

# SNAKES of the WORLD

A Catalogue of Living and Extinct Species

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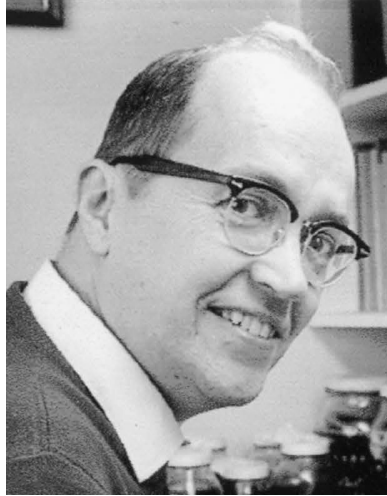
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*We dedicate this book with warm affection to*

*Douglas Athon Rossman*

*a.k.a. “Dag”*



Douglas Rossman, Photo Courtesy of the LSU Museum of Natural Science

*Emeritus Curator and Professor of Herpetology  
Louisiana State University Museum of Natural Science  
Baton Rouge, LA (1963–1998)*

*Doug directed all three of us in our graduate programs  
for either Masters (VW) or Doctoral (JB, KLW) degrees,  
was an excellent teacher, thoughtful advisor, and supportive friend,  
and made each of us better herpetologists  
with his encouragement, insightful advice, and constructive criticism  
exemplified daily by his dedication to scientific research.*

*“Mon ami, there are only two kinds of snake:  
the good snake (dead) and the bad snake (trop vive!)”  
... old Cajun saying from the Bayou*



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## Introduction

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Few works have attempted the challenge of cataloging all of the known species of snakes in the world, the most prominent being the British Museum catalogues of Boulenger (1893a, 1894a, 1896a) and those of F. Werner (1917b, 1921a–b, 1922a, 1923b, 1924c, 1929a) for Recent taxa and Rage (1984b) and Holman (1998a, 2000a) for fossil taxa. Until now no single work has treated all living and extinct snakes. The present work covers all living and fossil snakes described between 1758 and 2012, comprising 3783 species (3509 extant and 274 extinct species) allocated to 651 genera (539 extant and 112 extinct genera). Also included are the names of 54 genera and 302 species that are considered *incertae sedis*, *nomina dubia*, *nomina nuda*, *nomina rejicienda*, and *nomina inedita*, resulting in a grand total of 12,500 primary snake names. A summary of the main historical references follows.

**Worldwide works.** The starting point of modern binomial nomenclature, Linnaeus' 10th edition (1758), had four genera (*Anguis*, *Boa*, *Coluber*, and *Crotalus*) and 101 species of snakes. Laurenti (1768) increased the number of genera to 14 and the species to 104. Merrem (1820) recognized 330 species, placed in 22 genera. Duméril & Bibron (1844) recognized 25 genera and 64 species of scolecophidians and Duméril, Bibron & Duméril (1854) described 139 genera and 484 alethinophidian species, totaling 548 species in 164 genera (see Table I.1). The British Museum catalogues of Gray (1849) and Günther (1858) contained some 544 species and formed the foundation for Boulenger's later, more comprehensive, work. Snakes were placed in 62 genera by Günther (1888). Jan (1863b) listed 789 snake species allocated to 232 genera. Hoffmann (1890) provided descriptions of all snake genera, listing the number of species in each genus and its geographical region. Boulenger's British Museum (Natural History) catalogues (1893–1896) formed the first comprehensive summary of worldwide snakes, and continues to be a critical reference for any systematic work today. Boulenger recognized 1639 species (and 7335 total names) that he placed in 296 genera. Werner updated Boulenger's catalogues in a series of six papers (1917–1929) that resulted in 338 recognized genera and 2242 species. McDiarmid et al. (1999) covered the Scolecophidia, Anilioidea, Henophidia or Booidea, Acrochordoidea, and Viperioidea with subsequent volumes to review the Colubroidea. Table I.1 summarizes the biodiversity of snakes as seen through herpetological publications.

The checklists of Welch (1982, 1983, 1988, 1994a–b), Wilkey (2002a–b), and Brogard (2005) are of little value for any taxonomic work. Along this line, several Australian authors have a habit of universally recognizing every proposed name (Wells & Wellington) or cannibalizing molecular studies and phylogenetic analyses to attach names to every single clade (Hoser). Such works are not only superfluous but also detrimental and a hindrance to taxonomy and nomenclature and they violate clause 4 of the Code of Ethics (ICZN, 1999). They include Wells & Wellington (1984, 1985); Hoser (2000b–c, 2003f, 2004, 2009b–e, 2012b–am);

and Wells (2007). The *Australasian Journal of Herpetology*, of which Hoser is the editor, reviewer, publisher, and sole author, is not considered a valid publication under the spirit of the Code and therefore all proposed names are *nomina illegitima* (see Wallach et al., 2009 and Kaiser et al., 2013).

**Taxonomic groups.** Hahn (1980) compiled the first modern checklist of the Scolecophidia, with synonymies and ranges, followed by McDiarmid et al. (1999). Roux-Estève (1974) treated all African Typhlopidae. Venomous snakes of the world were covered by Golay et al. (1993), David & Ineich (1999), and McDiarmid et al. (1999).

**Regional works.** North American snakes have been treated by Ernst & Ernst (2003) with an official list of species by Crother (2008). H. Smith & Taylor (1945) produced the only comprehensive work on Mexico, with later summaries by Smith & Smith (1993) and Flores-Villela (1993), and Liner & Casas-Andreu (2008) providing a checklist of species and subspecies. Neotropical snakes of Central and South America were catalogued by Peters & Orejas-Miranda (1970) with Central American species updated by Köhler (2008). Snakes of the West Indies were enumerated by Schwartz & Henderson (1991). Tipton (2005) listed all the genera and species of the New World (North America, Mesoamerica, Caribbean, and South America). Snakes of Europe were listed by Mertens & Wermuth (1960) and Gasc et al. (1997). African snakes have been covered by the following: South Africa (Broadley, 1990), East Africa (Spawls et al., 2002), and West Africa (Chippaux, 2006). The treatises of Bourret (1936), M.A. Smith (1943), and Das (2010) covered Southeast Asia. Mengden (1983) and Cogger (2000) treated the Australian ophiofauna.

**Checklists.** Recent authors who have provided lists of names of the worldwide serpent fauna include Sokolov (1988), Frank & Ramus (1995), Mattison (1999), and Delhay (2009).

**Photo books.** There are some books that do not contain any taxonomic or geographical data but are worthy of citation as photo-essay books. These include Seba (1734–1735), Kundert (1974, 1984), Aramata (1990), Lacarrière & Ineich (1992), Lamar (1997b), Moncuit & Daoues (2002), Mocaico (2007), and Laita (2013).

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## Methods

Due to the length of this catalogue, verbiage has been kept to a minimum and a staccato style has been utilized. Only the most germane topics are briefly mentioned in Remarks but citations to relevant references are provided so that additional information can be traced when desired. The text is organized alphabetically throughout, both by genus and species. Valid genera are listed with author date, and family allocation parenthetically. If the generic name appeared in a work other than the author's, that work is listed on a separate line (preceded by *in*). After each

**TABLE I.1**  
Worldwide Snake Diversity Tabulations from 1758 to 2012

Author	Year	Genera	Species
Linnaeus	1758	4	101
Laurenti	1768	14	104
Merrem	1820	22	330
Duméril, Bibron & Duméril	1844–1854	164	548
Jan	1863	232	789
Hoffmann	1890	402	1760
Boulenger	1893–1896	296	1639
F. Werner	1917–1929	338	2242
Ditmars	1933	333	1653
A.S. Romer (living)	1956	377	—
A.S. Romer (extinct)	1956	26	—
Halliday & Adler	1986	417	2389
Sokolov	1988	433	2620
Rage in Bauchot	1994	428	2600
Frank & Ramus	1995	440	2542
Mattison	1999	466	2969
Delhay	2009	479	2927
McDiarmid in McDiarmid et al.	2012	506	3217
Present work (living)	2012	539	3509
Present work (extinct)	2012	112	274
Present work	Valid	651	3783
Present work	Taxa inquirenda	54	302

genus, the type species and a generalized distribution are presented, with or without sources and taxonomic remarks. Extant and extinct species are numbered and listed in alphabetical order with the following information: original citation, synonyms and subspecies, type or types, type locality, and geographical and geological range. Relevant sources for each taxon (monotypic genus or species) are also provided, along with comments when necessary. When supplemental or revisionary information is presented in later publications we present it and list the original data under Remarks.

