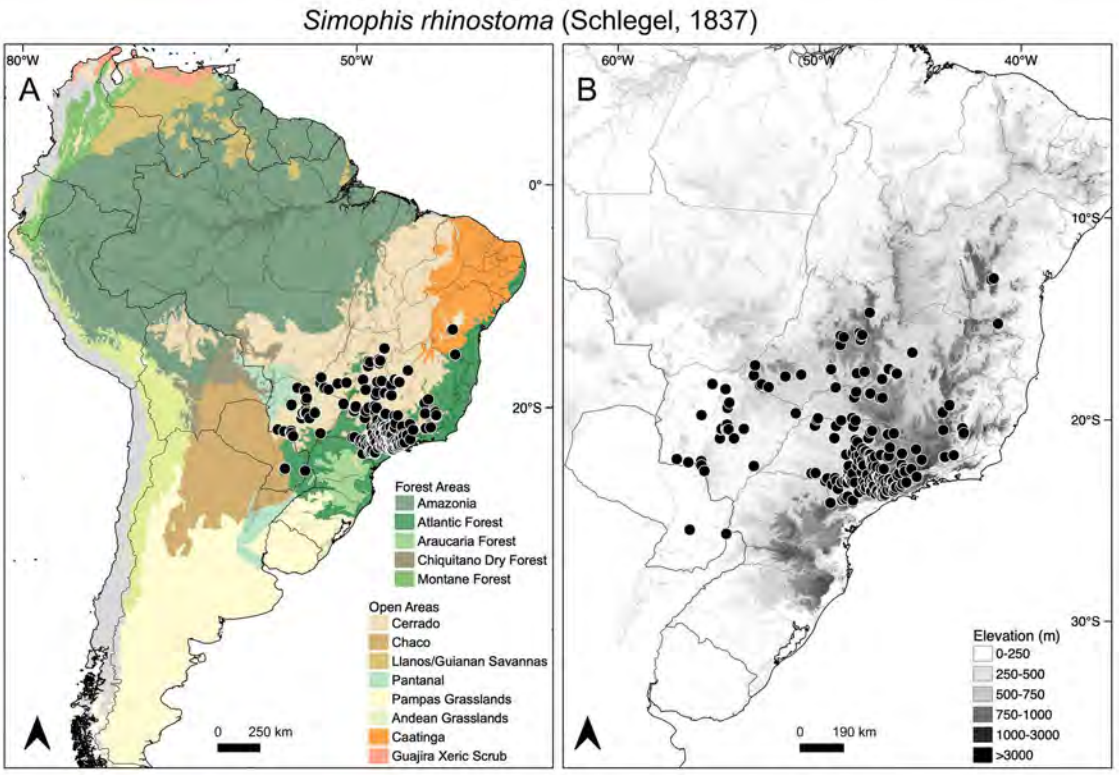


Plate 145. Distribution map of *Simophis rhinostoma* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

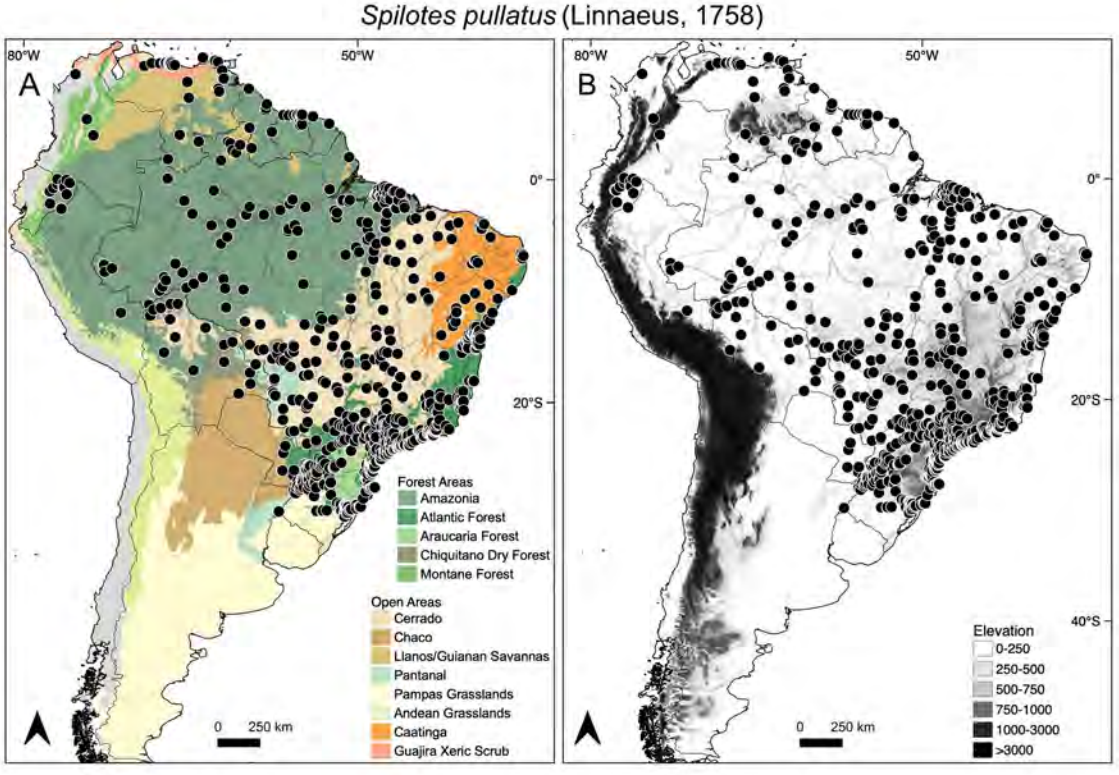


Plate 146. Distribution map of *Spilotes pullatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

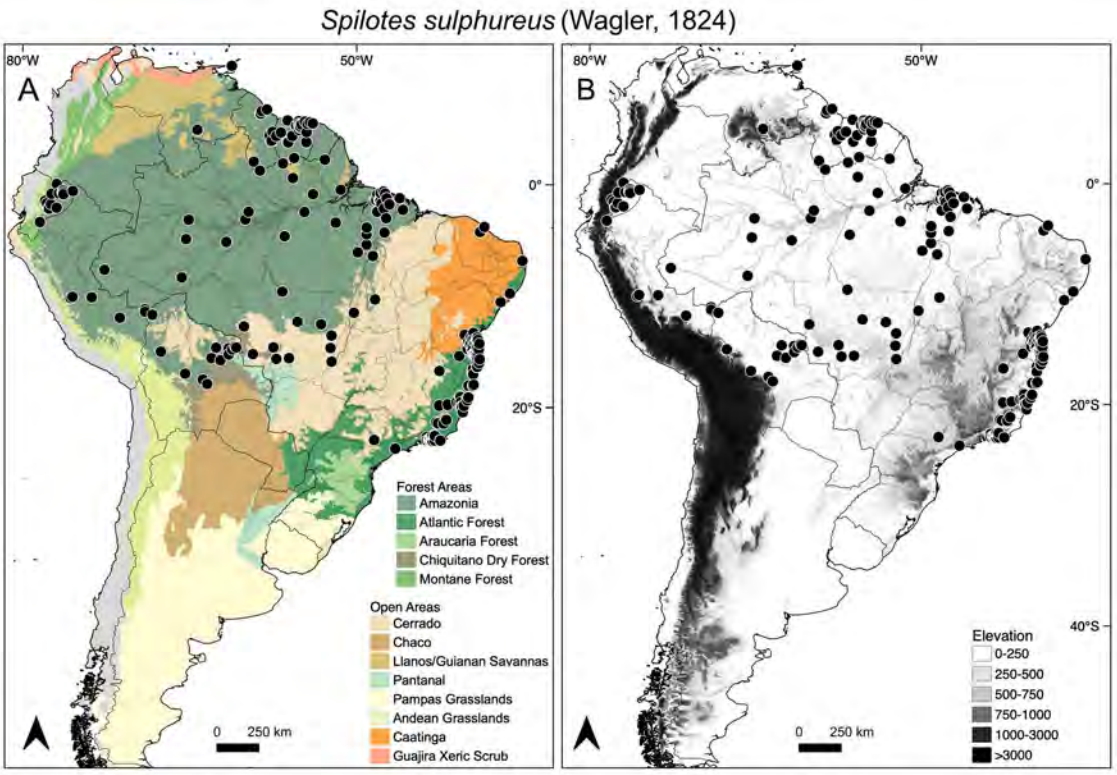


Plate 147. Distribution map of *Spilotes sulphureus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

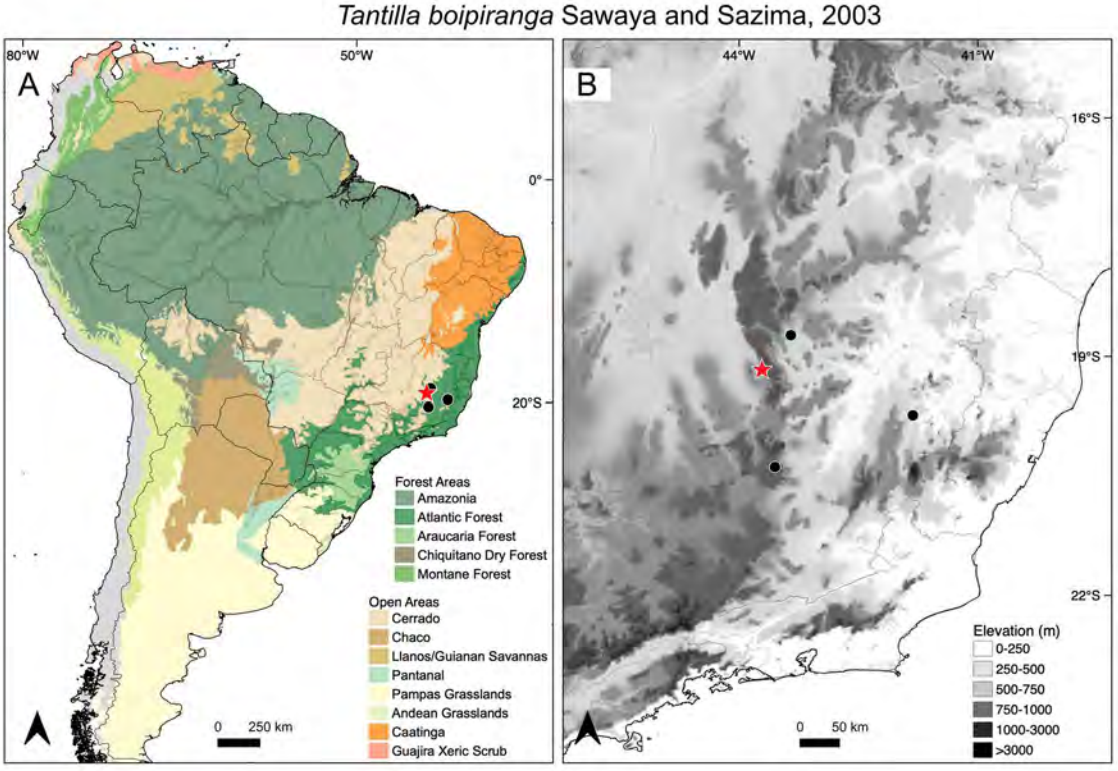


Plate 148. Distribution map of *Tantilla boipiranga* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

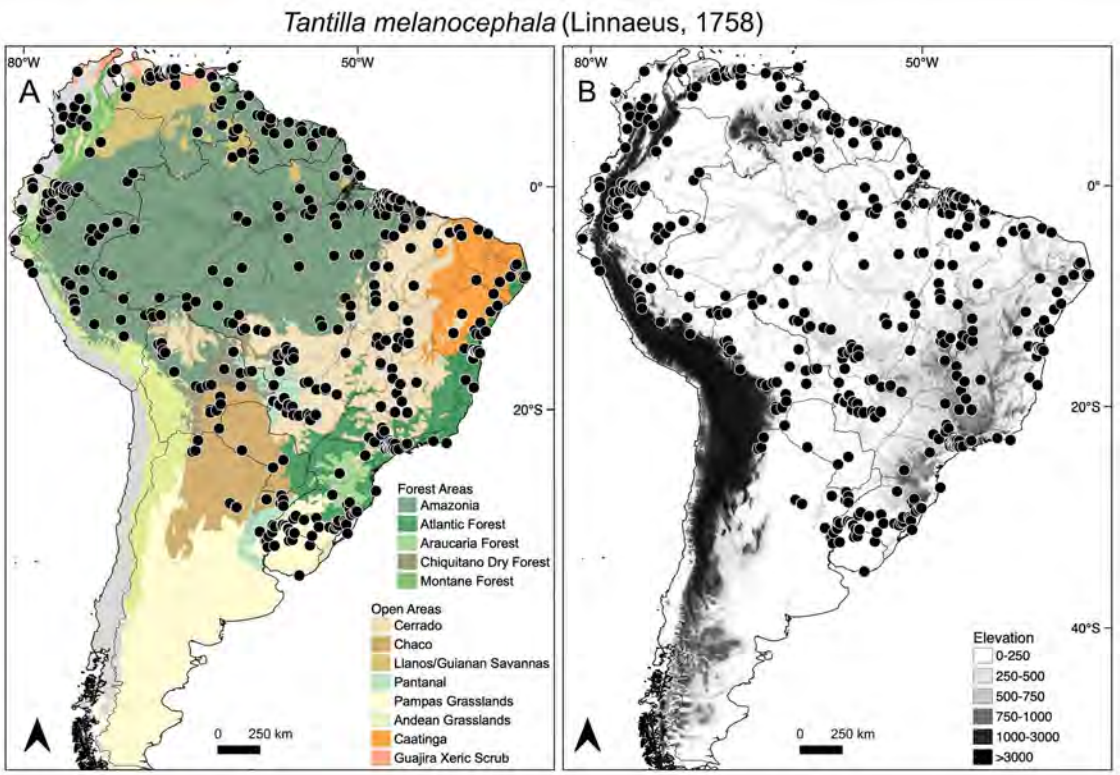


Plate 149. Distribution map of *Tantilla melanocephala* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

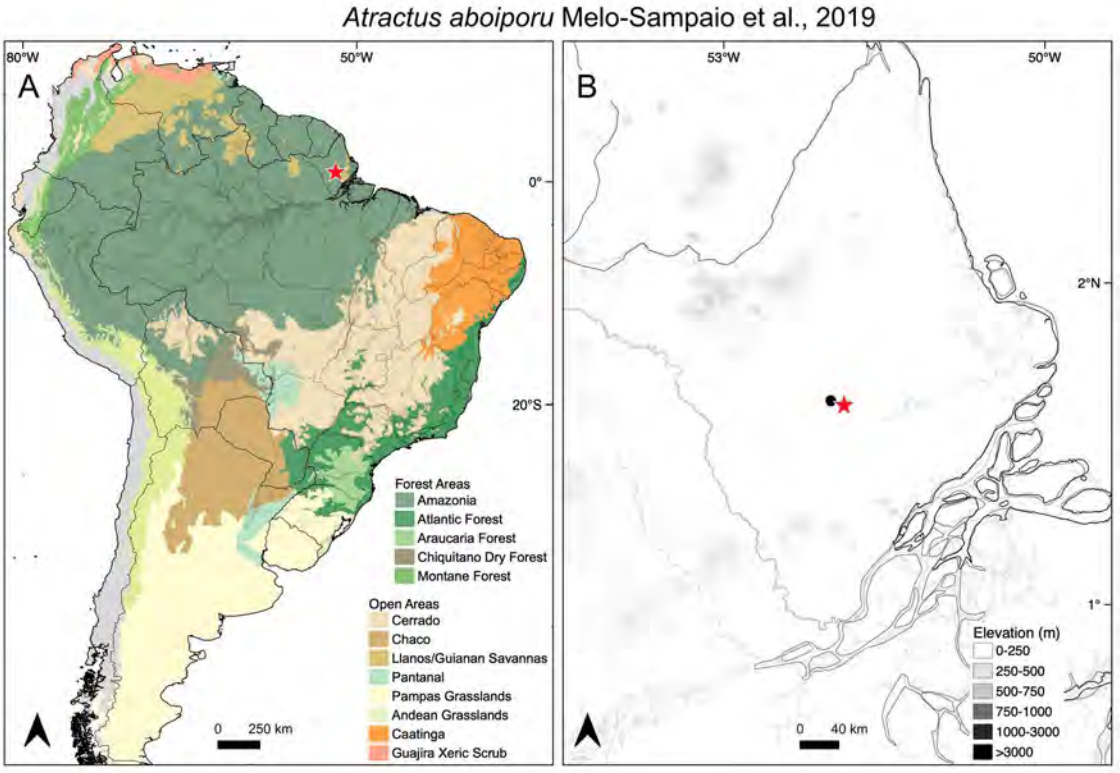


Plate 150. Distribution map of *Atractus aboiporu* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

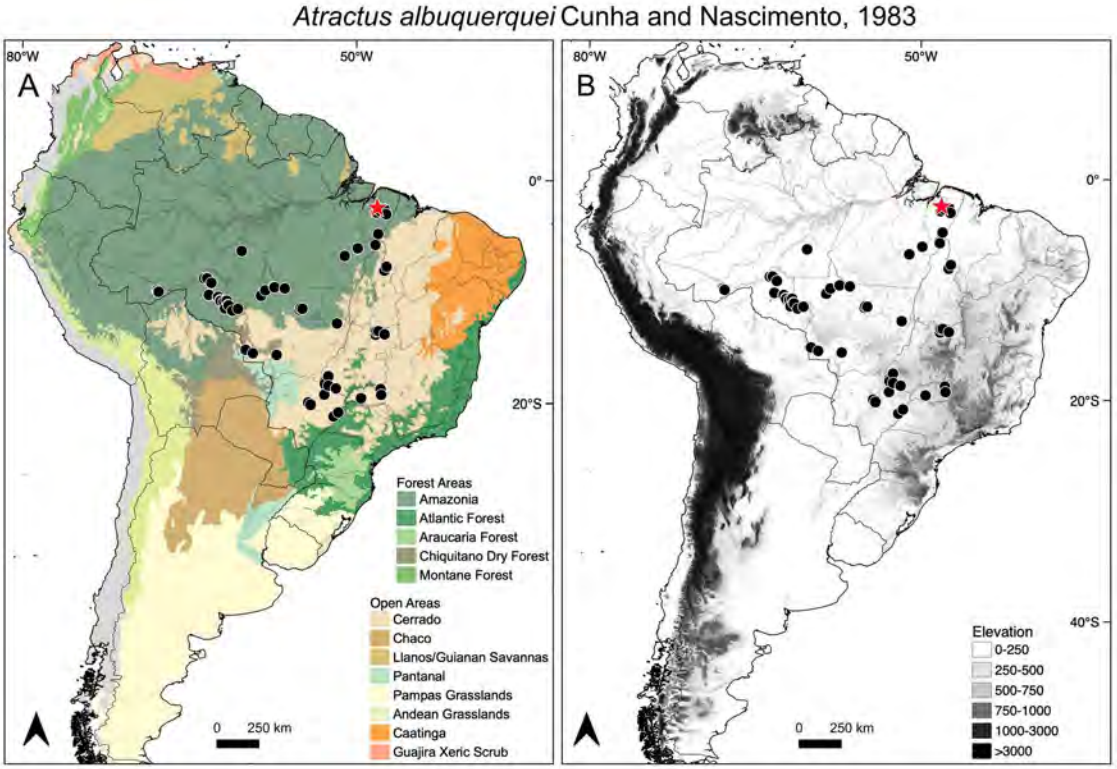


Plate 151. Distribution map of *Atractus albuquerquei* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

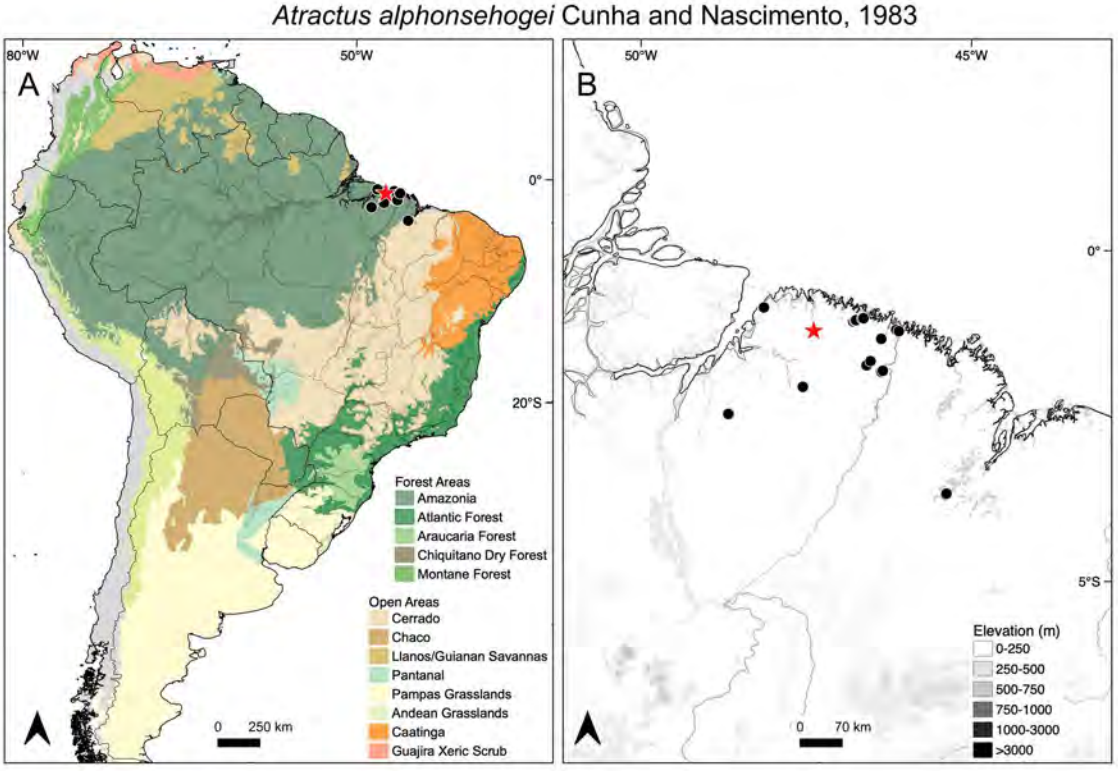


Plate 152. Distribution map of *Atractus alphonsehogei* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

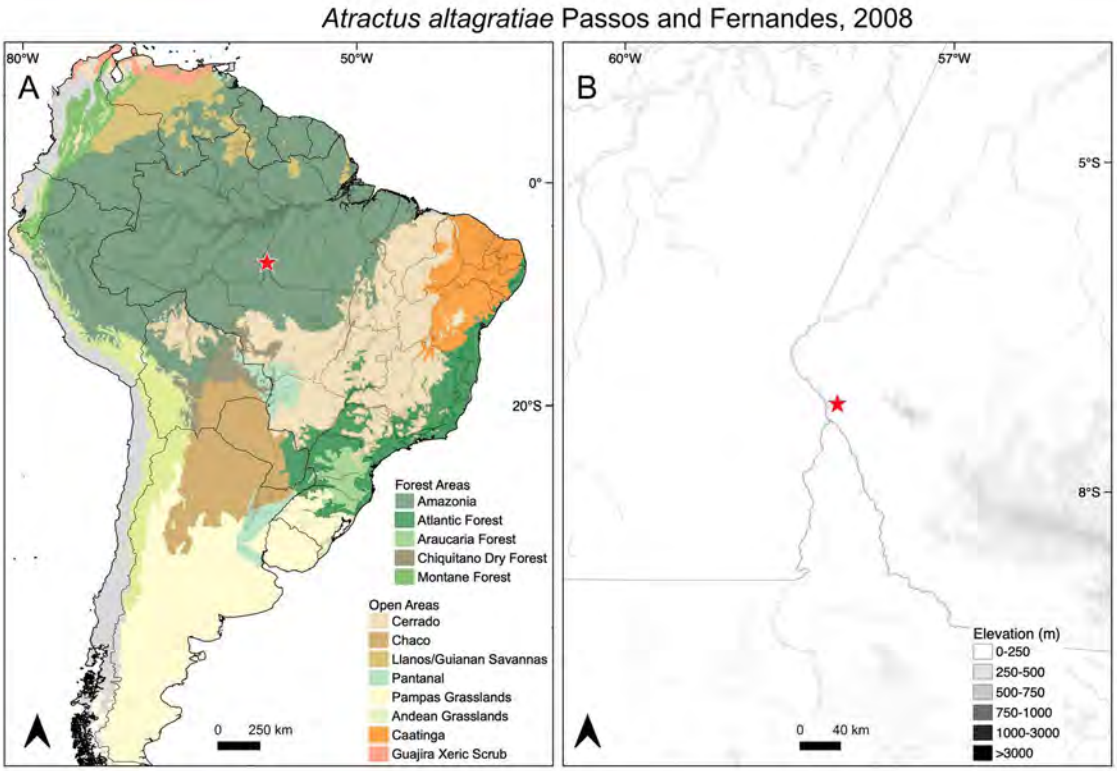


Plate 153. Distribution map of *Atractus altagratiae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

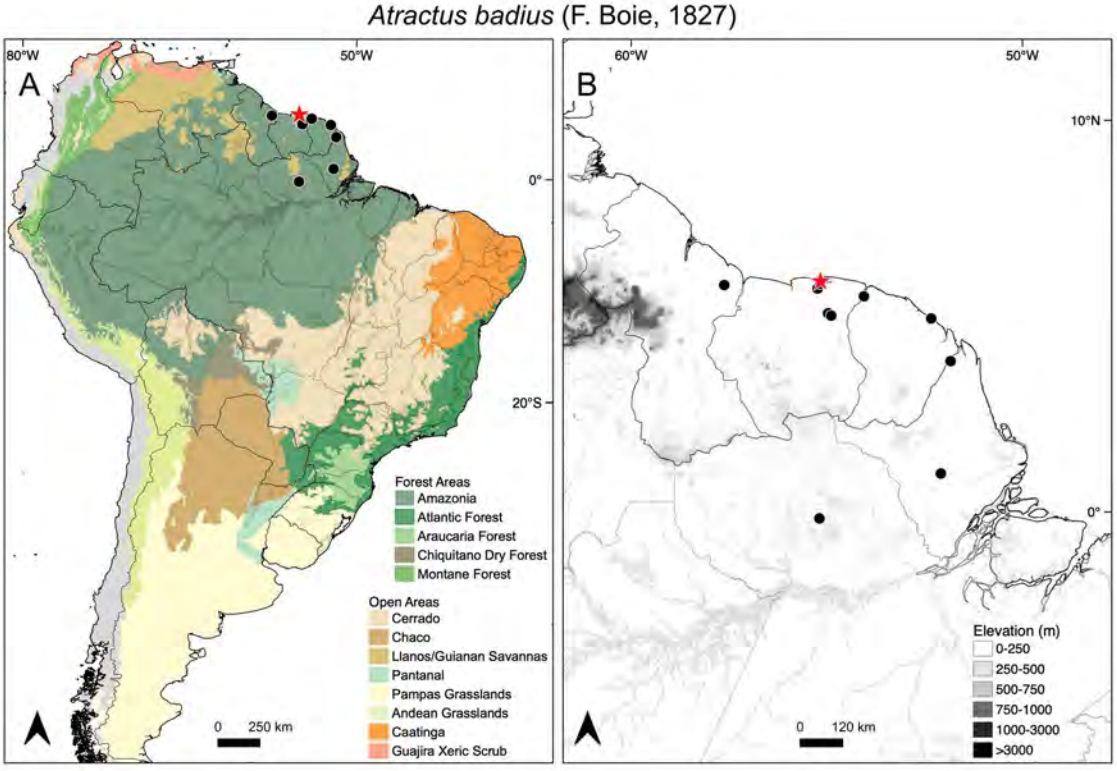


Plate 154. Distribution map of *Atractus badius* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

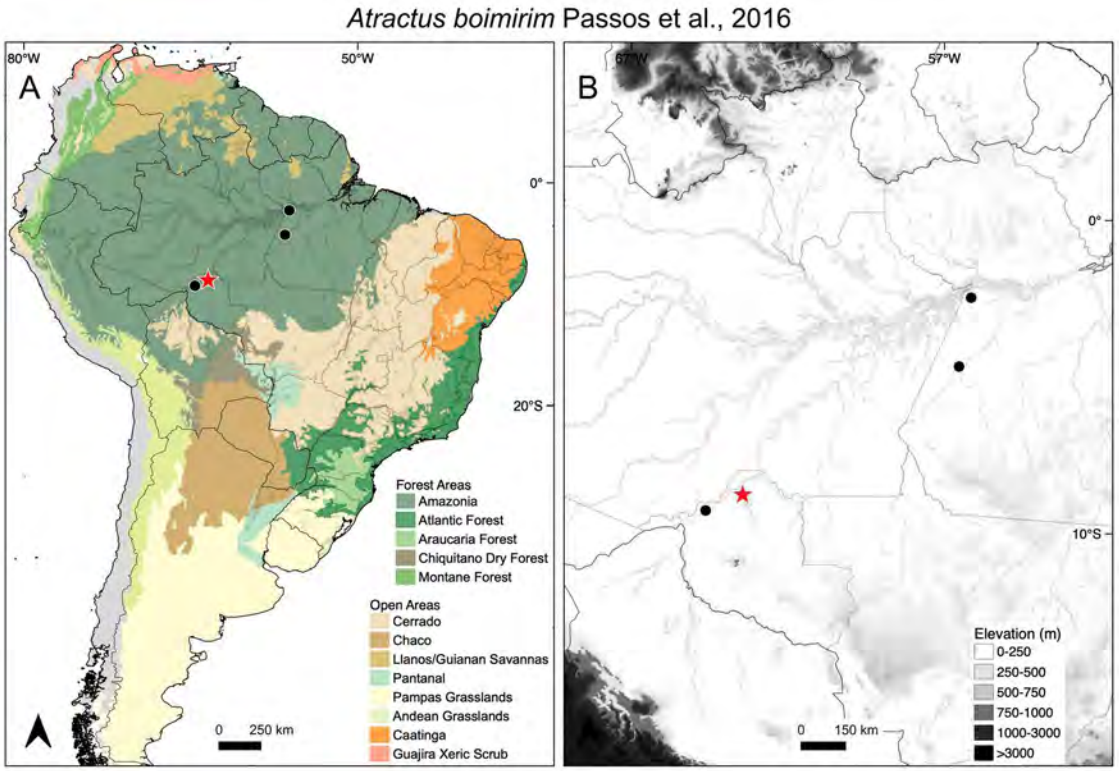


Plate 155. Distribution map of *Atractus boimirim* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

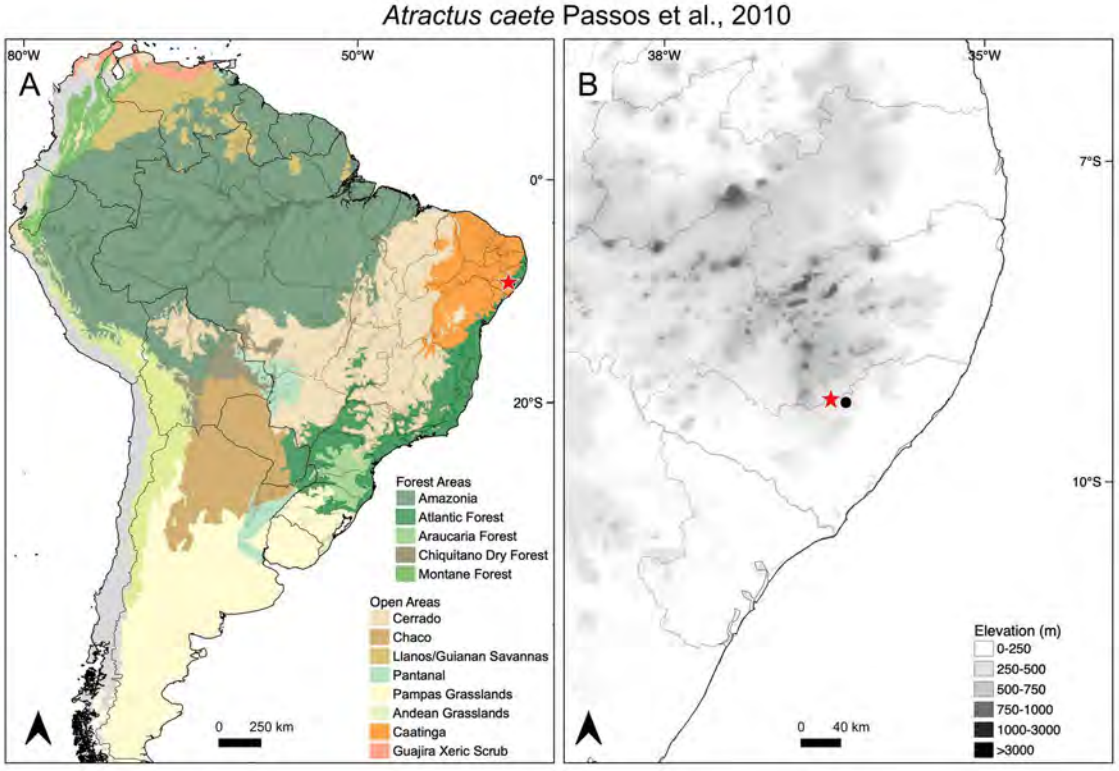


Plate 156. Distribution map of *Atractus caete* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

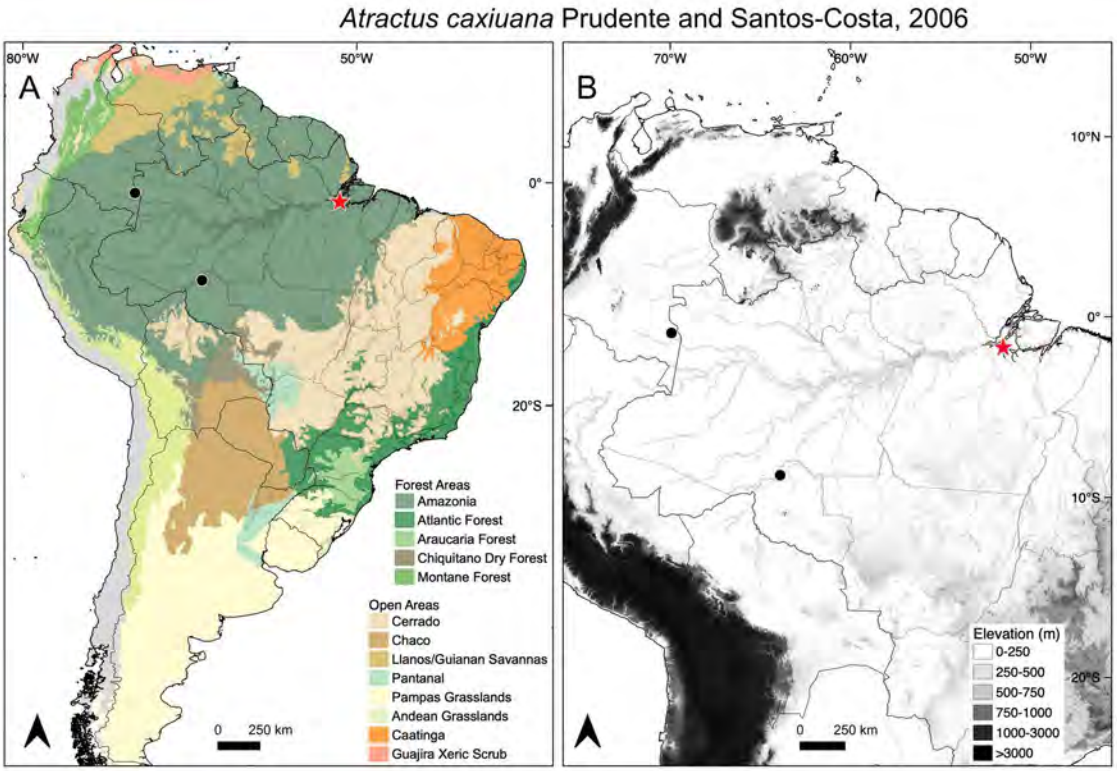


Plate 157. Distribution map of *Atractus caxiuana* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

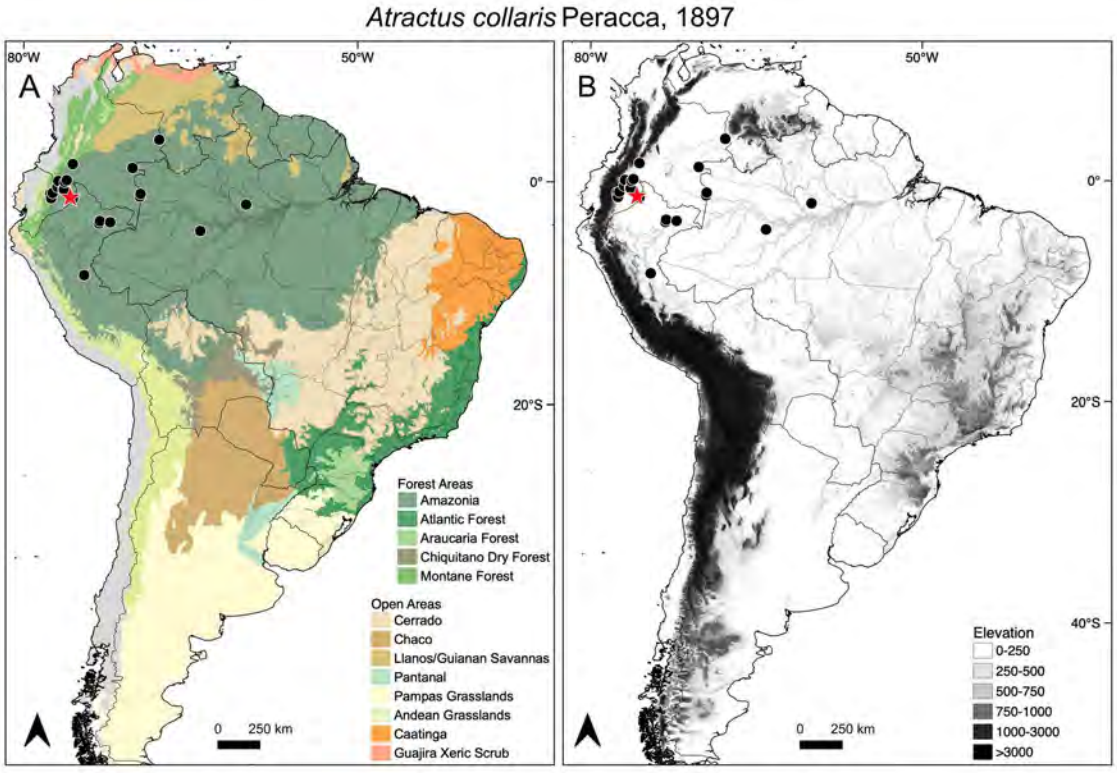


Plate 158. Distribution map of *Atractus collaris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

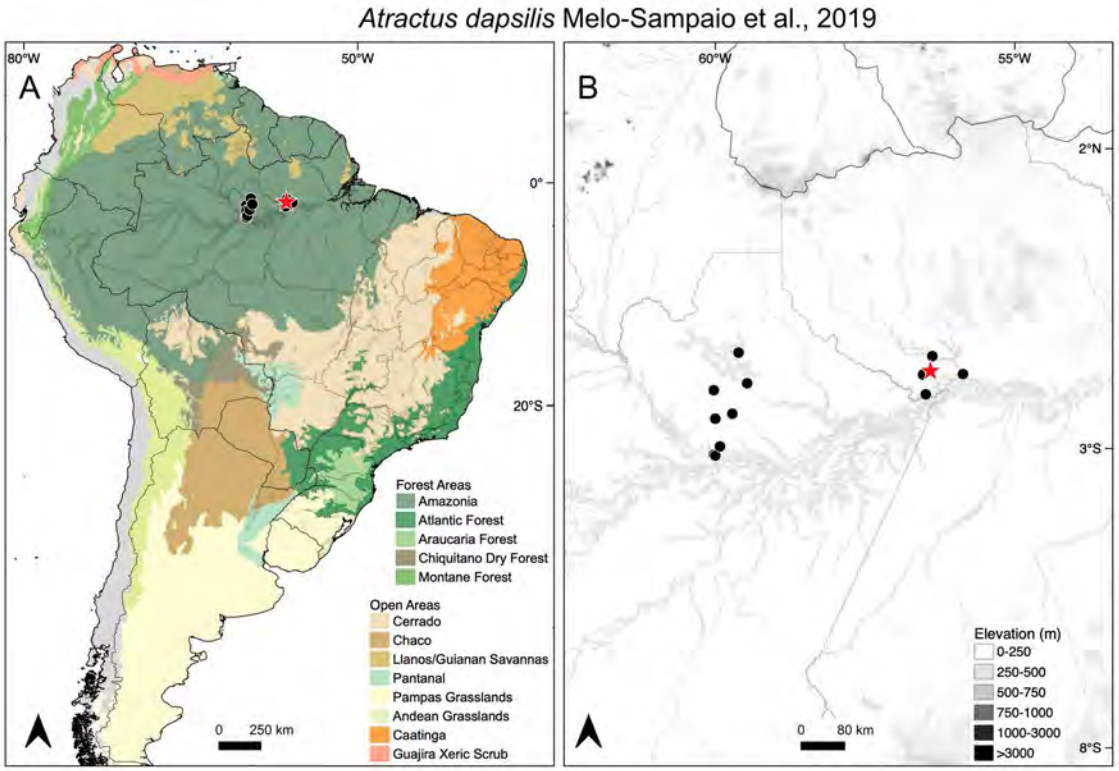


Plate 159. Distribution map of *Atractus dapsilis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

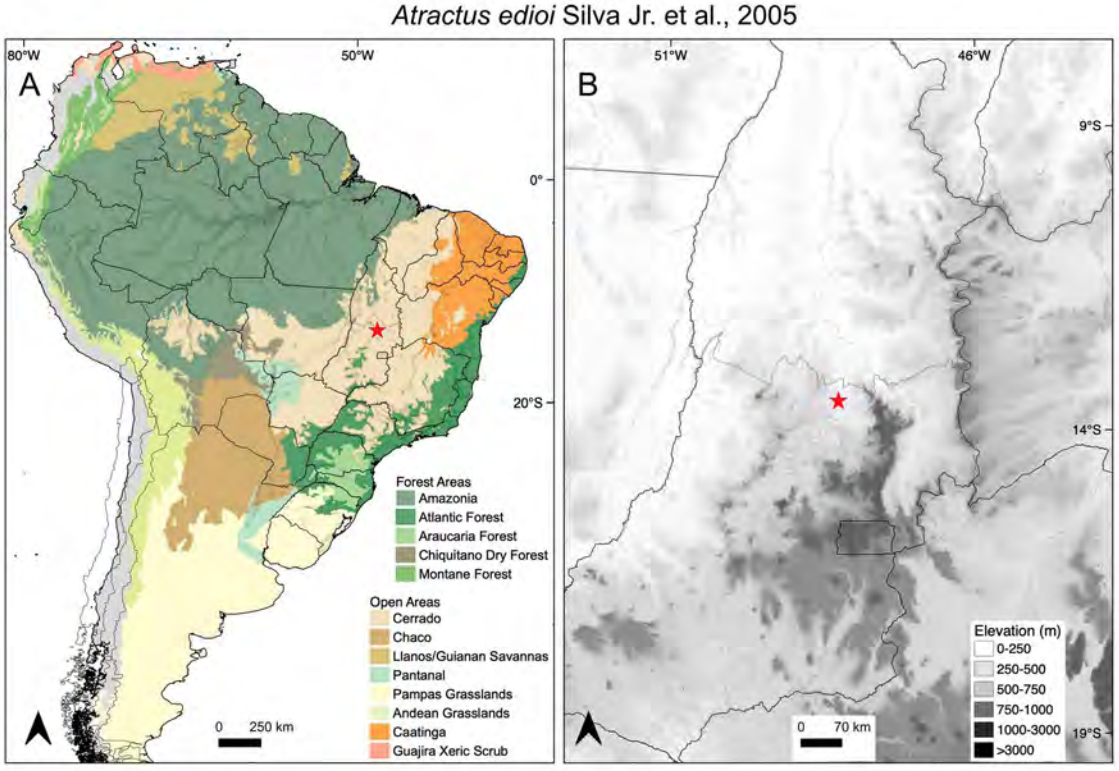


Plate 160. Distribution map of *Atractus edioi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

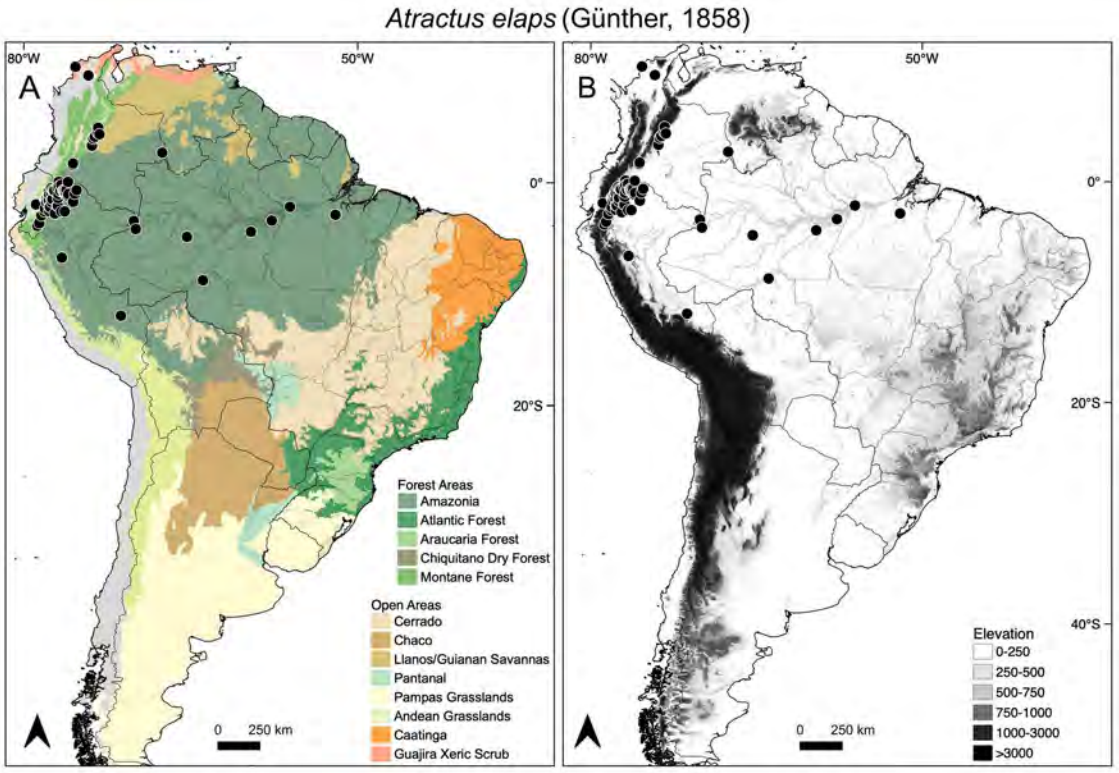


Plate 161. Distribution map of *Atractus elaps* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

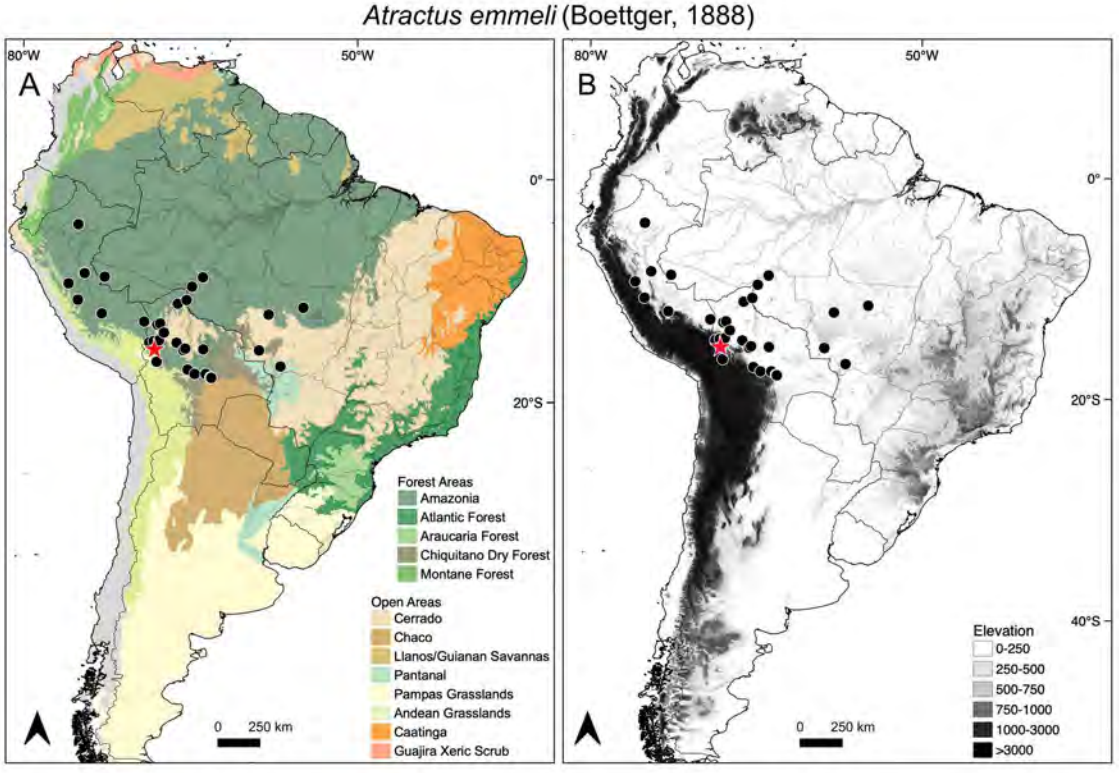


Plate 162. Distribution map of *Atractus emmeli* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

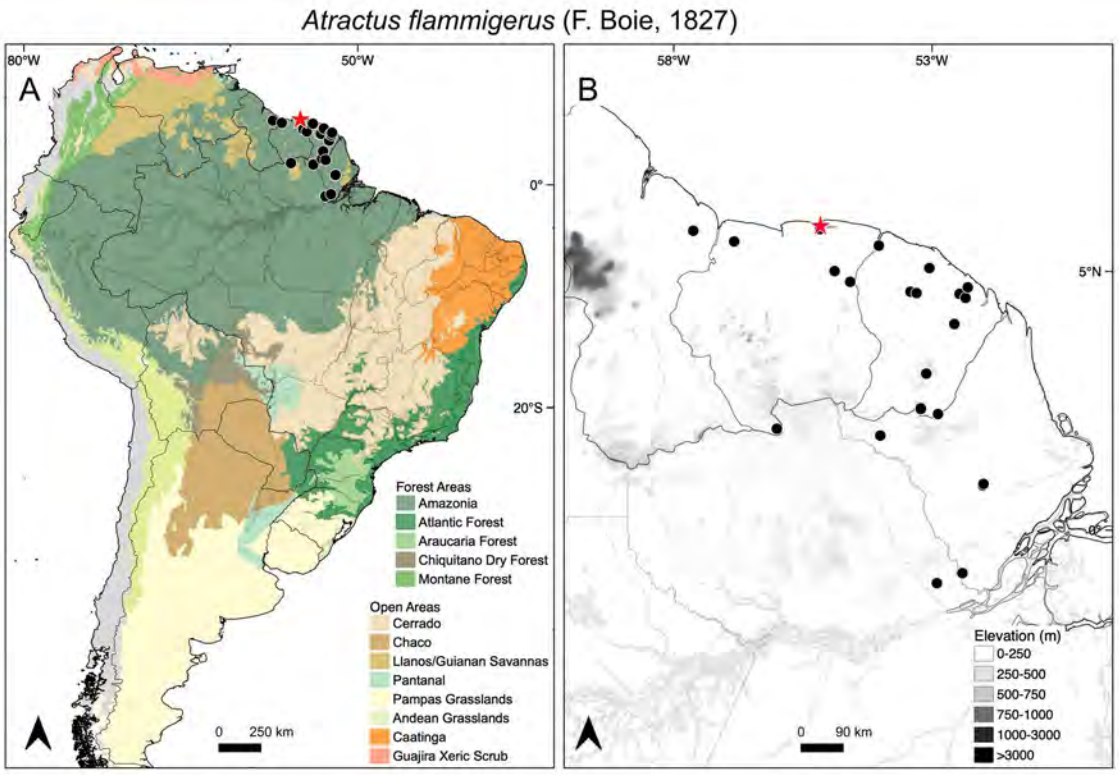


Plate 163. Distribution map of *Atractus flammigerus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

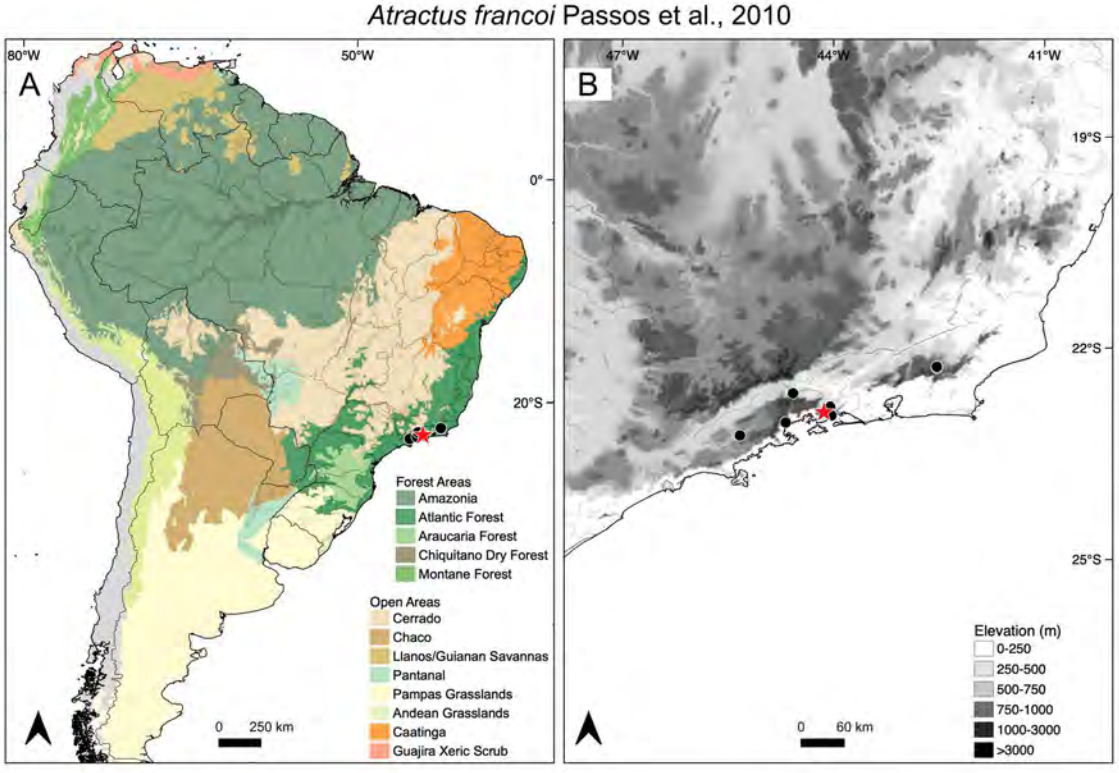


Plate 164. Distribution map of *Atractus francoi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

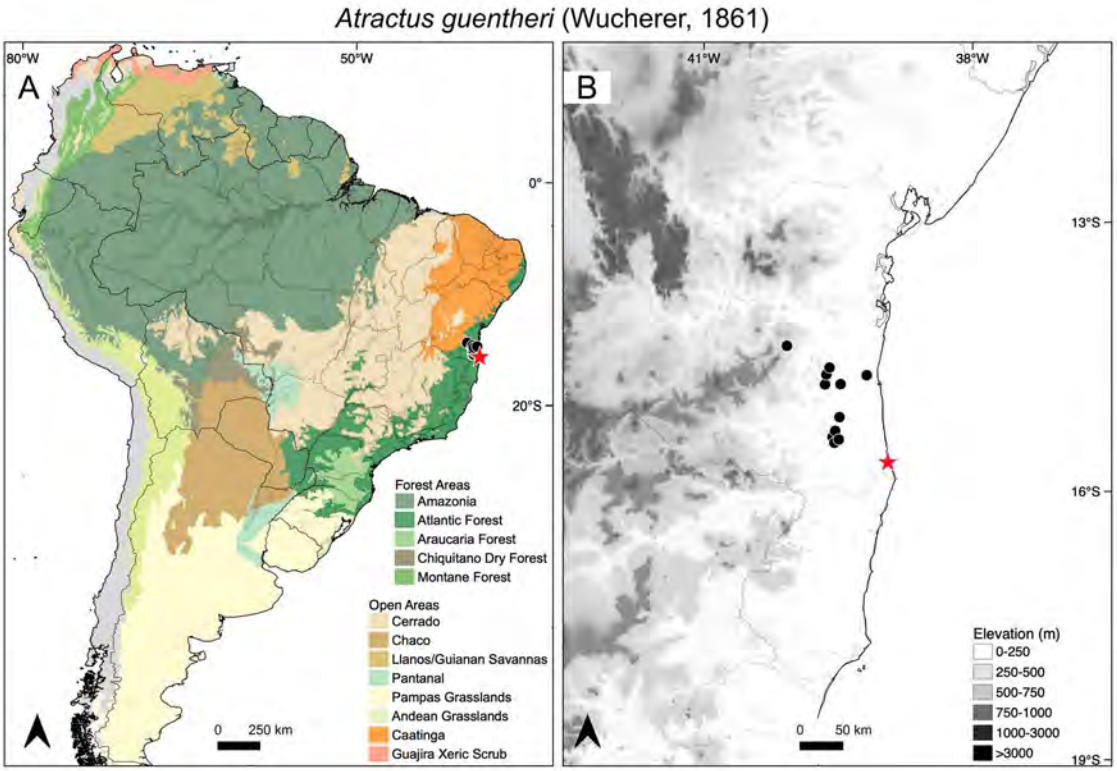


Plate 165. Distribution map of *Atractus guentheri* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

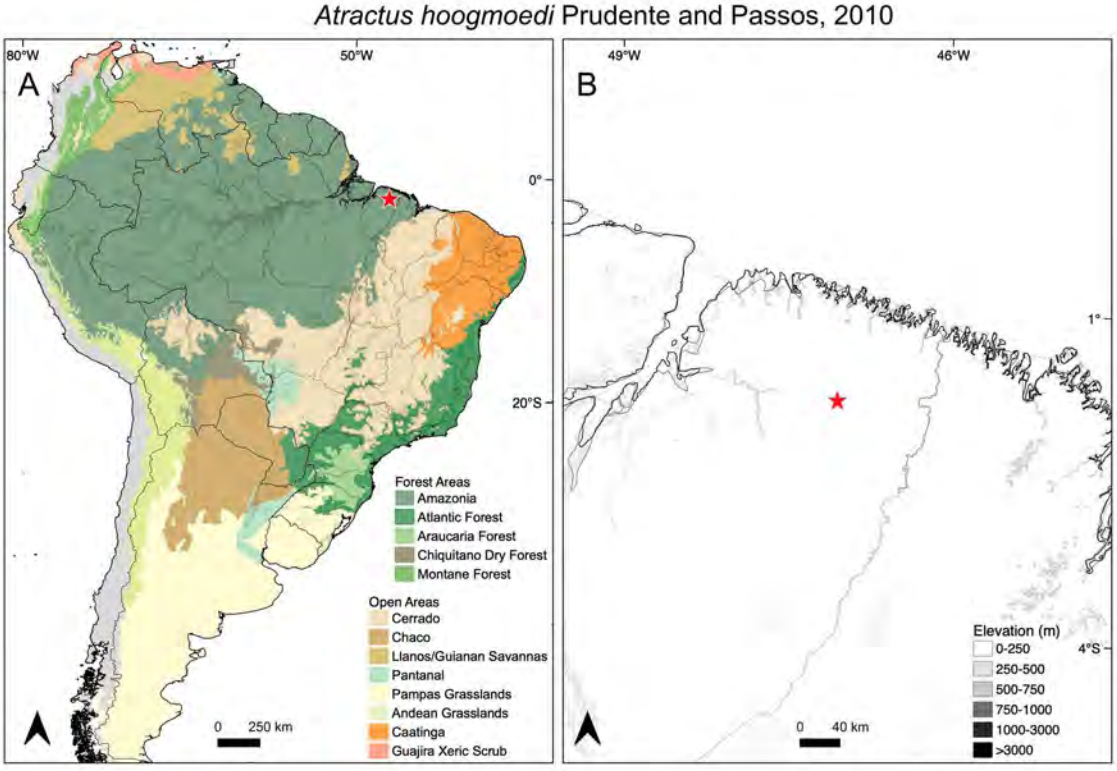


Plate 166. Distribution map of *Atractus hoogmoedi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

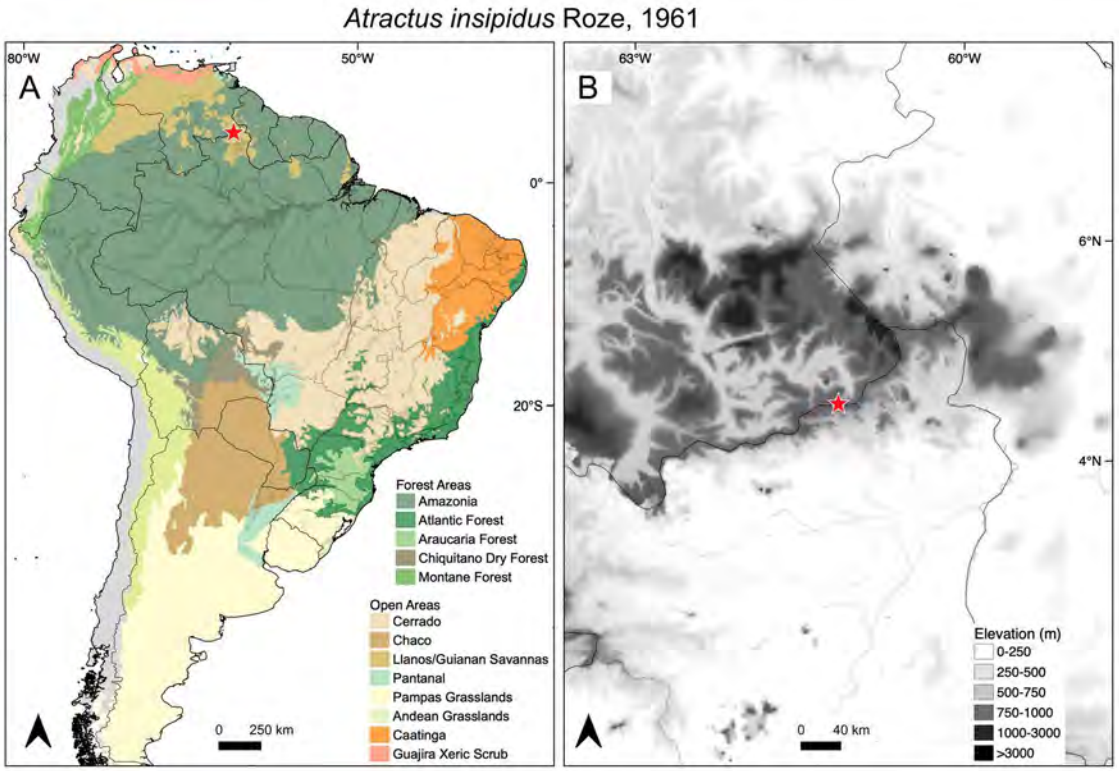


Plate 167. Distribution map of *Atractus insipidus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

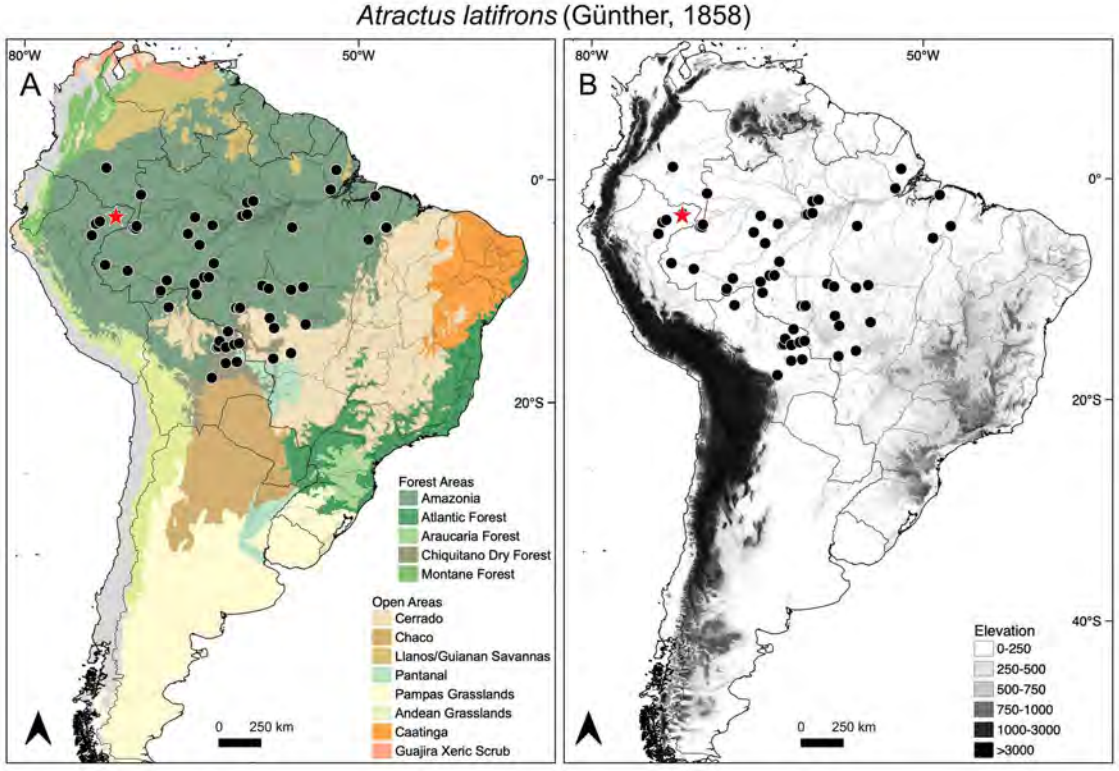


Plate 168. Distribution map of *Atractus latifrons* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

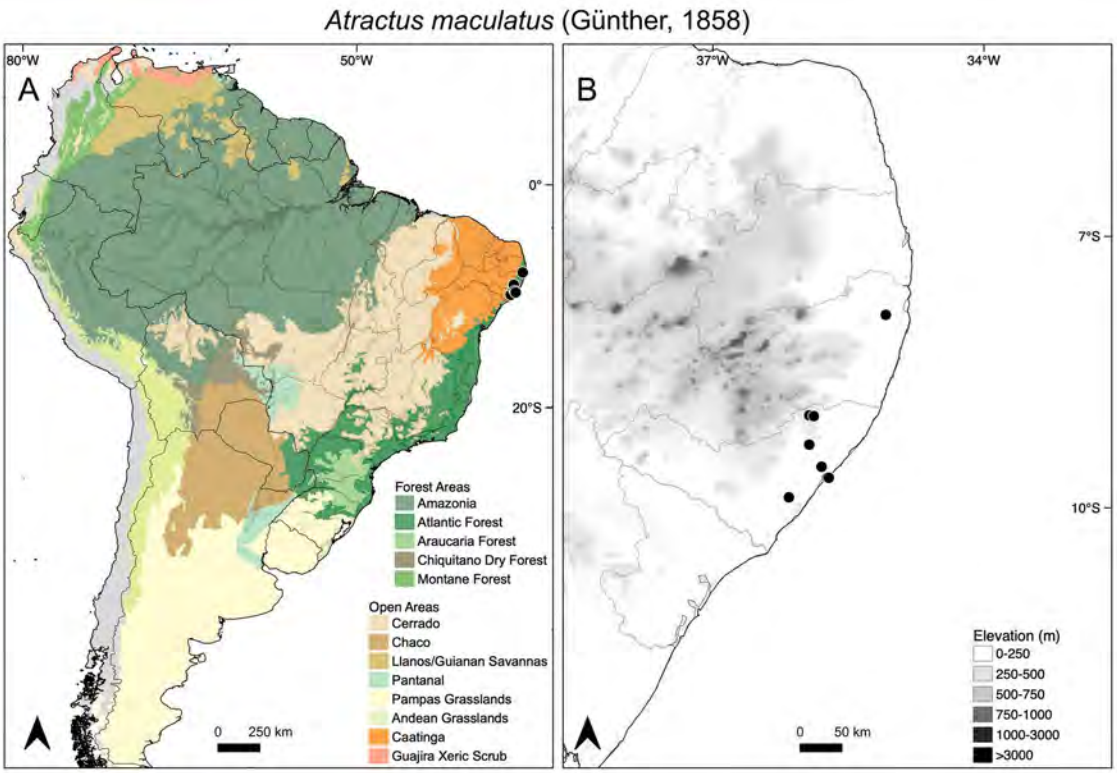


Plate 169. Distribution map of *Atractus maculatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

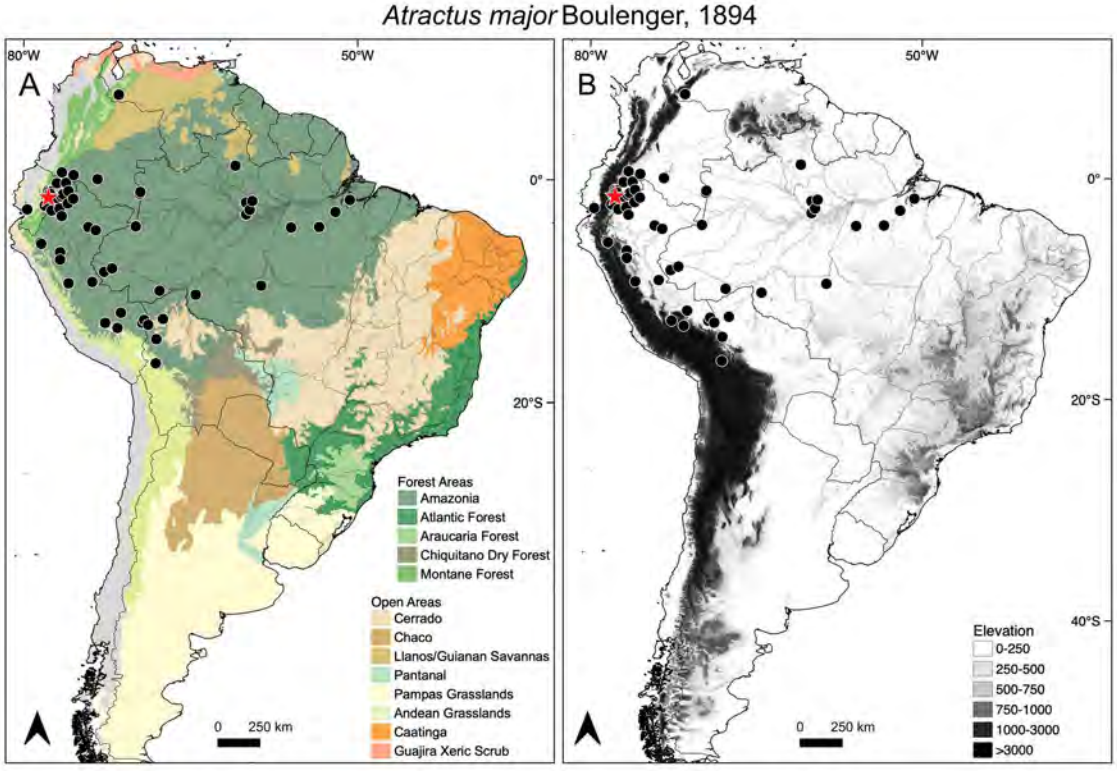


Plate 170. Distribution map of *Atractus major* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

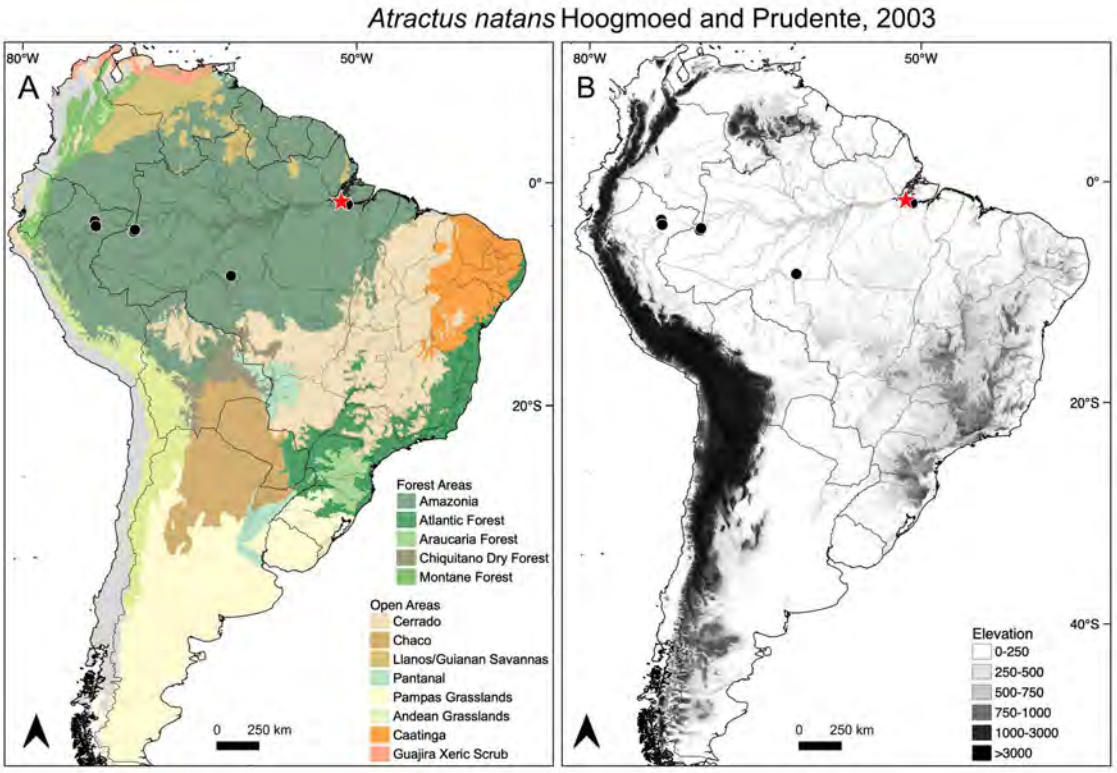


Plate 171. Distribution map of *Atractus natans* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

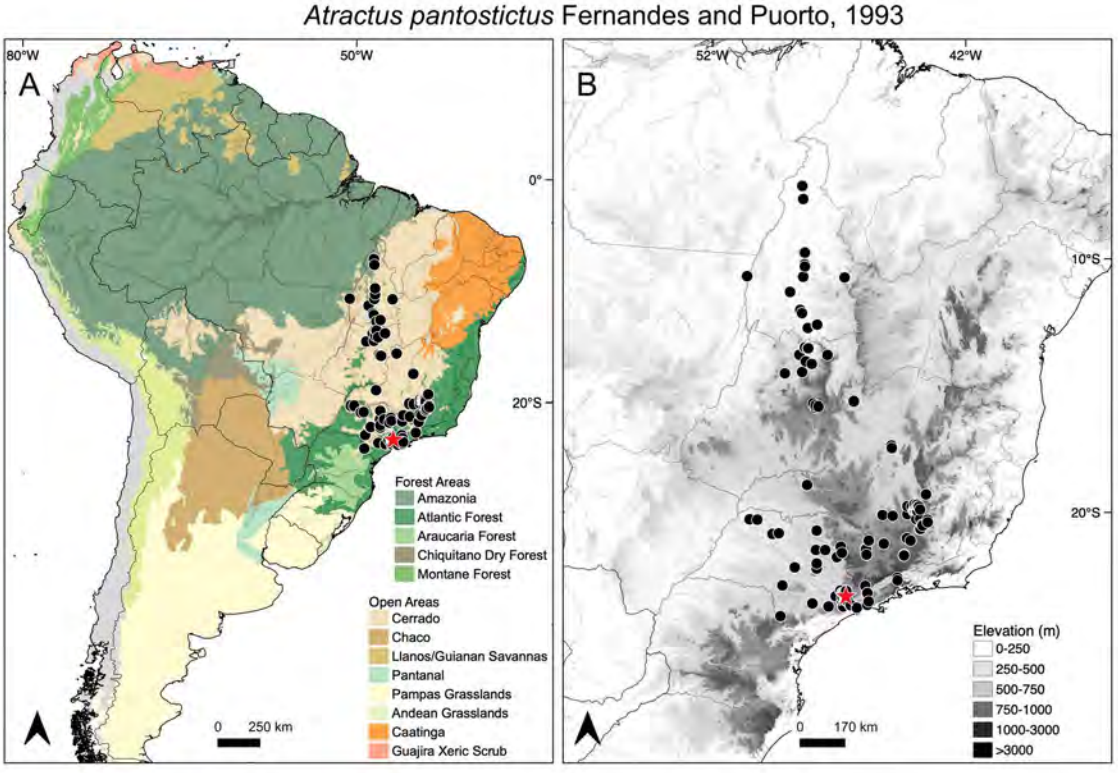


Plate 172. Distribution map of *Atractus pantostictus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Atractus paraguayensis Werner, 1924

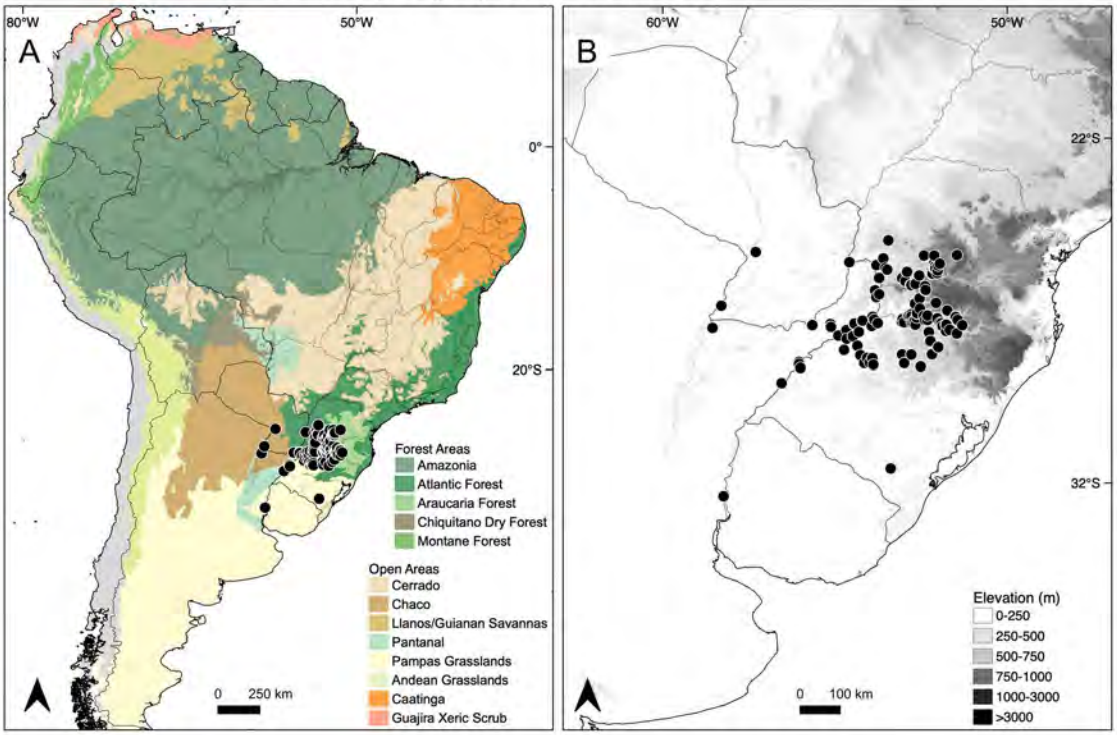


Plate 173. Distribution map of *Atractus paraguayensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Atractus poeppigi (Jan, 1862)

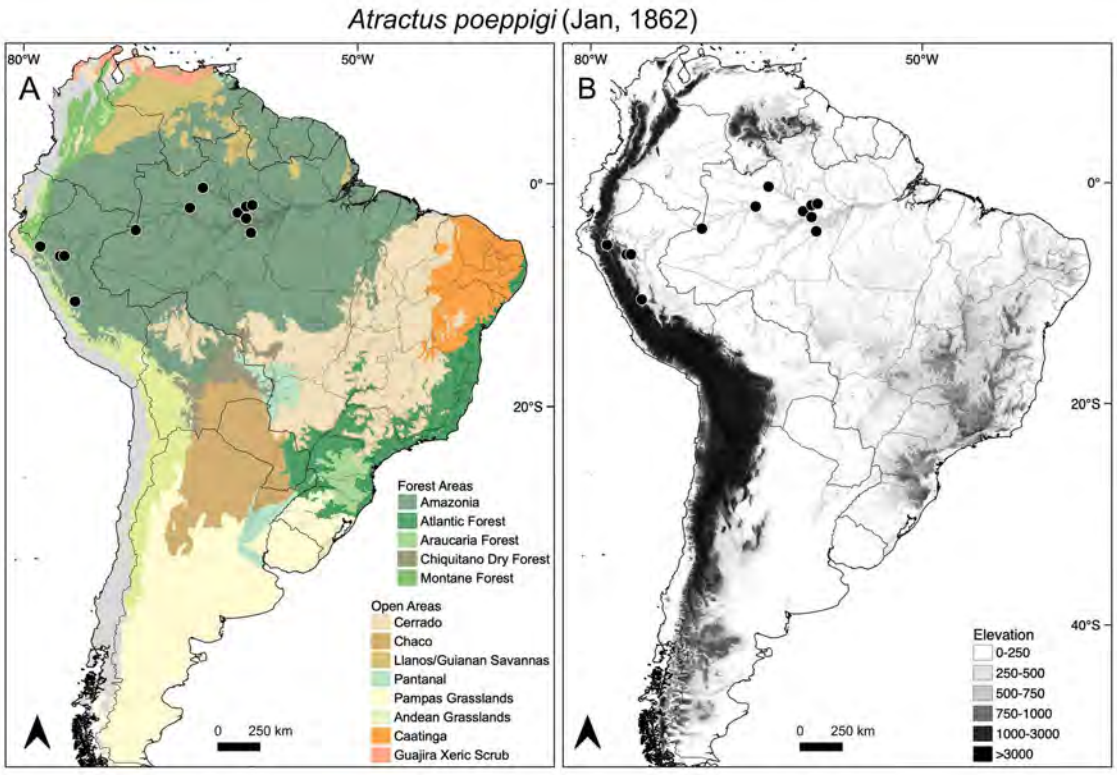


Plate 174. Distribution map of *Atractus poeppigi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

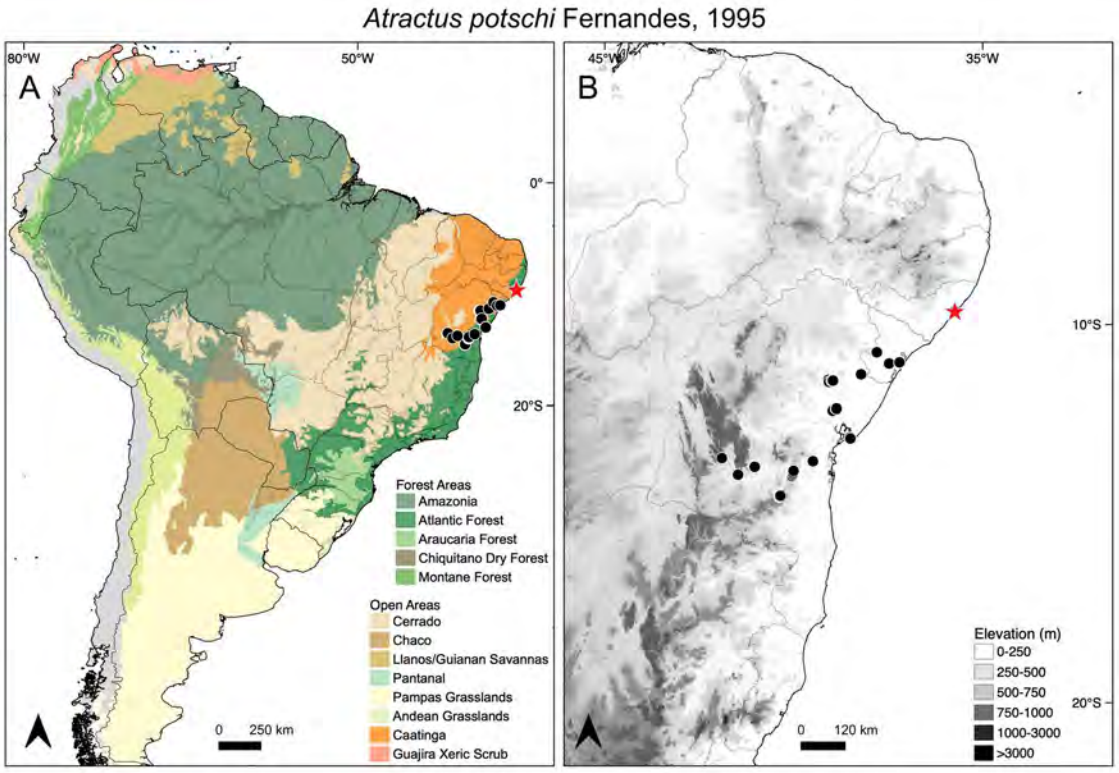


Plate 175. Distribution map of *Atractus potschi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

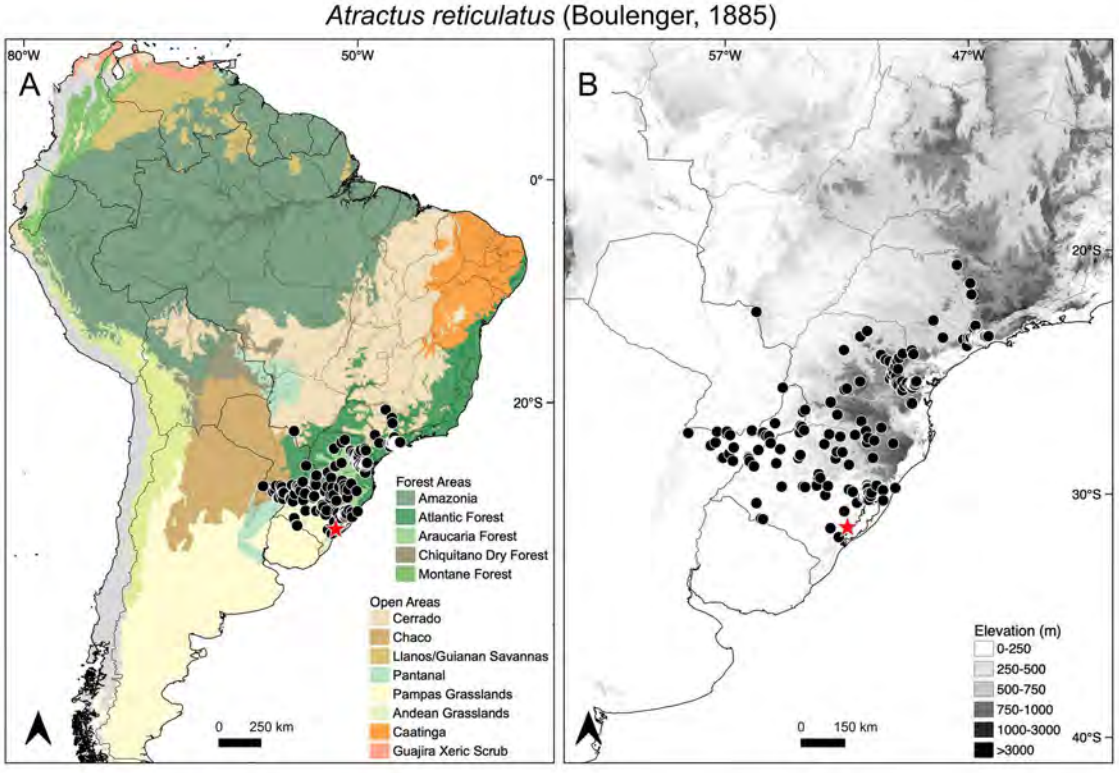


Plate 176. Distribution map of *Atractus reticulatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

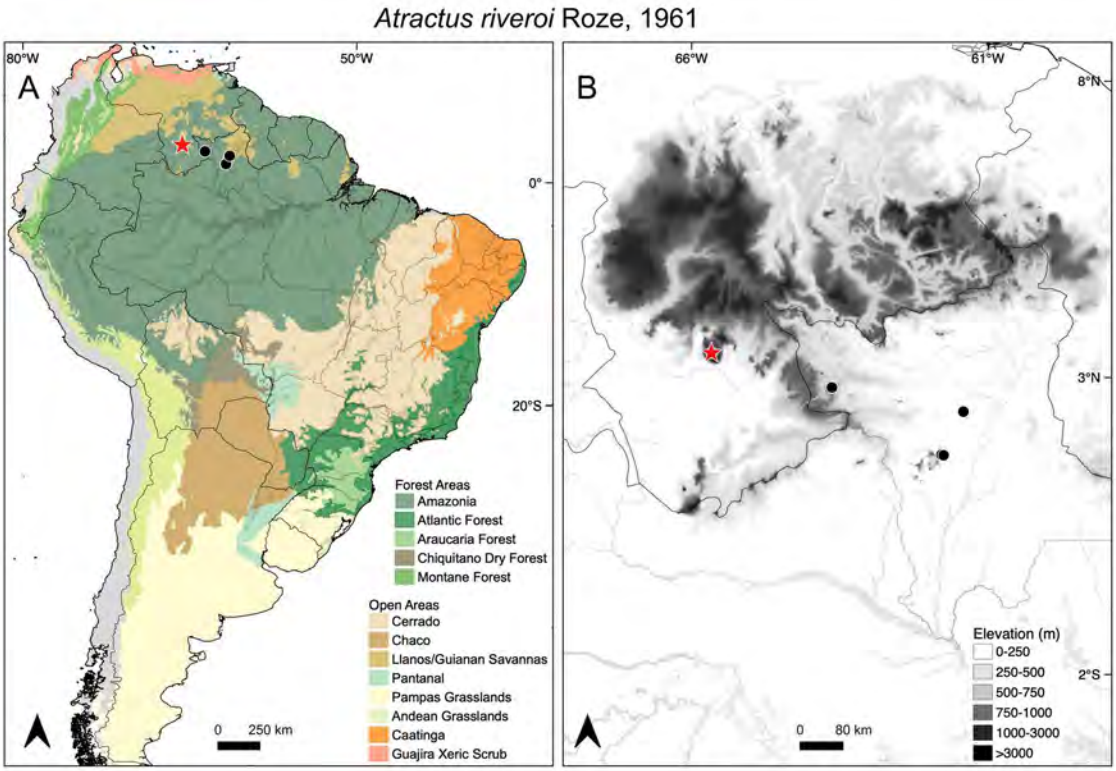


Plate 177. Distribution map of *Atractus riveroi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

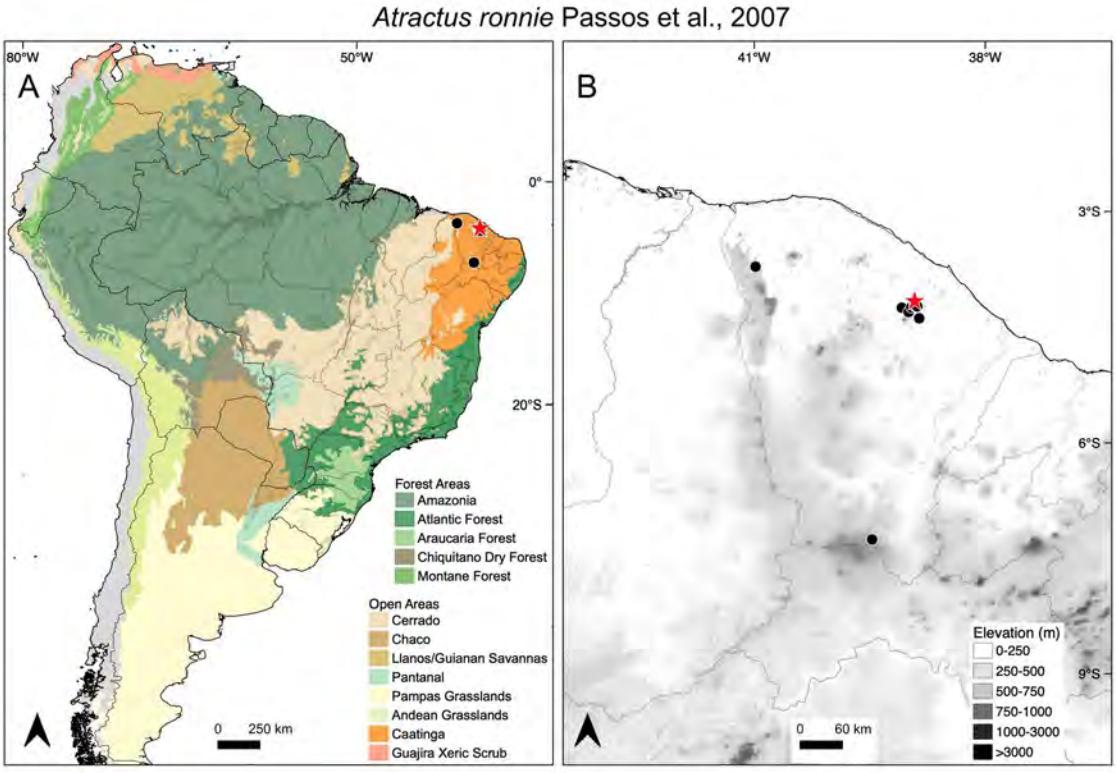


Plate 178. Distribution map of *Atractus ronnie* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

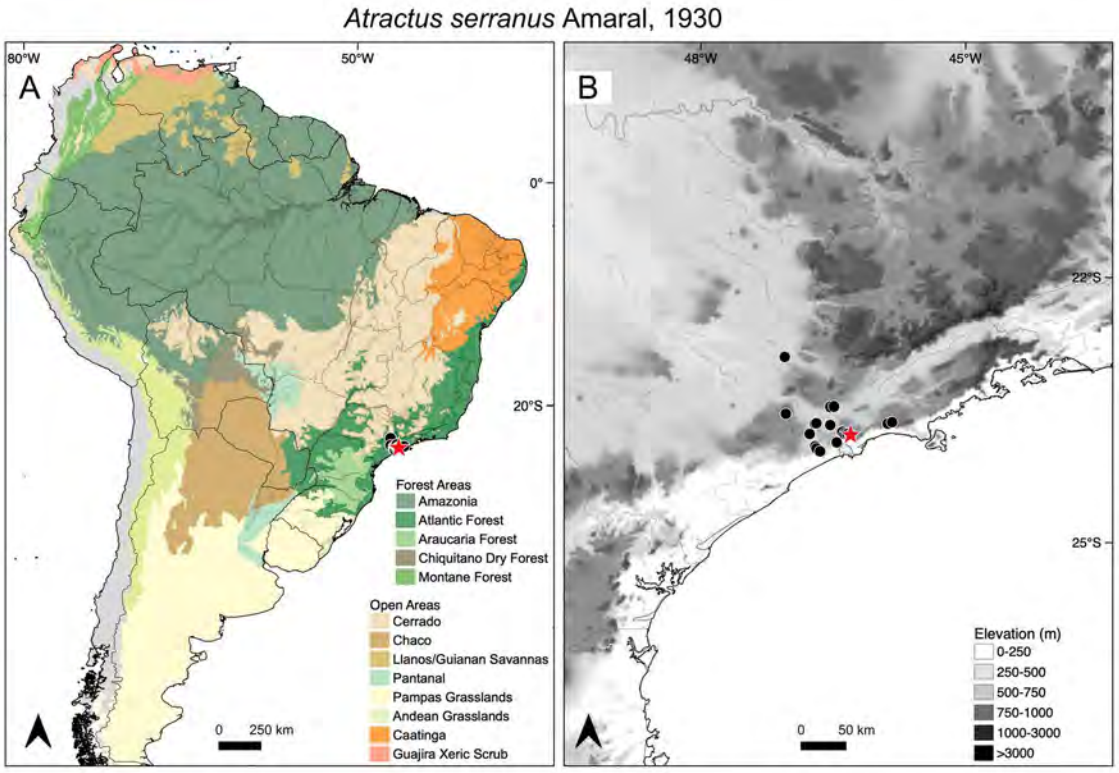


Plate 179. Distribution map of *Atractus serranus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

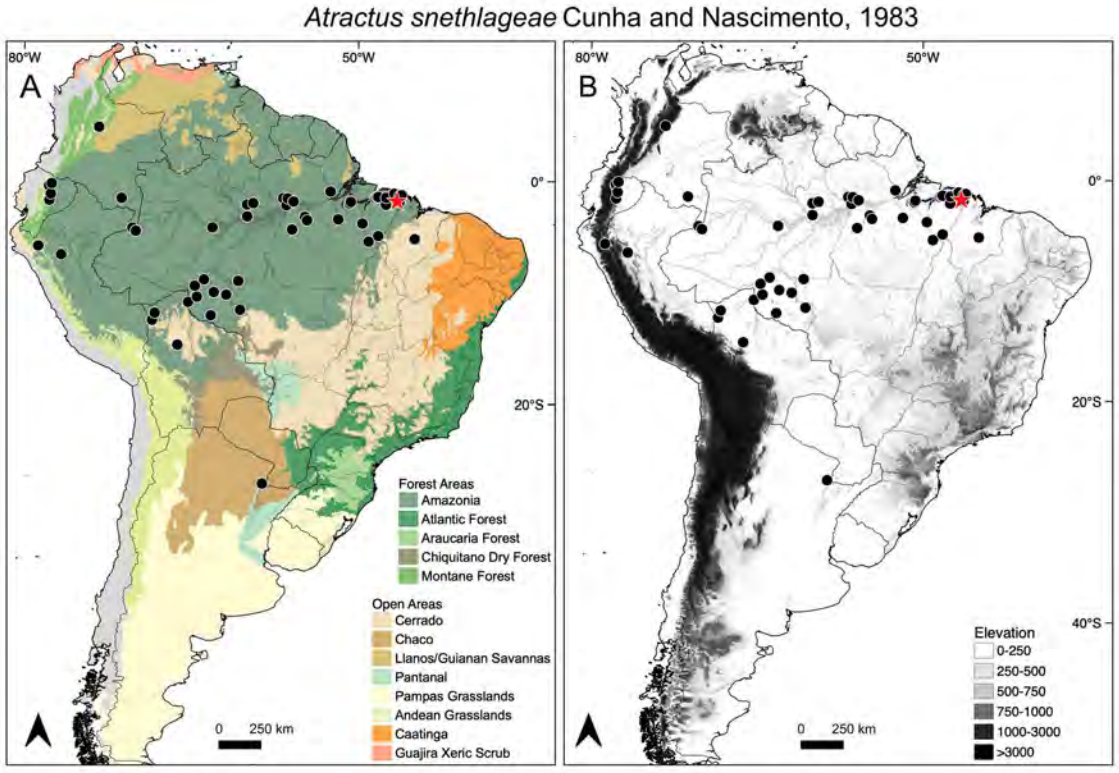


Plate 180. Distribution map of *Atractus snethlageae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

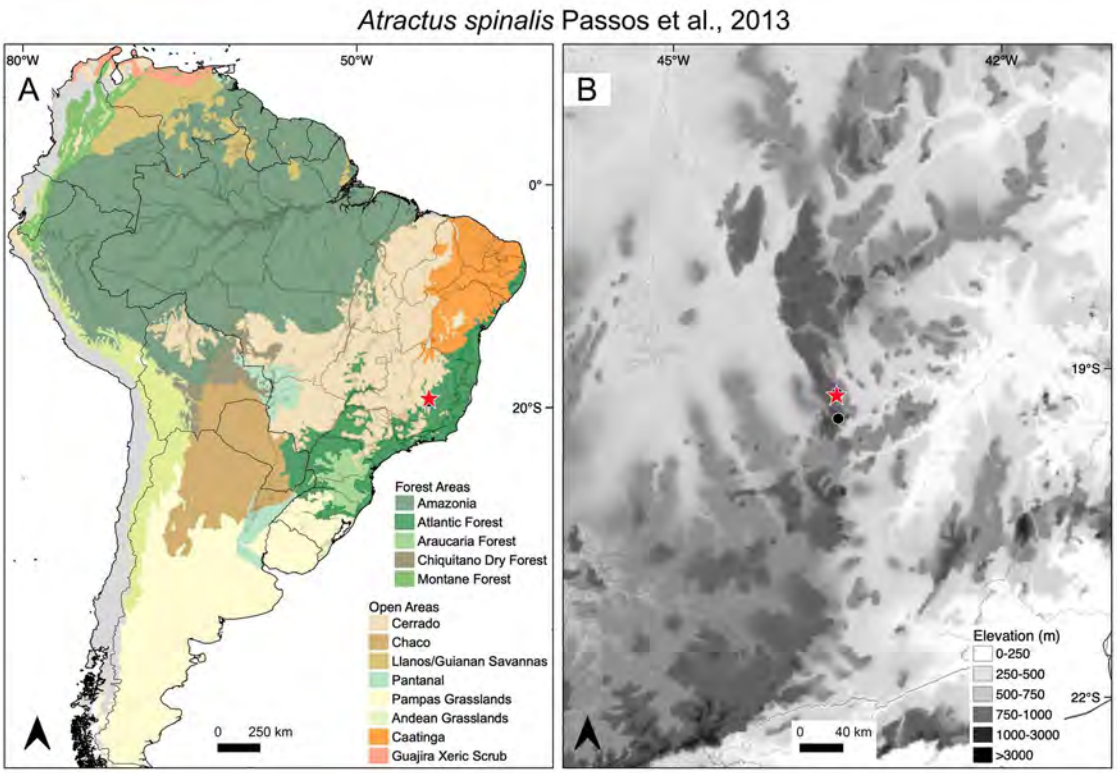


Plate 181. Distribution map of *Atractus spinalis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

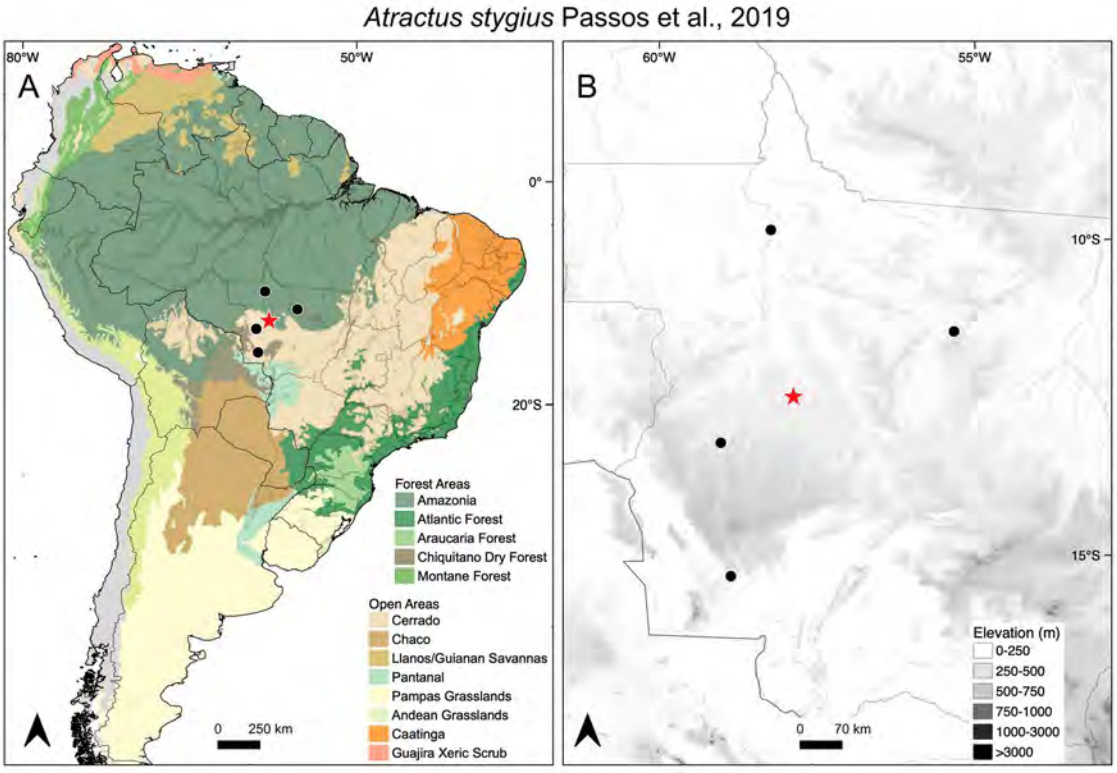


Plate 182. Distribution map of *Atractus stygius* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

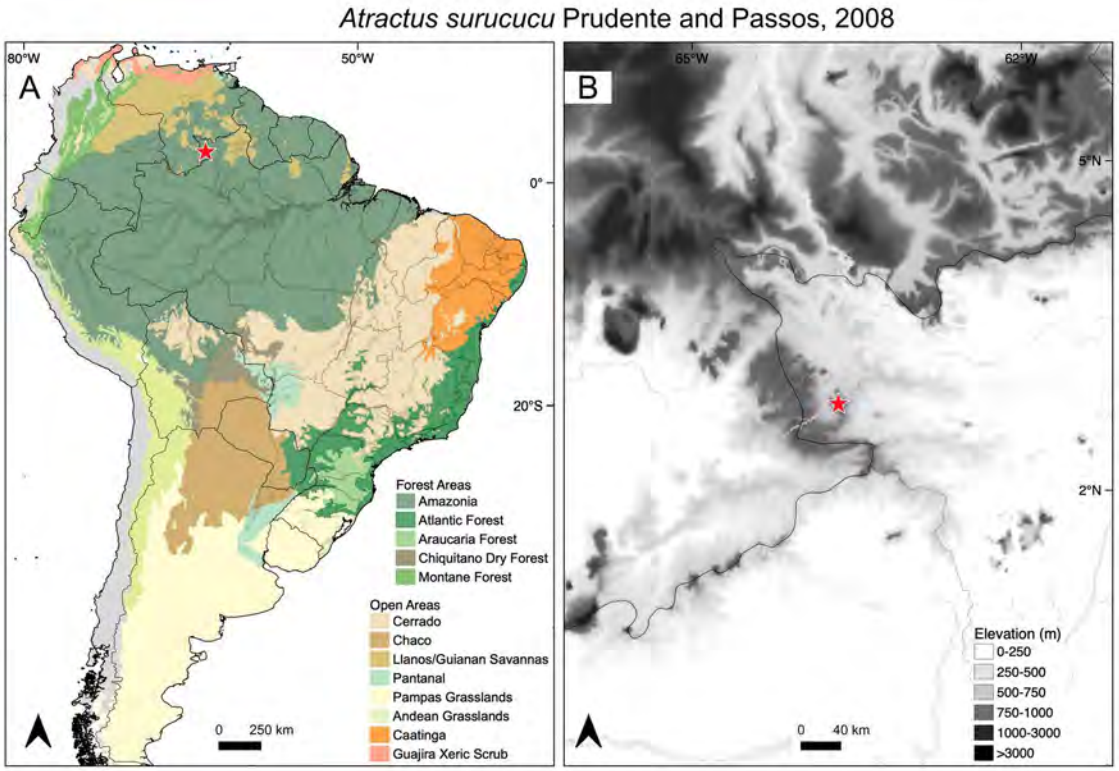


Plate 183. Distribution map of *Atractus surucucu* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

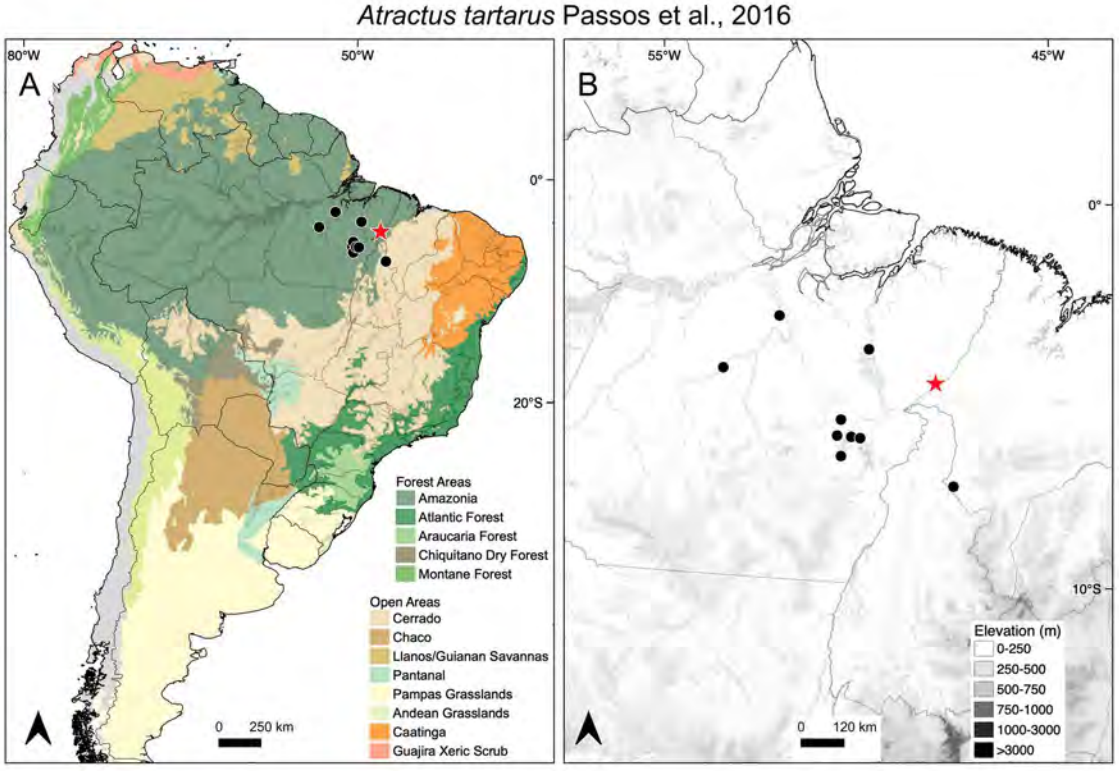


Plate 184. Distribution map of *Atractus tartarus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

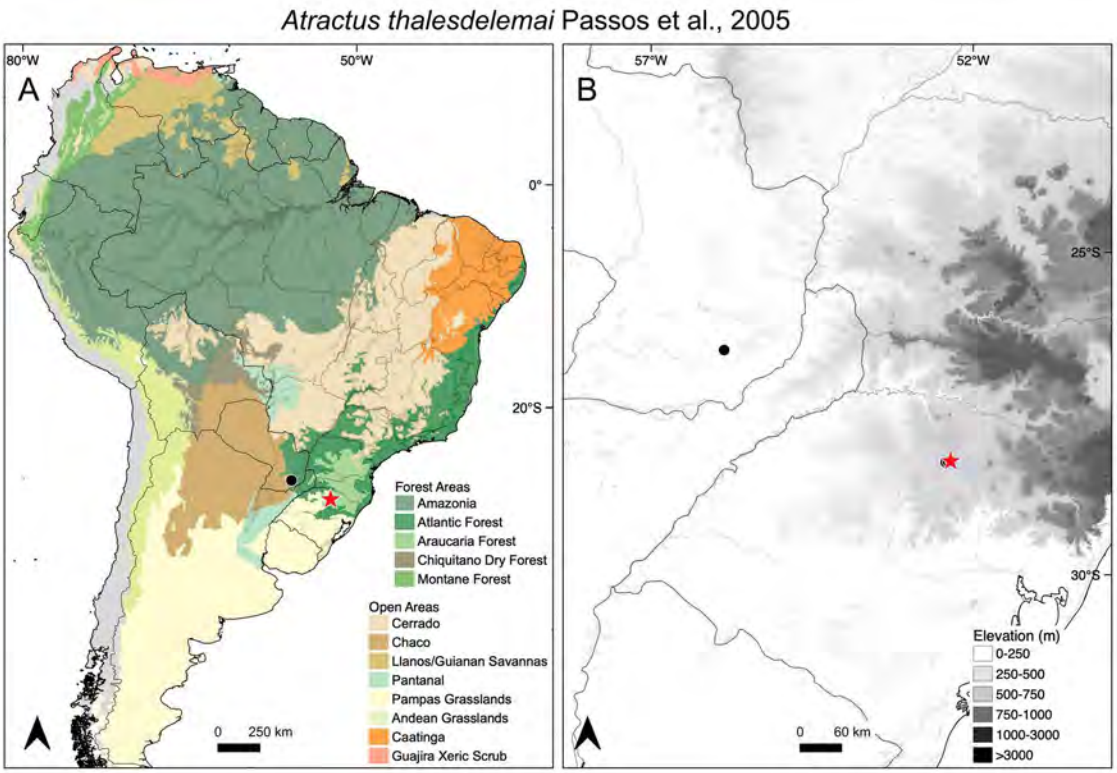


Plate 185. Distribution map of *Atractus thalesdelemai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

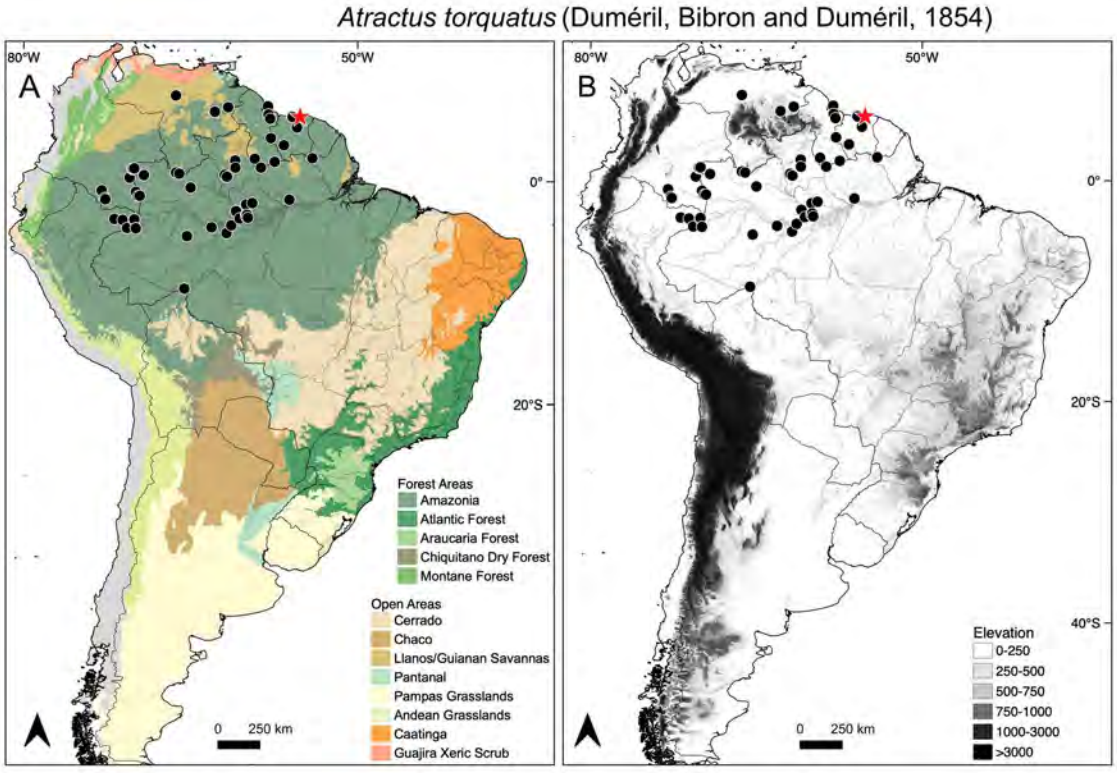


Plate 186. Distribution map of *Atractus torquatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

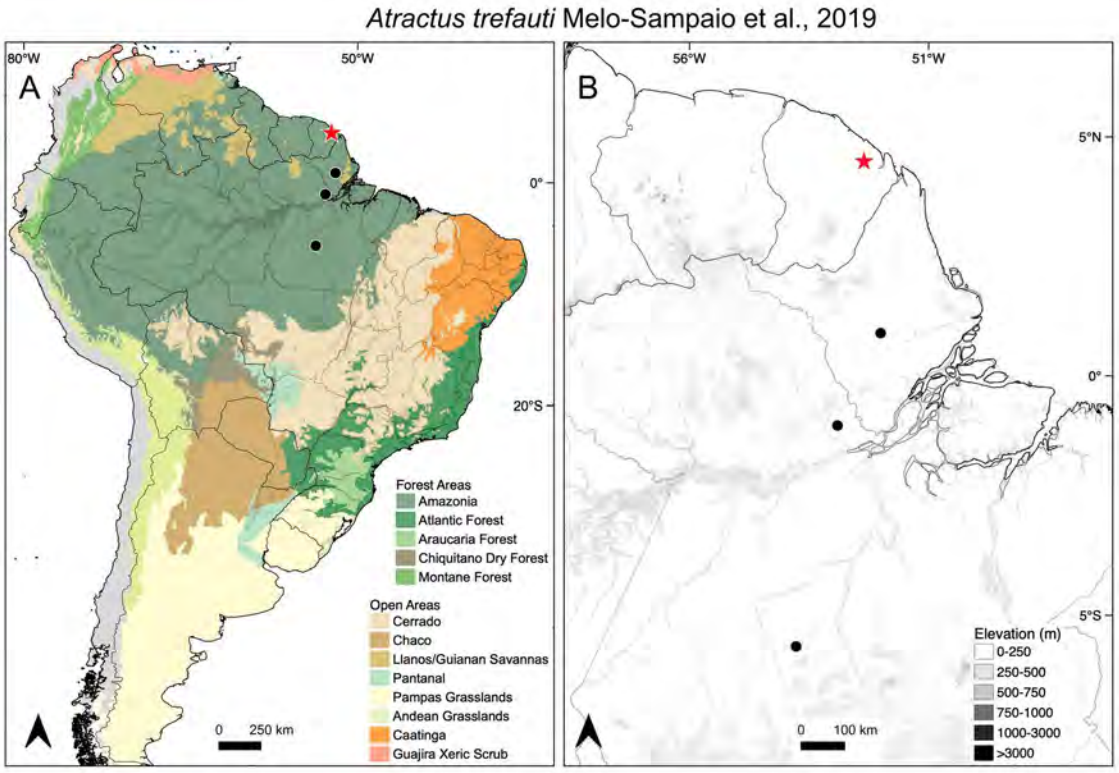


Plate 187. Distribution map of *Atractus trefauti* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

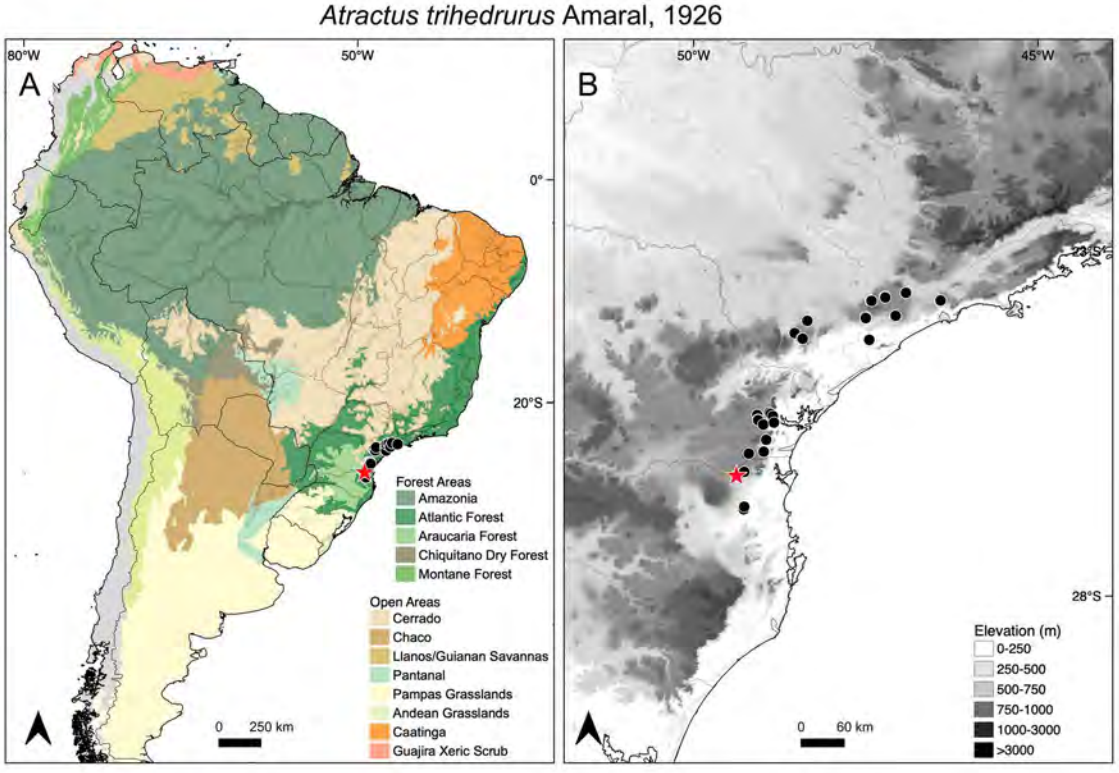


Plate 188. Distribution map of *Atractus trihedrurus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Atractus trilineatus Wagler, 1828

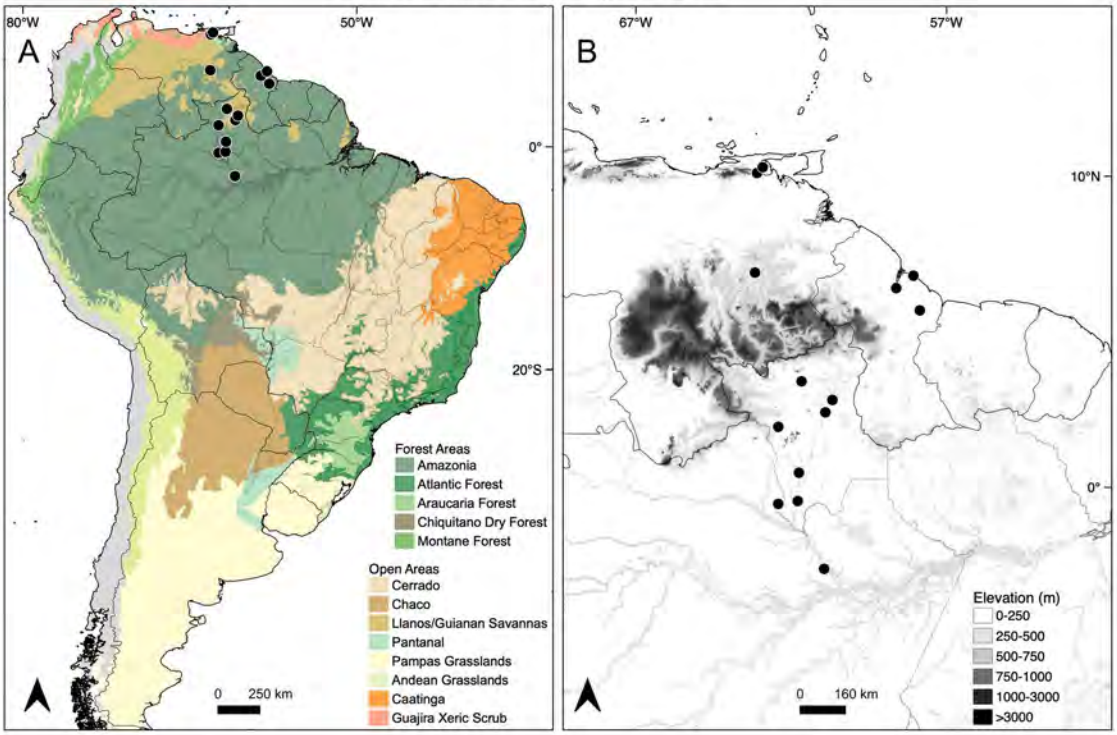


Plate 189. Distribution map of *Atractus trilineatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Atractus zebrinus (Jan, 1862)

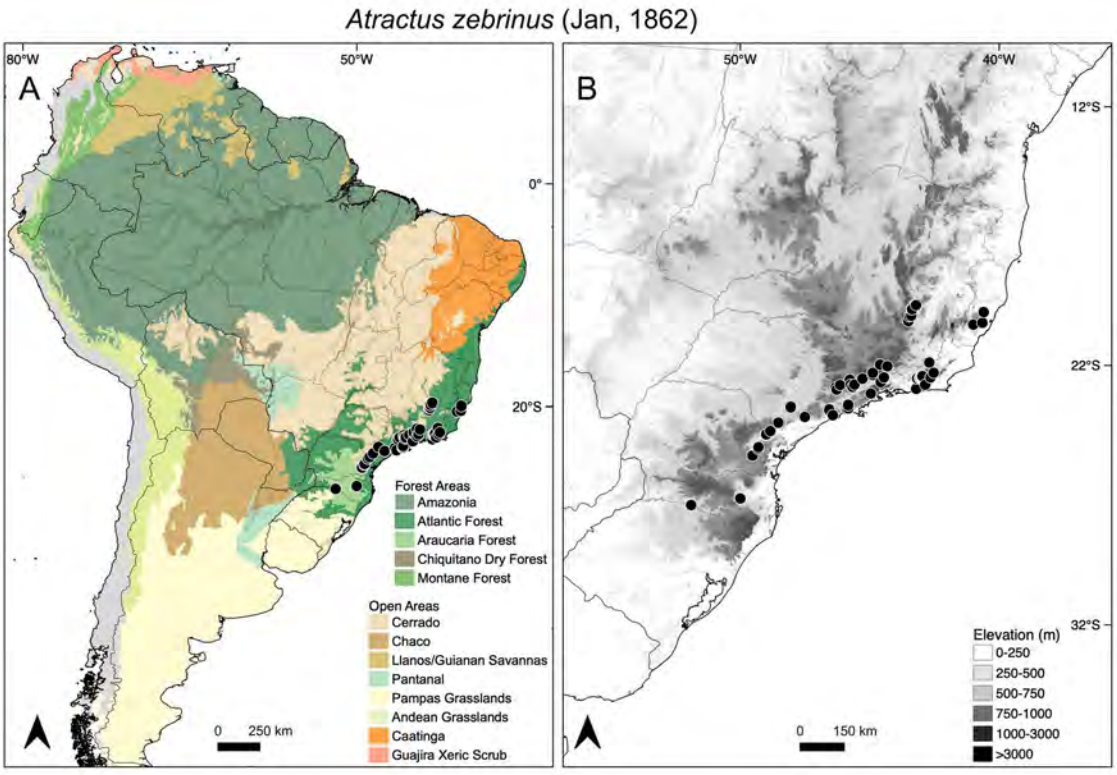


Plate 190. Distribution map of *Atractus zebrinus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

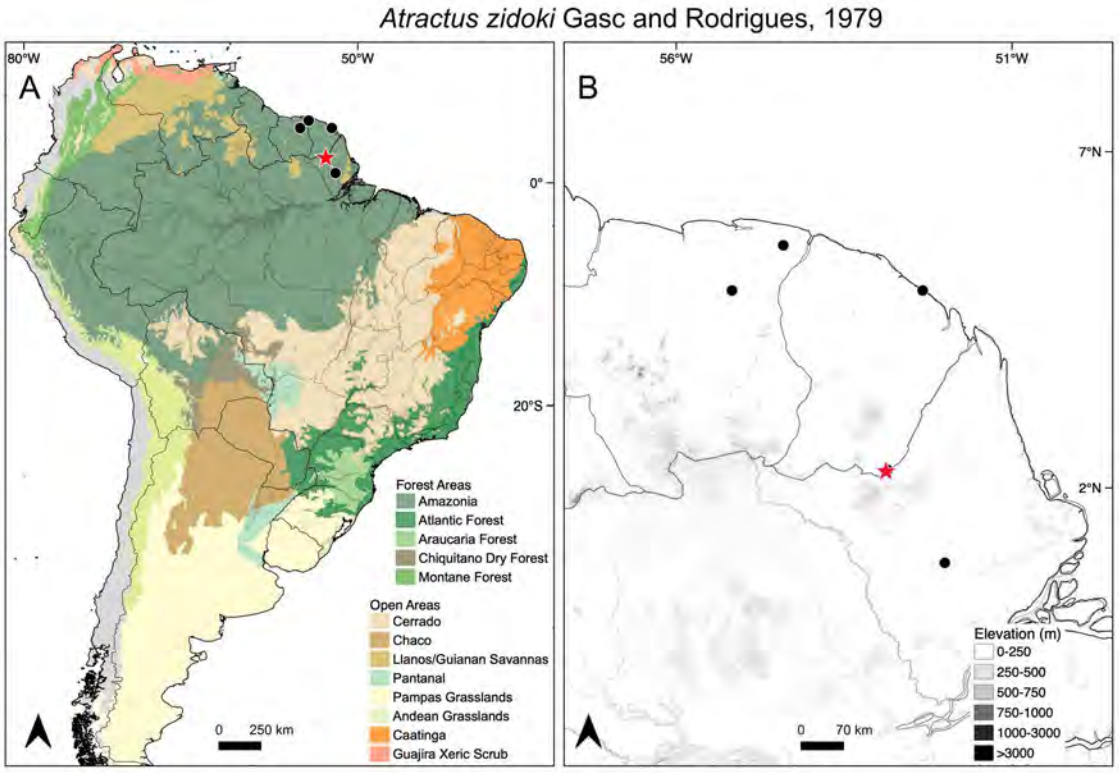


Plate 191. Distribution map of *Atractus zidoki* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

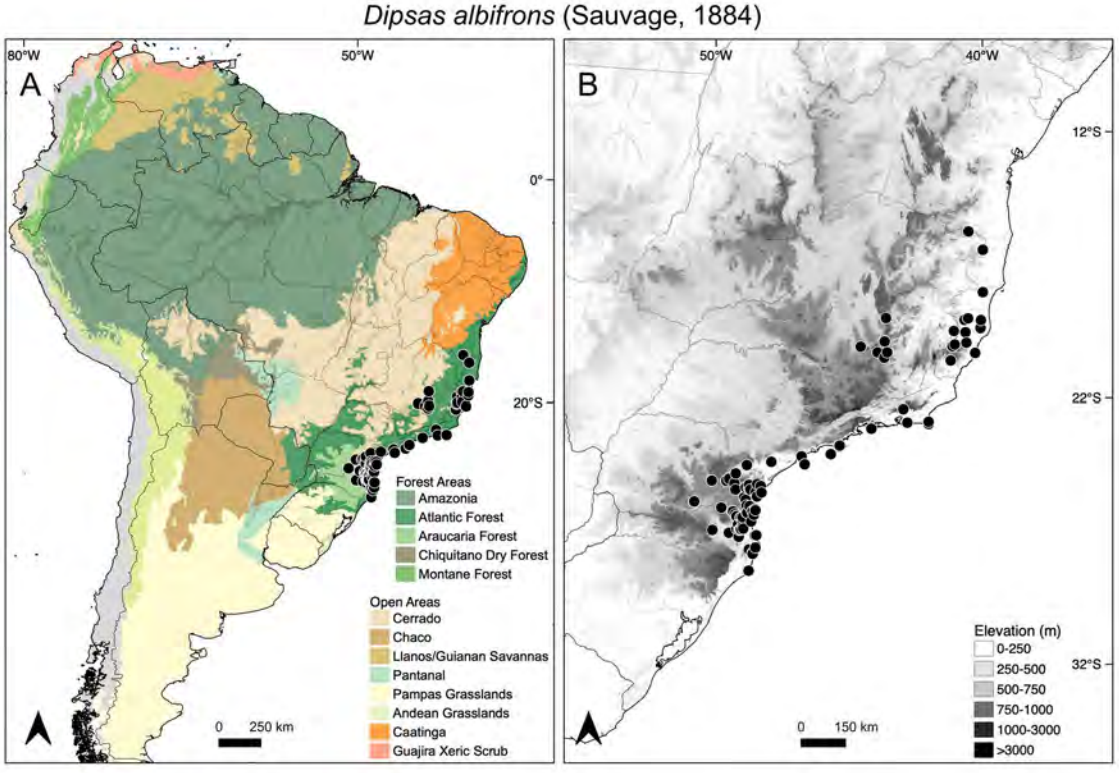


Plate 192. Distribution map of *Dipsas albifrons* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

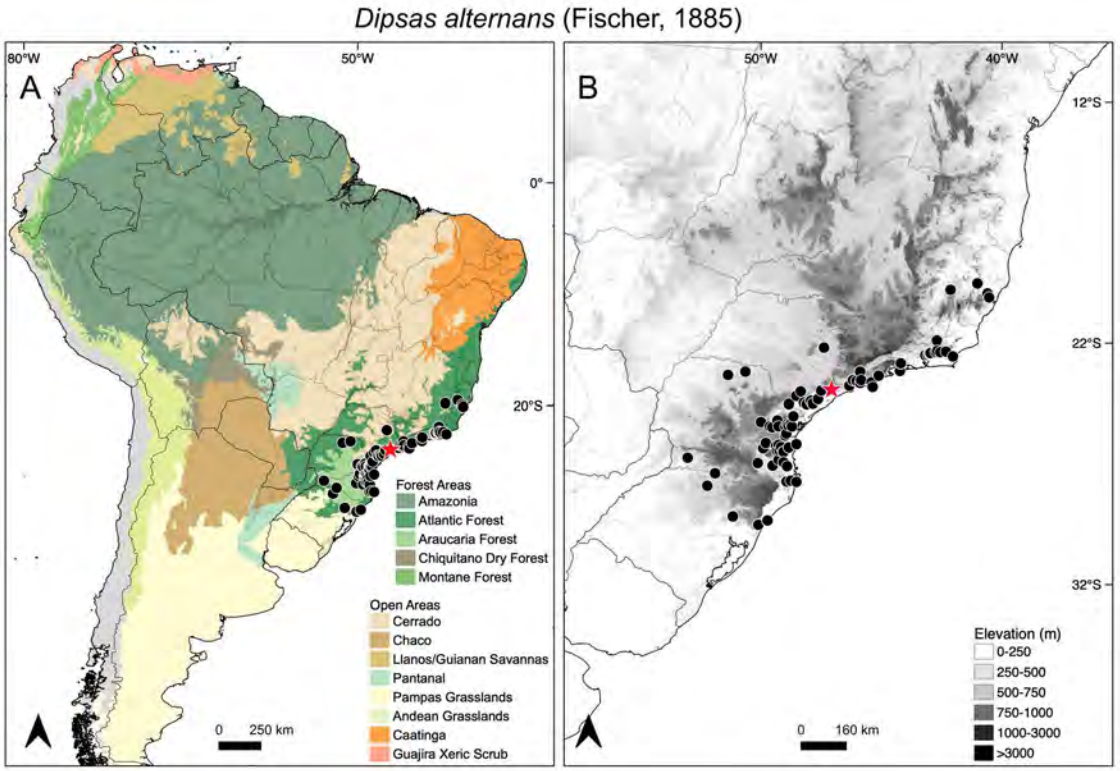


Plate 193. Distribution map of *Dipsas alternans* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

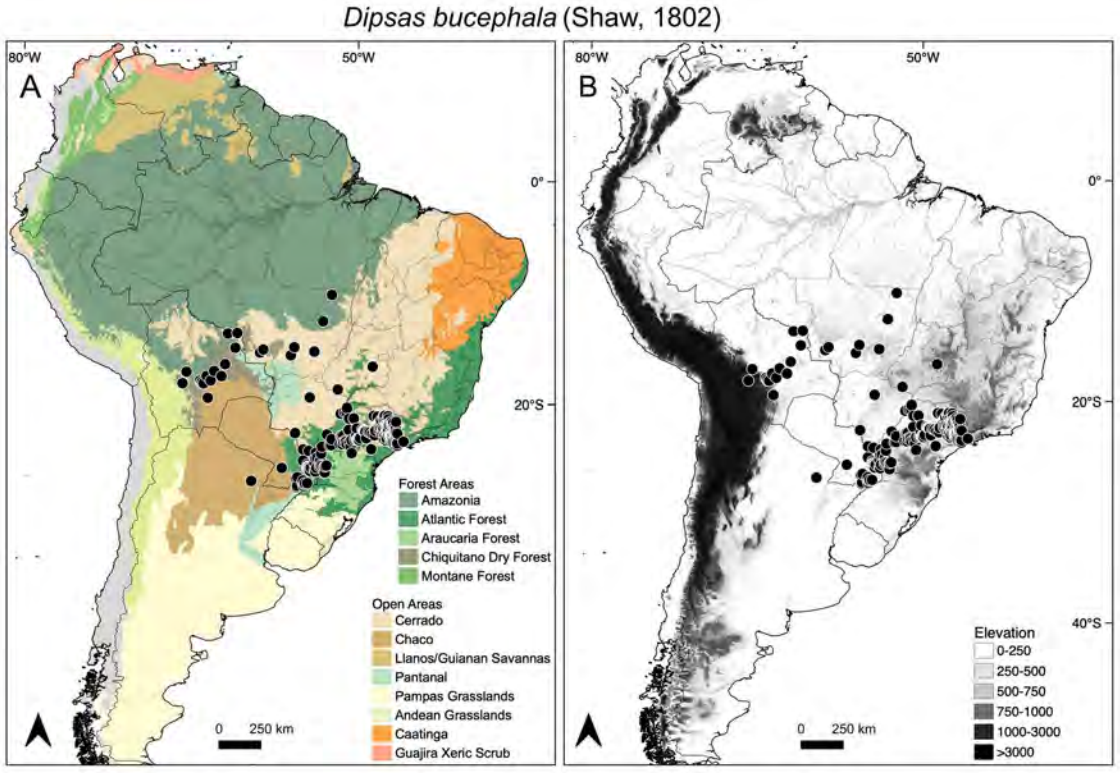


Plate 194. Distribution map of *Dipsas bucephala* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

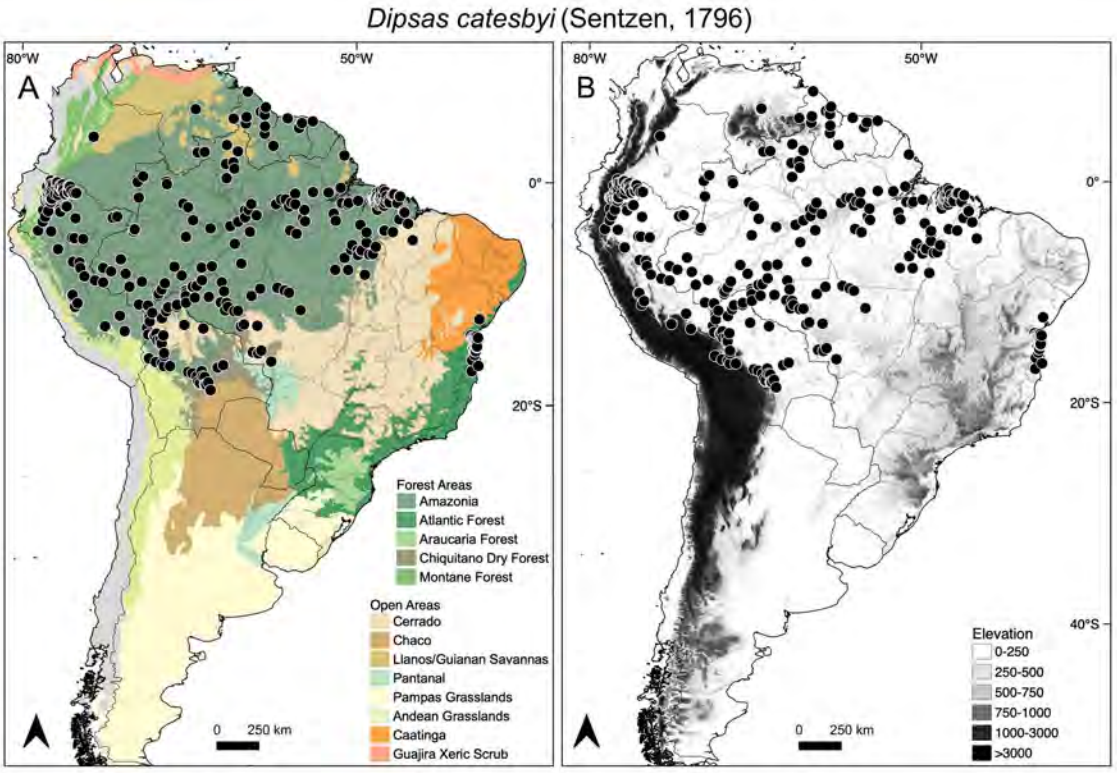


Plate 195. Distribution map of *Dipsas catesbyi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

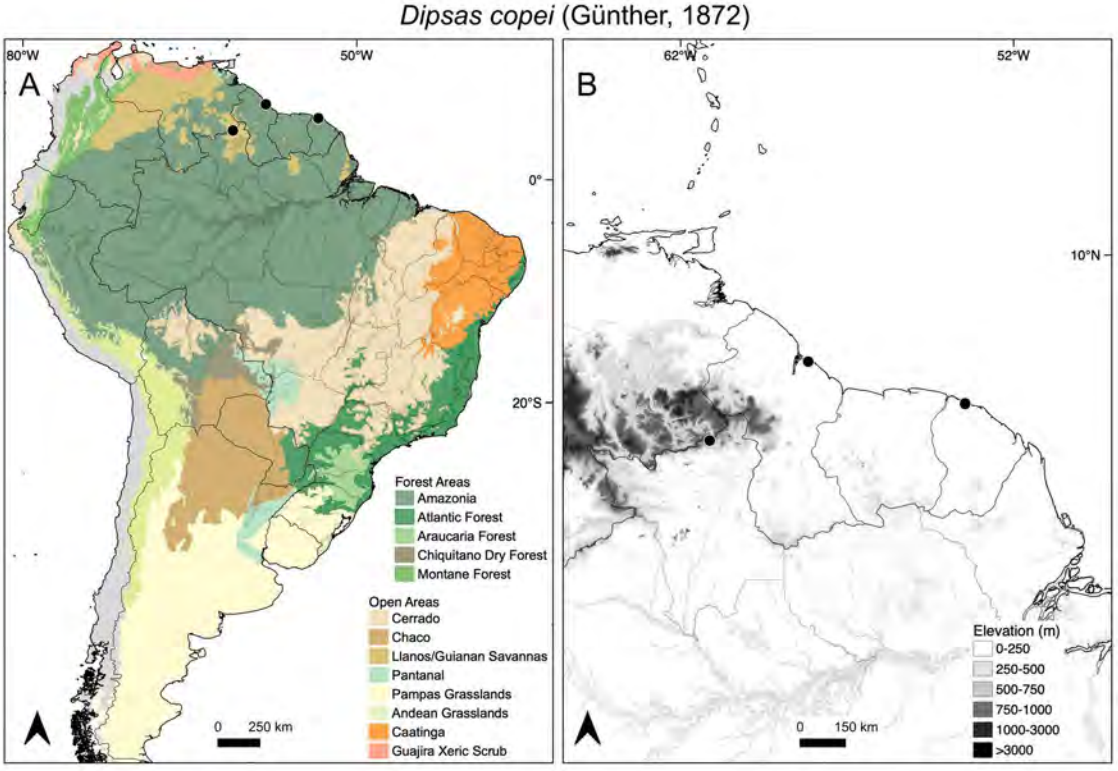


Plate 196. Distribution map of *Dipsas copei* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Dipsas indica Laurenti, 1768

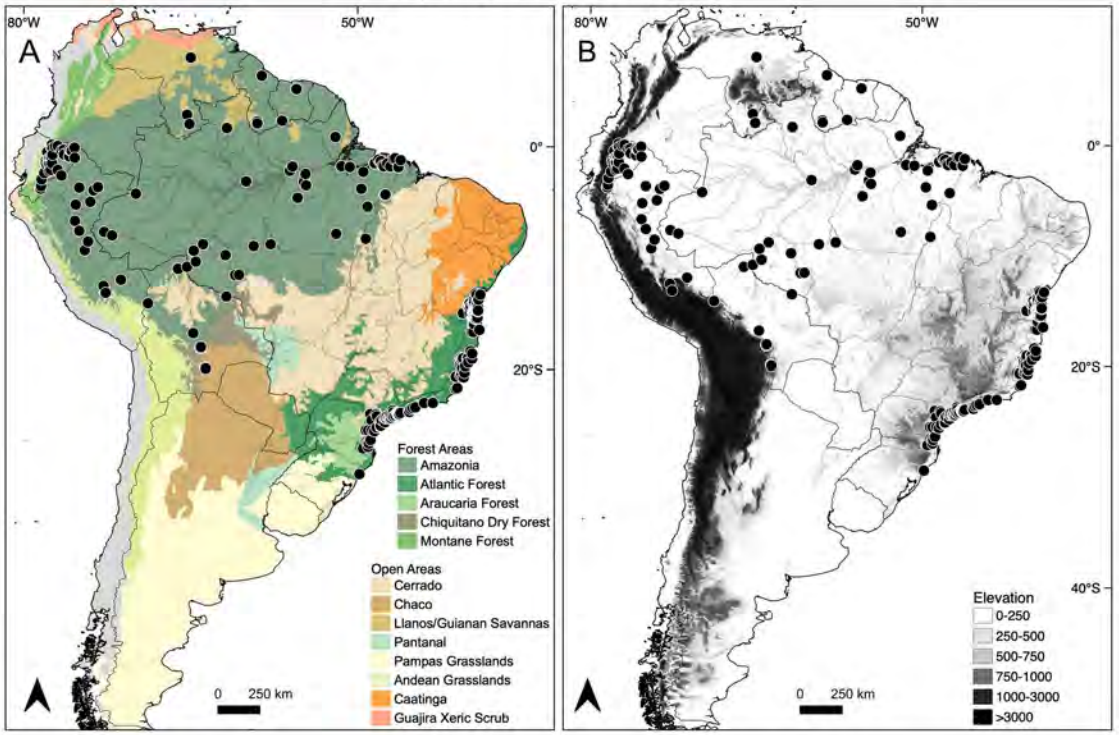


Plate 197. Distribution map of *Dipsas indica* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Dipsas lavillai Scrocchi et al., 1993

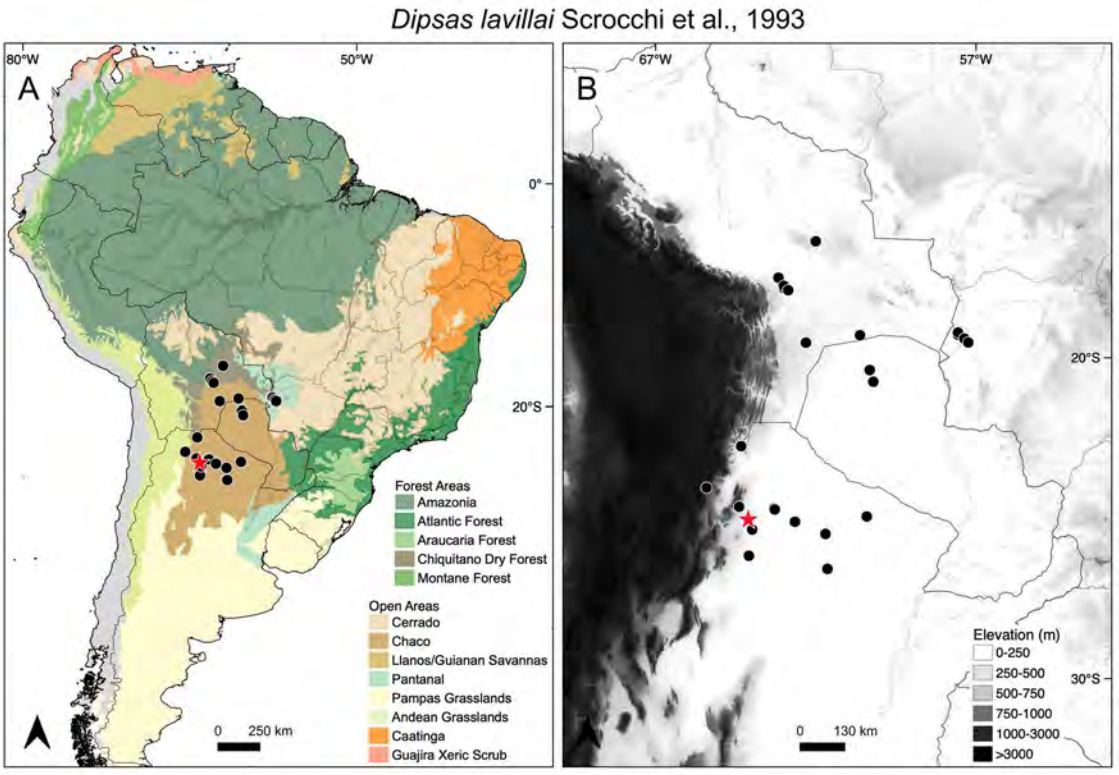


Plate 198. Distribution map of *Dipsas lavillai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

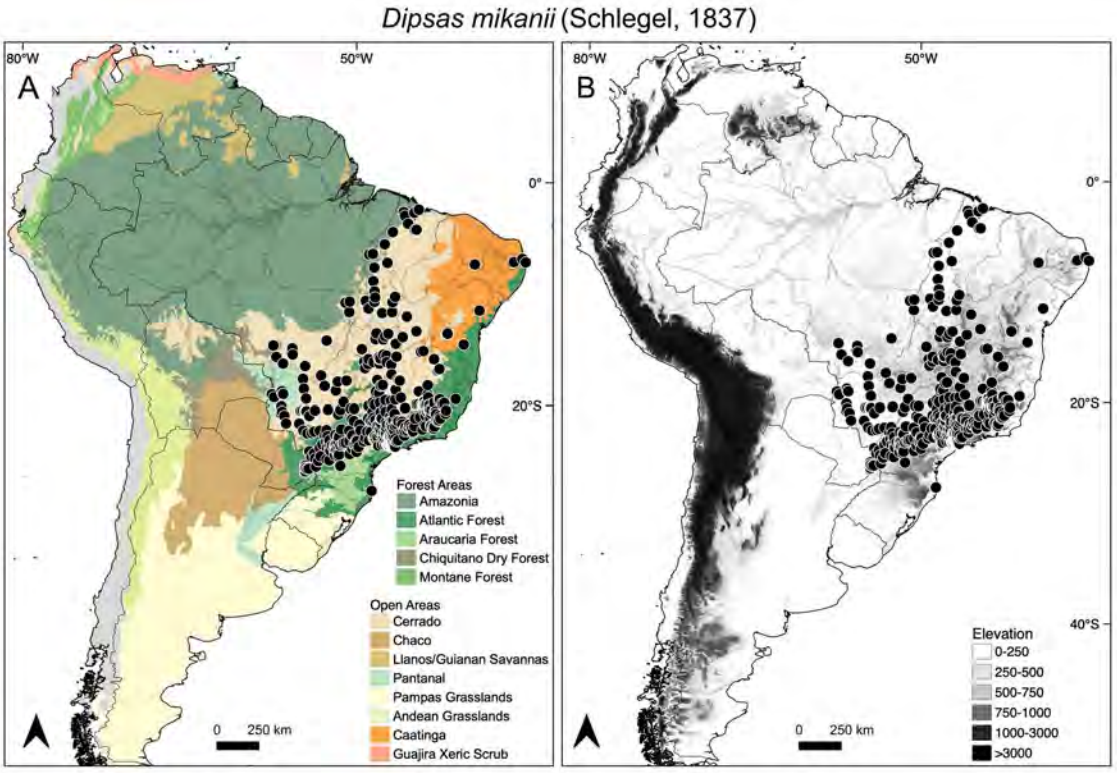


Plate 199. Distribution map of *Dipsas mikanii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

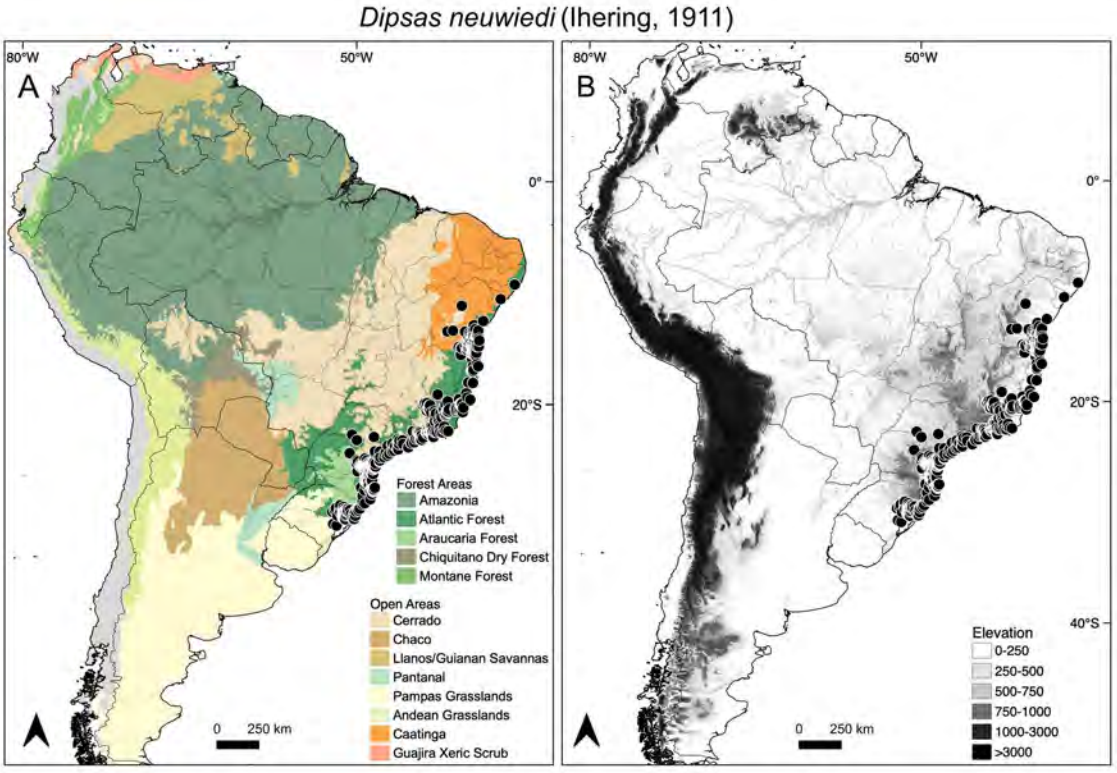


Plate 200. Distribution map of *Dipsas neuwiedi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

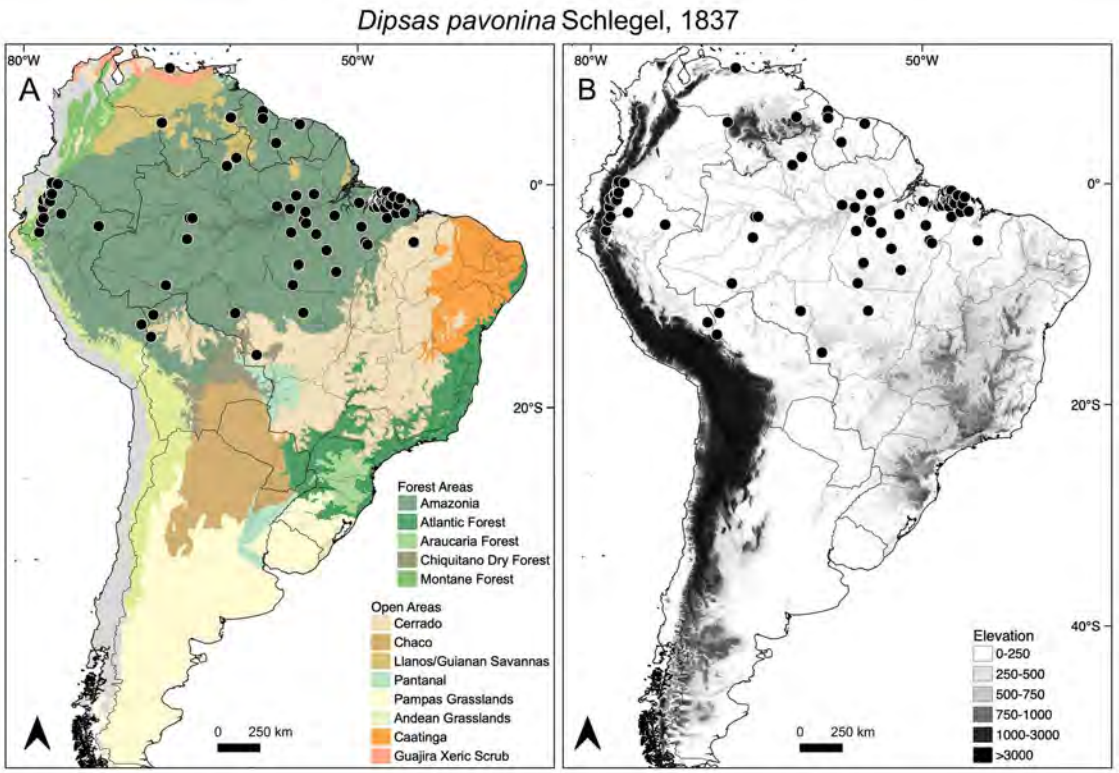


Plate 201. Distribution map of *Dipsas pavonina* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

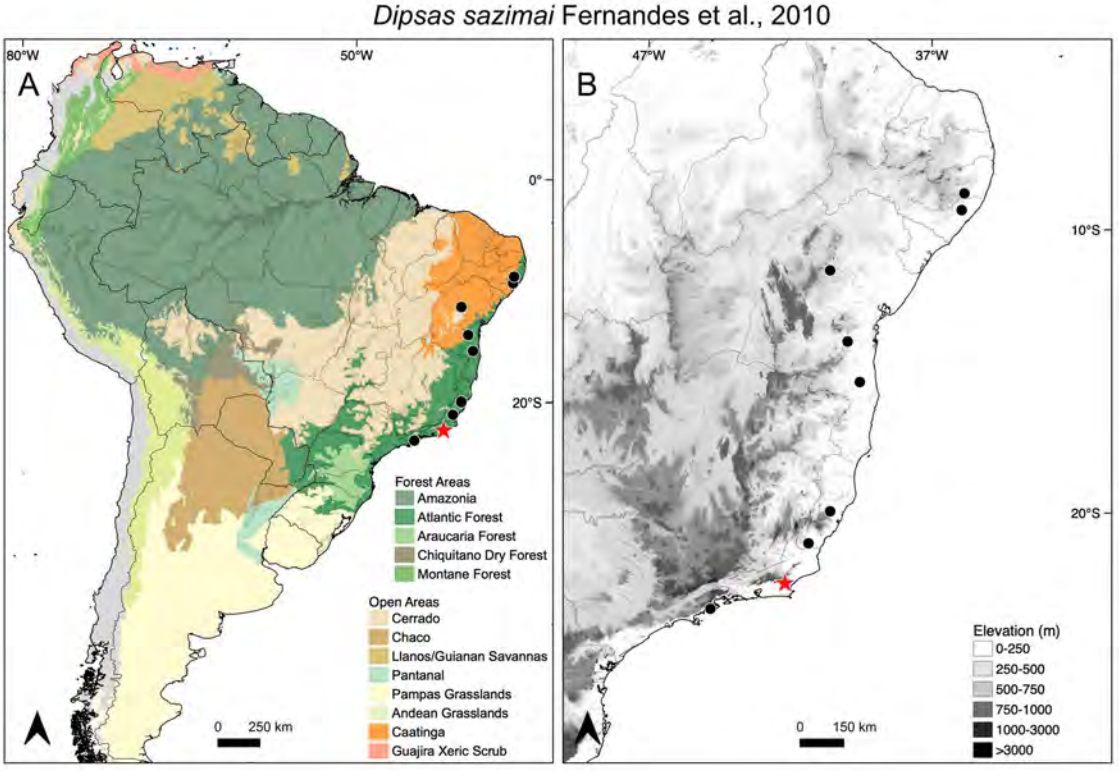


Plate 202. Distribution map of *Dipsas sazimai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

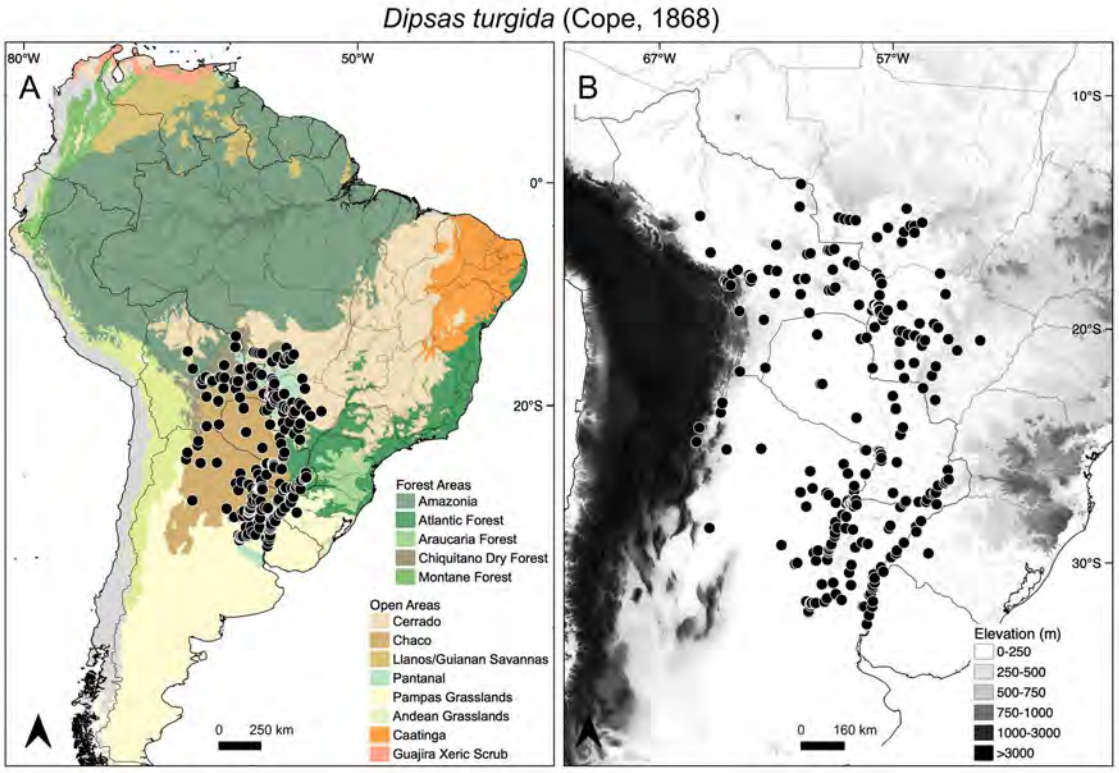


Plate 203. Distribution map of *Dipsas turgida* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

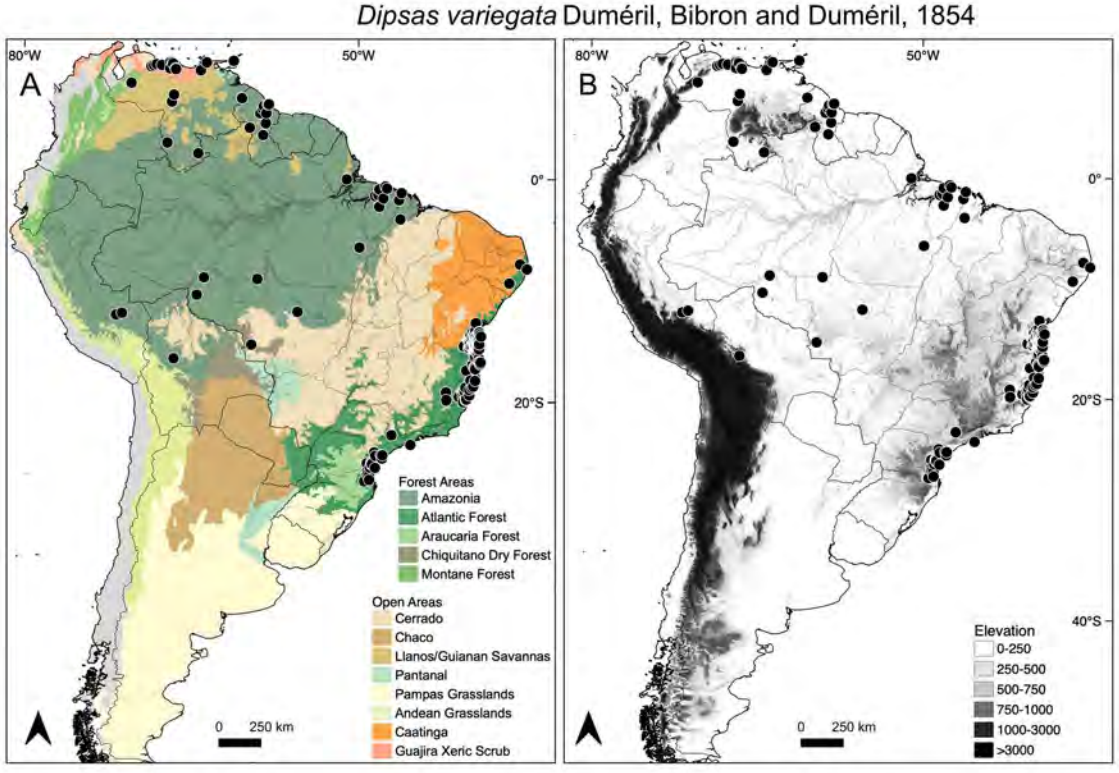


Plate 204. Distribution map of *Dipsas variegata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

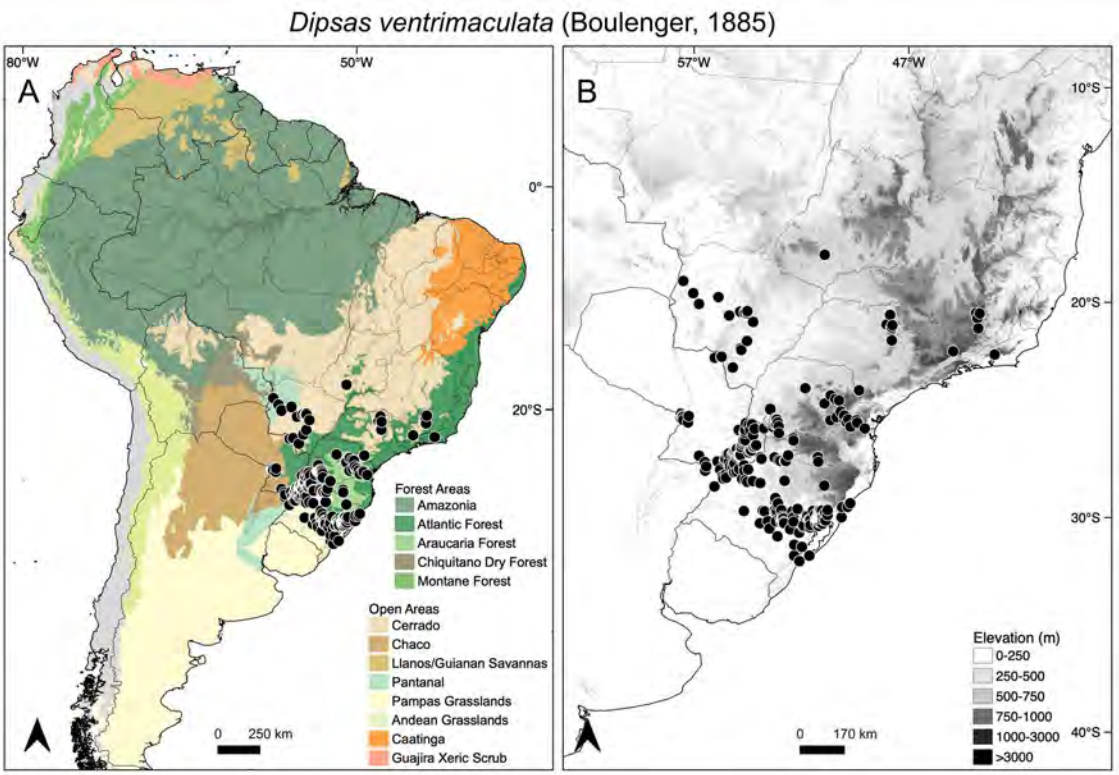


Plate 205. Distribution map of *Dipsas ventrimaculata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

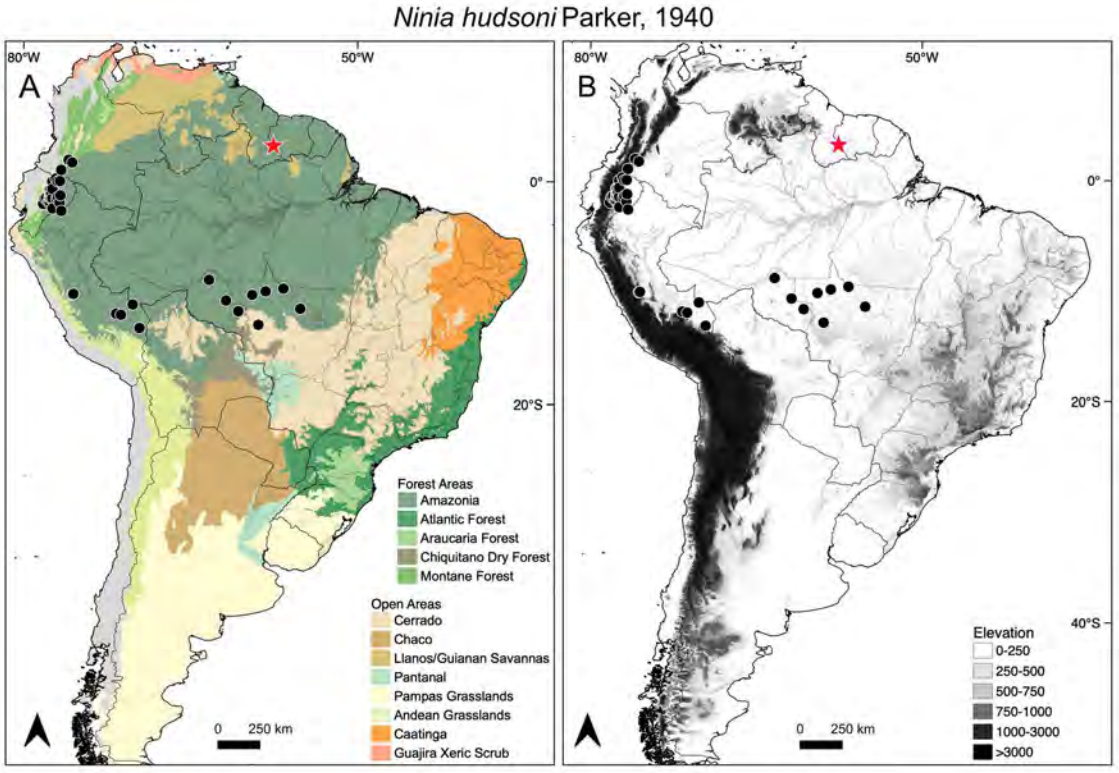


Plate 206. Distribution map of *Ninia hudsoni* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

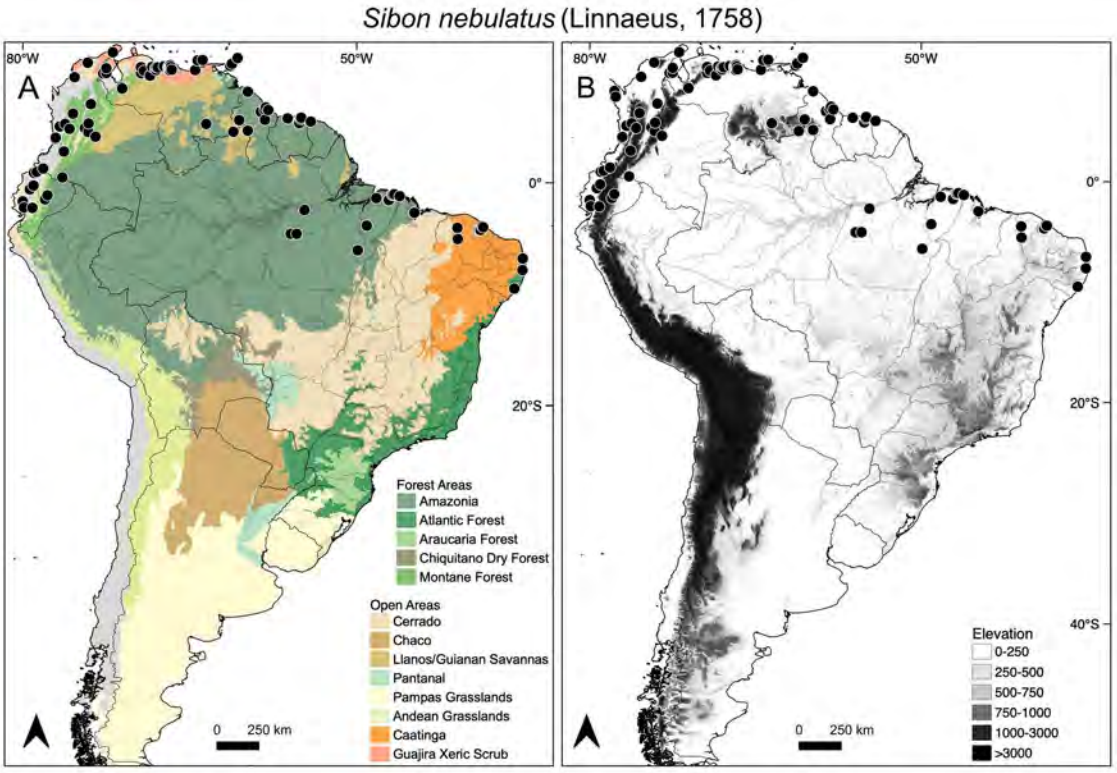


Plate 207. Distribution map of *Sibon nebulatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

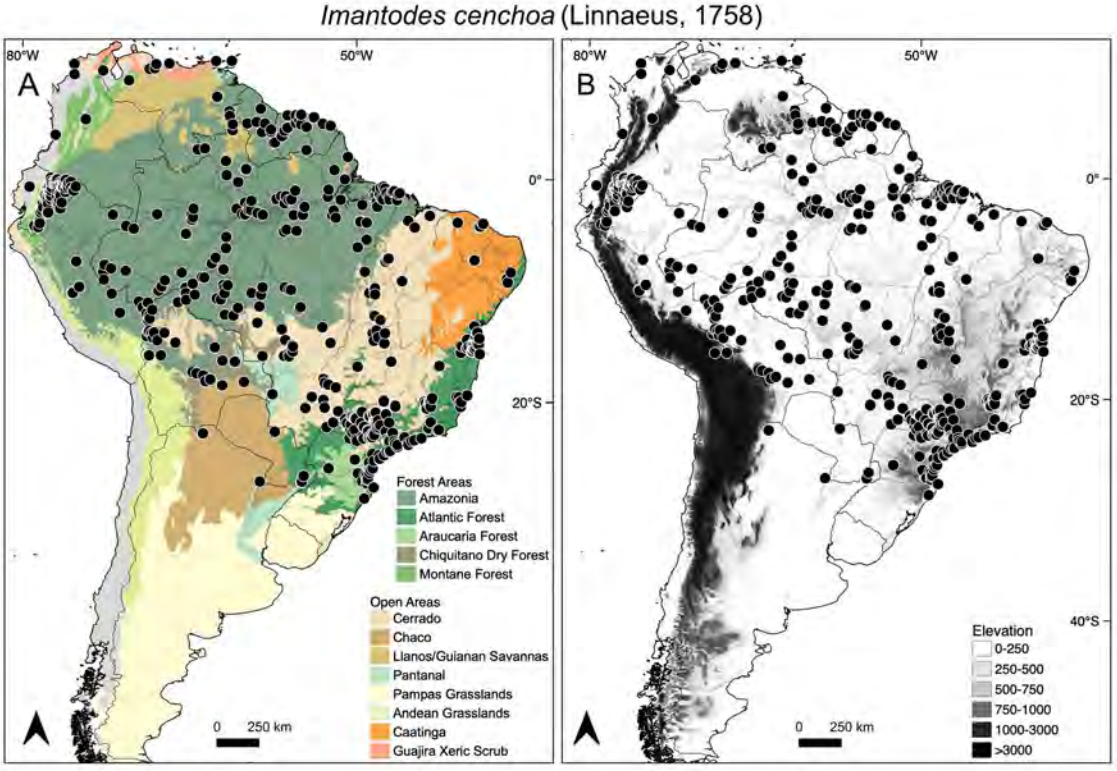


Plate 208. Distribution map of *Imantodes cenchoa* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

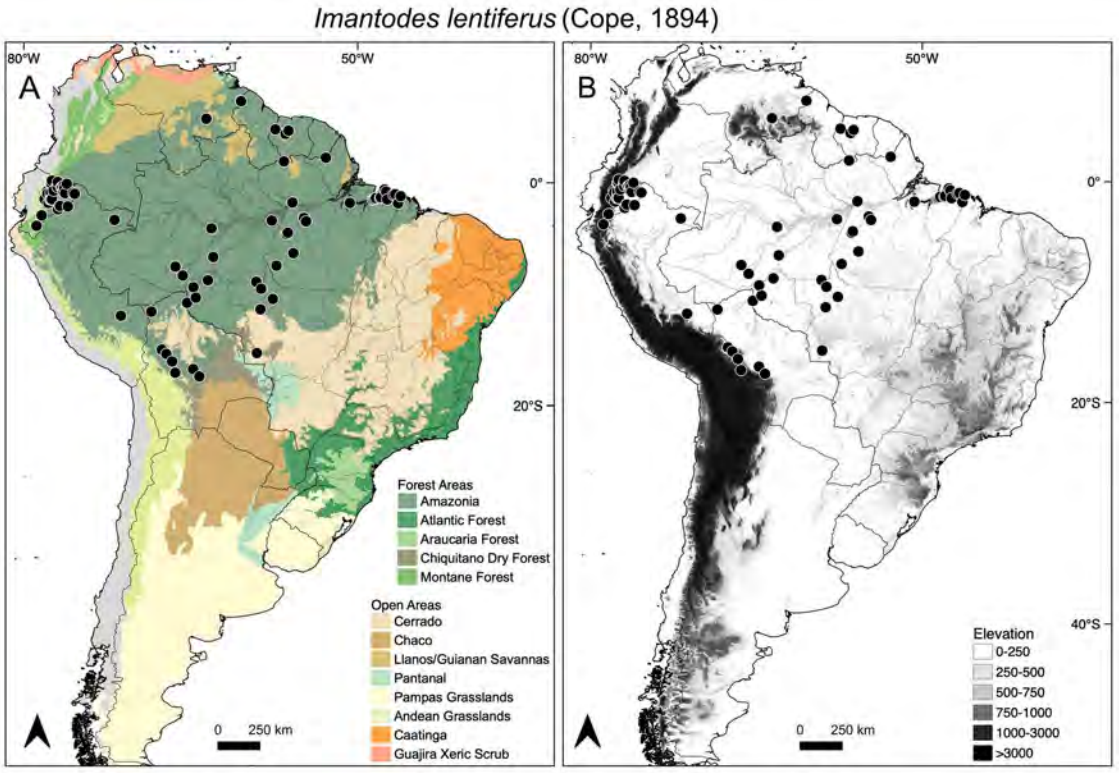


Plate 209. Distribution map of *Imantodes lentiferus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

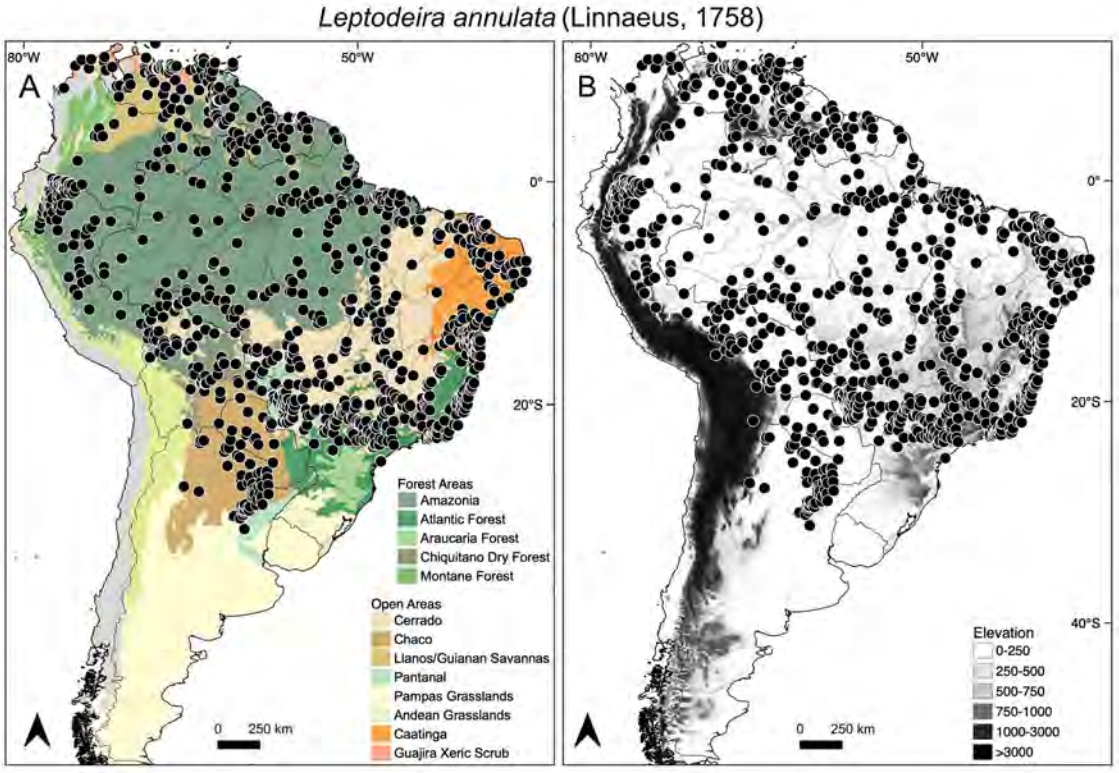


Plate 210. Distribution map of *Leptodeira annulata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

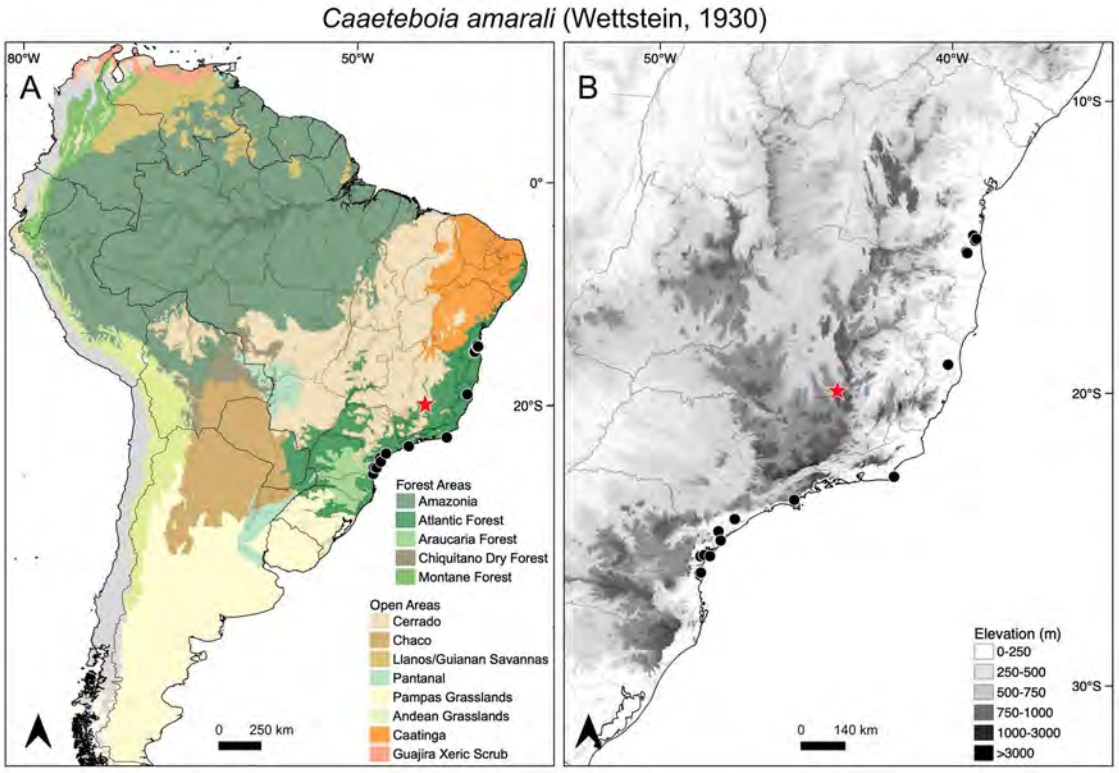


Plate 211. Distribution map of *Caaeteboia amarali* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