**Species and genera.** Recognition of valid species and genera usually follows the latest revisionary works. In cases where polytypic genera have not been reviewed, the latest literature is utilized. When there is controversy over generic allocation or specific status of a taxon, we provide opposing views under Remarks. For the orthography of a taxon's name, we employ the original spelling unless it was (1) a typographical or accidental error (so noted as *nomen incorrigendum*), (2) incorrectly formed according to the Rules, or (3) a name whose terminus does not agree with gender of the current genus. In the latter two cases the corrected form is used. The original names of valid species include subgeneric names in brackets (subgenera are not included among synonyms). Allocation of genera and species to families follows the classification in Table I.2, with †Ophidia being used for extinct families exhibiting a pre-Serpentes grade of evolution.

**Synonyms.** We have attempted to list as many nominal taxa as possible. We list under Synonyms mainly primary synonyms, emendations (whether justified or unjustified), and incorrect and corrected original spellings of genera, species, and subspecies (not different combinations, typos, or *lapsus calami*). We do not differentiate between those forms considered junior synonyms

and those currently considered valid subspecies. New combinations are cited only when the termination of the specific epithet is different than the primary names, and they are indicated by a dash between name and author. Incorrect secondary spellings are listed in the text but not in the Index (since they are unavailable names). Citations for all these names are included in the Literature Cited. Latin notations following names include these terms: *incertae sedis* (uncertain taxonomic status), *lapsus calami* (slip of the pen), *nomen incorrectum* (incorrect secondary spelling), *nomen corrigendum* (corrected original name), *nomen dubium* (dubious or questionable name), *nomen emendatum* (emendation), *nomen illegitimum* (illegal or invalid name according to the Rules, usually not a binomial or trinomial), *nomen incorrigendum* (incorrect original name), *nomen ineditum* (unpublished name according to the Rules), *nomen nudum* (an unavailable or invalid name, usually lacking a diagnosis), *nomen oblitum* (forgotten name), *nomen praeoccupatum* (occupied name), *nomen protectum* (protected name, applied to a junior synonym in preference to an unused senior synonym or *nomen oblitum*), *nomen rejiciendum* (rejected name by ICZN), *nomen substitutum* (substitute or replacement name), *nomen suppressum* (suppressed name for matters of priority), and *partim* (in part, when specimens belong to more than one taxon). A name may include several of the above categories, in which case only the most relevant is cited. A *nomen emendatum* that is also a *nomen rejiciendum* will be cited as the latter.

For every valid species an abbreviated reference citation is provided along with pagination, figures, and plates referring to the new species. If a figure of a paratype is given (in the absence of a holotype figure) it is so indicated. The original combination of the name is given parenthetically when it is different from that currently employed. If the species was described in more than one publication, the other descriptions are listed in Remarks (listed as supplementary original description when its content is expanded over the initial description). Complete citations of all descriptions are in Literature Cited.

**Types.** We have tried to determine the location of all primary types by making liberal use of all published type lists, correspondence with various museums regarding types, and visiting certain U.S. museums to examine specimens personally (mainly ANSP, CAS, FMNH, MCZ, SDNHM, USNM). The location of many type specimens remains unknown; types were generally not designated in earlier works and many types have subsequently been lost or destroyed. If the deposition of a type is presumed but not confirmed, the museum acronym is preceded by a “?”

Whenever possible we have listed the status of the type (holotype, lectotype, neotype, or syntype), its location and registry number (including its original museum and number if now different), its total length and gender, and parenthetically the collector and date of collection. In cases where the current catalogue number or museum of deposition is different from that presented in the original description or subsequent publication, the original data are presented in parentheses following the current museum and number. If a third museum is involved, then the original and subsequent numbers are listed parenthetically. Museum acronyms follow, in most cases, Leviton et al. (1985, 1988). We have provided additional acronyms for institutions, private collections, and field series numbers. For simplicity in



TABLE 1.2

Number of Living and Extinct Genera and Species by Family

Family	Living		Extinct	
	Genera	Species	Genera	Species
<b>†OPHIDIA</b>				
†Pachyophiidae Nopcsa, 1923	0	0	5	6
†Lapparentophiidae Hoffstetter, 1960	0	0	2	2
†Najashidae Apesteguí & Zaher, 2006	0	0	1	1
<i>SERPENTES incertae sedis</i>	0	0	1	1
†Madtsoiidae Hoffstetter, 1961	0	0	10	19
†Dinilysiidae Romer, 1956	0	0	1	1
<b>SCOLECOPHIDIA</b>				
Anomalepididae E.H. Taylor, 1939	4	18	0	0
Gerrhopilidae Vidal et al., 2010	1	15	0	0
Leptotyphlopidae Stejneger, 1891	12	112	0	0
Typhlopidae Gray, 1825	11	260	0	0
Xenotyphlopidae Vidal et al., 2010	1	1	0	0
<i>ALETHINOPHIDIA incertae sedis</i>	0	0	5	9
<b>ANILIOIDEA incertae sedis</b>				
Aniliidae Stejneger, 1907	1	1	4	6
<b>UROPELTOIDEA</b>				
Anomochilidae Cundall et al., 1994	1	3	0	0
Cylindrophidae Fitzinger, 1843	1	10	0	0
Uropeltidae J. Müller, 1831	9	51	0	0
<b>HENOPHIDIA</b>				
<b>PYTHONOIDEA</b>				
Xenopeltidae Bonaparte, 1845	1	2	0	0
Loxocemidae Cope, 1861	1	1	0	0
Pythonidae Fitzinger, 1826	8	42	3	13
<b>BOOIDEA incertae sedis</b>				
Calabariidae Underwood, 1976	1	1	0	0
Boidae Gray, 1825	7	37	18	29
Erycidae Bonaparte, 1831	3	17	11	32
Ungaliophiidae McDowell, 1987	2	3	1	1
<b>BOLYERIOIDEA</b>				
Tropidophiidae Brongersma, 1951	2	34	7	16
Bolyeriidae Hoffstetter, 1946	2	2	0	0
Xenophidiidae Wallach & Günther, 1998	1	2	0	0
<i>CAENOPHIDIA incertae sedis</i>	0	0	1	1
<b>ACROCHORDOIDEA</b>				
†Palaeophiidae Lydekker, 1888	0	0	3	24
†Nigerophiidae Rage, 1975b	0	0	5	5
Acrochordidae Bonaparte, 1831	1	3	0	1
<b>VIPEROIDEA</b>				
†Anomalophiidae Auffenberg, 1959	0	0	1	1
†Russellophiidae Rage, 1975a	0	0	2	3
Xenodermatidae Gary, 1849	6	19	0	0
Pareatidae Hoffmann, 1890	3	16	0	0
Viperidae Gray, 1825	48	329	0	13
<b>HOMALOPSOIDEA</b>				
Homalopsidae Jan, 1863	17	55	0	0
<b>ELAPOIDEA incertae sedis</b>				
Elapidae F. Boie, 1827	71	354	1	7
Atractaspididae A.C.L.G. Günther, 1858	13	76	0	0
Lamprophiidae Fitzinger, 1843	13	71	0	0
Prosymnidae Kelly et al., 2009	1	16	0	0

(continued)

TABLE I.2 (CONTINUED)

Number of Living and Extinct Genera and Species by Family

Family	Living		Extinct	
	Genera	Species	Genera	Species
Psammophiidae Bonaparte, 1845	10	61	0	0
Pseudaspidae Cope, 1893	2	2	0	0
Pseudoxyrhophiidae Dowling, 1975	20	83	0	0
COLUBROIDEA <i>incertae sedis</i>	4	9	2	2
Pseudoxenodontidae McDowell, 1987	2	11	0	0
Carphophiidae Zaher et al., 2009	4	10	3	7
Dipsadidae Bonaparte, 1838	37	388	1	1
Xenodontidae Bonaparte, 1845	60	325	0	0
Natricidae Boettger, 1883	38	228	4	21
Sibynophiidae Dunn, 1928	2	11	0	0
Calamariidae Bonaparte, 1838	8	88	0	0
Colubridae Oppel, 1811	108	739	16	48

presenting type numbers, we have eliminated all zeros preceding the number (i.e., 00289 = 289), all “R” designations for reptiles (including RENA at RMNH), and for BMNH numbers from the 1800s, we add the prefix “18” to complete the year. When two or more types are catalogued under one number, we refer to them informally with small lower case letters (i.e., 1460a–b) but when a museum has catalogued more than one specimen under a single number we use upper case letters (i.e., 1460A–B). If a type specimen is unknown, unlocated, missing, presumed lost, or lost, we cite just that it is lost; if destroyed it is so noted. If a type is not listed in a type list, we presume it to be lost. A number of museums have been destroyed by fire (CA, IB, MBL, MLS *vide* Almaça & Neves, 1987, Kumar, 2010, and Franco, 2012) or bombing during World War II (BSM, FMSM, ISM, KMJ, LM, LNHM, MSNM, MTD, NMB, NMSW, NMW, SMNS, USTL, ZIB, ZMH, ZMUH, and ZSM *vide* Klauber, 1952, W. Leviton, 1959b, Hellmich *in* Hoge, 1964a, Hahn, 1980, Hoogmoed & Gruber, 1983, Böhme & Bischoff, 1984, W. Ladiges *in* L.D. Wilson, 1990d, M. Podestà *in* Raxworthy & Nussbaum, 1994, Leonardi et al., 1995, Scali, 1995, Schlüter & Hallermann, 1997, Hallermann, 1998, McDiarmid et al., 1999, Fritz, 2002, Cadle, 2007, Franzen & Glaw, 2007, and Köhler & Güsten, 2007) and their types are so noted without further reference. Many types of earlier authors are unknown and it should be pointed out that the following people sent all or part of their collections to the MNHN (C. Peale, 1794–1798; Palisot de Beauvois, 1797–1798; R. Harlan, 1831–1839; C.S. Rafinesque, 1835–1839; and A. Dugès, 1853–1856). The Museum Drottningholmense, from which many Linnaean types originated, is abbreviated as Mus. Drottn.

When a lectotype or neotype has been designated, we cite the authority in question. According to Art. 74.4 of the Code, we designate as lectotypes the descriptions and/or illustrations in older works such as M. Catesby, A. Seba, and P. Russell. Early authors, such as Cope and Hallowell, when describing a new species from a syntypic series, usually only presented data on one individual and did not mention the number of individuals upon which the description was based. It is preferable, therefore, to select the specimen described as the lectotype when it can be determined that more than one specimen was available (Art. 74B).

We have converted all non-metric measurements to the nearest mm when reporting the length of types. Whenever possible we used the conversion rate for that country. However, since the “line,” “inch,” and “foot” have ranged from 2.0–2.9 mm, 21.3–30.0 mm, and 250–390 mm, respectively, in different countries we employed the standard metric conversion of 2.54 mm, 25.4 mm, and 305 mm, respectively, when unknown. When more than one measurement of length for a type specimen exists in the literature, we present the entire range of values. Usually subsequent measurements of the same individual reveal a shrinkage due to the preservative. If the tail is incomplete, we give the body length and refer to it as SVL or, if only the tip is missing, we list the entire specimen with a “+” after the length. We have included gender and measurements (to the nearest mm) of all available types for which those data have not been published. Since authors in the older literature normally listed measurements for the largest specimen, we cite the reported value as that of longest syntype.

For the collector of the type specimen(s), we do not differentiate between the actual collector, a purchase from native collectors, or specimens in someone’s personal collection (but we use the term “coll.” after a name to refer to a collection, not to be confused with “collected by”). We merely list the person or collection responsible for procuring the specimens and when a donor separate from a collector is involved, “don.” is used to signify that. We refer to all local or indigenous collectors as “natives.” When the specific date of collection is unknown, but more inclusive dates are known, such as the dates of a voyage or expedition or the duration of residence of the collector in a certain country/locality, we list the inclusive dates, with a specific Expedition and Voyage abbreviated as Exped. and Voy., respectively. Under each genus the type species is listed as the currently recognized name. See Williams & Wallach (1989) for more complete data on genera type species and designations.

**Type locality.** The type locality is given verbatim and enclosed in quotes. Whenever it is not presented in English, we translate it in brackets with an “=” sign. In order to maximize the informational content of the type locality, we have included any and all data presented in the original description, including the title. Occasionally more information is presented on the type locality

in the introduction or some other part of the work than in the designated “type locality.” Following the quoted type locality, in many cases, will be found in brackets the name converted into present day terminology and/or translated into English, more detailed geographical data, the latitude and longitude, and the elevation in meters of the type locality. When a type locality is in the vicinity of a municipality, the coordinates and elevation are included in parentheses after the town. All information within brackets has been determined from other sources, either published literature or personal resources. Elevations and geographic coordinates were determined from several sources: Operational Navigation Charts (ONC) and Tactical Pilotage Charts (TPC) published by the Defense Mapping Agency, travel books and road maps for various countries, the Falling Rain Genomics website Global Gazetteer ([www.fallingrain.com](http://www.fallingrain.com)), the Atlas of Living Australia website ([www.biocache.ala.org.au](http://www.biocache.ala.org.au)), Google Earth, and such publications as Crawford-Cabral & Mesquita (1989) for Angola. It should be noted that these amplified type localities presented in brackets by the authors are intended as aids and not as type locality restrictions. Type locality restrictions are not enclosed in quotes and are given in English (translated, if necessary). Any and all restrictions of type localities, although bearing no official status, are listed with the restricting authority. Valid restrictions are listed under the Type locality field but invalid restrictions are in the Remarks. The geographic coordinates of all possible type localities have been determined. This is obviously impossible for many older names with generalized localities. Whenever a specific type locality was located in a gazetteer, the latitude and longitude are presented in brackets following the name of the country. When the coordinates are preceded by “ca.,” it means they are derived from measurements of maps and only approximate, or else if the type locality is a general region the coordinates of the center of that region are listed. If the type locality could not be located but a locality near it was found, the latter’s coordinates are given immediately after that particular location parenthetically. When the type locality is near, around, close to, or in the environs of a specific location, we refer to it as the vicinity of that location. When an island is the type locality, the range of latitude and longitude coordinates may be given, preceded by “bet.” (= between). When the elevation of the type locality is known, it follows the country name and the latitude and longitude (if known). Whenever additional information on the type locality is presented elsewhere (such as corrections, more precise details, etc.), we list it as emended data, and may paraphrase or translate it in order to fit it into our format of most specific to most general geographic locality, elevation, and coordinates. Corrections (to type localities that are in error) and restrictions of type localities are so noted with the authority and source. For certain older type localities the political boundaries and names have changed and we attempt to provide the modern equivalent. For example, “Bengal” in the early 1800s consisted of the area currently known as Bangladesh and NE India (including Assam, Manipur, Meghalaya, Mizoram, Nagaland, and West Bengal provinces). With fossil species, we consider the geological age and stratigraphic horizon to be part of the type locality, and this information follows the geographical locality of the type specimen, regardless of the order of presentation in the original description. The type locality sequence for an extinct species is

thusly: geographical locality; geological period or epoch (geological age, formation or local fauna).

Geological epochs (Cretaceous to Pleistocene) are listed, followed parenthetically with either the North American Land Mammal Ages (NALMA) for North America or the European Land Mammal Ages (ELMA) for the rest of the world and the Neogene Mammal (MN) and Paleogene Mammal (MP) biozones following Gradstein et al., 2004. Fossil times, in millions of years before the present (mya), are listed according to Gradstein et al., 2004, and the International Union of Geological Sciences for 2012. In reference to epochs, we utilize the adjectives “lower, middle and upper,” which define formations, in contrast to “early, middle and late,” which define ages.