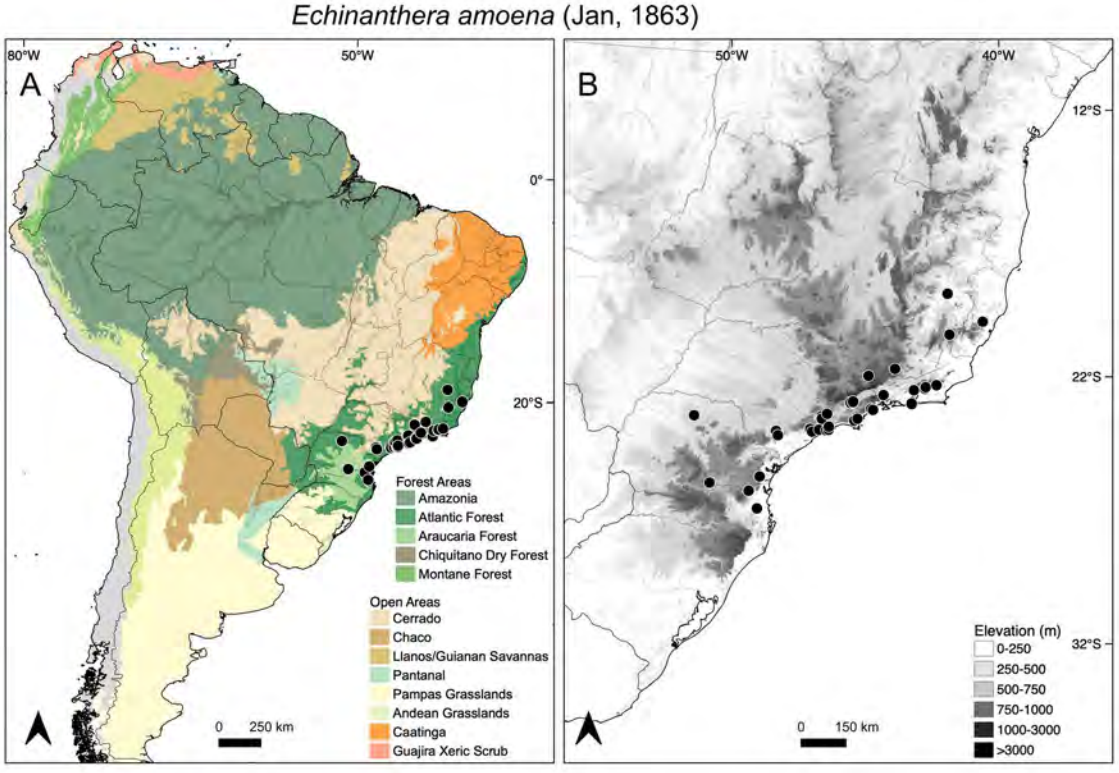


Plate 212. Distribution map of *Echinanthera amoena* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

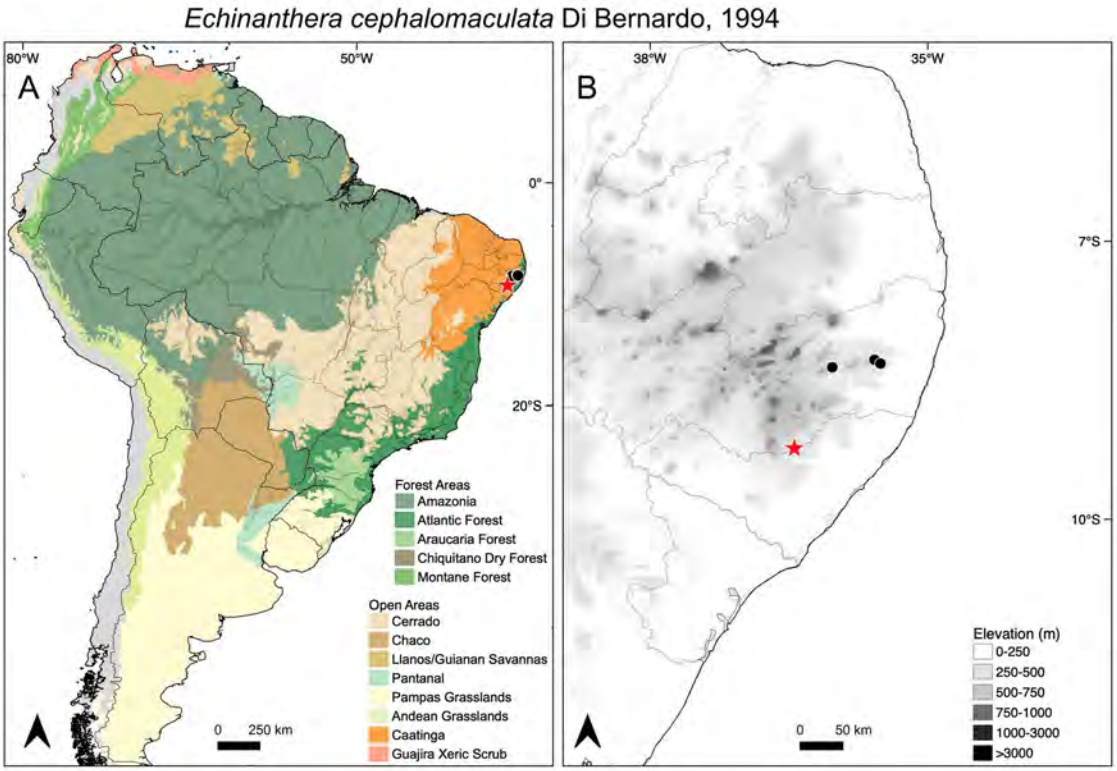


Plate 213. Distribution map of *Echinanthera cephalomaculata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

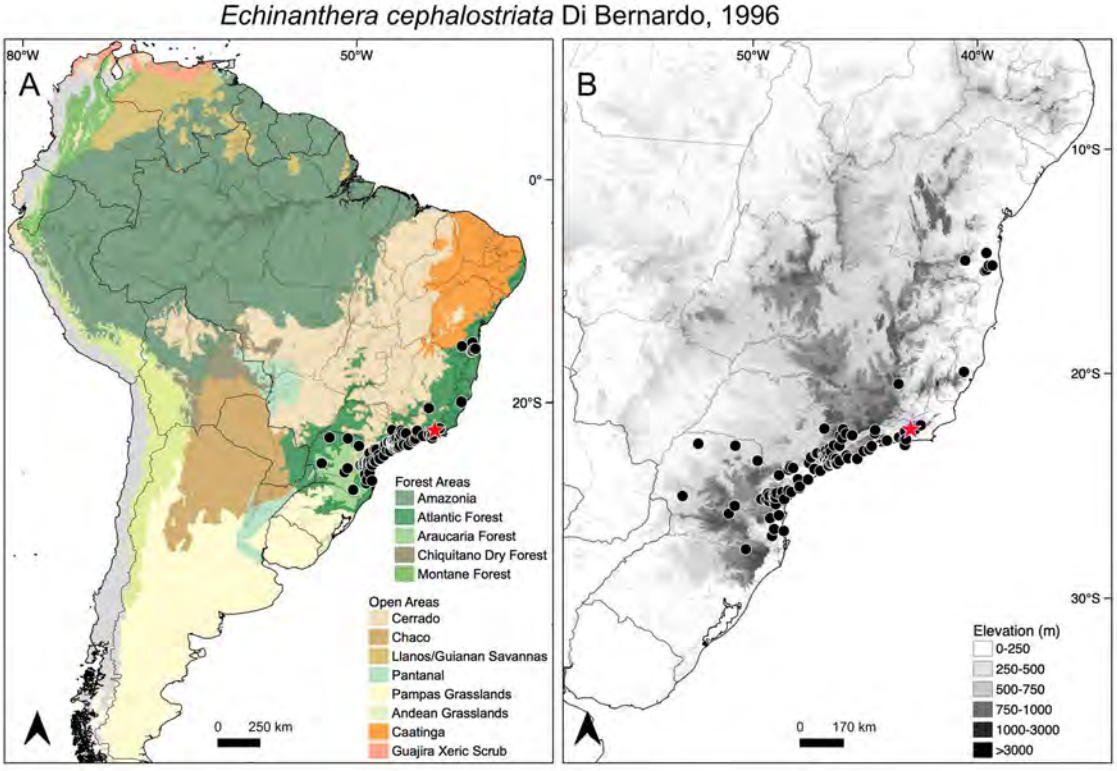


Plate 214. Distribution map of *Echinanthera cephalostriata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

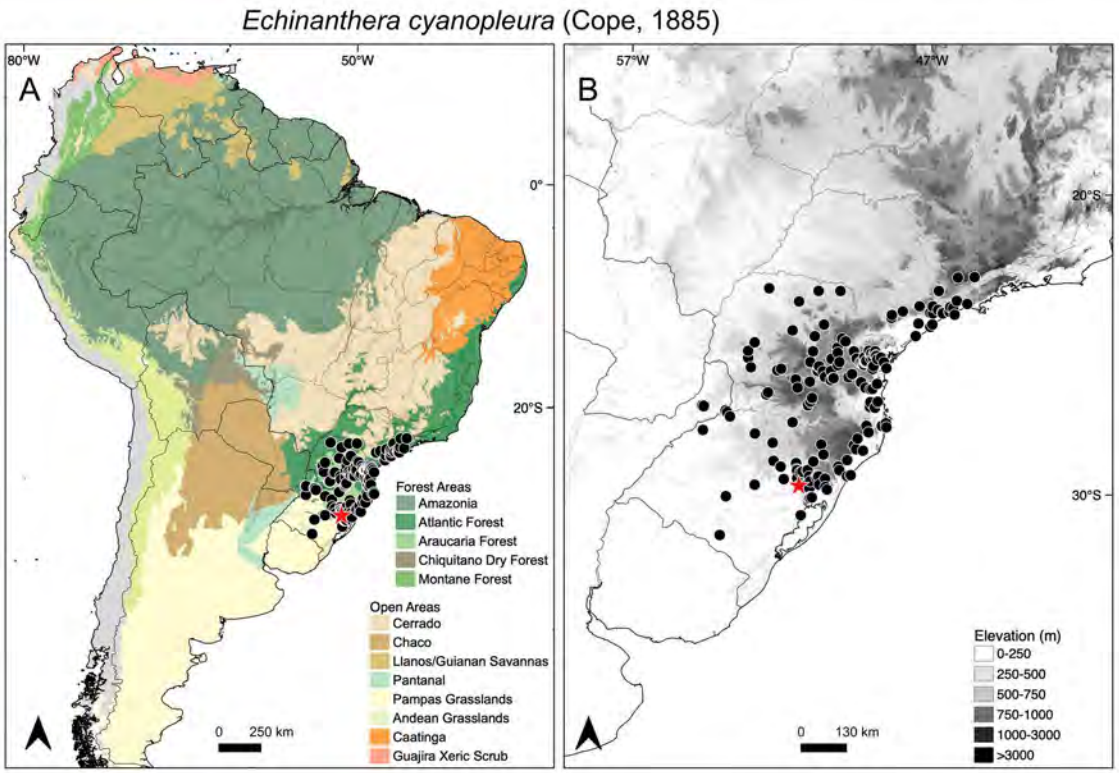


Plate 215. Distribution map of *Echinanthera cyanopleura* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

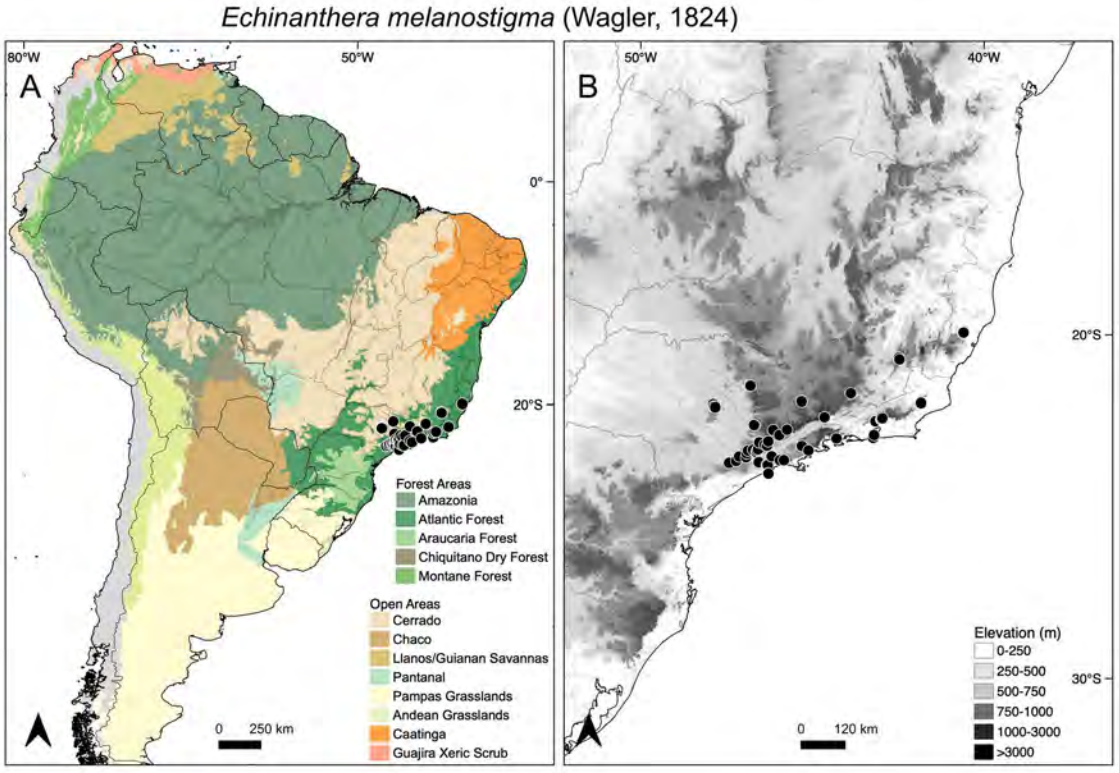


Plate 216. Distribution map of *Echinanthera melanostigma* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

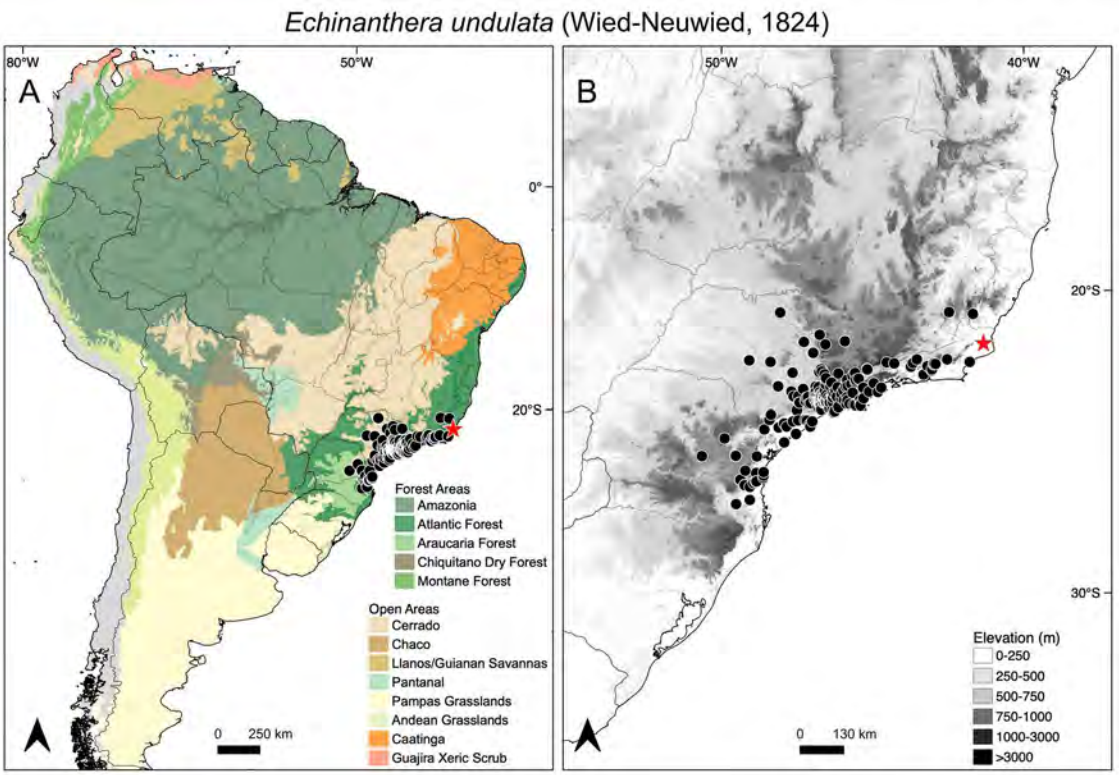


Plate 217. Distribution map of *Echinanthera undulata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

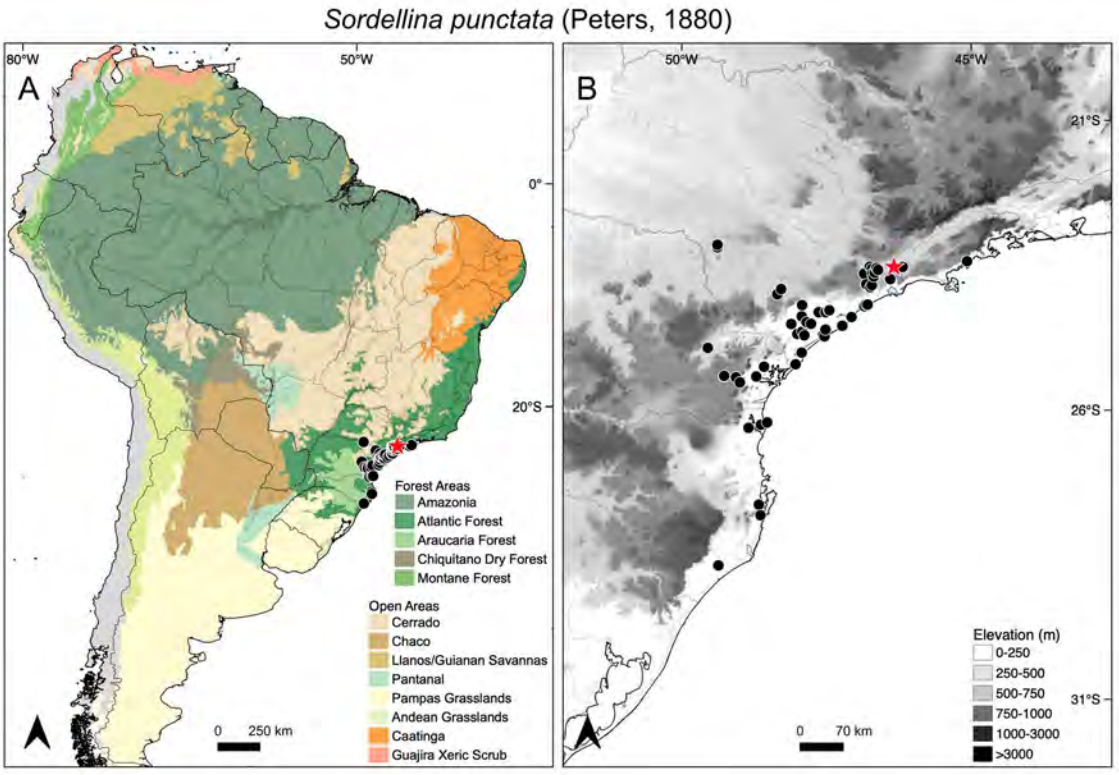


Plate 218. Distribution map of *Sordellina punctata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

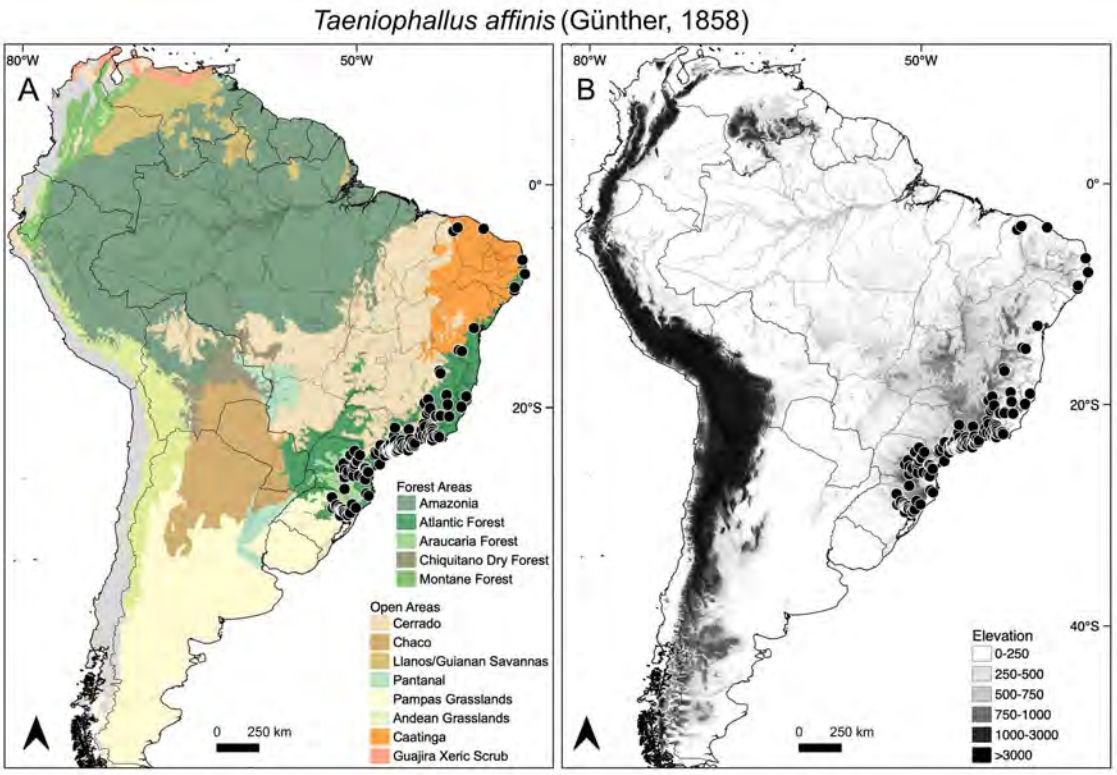


Plate 219. Distribution map of *Taeniophallus affinis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

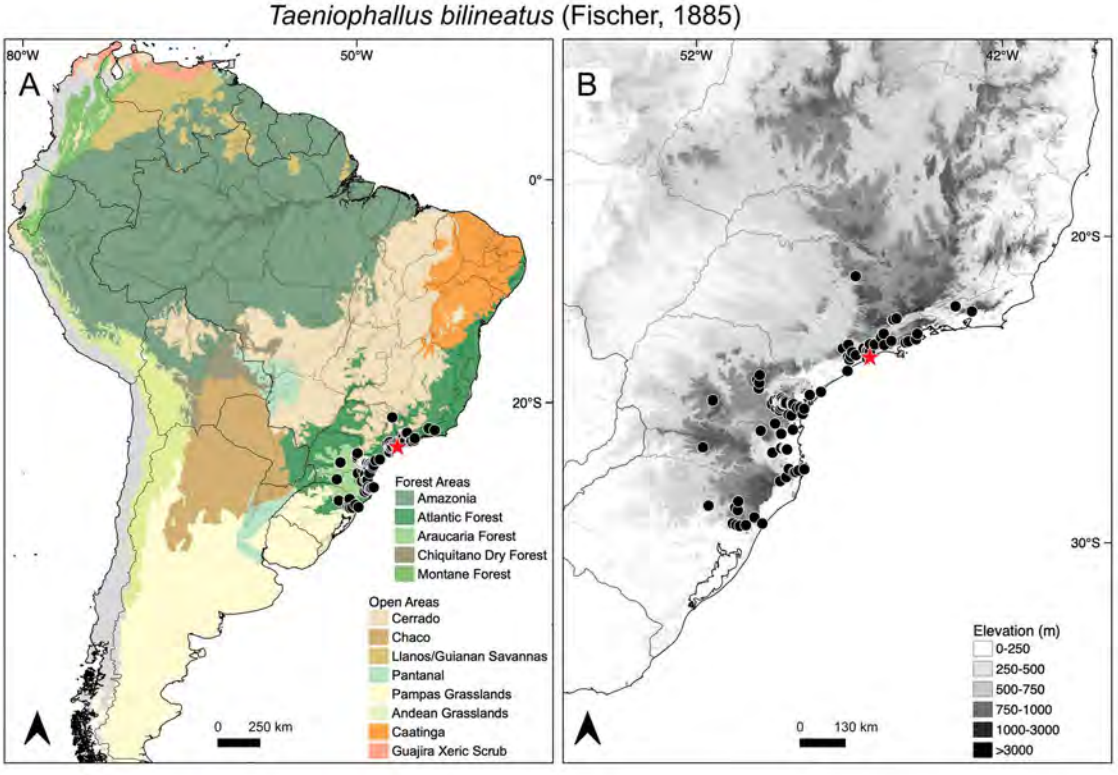


Plate 220. Distribution map of *Taeniophallus bilineatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

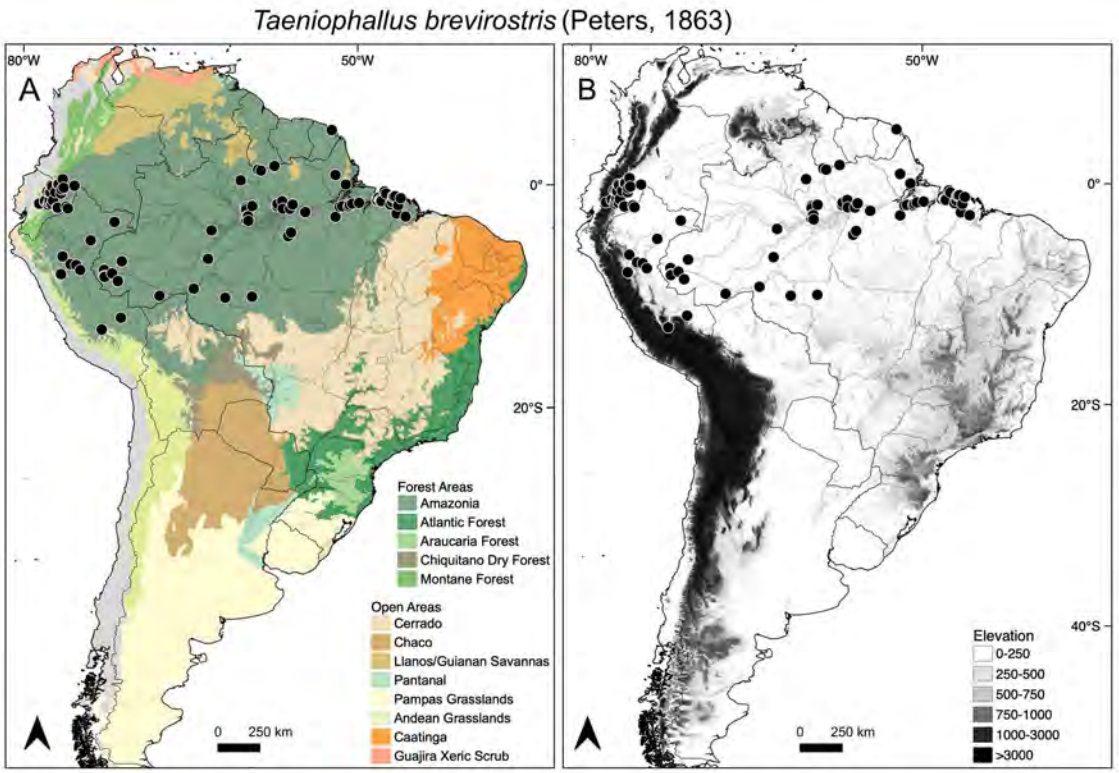


Plate 221. Distribution map of *Taeniophallus brevirostris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

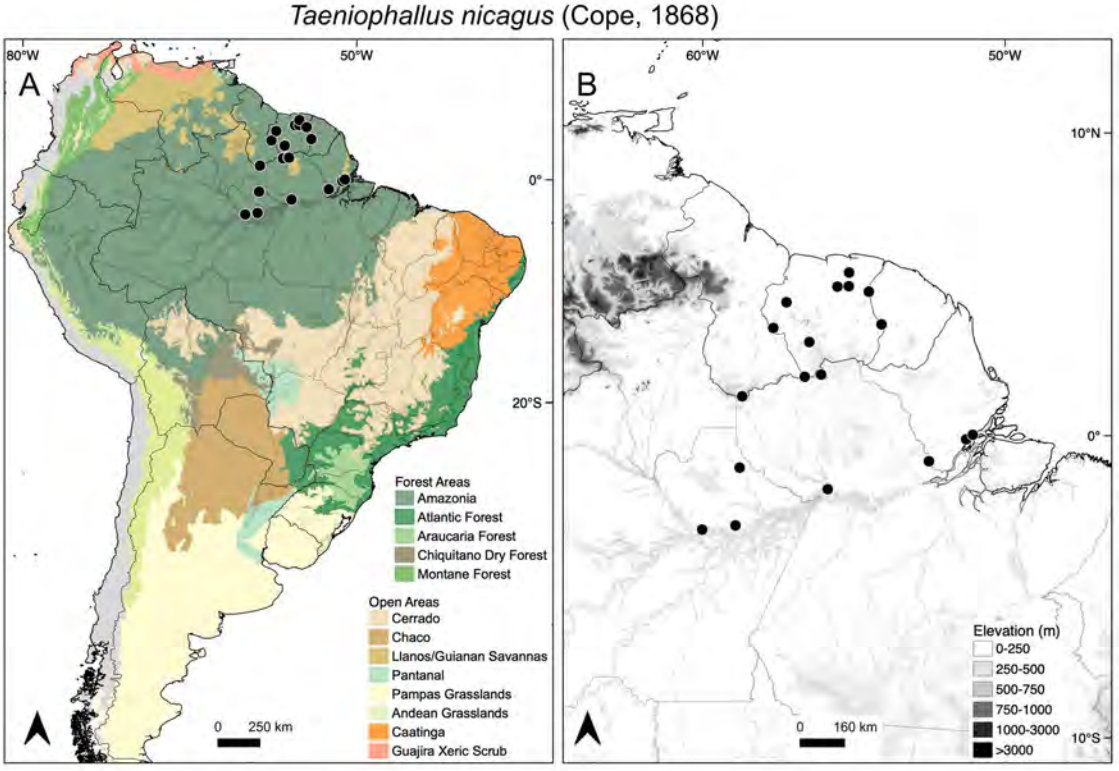


Plate 222. Distribution map of *Taeniophallus nicagus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

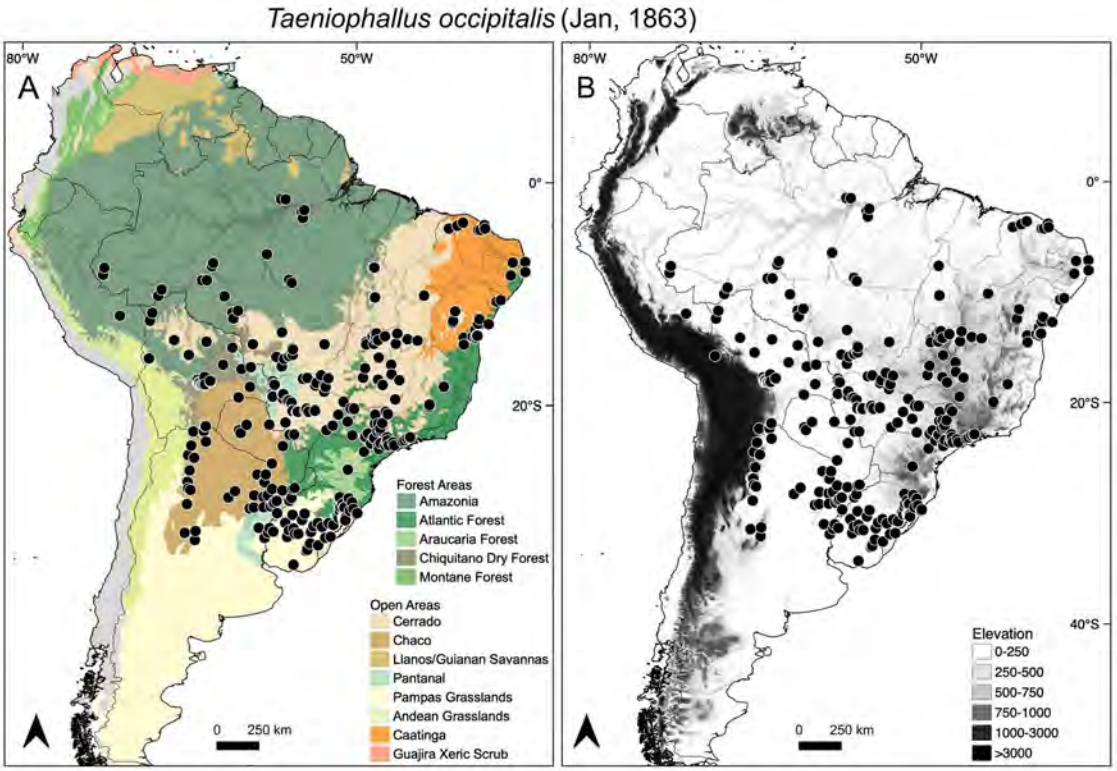


Plate 223. Distribution map of *Taeniophallus occipitalis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

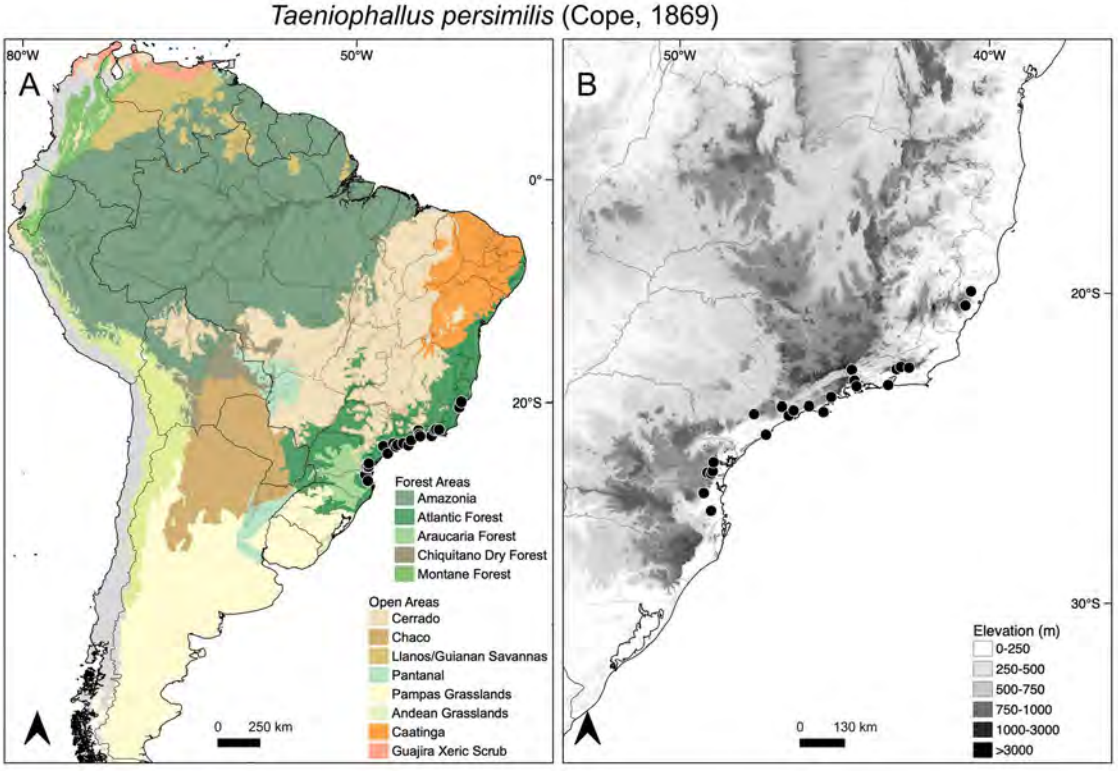


Plate 224. Distribution map of *Taeniophallus persimilis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Taeniophallus poecilopogon (Cope, 1863)

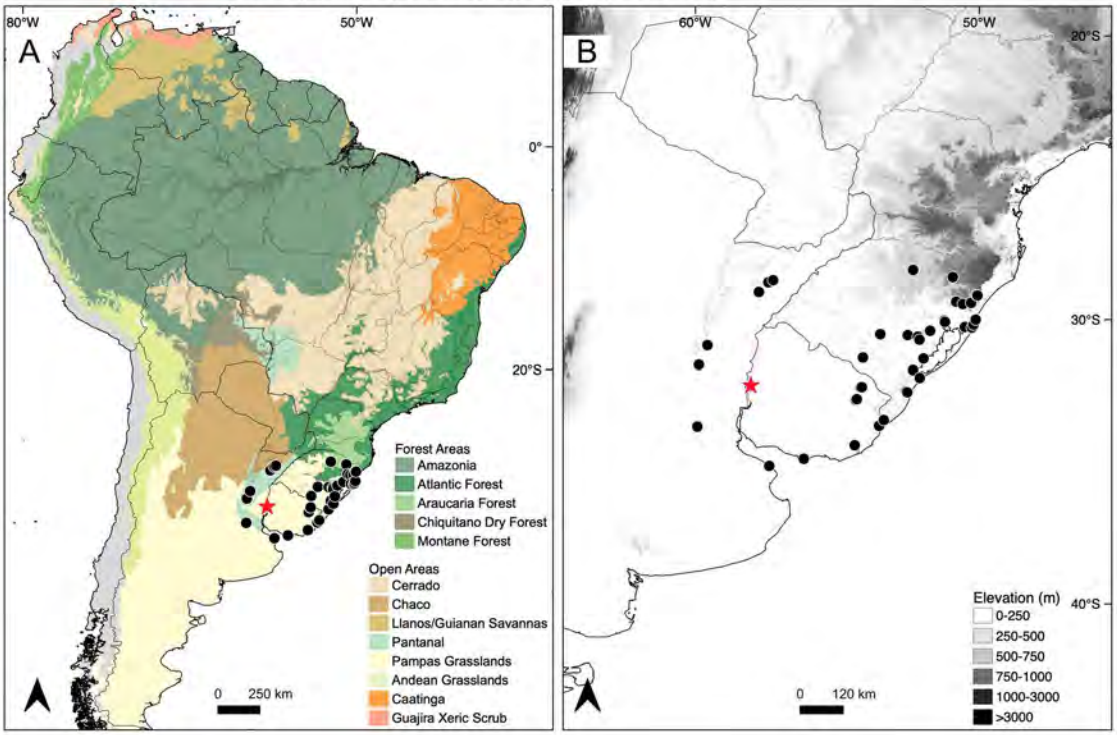


Plate 225. Distribution map of *Taeniophallus poecilopogon* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Taeniophallus quadriocellatus Santos et al., 2008

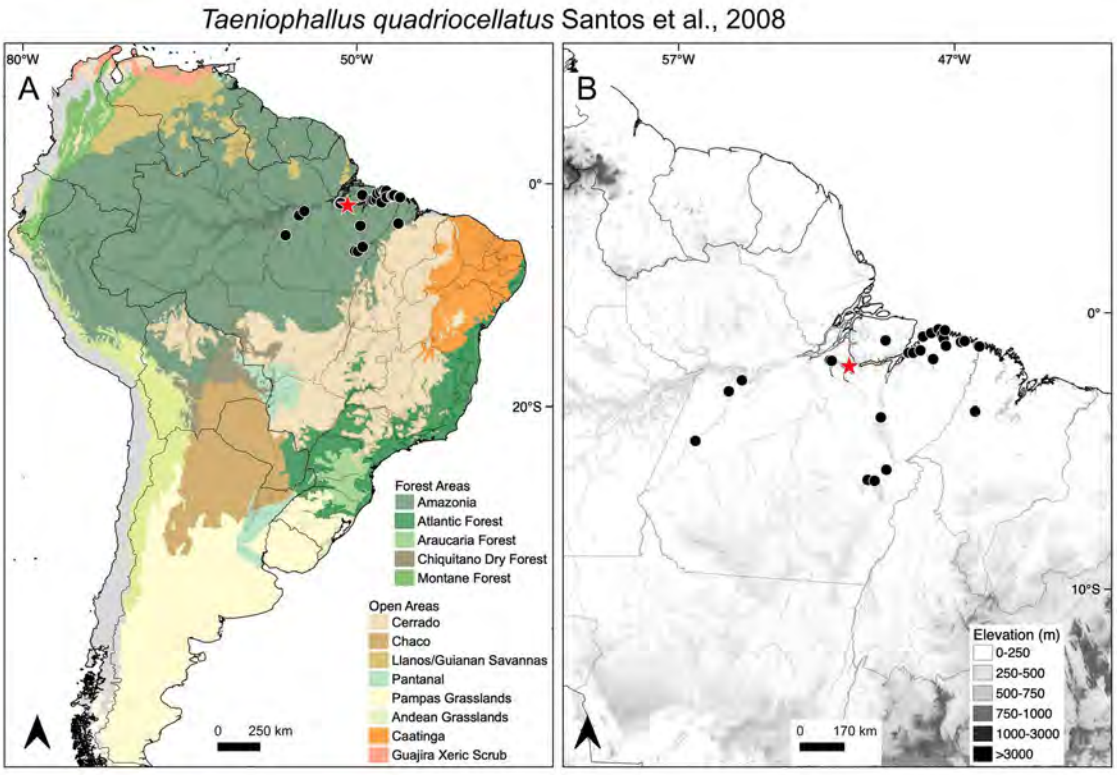


Plate 226. Distribution map of *Taeniophallus quadriocellatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

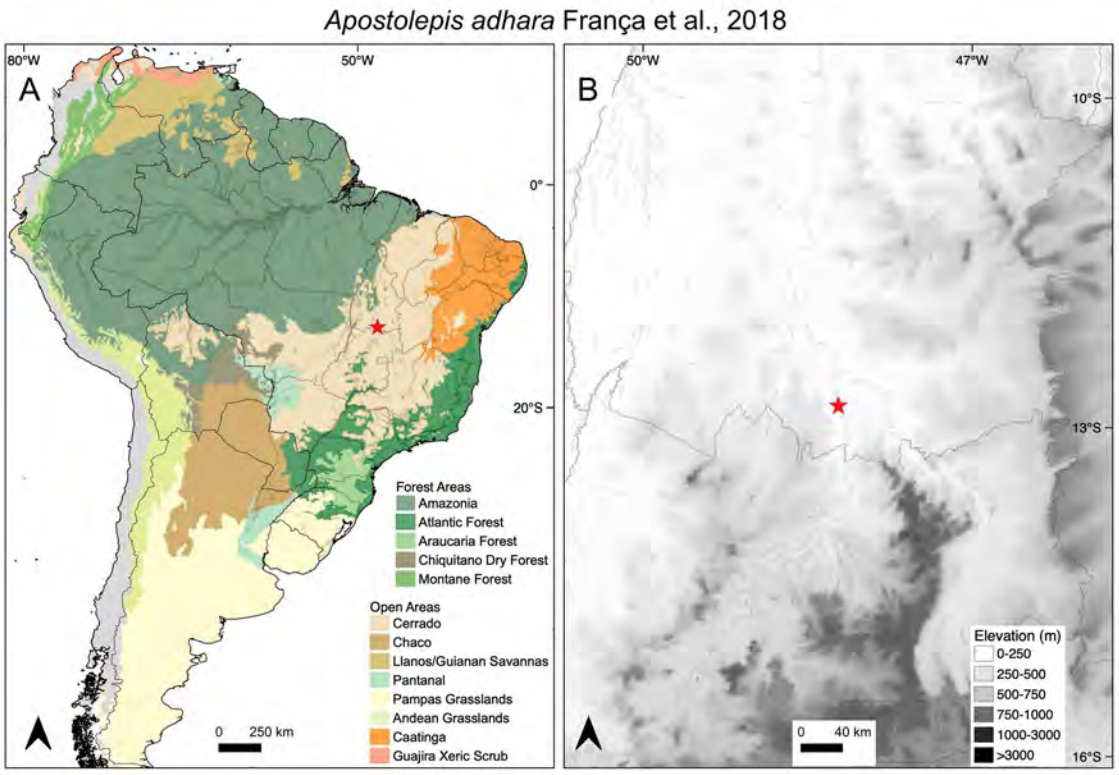


Plate 227. Distribution map of *Apostolepis adhara* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

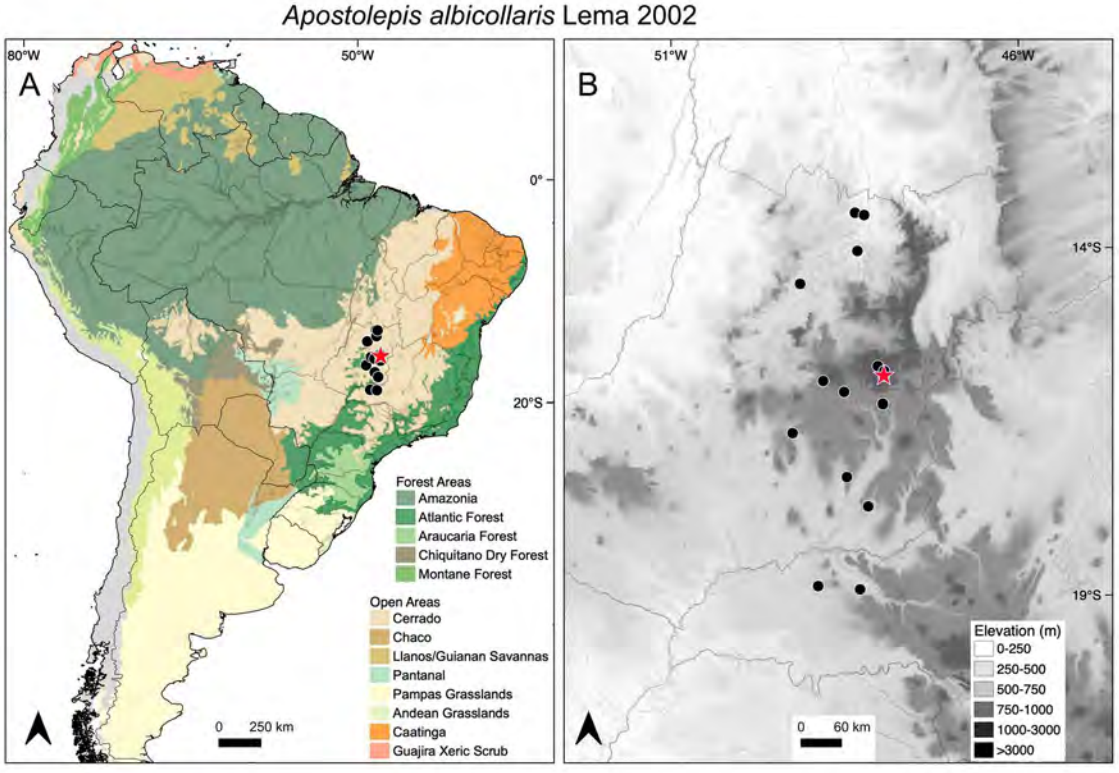


Plate 228. Distribution map of *Apostolepis albicollaris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

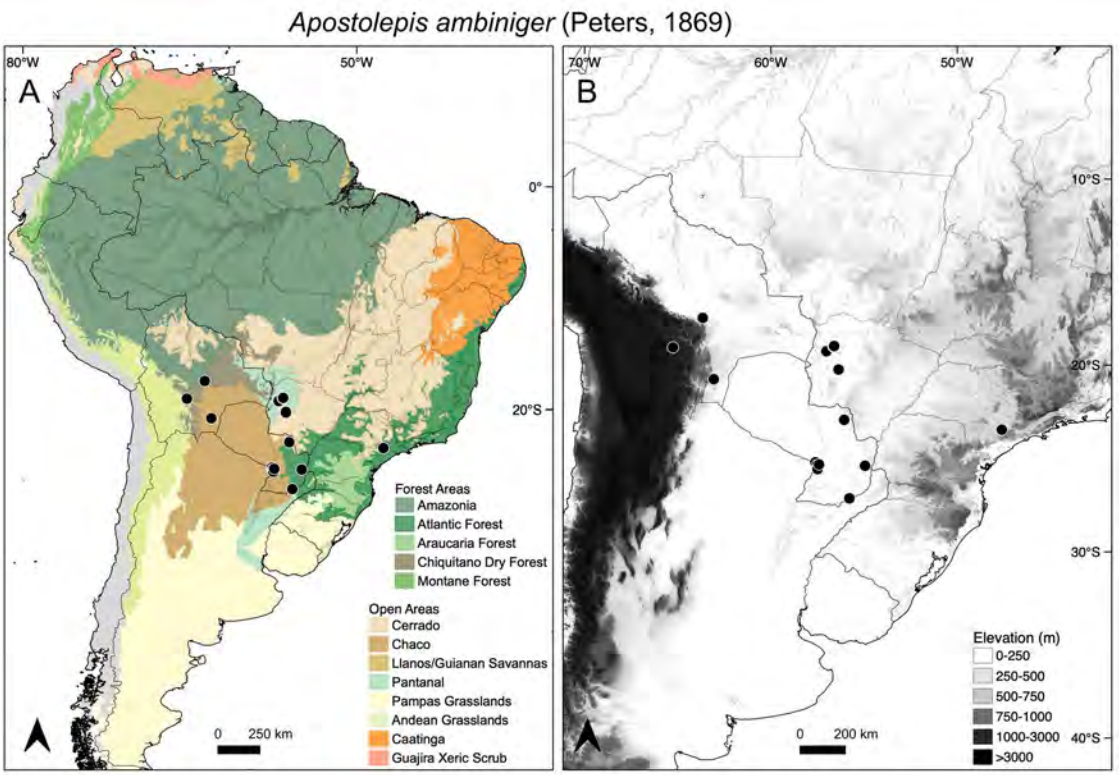


Plate 229. Distribution map of *Apostolepis ambiniger* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

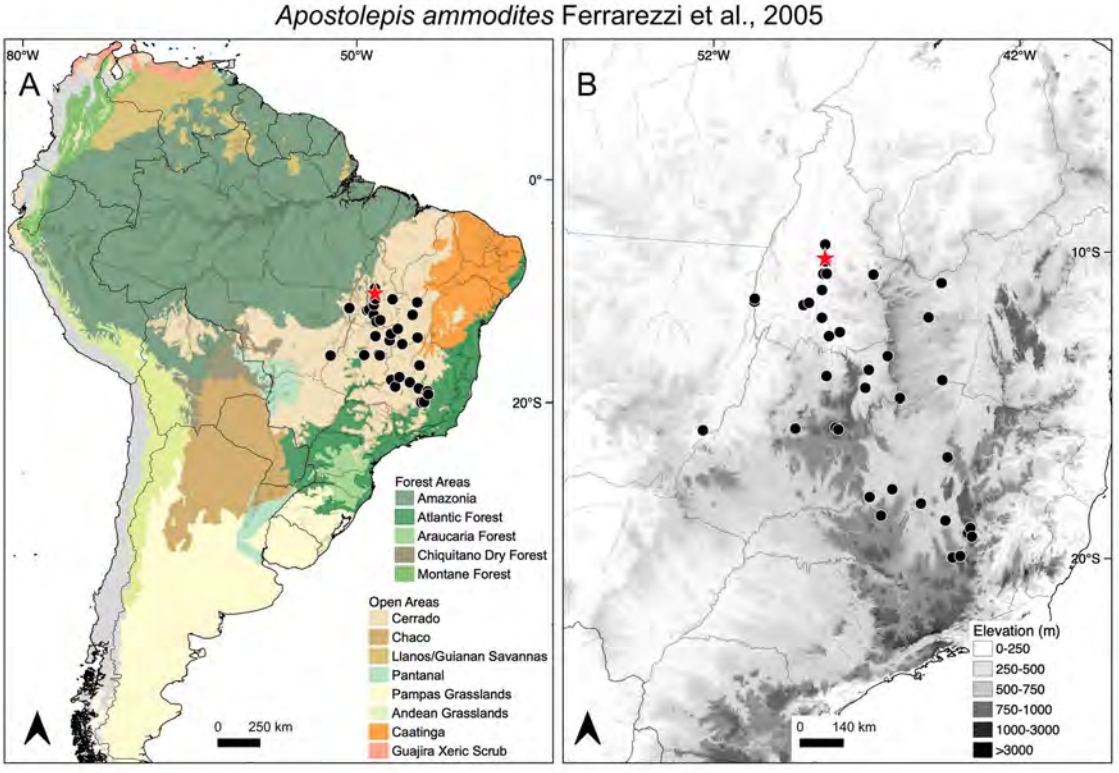


Plate 230. Distribution map of *Apostolepis ammodites* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Apostolepis arenaria Rodrigues, 1993

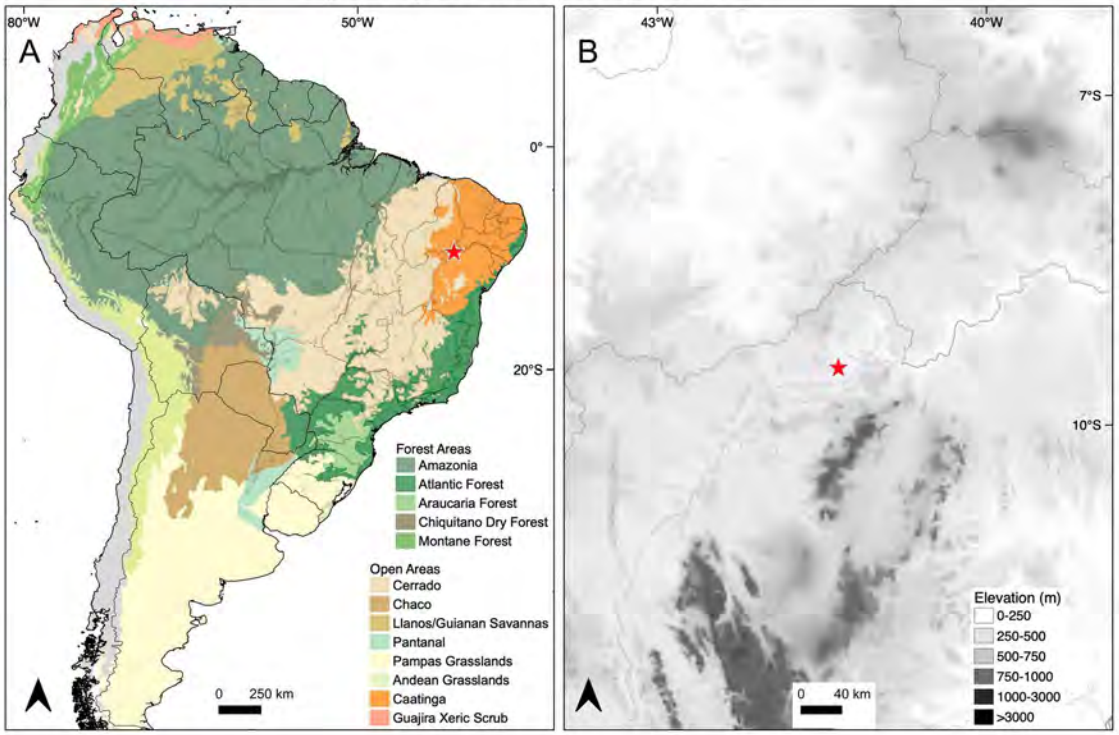


Plate 231. Distribution map of *Apostolepis arenaria* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Apostolepis assimilis (Reinhardt, 1861)

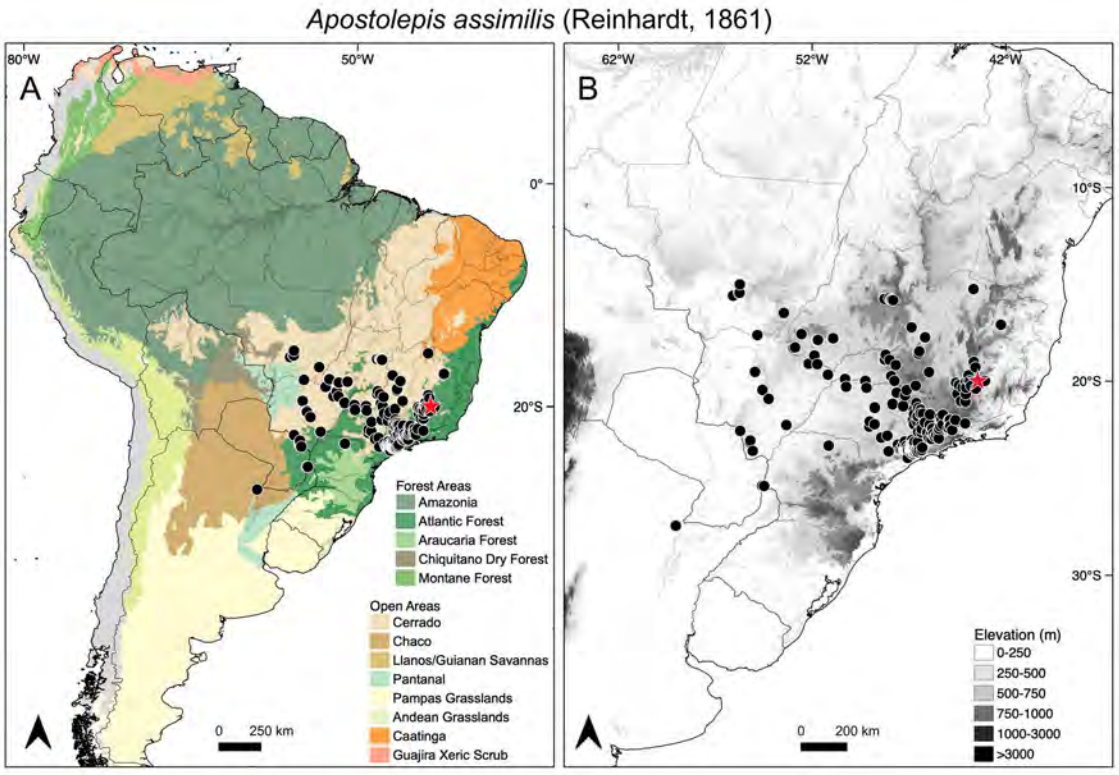


Plate 232. Distribution map of *Apostolepis assimilis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

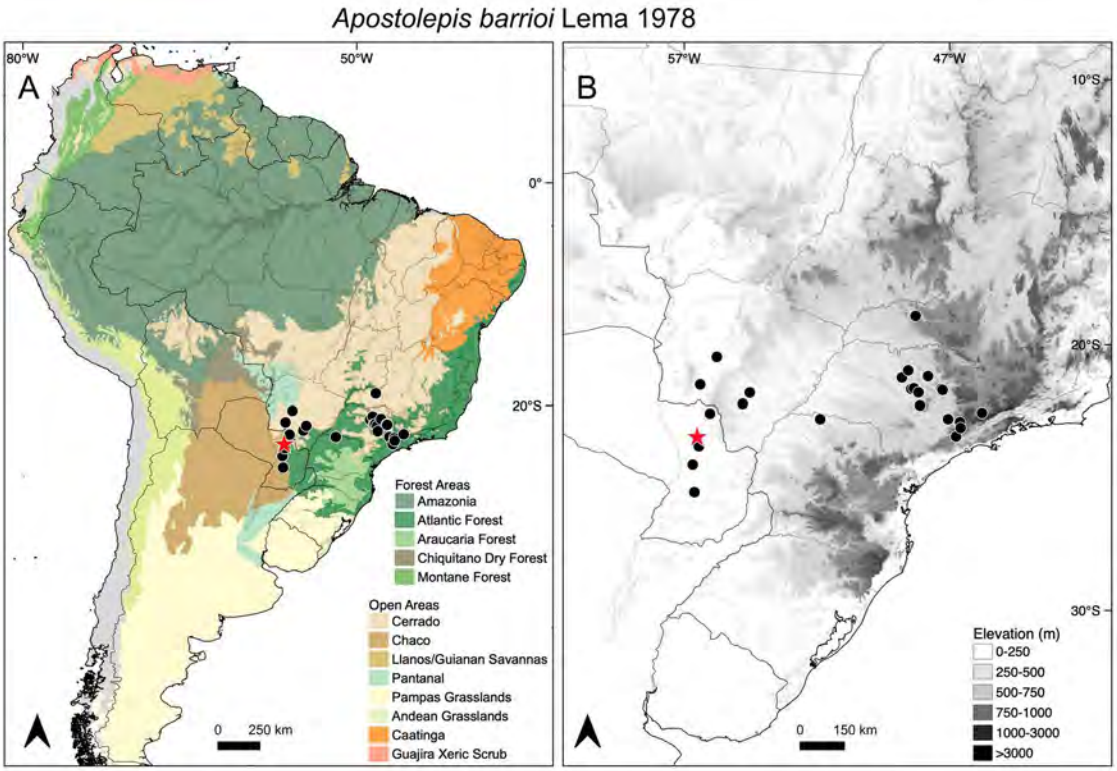


Plate 233. Distribution map of *Apostolepis barrioi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

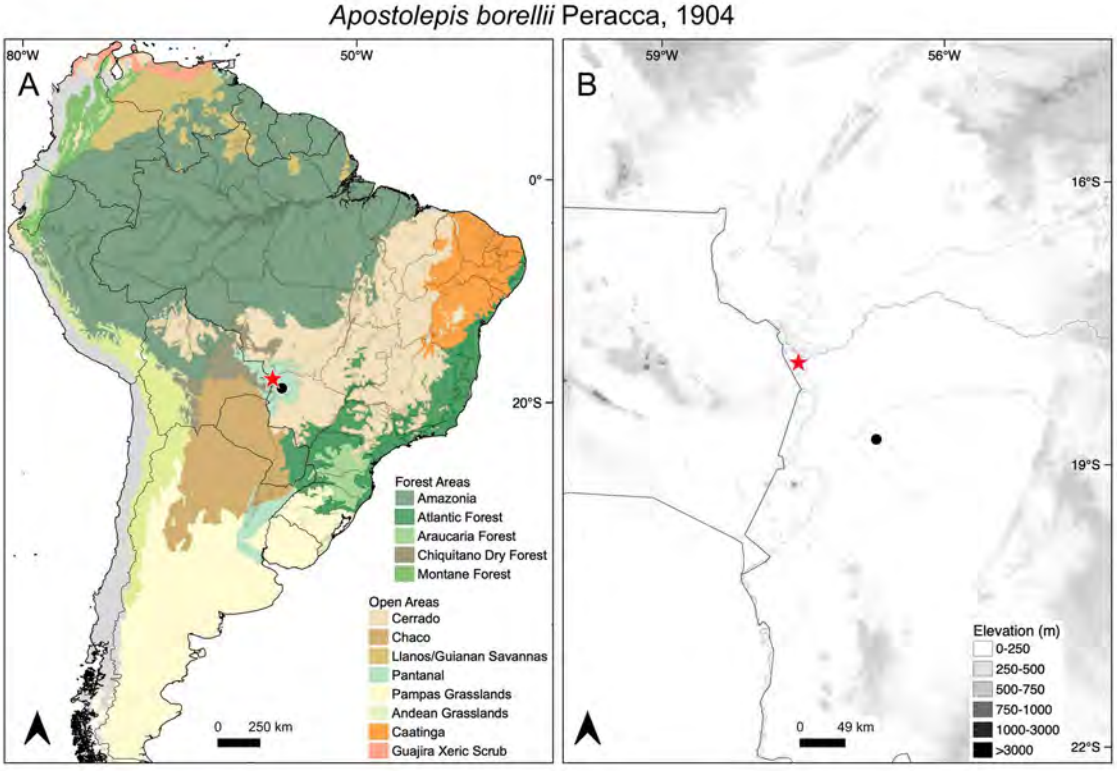


Plate 234. Distribution map of *Apostolepis borellii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

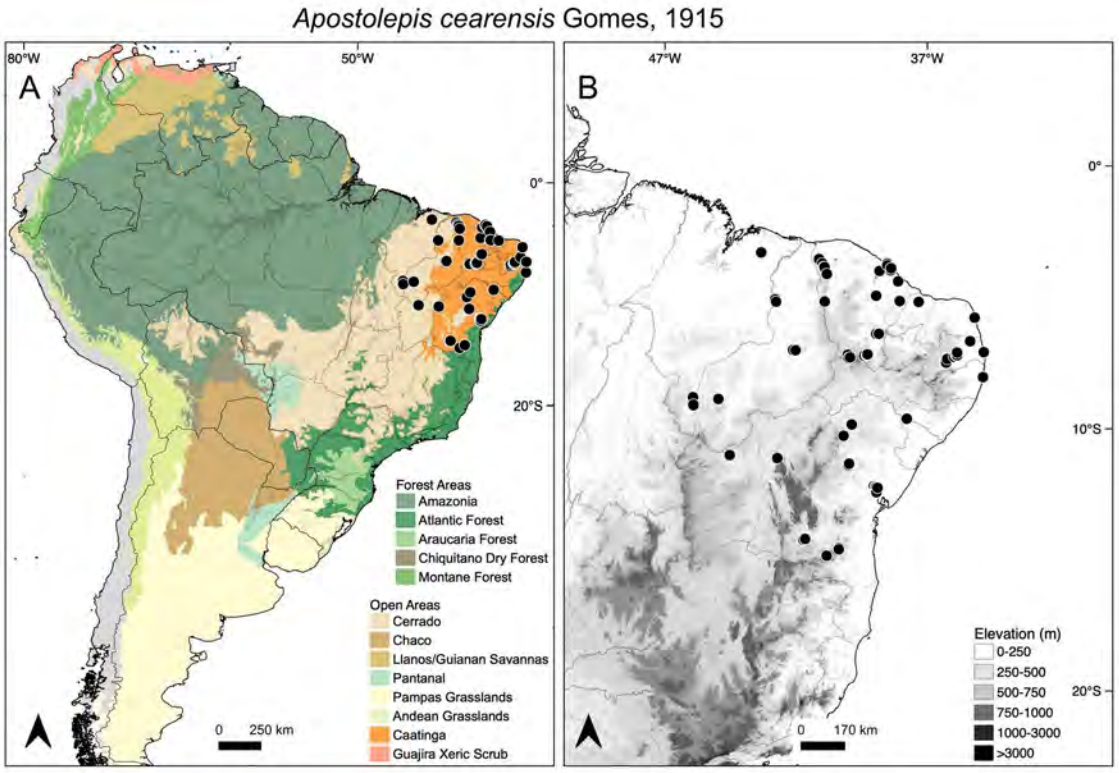


Plate 235. Distribution map of *Apostolepis cearensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

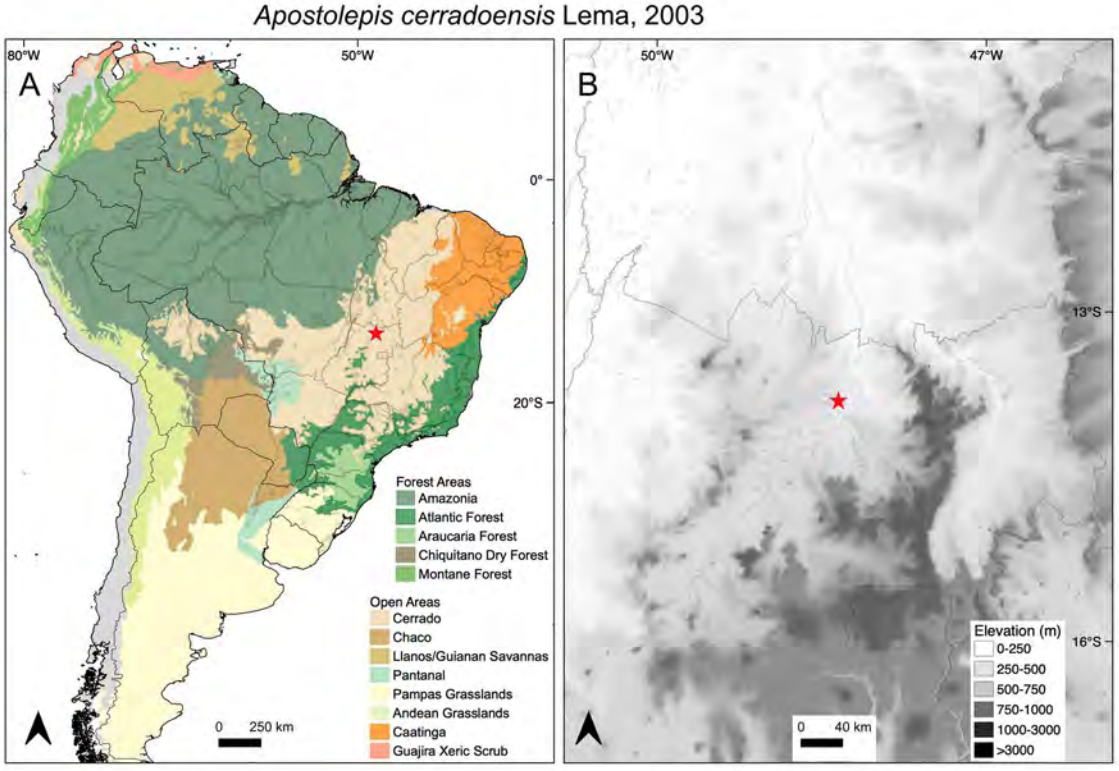


Plate 236. Distribution map of *Apostolepis cerradoensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

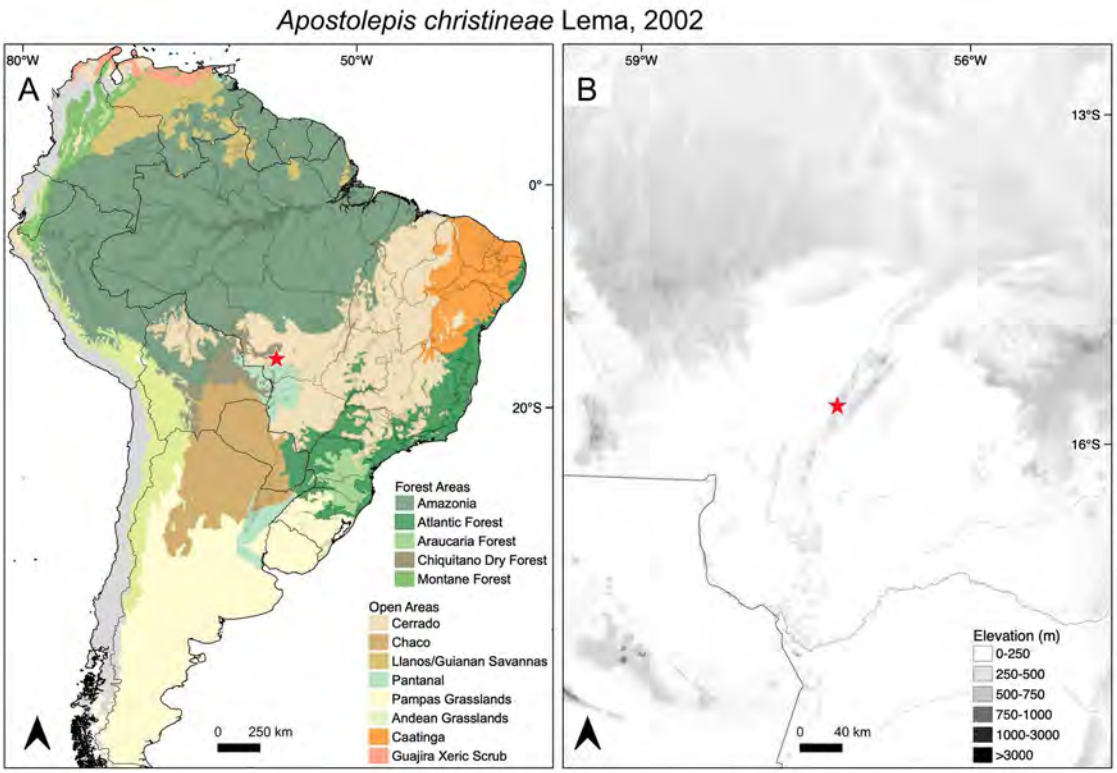


Plate 237. Distribution map of *Apostolepis christineae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

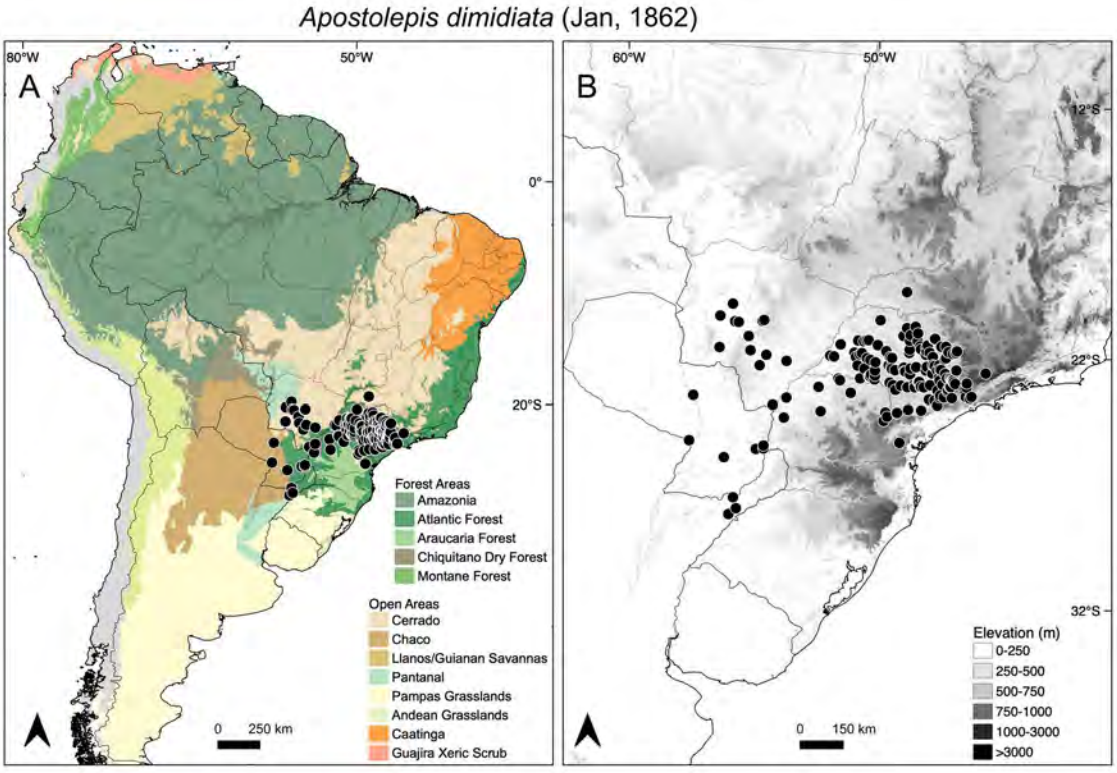


Plate 238. Distribution map of *Apostolepis dimidiata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

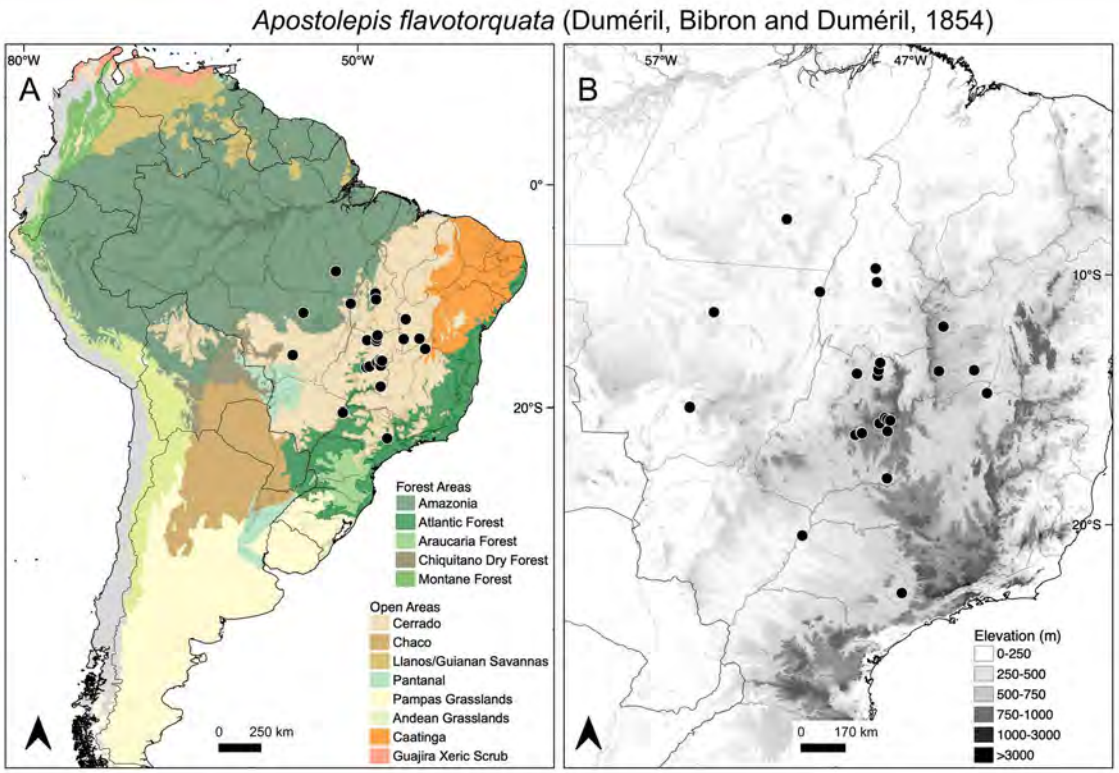


Plate 239. Distribution map of *Apostolepis flavotorquata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

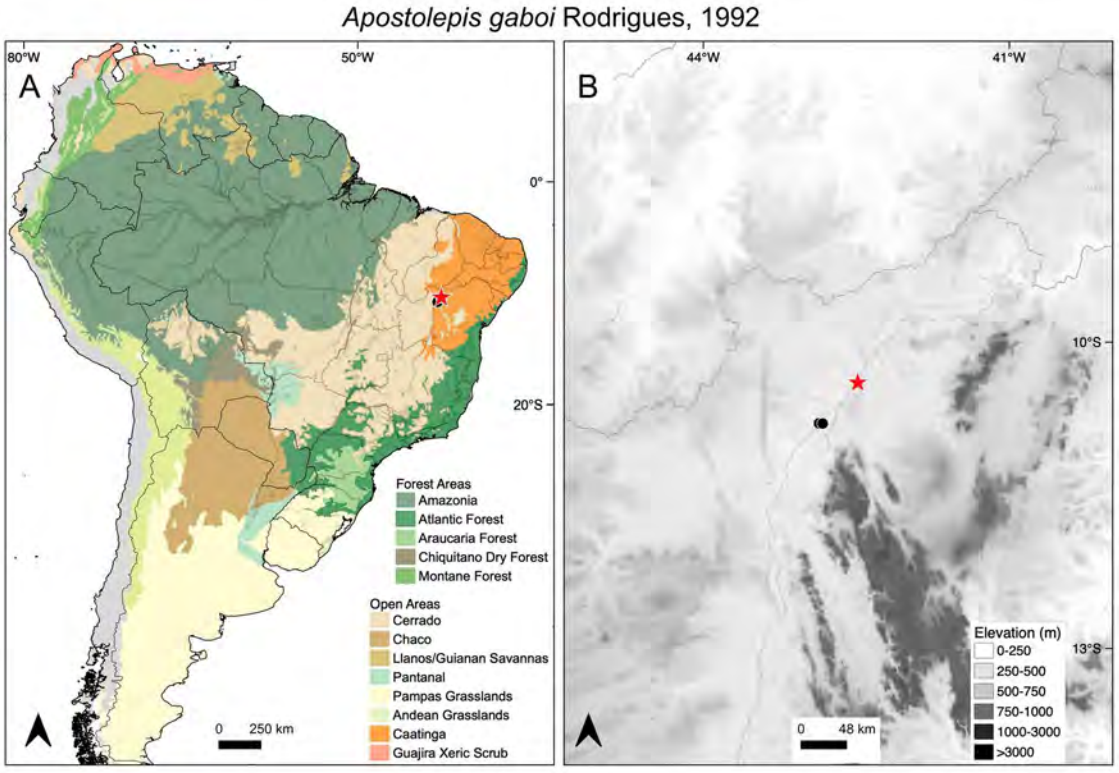


Plate 240. Distribution map of *Apostolepis gaboi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

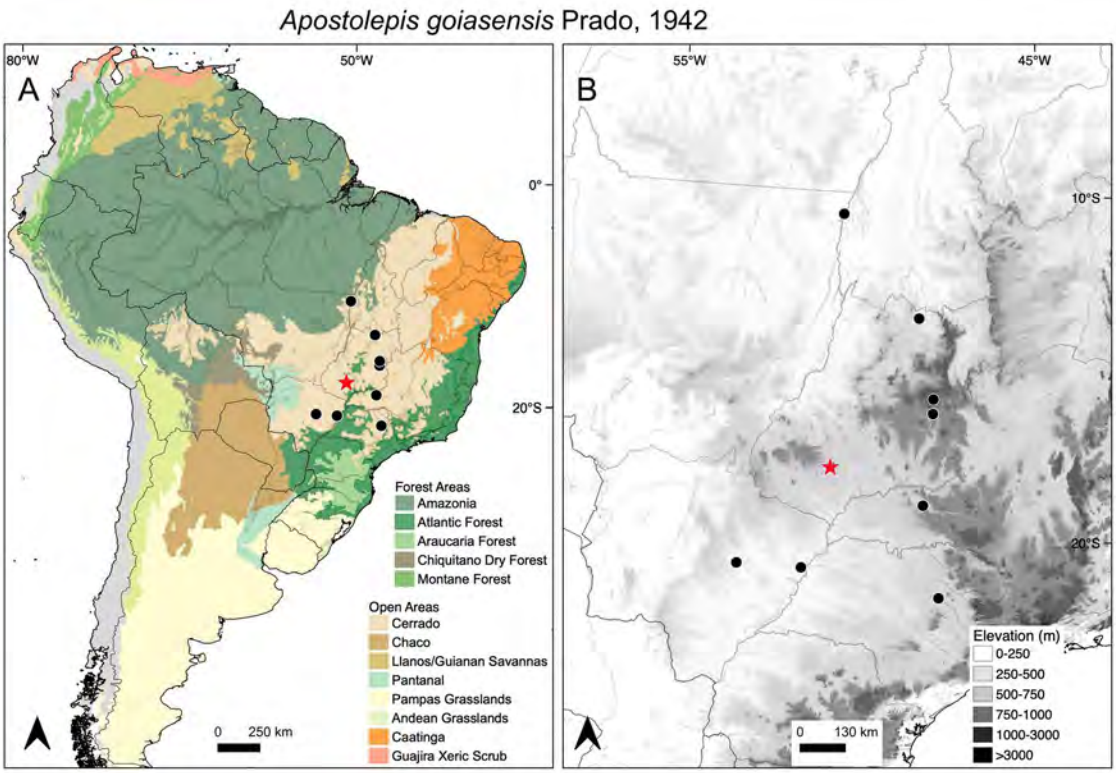


Plate 241. Distribution map of *Apostolepis goiasensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

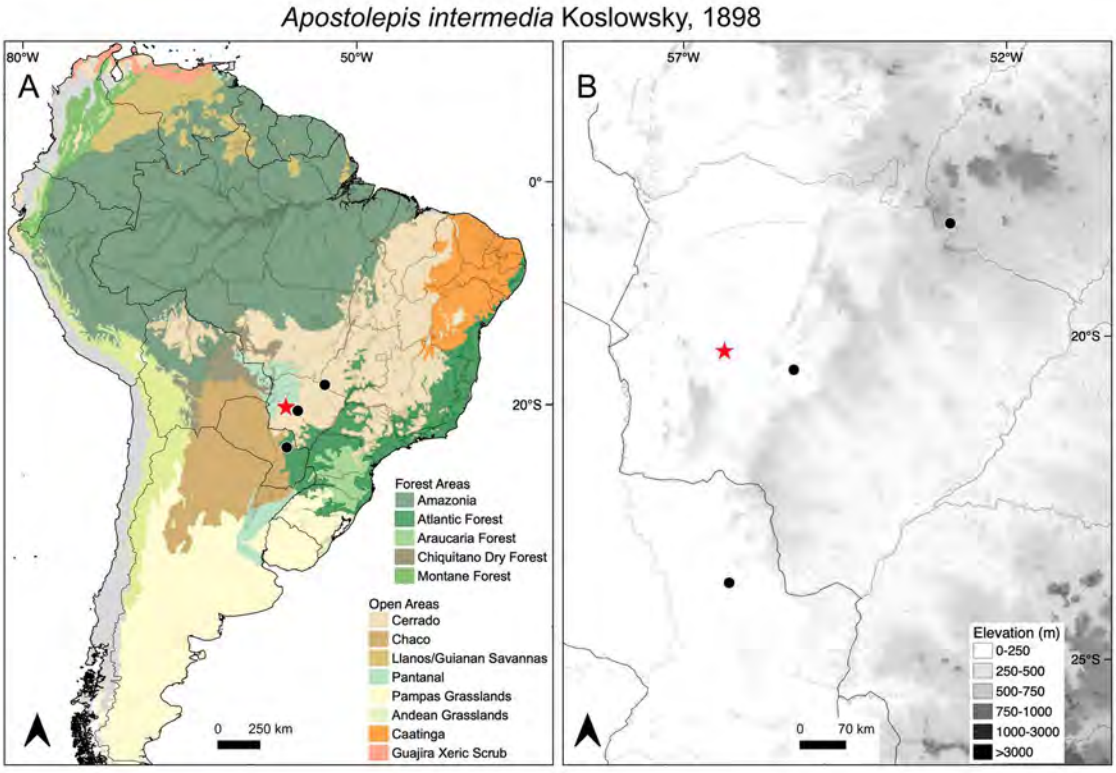


Plate 242. Distribution map of *Apostolepis intermedia* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

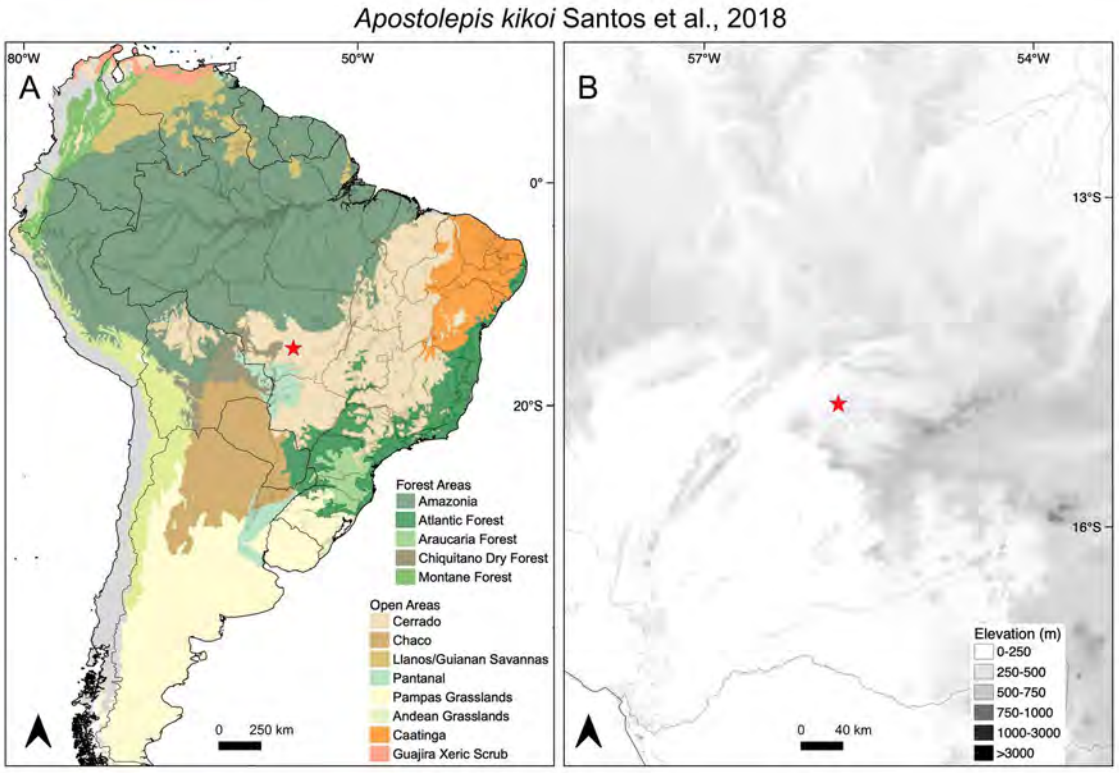


Plate 243. Distribution map of *Apostolepis kikoi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

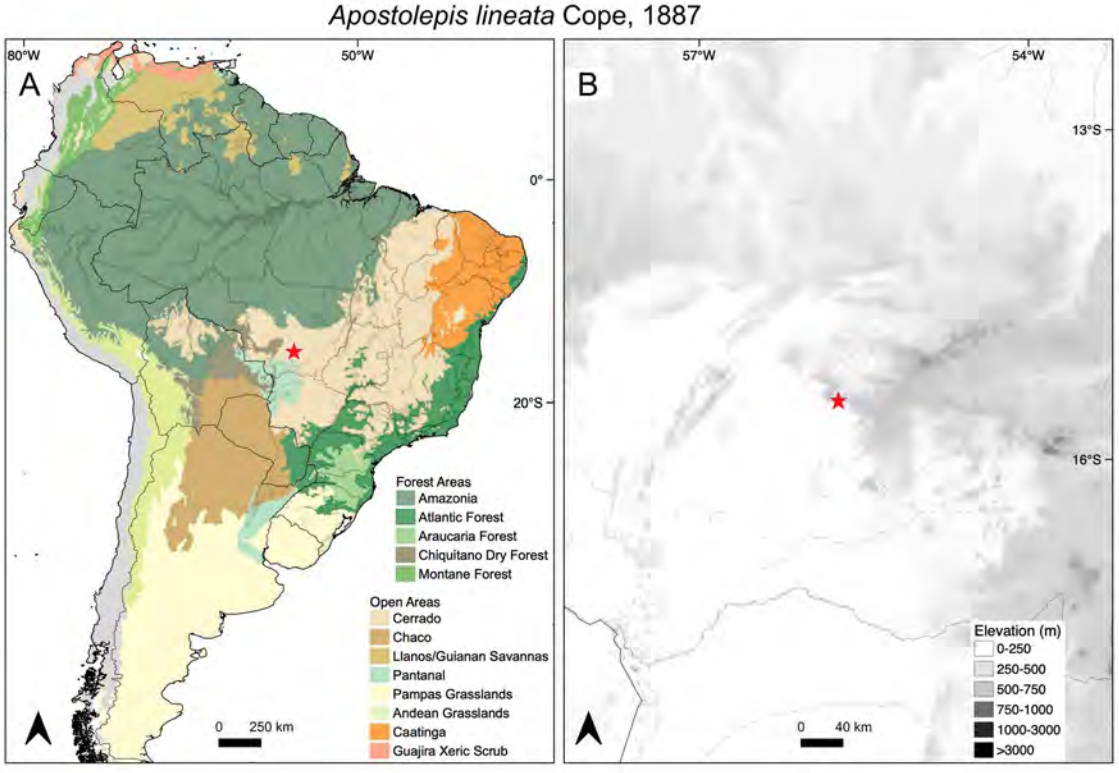


Plate 244. Distribution map of *Apostolepis lineata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