Lists of type specimen are available for the following museums: ADM (E.H. Taylor, 1933; H. M. Smith & Necker, 1943), AMS (Goldmann et al., 1969; Cogger, 1979; Shea & Sadler, 1999), ANSP (Roze, 1958; Malnate, 1971, 1989), BNHS (P. Das et al., 1999b), BYU (W.W. Tanner, 1970), CAS (Slevin & Leviton, 1956), CAS-SU (Leviton, 1953; Leviton & Banta, 1956), CIB (Guo et al., 2000), CM (McCoy & Richmond, 1966; McCoy & Censky, 1982), CMS (Kandamby, 1997), EHT-HMS (E.H. Taylor, 1944), FMNH (Marx, 1958, 1976), FMNH-PR (Bruner, 1991), HLD (J. Köhler & Güsten, 2007), IES (Chamizo-Lara et al., 2000), IMC (Sclater, 1891), IRNSB (Lang, 1990), IZUC (Cekalovic & Artigas, 1981), KU (Duellman & Berg, 1962), KU-VP (Schultze et al., 1985), LSUMZ (Rossman & Good, 1993), MACN (Amalia-Varela, 1999), MB (Bocage, 1896), MCZ (T. Barbour & Loveridge, 1929, 1946; Loveridge, 1961; Ross & Crumley, MS), MDUG (E.H. Taylor, 1933; H.M. Smith & Necker, 1943; Flores-Villela et al., 2010), MHNG (Mahnert, 1976; Schätti & Perret, 1997), MHNM (Olazarri et al., 1970), MHNN (Schätti, 1986), MMC (Clary & Martelli, 1995), MNCN (García-Díez & González-Fernández, 2013), MNHN (Guibé & Roux-Estève, 1972; Roux-Estève, 1979b, 1983), MNHNC (Donoso-Barros & Cardenas, 1965; Ortiz & Nuñez, 1986), MNKNU (Vedmederya et al., 2009), MNRJ (Miranda-Ribeiro, 1955; Soares & Fernandes, 2001), MSNG (Capoccacia, 1961), MSNM (Scali, 1995; Leonardi et al., 1995), MTKD (Schüz, 1929; Obst, 1977; Fritz, 2002), MVZ (Crippen, 1962; Rodriguez-Robles et al., 2003), MZB (Iskandar & Mumpuni, 2003, 2005), MZUT (Elter, 1981), NHRM (Andersson, 1899; Deraniyagala, 1961a), NMBA (Kramer, 1978), NMP (Milkovsky et al., 2011), NMSW (Lampe, 1901, 1911), NMSZ (Herman et al., 1990), NMV (Coventry, 1970), NMW (Grillitsch et al., 1996; Tiedemann & Haupl, 1980; Tiedemann et al., 1994; Tiedemann & Grillitsch, 1999), NSMT (Ota, 1997; Ota & Endo, 1999), NTM (Horner, 1999), OMNH (Hatooka, 1996), QM (Mack & Gunn, 1953; Covacevich, 1971; Ingram & Covacevich, 1981; Covacevich & Couper, 1994), RMNH (Hoogmoed & Gruber, 1983), SAMA (Houston, 1976), SDSNH (Sloan, 1965; Pregill & Berrian, 1984), SMF (Rüppell, 1845; Boettger, 1898; Mertens, 1922, 1952, 1967), SMK (Das & Leh, 2005), SMNS (Schlüter & Hallermann, 1997), SMW (J. Köhler & Güsten, 2007), SMWM (Irish, 1985), THNHM (Chan-ard & Makchai, 2011), UF (Christman in Gilbert, 1974), UIMNH (H.M. Smith et al., 1964; Phillips, 2003 (on internet)), UMMZ (J.A. Peters, 1952; Kluge, 1984), USNM (Cochran, 1961, J.W. Wright et al., 2008), WAM (Anonymous, 1961–1969), ZDKU (Vedmederja et al., 2009), ZFMK (Böhme, 1974, 2010; Böhme & Bischoff, 1984), ZMA (Daan & Hillenius, 1966; van

Tuijl, 1995), ZMB (Bauer, 1998; Das, 1999; Bauer et al., 2002; Hallermann, 2007), ZMH (Meerwarth, 1901; Hallermann, 1998, 2006), ZMUH (L. Müller, 1941), ZMUO (Pethon, 1969), ZMUU (Lönnerberg, 1896; Dely, 1961a; Wallen, 1992), ZRC (Das, 2001), ZSI (Das et al., 1998; Das & Gayen, 2004), ZSM (Franzen & Glaw, 2007).

The following sources contain additional information on types and type localities: Andreone & Gavetti, 2007 (M.G. Peracca types), Anonymous, 1958 (southern and East African types), Bauer et al., 1995 (W.C.H. Peters types), Crumley, 1990 (annotated account of types and type locality lists), Dowling et al., 1970 (annotated list of type specimen lists), Dowling & Gilboa, 1974 (annotated list of type specimen lists), Dunn & Stuart, 1951 (critique of type locality restrictions), V. FitzSimons, 1937 (A. Smith types), V. FitzSimons, 1958 (South African types), Flores-Villela et al., 2010 (A. Dugès reptile taxa), Hoogmoed & Gruber, 1983 (Spix & Wagler types), Krecsák, 2007a (A.F.T. Reuss vipers), Liner, 1996a (Nuevo León, México types), Liner, 2000 (H. M. Smith types), J.A. Peters, 1955 (Ecuadorian types), Rodriguez-Schettino, 2000 (Cuban types), Savage, 1974 (Costa Rican types), H.M. Smith & Necker, 1943 (A. Dugès types), H.M. Smith & Taylor, 1950 (Mexican type locality restrictions), E.H. Taylor, 1933 (Alfredo Dugès Museum), E.H. Taylor, 1944a (E.H. Taylor and H.M. Smith types), and Toriba, 1993 (M. Maki types). In addition to the type lists we have made liberal use of numerous biographies, expedition and voyage accounts, online resources (i.e., Wikipedia, Google), and invaluable works such as Adler (1989, 2007, 2012), Bauer (2004), Beolens et al. (2011), Bokermann (1957), C.W. Myers (2000), Papavero (1971), Pietsch & Anderson (1997), Savage (1974), and Vanzolini (1977–1978) for determining localities and specific collection dates (or ranges of dates in the case of voyages, expeditions, or habitations of collectors).

**Distribution.** We realize that a deficiency of this work is with the geographic ranges of individual species. We have tried to be as complete as possible but time constraints have prevented us from being able to search the entire literature and examine all the material in collections. Being based almost entirely upon literature records, there are undoubtedly errors of omission and commission and we would greatly appreciate being informed of corrections or additions to the listed ranges for a future edition. We have provided primarily a list of all countries from which each species is known, and secondarily a list of all known major administrative regions from which each species has been recorded. These regions include states, provinces, regions, districts, territories, counties, zones, municipalities, prefectures, governates, protectorates, divisions, parishes, and wilayas, in alphabetical order in parenthesis following country. Data has been compiled mostly from the published literature, but some has come from museum specimens examined and also unpublished information provided by colleagues or ourselves.

Consistency of the names of the administrative regions presented a problem for many countries that have changed their names recently. We previously utilized such resources as Foreign Area Studies handbooks of the American University, *Merriam-Webster's New Geographical Dictionary*, U.S. Defense Mapping Agency gazetteers, and Department of Defense maps but recently switched over to Google Earth for current names. Recent name changes employed include Myanmar (Burma), Sulawesi

(Celebes), Kalimantan (Borneo), Papua and West Papua (W New Guinea), and Burkina Faso (Upper Volta). Larger geographic regions are denoted as follows: North America = Canada, USA, and Mexico; upper Central America = Guatemala/Belize to Honduras; lower Central America = Nicaragua to Panama; Mesoamerica = Mexico plus Central America; Greater Antilles = Cuba Hispaniola, Jamaica, and Puerto Rico; Lesser Antilles = Windward Islands (Virgin Is. to Dominica) and Leeward Islands (Martinique to Grenada); Amazonia = Amazonian Basin of South America; Guianas = Guyana, Suriname and French Guiana; Latin America = Mexico, Central America, and South America; Eurasia = Europe and Asia; Middle East = Syria, Iraq, Lebanon, Israel, and Jordan; Arabia = Saudi Arabian peninsula; Asia Minor = Turkey, Caucasus, and former SW Russian states; Southwest Asia = Iran to Pakistan; Indochina = Cambodia, Laos, and Vietnam; Southeast Asia = Myanmar, Thailand, and Indochina, whereas Southeastern Asia includes not only Southeast Asia but adjacent regions such as S China, India, West Malaysia, and W Indonesia; East Asia = China, Korea, and Japan; Malay Peninsula = S Myanmar, S Thailand, and West Malaysia; East Indies = Indonesia and Philippines; Borneo = Kalimantan, East Malaysia, Sabah, and Brunei; Greater Sundas = Java, Kalimantan, Sumatra, and Sulawesi; Lesser Sundas = S Indonesian islands; New Guinea = Irian Jaya and Papua New Guinea; Austro-Papua = Australia and New Guinea; Indo-Australia = S or SE Asia, East Indies, New Guinea, and Australia; Sino-Australia = E Asia, East Indies, New Guinea, and Australia; and Australasia = Australia, New Guinea, and Pacific islands. Lastly, F.A.T.A. = Federally Administered Tribal Area in Pakistan.

Questionable records or probable occurrences are discussed where appropriate with references, either under remarks or with a “?” preceding the name of the country or state. Records that are obviously erroneous (based on misidentifications or faulty data) are ignored, or so stated.

For the distribution of a genus we present a general range by geographical area, country, or continent, whereas for the range of a species we list the separate countries from which it is recorded. For marine snakes, we list the bodies of water from which it is known under distribution, but under range we give the countries from whose shores or offshore regions the species has been found.

In listing the geographical distribution, if a species occurs in at least half of the country the country is mentioned without directional adjectives. When a species is known from only a small area of a country, abbreviated prefixes refer to the generalized area (N = northern, E = eastern, S = southern, W = western, NE = northeastern, NW = northwestern, SE = southeastern, SW = southwestern, and cen. = central). Therefore, for example, West Virginia is West Virginia but W Virginia is western Virginia. Additionally, the abbreviation ext. (= extreme) is used when the species' range occupies only a marginal portion of the country in question. In order to save space, only shortened versions of political units are used; such terms as Autonomous Region (in Guangxi Autonomous Region) and Territorio Federal (in Territorio Federal Amazonas) are omitted with the listings as China (Guangxi) and Venezuela (Amazonas). The terms Southern or Western in parentheses refer to provinces such as in Zambia, not to directions within the country, which would



precede the country name, i.e., SW Zambia (Western, Southern). Countries are listed, in general, from west to east and north to south. Occasionally, in order to keep continuity from country to country, a different direction is followed.

Following the geographic distribution is the elevational range in meters. We present the minimum and maximum values known to us, mainly from literature reports and Google Earth. In many cases the given range does not reflect the altitudinal range of the species itself, merely the reported ranges that we have found. Ranges are rounded off to the nearest five meters.

NSL (near sea level) refers to values from 0–7 m and BSL (below sea level) is also indicated where appropriate. When one value is far outside the typical range we enclose it parenthetically (before the range when lower and after the range when higher) to indicate that it is either an aberrant figure or possibly was reported in error.

Islands are listed in alphabetical order after the states or provinces. The abbreviation “Is.” is omitted from all major islands (i.e., Penang, Java, Sulawesi) and from all islands in Indonesia and Philippines. We do not differentiate between an archipelago, island group, or an island.

Shortened versions of some country names are employed whenever possible such as Brunei Darussalam = Brunei, Democratic People’s Republic of Korea = North Korea, Democratic Republic of the Congo (Congo-Brazzaville) = Congo, Lao Democratic People’s Republic = Laos, People’s Republic of China = China, Republic of Korea = South Korea, Republic of Yemen = Yemen, and Socialist Republic of Vietnam = Vietnam. Sometimes not only the name of the country wherein the type locality is found has been changed but also the state or province. This is a result of changing boundaries, and we have tried to list all locations as they are presently known. The Appendix provides the major references used for each country. Entries under each category are placed in alphabetical order. When an included article covers only a particular region of a country, that region is included in parenthesis after author and date. The disputed territories of Gaza Strip, Golan Heights, and West Bank are included under Israel, and Hong Kong and Tibet (= Xizang) are included under China (but not Taiwan).

When an original description is published more than once, the subsequent description is listed under Remarks as a reprinting of the original. When the original description is brief and a more complete description is then published, we refer to the latter as a supplemental original description.

Living genera and species that are known from fossils have their fossil records listed after the distributions.

**Literature cited.** We have personally examined originals (or copies thereof) of all generic and species descriptions in addition to all cited references unless noted as [not seen] after the citation. Reference citations for journals follow a standard format thusly: author, date of publication, title of article, journal title, city of publication, (date on volume or title page if different from date of actual publication; in controversial cases the actual publication date is cited in brackets after the citation), (series number or abbreviated name), volume (plus series if represented by a letter), (number, part or section), total pagination, number of figures in text and number of plates. Figures and pages that are numbered are so listed (i.e., figs. 1-3) but unnumbered figures and pages are cited differently (i.e., 3 figs. or 2 pp.) Thus, if a

specific number is not provided, figures, plates, and pages are unnumbered. For books the format is: author, date of publication, title, publisher, city, total pagination, number of figures, number of plates, and (list of valid species described therein). An article in a book is presented in either of two formats. If the book is edited, the book title is given first, followed parenthetically by the editors. Otherwise, the author is presented first, followed by the book title. City of publication is given for all foreign journals and obscure domestic journals. If, however, the name of the city is part of the journal title, it is not repeated. When both names of Latin American authors (or those with a double surname) are given, we hyphenate the names. If only the first name is given followed by an initial of the second name, we omit the initial in citations of authors and collectors. When an author distributed advance copies of his paper (and the actual publication date precedes the printed date), we note this in brackets after the citation as a preprint.

We list the titles of books and journal articles exactly as printed, including typographical and grammatical errors, with the sole exception that we have italicized all generic and specific Latin names. Publications in the Romance languages (French, German, Italian, Portuguese, Spanish, etc.) are cited in original form. Publications employing non-Arabic characters (Chinese, Japanese, Russian, Thai, etc.) have their citations transliterated into English with the title placed in quotation marks and the language of the article given parenthetically at the end of the citation.

When more than one edition of a publication exists, the latest edition is cited in full and all previous editions listed in brackets in abbreviated form with only edition, date, pagination, and illustration data. If the work has a different title or authors, it is listed separately. For convenience, subsequent editions are cited in English by their number (second edition, third edition, etc.) rather than by their original designations (deuxième édition, revised, augmented, updated, etc.).

Whereas the journal and book titles are listed verbatim, we have standardized certain notations: figures and plates are listed in Arabic numerals; figures denoted by letters are presented in lower case; numbers of a volume are separated by a dash; numbers, parts, or sections are included parenthetically following the number of the volume (only when both a part and a number are jointly designated do we separate them, in which case the part is listed between the volume and number). In citing figures and plates, when numbers are designated we report them as such (i.e., figs. 1-4); if unnumbered we merely list the total number (i.e., 4 figs.). For unnumbered figures, we count each individual illustration as a separate figure. When “figs.” or “illust.” are listed without reference to numbers, they were not counted. All line drawings, illustrations, and black and white photographs are listed as figures (plus maps or anything else listed in publication as a figure) unless several different types occur in the same publication. In that case, we list line drawings as figures, photographs as illustrations, and color photographs as colored figures. Plates include black and white or color photographs printed on a separate page as well as designated plates. Journal abbreviations and cities are listed as they were at the time of publication. Hence, certain journals have more than one title or place of publication in their history. Multiple works by an author in a single year are listed chronologically, at least within the same journal.

For all journals the series number is given only for series two and thereafter. If no series is listed then series one is implied. With only a few exceptions authors with multi-worded family names are listed alphabetically under the last name; prefixes such as “de,” “do,” “la,” “van den,” “von,” etc. are placed after the initials of the personal names (N. de Rooij = Rooij, N. de.). Authors whose prefixes are capitalized and therefore part of their surnames, are listed alphabetically under the prefix, such as De Betta, De Vis, De Waal, Lidth de Jeude, and Van Denburgh. All compound surnames are separated by a hyphen (i.e., Pérez-Higareda, Saint-Girons) and Spanish authors who append only an initial of the second family name are cited using just the first surname.