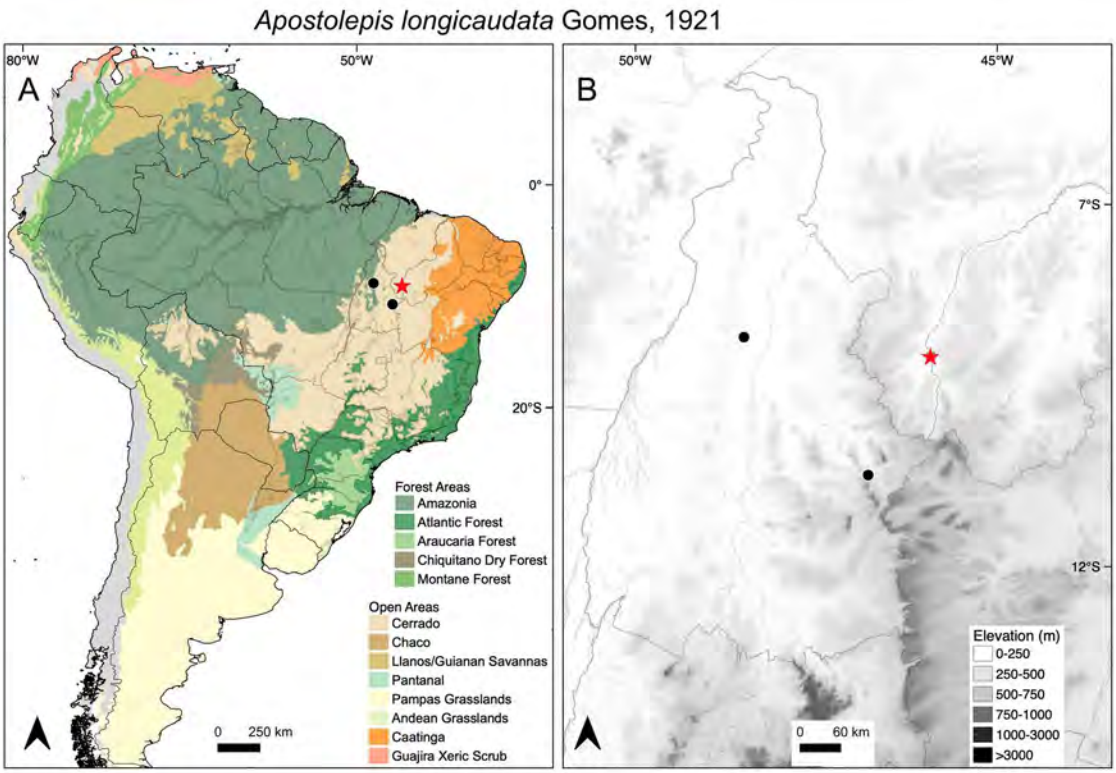


Plate 245. Distribution map of *Apostolepis longicaudata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

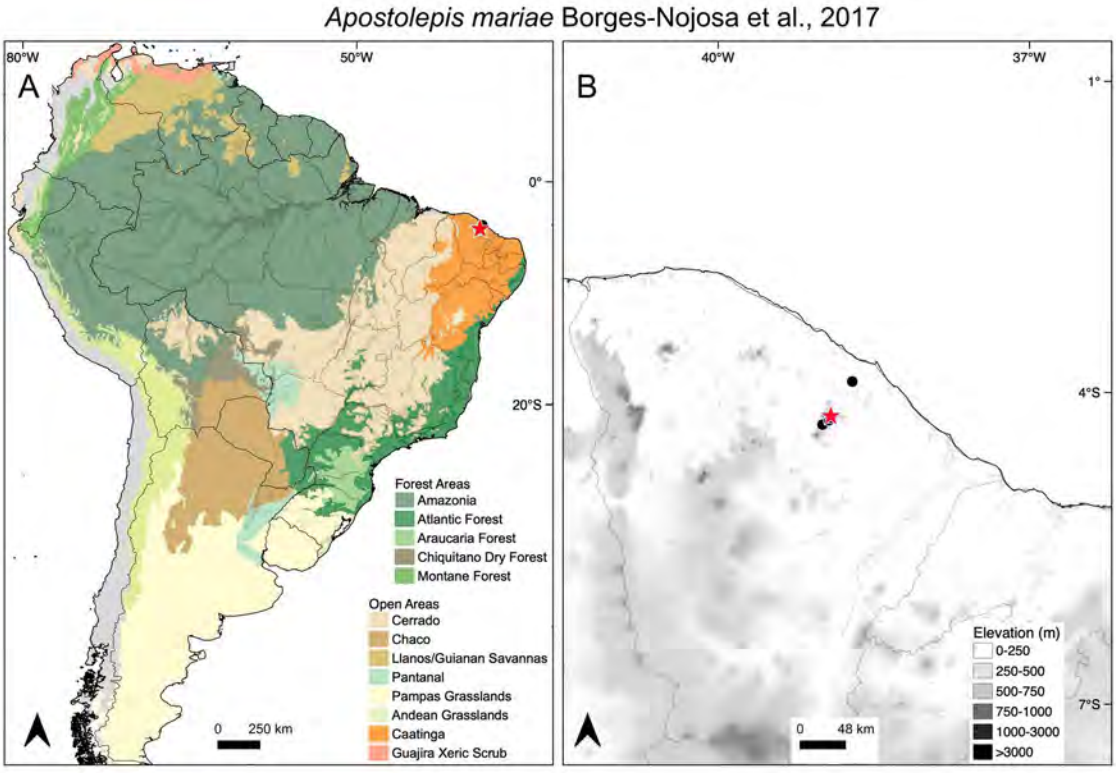


Plate 246. Distribution map of *Apostolepis mariae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

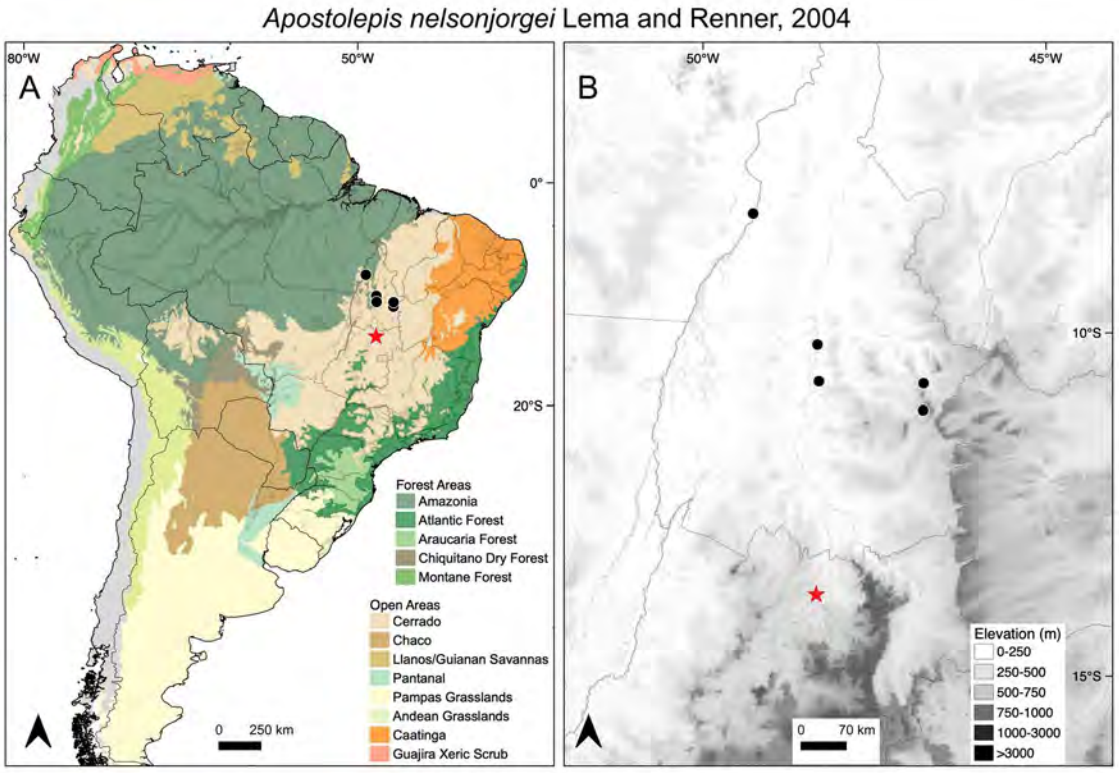


Plate 247. Distribution map of *Apostolepis nelsonjorgei* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

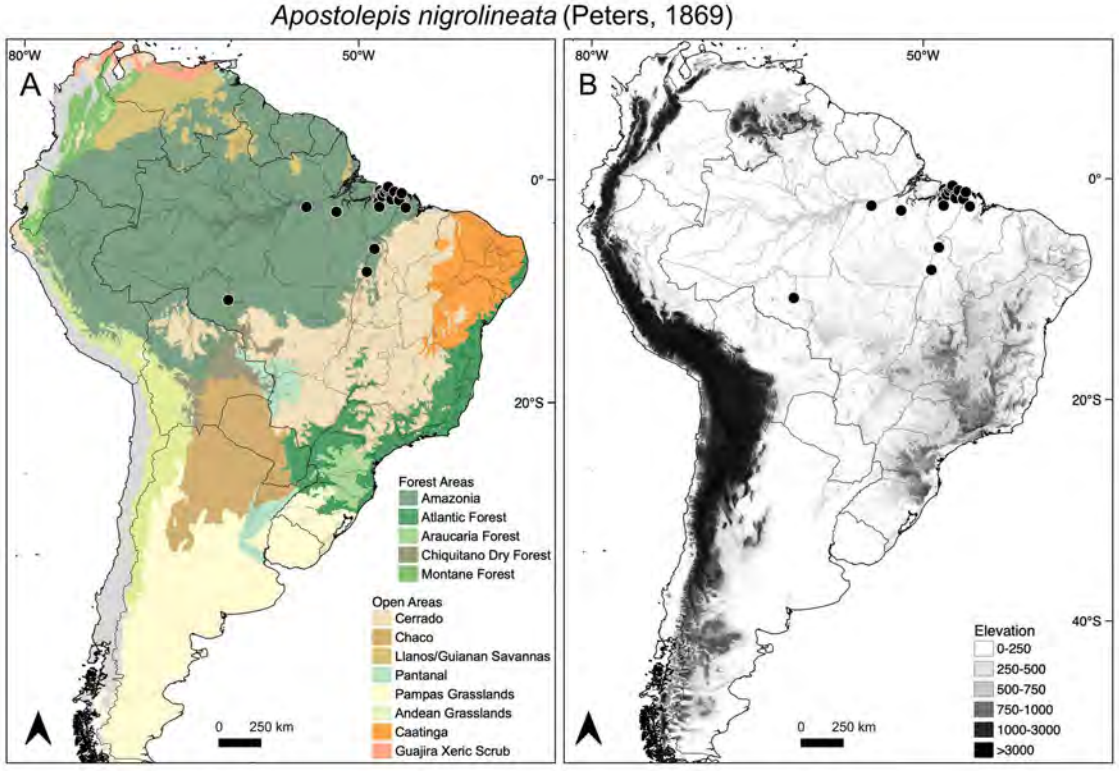


Plate 248. Distribution map of *Apostolepis nigrolineata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

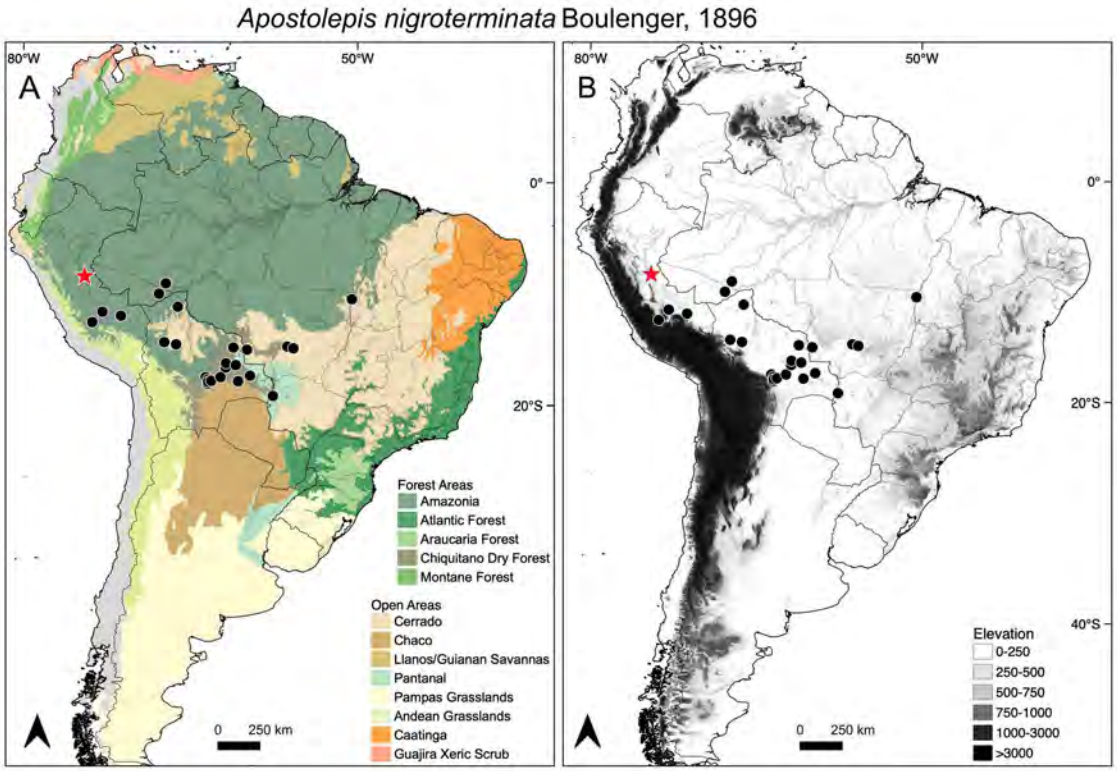


Plate 249. Distribution map of *Apostolepis nigroterminata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

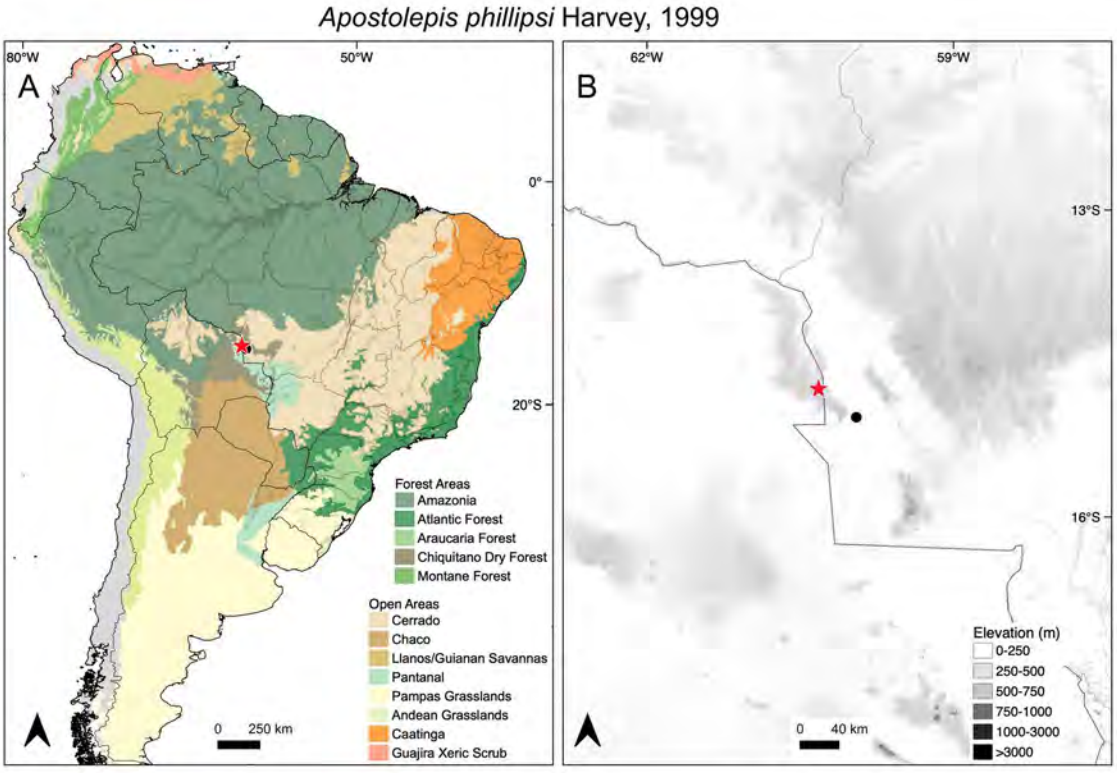


Plate 250. Distribution map of *Apostolepis phillipsi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

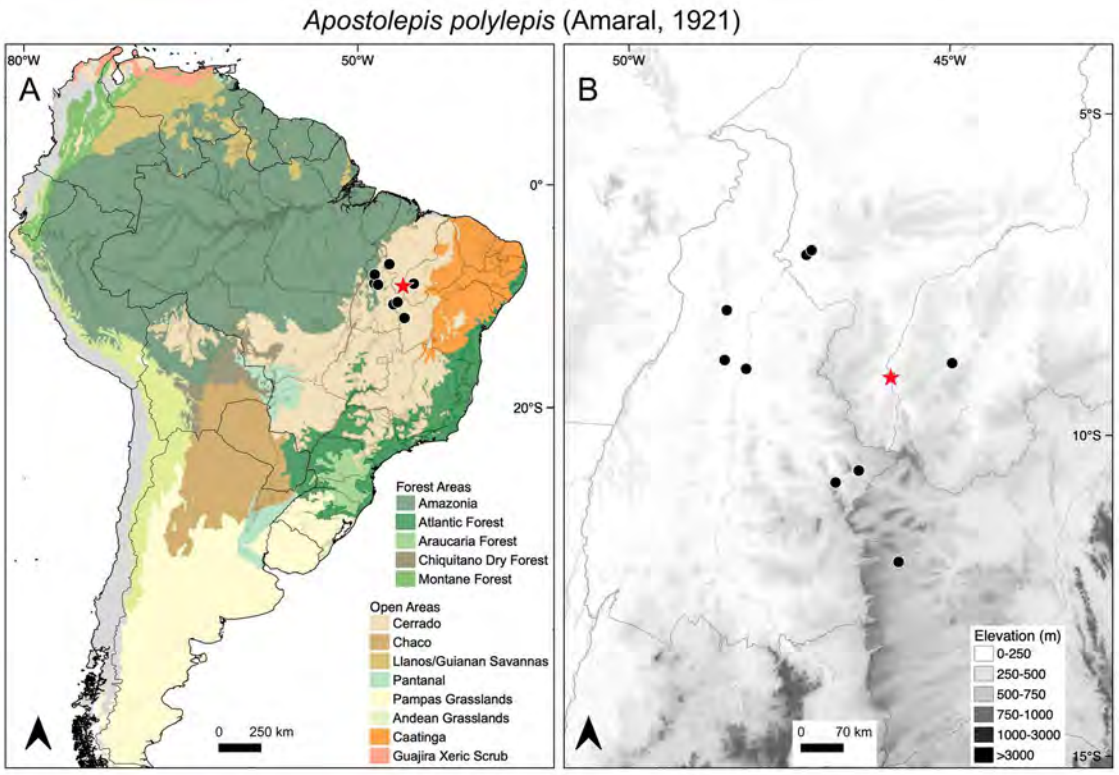


Plate 251. Distribution map of *Apostolepis polylepis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

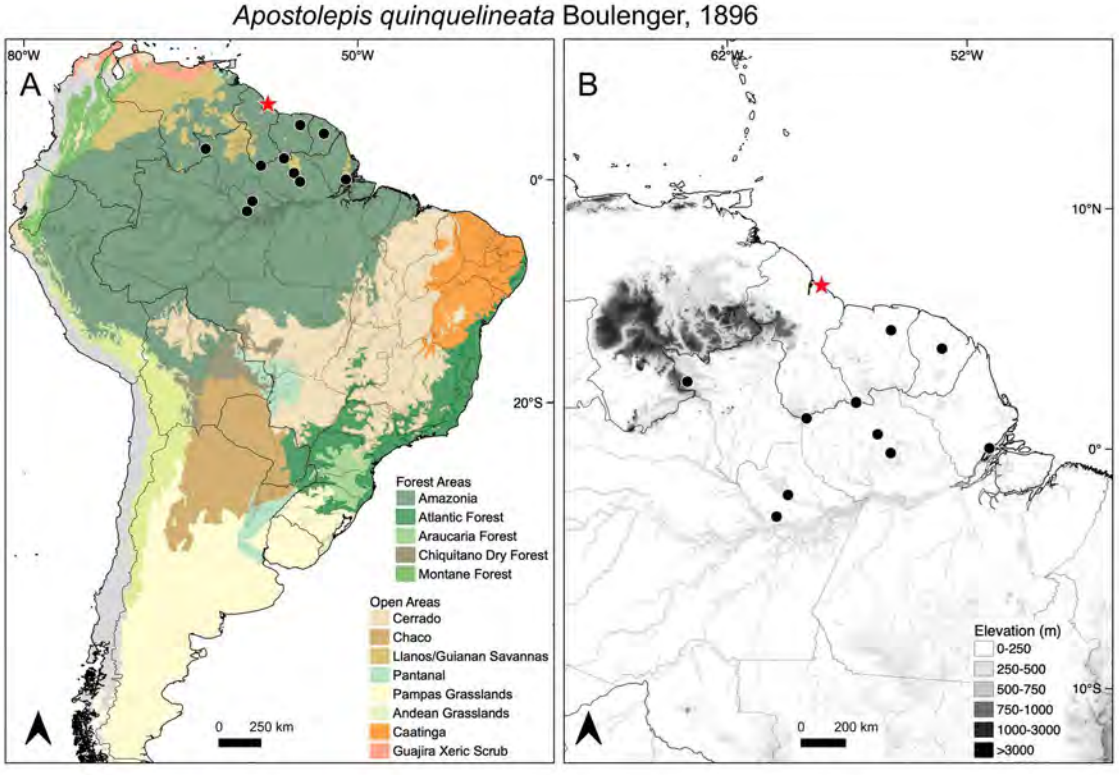


Plate 252. Distribution map of *Apostolepis quinquelineata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

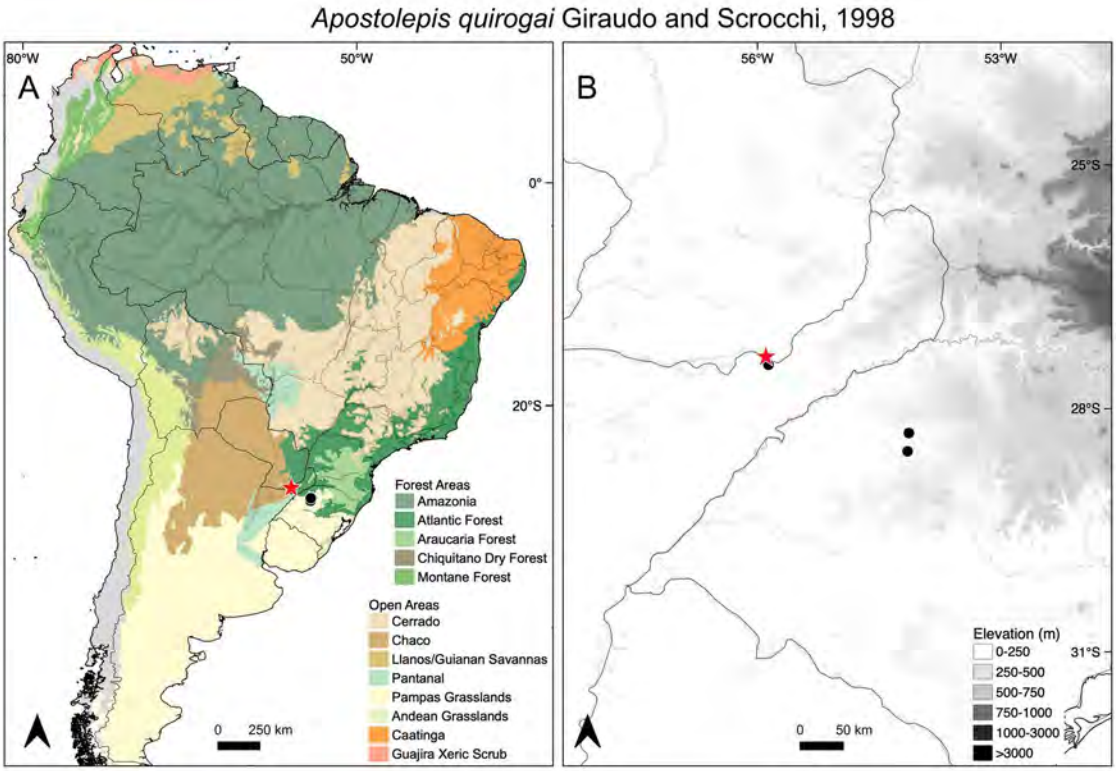


Plate 253. Distribution map of *Apostolepis quirogai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

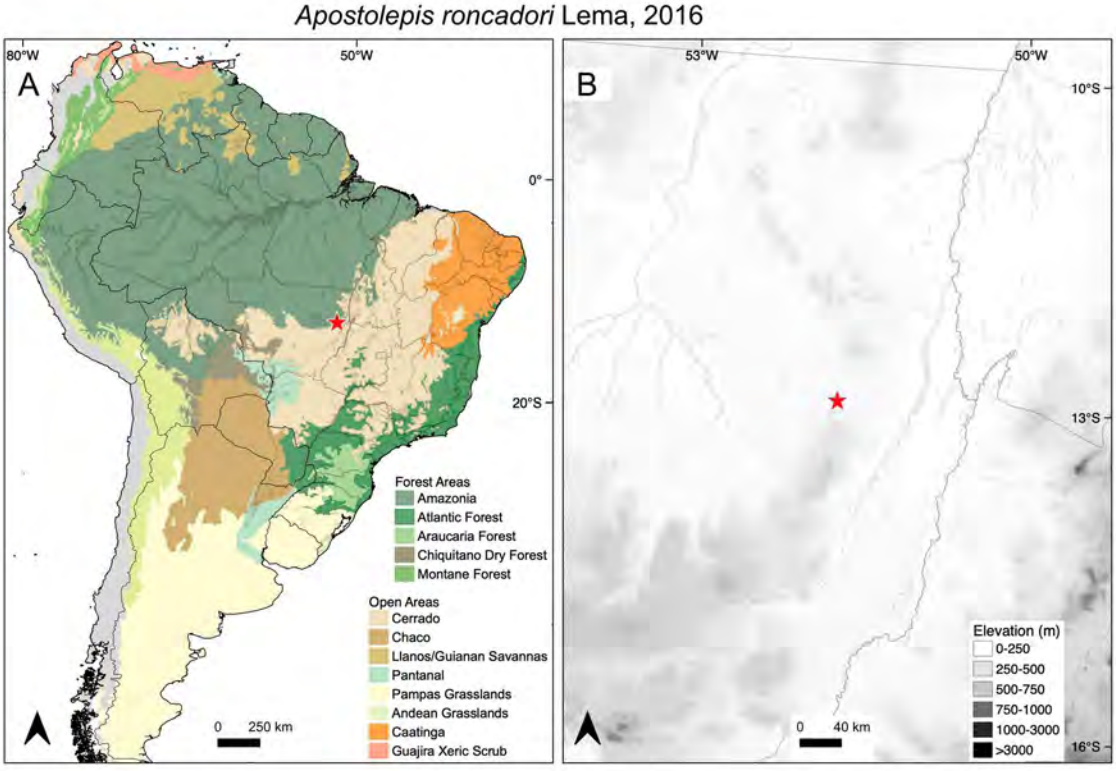


Plate 254. Distribution map of *Apostolepis roncadori* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

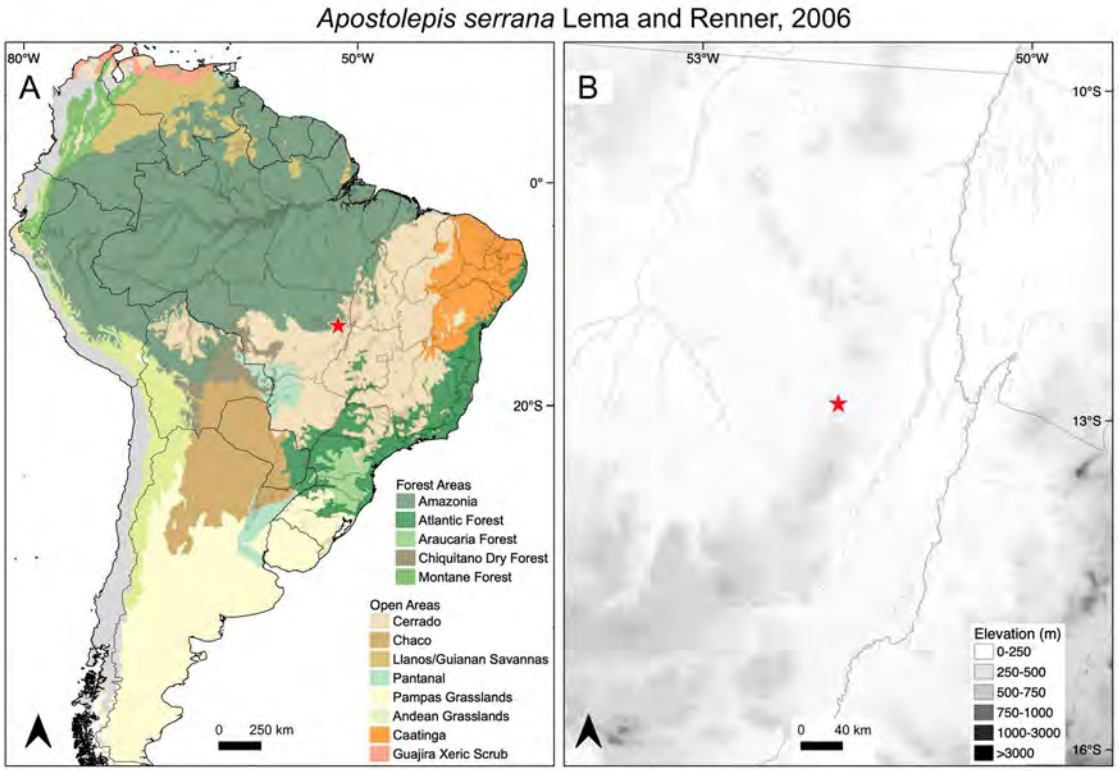


Plate 255. Distribution map of *Apostolepis serrana* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

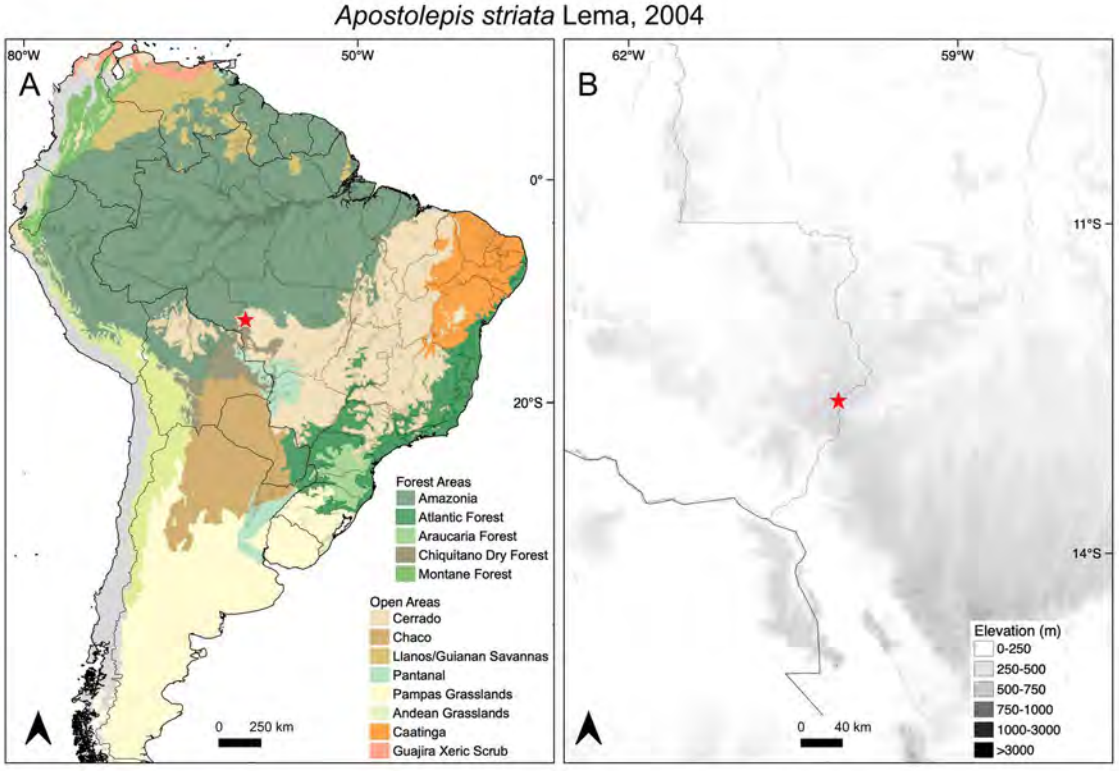


Plate 256. Distribution map of *Apostolepis striata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

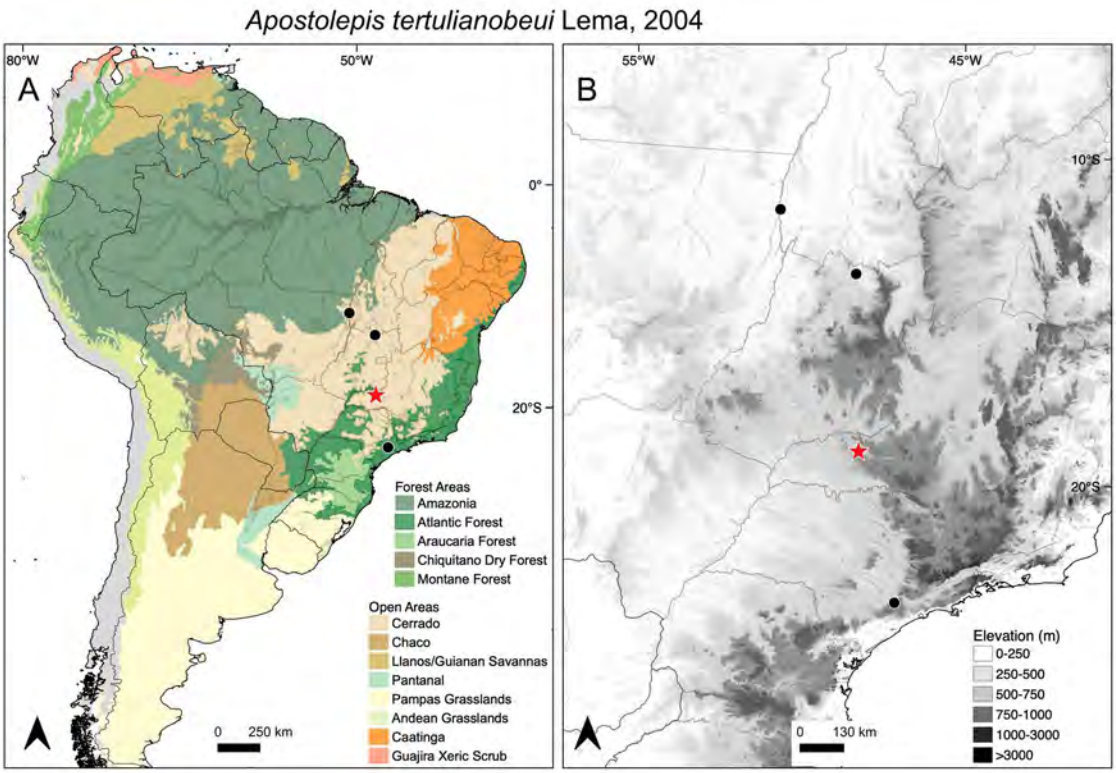


Plate 257. Distribution map of *Apostolepis tertulianobeui* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

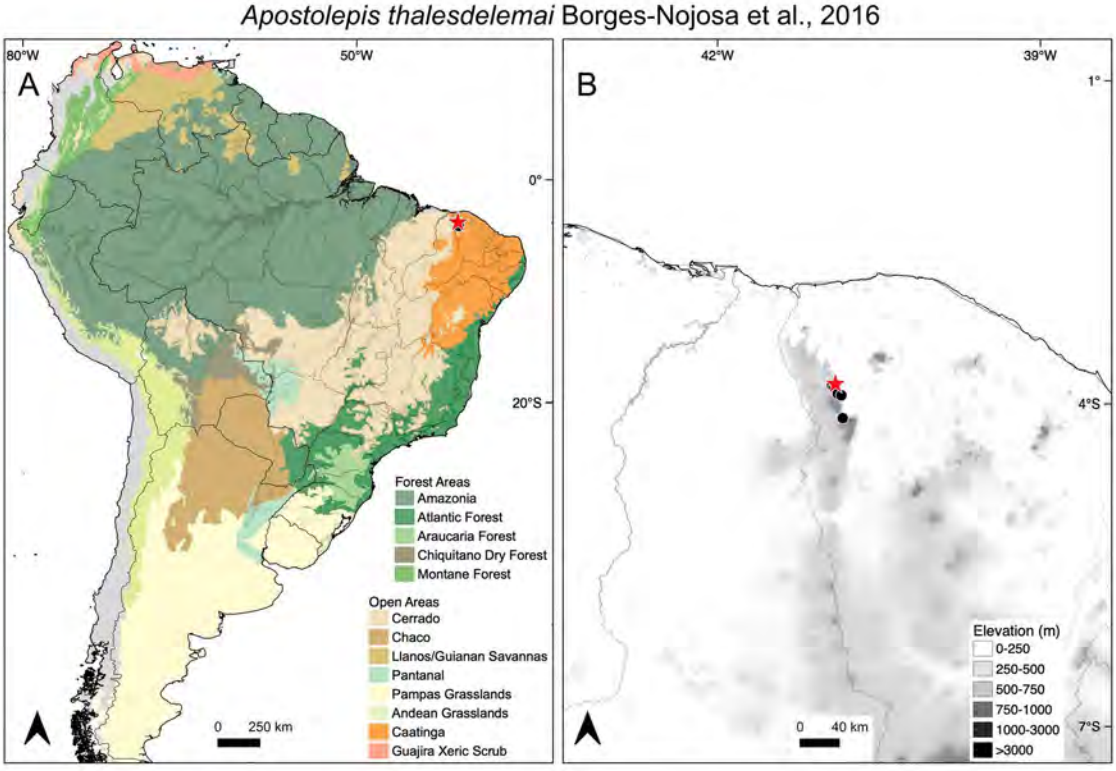


Plate 258. Distribution map of *Apostolepis thalesdelemai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

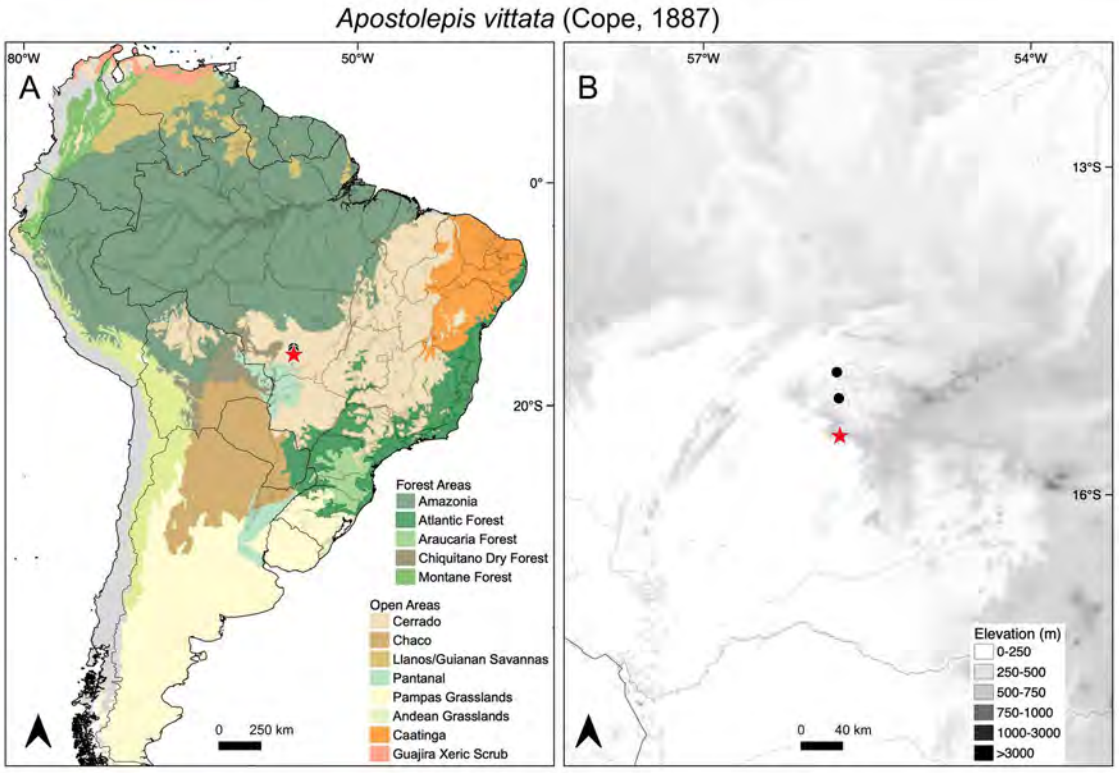


Plate 259. Distribution map of *Apostolepis vittata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

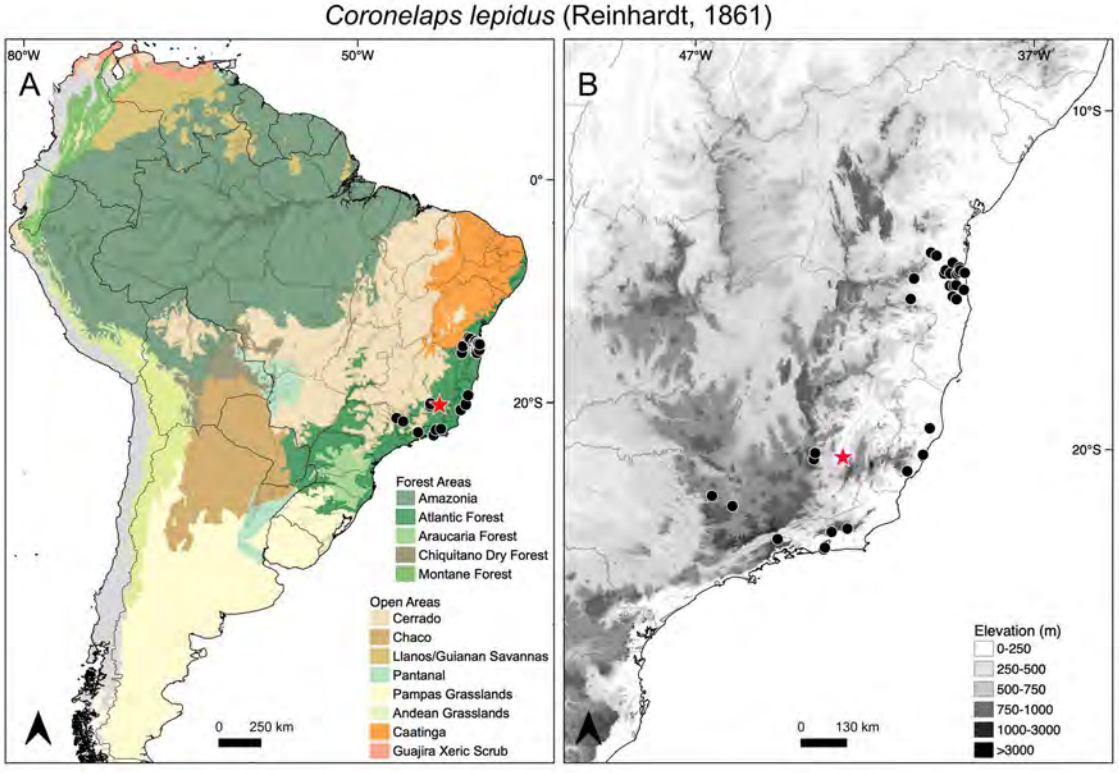


Plate 260. Distribution map of *Coronelaps lepidus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

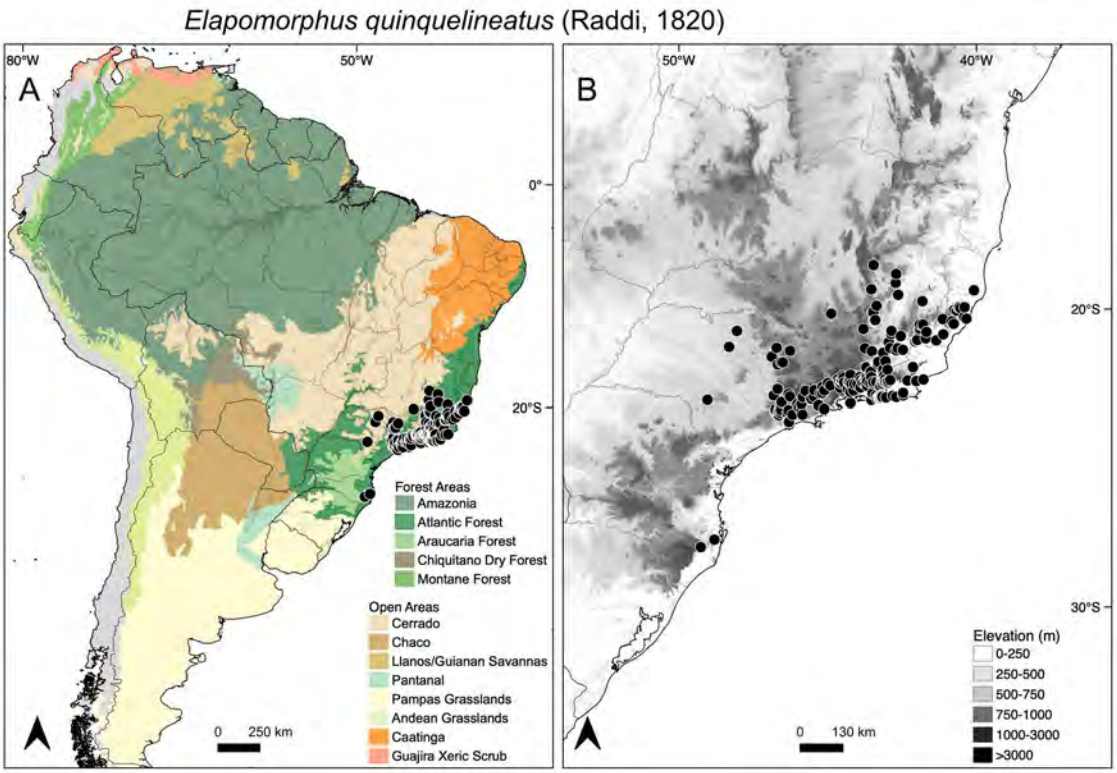


Plate 261. Distribution map of *Elapomorphus quinquelineatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

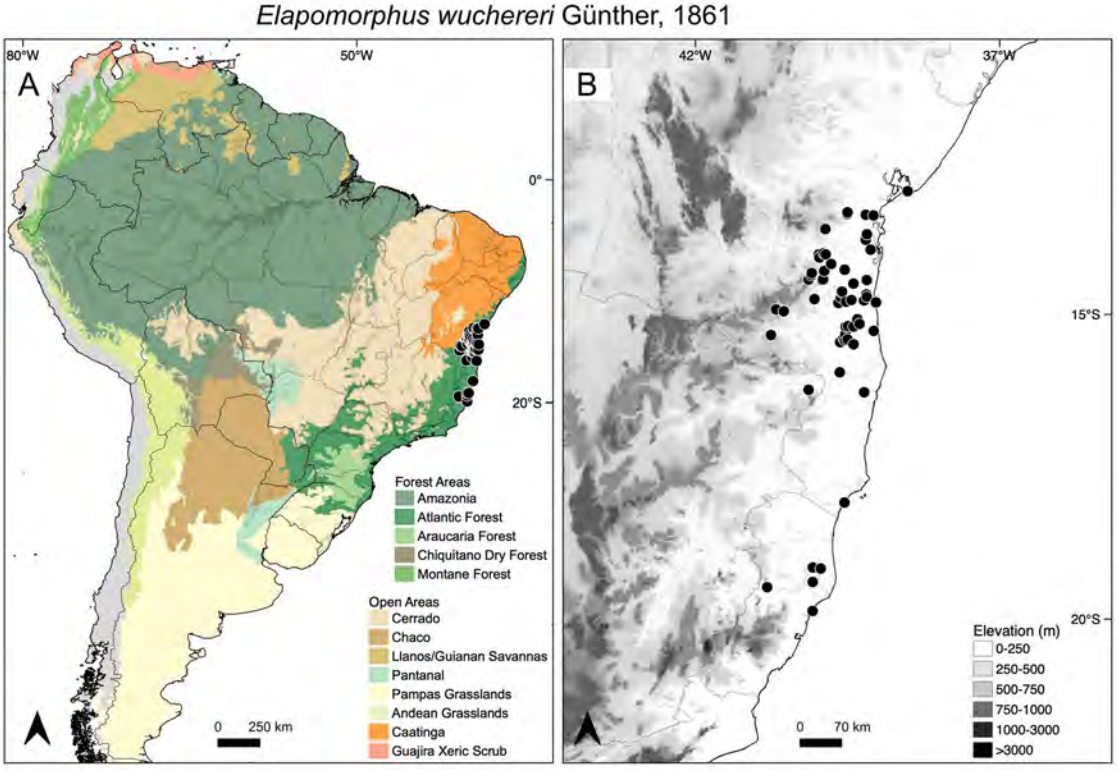


Plate 262. Distribution map of *Elapomorphus wuchereri* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

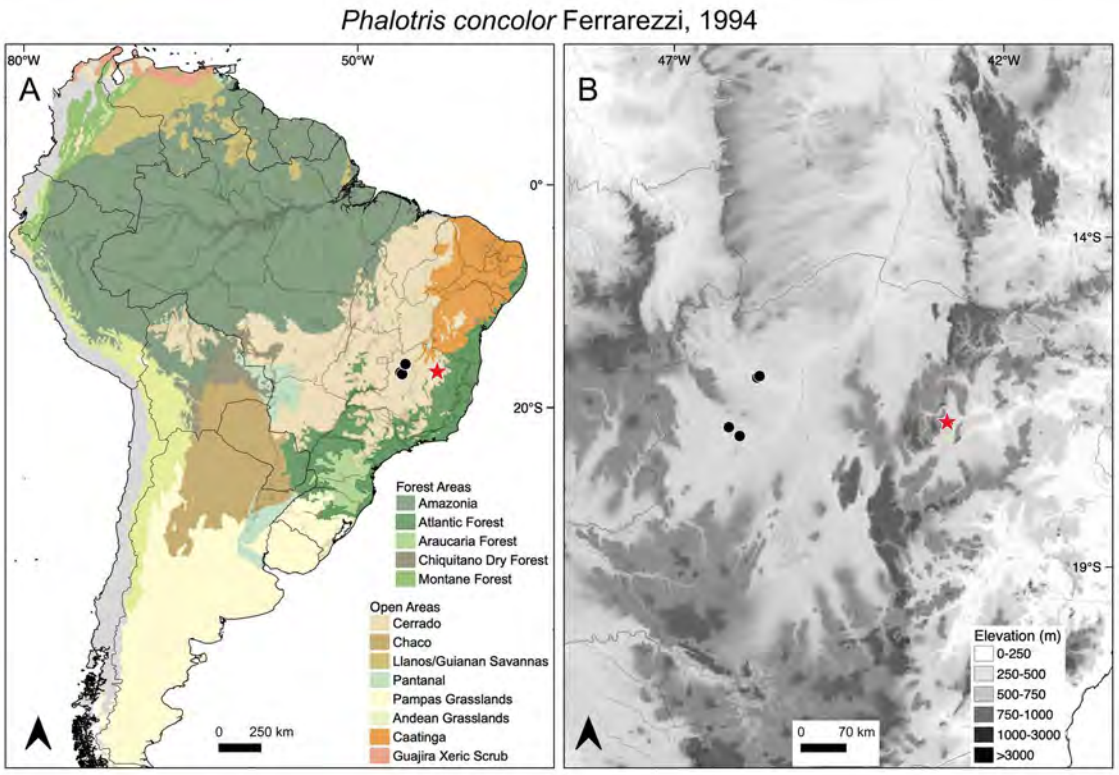


Plate 263. Distribution map of *Phalotris concolor* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

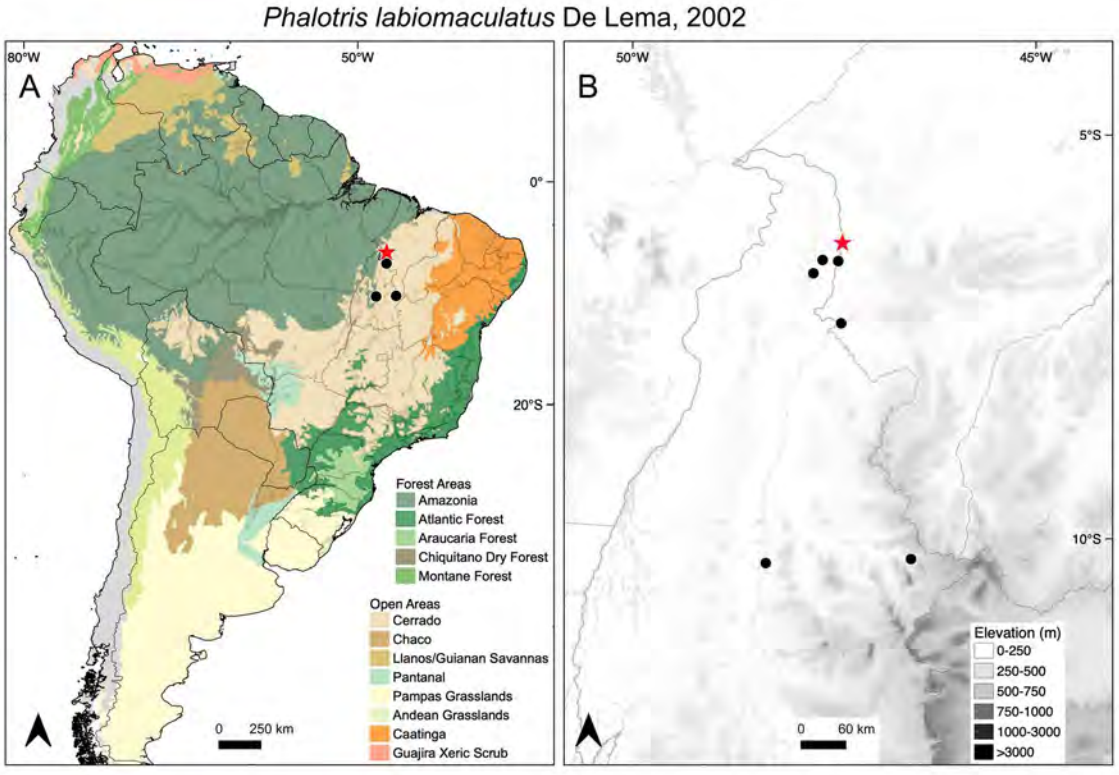


Plate 264. Distribution map of *Phalotris labiomaculatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

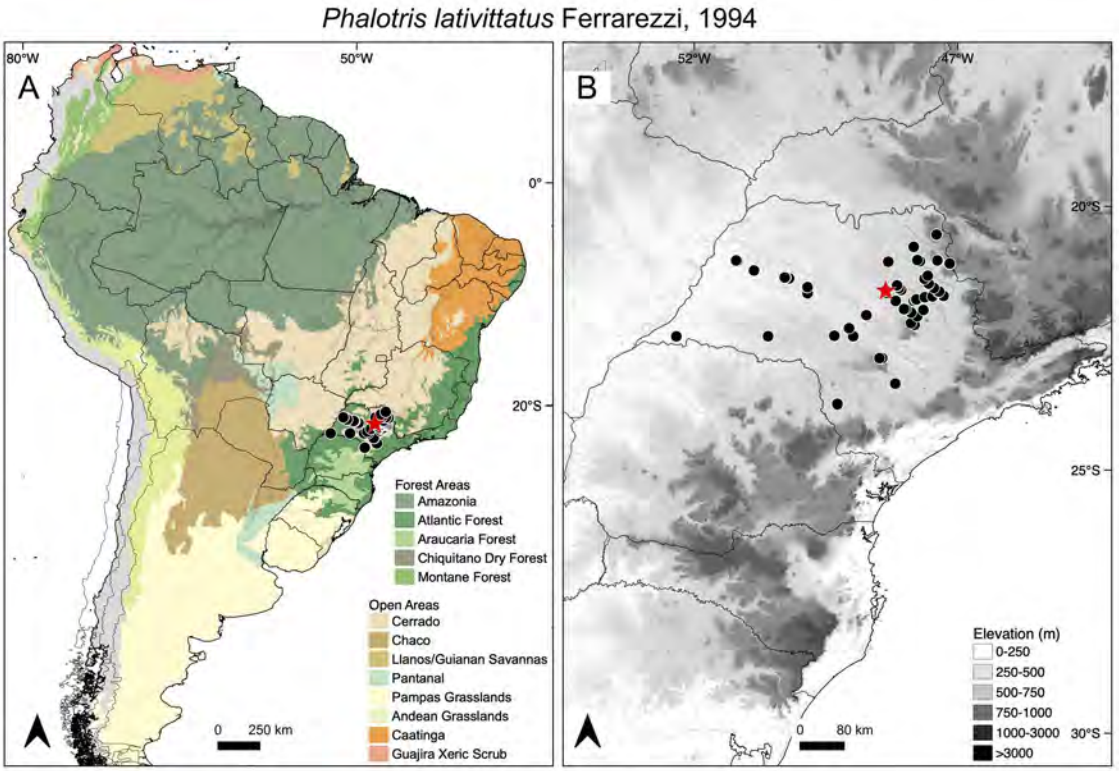


Plate 265. Distribution map of *Phalotris lativittatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

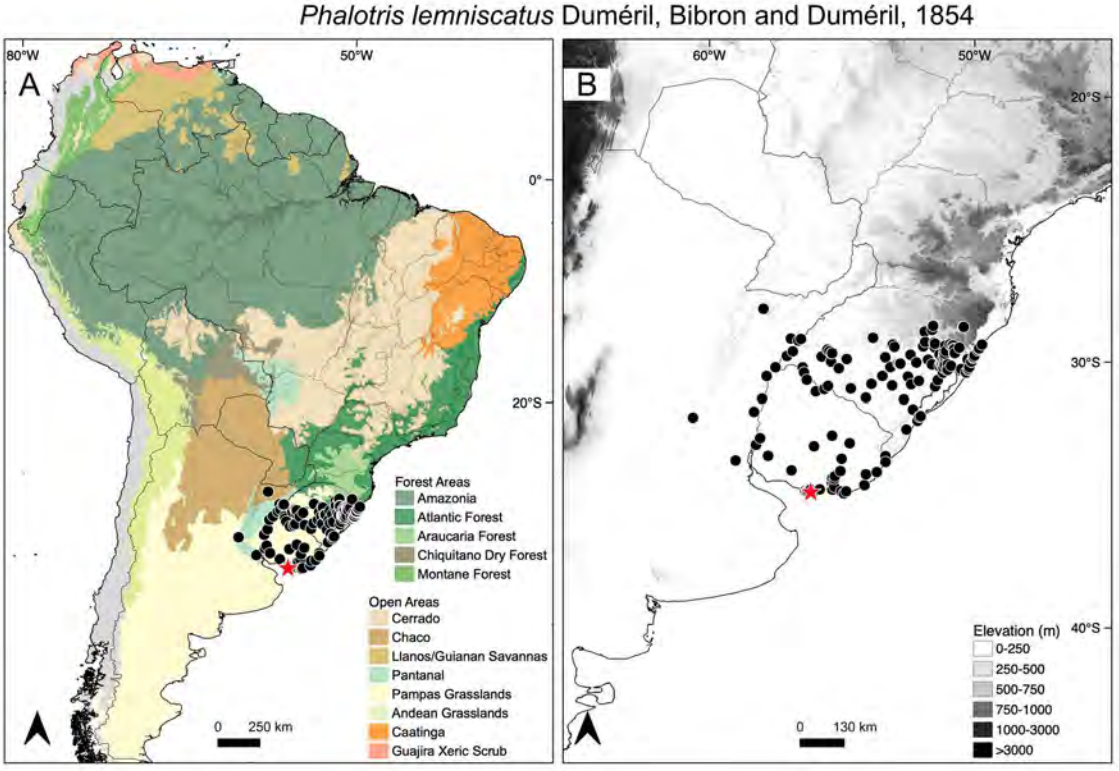


Plate 266. Distribution map of *Phalotris lemniscatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

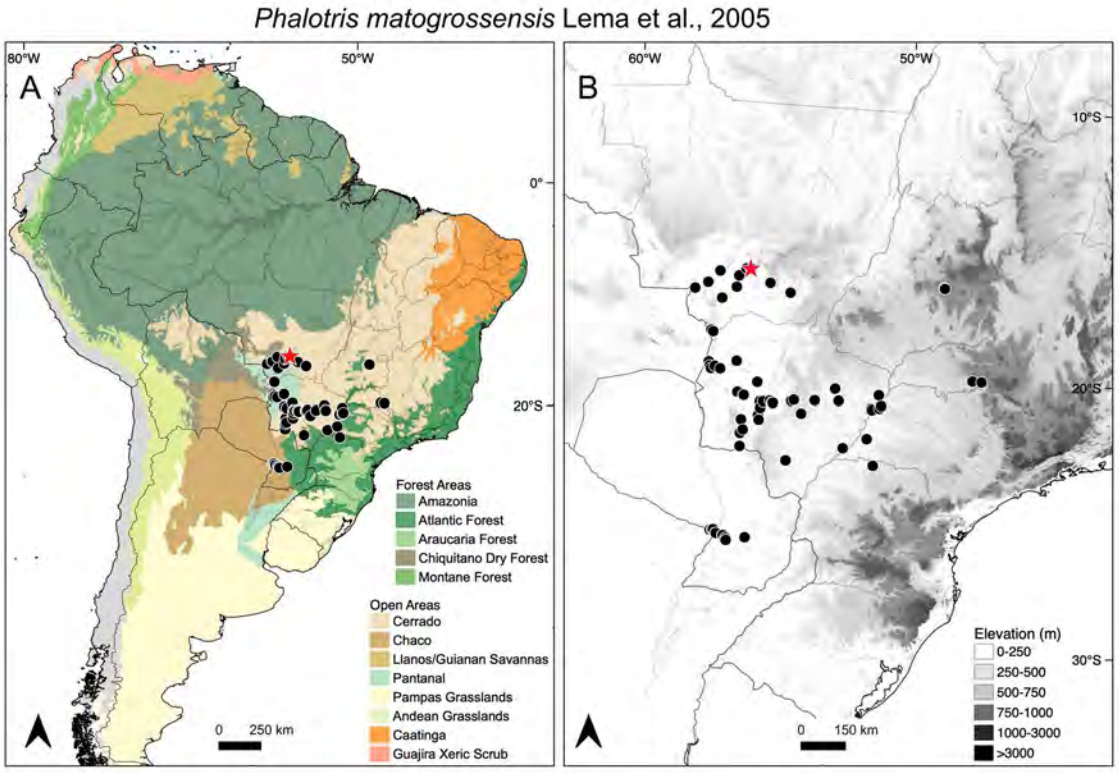


Plate 267. Distribution map of *Phalotris matogrossensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

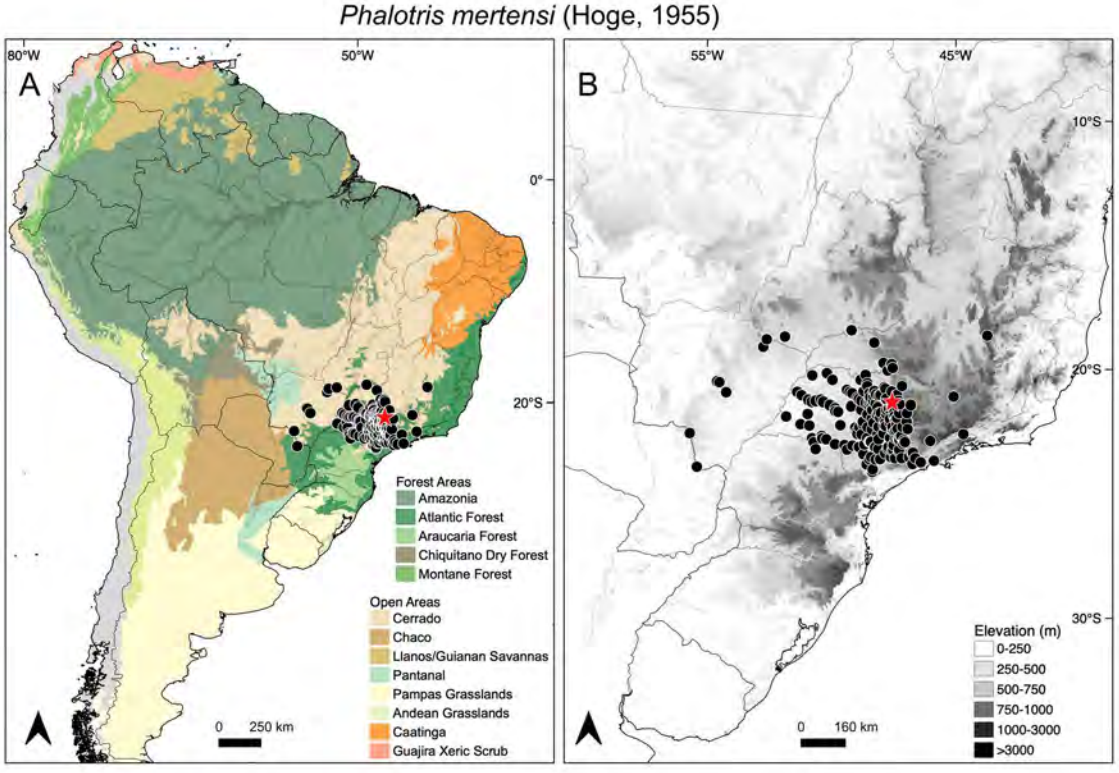


Plate 268. Distribution map of *Phalotris mertensi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

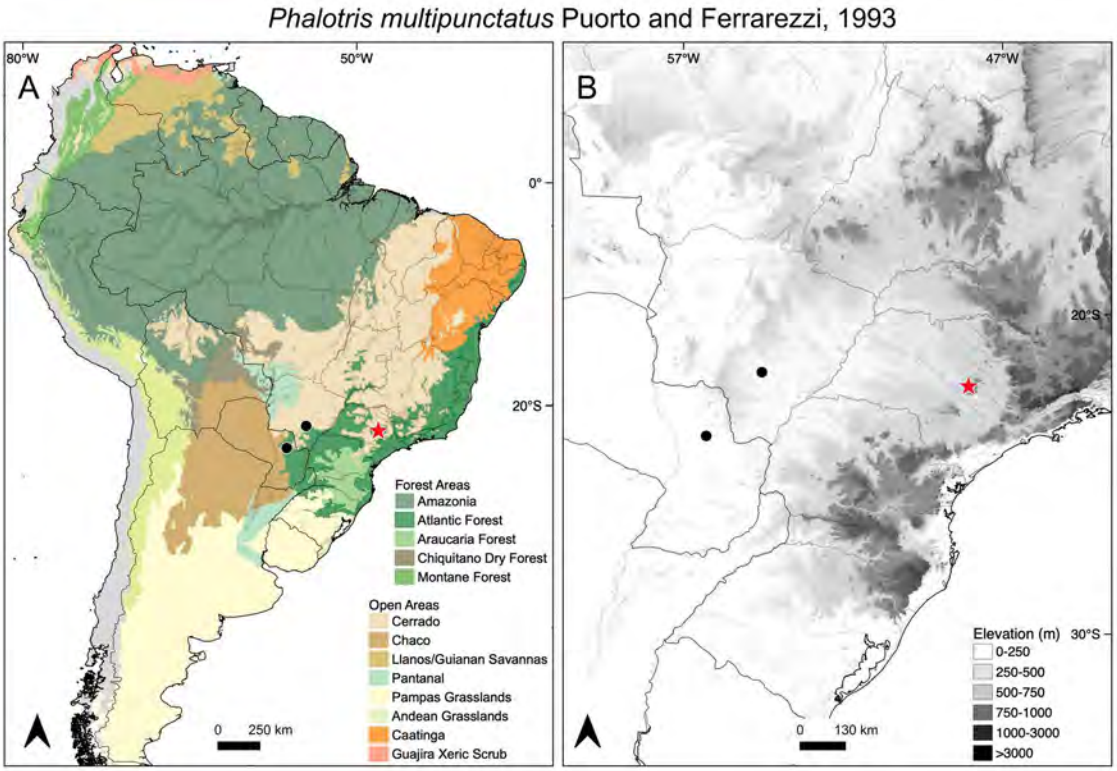


Plate 269. Distribution map of *Phalotris multipunctatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

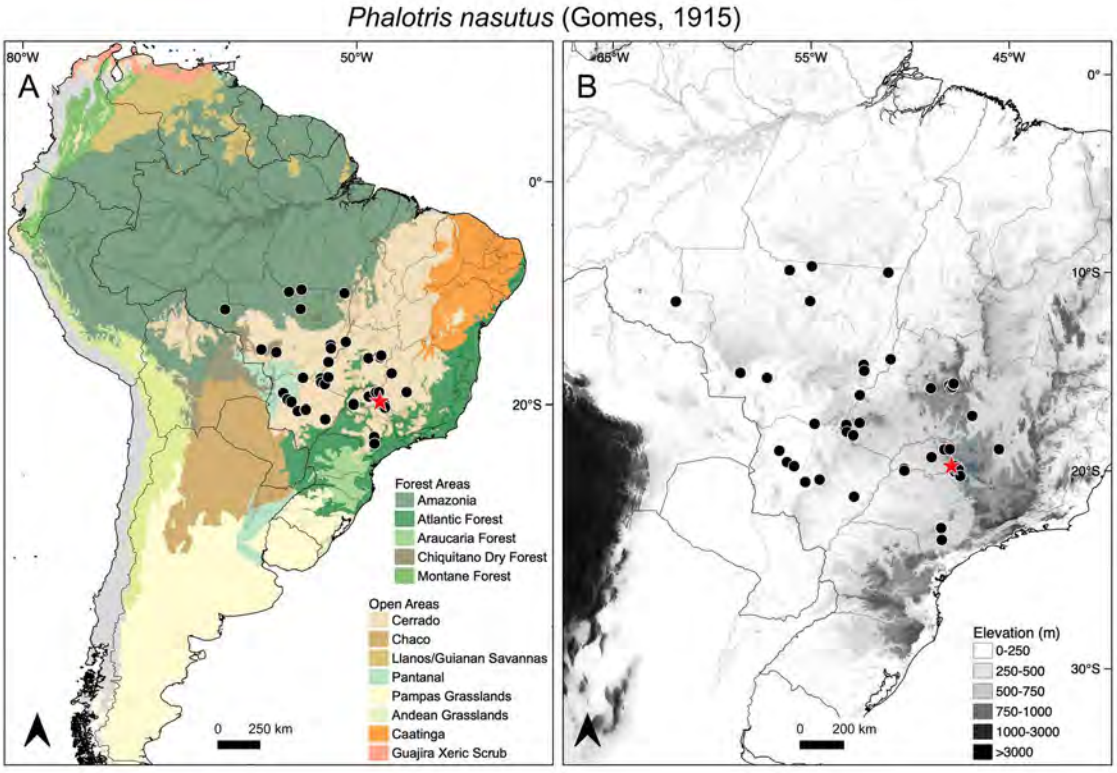


Plate 270. Distribution map of *Phalotris nasutus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

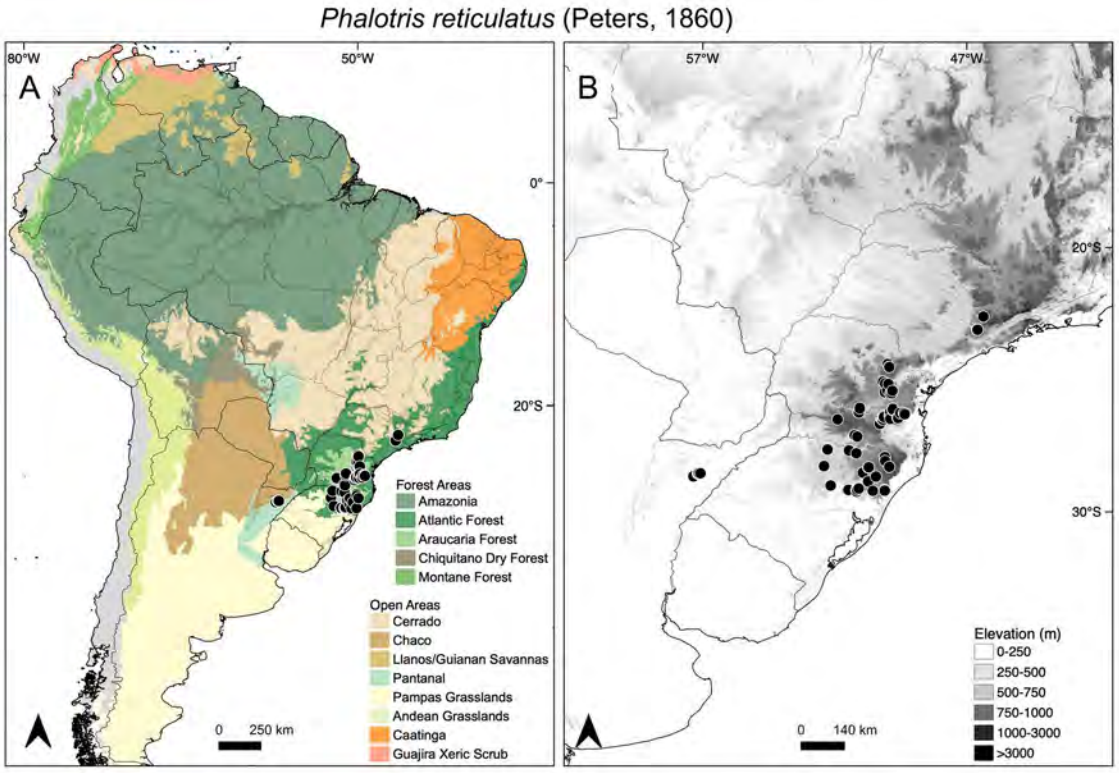


Plate 271. Distribution map of *Phalotris reticulatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

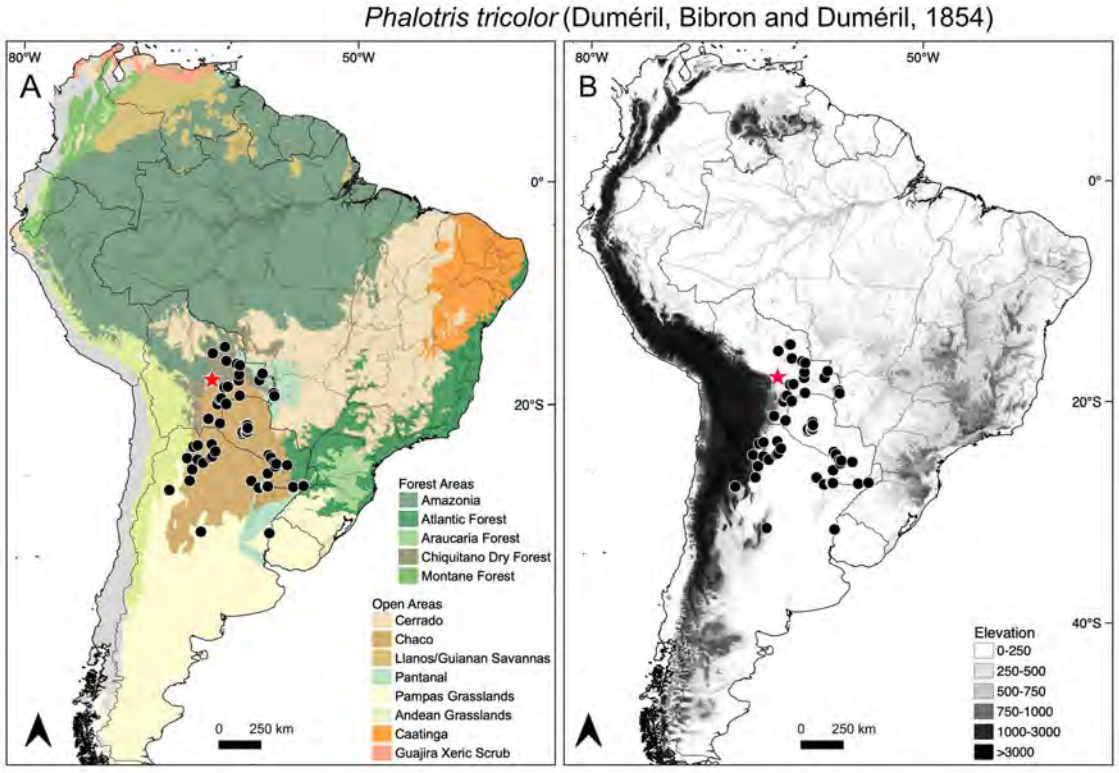


Plate 272. Distribution map of *Phalotris tricolor* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Hydrodynastes bicinctus (Herrmann, 1804)

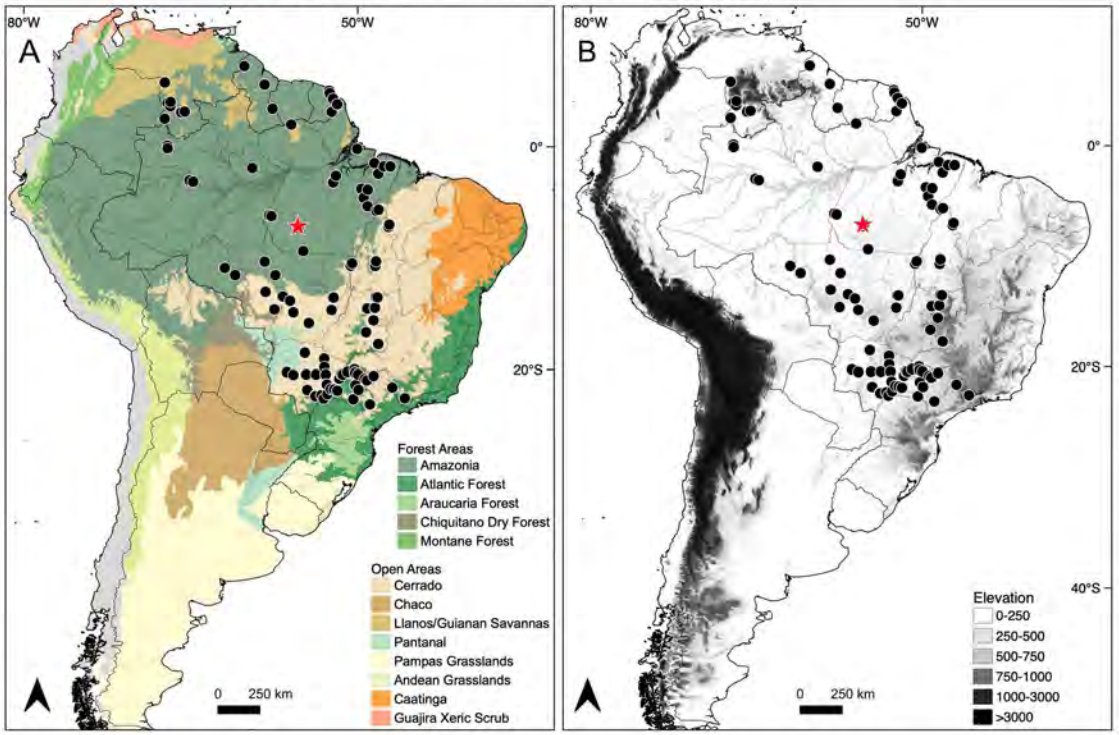


Plate 273. Distribution map of *Hydrodynastes bicinctus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Hydrodynastes gigas Duméril, Bibron and Duméril, 1854

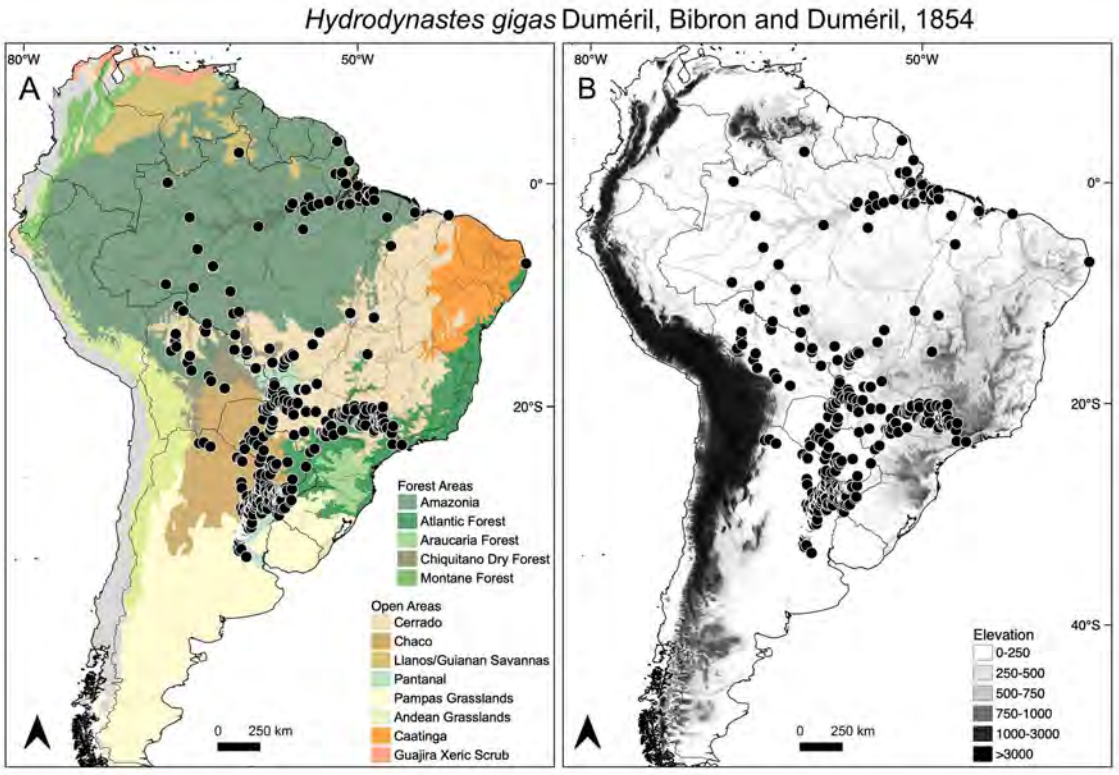


Plate 274. Distribution map of *Hydrodynastes gigas* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

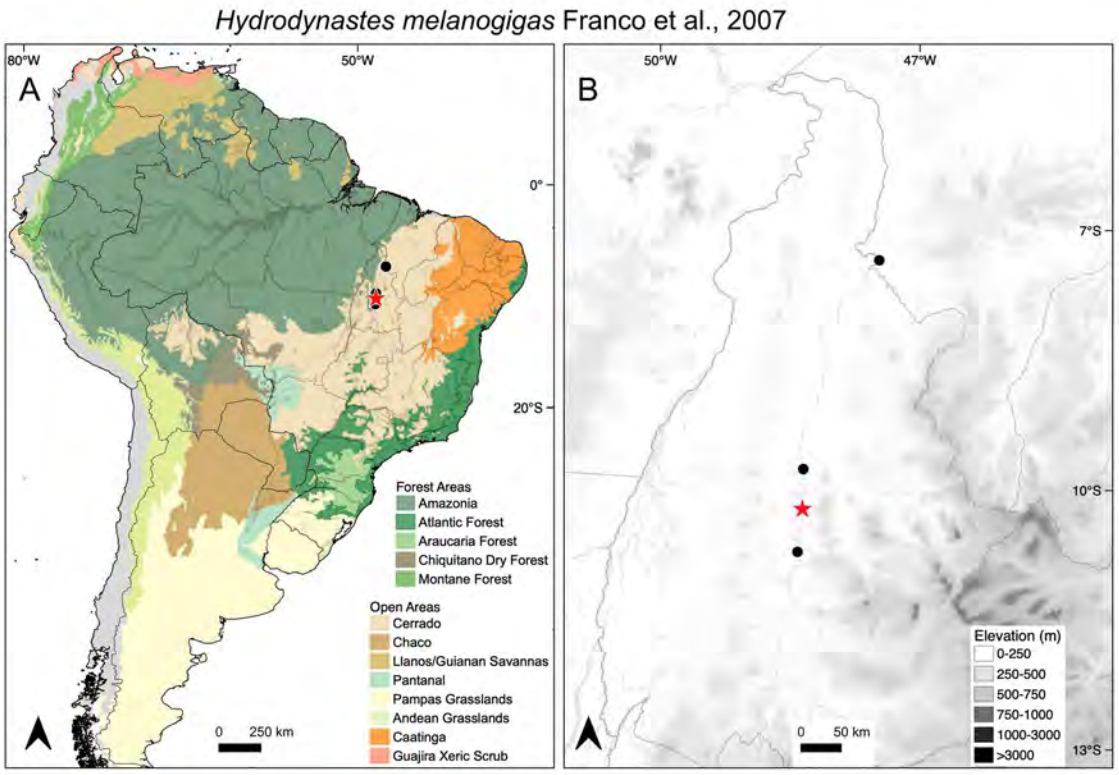


Plate 275. Distribution map of *Hydrodynastes melanogigas* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

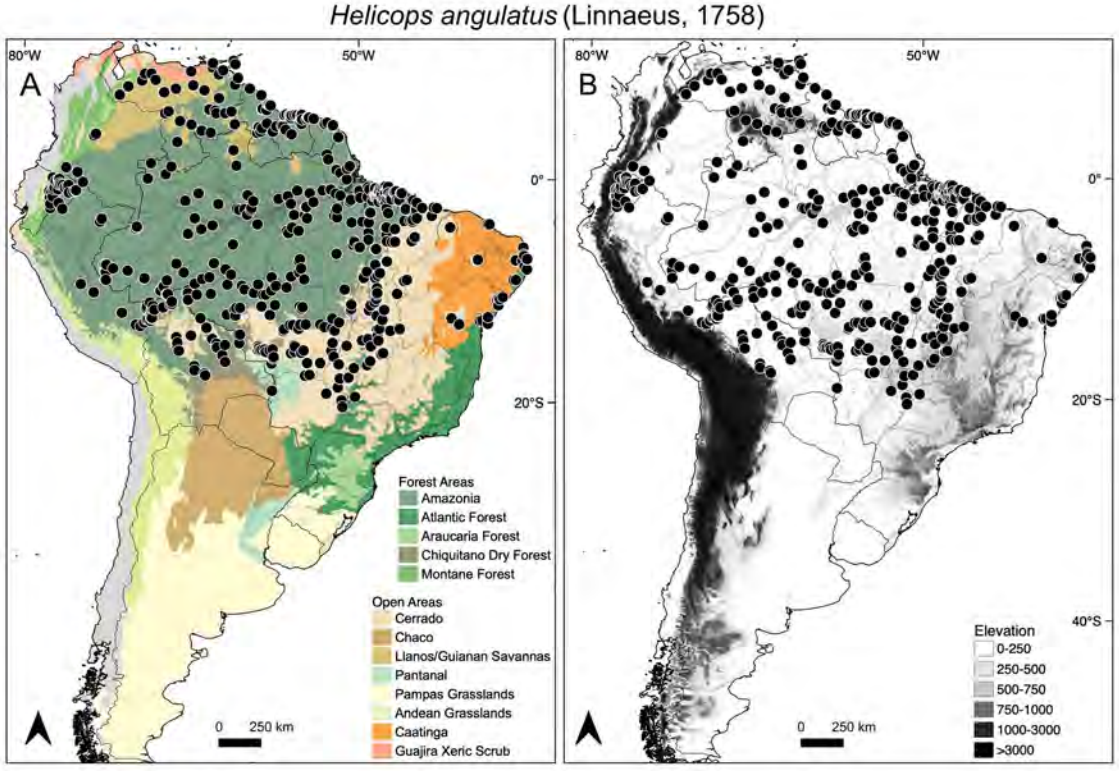


Plate 276. Distribution map of *Helicops angulatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

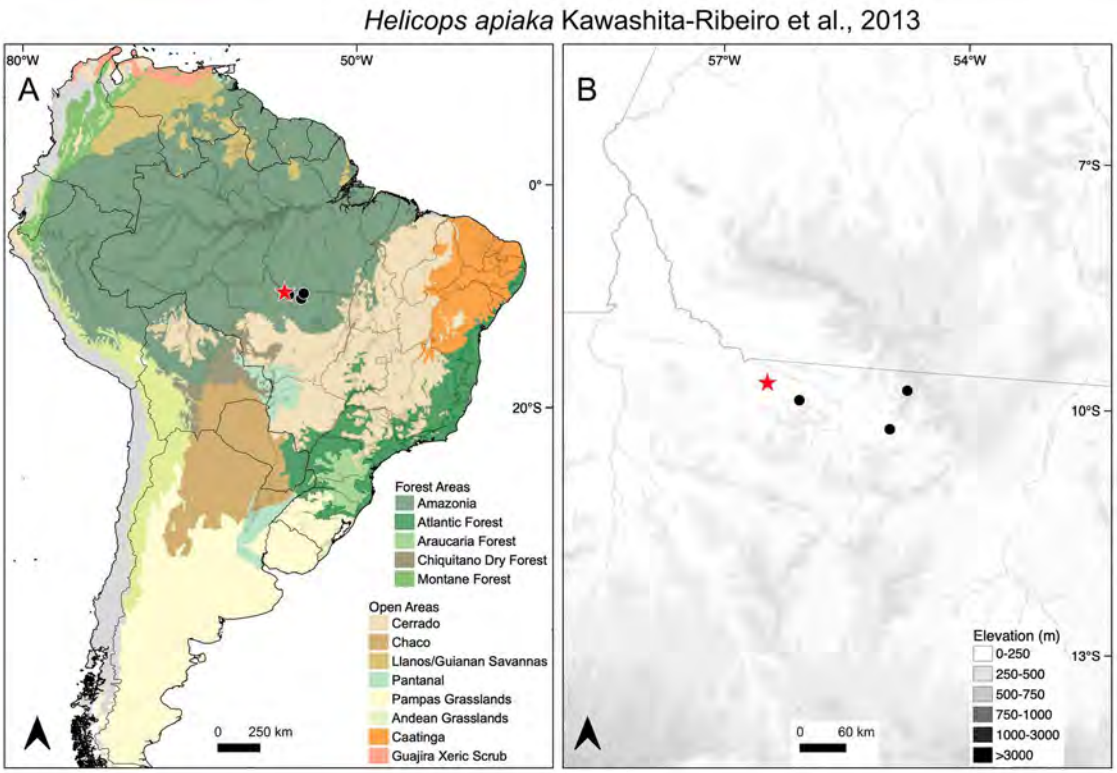


Plate 277. Distribution map of *Helicops apiaka* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

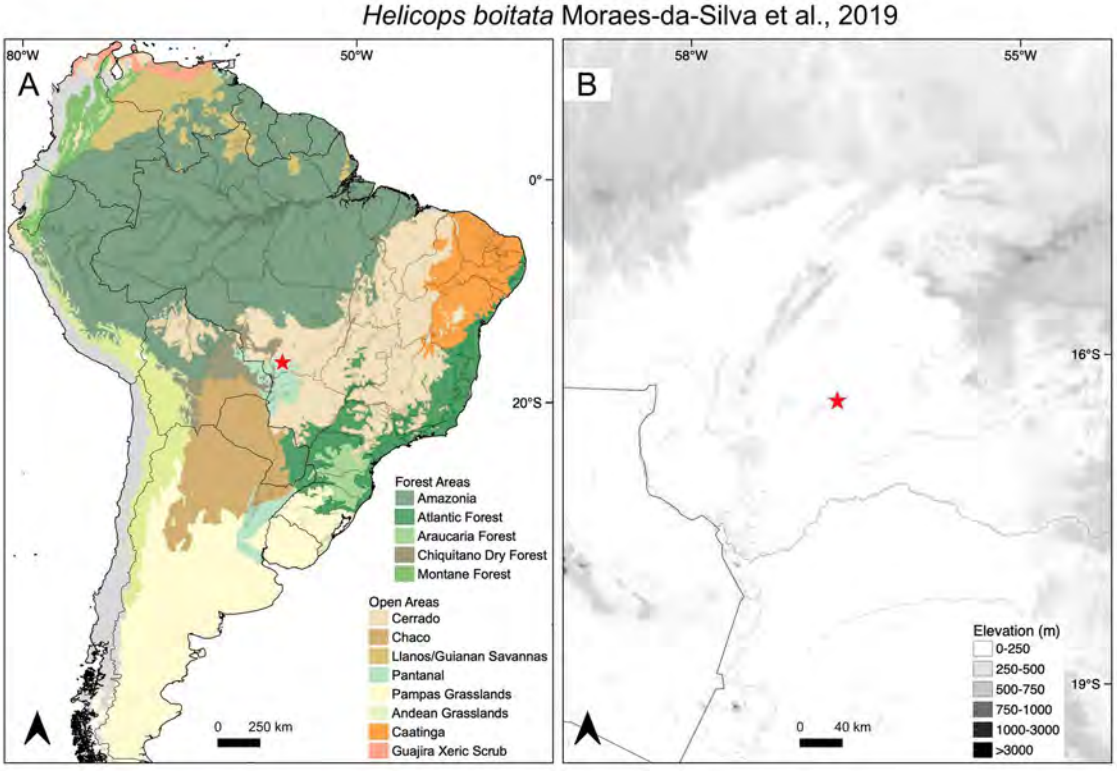


Plate 278. Distribution map of *Helicops boitata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