In the citation of foreign journals or obscure domestic journals, the place of publication follows the abbreviated journal name; the city is omitted from domestic and well-known herpetological journals. Geographic names as nouns are written in their entirety; when used as adjectives they are abbreviated.

Three unpublished manuscripts are worth mentioning as they are cited in the present work: H. Boie’s (1823–1825) “Erpétologie de Java” in RMNH, Leiden; J. Wagler’s (1825) “Amphibia. Ordo II. Serpentes” in MCZ, Cambridge; and T.E. Cantor’s (1834–1837) “Drawings of animals” in RSL, Oxford. Cantor’s type specimens, colored sketches, and manuscripts were deposited in RSL (Cantor, 1839a: 31).

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## Collection Acronyms

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- ACVS:** Arthur C.V. Schott field numbers, Mexico  
**ADM:** (= MDUG)  
**AG:** Academie Groningen, Groningen, the Netherlands (no longer extant) [destroyed by fire in 1906]  
**AHCCCP:** F.N. Chernyshev Central Museum of Geological Research, Leningrad, Russia (also used is CNIGR)  
**AHU:** School of Life Sciences, Anhui University, Hefei, Anhui, China  
**AIS:** Académie Impériale des Sciences, St. Pétersbourg, Russia (no longer extant, now = ZISP)  
**AK:** André Koch field numbers  
**AM:** (= AMS)  
**AMG:** Albany Museum, Grahamstown, Cape of Good Hope, South Africa  
**AMNH:** Department of Ichthyology and Herpetology, American Museum of Natural History, New York, New York, USA  
**AMS:** Australian Museum, Sydney, New South Wales, Australia (includes MMS)  
**AM-S:** Arturo Muñoz field numbers  
**AMSC:** (= FPM)  
**AMS-FN:** Australian Museum field numbers  
**ANSP:** Academy of Natural Sciences of Philadelphia, Philadelphia, Pennsylvania, USA  
**ASB:** Asiatic Society of Bengal, Calcutta, India (no longer extant, now = ASK)  
**ASFS:** Albert Schwartz field numbers  
**ASIZB:** Chinese Academy of Sciences [formerly Academia Sinica], Institute of Zoology [formerly Fan Memorial Institute of Zoology], Beijing, China  
**ASK:** The Asiatic Society, Kolkata, West Bengal, India (includes ASB & IMC)  
**AWP:** Angelo W. Palmisano field numbers  
**BHSP:** Paleontology Collection, Bosnia-Herzegovina Staatsmuseum, Sarajevo, Bosnia and Herzegovina  
**BK:** Bio-Ken Snake Farm, Watamu, Kenya  
**BM:** Bratislava Museum, Bratislava, Slovakia [partially destroyed 9 Sept. 1944 during World War II]  
**BML:** (= MBL)  
**BMNH:** The Natural History Museum [formerly British Museum (Natural History)], London, England, UK  
**BMUW:** Burke Museum of Natural History and Culture, University of Washington, Seattle, Washington, USA  
**BNHM:** (= BNHS)  
**BNHS:** Bombay Natural History Society, Museum, Mumbai [formerly Bombay], India  
**BPBM:** Department of Zoology, Bernice P. Bishop Museum, Honolulu, Hawaii, USA  
**BRT:** (= USTL)  
**BSCM:** (= BSM)  
**BSM:** Department of Agriculture, Bureau of Science, Manila, Luzon, the Philippines (no longer extant) [destroyed January 1945 during World War II]  
**BSMP:** National Institute for Science and Mathematics, University of the Philippines, Manila, Luzon, the Philippines  
**BSP:** (= BSPG)  
**BSPG:** Bayerische Staatssammlung für Paläontologie und Historische Geologie, München, Germany  
**BSPM:** (= BSPG)  
**BYU:** Monte L. Bean Life Science Museum, Brigham Young University, Provo, Utah, USA  
**CA:** Chicago Academy of Sciences, Chicago, Illinois, USA (partially destroyed by fire Oct. 1871)  
**CAD:** Charles A. Domergue private collection  
**CAS:** California Academy of Sciences, Golden Gate Park, San Francisco, California, USA (includes CAS-SU)  
**CAS-SU:** California Academy of Sciences, San Francisco, California, USA (former Stanford University collection, now in CAS)  
**CBB:** Colegio Biffi, Barranquilla, Colombia  
**CBC:** Center for Biodiversity Conservation, Royal University of Phnom Penh, Phnom Penh, Cambodia  
**CBF:** Colección Boliviana de Fauna, Museo Nacional de Historia Natural, Instituto de Ecología, Academia Nacional de Ciencias de Bolivia, La Paz, Bolivia  
**CC:** F.C. Centeno & T.H. Condez field numbers  
**CG:** Chapman Grant private collection  
**CGM:** Cairo Geological Museum, Cairo, Egypt  
**CHUNB:** Universidade Nacional de Brasília, Brasília, Distrito Federal, Brazil  
**CIB:** Chengdu Institute of Biology, Chinese Academy of Sciences [formerly Academia Sinica], Chengdu, Sichuan, China (includes CIS, SBRI & SIBAC)  
**CIB-FN:** Chengdu Institute of Biology field numbers  
**CIS:** (= CIB)  
**CIT:** California Institute of Technology, Los Angeles, California, USA (no longer extant; now = LACM)  
**CLB:** Carlo L. Bonaparte private collection  
**CM:** Carnegie Museum of Natural History, Pittsburgh, Pennsylvania, USA  
**CMR:** Charleston Museum, Raleigh, South Carolina  
**CMS:** National Museum, Colombo, Sri Lanka (includes NMSL)  
**CNAR:** Colección Nacional de Anfibios y Reptiles, Universidad Nacional Autónoma de México, Ciudad México, Distrito Federal, México (includes IBHUNAM, IBM & UNAM)  
**CNHM:** (= FMNH)  
**CPC:** Commonwealth Paleontological Collection, Canberra, Australian Capital Territory, Australia

- CRE:** Costa Rican Expeditions collection of Jay Savage (to be deposited in LACM)
- CRES:** Centre for Natural Resources Management and Environmental Studies, Hanoi National University, Hanoi, Vietnam (now = VNUH)
- CRUPF:** Coleção Zoológica da Répteis da Universidade Federal de Passo Fundo, Passo Fundo, Brazil
- CSBR:** Caucasian State Biosphere Reserve Collection, Sochi, Russia
- CSJ:** Museo de Historia Natural, Colégio de San José, Medellín, Antioquia, Colombia
- CSJP:** Colégio San José de Pamplona, Pamplona, Norte de Santander, Colombia
- CSNBR:** Scientific Department, Caucasian State Natural Biosphere Reserve, Sochi, Russia
- CTR:** “Charles T. Ramsden” historical collection (in IES)
- CU:** Museum of Vertebrates, Cornell University, Ithaca, New York, USA
- CUP:** Department of Paleontology, Charles University, Prague, Czech Republic
- CVRS:** Centre Voltaïque de la Recherche Scientifique, Ouagadougou, Burkina Faso
- CVULA:** Colección de Vertebrados de la Universidad de Los Andes, Mérida, Venezuela
- CWM:** Charles W. Myers field numbers
- CWNU:** China West Normal University, Nanchong, China
- CWW:** Wolfgang Weyrauch field numbers
- CZACC:** Colecciones Zoológicas de la Academia de Ciencias de Cuba, Institute of Ecology and Systematics, La Habana, Habana, Cuba (includes IZAC)
- CZGB:** Coleção Zoológica Gregório Bondar, Centro de Pesquisas-Comissão Executiva do Plano da Lavoura Cacaueira, Ilhéus, Bahia, Brazil
- DGM:** Departamento Nacional de Produção Mineral, Setor de Paleontologia, Universidade do Estado de Rio de Janeiro, Rio de Janeiro, Brazil
- DHMECN:** División de Herpetología del Museo Ecuatoriano de Ciencias Naturales, Quito, Pichincha, Peru
- DML:** (= WML)
- DP-FNSP:** (= CUP)
- DPL:** Dwight P. Lawson field numbers
- DRV:** David R. Vieites field numbers
- DW:** Dr. Wilson private collection
- DZUSP:** Departamento de Zoologia, Universidade de São Paulo, São Paulo, Brazil (= MZUSP)
- EBRG:** Museo de la Estación Biología de Rancho Grande, Maracay, Aragua, Venezuela
- EBUAP:** Laboratorio de Herpetología, Escuela de Biología, Benemérita Universidad Autónoma de Puebla, Puebla, Mexico
- EC:** Elliott Coues field numbers
- EHT:** Edward H. Taylor private collection (specimens deposited primarily at CAS, CM, FMNH, KU & UIMNH)
- EHT-CC:** Edward H. Taylor collection catalogue numbers
- EHT-HMS:** Edward H. Taylor-Hobart M. Smith private collection (specimens deposited primarily at CAS, CM, FMNH, KU & UIMNH)
- EIS:** Essex Institute, Salem, Massachusetts (no longer extant; now = Peabody Essex Mus.)
- EK:** Eugen Kramer private collection
- ENS:** Eric N. Smith field numbers
- EPN:** Departamento de Ciencias Biológicas, Escuela Politécnica Nacional, Quito, Pichincha, Ecuador
- FAT:** Count Francisci Annibalis Turriani private collection, Museo Illustrissimi Turriano, Italy (no longer extant)
- FEW:** Francis E. W. Venning specimen numbers
- FGZC:** Frank Glaw field numbers
- FHGO:** Fundación Herpetológica “Gustavo Orcés,” Quito, Pichincha, Ecuador
- FHSC:** Vertebrate Paleontology Collection, Fort Hays State University, Fort Hays, Kansas, USA
- FK:** Fred Kraus field numbers
- FM:** Faizabad Museum, Faizabad, Uttar Pradesh, India
- FML:** Instituto Herpetológica, Fundación “Miguel Lillo,” San Miguel de Tucumán, Tucumán, Argentina
- FMNH:** Division of Amphibians and Reptiles, Field Museum of Natural History, Chicago, Illinois, USA (includes CNHM)
- FMNHG:** Field Museum of Natural History, Paleontology Collections, Geology Department, Chicago, Illinois, USA
- FMSM:** Federated Malay States Museum, Kuala Lumpur, Selangor and Taiping, Perak, West Malaysia (no longer extant, now = NMM) [partially destroyed on 10 March 1945 during World War II]
- FPM:** Museum of Natural History and Pathological Anatomy, Fort Pitt, Chatham, England, United Kingdom (no longer extant)
- FSL:** (= UCBL)
- FU:** Fujian University, Department of Biology, Shanghai, Guangdong, China
- FWP:** Fred S. Parker field numbers
- GECM:** Geographical and Exploring Commission of the Republic of México collection of the World Exhibition in New Orleans, LA, 1879–1885 [original collection destroyed by fire 29 Aug. 1884; second collection Oct. 1884–Jan. 1885]
- GIH:** Geological Institute of Hungary, Budapest, Hungary
- GM:** Geiseltalmuseum, Martin-Luther-Universität, Halle-Wittenberg, Germany
- GMU:** Department of Biology, Guangxi Medical University, Nanning, Guangxi Zhuang Autonomous Region, China
- GNM:** Göteborgs Naturhistoriska Museum [formerly Naturhistoriska Riksmuseet], Göteborg, Sweden (includes NHMG)
- GPIBO:** Institut für Paläontologie, Rheinische Friedrich-Wilhelm-Universität, Bonn, North Rhine-Westphalia, Germany
- GSJ/GC:** Geologic Survey of India, Nagpur, India
- GSJ/Pal/CR:** Geological Survey of India, Nagpur, India
- GSNJ:** Geological Survey of New Jersey, Trenton, New Jersey (now = New Jersey Geological and Water Survey)
- GU/RSR/VAS:** Department of Geology, Vastan Lignite Mine collection of R.S. Rana, H.N.B. Garhwal University, Srinagar, Uttaranchal, India
- GVAG:** Genevieve V.A. Gee field numbers
- HGIM:** Hungarian Geological Institute Museum, Budapest, Hungary



- H-GSP:** Harvard-Geological Survey of Pakistan Project (to be deposited in Islamabad Natural History Museum, Islamabad, Pakistan)
- HMG:** Hunterian Museum of Geology, University of Glasgow, Glasgow, Scotland, UK
- HMS:** Hobart M. Smith private collection (specimens deposited primarily at CAS, CM, FMNH, KU & UIMNH)
- HNC:** Hof-Naturalien-Cabinete, Wien, Austria (no longer extant)
- HNHM:** Hungarian Natural History Museum [formerly Magyar Természettudományi Múzeum], Budapest, Hungary (includes MNH)
- HNU:** Animal Museum, Hunan Normal University, Changsha, Hunan, China
- HT:** Harold Trapido field numbers
- HUJ:** Department of Zoology, Hebrew University of Jerusalem, Jerusalem, Israel
- HUJP:** (= HUJ-PAL)
- HUJ-PAL:** Paleontological Collection, Department of Zoology, Hebrew University of Jerusalem, Jerusalem, Israel
- HvM:** Hermann von Meyer personal collection
- IAV:** Instituto de Animales Venenosas “Dr. Jorge W. Abaloz,” Santiago del Estero, Argentina
- IAvH:** Colección Herpetológica, Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, Villa de Leyva, Bogotá, Cundinamarca, Colombia
- IB:** Herpetological collection Alphonse Richard Hoge, Instituto Butantan, São Paulo, São Paulo, Brazil (destroyed by fire 15 May 2010)
- IBHUNAM:** (= CNAR)
- IBI:** (= MZUB)
- IBM:** Instituto de Biología Herpetological Collections, Universidad Nacional Autónoma de México, Ciudad México, Distrito Federal, México (= CNAR)
- ICN:** (= ICNMNH)
- ICNMHN:** Instituto de Ciencias Naturales, Museo de Historia Natural, Universidad Nacional de Colombia, Bogotá, Cundinamarca, Colombia
- ID:** Indraneil Das field numbers
- IEBR:** Institute of Ecology and Biological Resources, National Center for Nature, Science and Technology of Vietnam, Hanoi, Vietnam
- IES:** Instituto de Ecología y Sistemática, Cuba
- IFAN:** Institut Fondamental d’Afrique Noire [formerly Institut Française d’Afrique Noire], Dakar, Senegal
- IGB:** Instituto Gabinetto, Padova, Padua, Italy
- IITR:** Vertebrate Paleontology Laboratory, Department of Earth Sciences, Indian Institute of Technology, Roorkee, Uttar Pradesh, India
- ILS:** (= MLS)
- IMC:** Indian Museum, Calcutta, West Bengal, India (no longer extant, now = ASK)
- IMCS:** Institut Miquel-Crusafont, Sabadell, Spain
- IMRC:** (= IRMC)
- IMRKL:** Institute of Medical Research, Kuala Lumpur, Selangor, West Malaysia
- INCDS:** Institutul National de Cercetare-Dezvoltare pentru Stiinta Biologica, Bucharest, Romania
- IND:** Laboratoria de Fauna, Division de Fauna Terrestre, Instituto Nacional de Recursos Naturales Renovables y Ambiente, Bogotá, Cundinamarca, Colombia
- INHMT:** Instituto Nacional de Higiene, Guayaquil, Guayas, Ecuador
- INIGM:** Instituto Nacional de Investigaciones Geológico-Mineras, Bogotá, Cundinamarca, Colombia
- INIRENA:** Instituto de Investigaciones sobre los Recursos Naturales, Universidad Michoacana de San Nicolás de Hidalgo, Morelia, Michoacán, Mexico
- INM:** Instituto Nacional de Microbiología “Gustav G. Malbrán,” Buenos Aires, Argentina
- IOAN:** P. P. Shirshov Institute of Oceanology, Russian Academy of Sciences, Moscow, Russia
- IOC:** Instituto Oswaldo Cruz, Rio de Janeiro, Brazil
- IPS:** Institut de Paleontologia “Miguel Crusafont,” Sabadell, Cataluña, Spain
- IPUB:** (= PIUB)
- IRD:** Institut de Recherche pour le Développement, Dakar, Dakar, Senegal
- IRMC:** Imperiale e Reale Museo di Fisica e Storia Naturale della Capitale, Firenze, Italy (no longer extant)
- IRSNB:** Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium
- ISCM:** Institut Scientifique Cherifien, Rabat, Morocco
- ISFM:** (= ISM)
- ISM:** Institute of Science Museum, Taipei, Taiwan (no longer extant)
- ISMF:** Instituto di Sanità Militare di Firenze, Firenze, Italy
- ITT:** Instituto Tecnológico de Ciudad Victoria, Ciudad Victoria, Tamaulipas, Mexico
- IVO:** Serpentario del Instituto Venezolano de Ofidiología, Caracas, Distrito Capital, Venezuela
- IVP:** Instituto Vital Brazil, Niterói, Rio de Janeiro, Brazil
- IVPP:** Institute of Vertebrate Paleontology and Palaeoanthropology, Academia Sinica, Beijing, China
- IZAC:** Instituto de Zoología, Academia de Ciencias República de Cuba, La Habana, Habana, Cuba (= CZACC)
- IZPAN:** Institute of Paleozoology, Polska Akademia Nauk [Polish Academy of Sciences], Warsaw, Poland
- IZUC:** Instituto de Zoología, Universidad de Concepción, Concepción, Chile (no longer extant, now = MZUC)
- IZUCS:** Collezioni Zoologiche [formerly Istituto di Zoologia], Università de Cagliari, Cagliari, Sardinia, Italy
- JA:** Museo Jonae Alströmer, Sweden (no longer extant, now = NHR)
- JAC:** Jonathan A. Campbell field numbers
- JD:** John Dwyer private collection
- JDL:** James D. “Skip” Lazell field numbers
- JEC:** John E. Cadle field numbers
- JGF:** J. G. Fischer private collection, Hamburg, Germany
- JH:** Julius Hurter private collection, St. Louis, Missouri, USA
- JMR:** Juan M. Renjifo field numbers, Colombia
- JPO:** John P. O’Neill field numbers
- JRF:** John R. Feick field numbers
- JRP:** Jeff R. Parmelee field numbers
- JSH:** Juan J. Silva-Haad field numbers
- JU:** Department of Geology, University of Jammu, Jammu, India