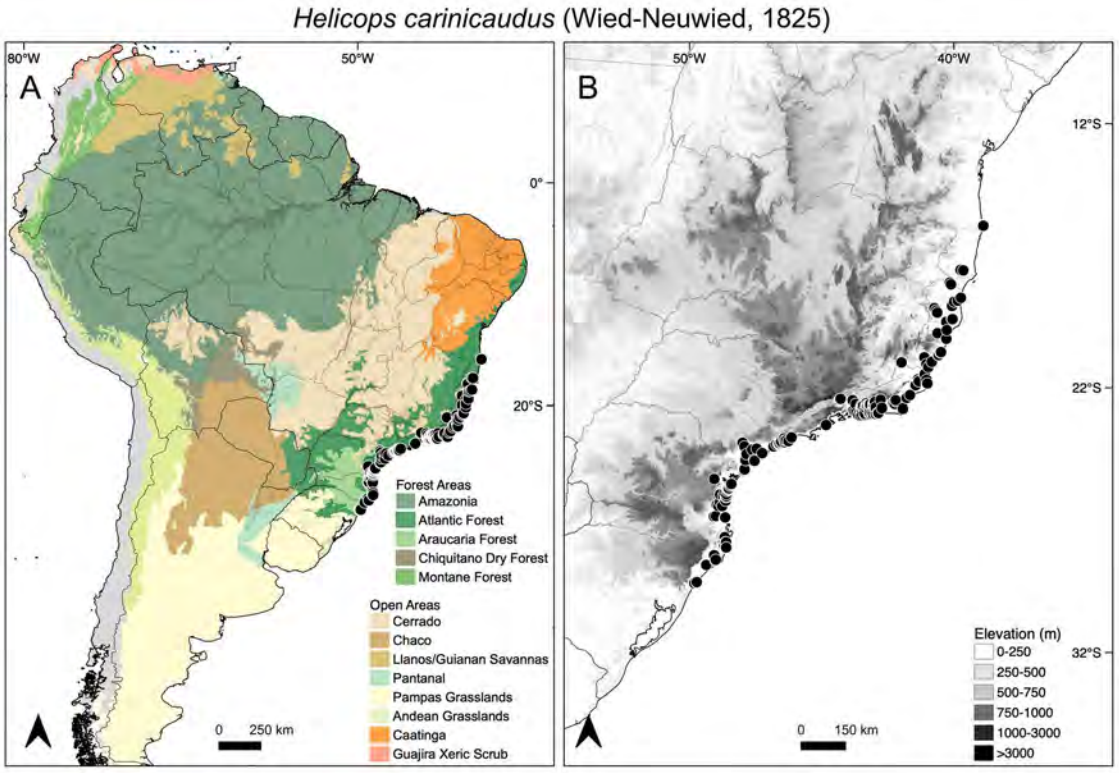


Plate 279. Distribution map of *Helicops carinicaudus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

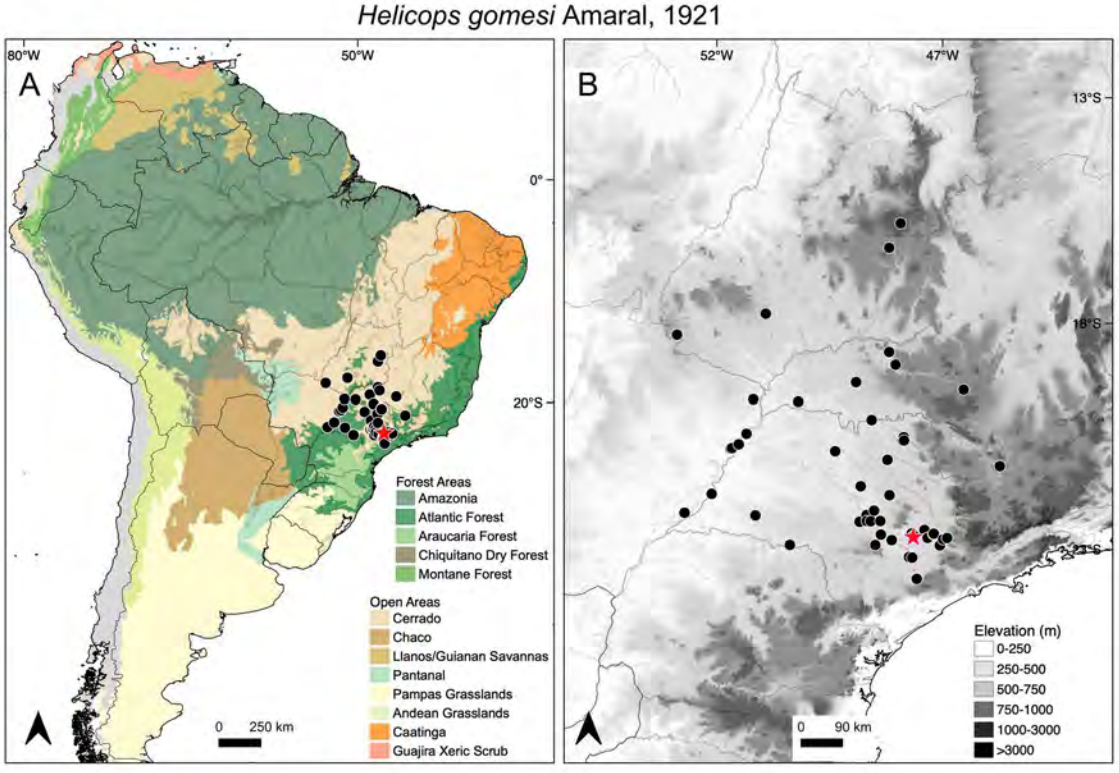


Plate 280. Distribution map of *Helicops gomesi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

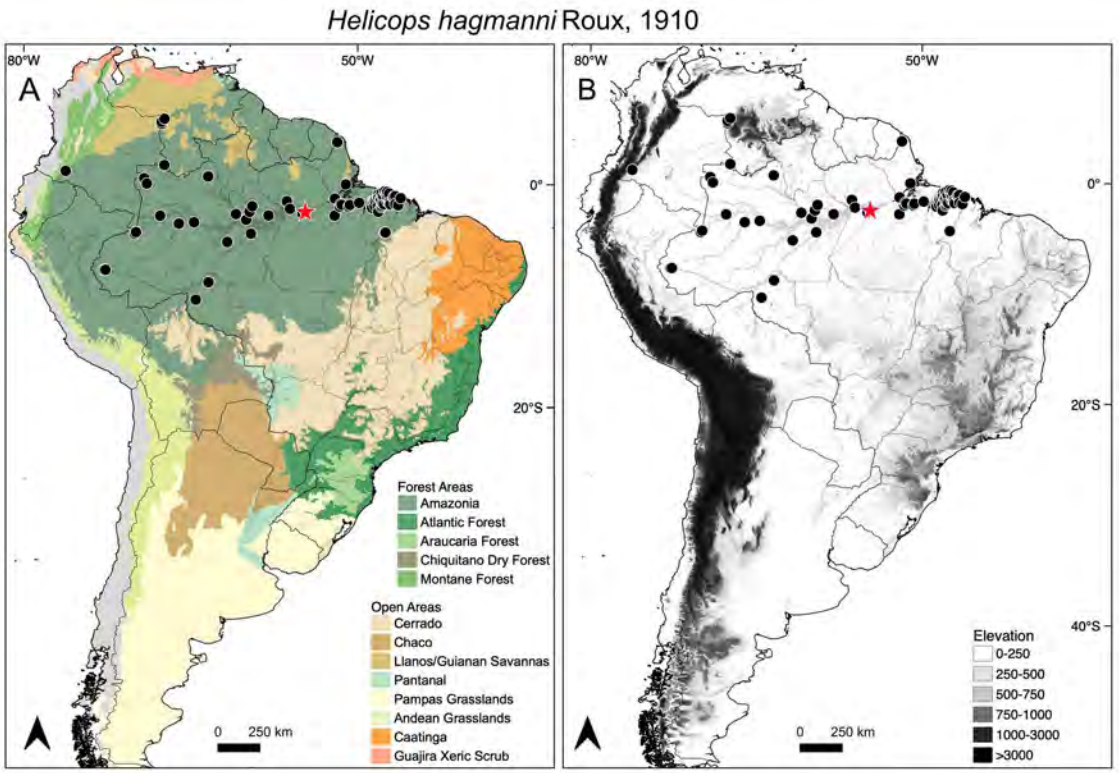


Plate 281. Distribution map of *Helicops hagmanni* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

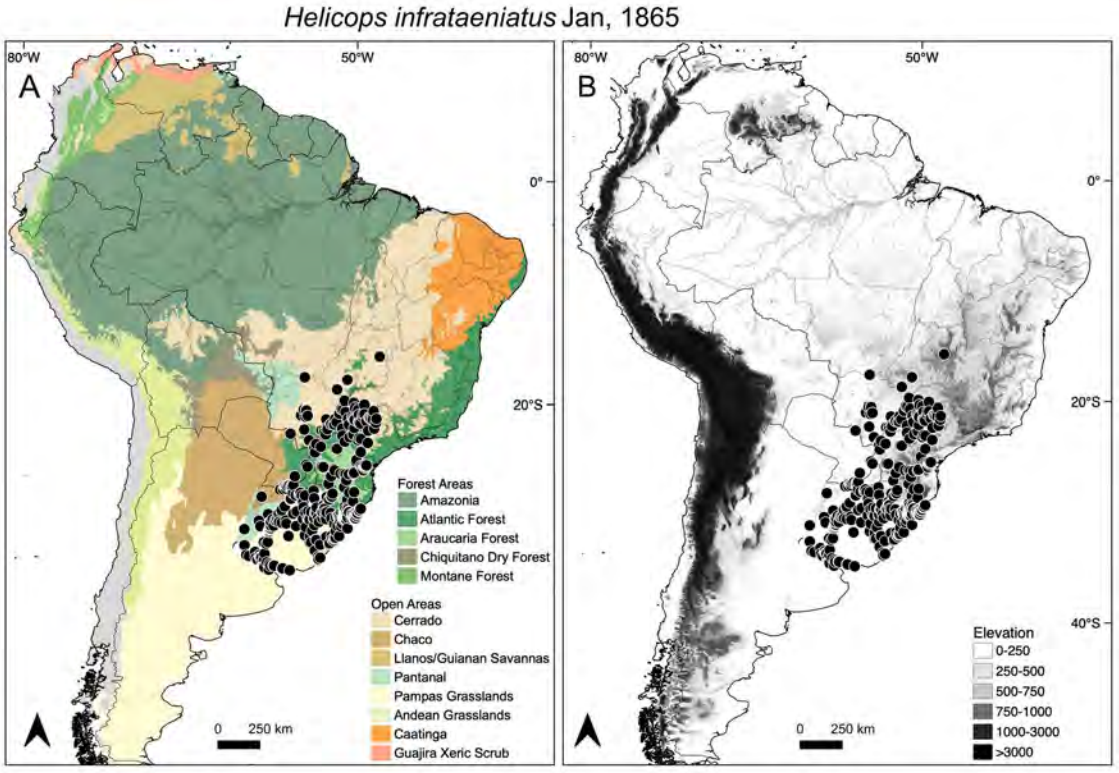


Plate 282. Distribution map of *Helicops infrataeniatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

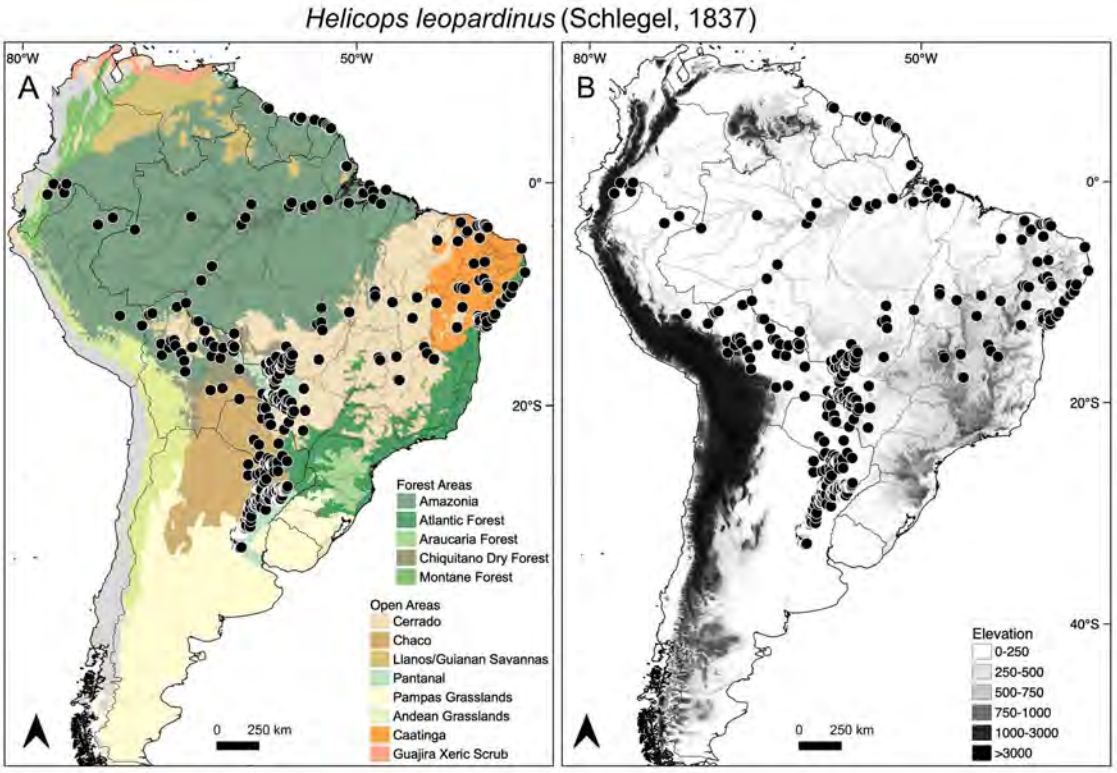


Plate 283. Distribution map of *Helicops leopardinus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

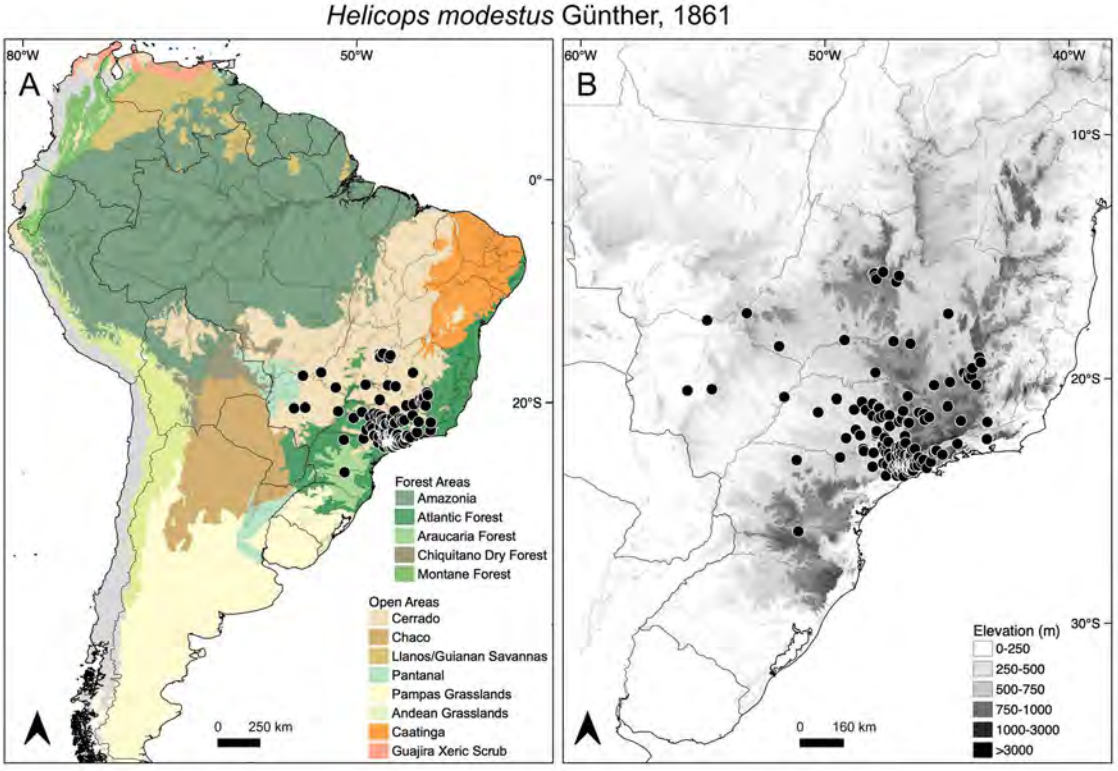


Plate 284. Distribution map of *Helicops modestus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

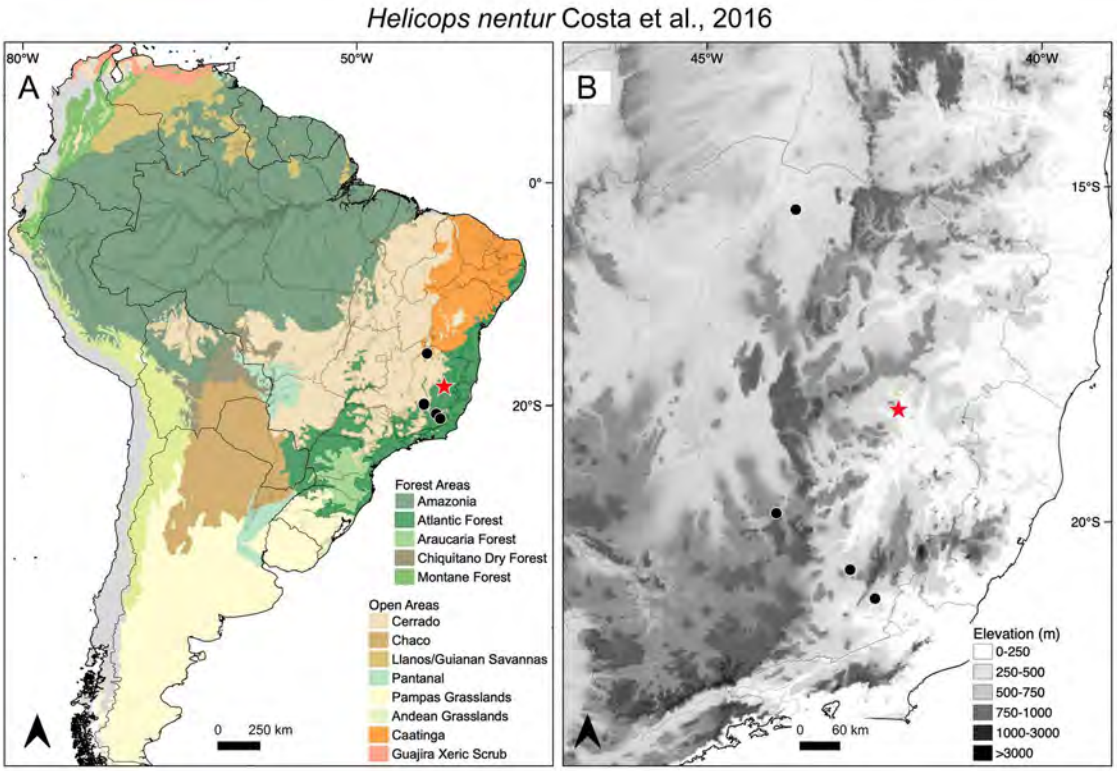


Plate 285. Distribution map of *Helicops nentur* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

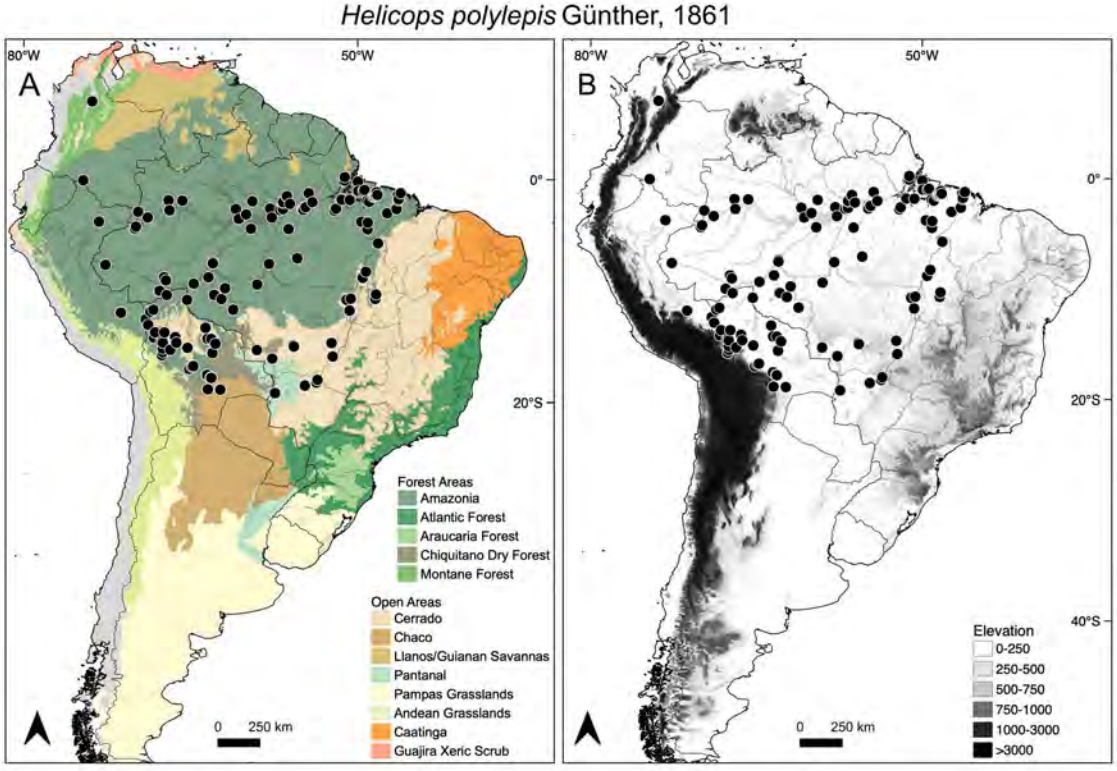


Plate 286. Distribution map of *Helicops polylepis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

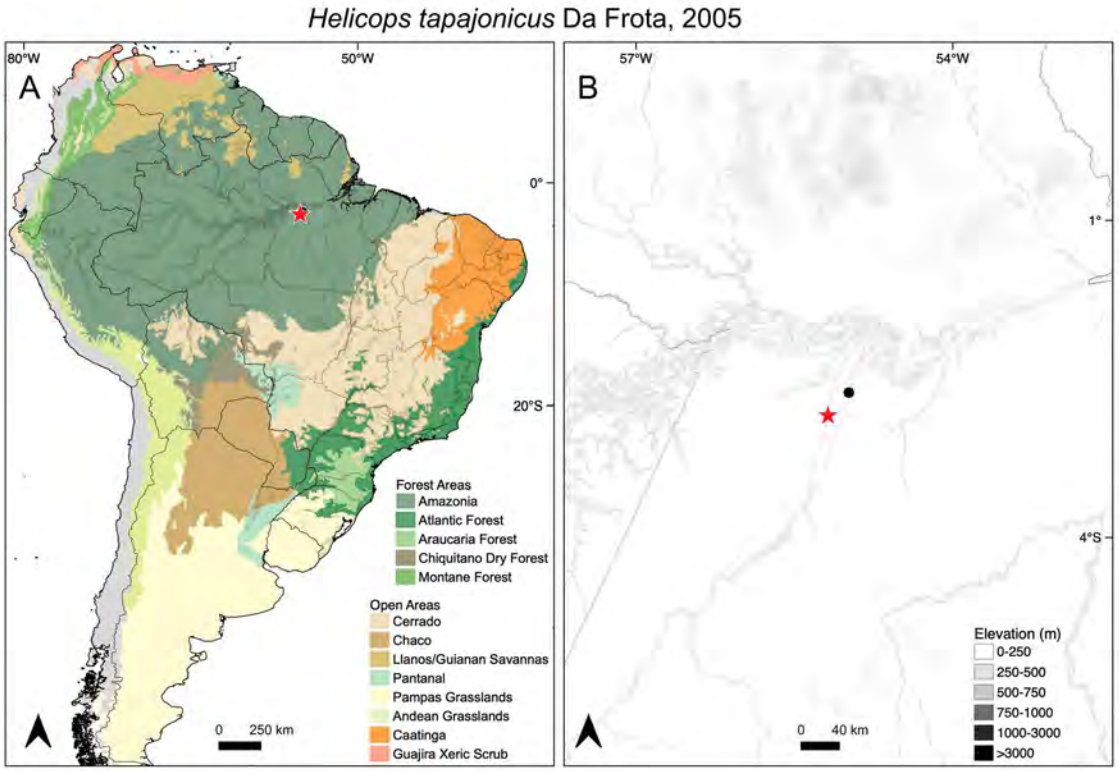


Plate 287. Distribution map of *Helicops tapajonicus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

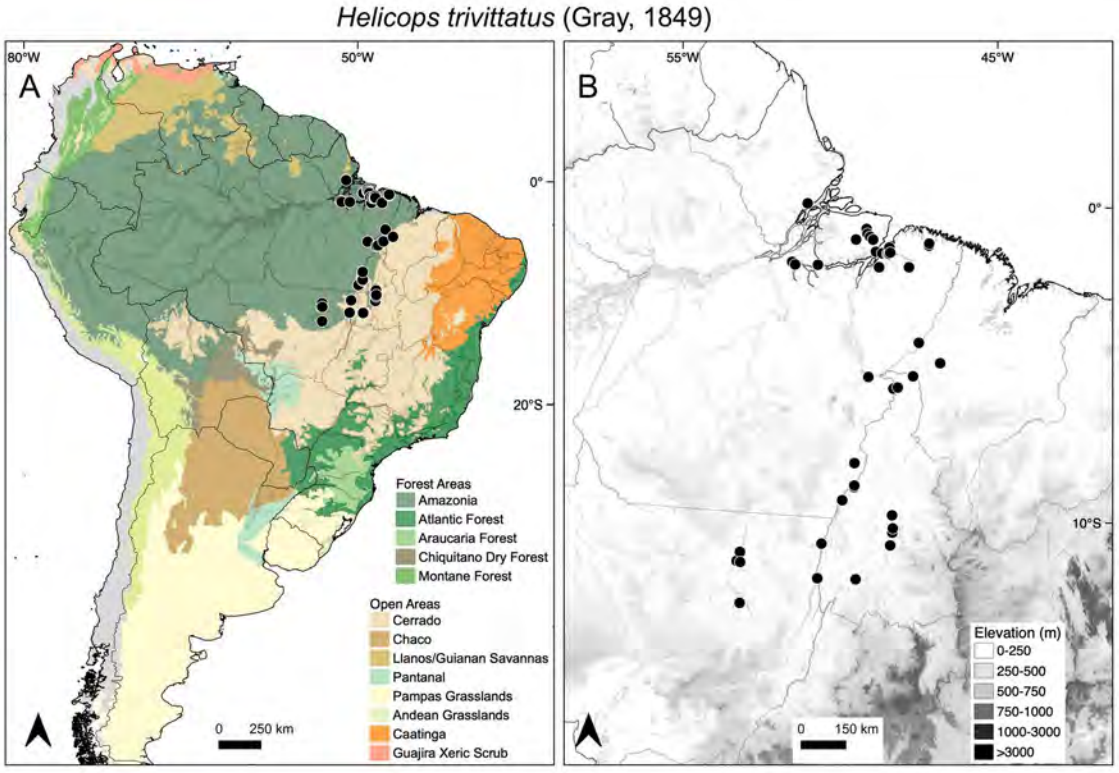


Plate 288. Distribution map of *Helicops trivittatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

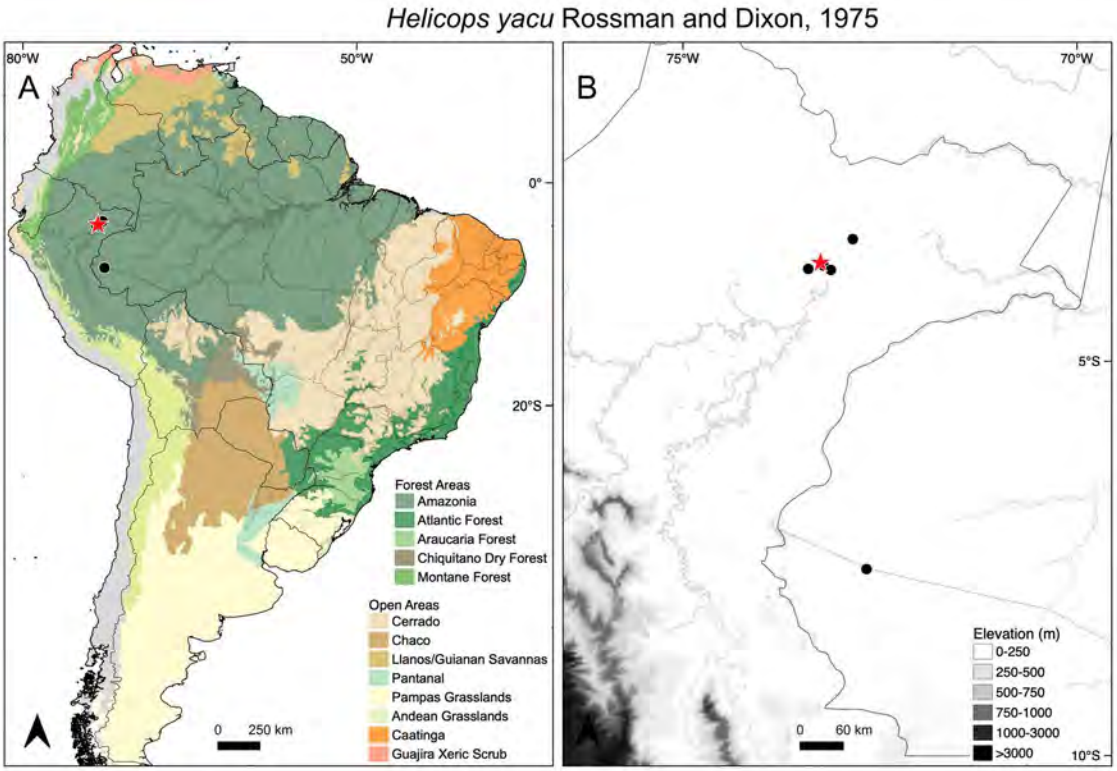


Plate 289. Distribution map of *Helicops yacu* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

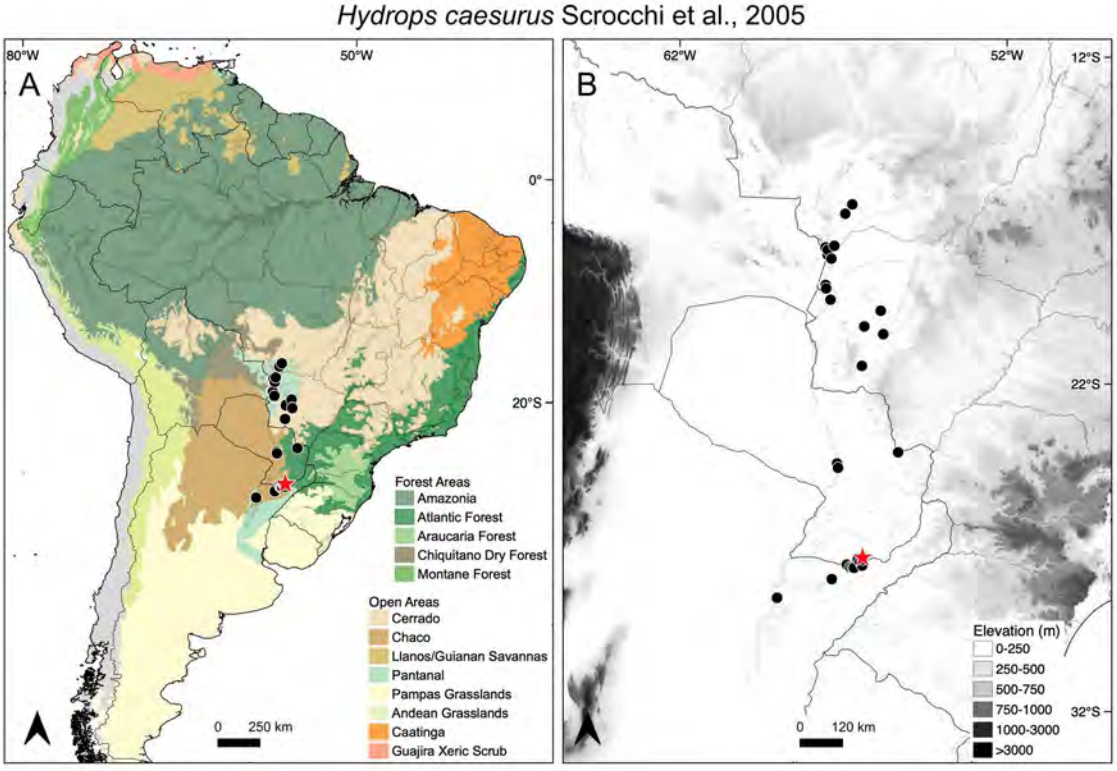


Plate 290. Distribution map of *Hydrops caesurus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

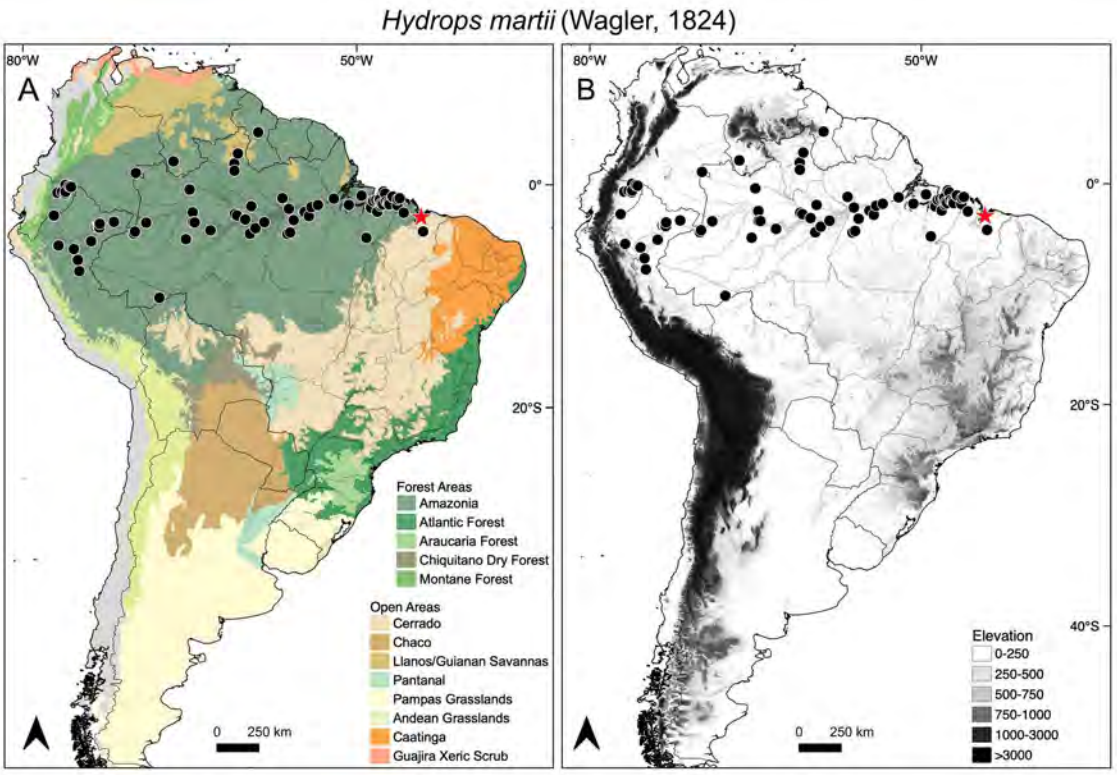


Plate 291. Distribution map of *Hydrops martii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

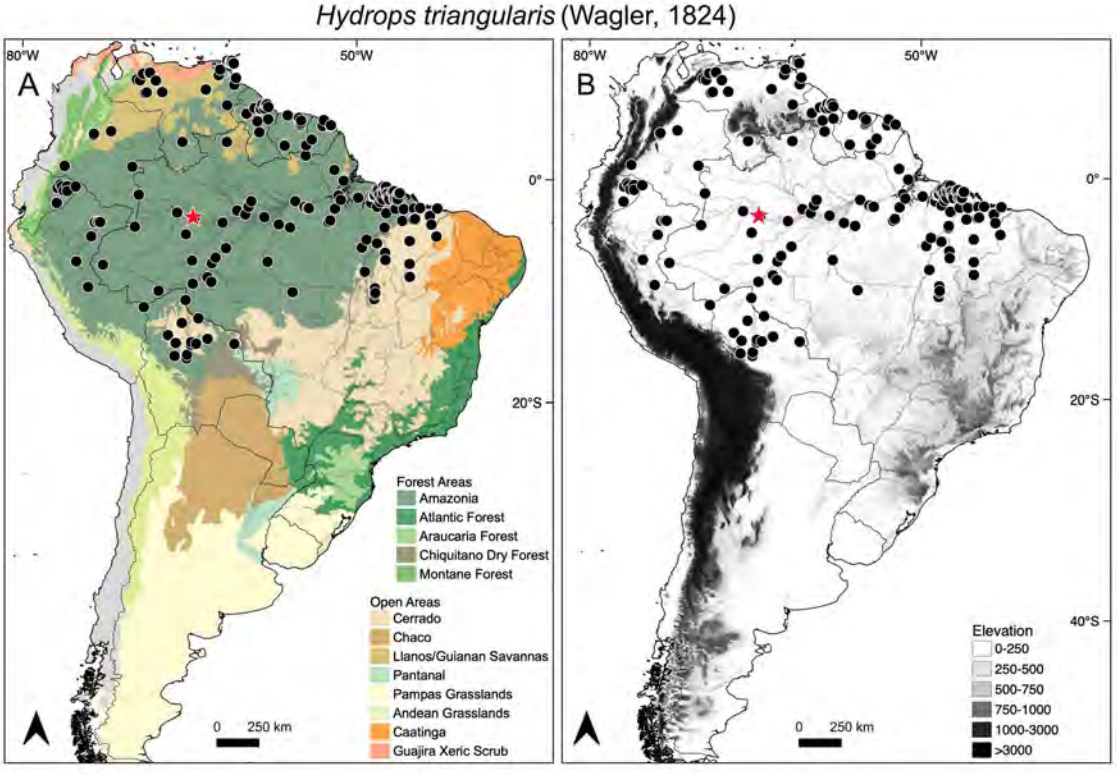


Plate 292. Distribution map of *Hydrops triangularis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

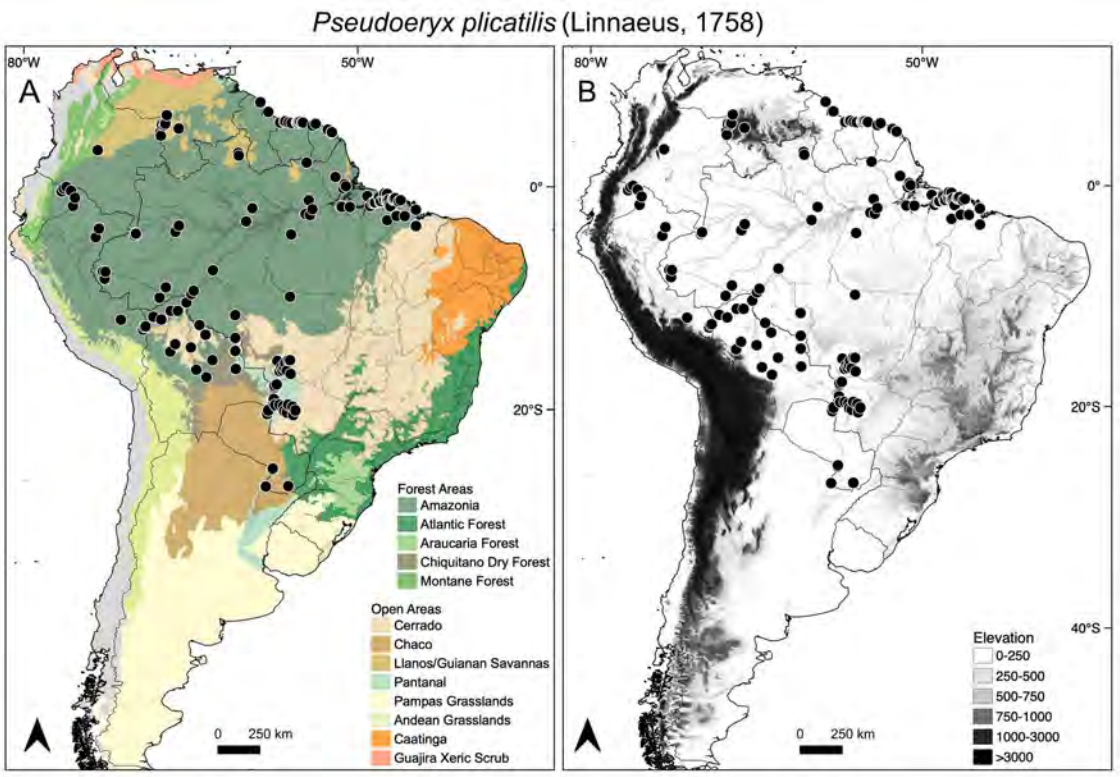


Plate 293. Distribution map of *Pseudoeryx plicatilis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

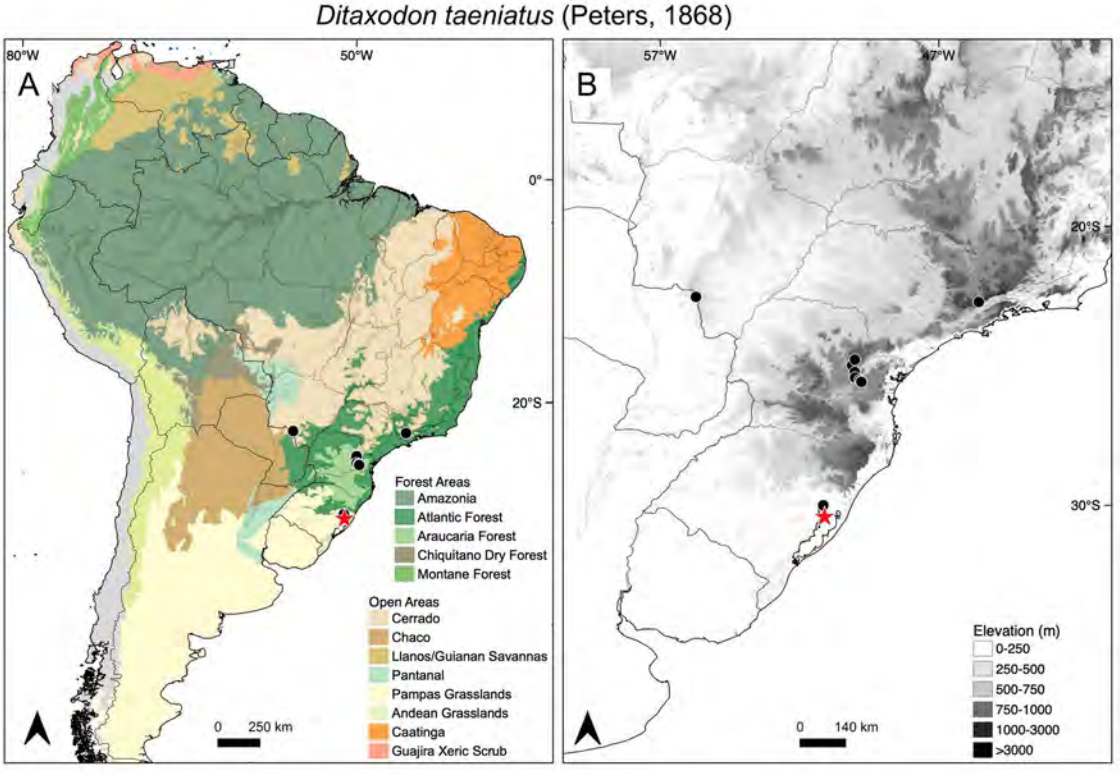


Plate 294. Distribution map of *Ditaxodon taeniatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

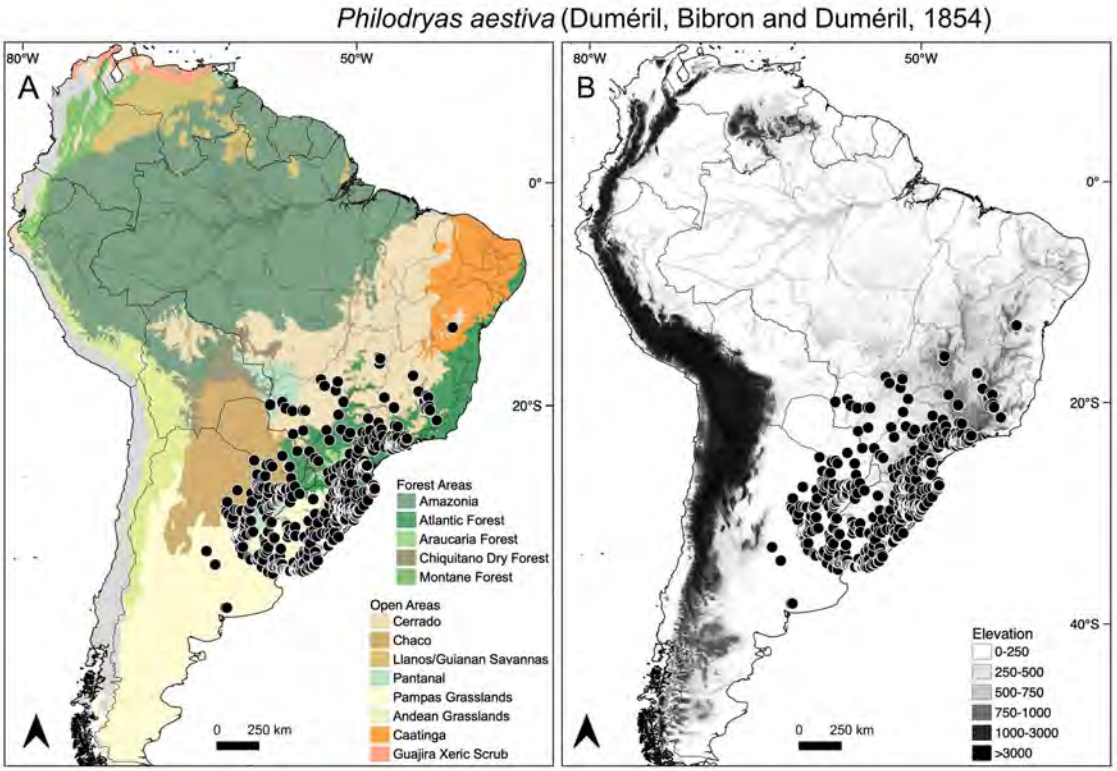


Plate 295. Distribution map of *Philodryas aestiva* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

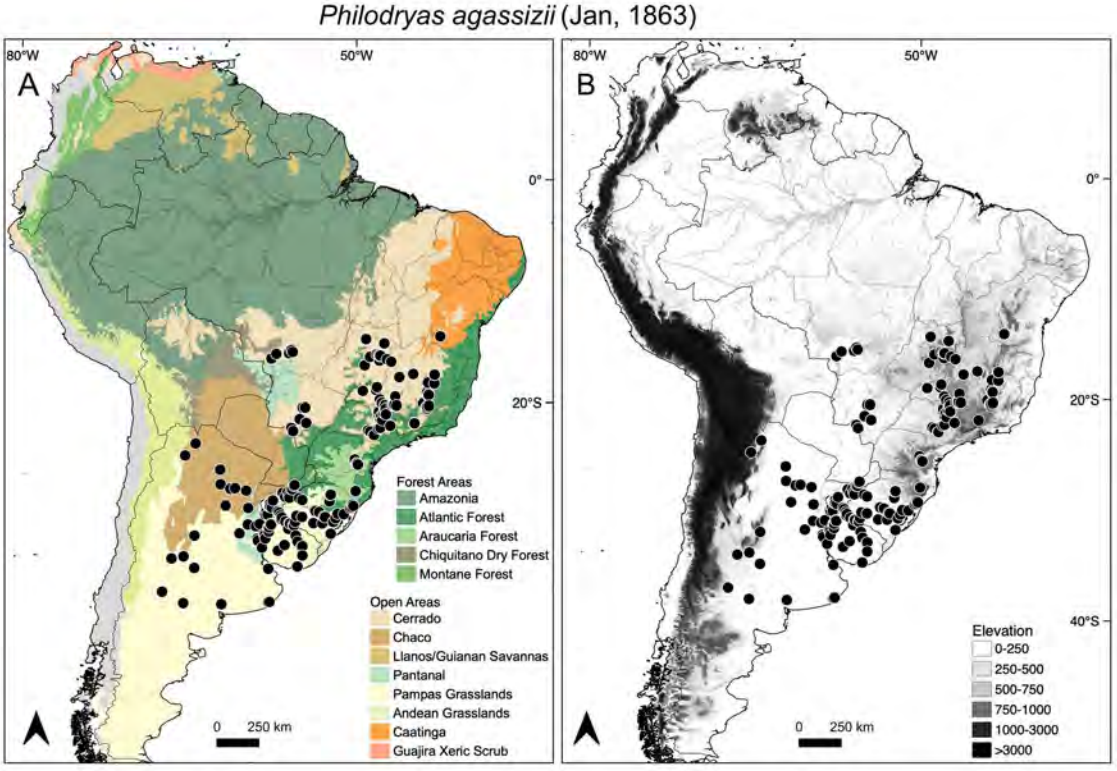


Plate 296. Distribution map of *Philodryas agassizii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

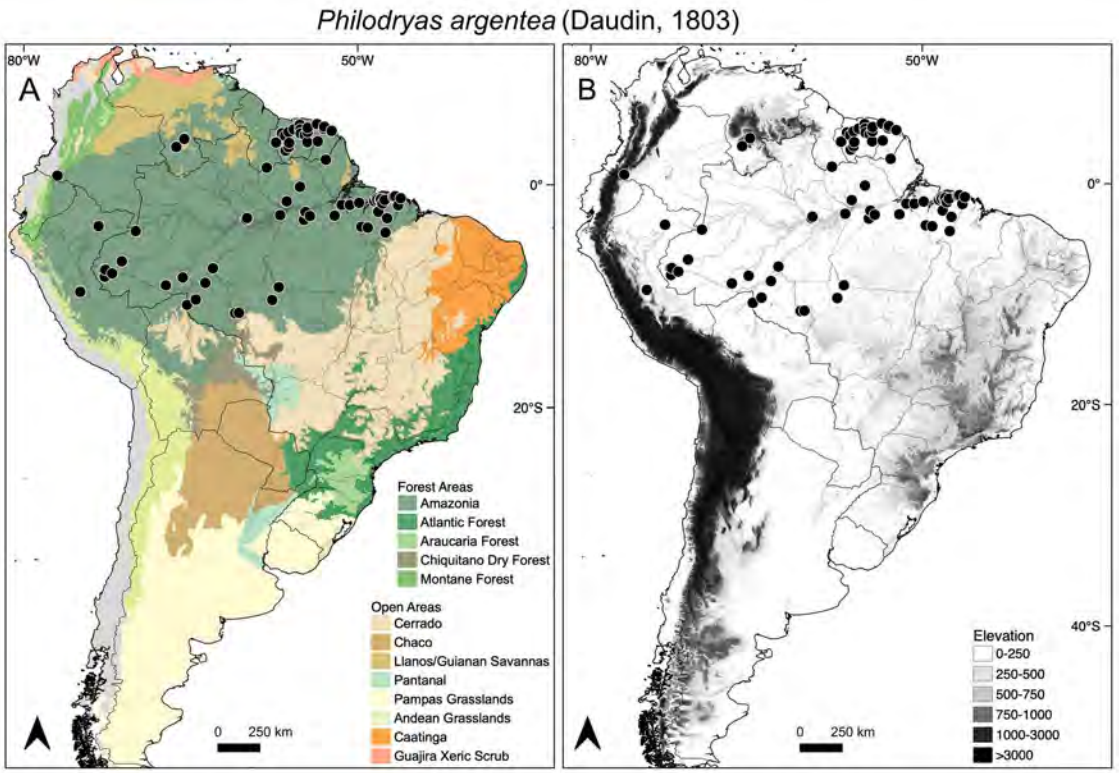


Plate 297. Distribution map of *Philodryas argentea* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

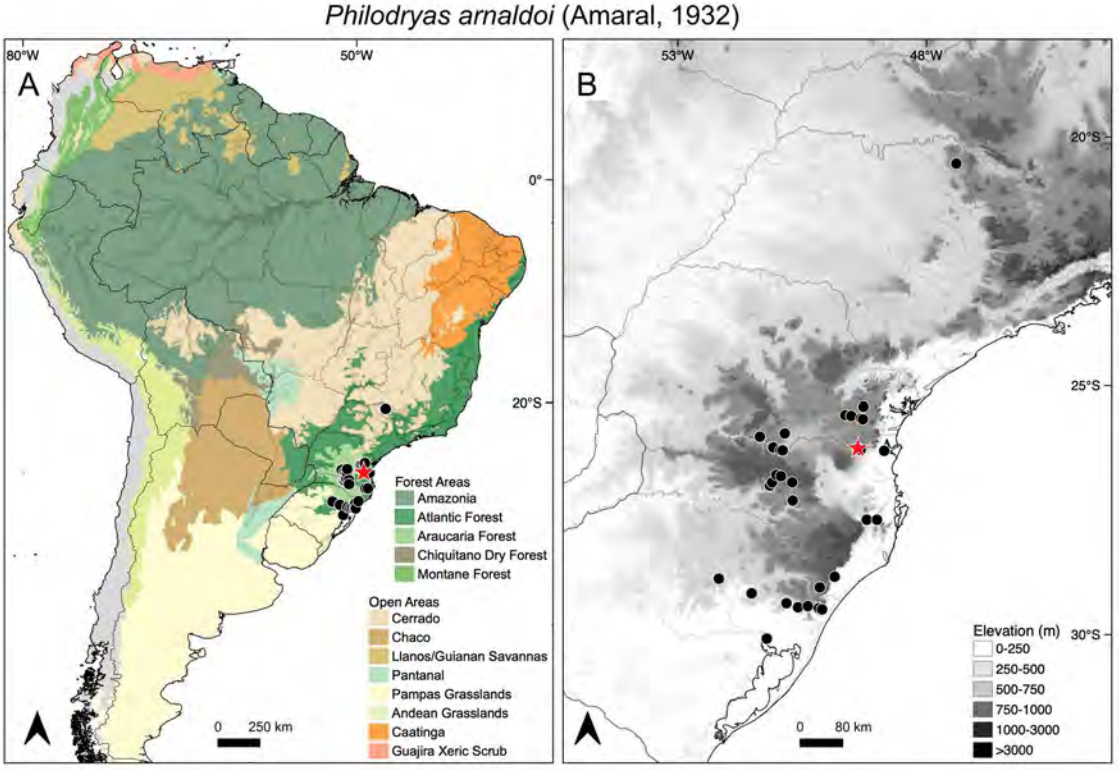


Plate 298. Distribution map of *Philodryas arnaldoi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

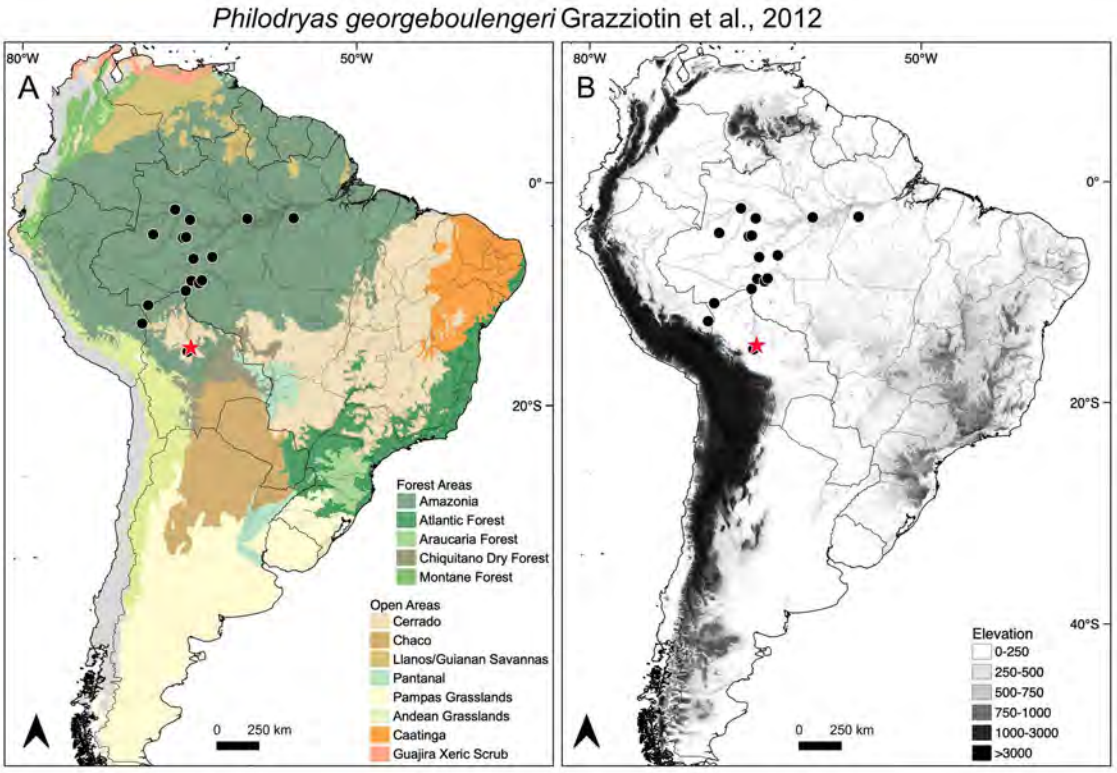


Plate 299. Distribution map of *Philodryas georgeboulengeri* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

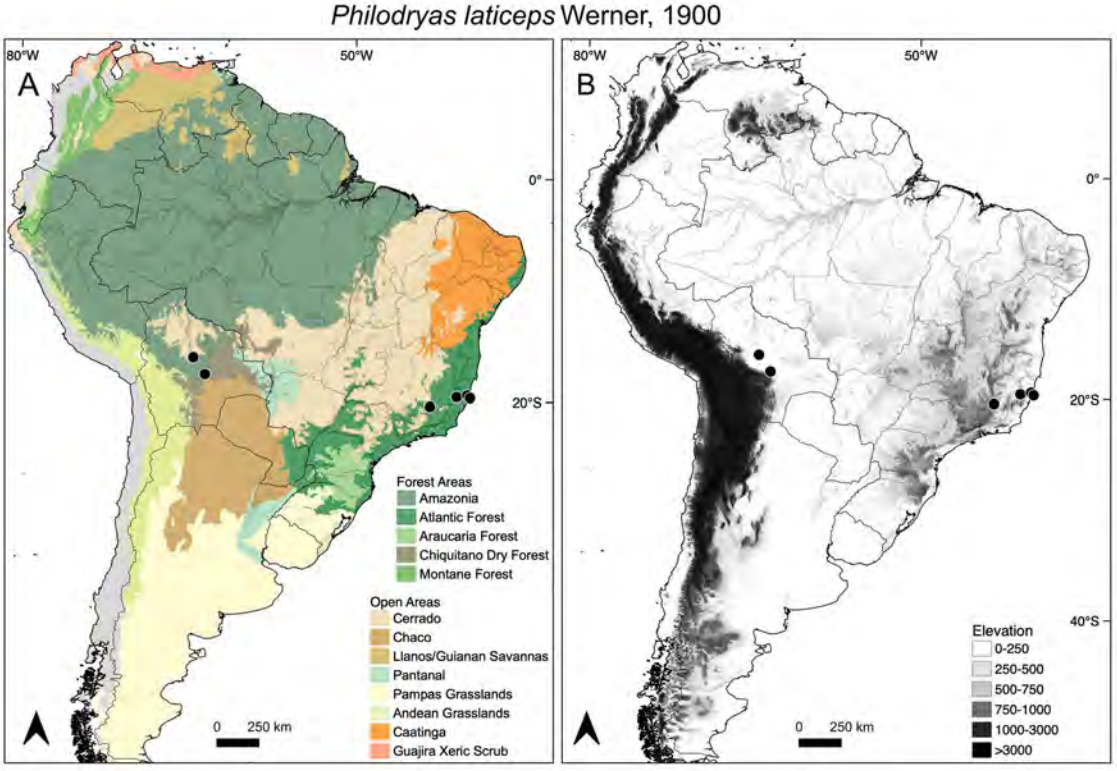


Plate 300. Distribution map of *Philodryas laticeps* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

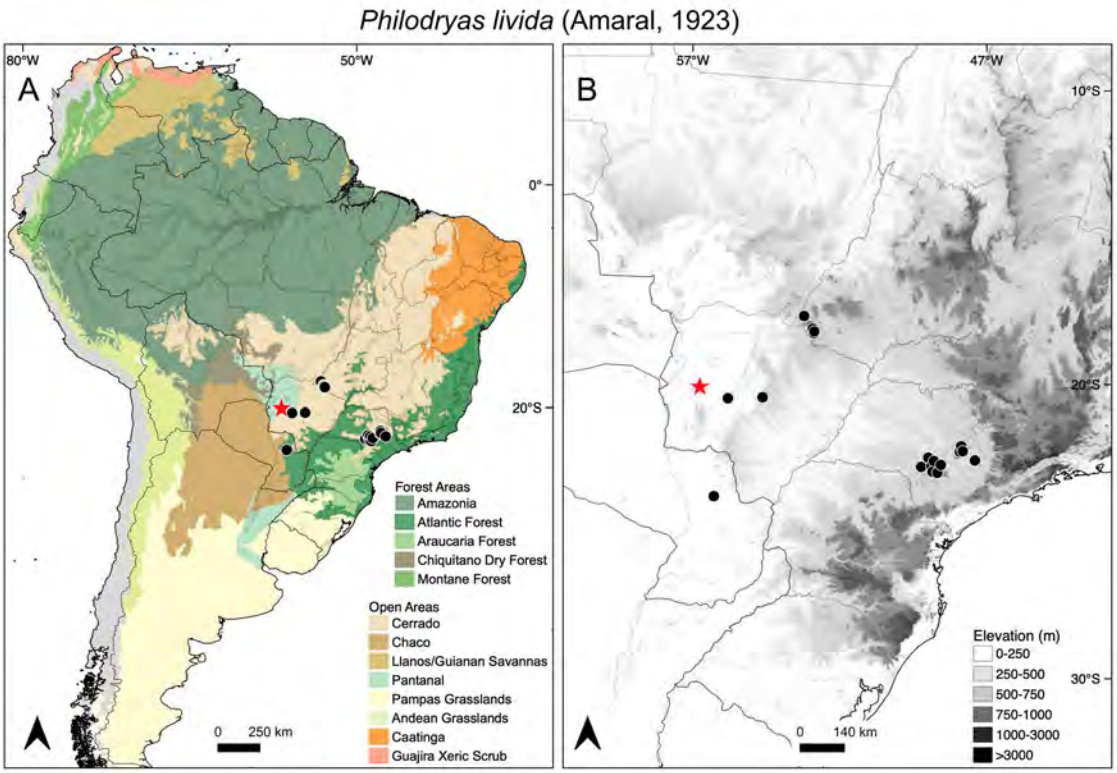


Plate 301. Distribution map of *Philodryas livida* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

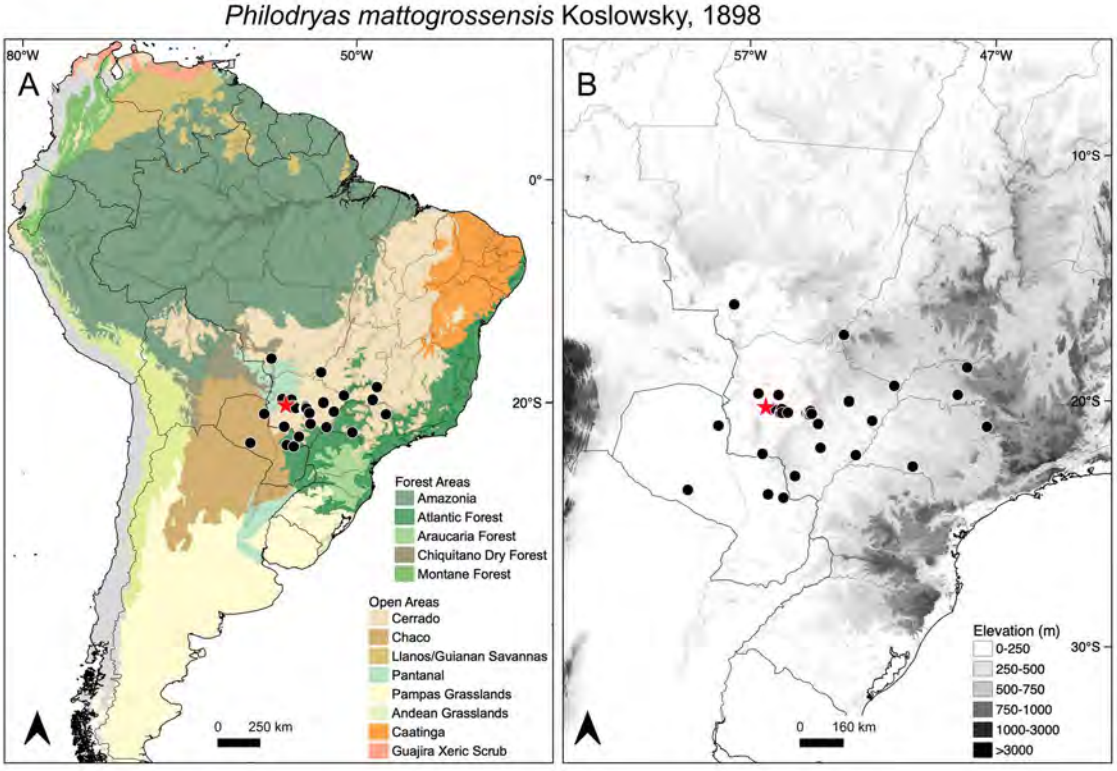


Plate 302. Distribution map of *Philodryas mattogrossensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

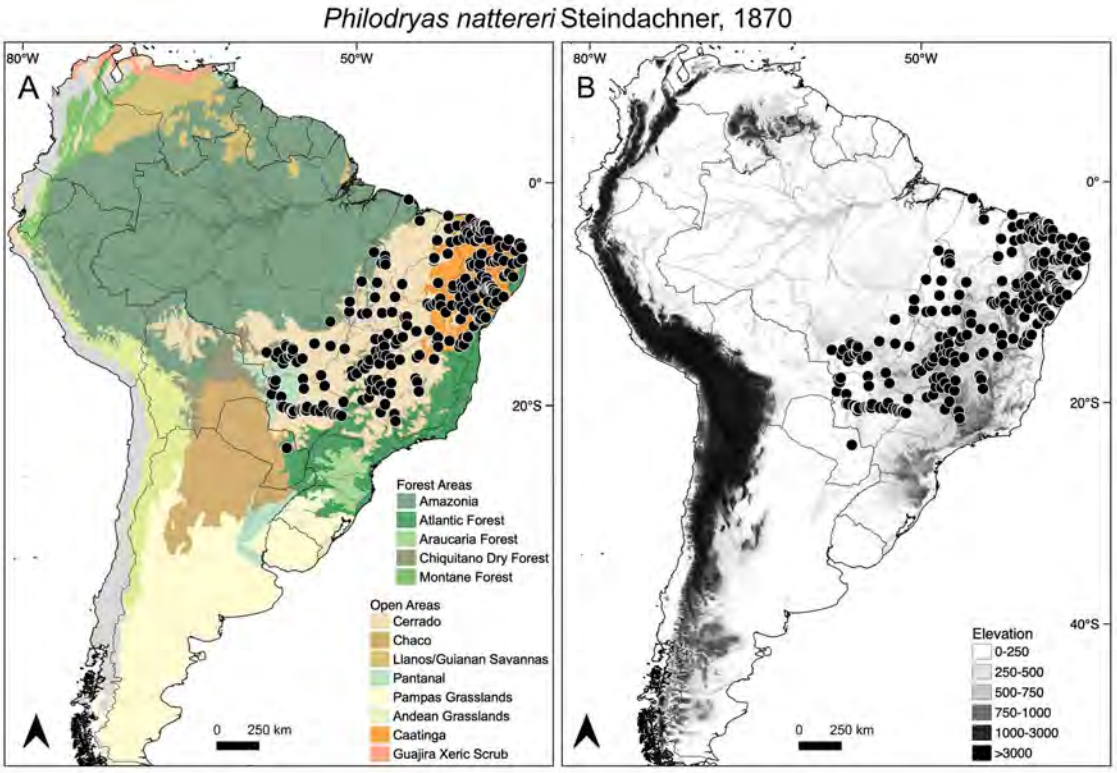


Plate 303. Distribution map of *Philodryas nattereri* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

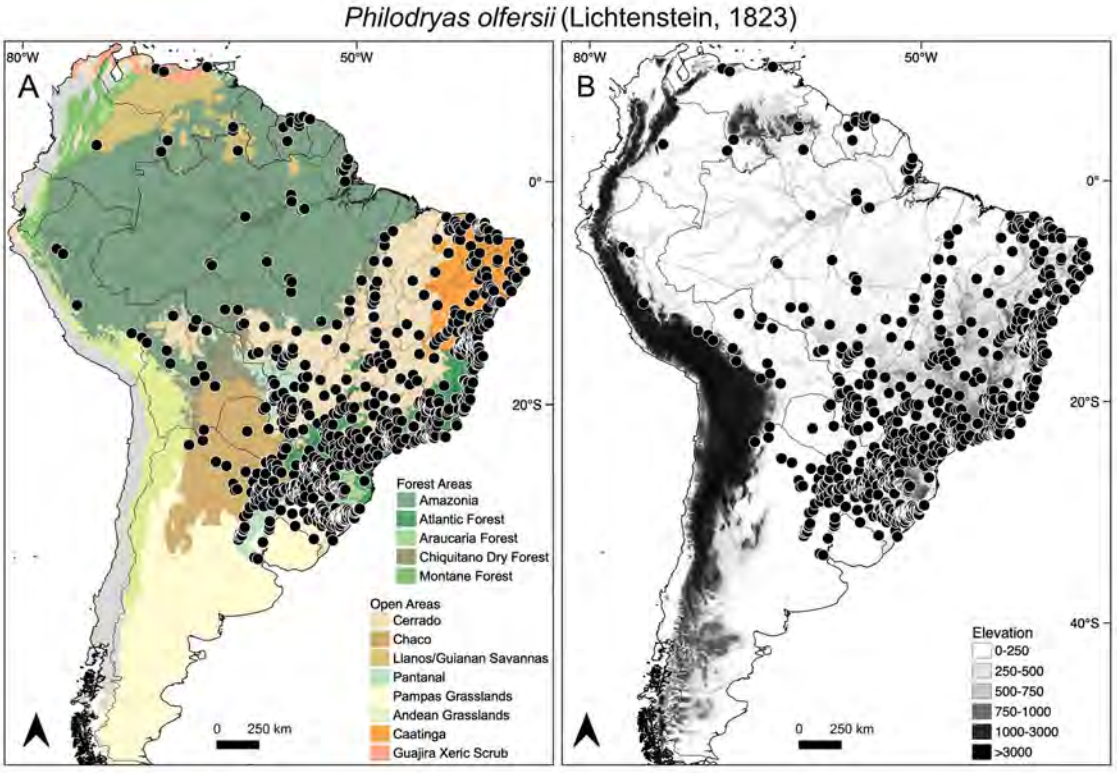


Plate 304. Distribution map of *Philodryas olfersii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Philodryas patagoniensis (Girard, 1858)

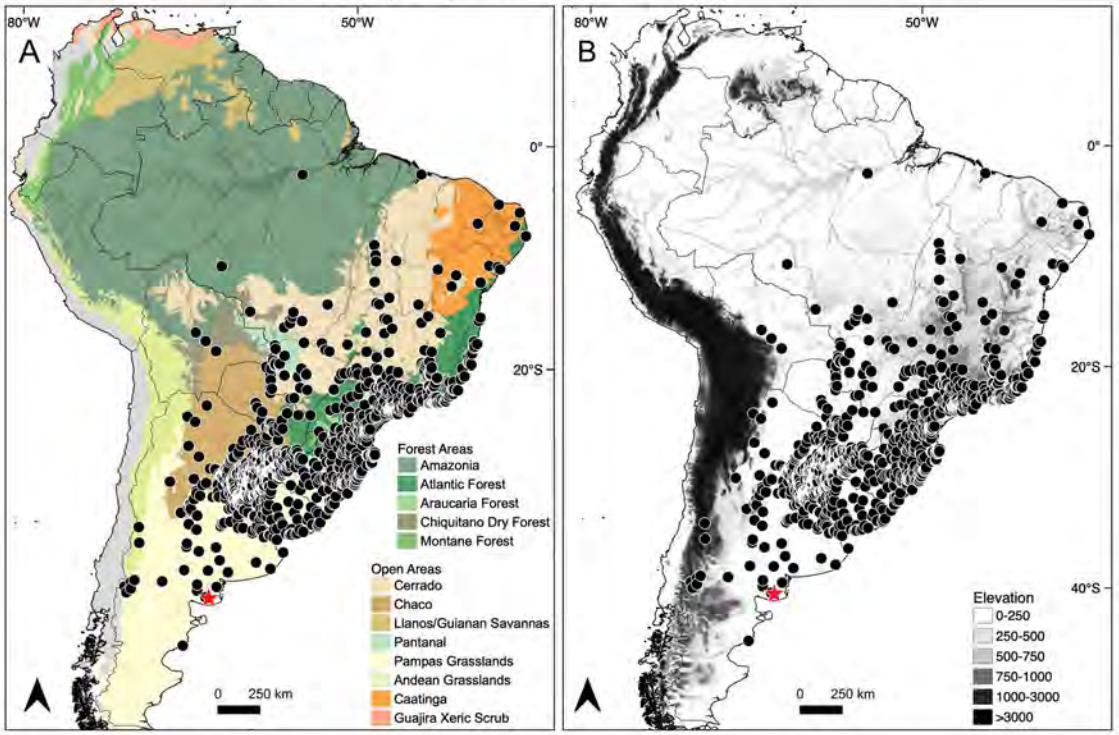


Plate 305. Distribution map of *Philodryas patagoniensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Philodryas psammophidea (Günther, 1872)

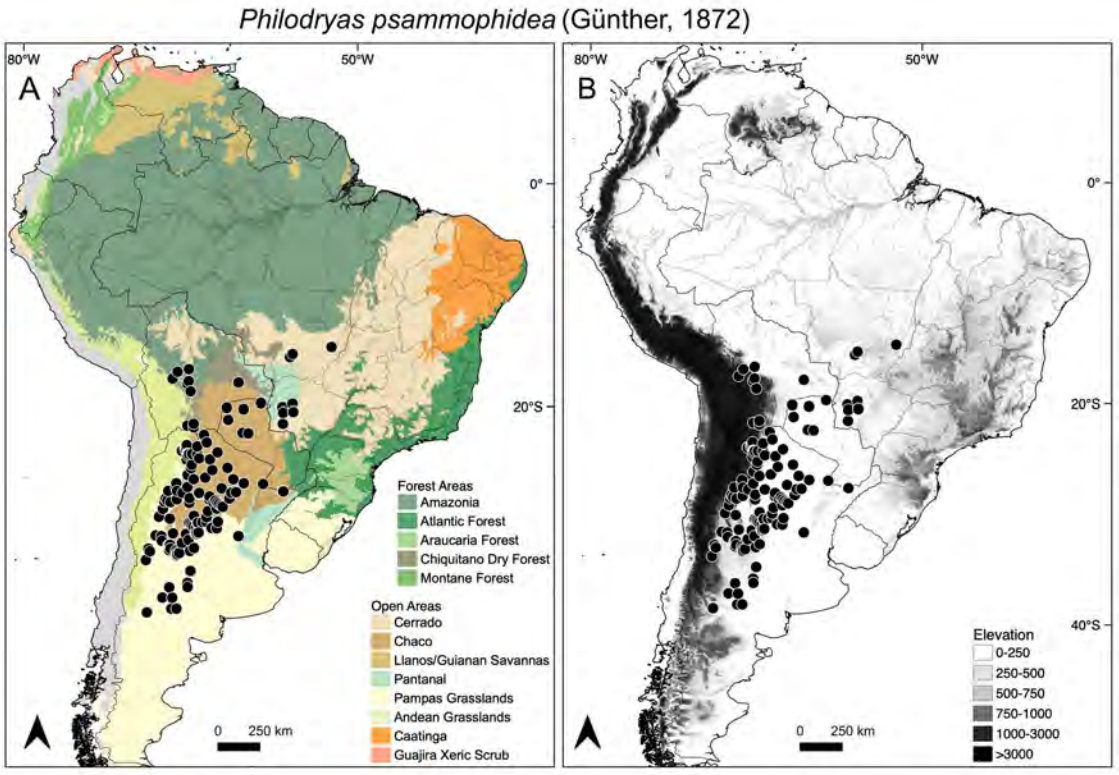


Plate 306. Distribution map of *Philodryas psammophidea* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

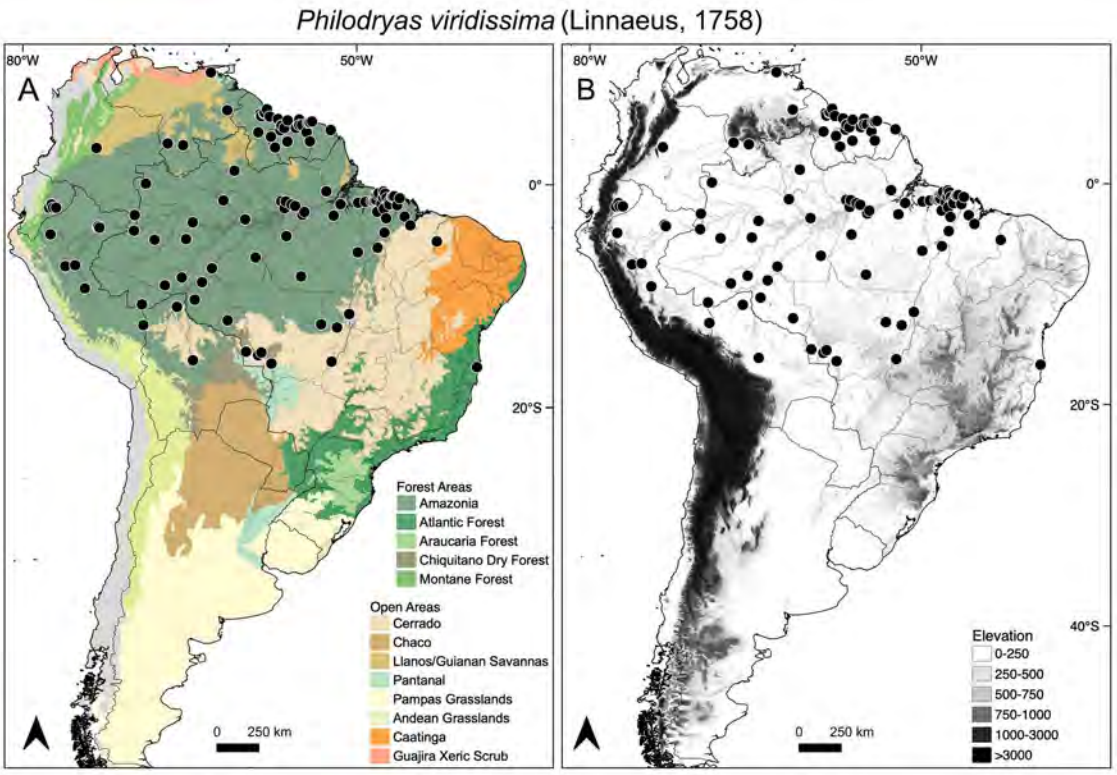


Plate 307. Distribution map of *Philodryas viridissima* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

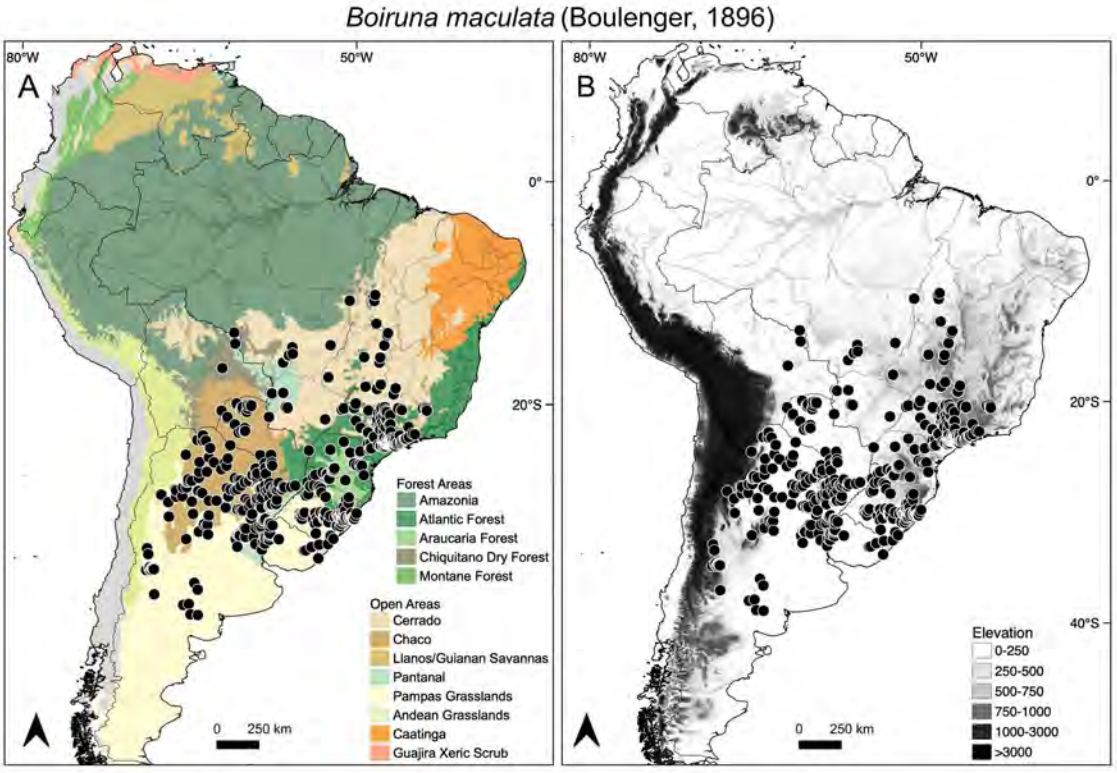


Plate 308. Distribution map of *Boiruna maculata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

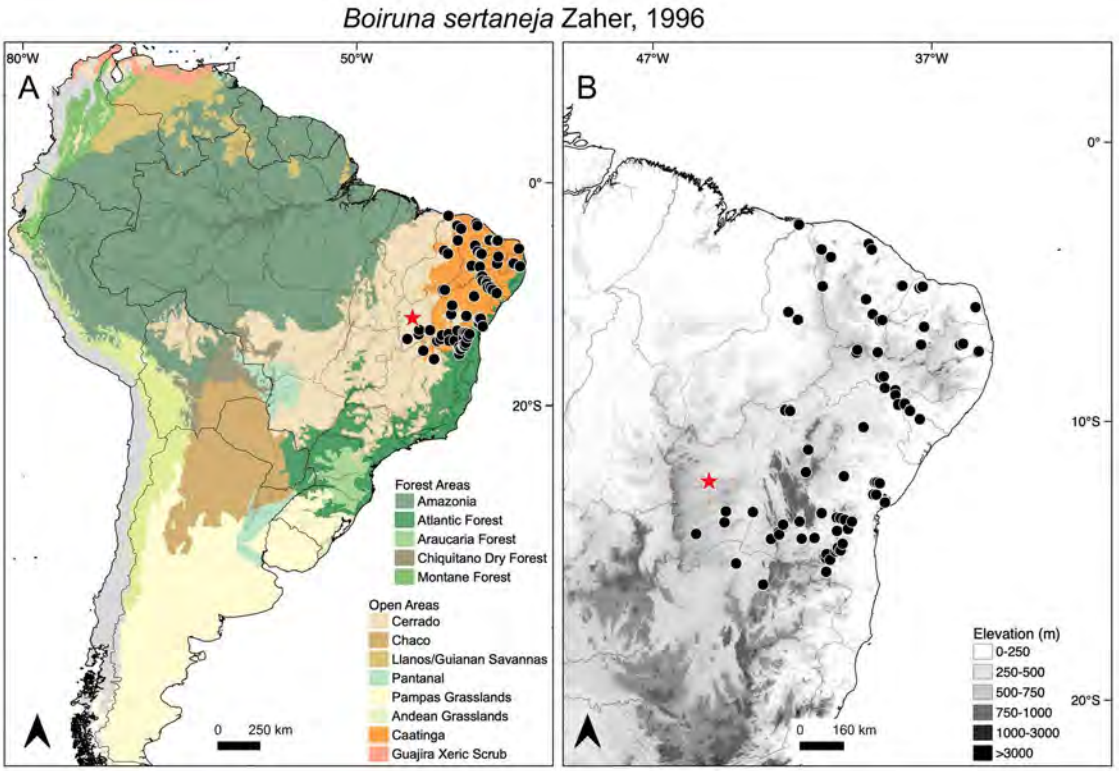


Plate 309. Distribution map of *Boiruna sertaneja* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

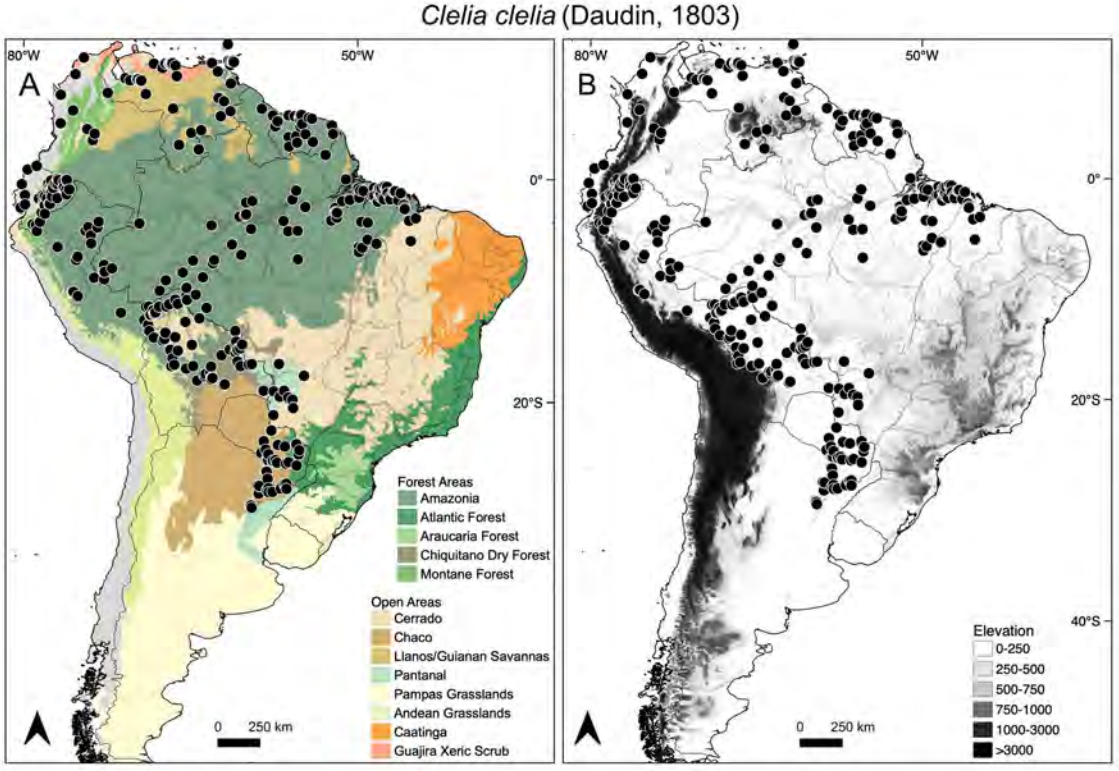


Plate 310. Distribution map of *Clelia clelia* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Clelia hussami Morato et al., 2003

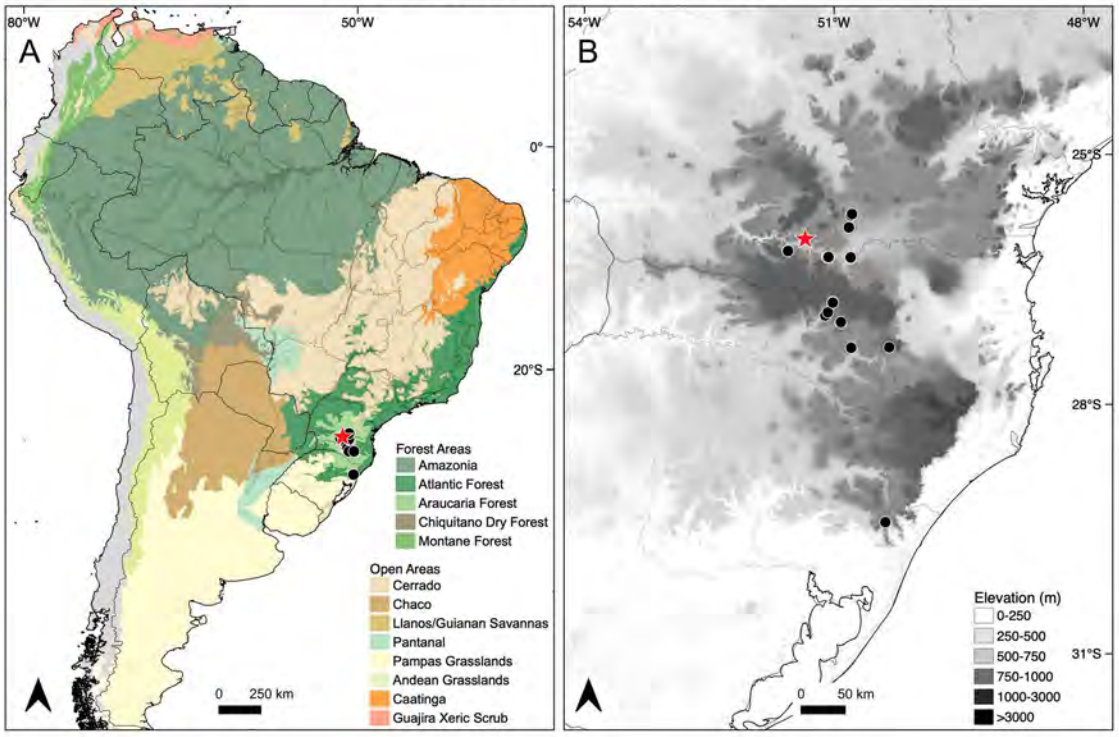


Plate 311. Distribution map of *Clelia hussami* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Clelia plumbea (Wied-Neuwied, 1820)

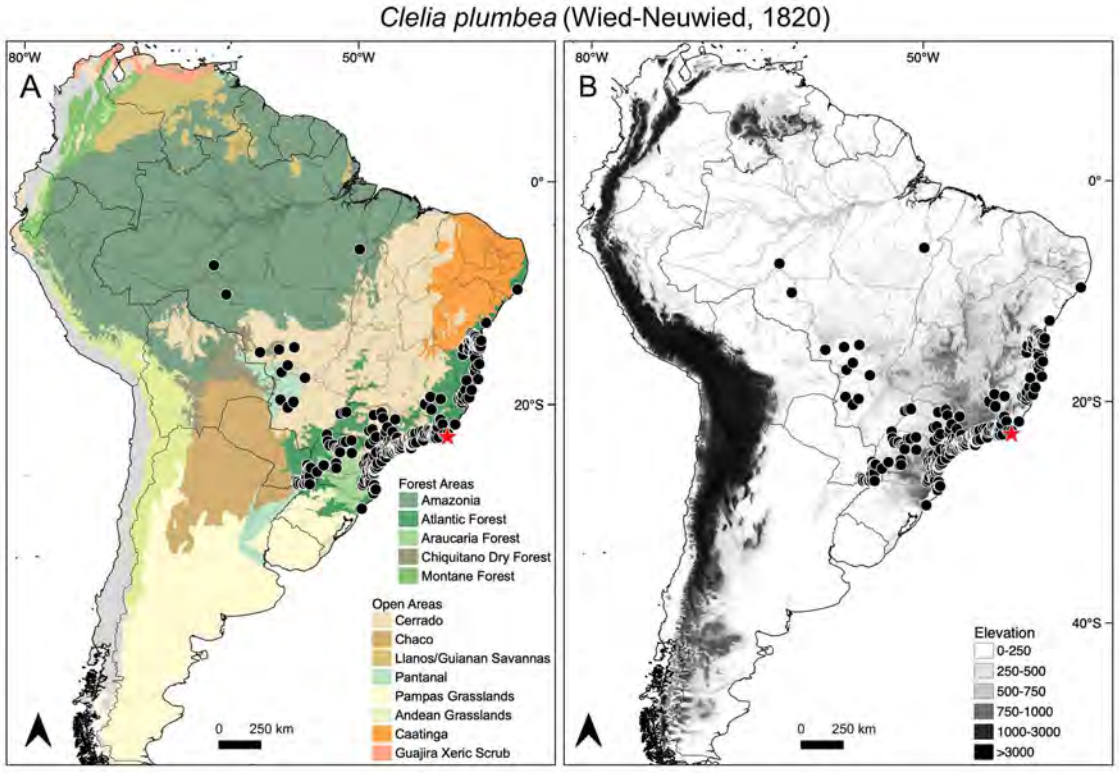


Plate 312. Distribution map of *Clelia plumbea* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

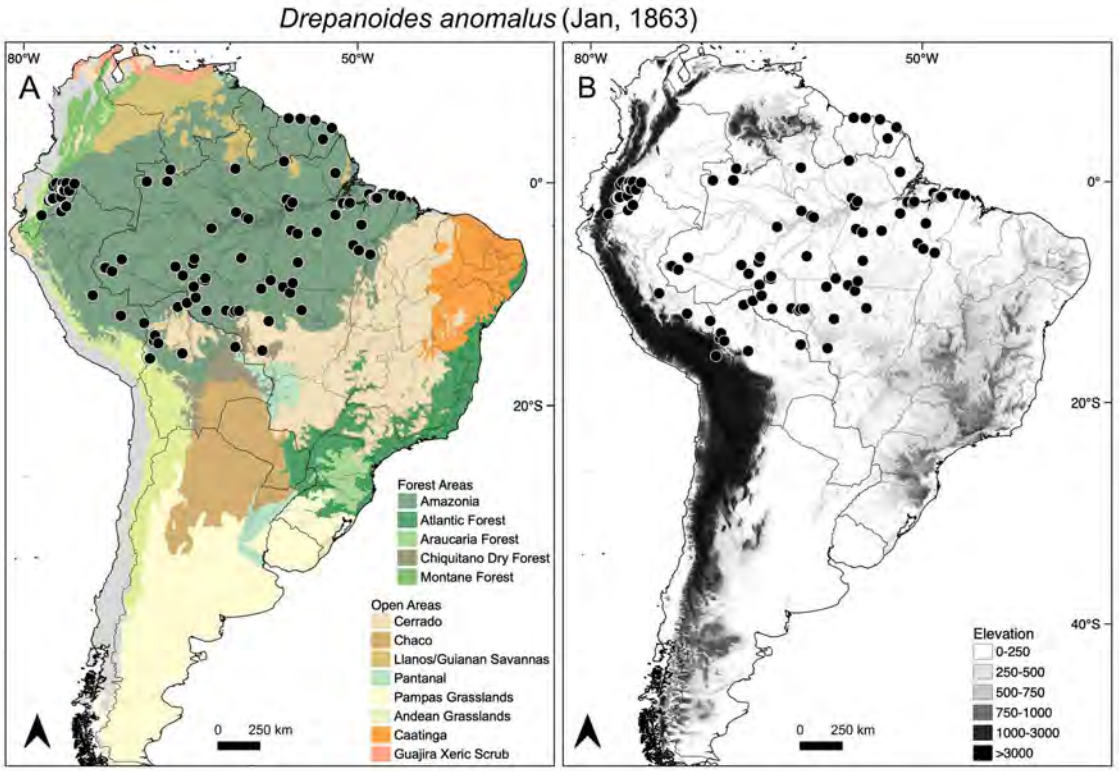


Plate 313. Distribution map of *Drepanoides anomalus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

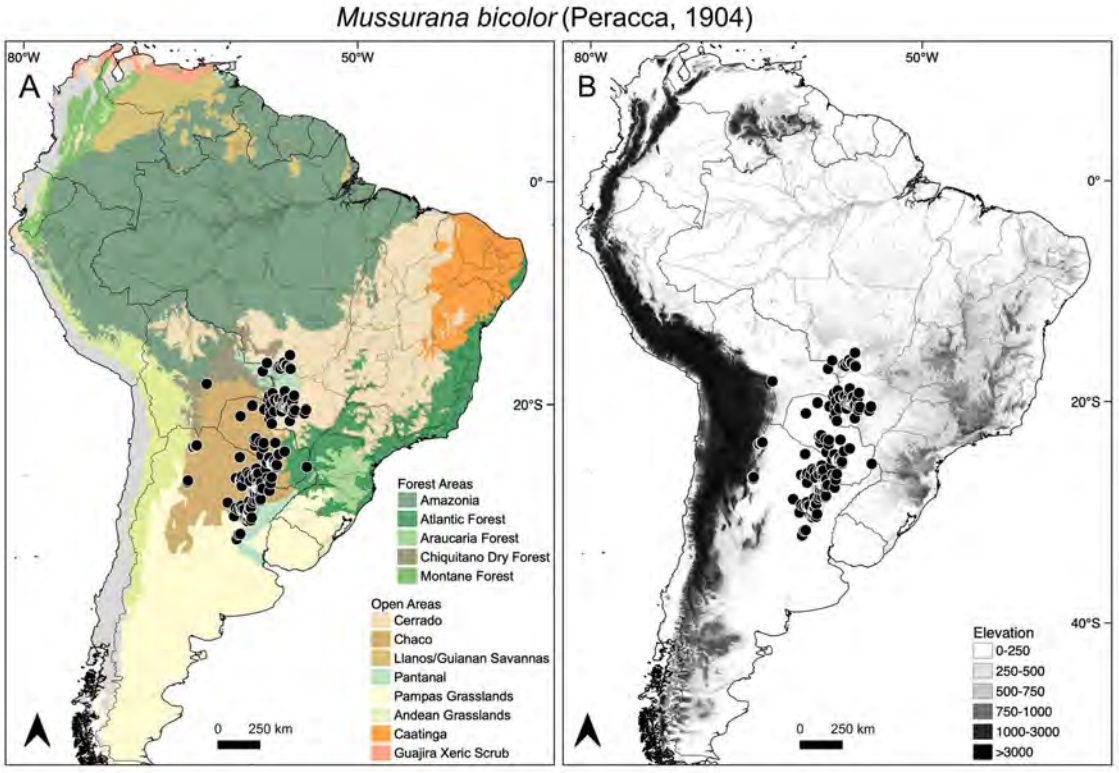


Plate 314. Distribution map of *Mussurana bicolor* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

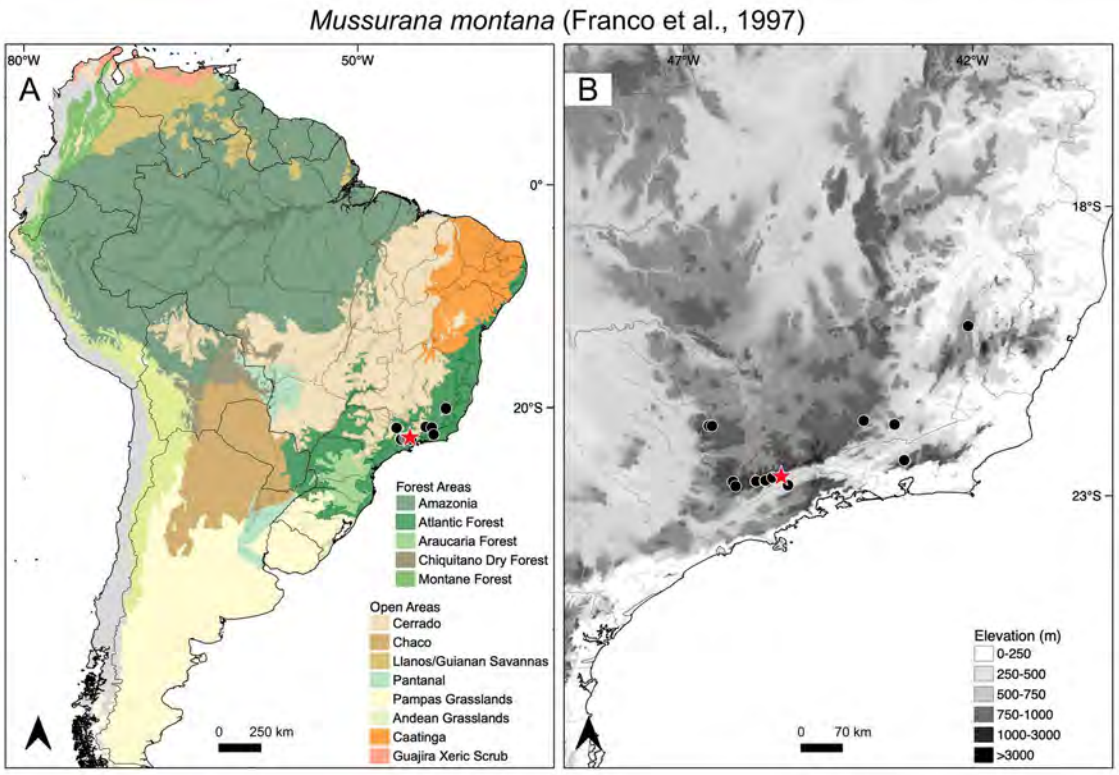


Plate 315. Distribution map of *Mussurana montana* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

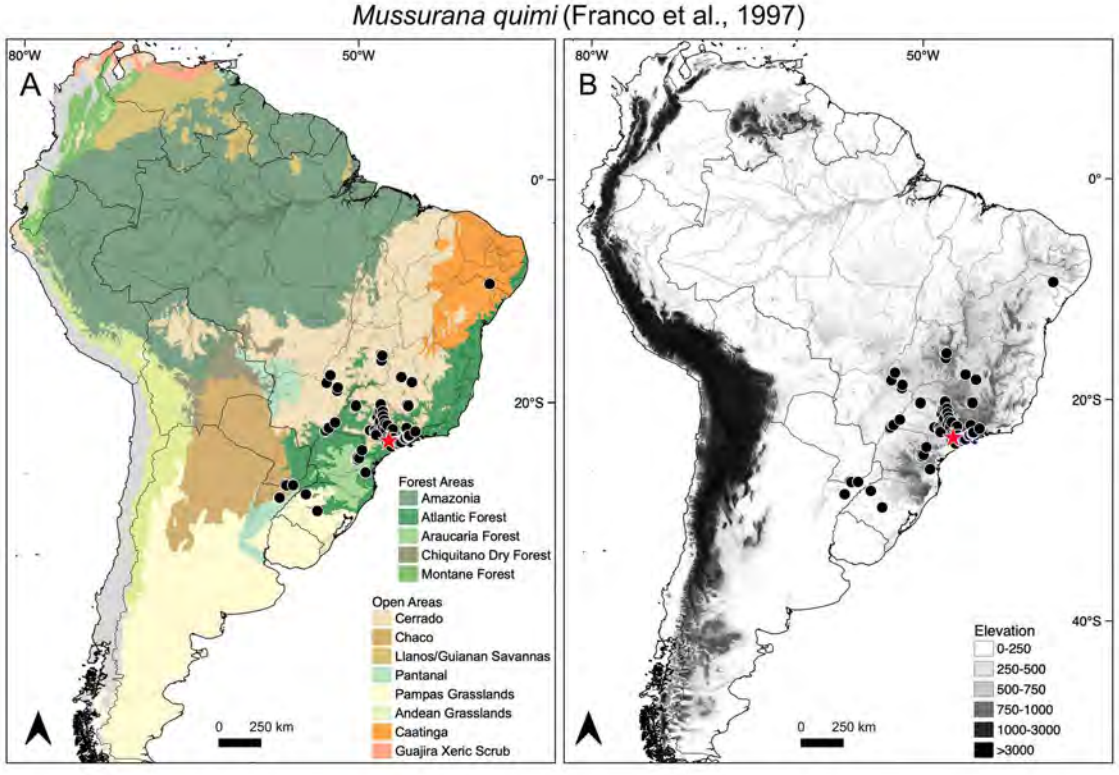


Plate 316. Distribution map of *Mussurana quimi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

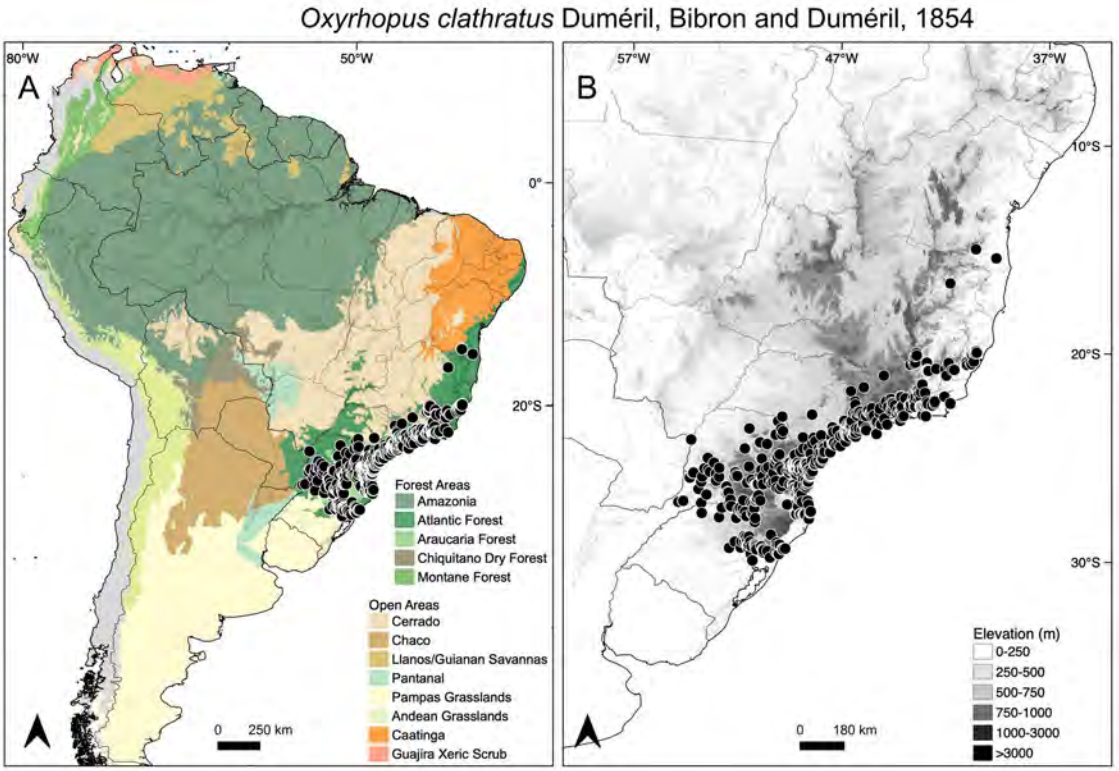


Plate 317. Distribution map of *Oxyrhopus clathratus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

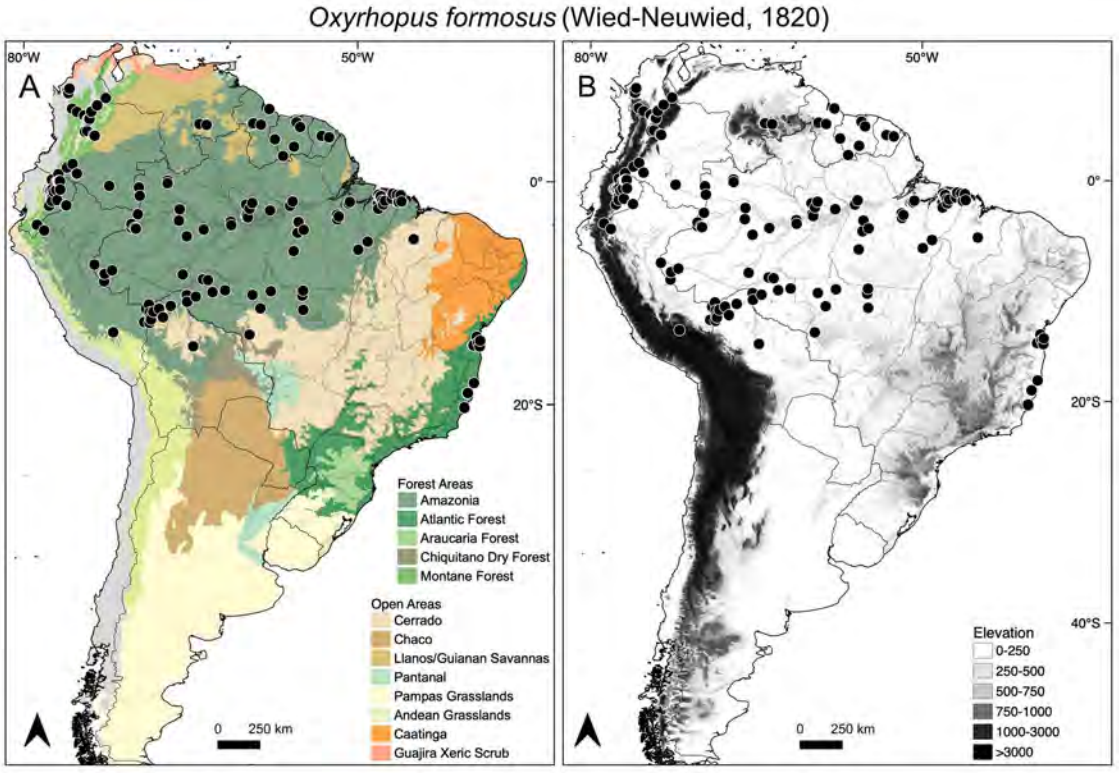


Plate 318. Distribution map of *Oxyrhopus formosus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

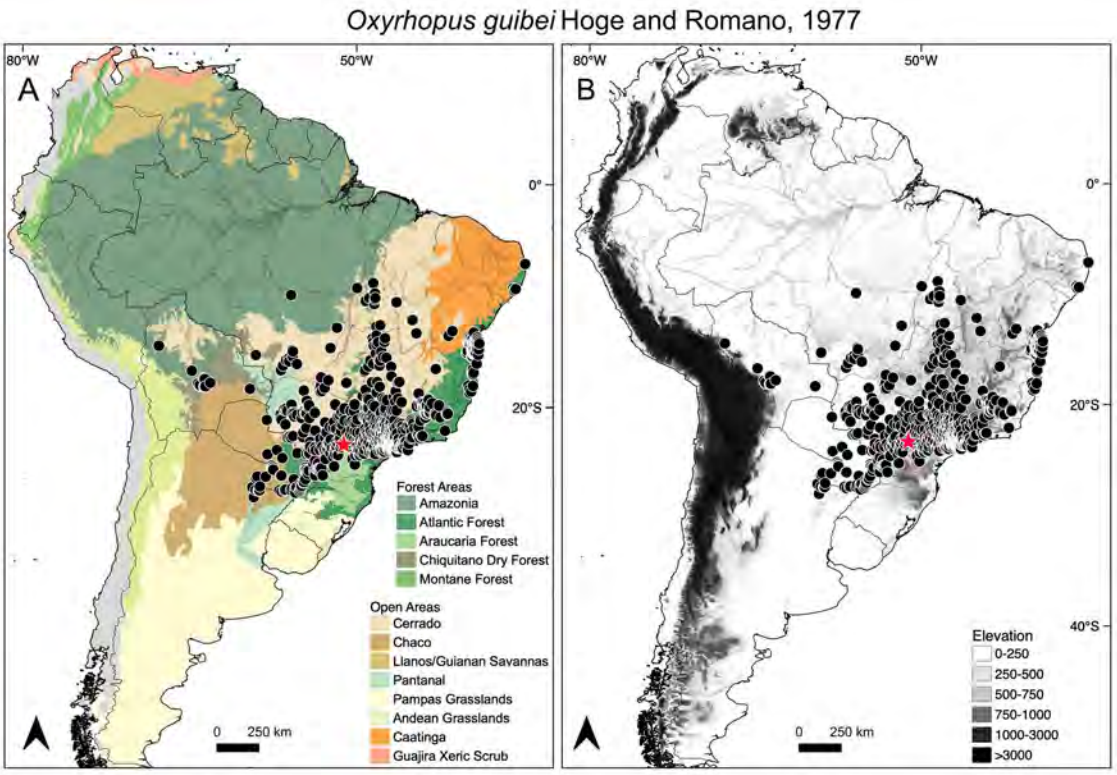


Plate 319. Distribution map of *Oxyrhopus guibei* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

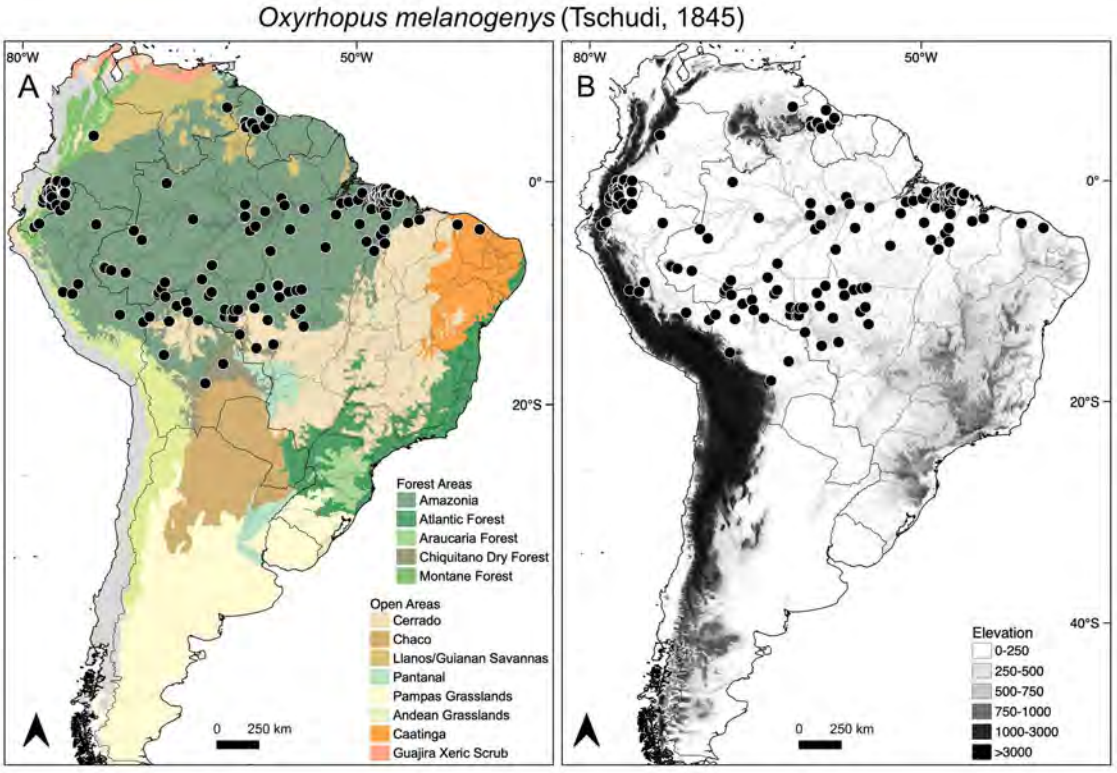


Plate 320. Distribution map of *Oxyrhopus melanogenys* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

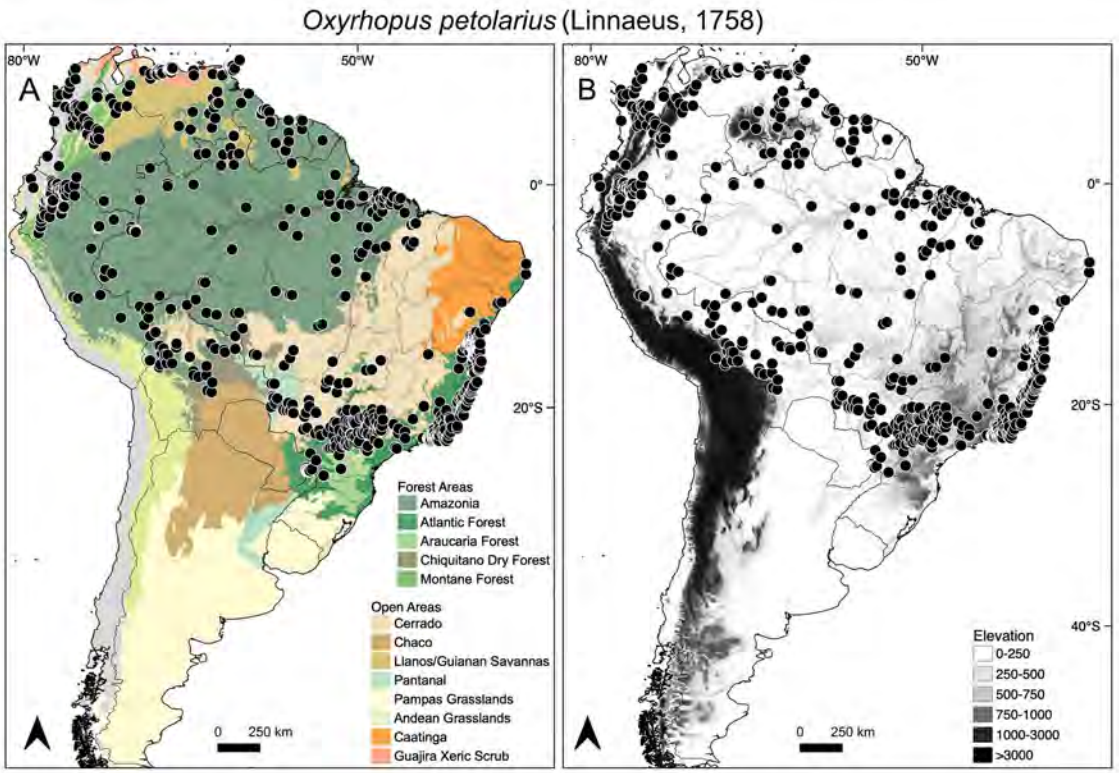


Plate 321. Distribution map of *Oxyrhopus petolarius* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

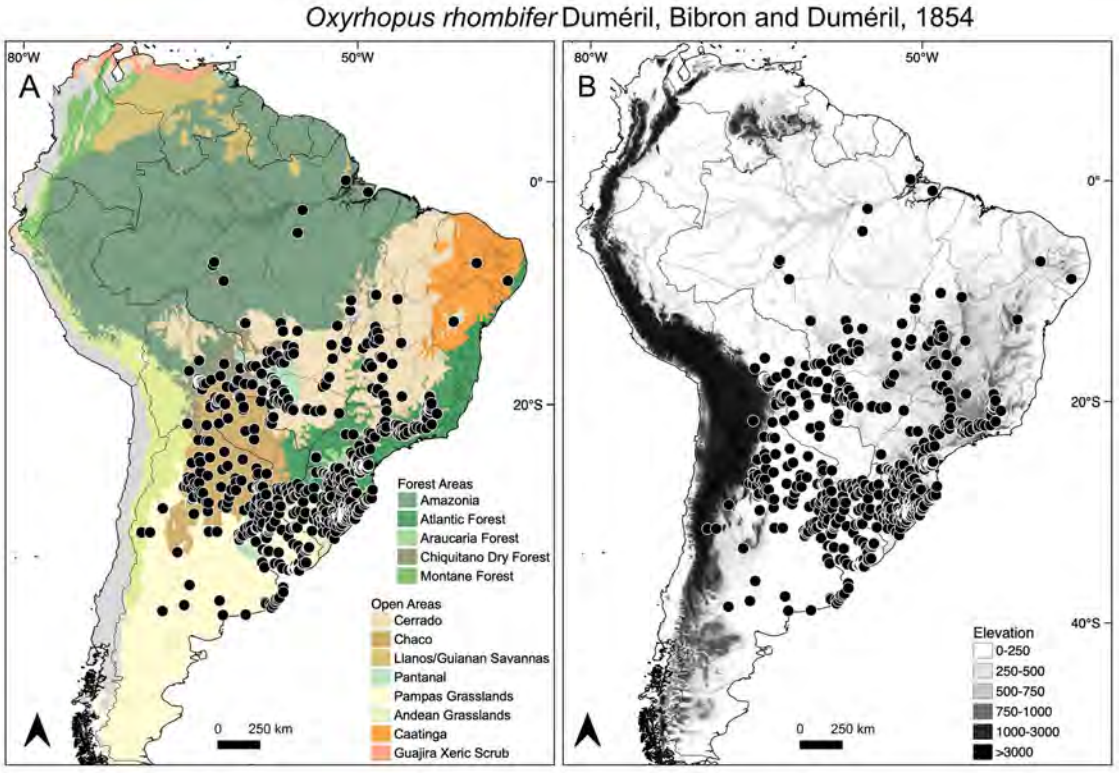


Plate 322. Distribution map of *Oxyrhopus rhombifer* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

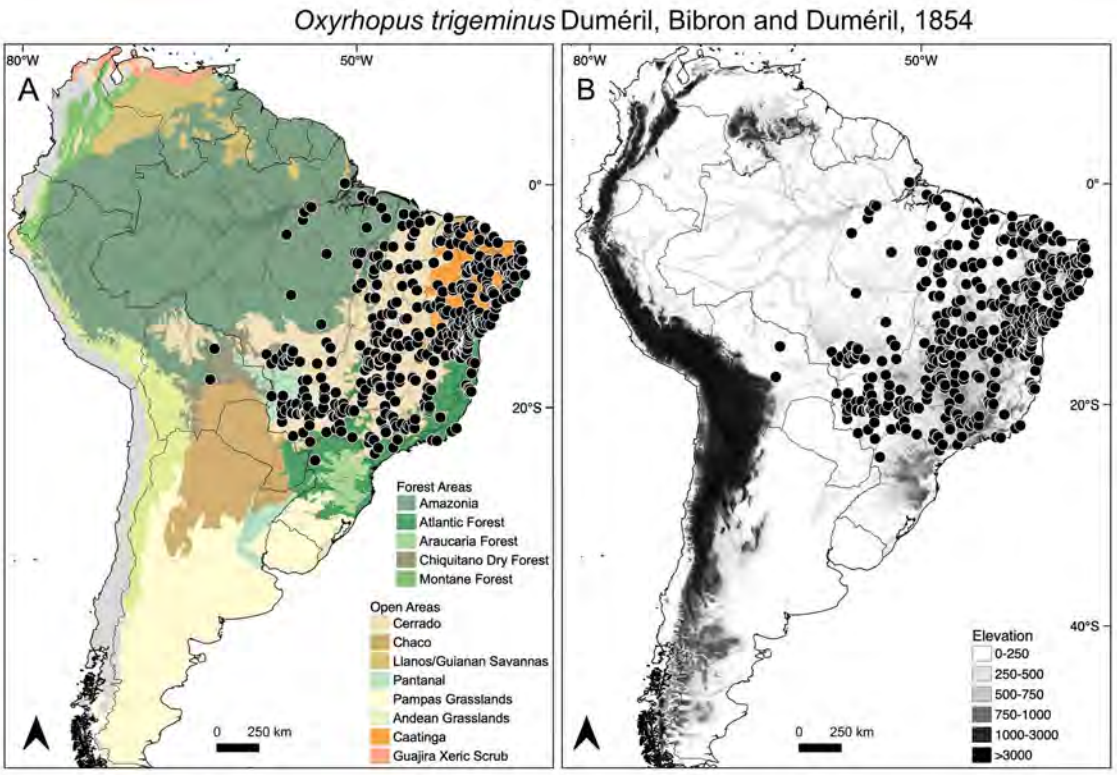


Plate 323. Distribution map of *Oxyrhopus trigeminus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

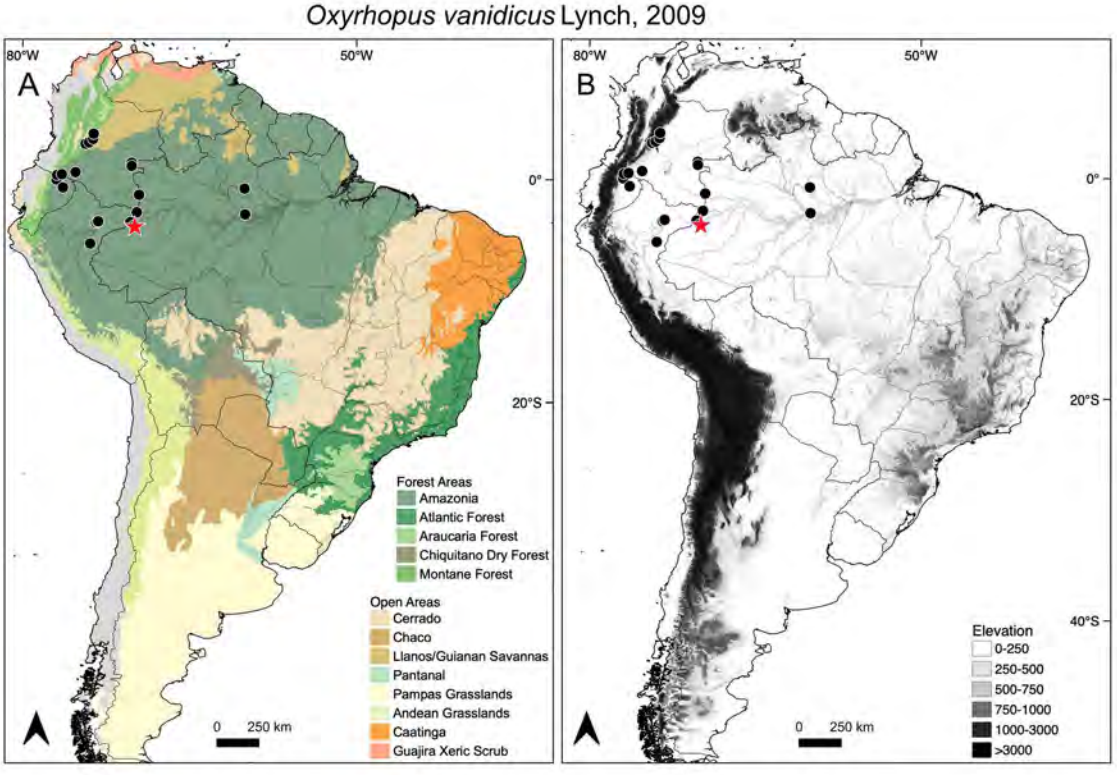


Plate 324. Distribution map of *Oxyrhopus vanidicus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Paraphimophis rusticus (Cope, 1878)

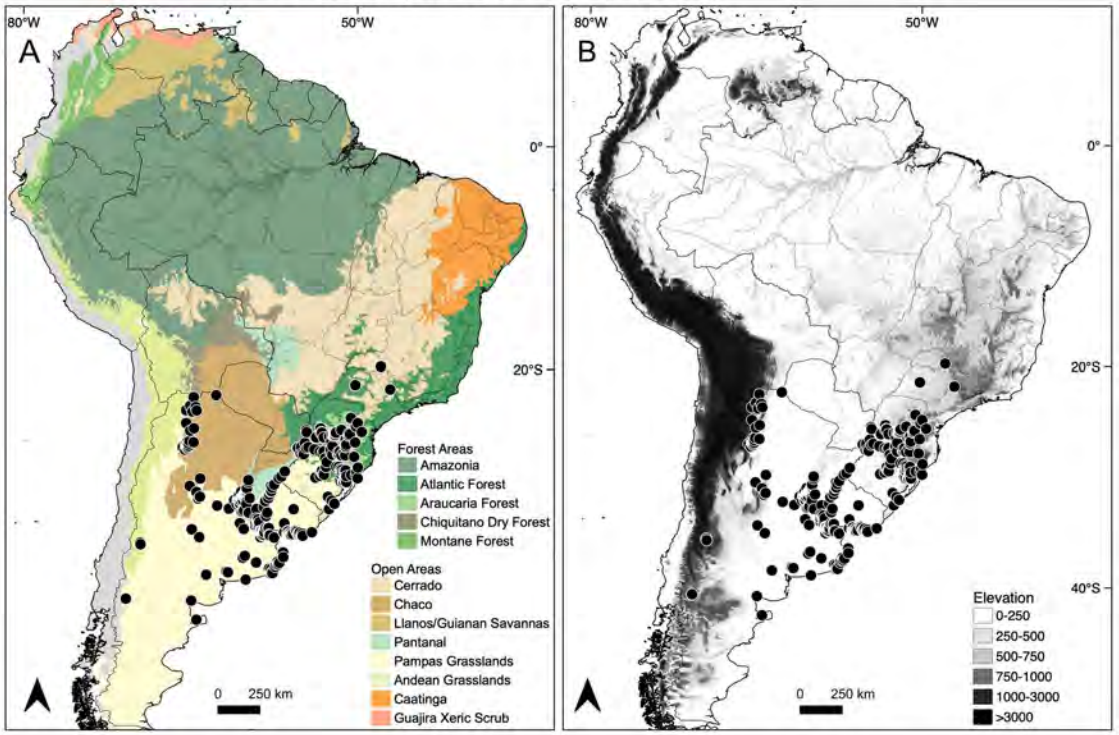


Plate 325. Distribution map of *Paraphimophis rusticus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Phimophis guerini (Duméril, Bibron and Duméril, 1854)

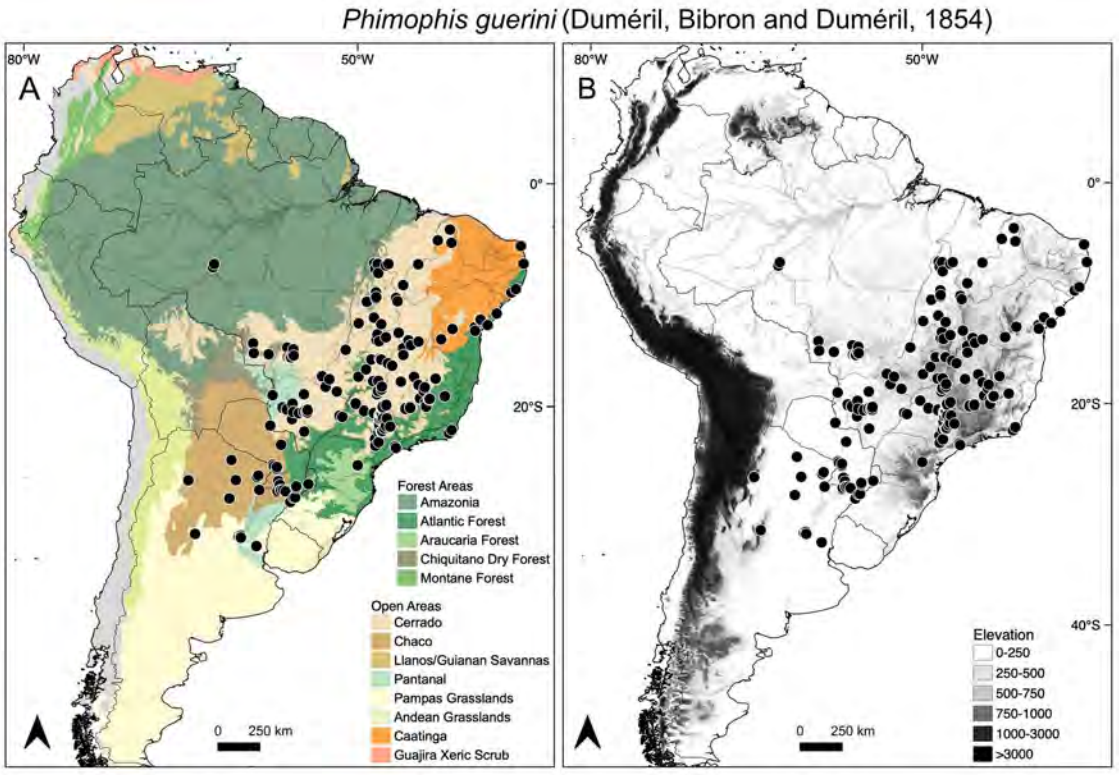


Plate 326. Distribution map of *Phimophis guerini* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

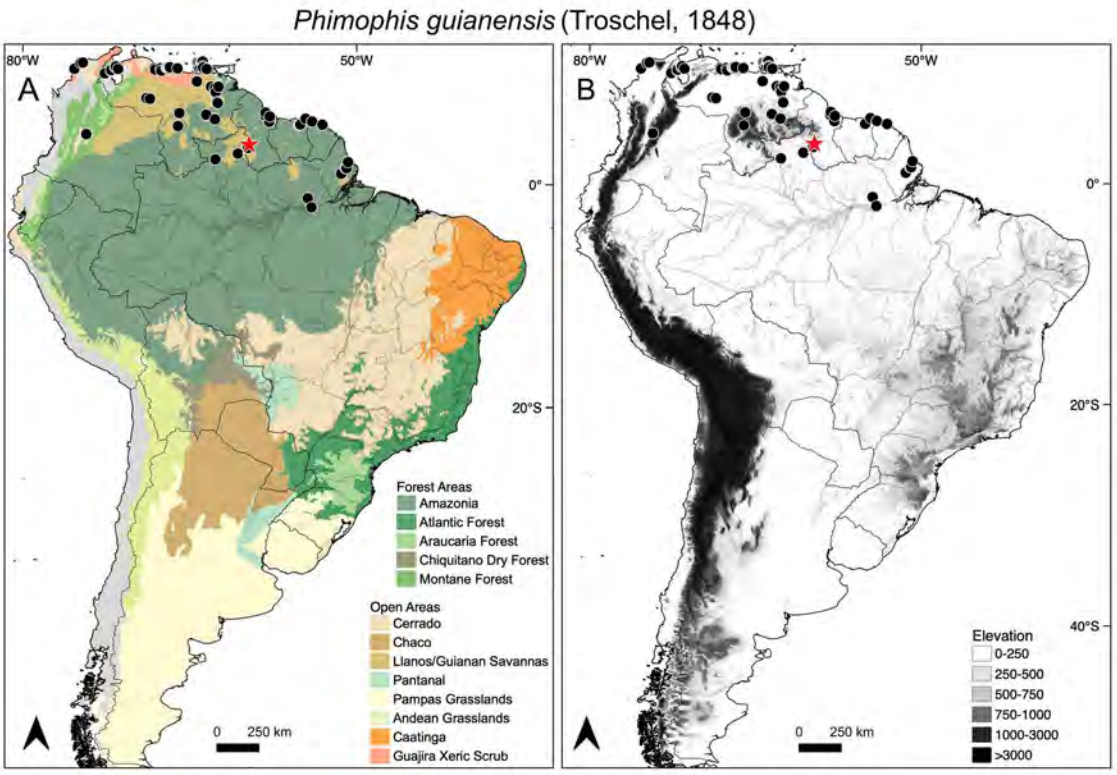


Plate 327. Distribution map of *Phimophis guianensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

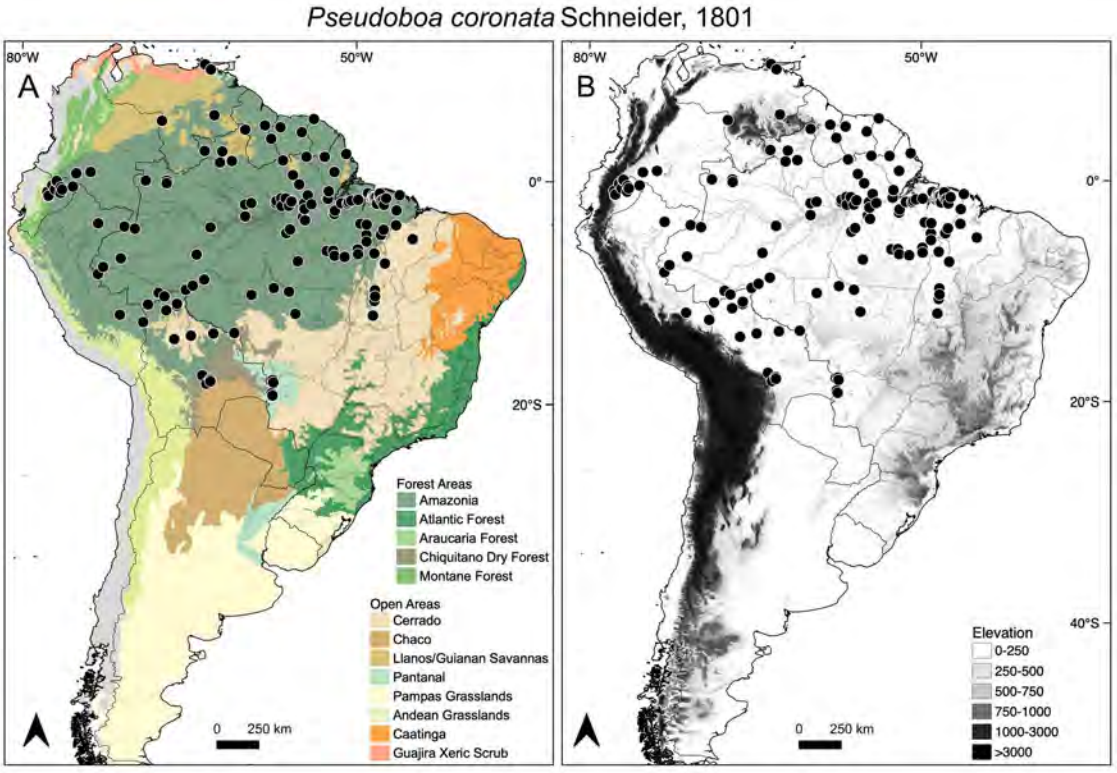


Plate 328. Distribution map of *Pseudoboa coronata* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

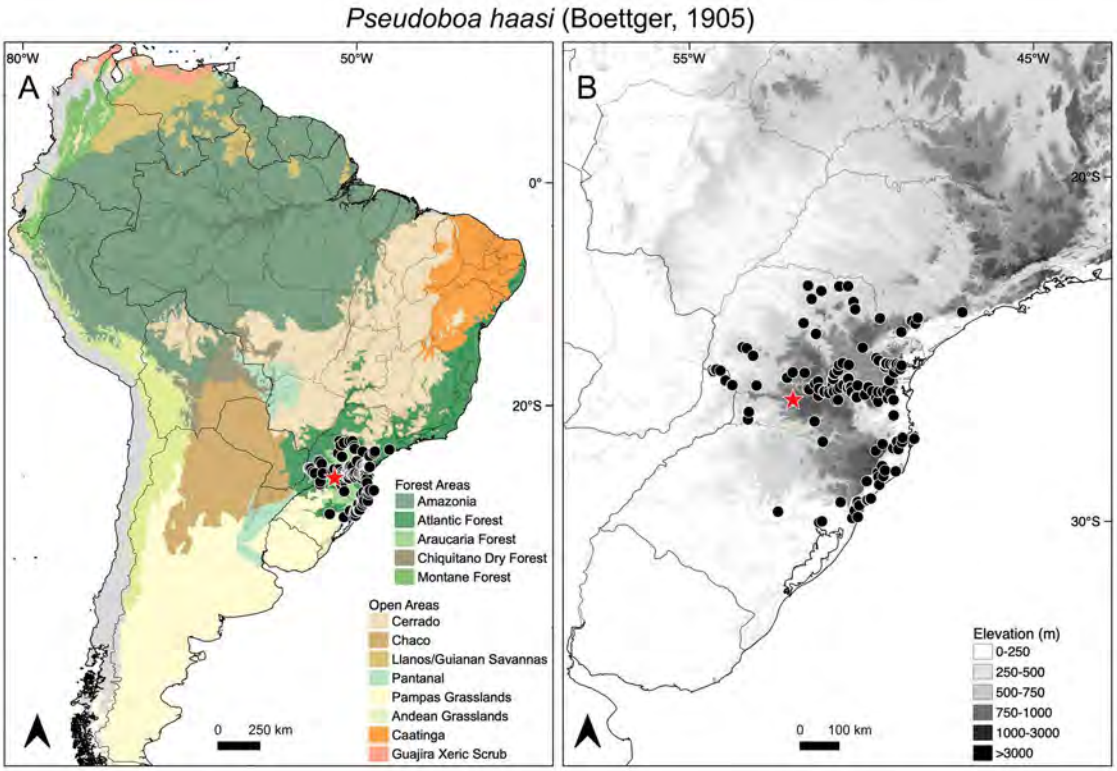


Plate 329. Distribution map of *Pseudoboa haasi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

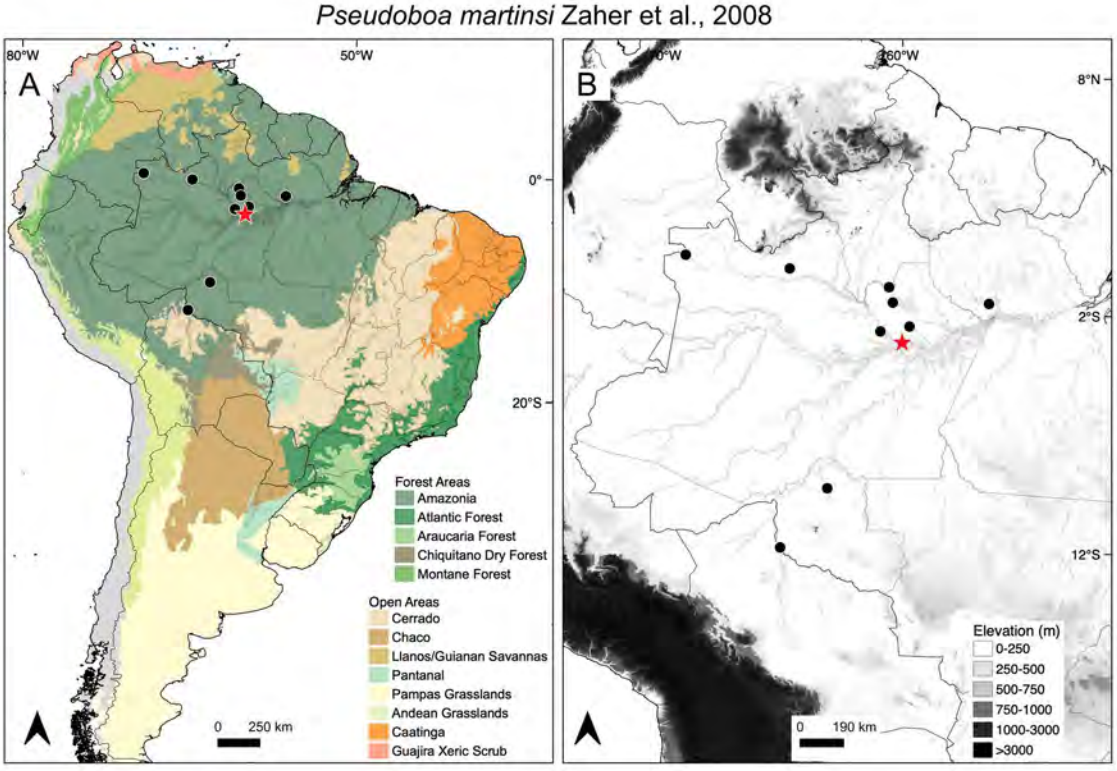


Plate 330. Distribution map of *Pseudoboa martinsi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

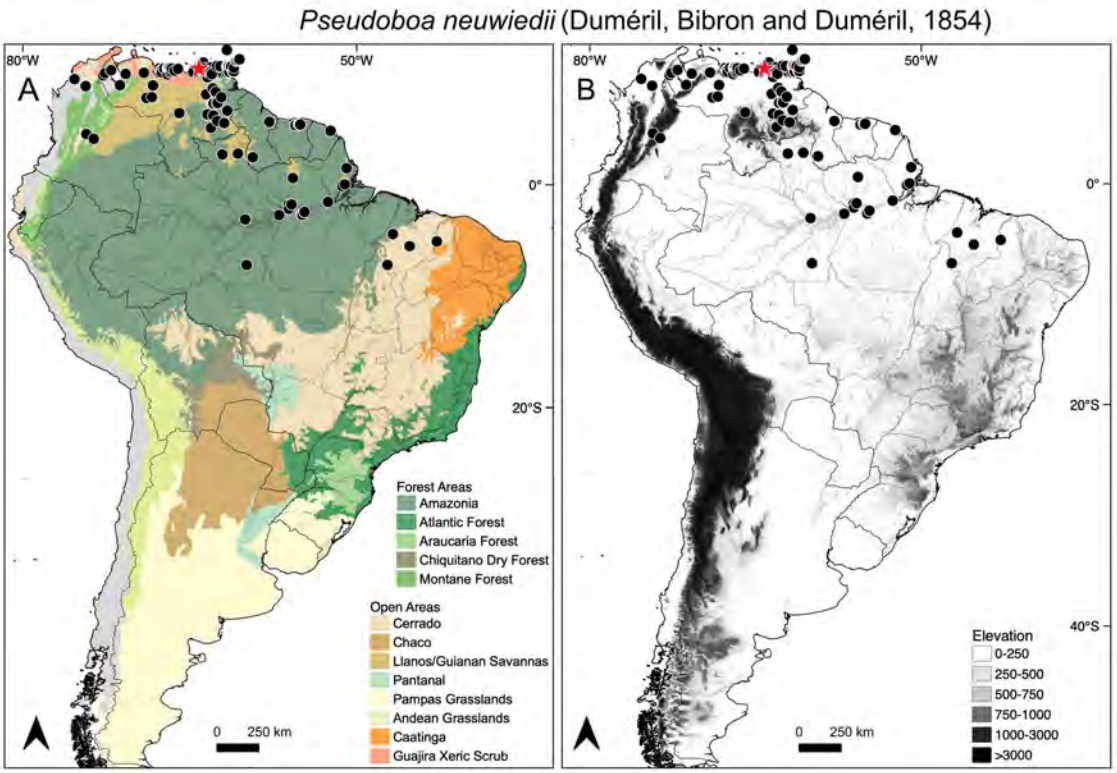


Plate 331. Distribution map of *Pseudoboa neuwiedii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

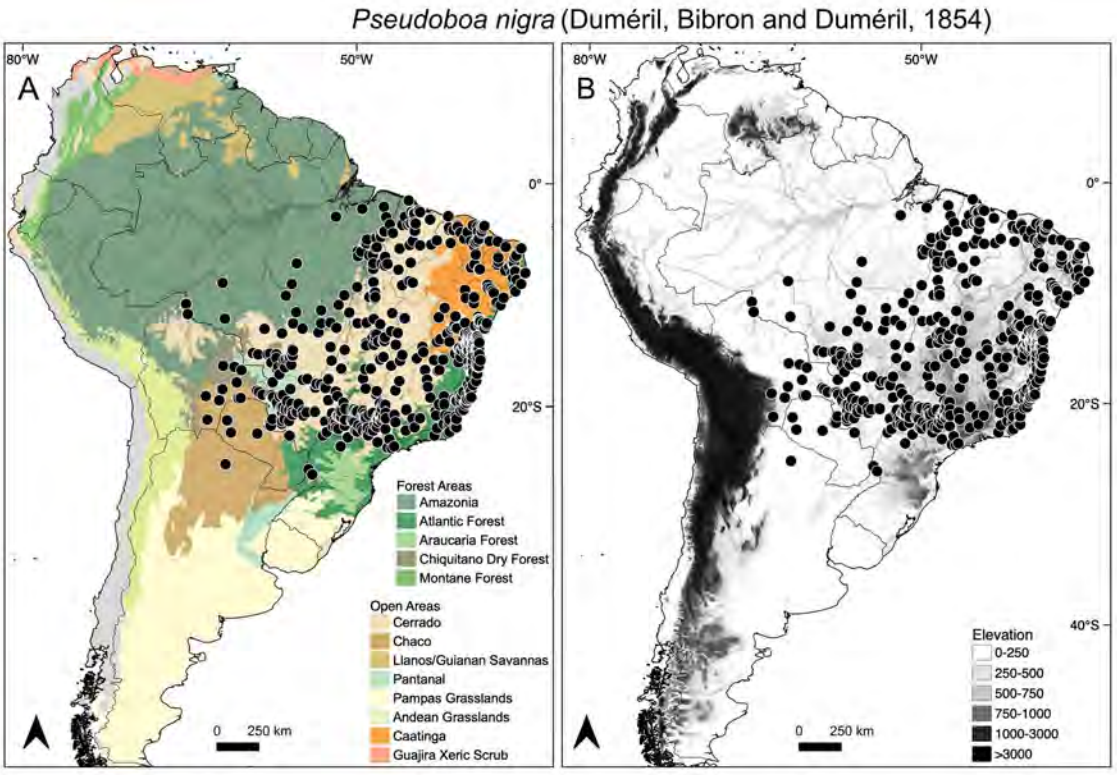


Plate 332. Distribution map of *Pseudoboa nigra* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

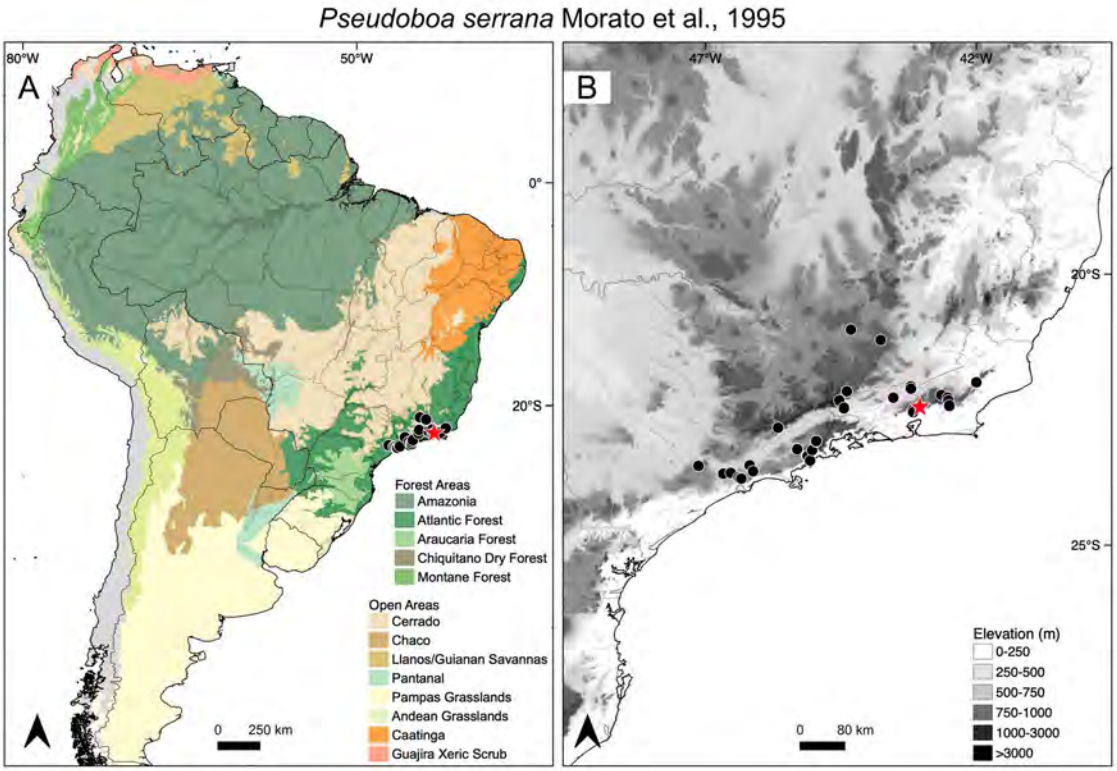


Plate 333. Distribution map of *Pseudoboa serrana* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

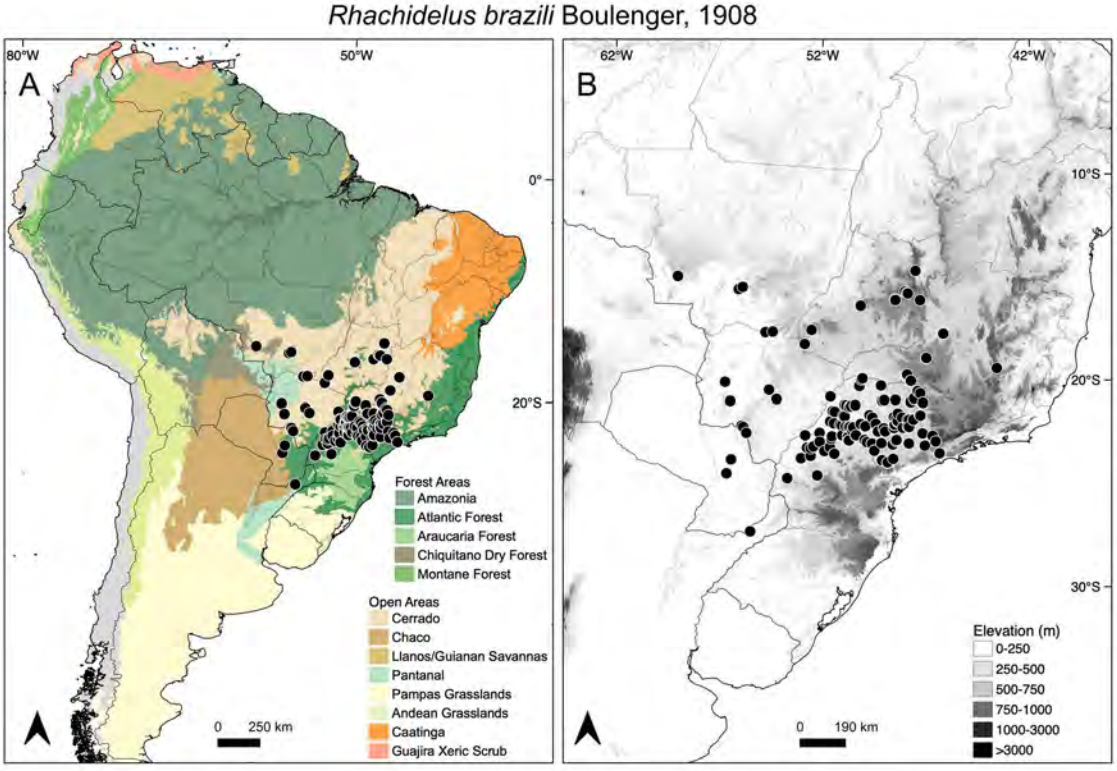


Plate 334. Distribution map of *Rhachidelus brazili* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

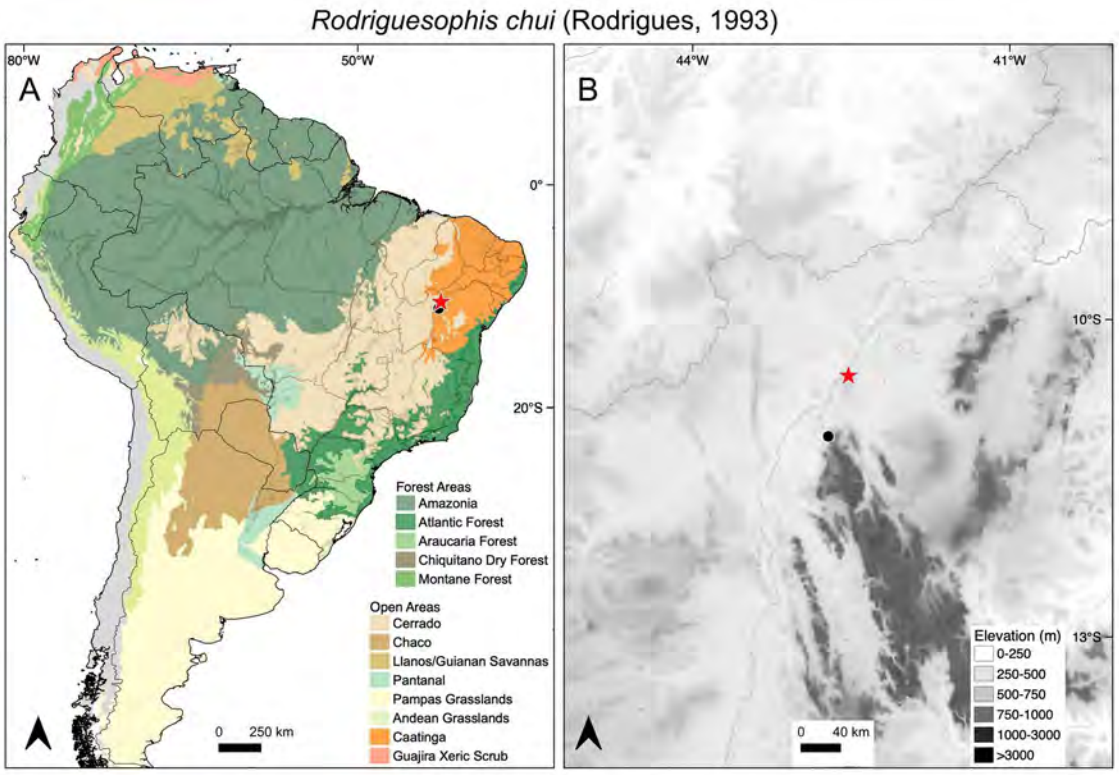


Plate 335. Distribution map of *Rodriguesophis chui* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

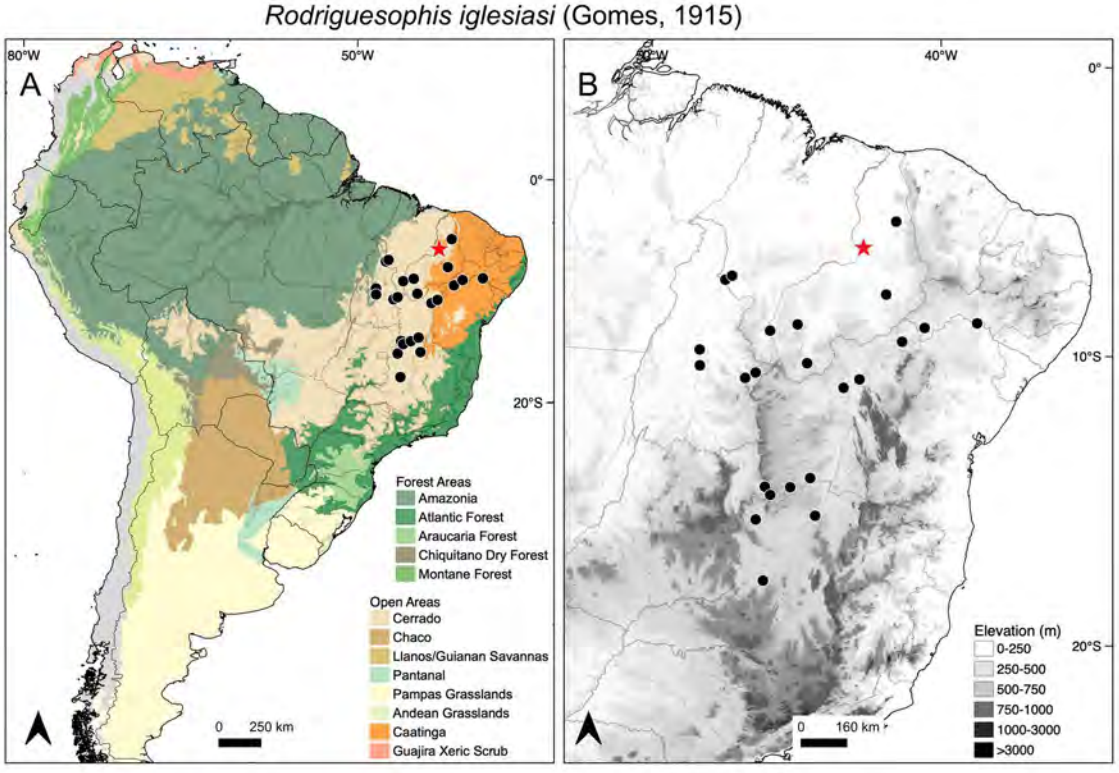


Plate 336. Distribution map of *Rodriguesophis iglesiasi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Rodriguesophis scriptorcibatus (Rodrigues, 1993)

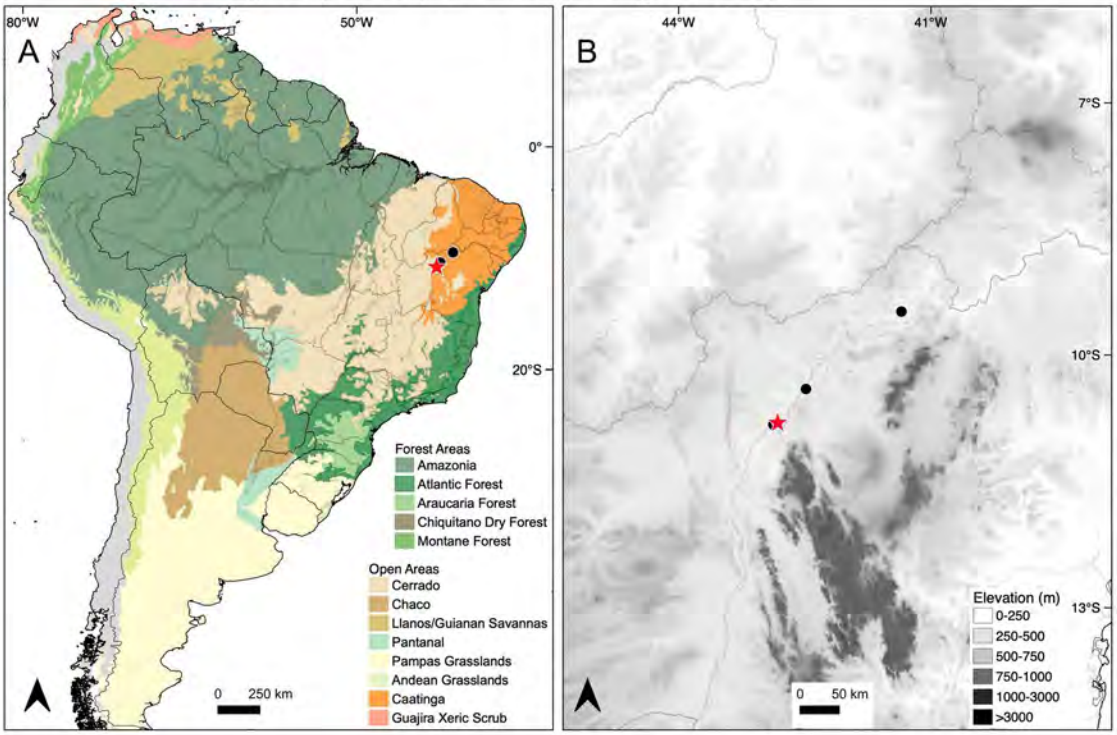


Plate 337. Distribution map of *Rodriguesophis scriptorcibatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Siphlophis cervinus (Laurenti, 1768)

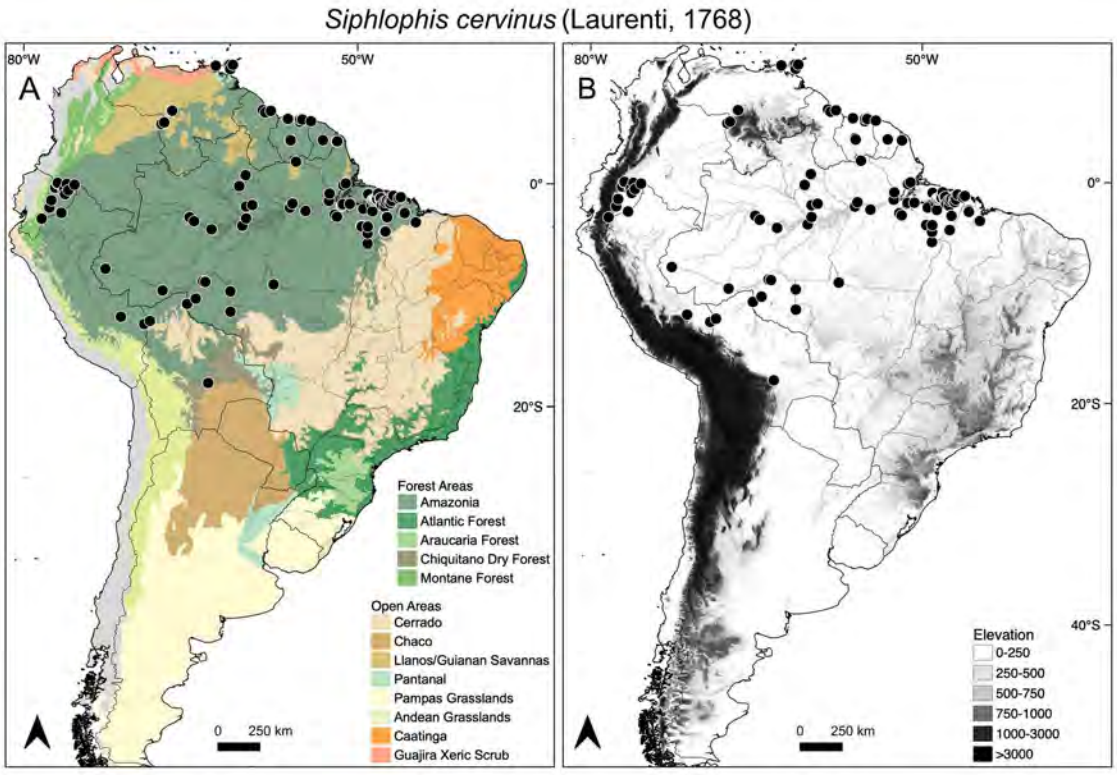


Plate 338. Distribution map of *Siphlophis cervinus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

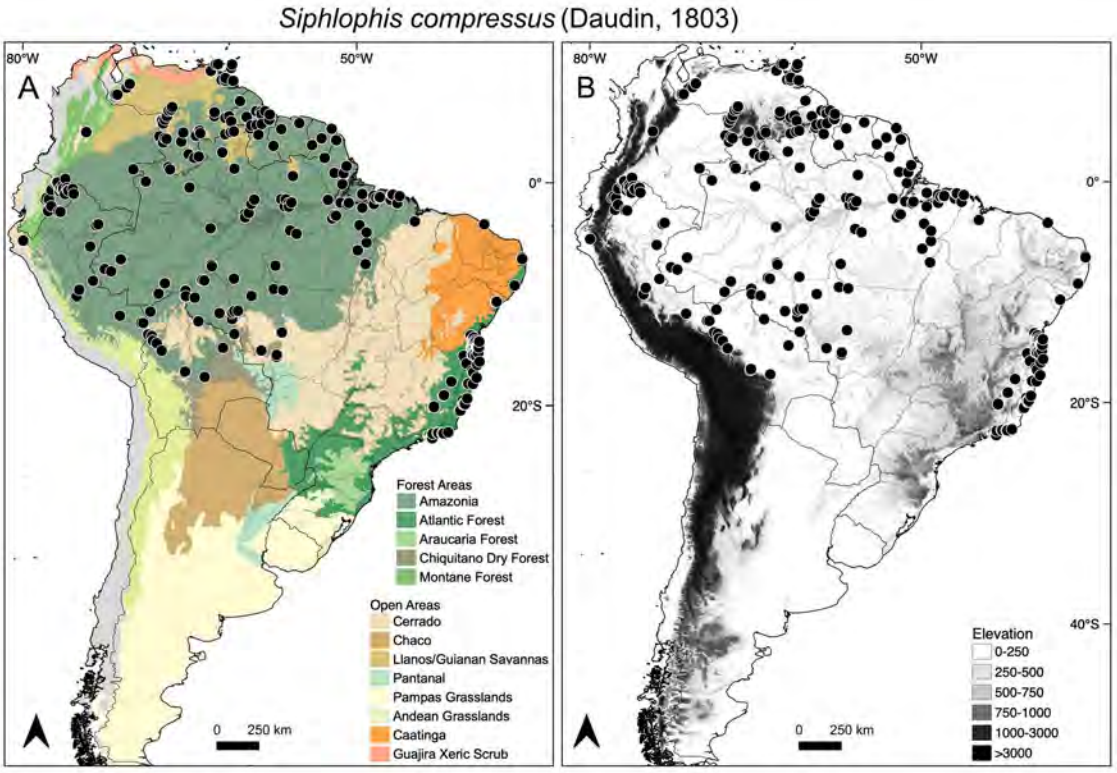


Plate 339. Distribution map of *Siphlophis compressus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

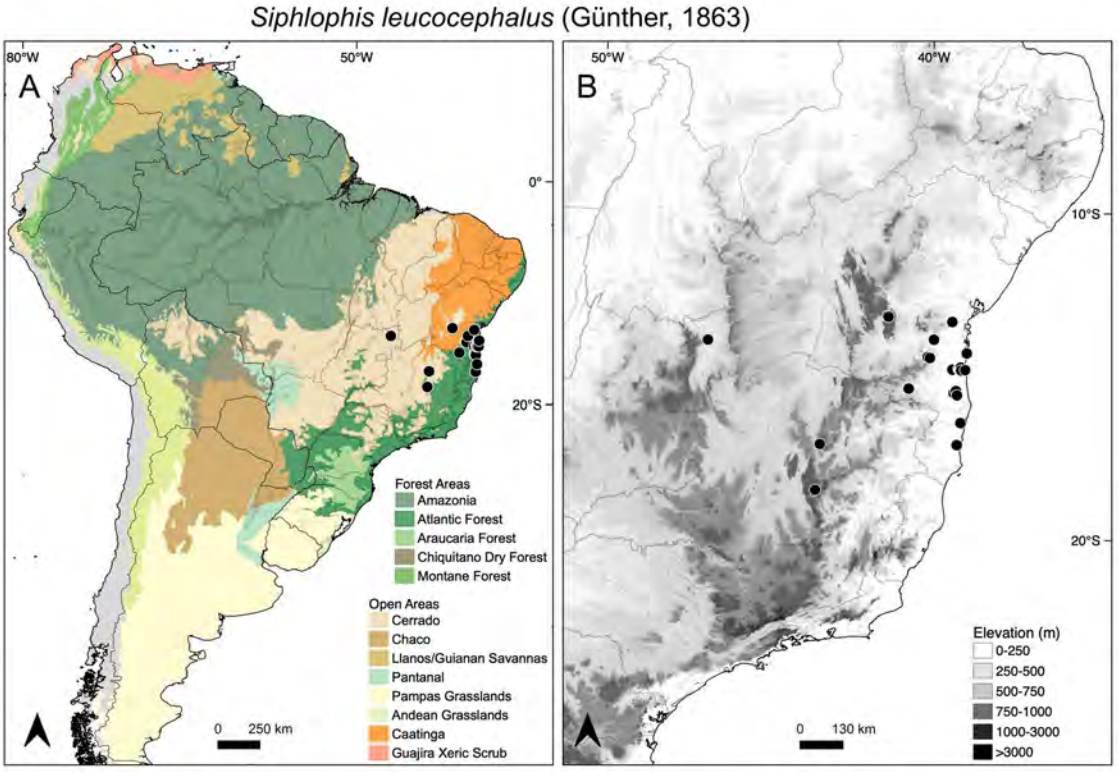


Plate 340. Distribution map of *Siphlophis leucocephalus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

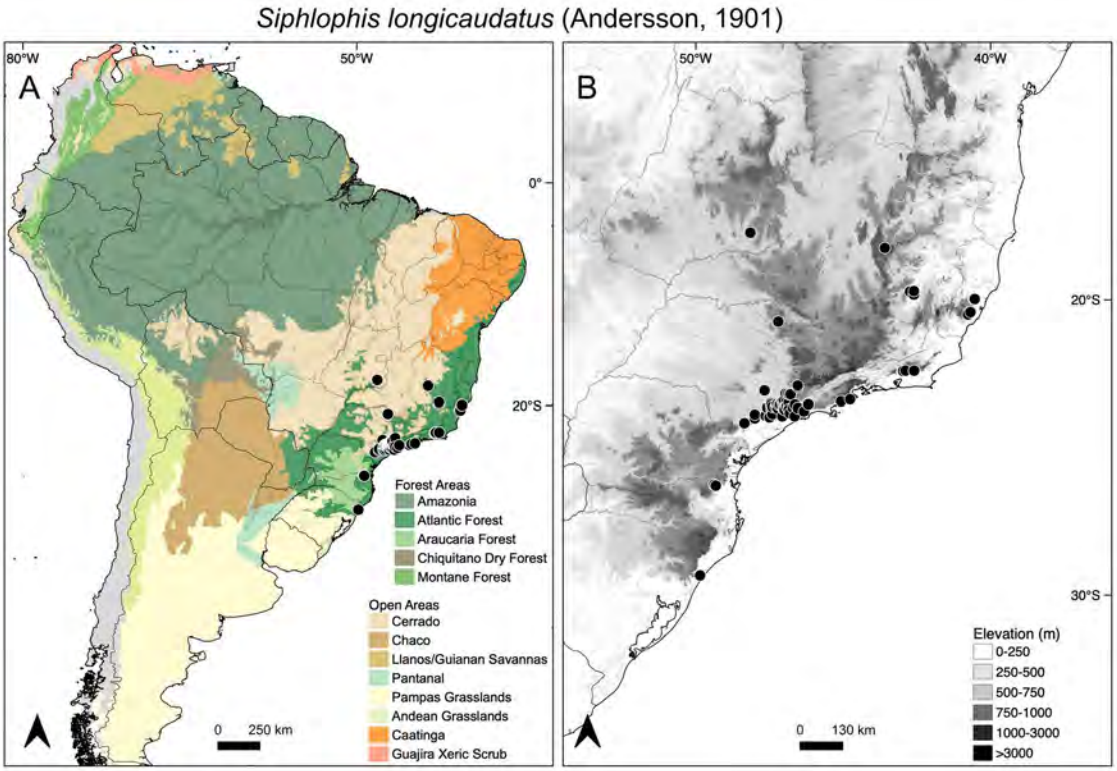


Plate 341. Distribution map of *Siphlophis longicaudatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

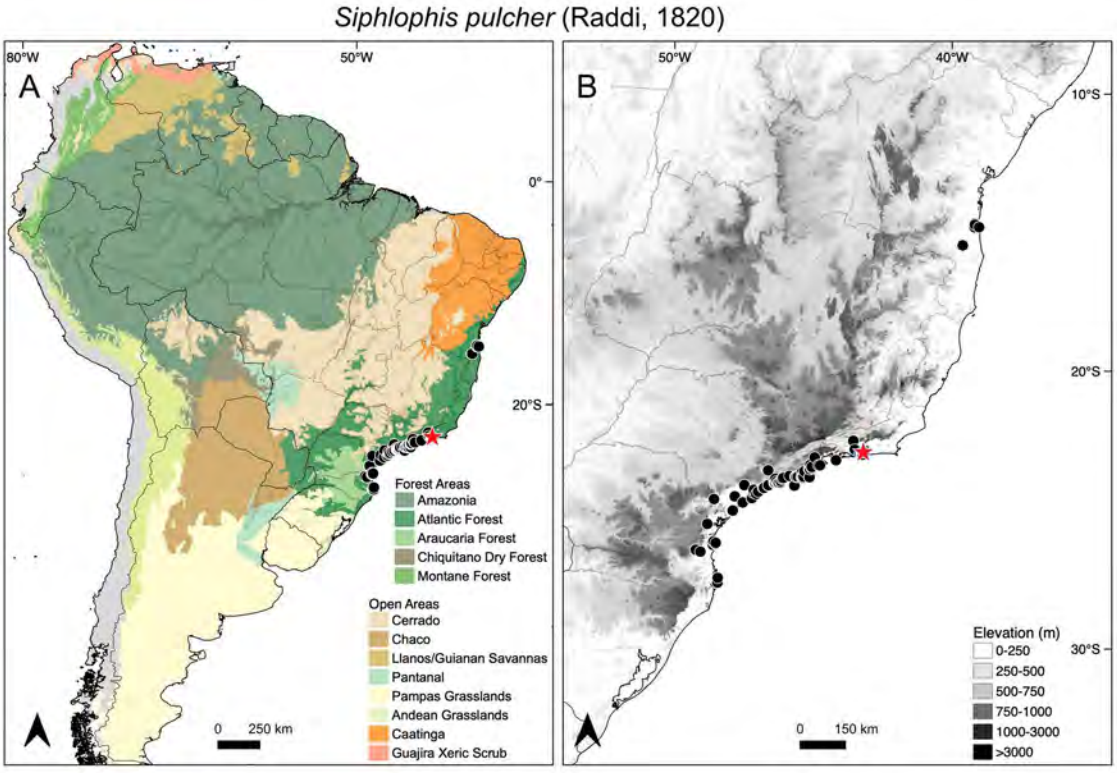


Plate 342. Distribution map of *Siphlophis pulcher* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

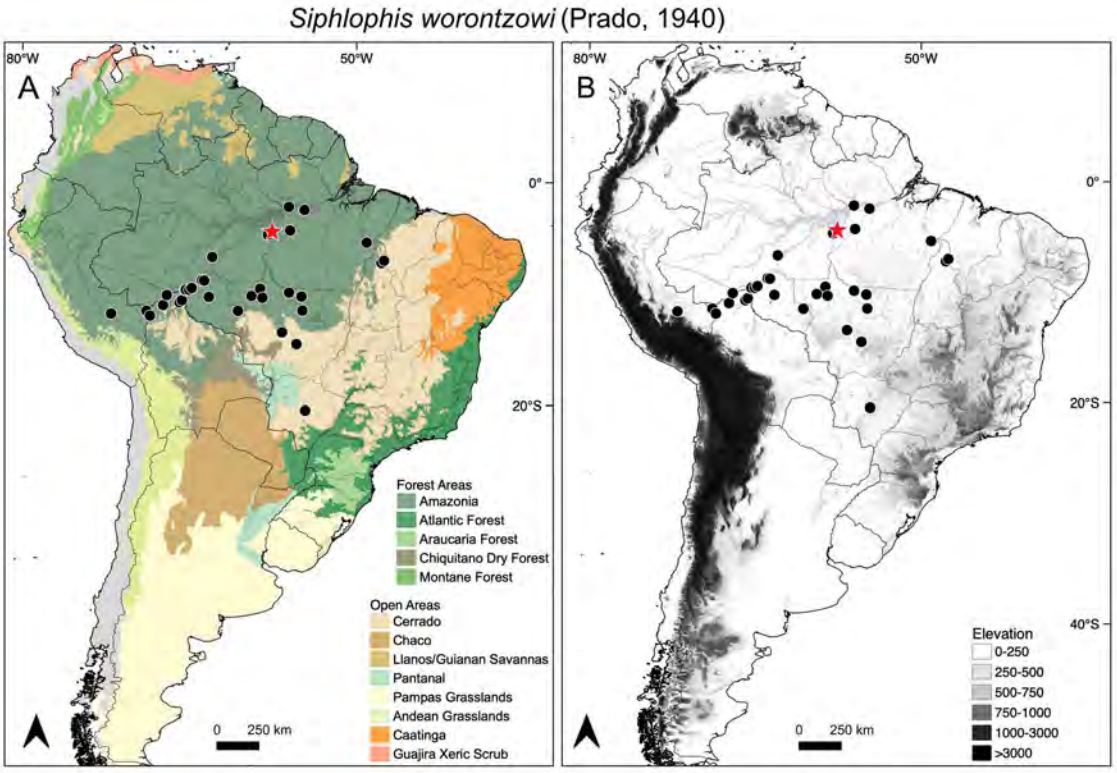


Plate 343. Distribution map of *Siphlophis worontzowi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

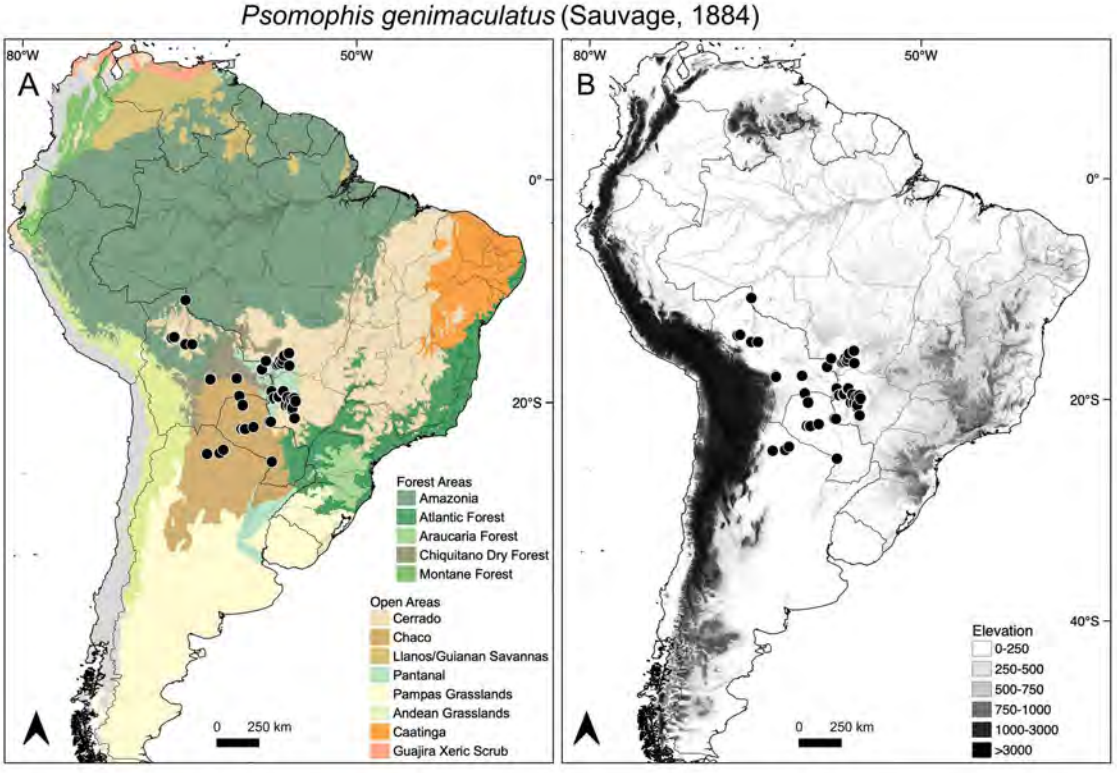


Plate 344. Distribution map of *Psomophis genimaculatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Psomophis joberti (Boettger, 1885)

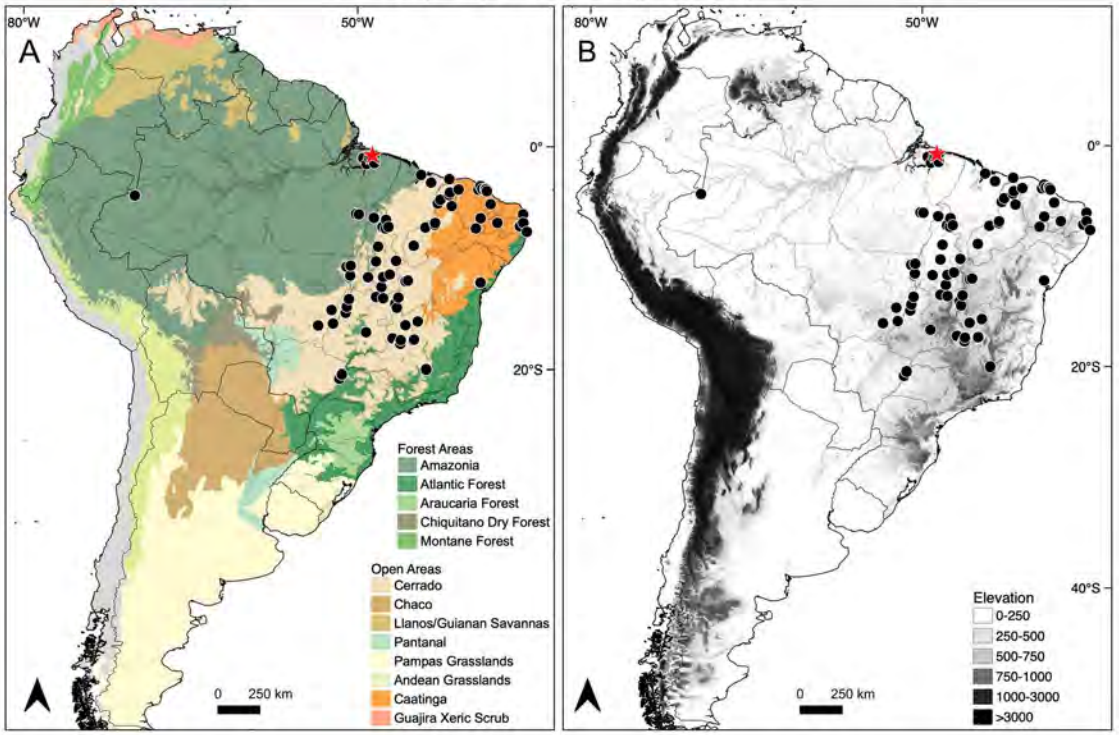


Plate 345. Distribution map of *Psomophis joberti* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Psomophis obtusus (Cope, 1863)

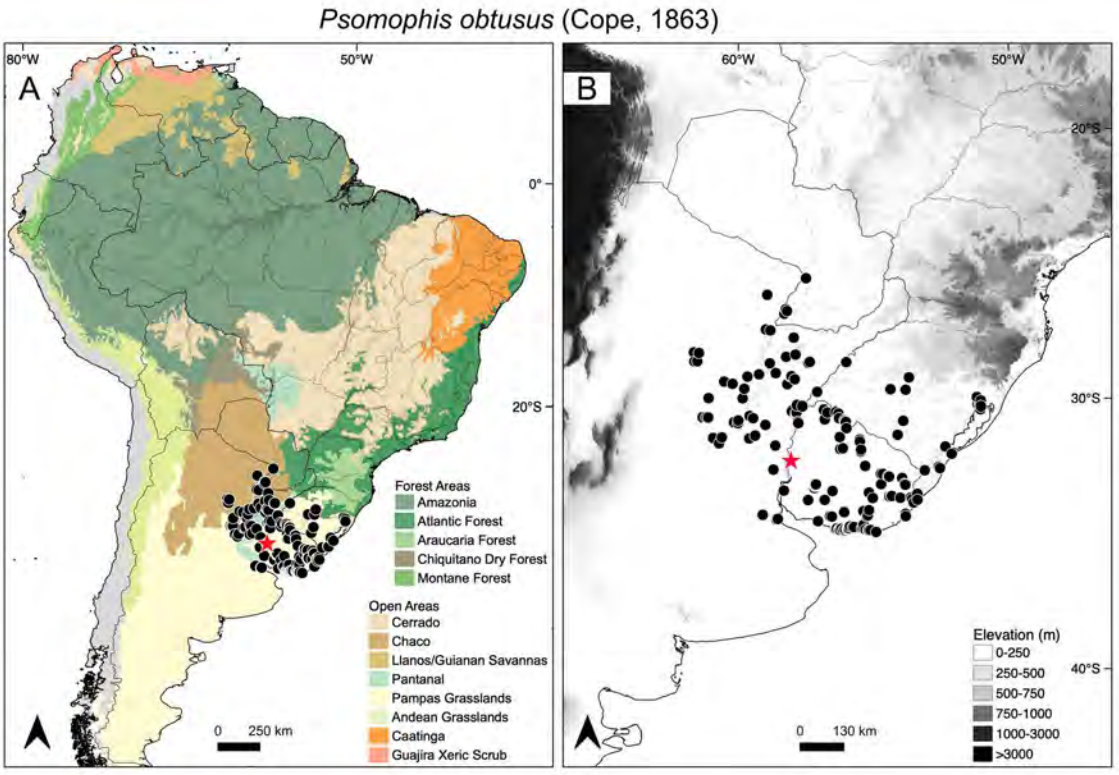


Plate 346. Distribution map of *Psomophis obtusus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

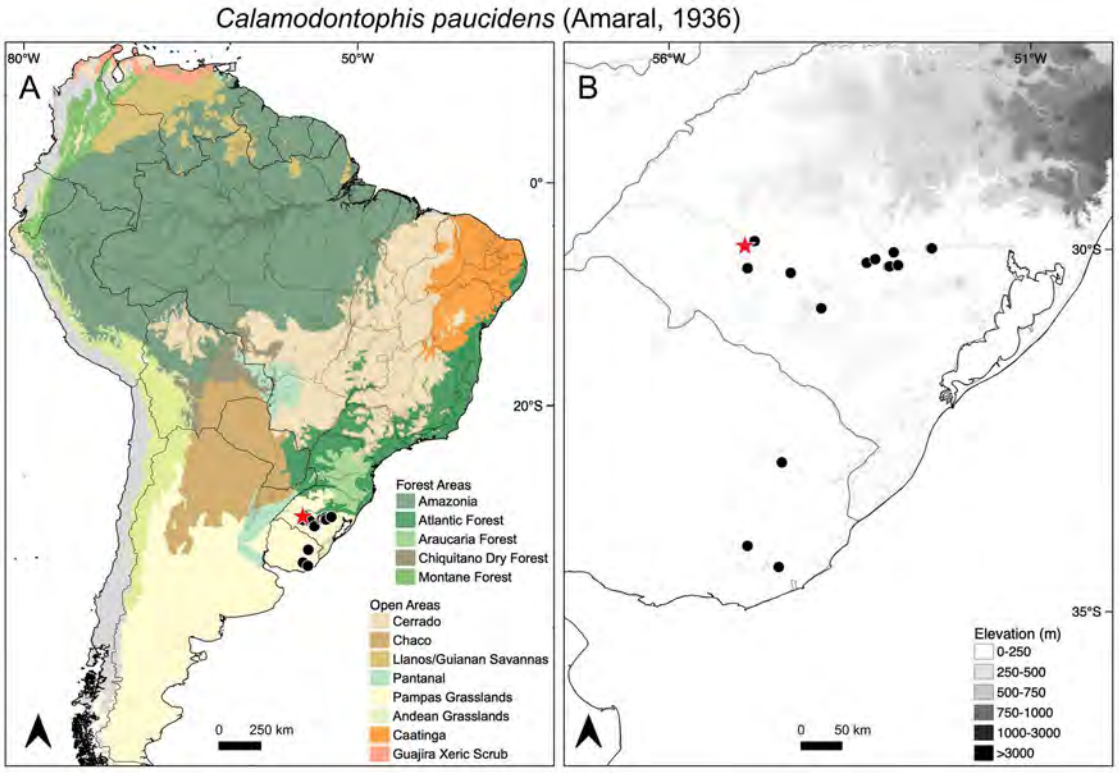


Plate 347. Distribution map of *Calamodontophis paucidens* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

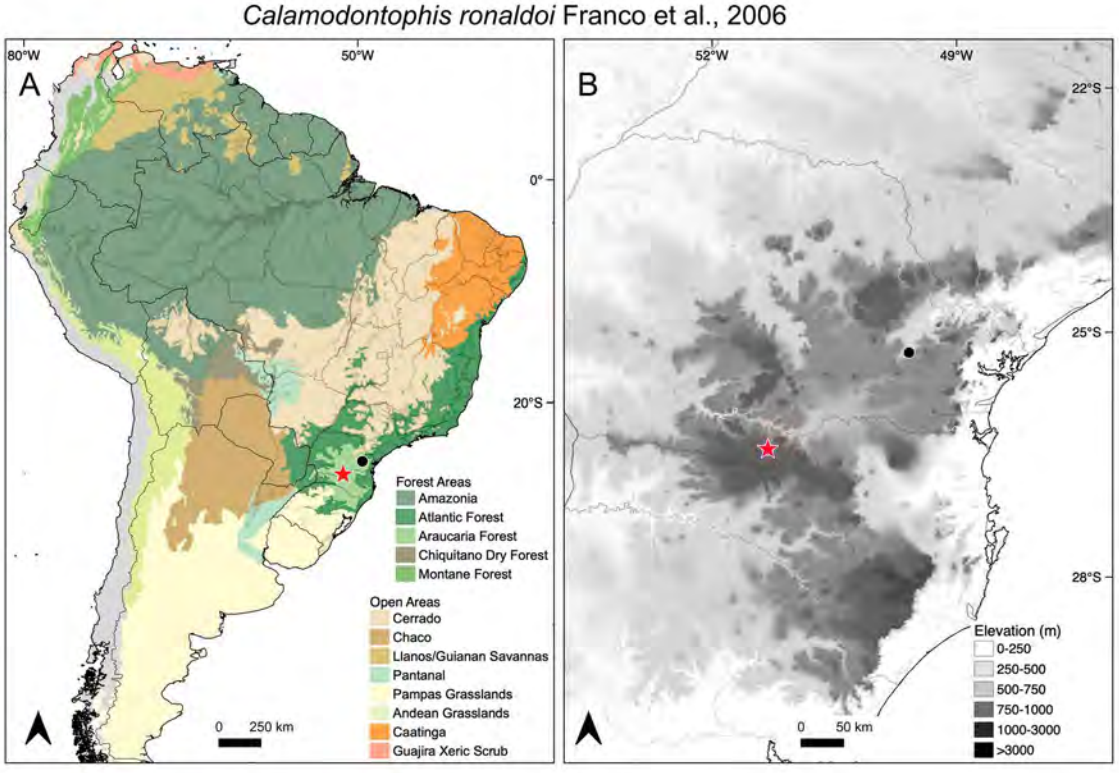


Plate 348. Distribution map of *Calamodontophis ronaldoi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

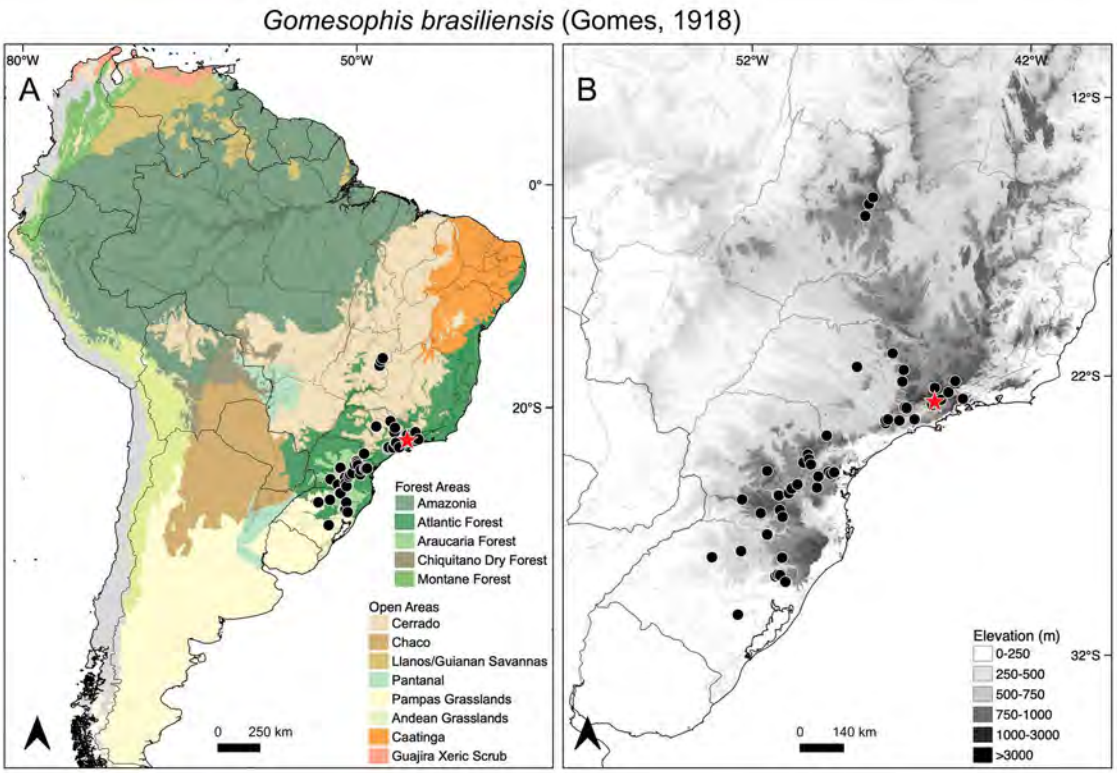


Plate 349. Distribution map of *Gomesophis brasiliensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

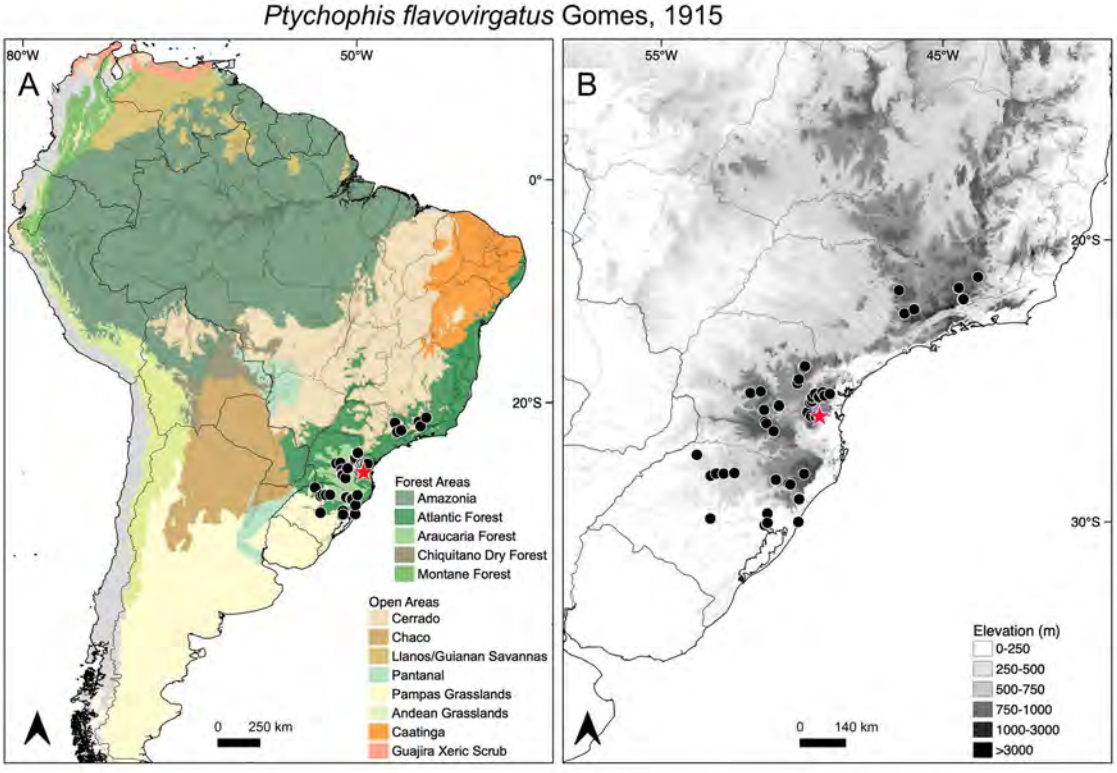


Plate 350. Distribution map of *Ptychophis flavovirgatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

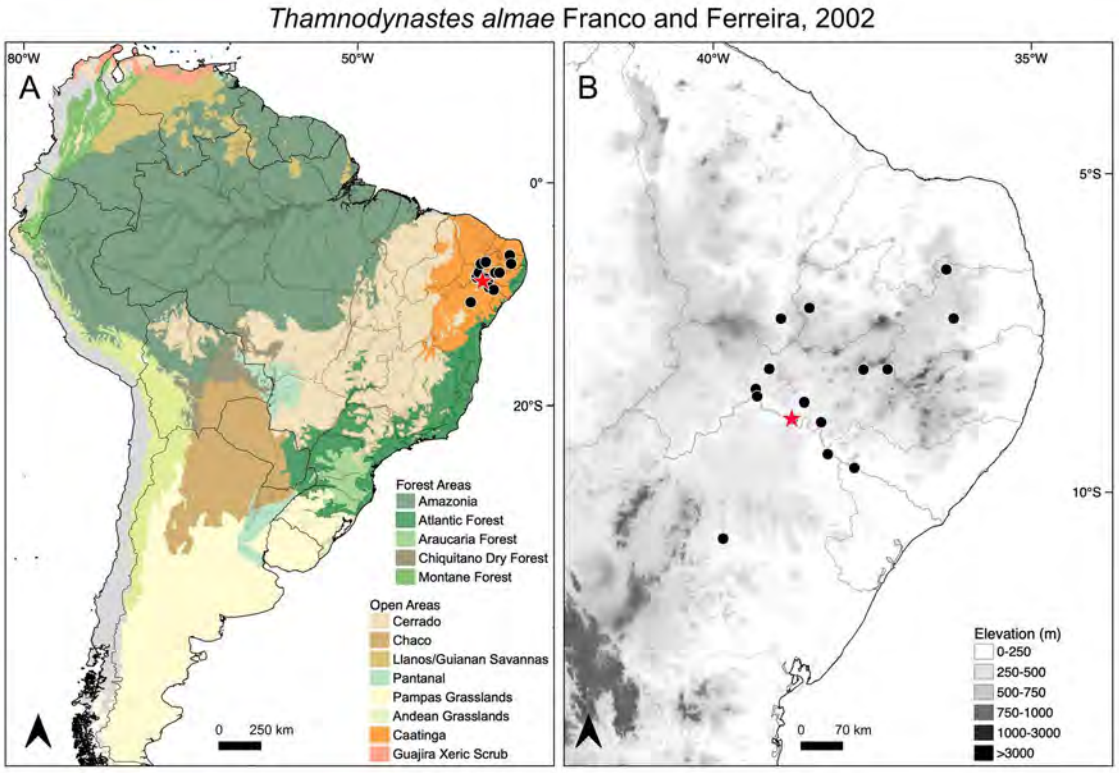


Plate 351. Distribution map of *Thamnodynastes almae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

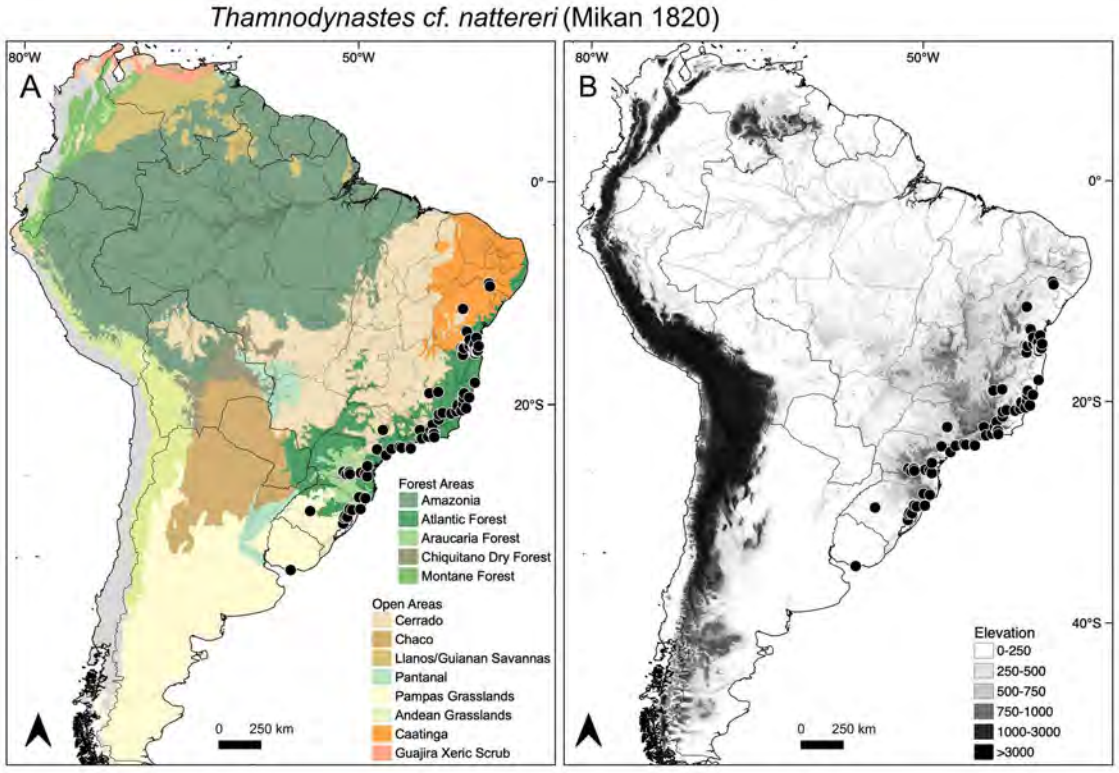


Plate 352. Distribution map of *Thamnodynastes cf. nattereri* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Thamnodynastes chaquensis Bergna and Alvarez, 1993

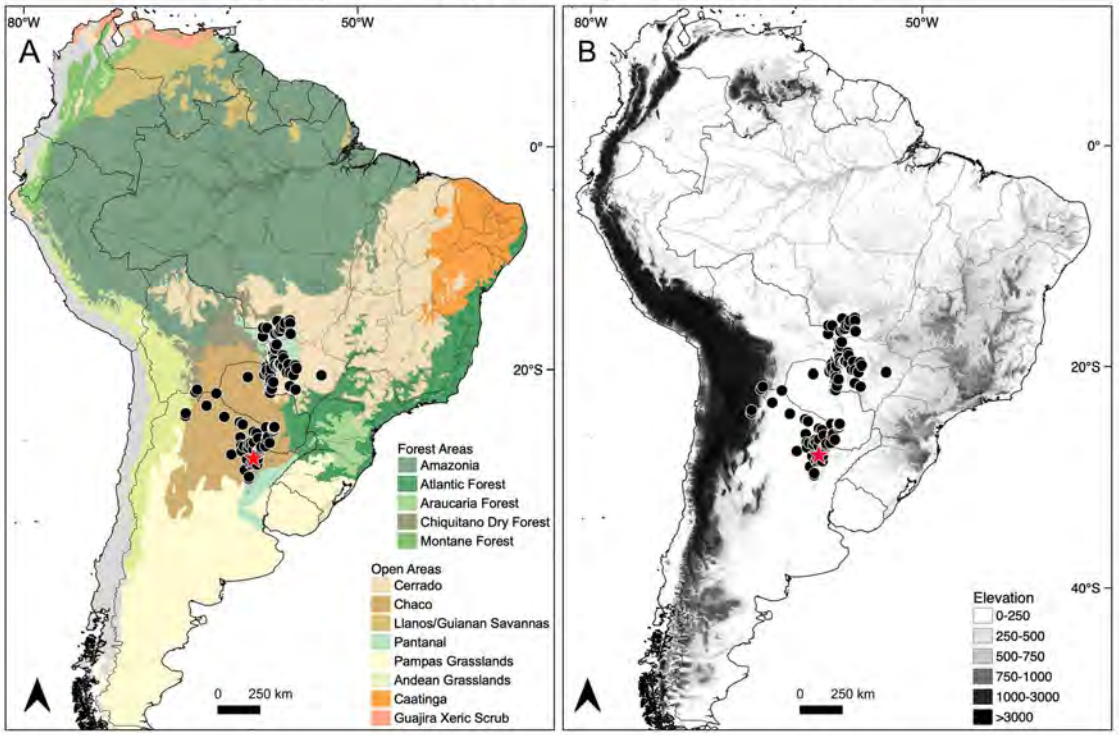


Plate 353. Distribution map of *Thamnodynastes chaquensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Thamnodynastes hypoconia (Cope, 1860)

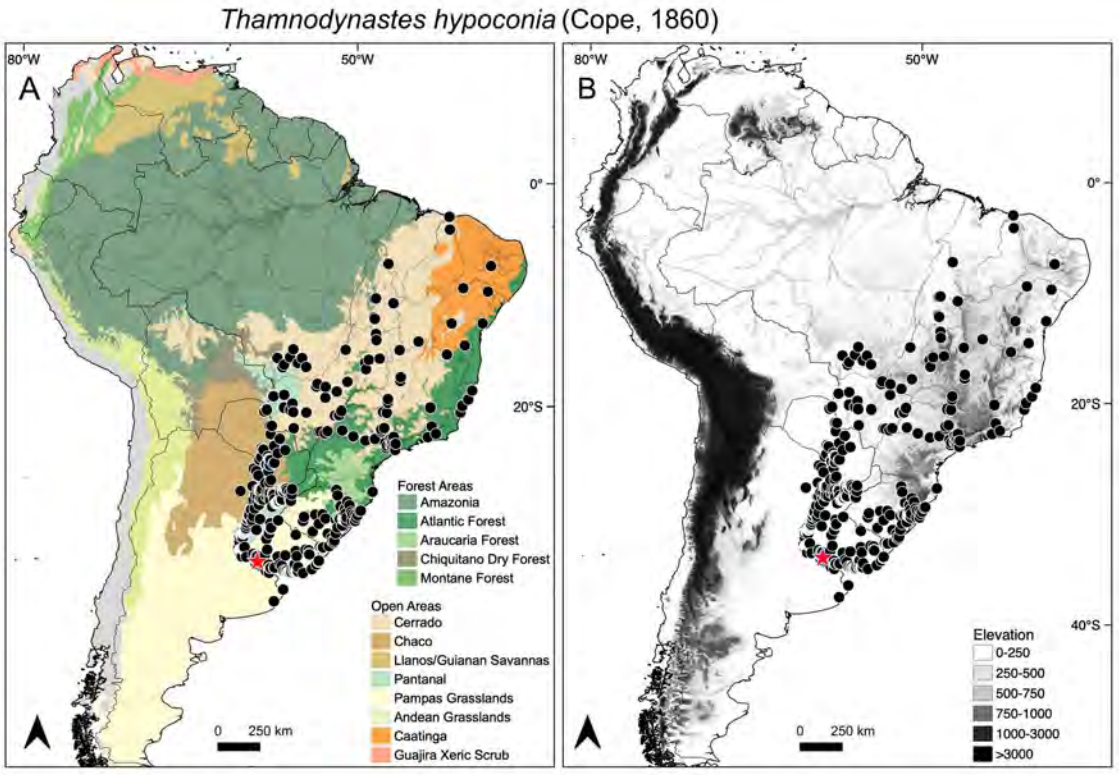


Plate 354. Distribution map of *Thamnodynastes hypoconia* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

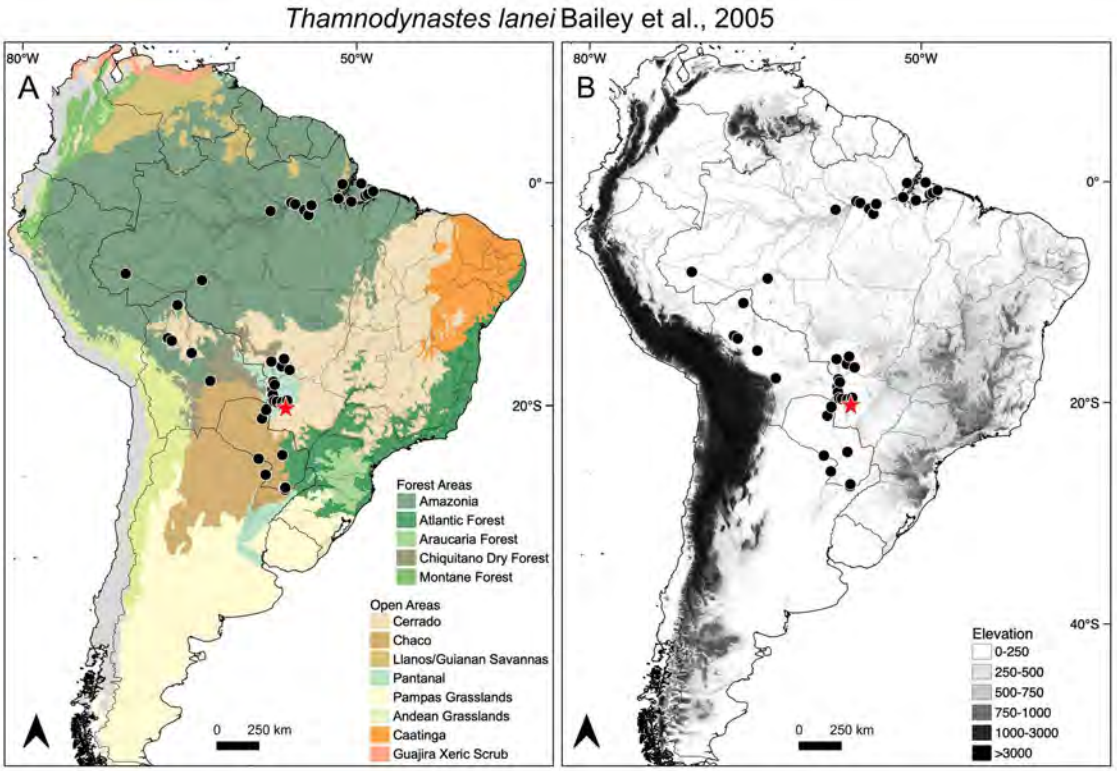


Plate 355. Distribution map of *Thamnodynastes lanei* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

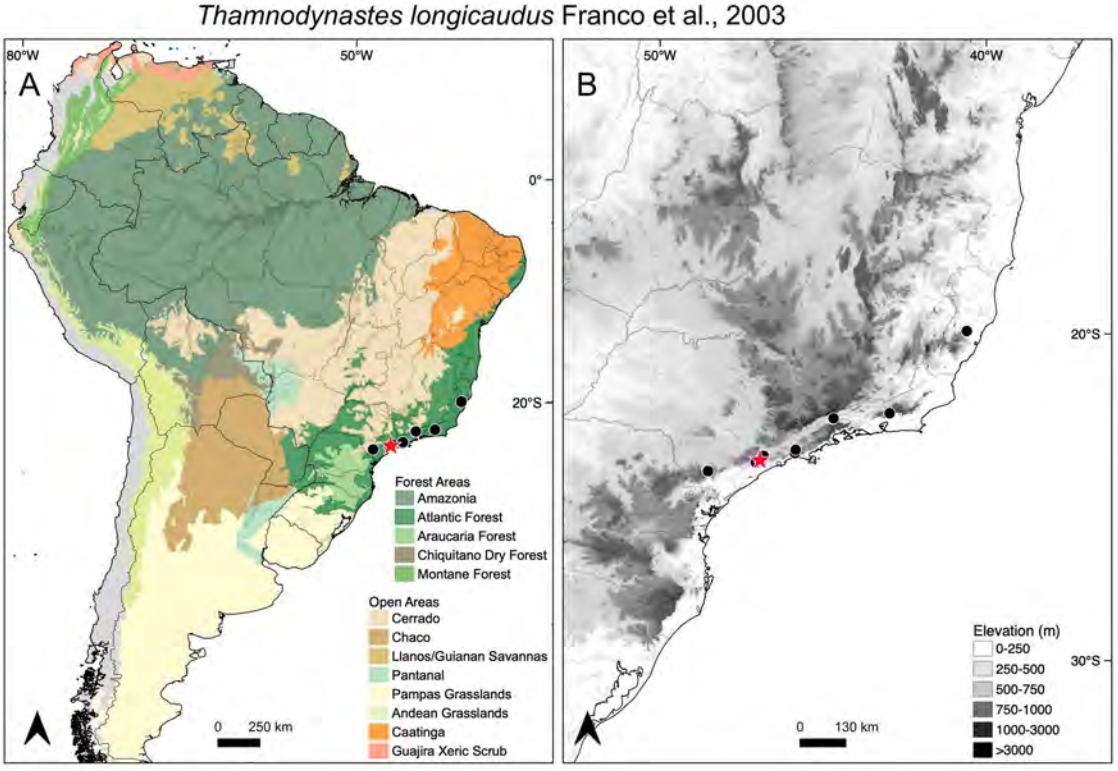


Plate 356. Distribution map of *Thamnodynastes longicaudus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Thamnodynastes pallidus (Linnaeus, 1758)

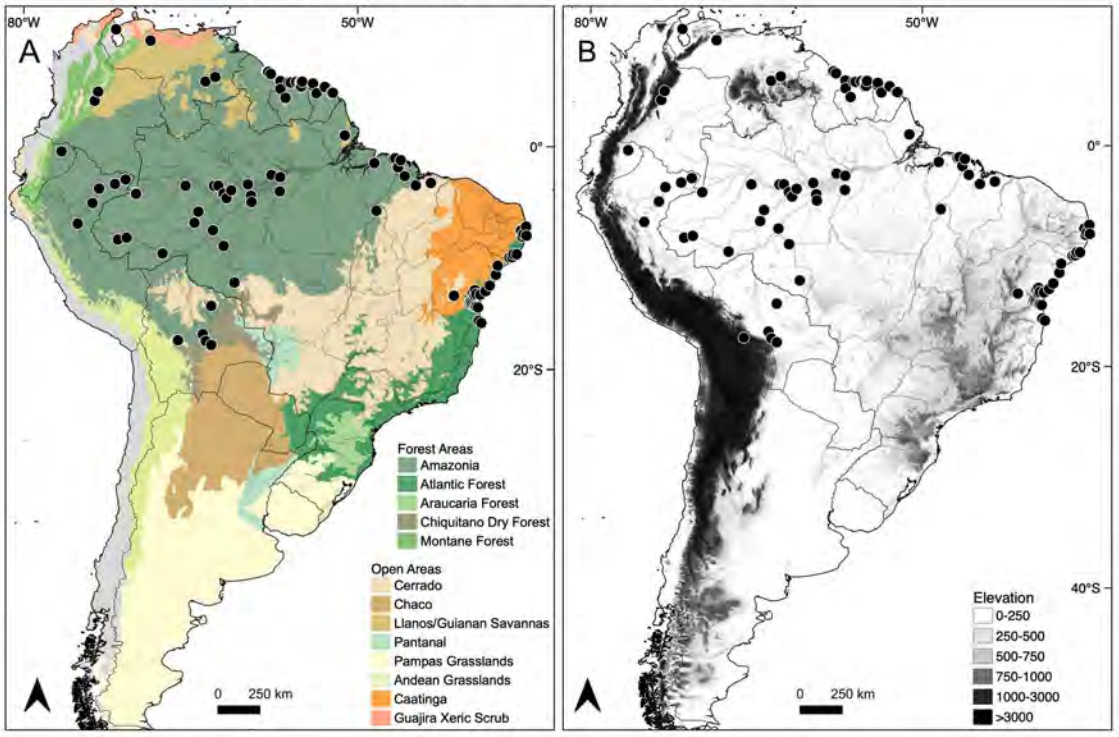


Plate 357. Distribution map of *Thamnodynastes pallidus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Thamnodynastes phoenix Franco et al., 2017

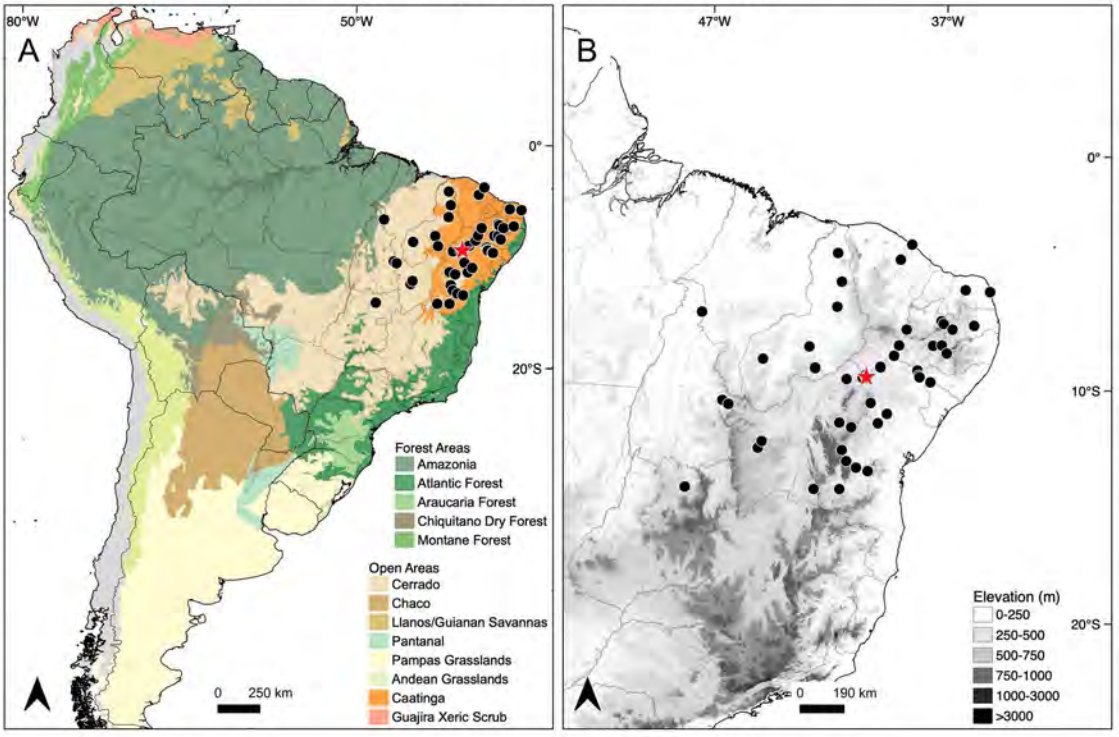


Plate 358. Distribution map of *Thamnodynastes phoenix* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

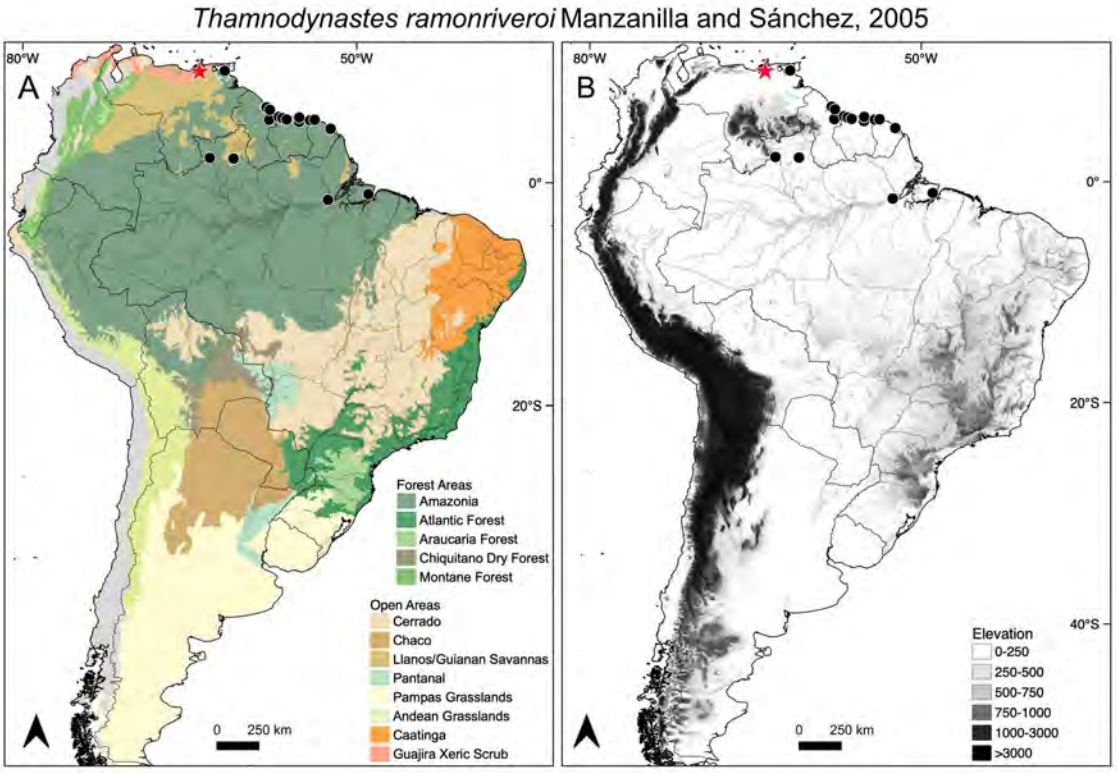


Plate 359. Distribution map of *Thamnodynastes ramonriveroi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

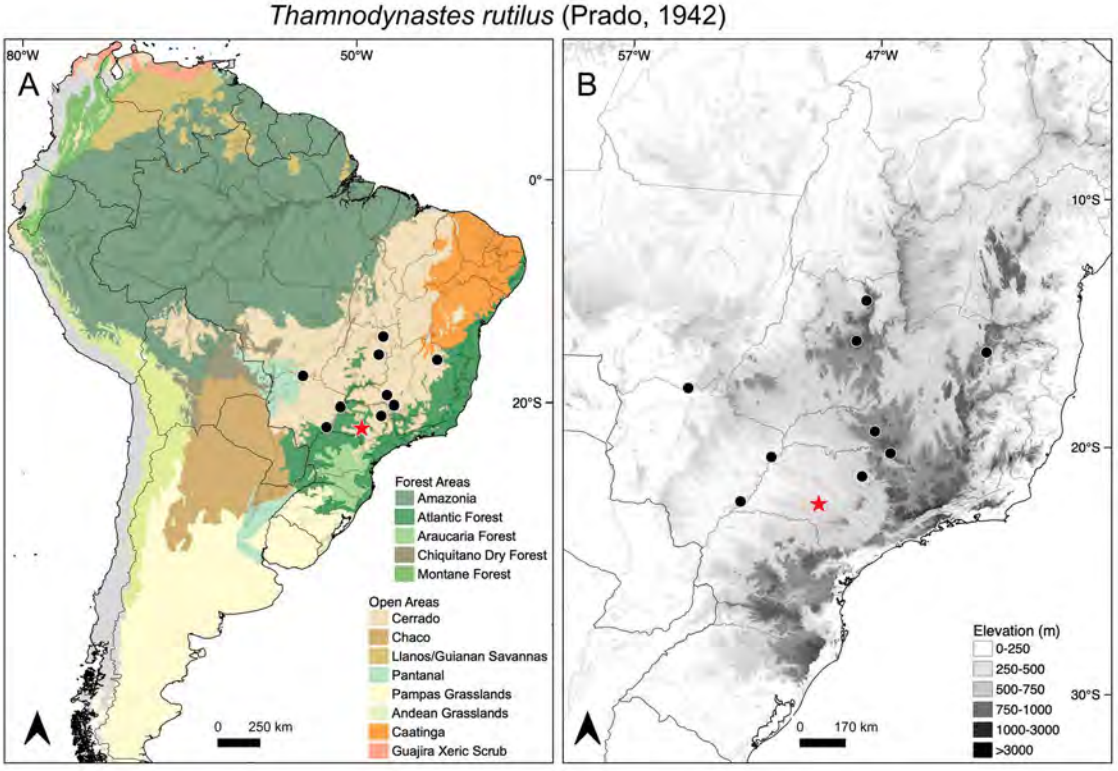


Plate 360. Distribution map of *Thamnodynastes rutilus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Thamnodynastes sertanejo Bailey et al., 2005

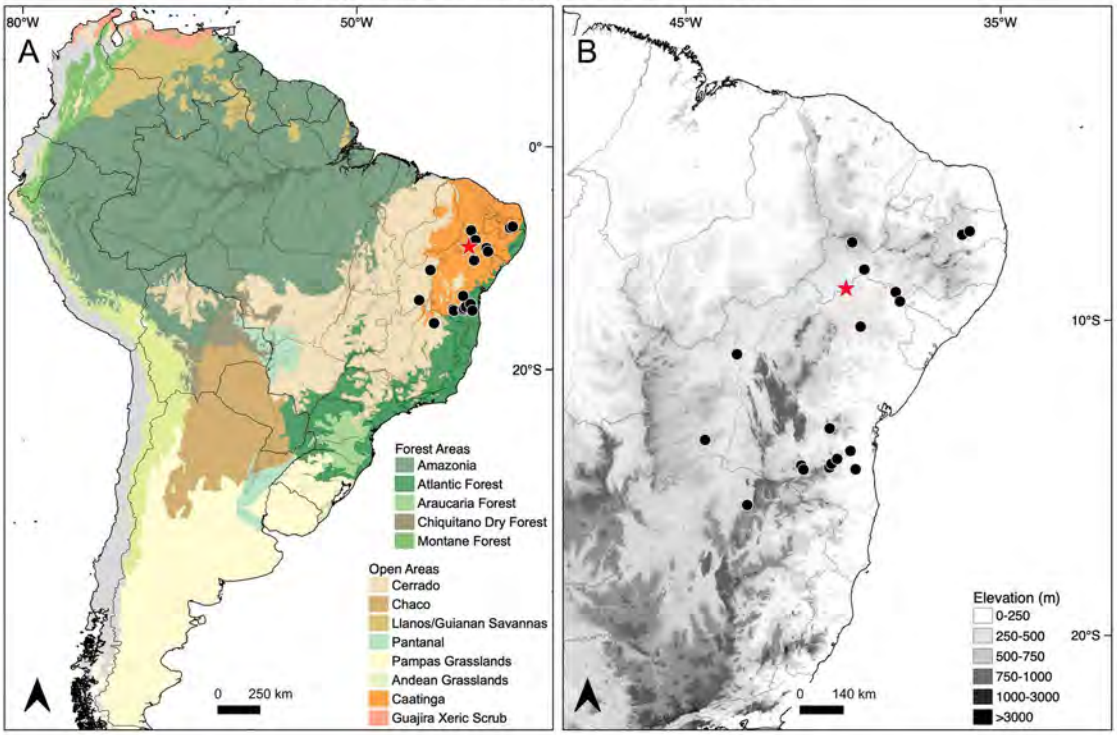


Plate 361. Distribution map of *Thamnodynastes sertanejo* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Thamnodynastes strigatus (Günther, 1858)

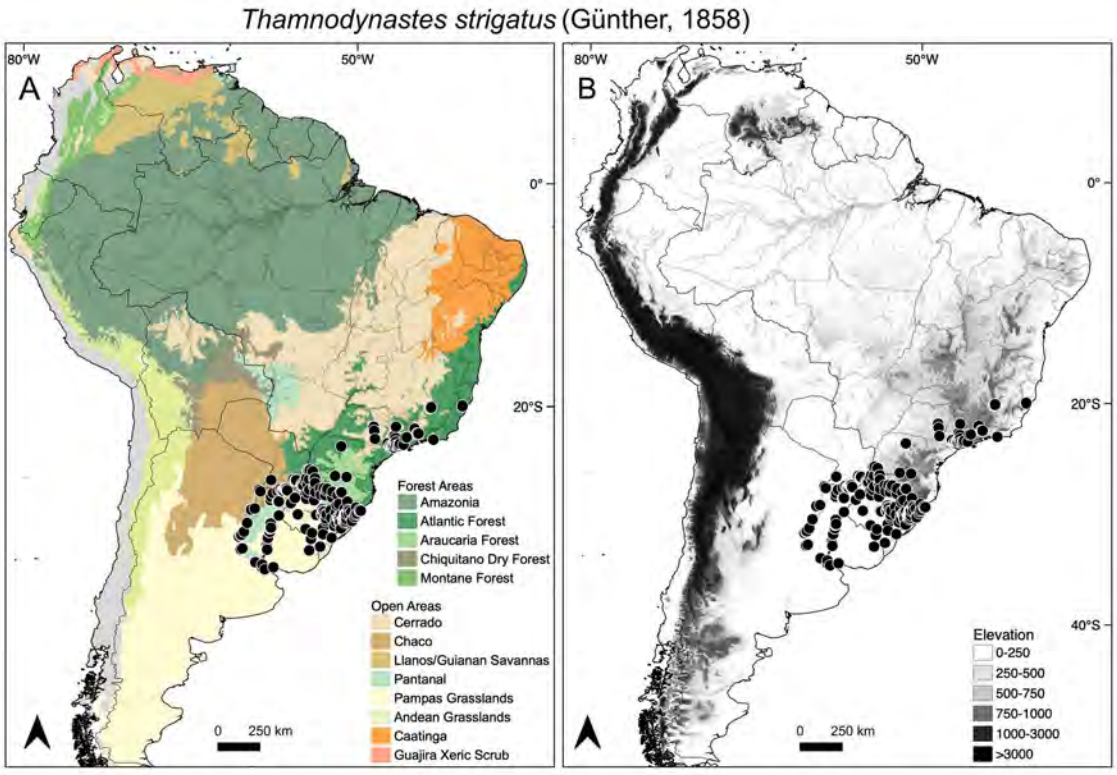


Plate 362. Distribution map of *Thamnodynastes strigatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

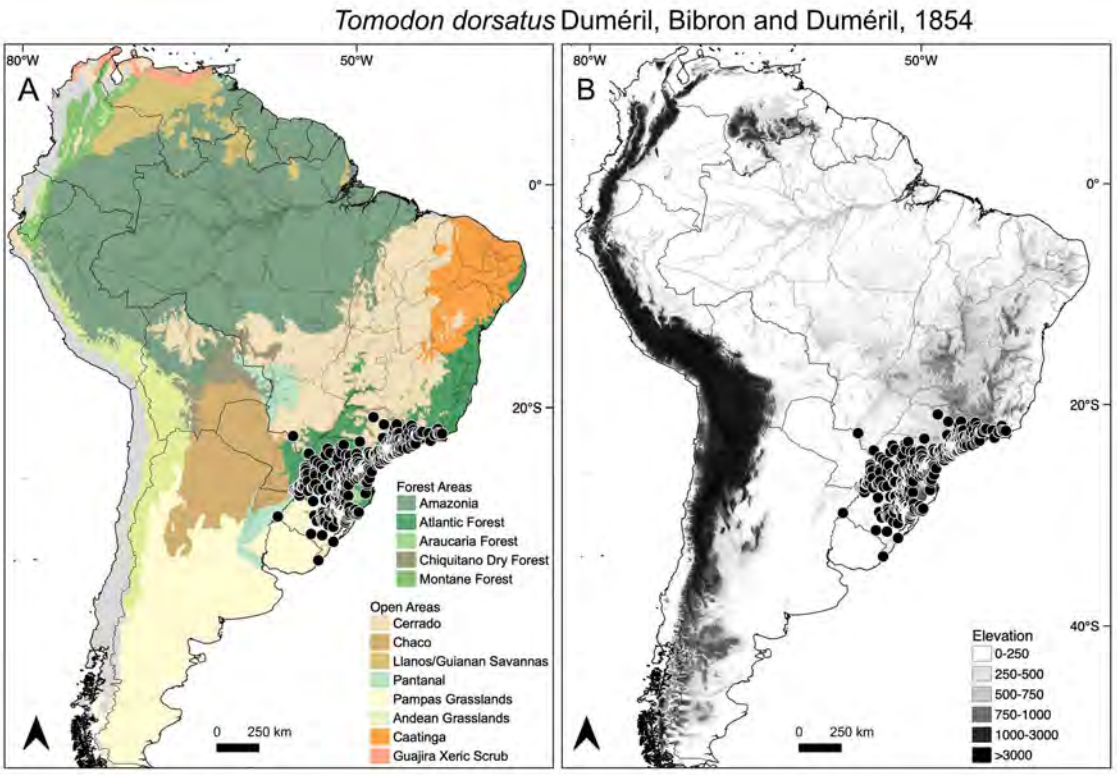


Plate 363. Distribution map of *Tomodon dorsatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

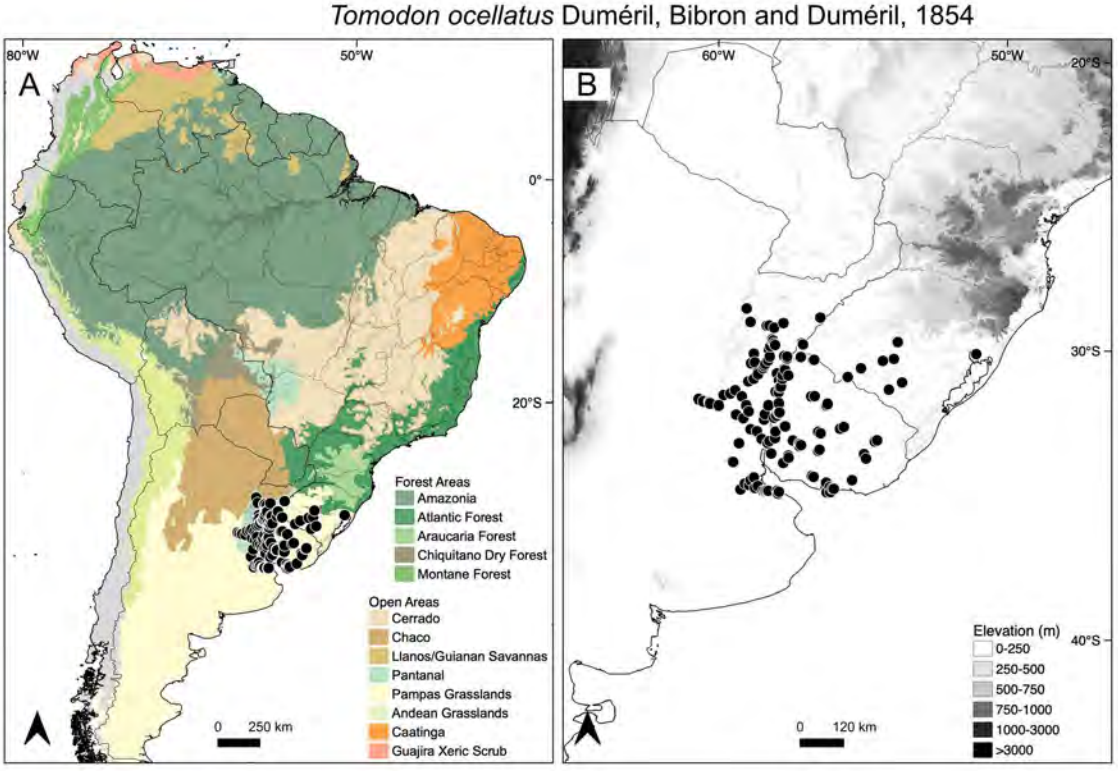


Plate 364. Distribution map of *Tomodon ocellatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

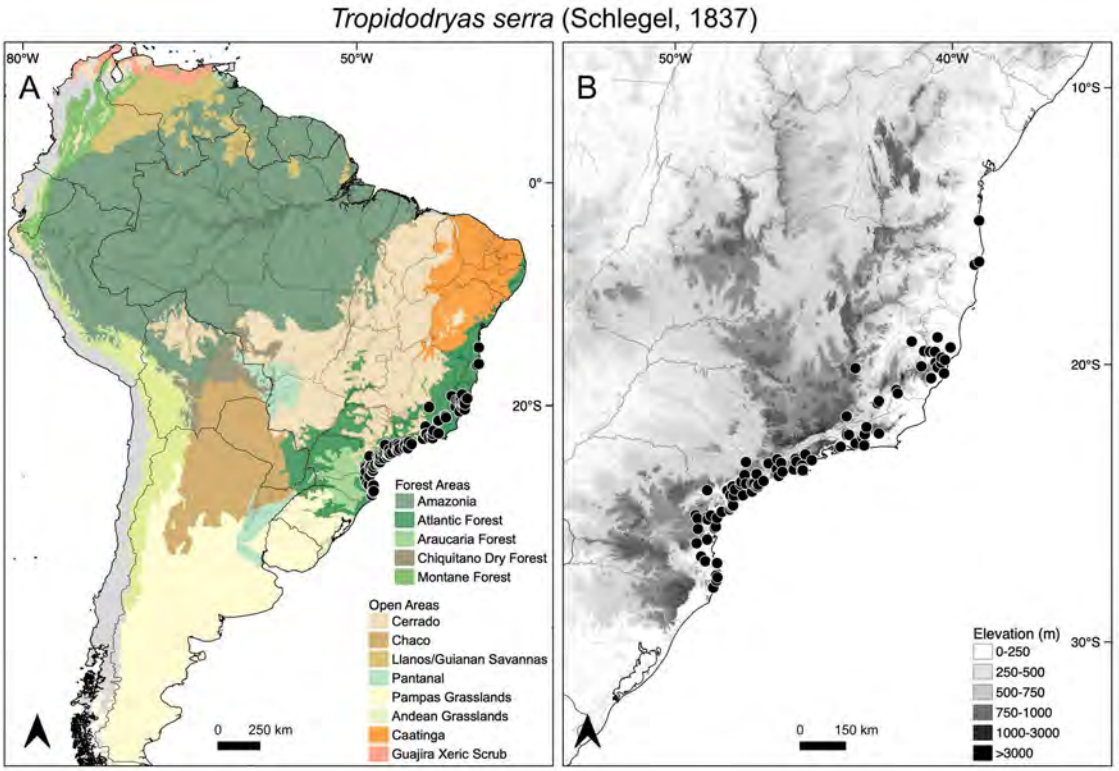


Plate 365. Distribution map of *Tropidodryas serra* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

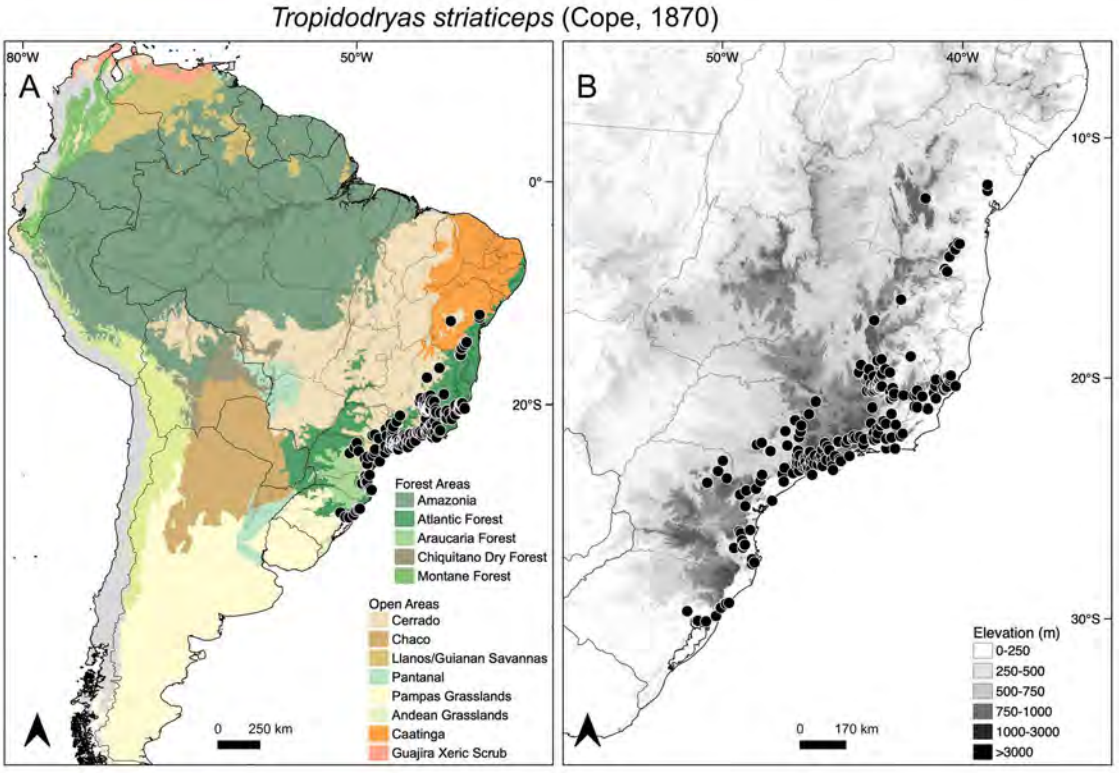


Plate 366. Distribution map of *Tropidodryas striaticeps* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

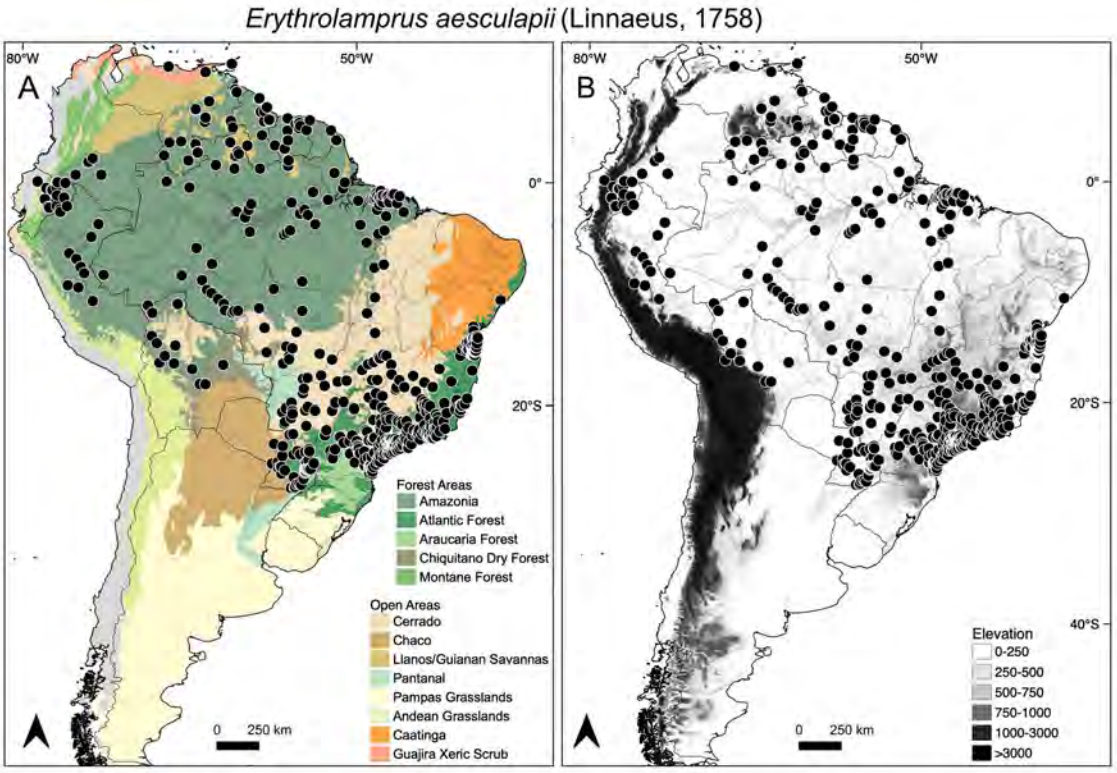


Plate 367. Distribution map of *Erythrolamprus aesculapii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

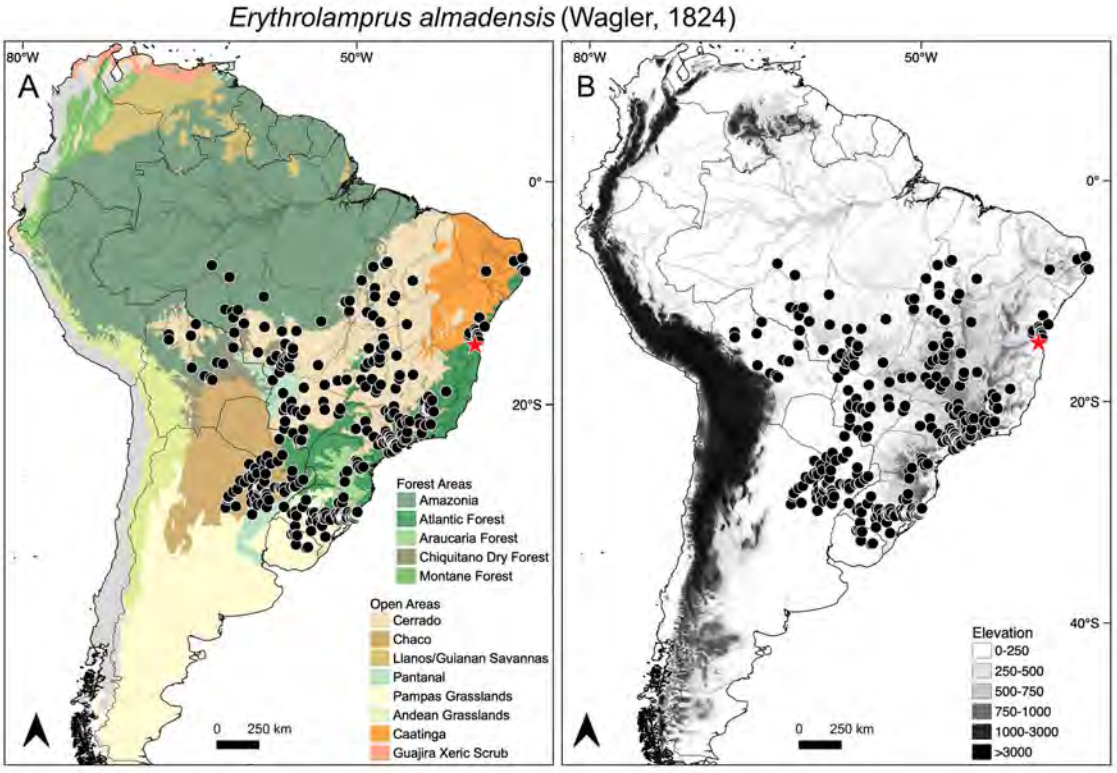


Plate 368. Distribution map of *Erythrolamprus almadensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

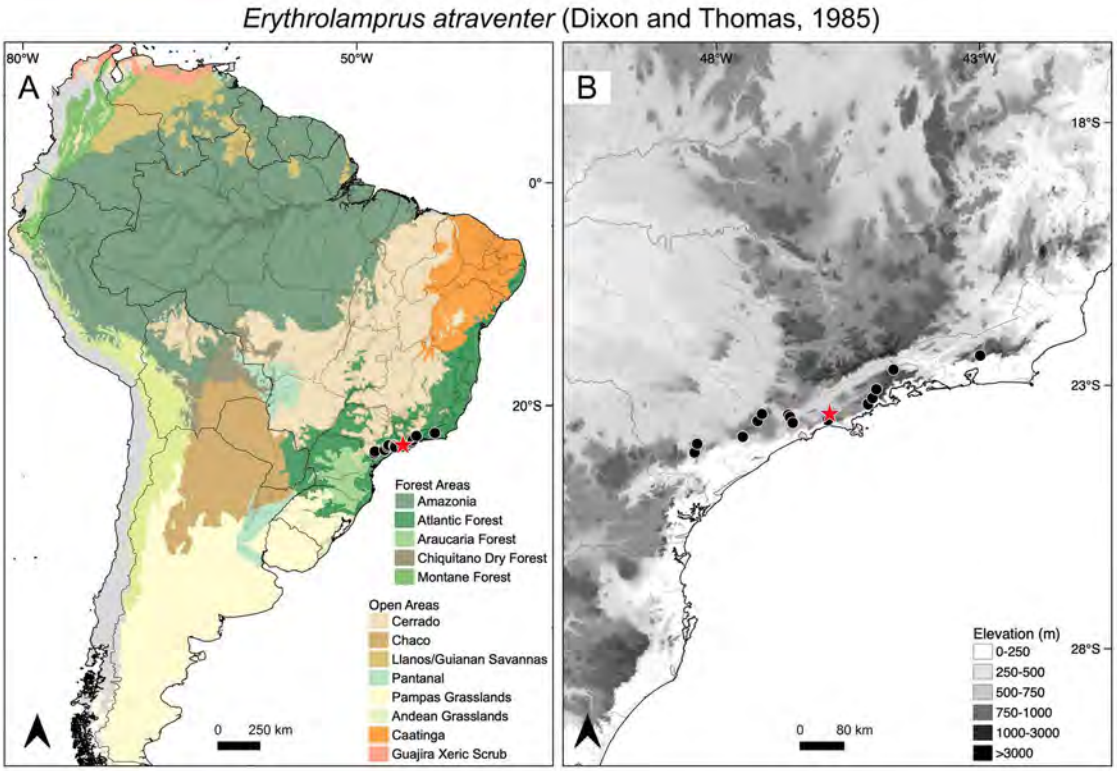


Plate 369. Distribution map of *Erythrolamprus atraventer* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

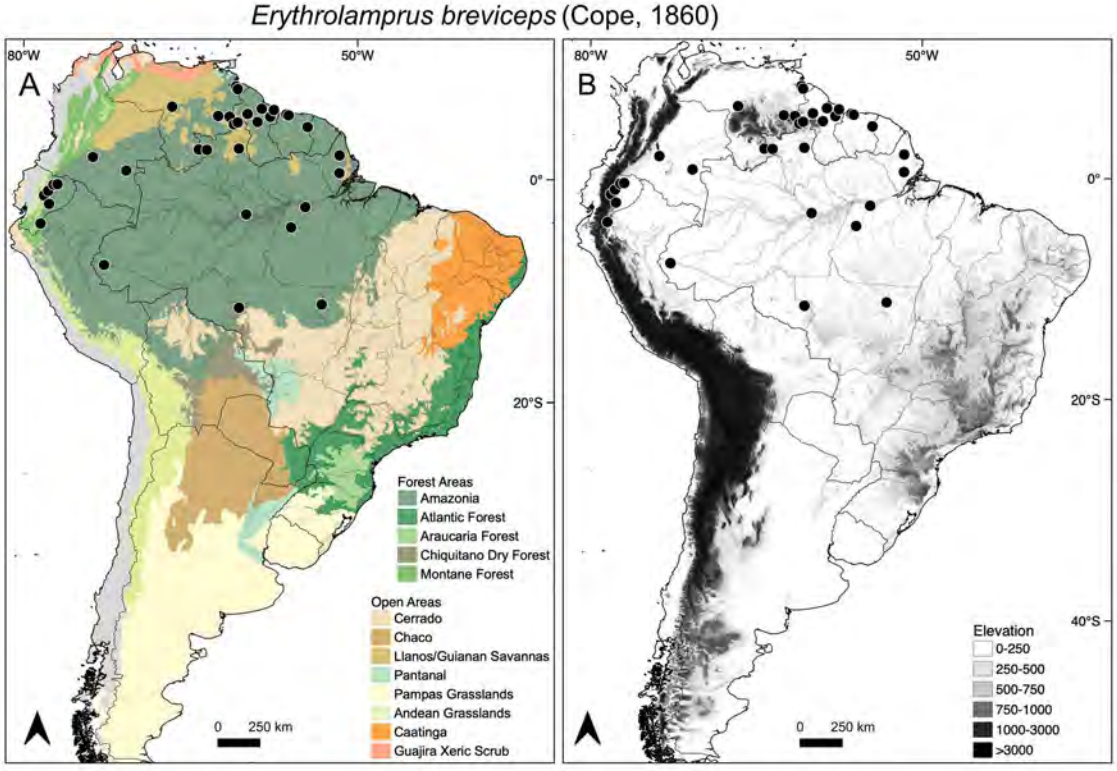


Plate 370. Distribution map of *Erythrolamprus breviceps* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

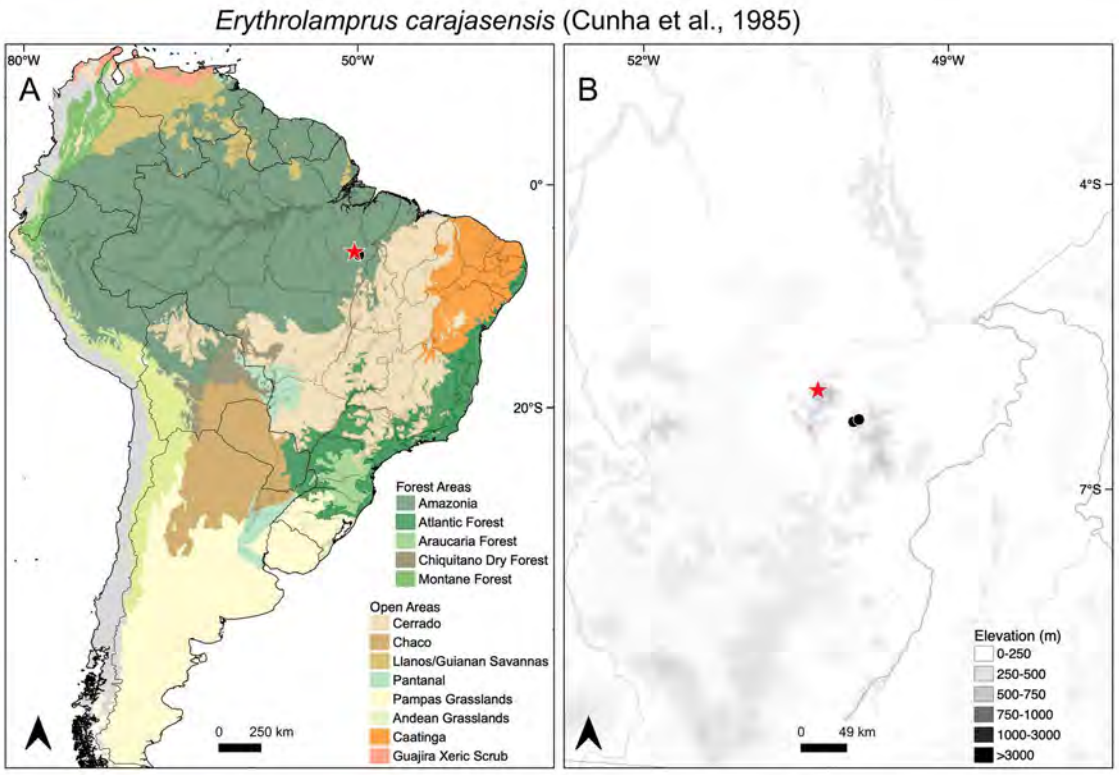


Plate 371. Distribution map of *Erythrolamprus carajasensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

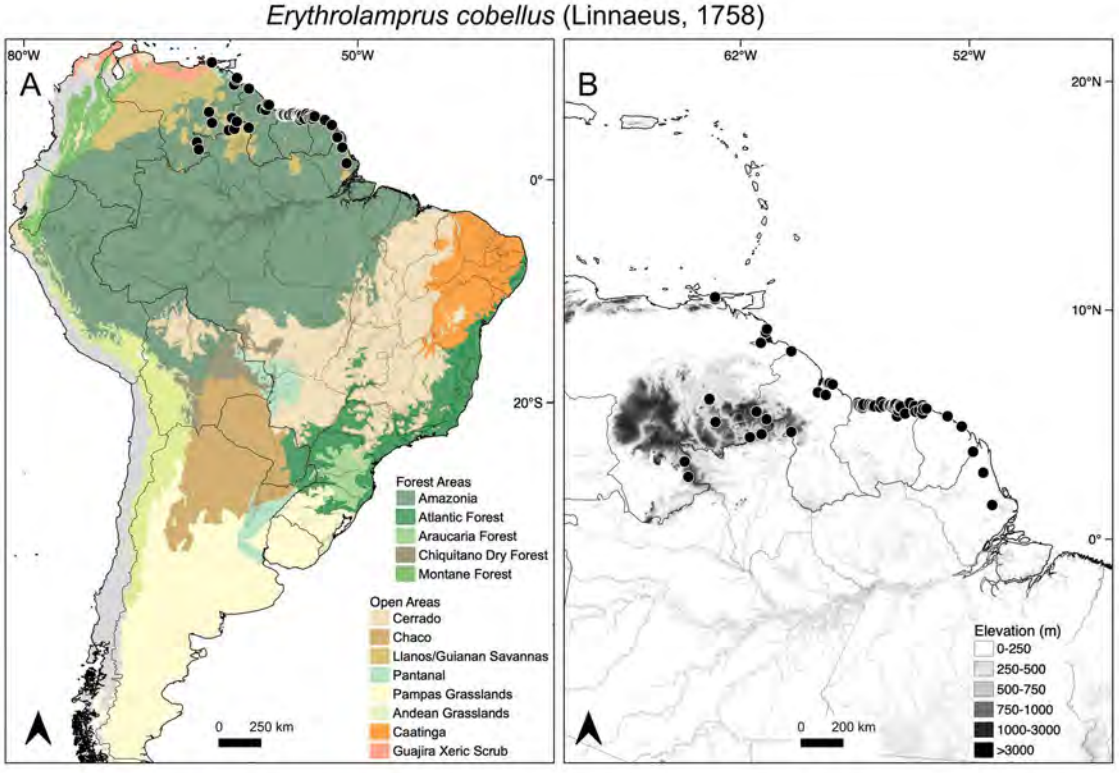


Plate 372. Distribution map of *Erythrolamprus cobellus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

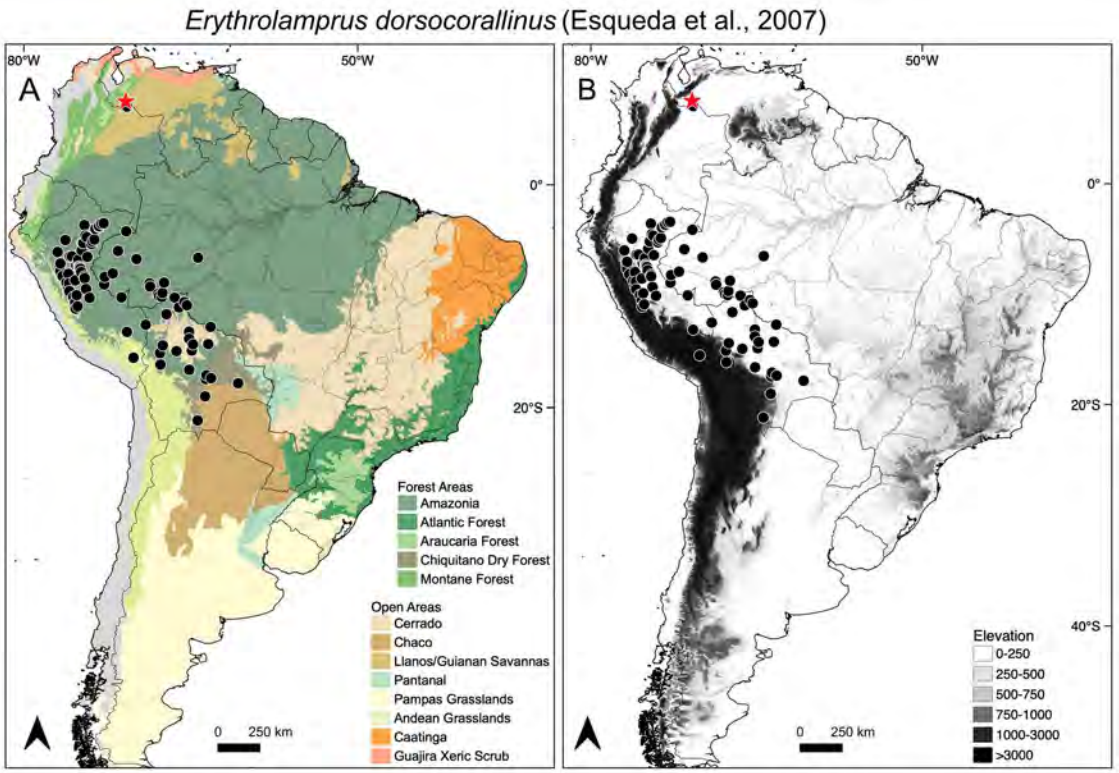


Plate 373. Distribution map of *Erythrolamprus dorsocorallinus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

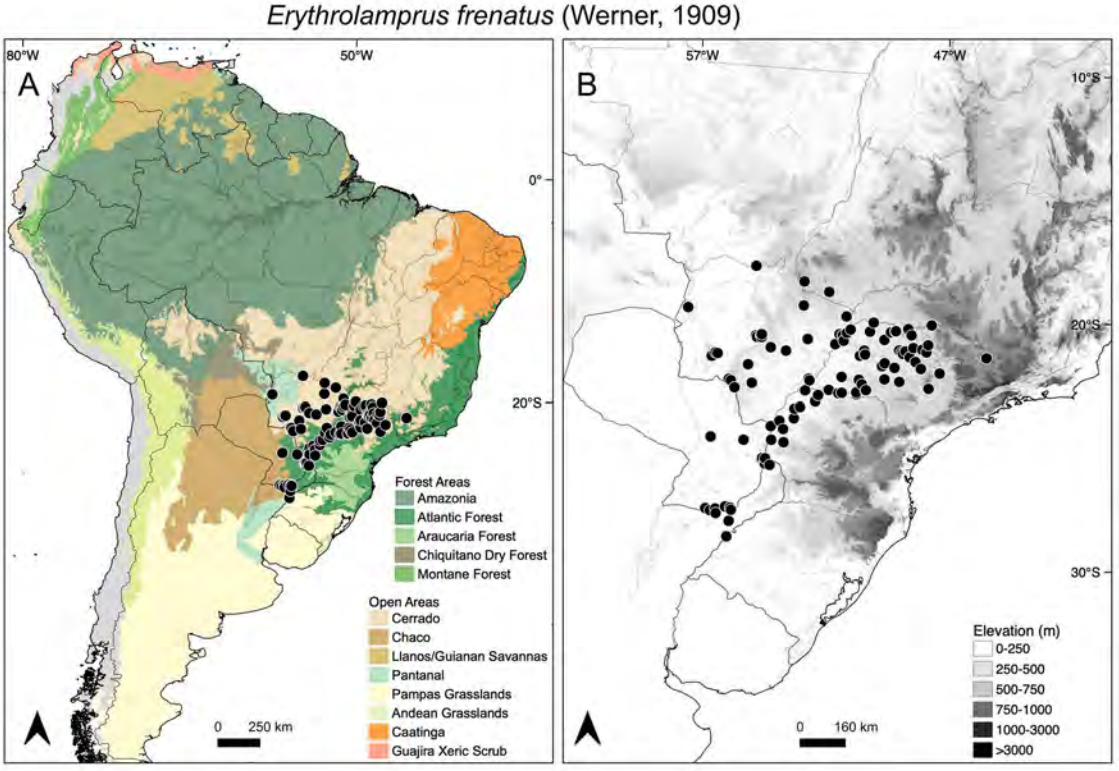


Plate 374. Distribution map of *Erythrolamprus frenatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

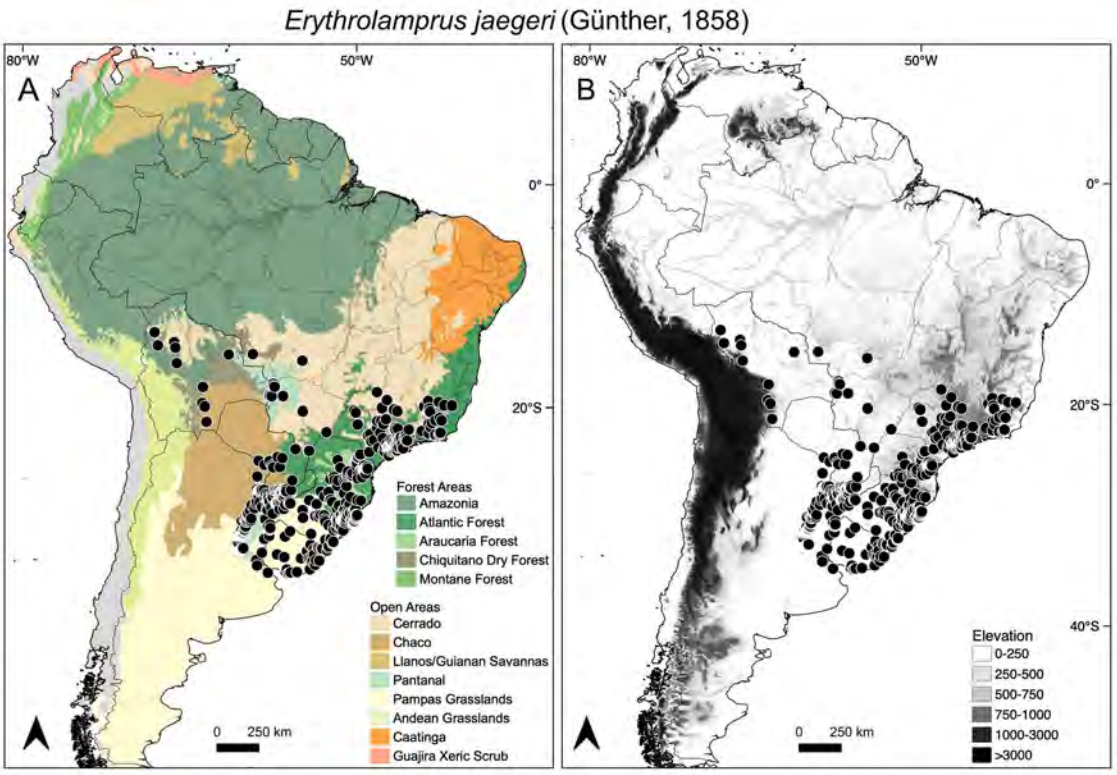


Plate 375. Distribution map of *Erythrolamprus jaegeri* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

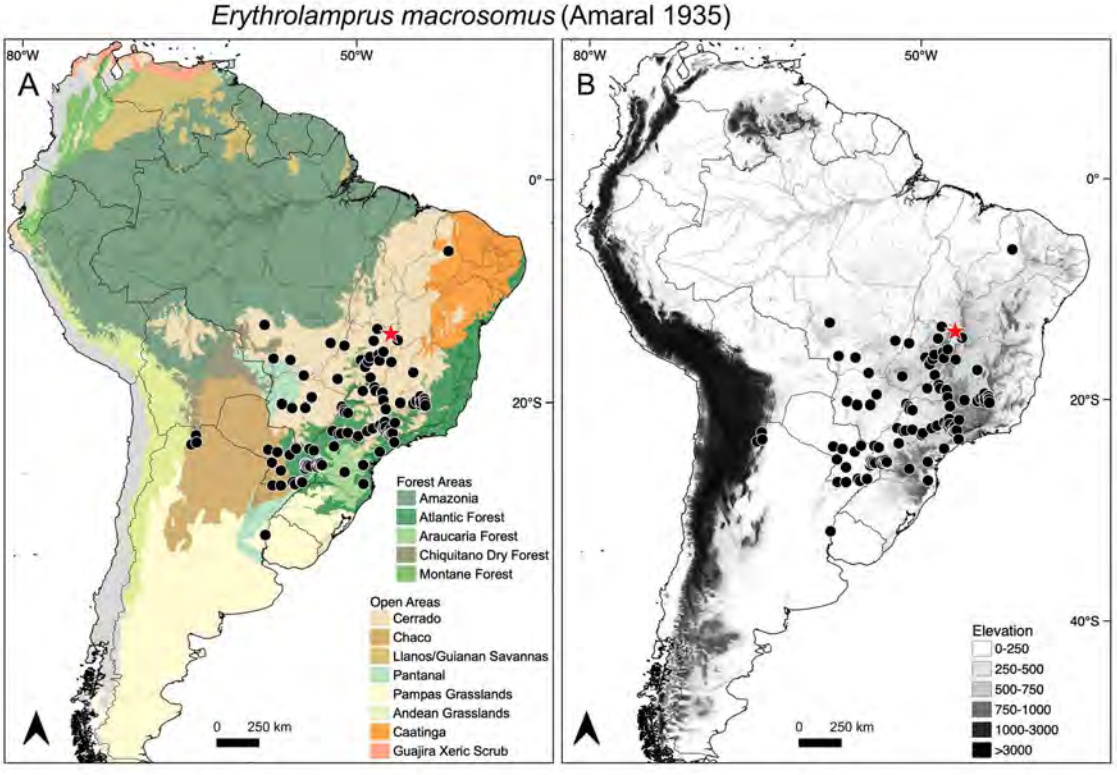


Plate 376. Distribution map of *Erythrolamprus macrosomus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

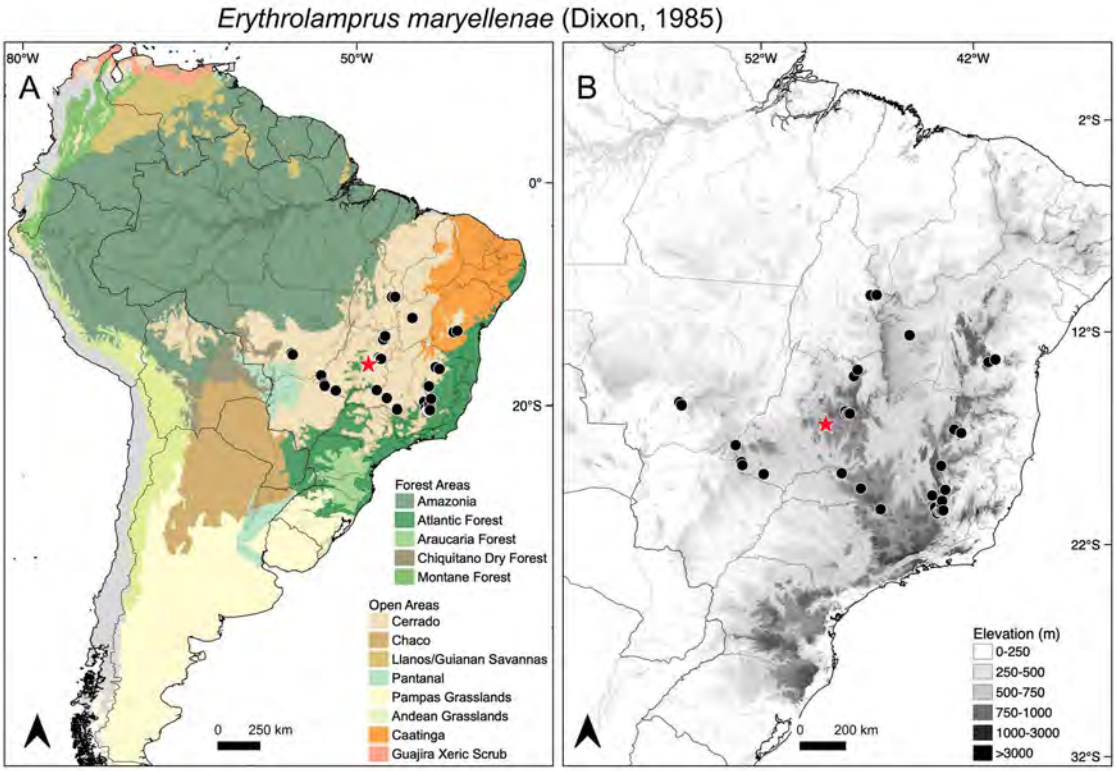


Plate 377. Distribution map of *Erythrolamprus maryellenae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

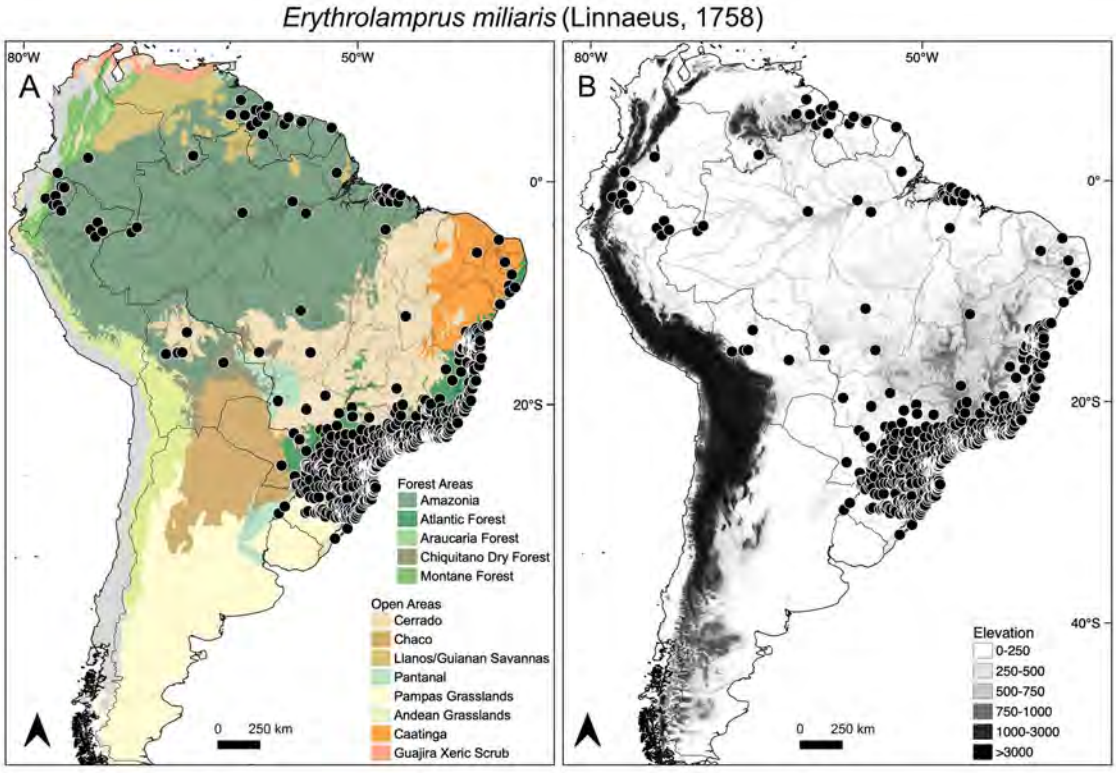


Plate 378. Distribution map of *Erythrolamprus miliaris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

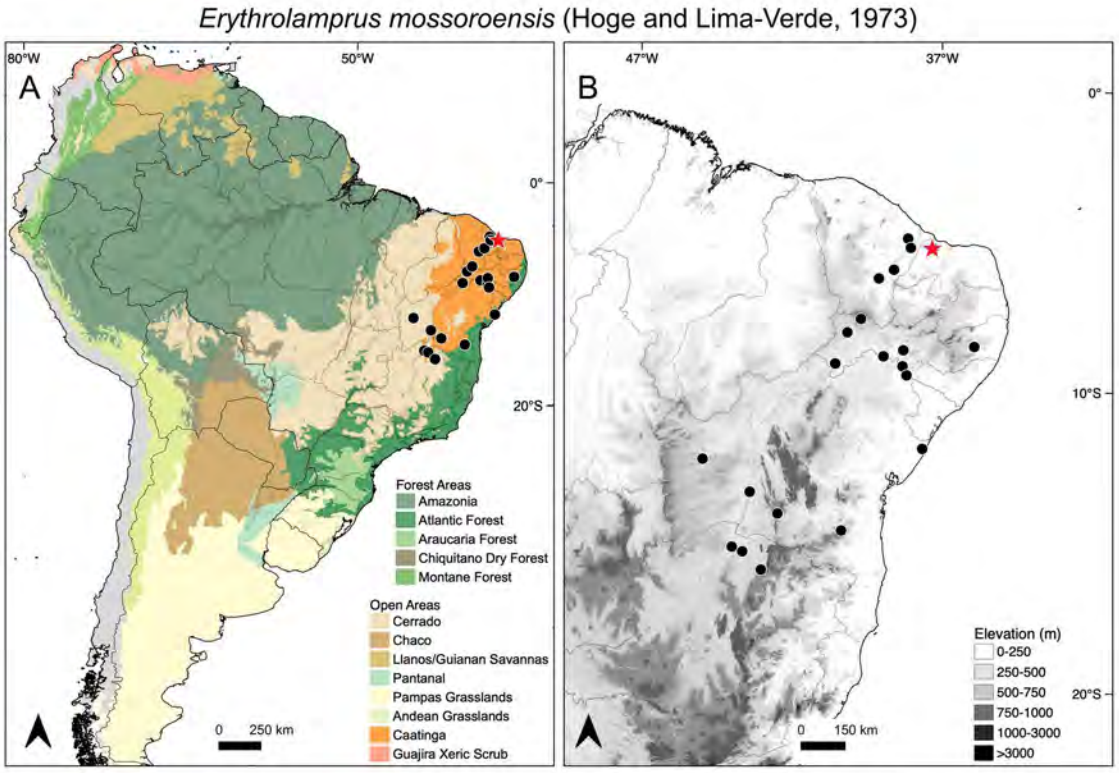


Plate 379. Distribution map of *Erythrolamprus mossoroensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

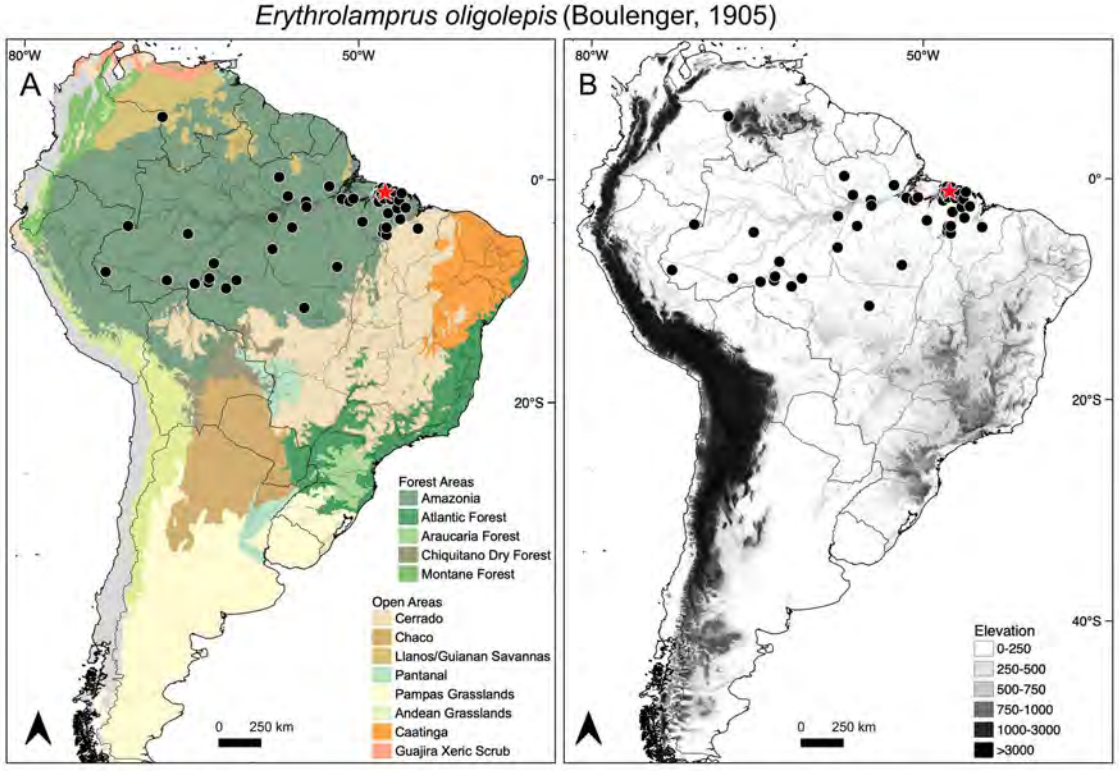


Plate 380. Distribution map of *Erythrolamprus oligolepis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

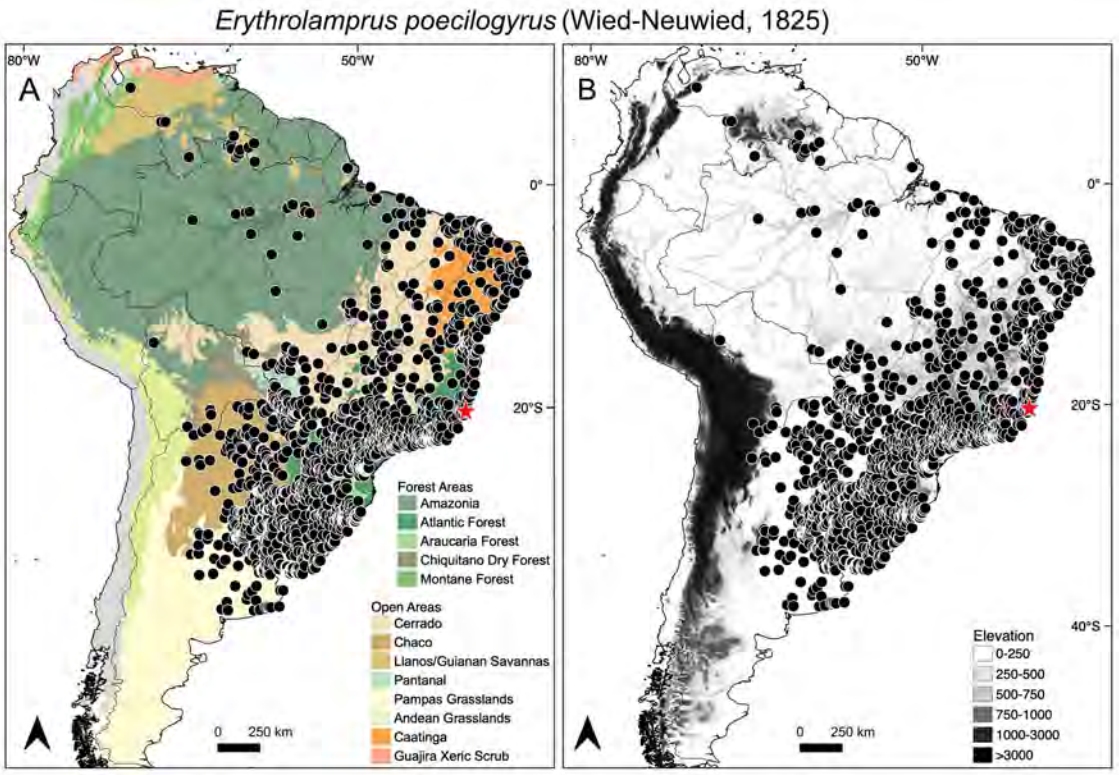


Plate 381. Distribution map of *Erythrolamprus poecilogyrus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

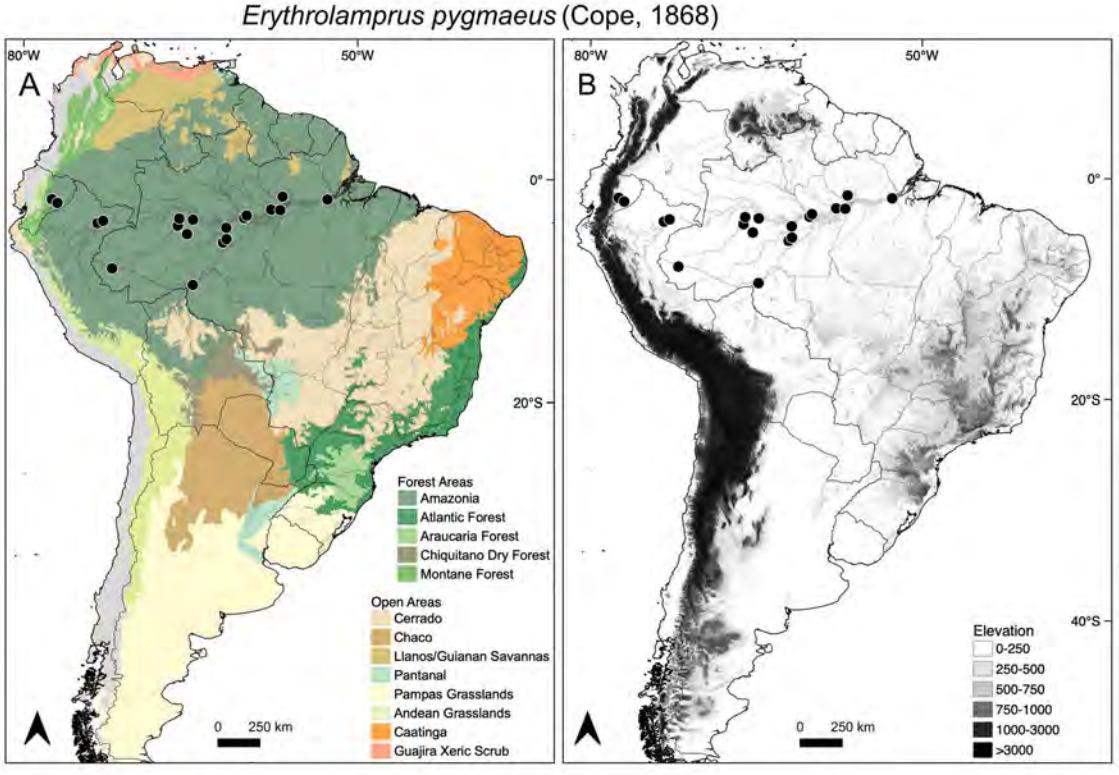


Plate 382. Distribution map of *Erythrolamprus pygmaeus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

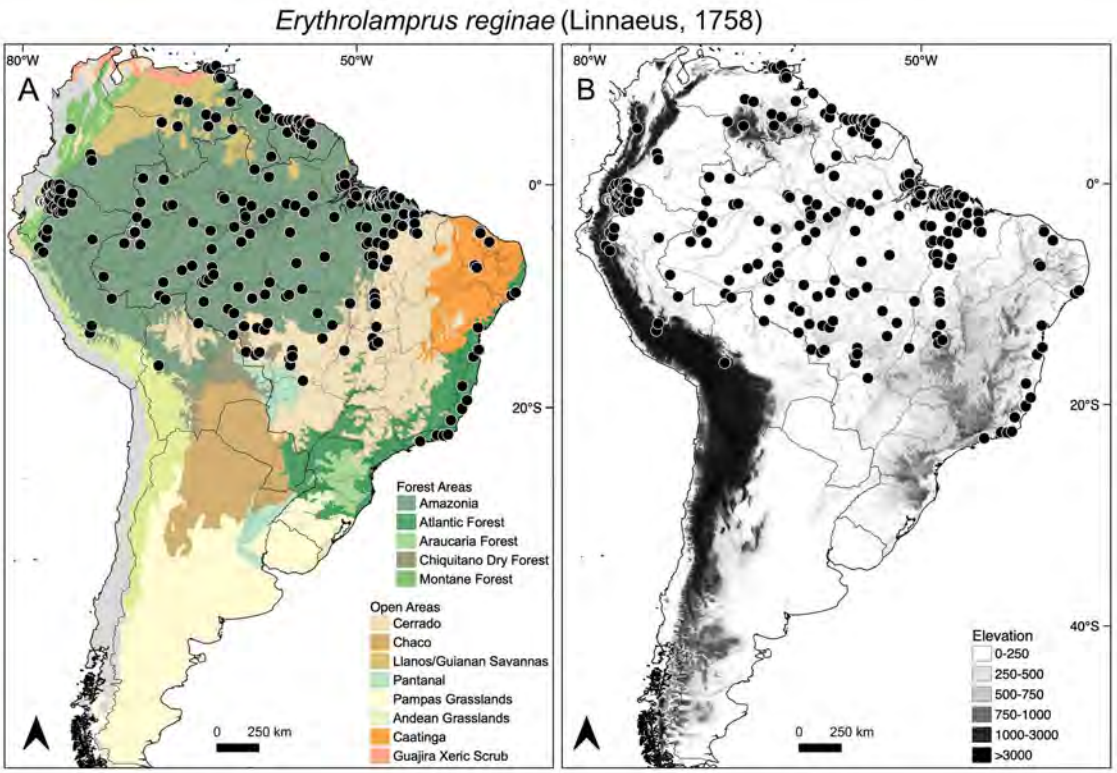


Plate 383. Distribution map of *Erythrolamprus reginae* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

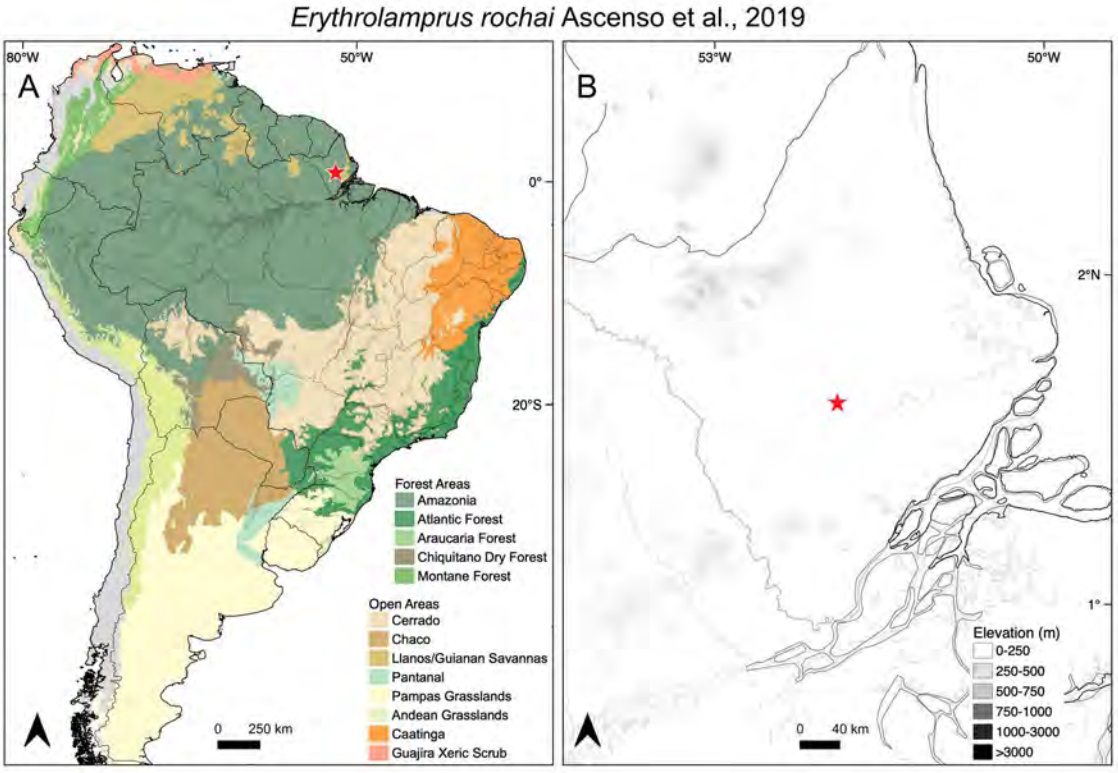


Plate 384. Distribution map of *Erythrolamprus rochai* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

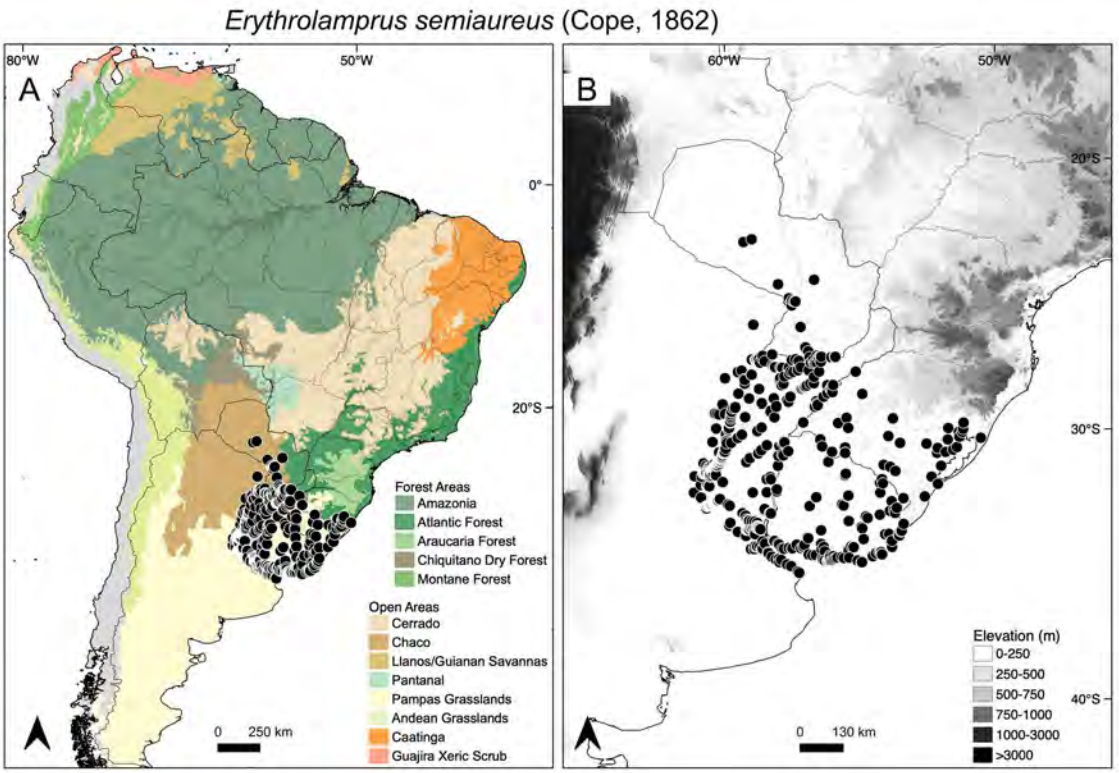


Plate 385. Distribution map of *Erythrolamprus semiaureus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

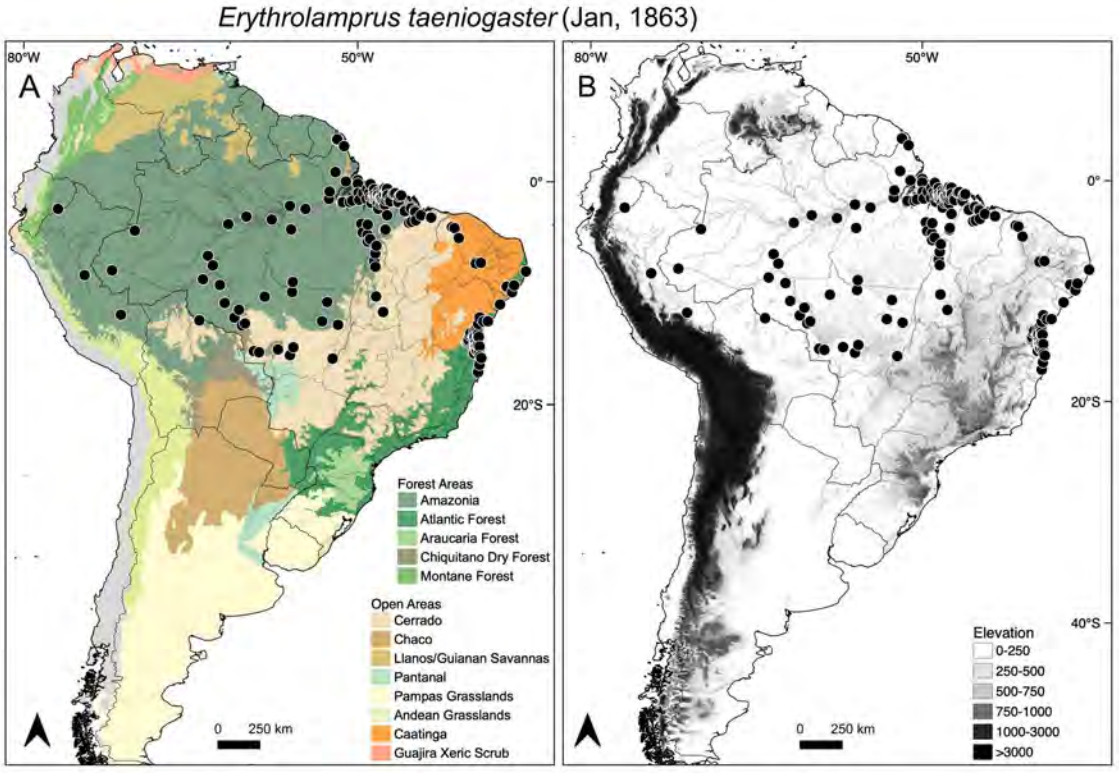


Plate 386. Distribution map of *Erythrolamprus taeniogaster* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

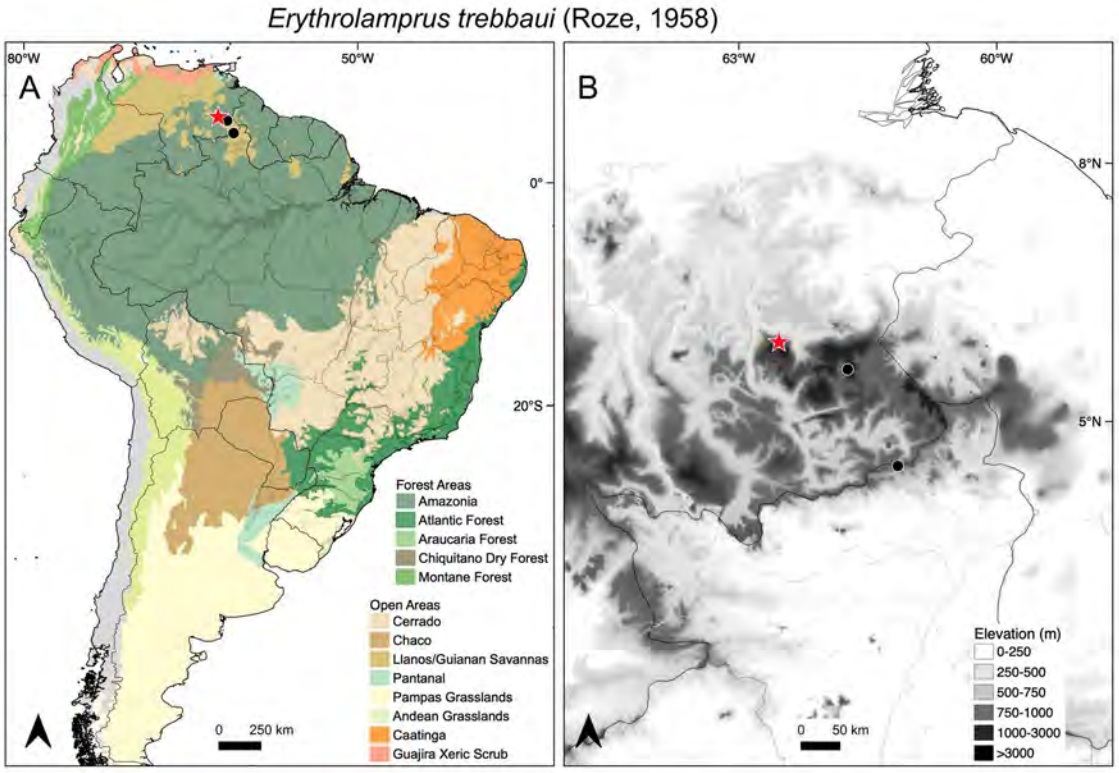


Plate 387. Distribution map of *Erythrolamprus trebbaui* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

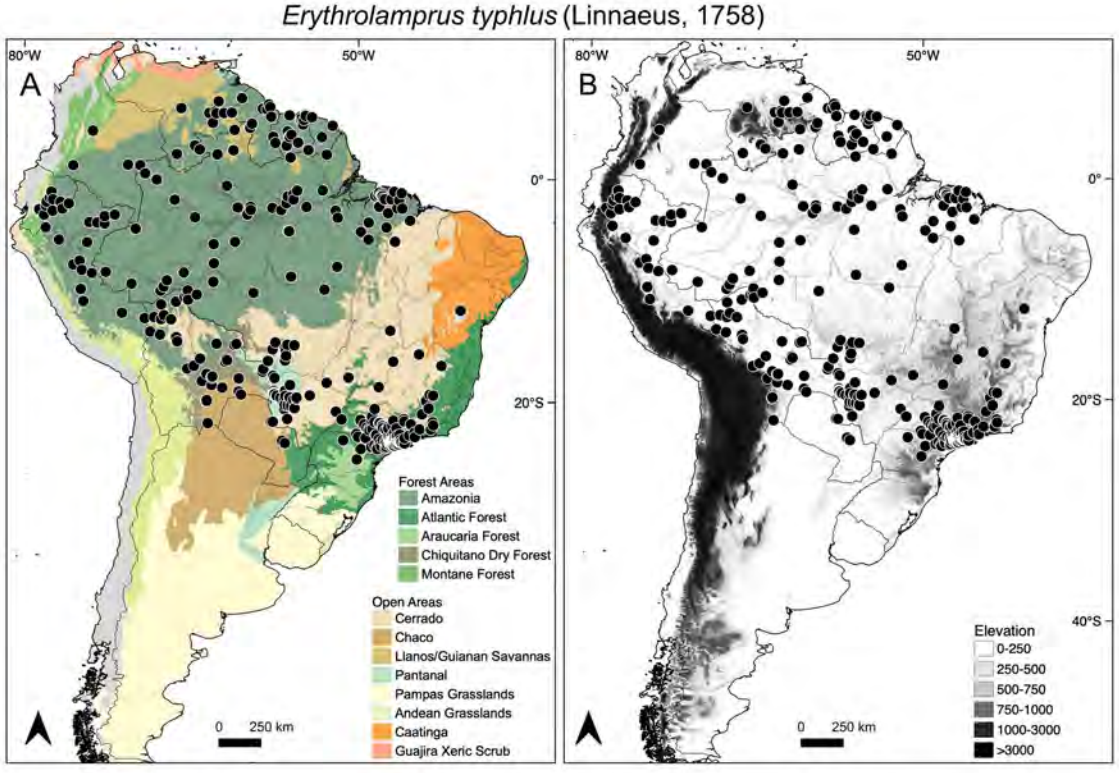


Plate 388. Distribution map of *Erythrolamprus typhlus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

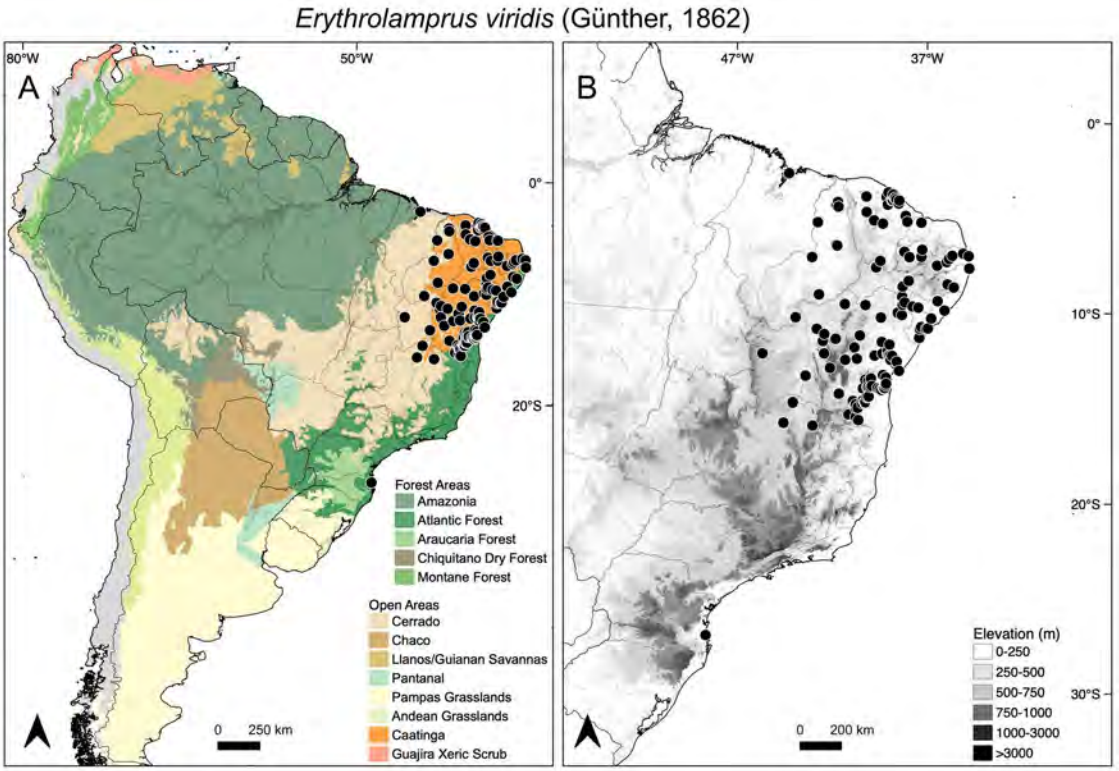


Plate 389. Distribution map of *Erythrolamprus viridis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

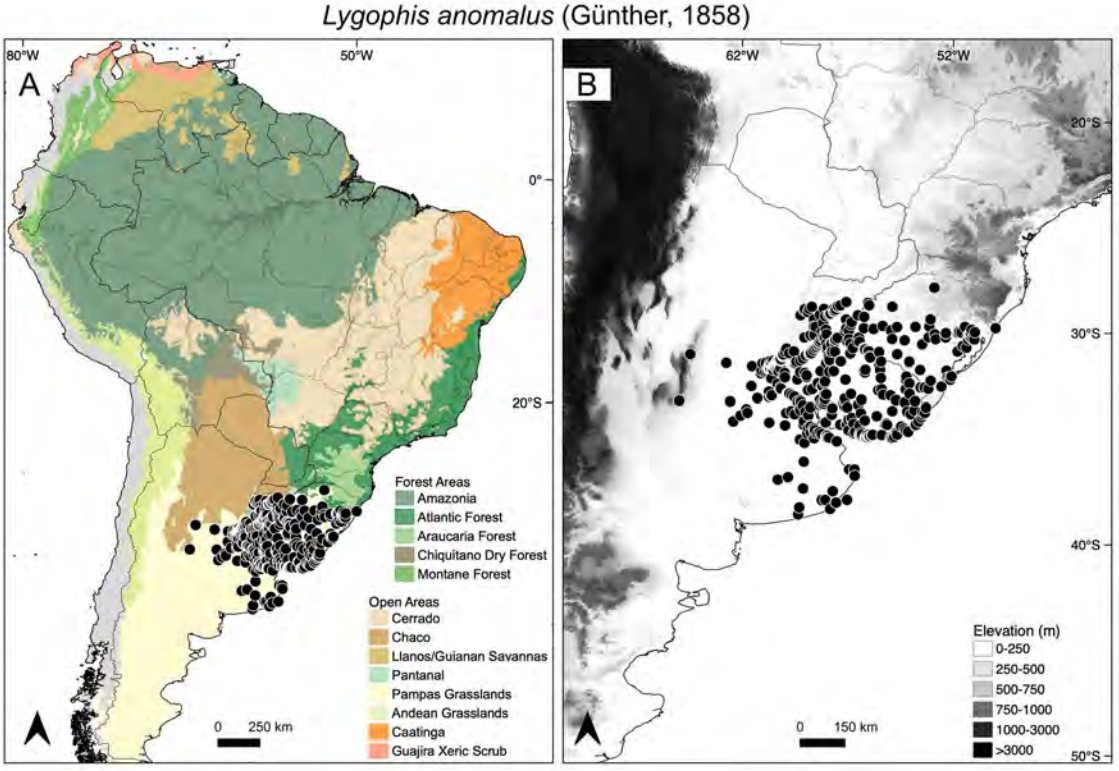


Plate 390. Distribution map of *Lygophis anomalus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

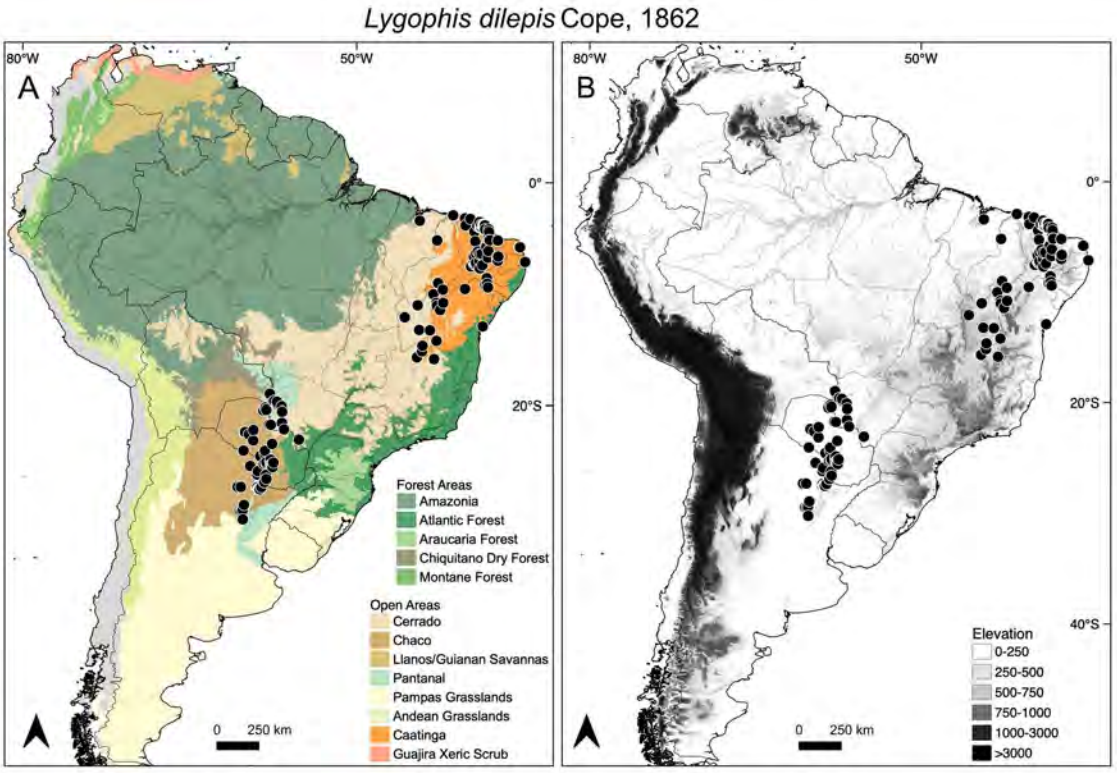


Plate 391. Distribution map of *Lygophis dilepis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

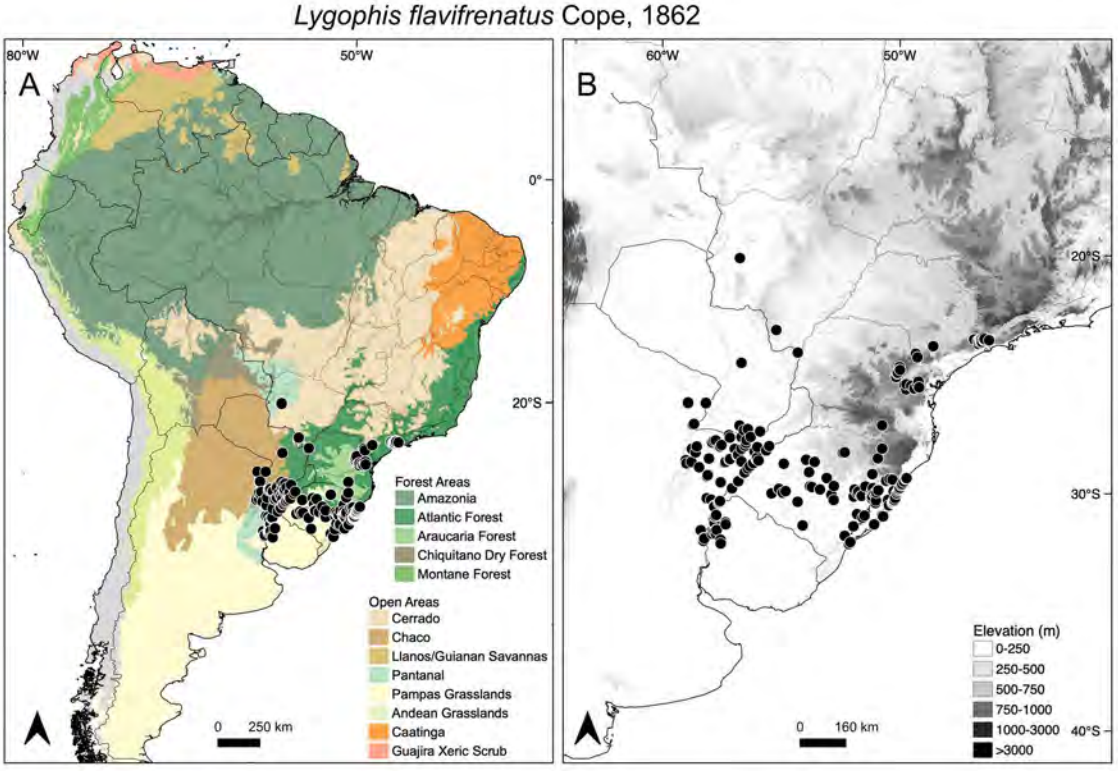


Plate 392. Distribution map of *Lygophis flavifrenatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

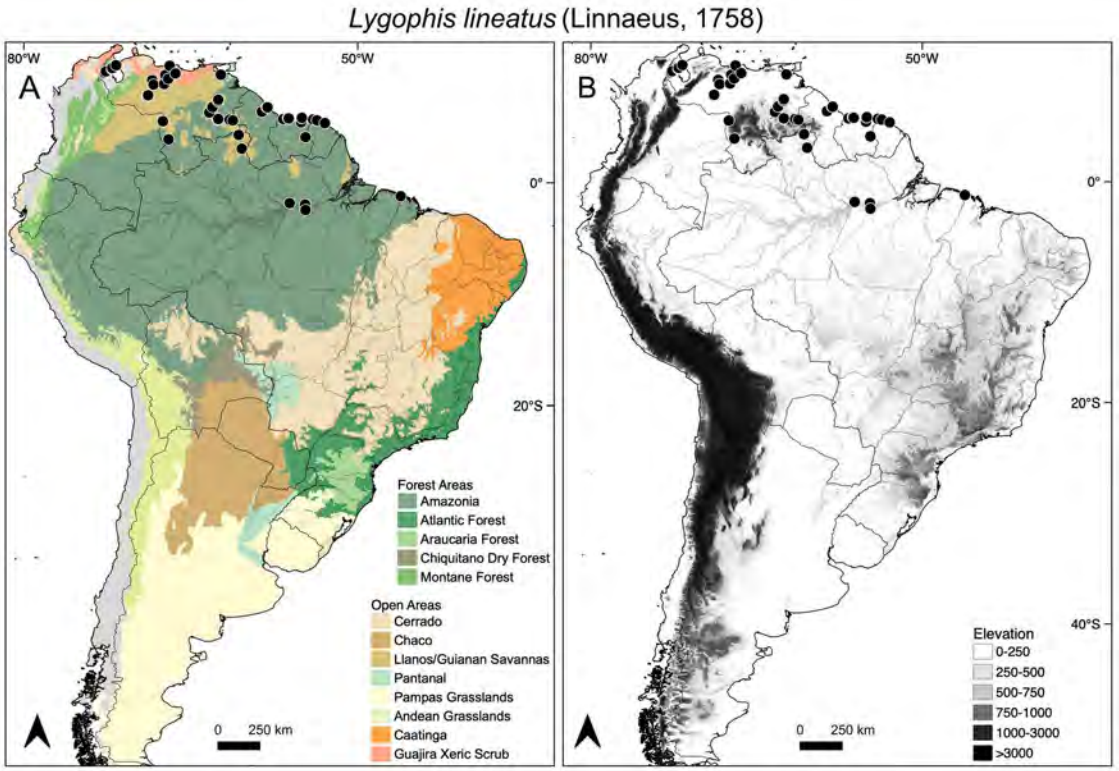


Plate 393. Distribution map of *Lygophis lineatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

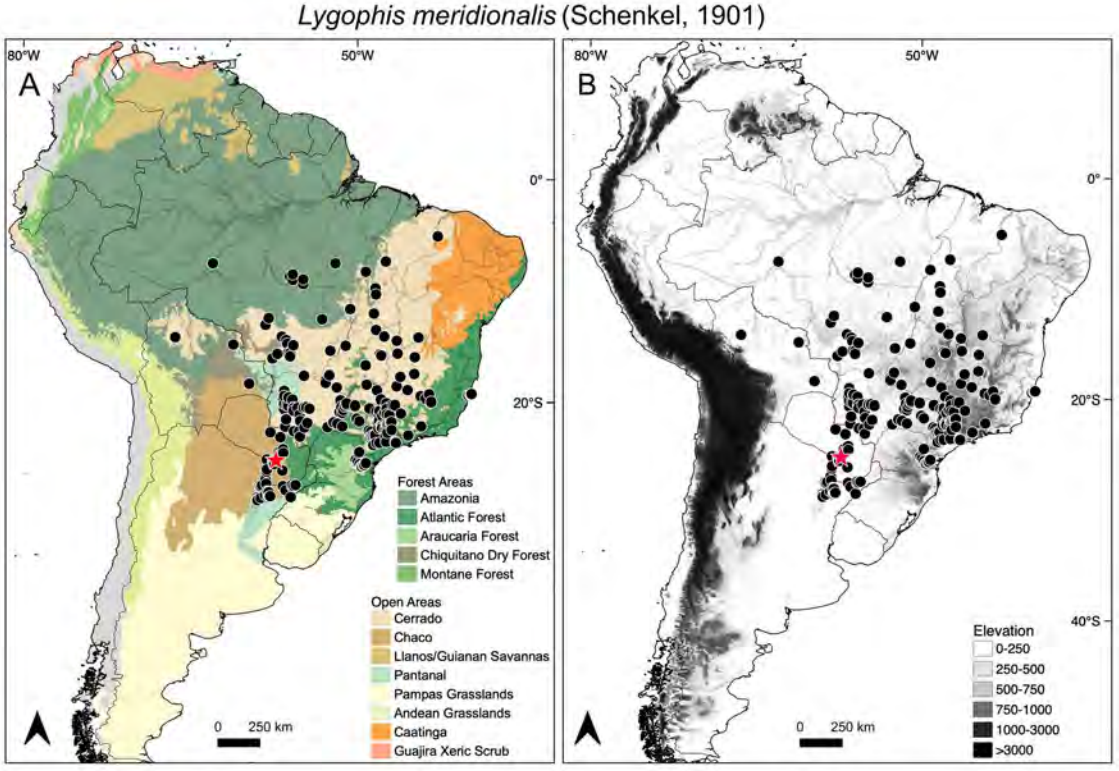


Plate 394. Distribution map of *Lygophis meridionalis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

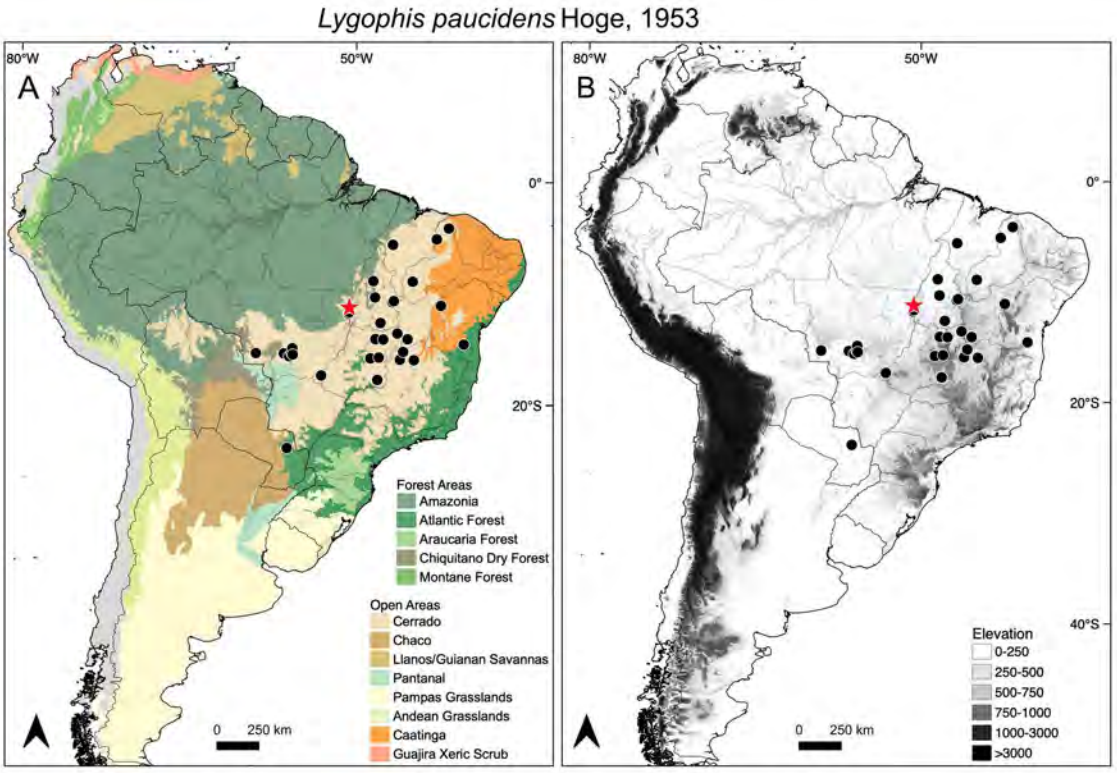


Plate 395. Distribution map of *Lygophis paucidens* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

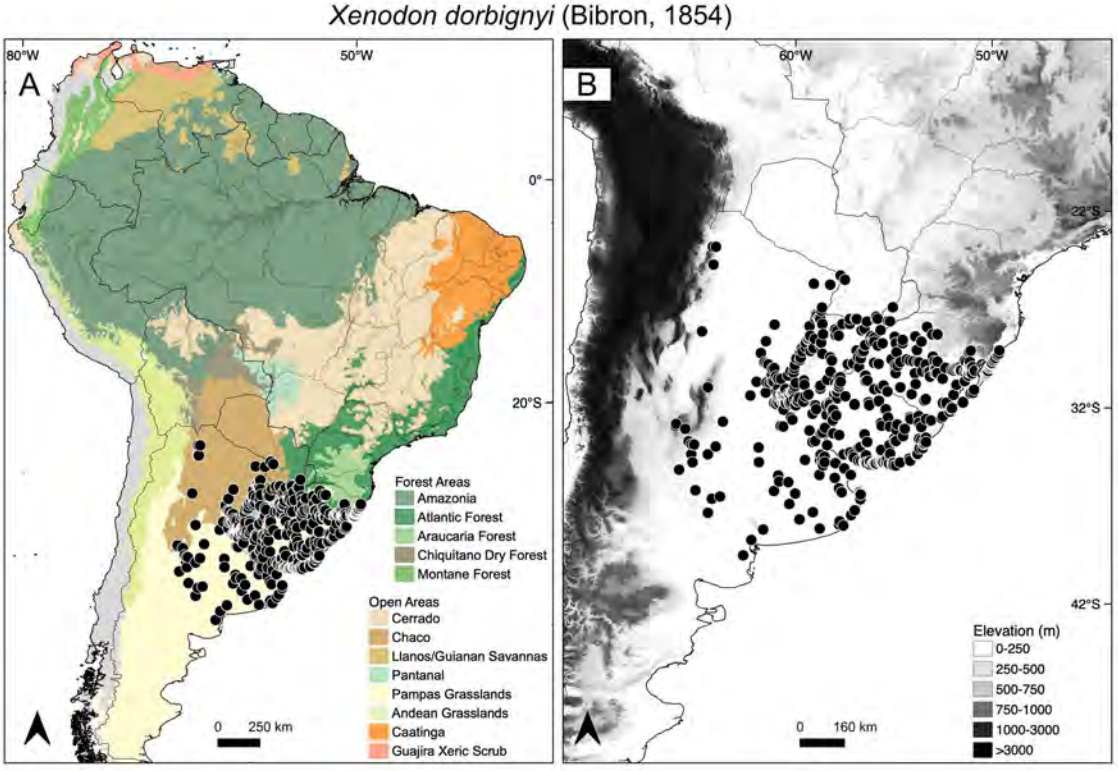


Plate 396. Distribution map of *Xenodon dorbignyi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

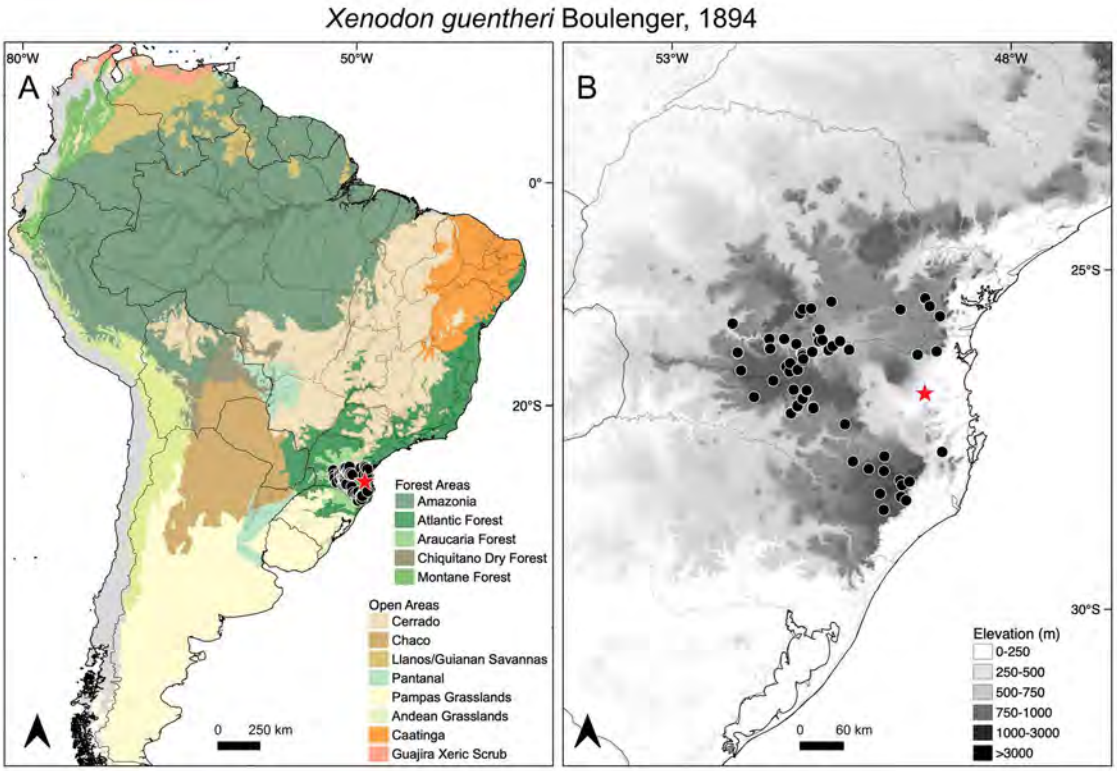


Plate 397. Distribution map of *Xenodon guentheri* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

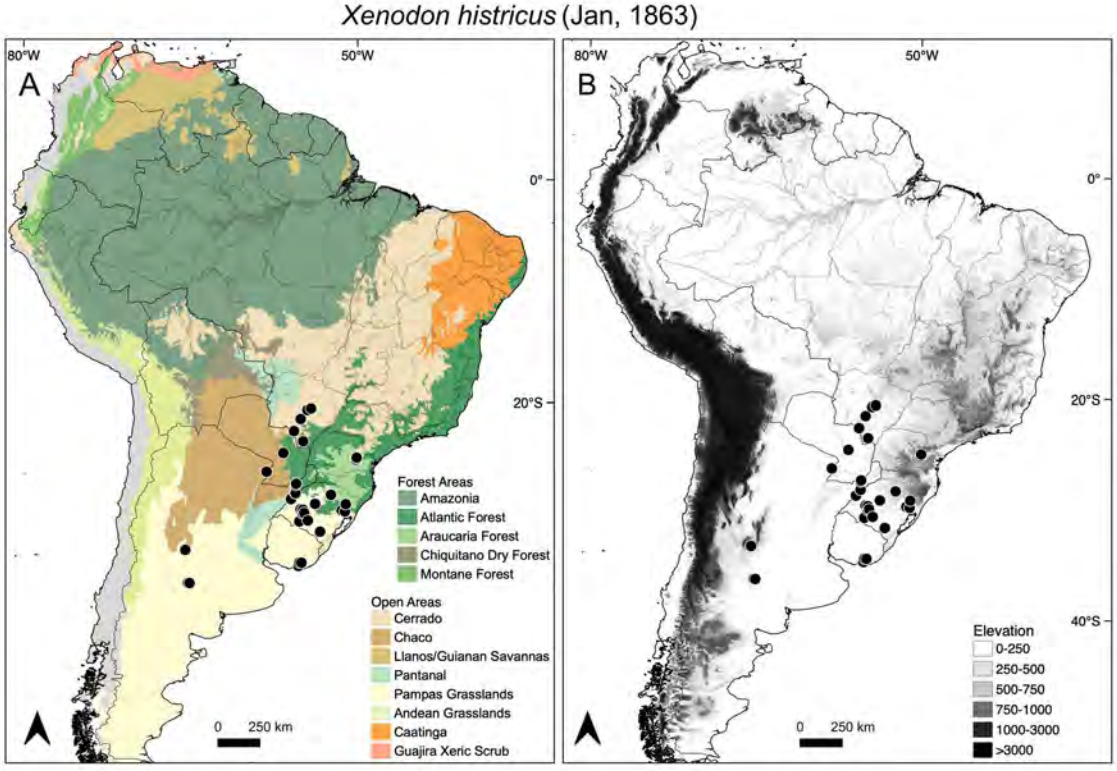


Plate 398. Distribution map of *Xenodon histricus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

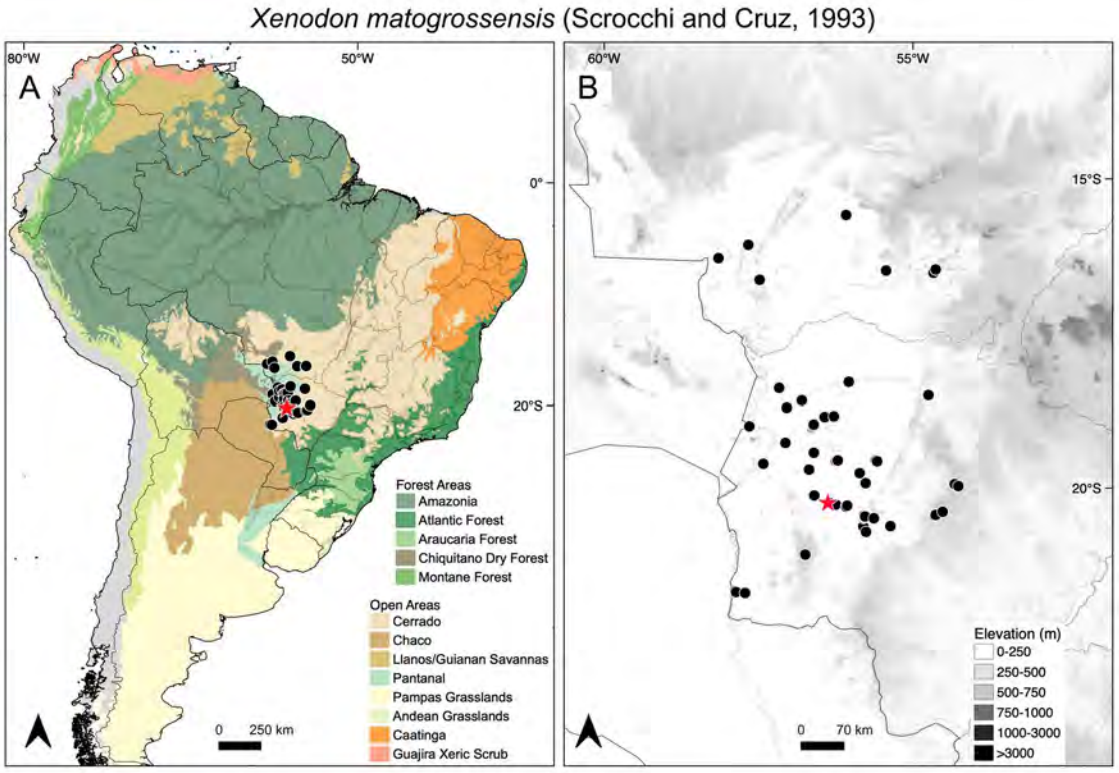


Plate 399. Distribution map of *Xenodon matogrossensis* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

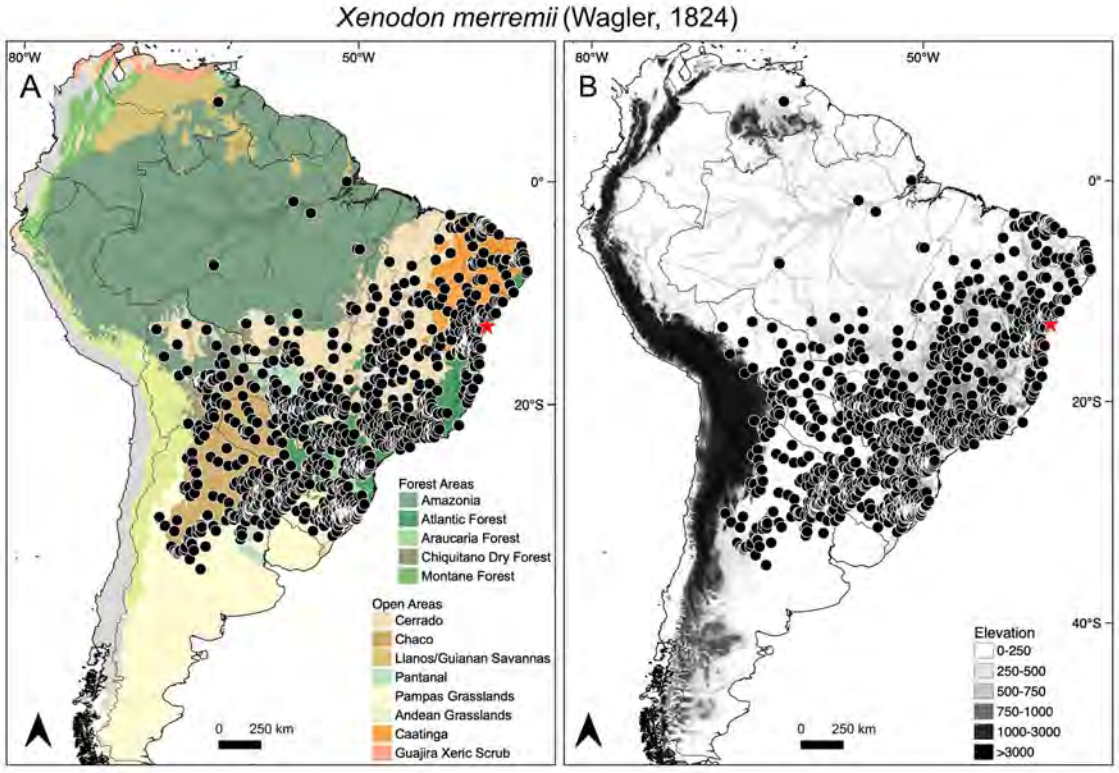


Plate 400. Distribution map of *Xenodon merremii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Xenodon nattereri (Steindachner, 1867)

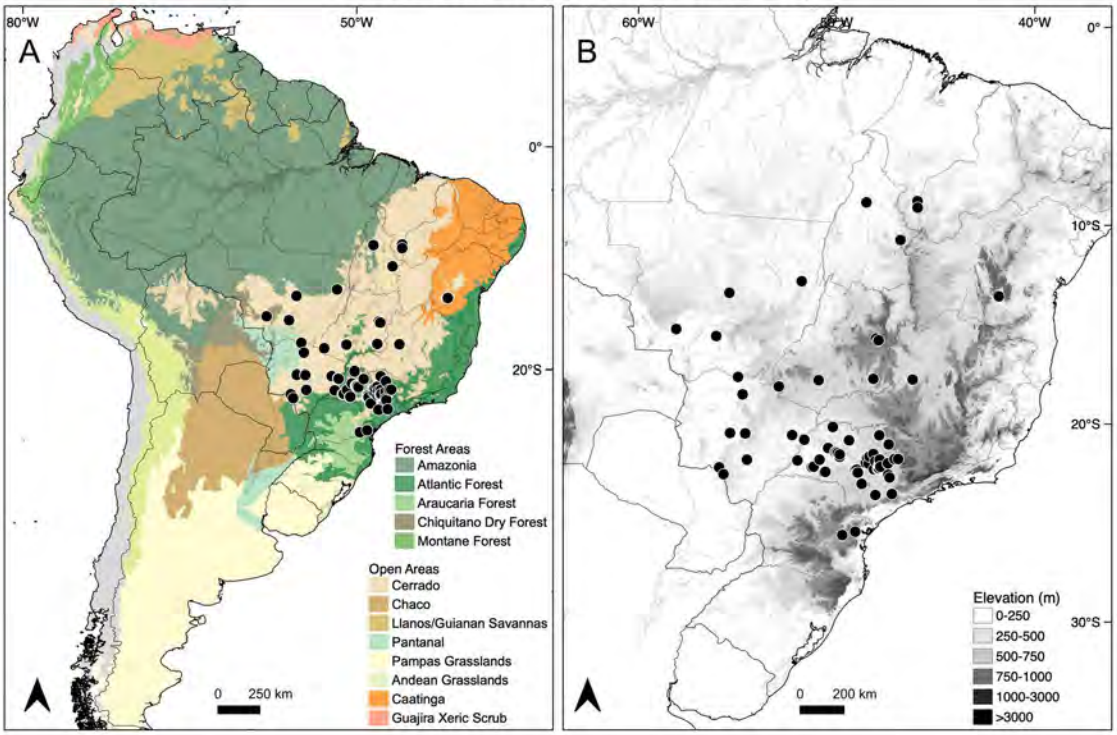


Plate 401. Distribution map of *Xenodon nattereri* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

Xenodon neuwiedii Günther, 1863

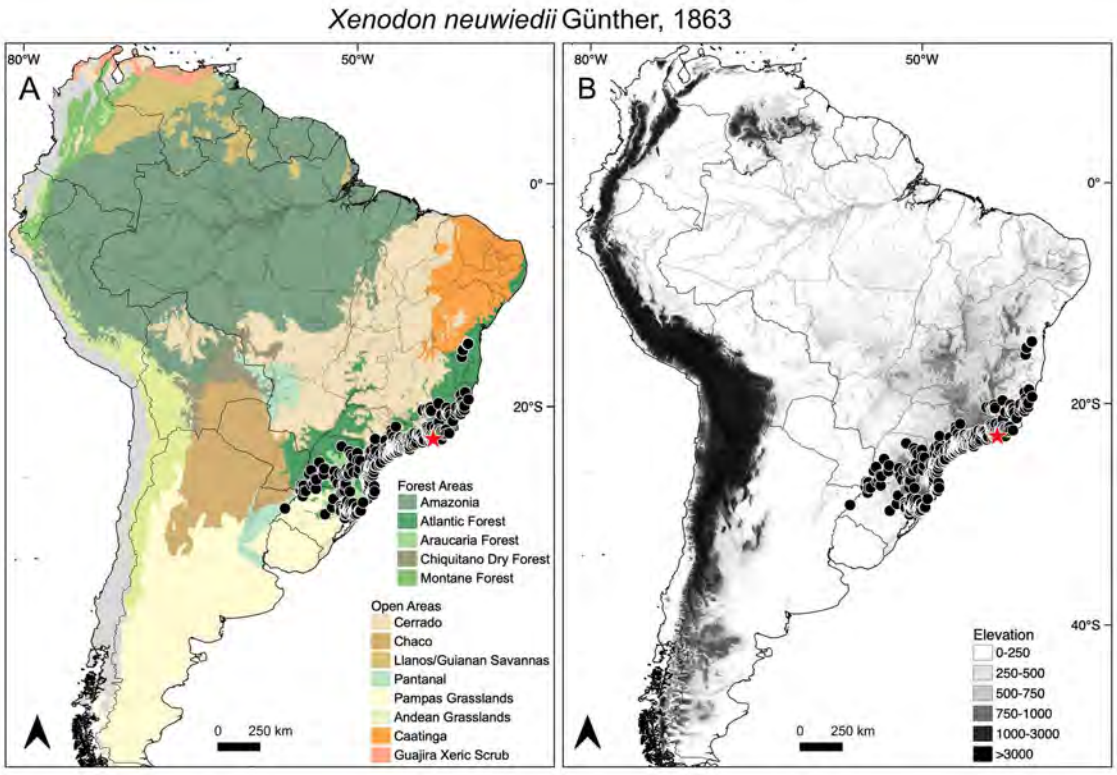


Plate 402. Distribution map of *Xenodon neuwiedii* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

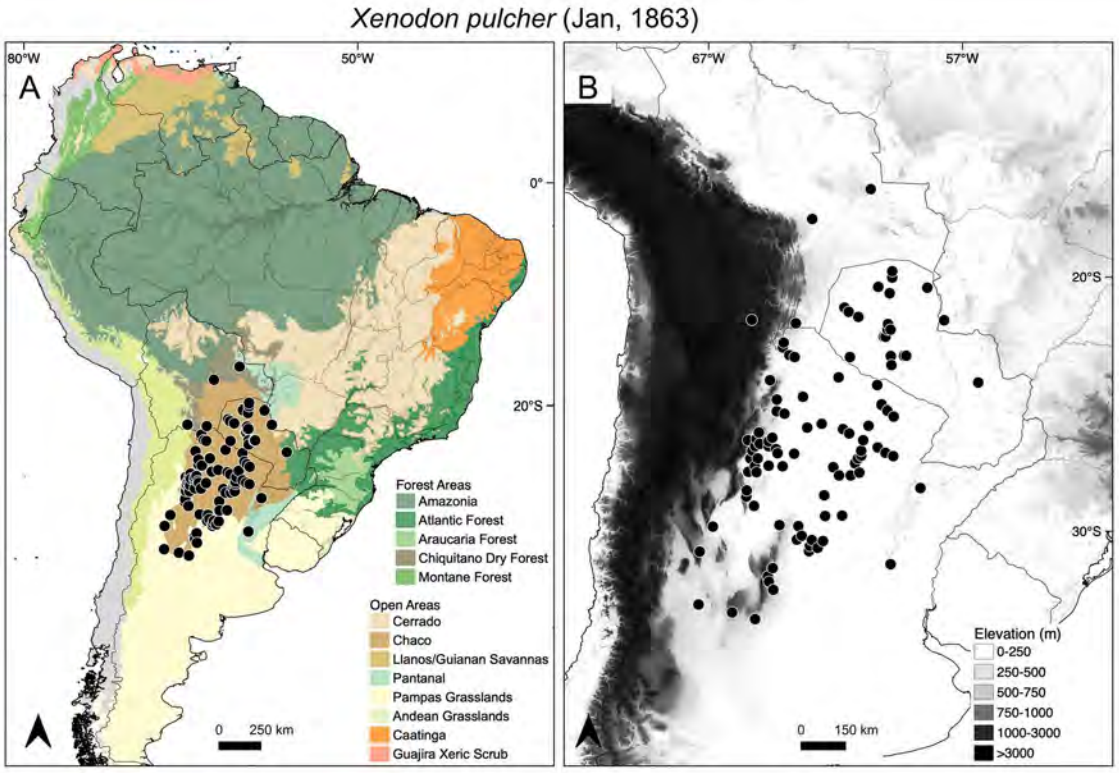


Plate 403. Distribution map of *Xenodon pulcher* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

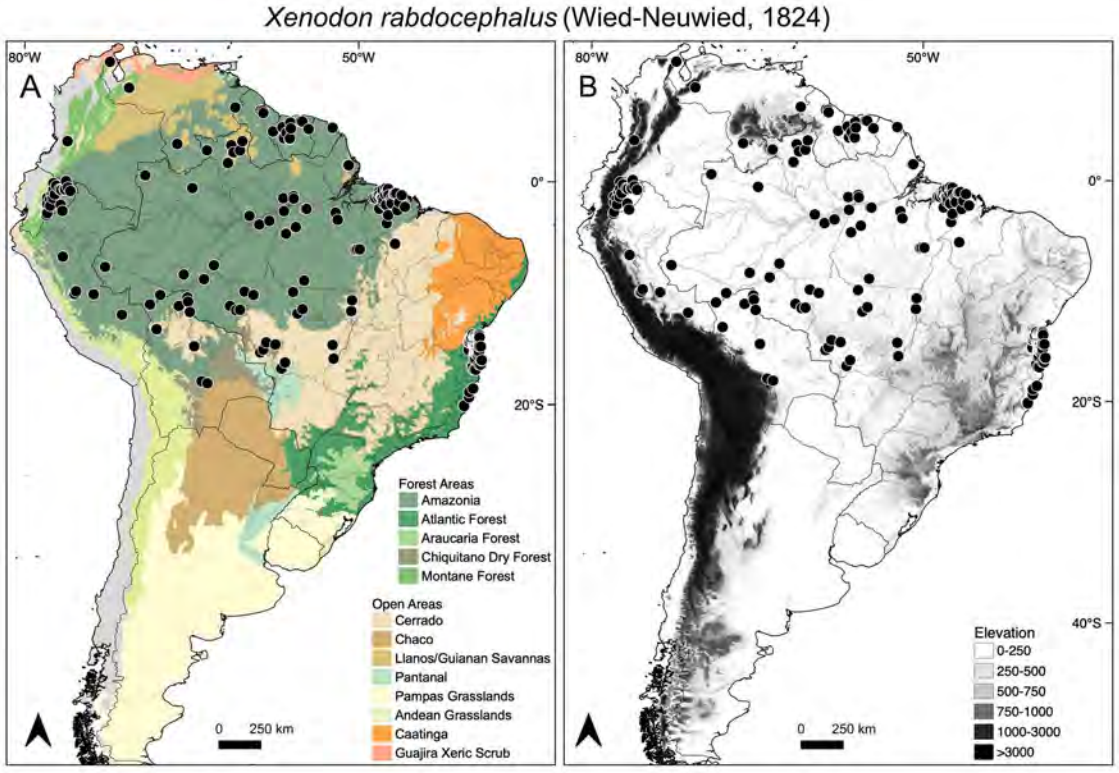


Plate 404. Distribution map of *Xenodon rabdocephalus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

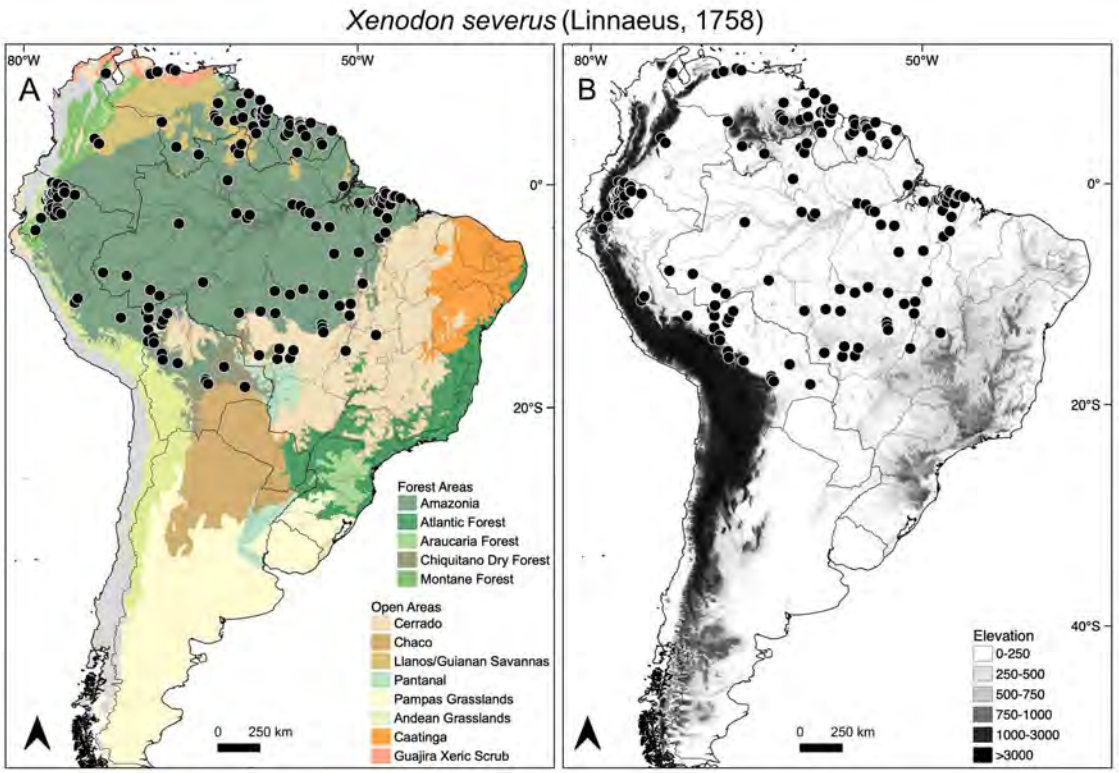


Plate 405. Distribution map of *Xenodon severus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

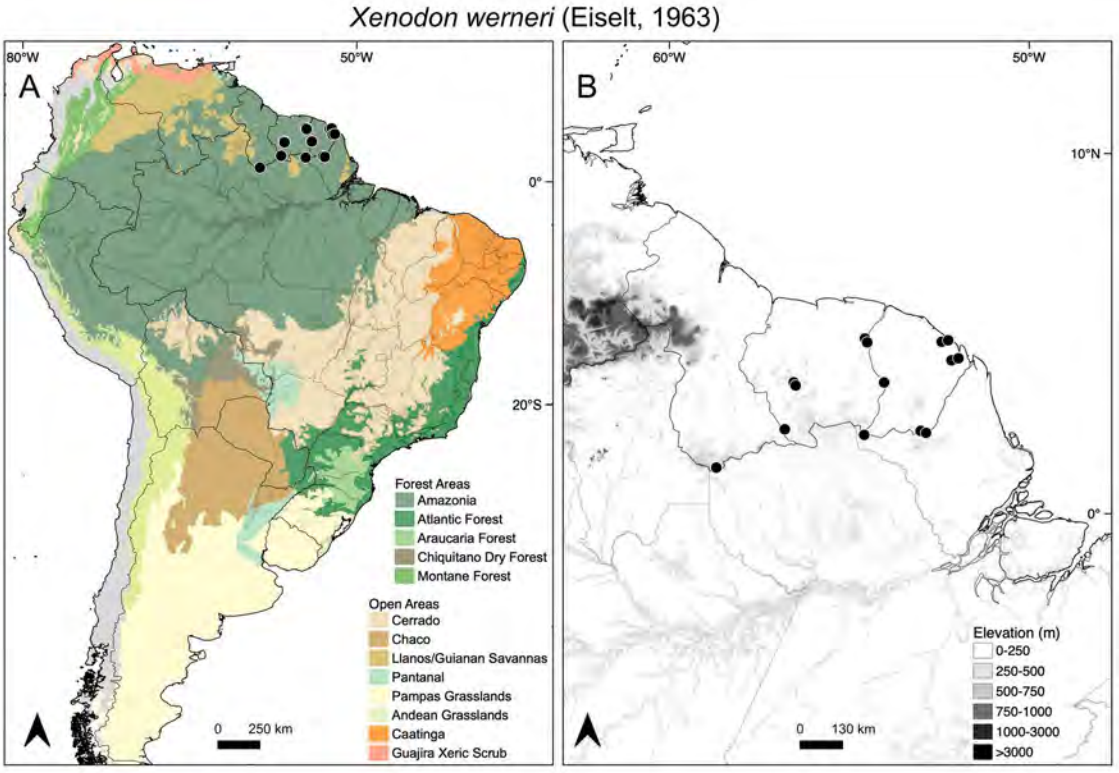


Plate 406. Distribution map of *Xenodon werneri* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

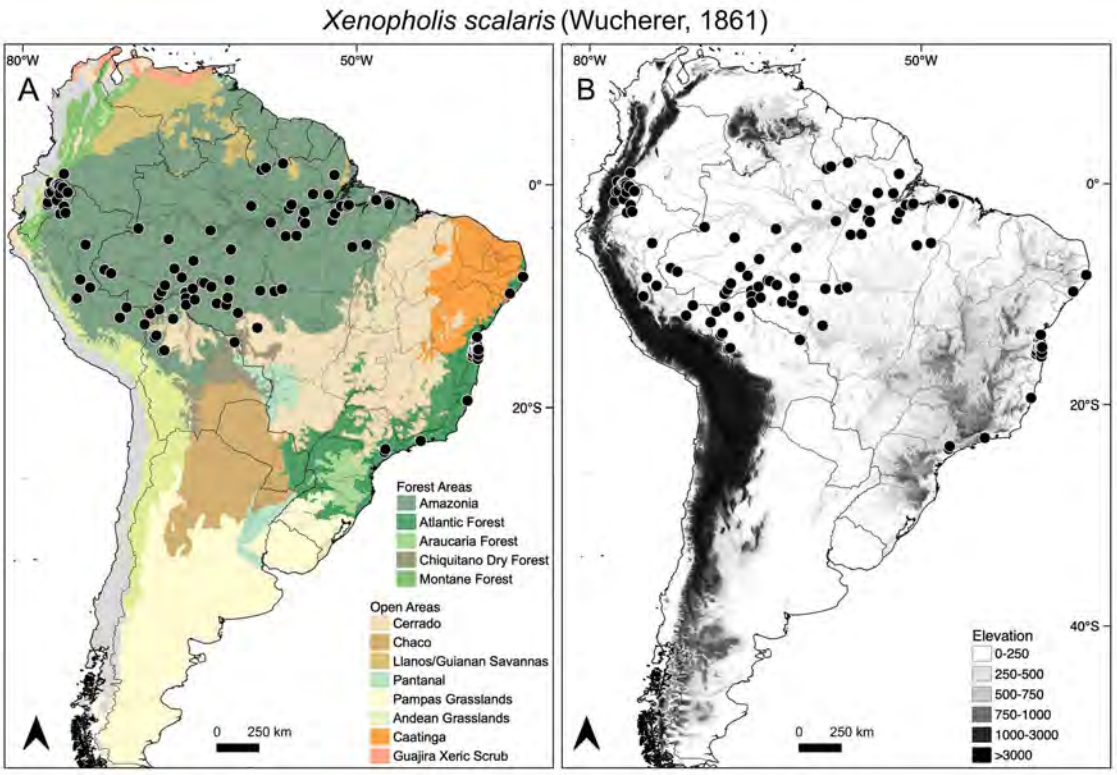


Plate 407. Distribution map of *Xenopholis scalaris* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

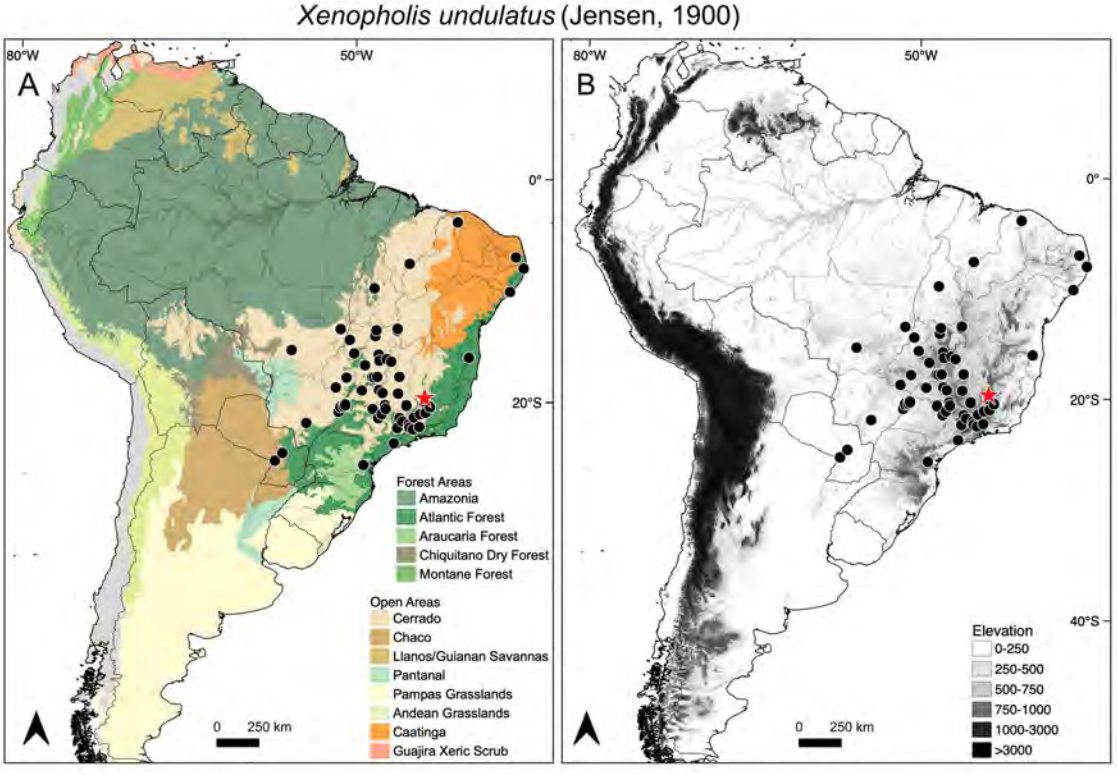


Plate 408. Distribution map of *Xenopholis undulatus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

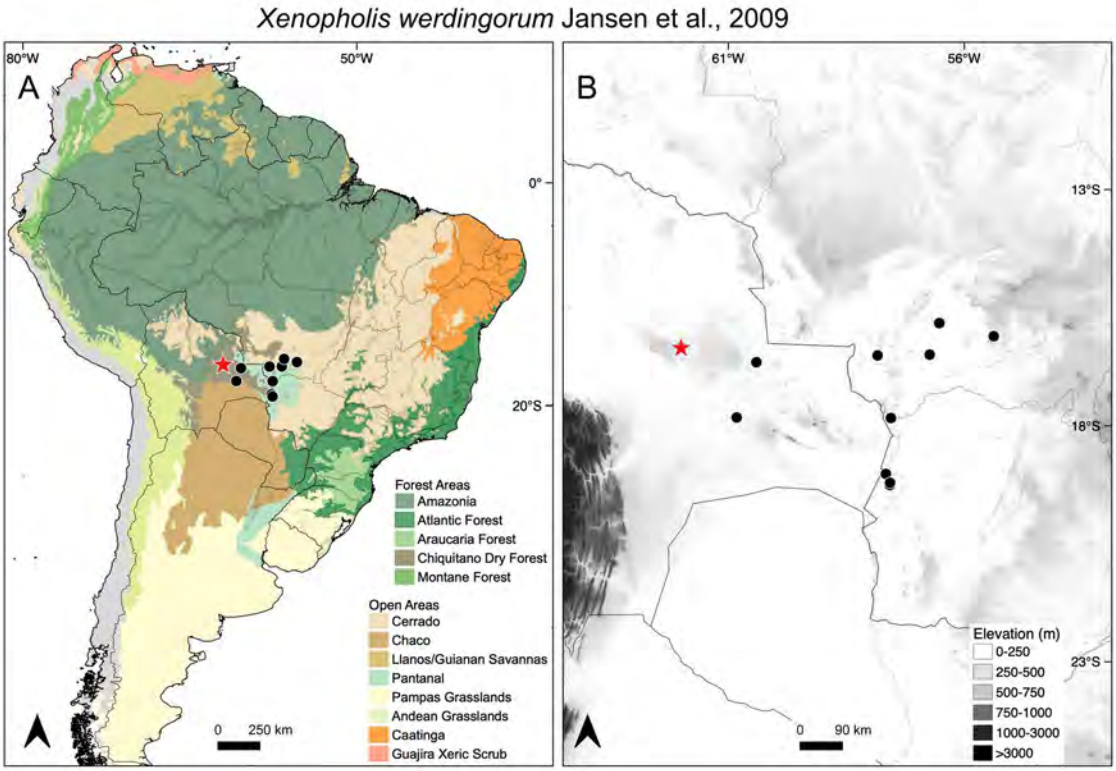


Plate 409. Distribution map of *Xenopholis werdingorum* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

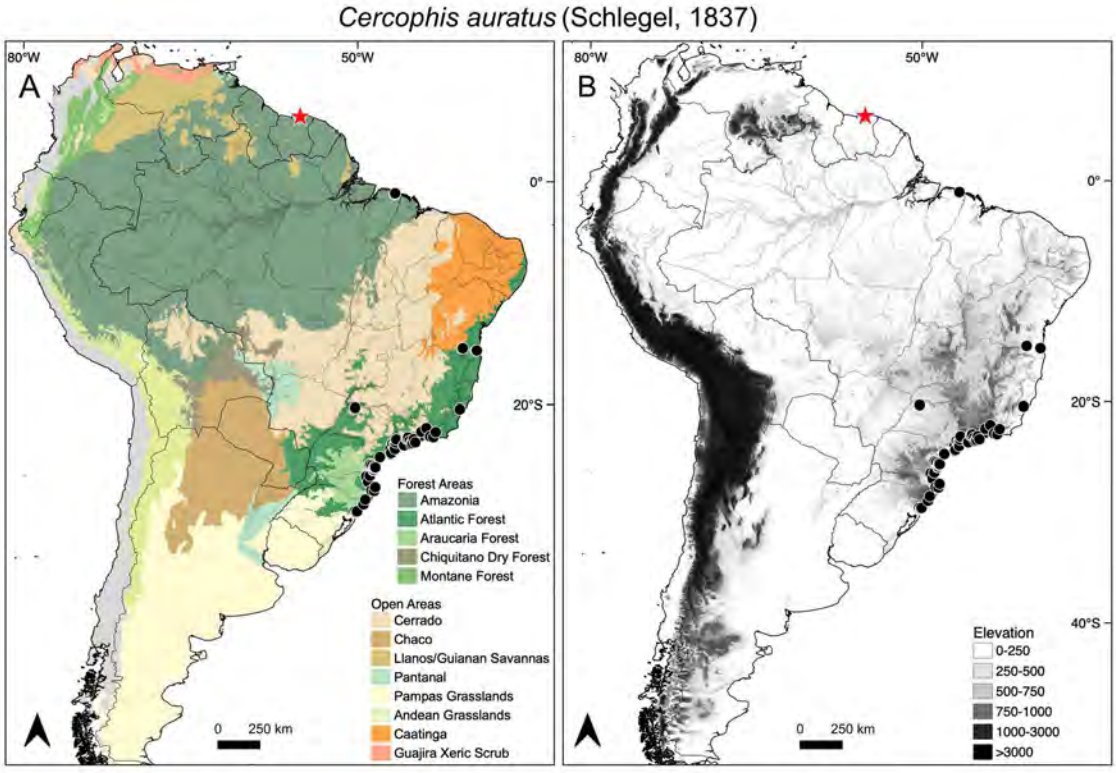


Plate 410. Distribution map of *Cercophis auratus* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.

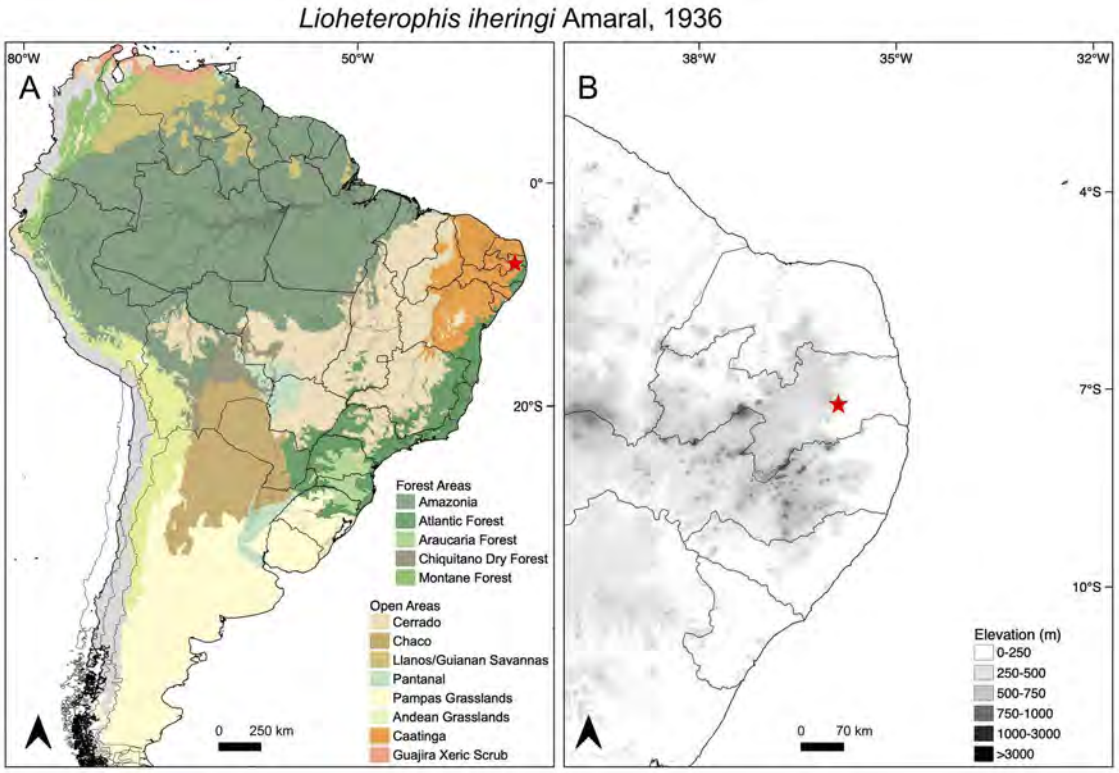


Plate 411. Distribution map of *Lioheterophis iheringi* in relation to **(A)** South American Ecoregions (adapted from Olson et al., 2001) and **(B)** elevation. Red star indicates type-locality, if precisely located.