- JWM:** Johann W. von Müller private collection
- KBIN:** (= IRSNB)
- KIU:** (= KUM)
- KIZ:** Kunming Institute of Zoology, Chinese Academy of Sciences [formerly Academia Sinica], Kunming, Yunnan, China
- KM:** (= KMJ)
- KMH:** Kim M. Howell field numbers
- KMJ:** Kagoshima Museum, Kagoshima, Japan [partially destroyed during World War II]
- KSU:** Museum of Natural History, Kharkov State University, Kharkov, Russia
- KU:** Museum of Natural History, University of Kansas, Lawrence, Kansas, USA
- KUM:** Kyoto University Museum, Kyoto University [formerly Kyoto Imperial University], Kyoto, Japan
- KUVP:** Vertebrate Paleontology, University of Kansas Natural History Museum, Lawrence, Kansas, USA
- LACM:** Natural History Museum of Los Angeles County, Los Angeles, California, USA (includes CIT)
- LCB:** Loren C. Binford field numbers
- LEG:** Lawrence E. Griffin field numbers, Philippines
- LIV:** (= WML)
- LM:** Naturkundemuseum Leipzig [formerly Leipzig Museum], Leipzig, Germany [partially destroyed during World War II]
- LMB:** Moravské Zemské Muzeum [Moravian Museum], Brno, Czech Republic
- LMK:** Laurence M. Klauber private collection, San Diego, California, USA (now in SDSNH)
- LMNMO:** Herpetological Collection, Landesmuseum für Natur und Mensch, Oldenburg, Germany
- LNHM:** Lübeck Natural History Museum [formerly Lübeck Museum], Lübeck, Germany [destroyed 28 March 1942 during World War II]
- LNK:** (= SMNK)
- LSNUI:** Laboratoire des Sciences Naturelles, Université-Indochinoise, Hanoi, Vietnam (no longer extant, now in MNHN)
- LSUMG:** Museum of Geology, Louisiana State University, Louisiana State University, Baton Rouge, Louisiana, USA
- LSUMZ:** Louisiana Museum of Natural History [formerly Museum of Natural Sciences and Museum of Zoology], Louisiana State University, Baton Rouge, Louisiana, USA
- MACN:** Museo Argentino de Ciencias Naturales “Bernardino Rivadavia” [formerly Museo Nacional de Buenos Aires], Buenos Aires, Buenos Aires, Argentina (formerly MNBA)
- MAFR:** Museum Adolphi Friderici Regis [also Museum Drottningholmense], Drottningholm, Sweden (no longer extant, now in NHR)
- MAGNT:** (= NTM)
- MAS:** Malcolm A. Smith private collection, London, United Kingdom
- MB:** Museo Blochiano [Marcus E. Bloch private collection], Berlin, Germany (no longer extant; now = ZMB)
- MBH:** Michael B. Harvey field numbers
- MBI:** (= MZUB)
- MBL:** Museu Bocage, Universidade de Lisboa, Lisboa, Portugal (destroyed by fire 18 March 1978)
- MBLC:** Marine Biological Laboratory, University of Copenhagen, Copenhagen, Denmark
- MBLUZ:** Museo de Biología de la Universidad del Zulia, Maracaibo, Zulia, Venezuela
- MBS:** (= NMBA)
- MBUCV:** Museo de Biología, Universidad Central de Venezuela, Caracas, Distrito Capital, Venezuela
- MCG:** Museo del Colegio San José de Guanentá, San Gil, Santander, Colombia
- MCN:** Museu de Ciências Naturales, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil
- MCNA:** Museo de Ciências, Naturales de Alava, Vitoria, Spain
- MCNC:** Museo de Ciências Naturales, Los Caobos (Plaza Morelos), Caracas, Distrito Capital, Venezuela
- MCNG:** Museo de Ciências Naturales de la UNELLEZ [formerly Museo de Zoología], Guanare, Portuguesa, Venezuela
- MCP:** Museu de Ciências e Tecnologia da PUCRS [Pontifícia Universidade Católica do Rio Grande do Sul], Porto Alegre, Rio Grande do Sul, Brazil
- MCV:** Museo Civico di Vicenza, Vicenza, Italy
- MCZ:** Department of Herpetology, Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA
- MCZ-FS:** MCZ field series
- MCZ-SC:** MCZ slide collection
- MCZ-VP:** Department of Vertebrate Paleontology, Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA
- MD:** Museo Regional do Dundo, Chitato, Luanda-Norte, Angola
- MDG:** Museum de Geer, Sweden (no longer extant; now in NHR)
- MDR:** (= MAFR)
- MDUG:** Museo de Historia Natural “Alfredo Dugès,” Universidad de Guanajuato, Guanajuato, México
- MFAC:** (= MRAC)
- MFB:** (= CIB)
- MG:** Museo Laurentii Theodori Gronovii [also Museum Gronovianum], Lugdunum Batavorum (= Leiden) (no longer extant; possibly in RMNH)
- MGF:** Musée de Gannat, Gannat, France
- MGL:** Musée Guimet d’Histoire Naturelle, Lyon, France (no longer extant, now = MMC)
- MGM:** Madras Government Museum, Egmore, Chennai, Tamil Nadu, India
- MGPF:** (= MGUF)
- MGPUF:** (= MGUF)
- MGUF:** Museo di Geologie e Paleontologie, Università di Firenze, Firenze, Italy
- MH:** Museo Humphrediano, Strasbourg, France (no longer extant) (= MZUS)
- MHGI:** (= HGIM)
- MHNCI:** Museu de História Natural Cupão da Imbuia, Curitiba, Paraná, Brazil

- MHNG:** Muséum d'Histoire Naturelle Genève, Genève, Switzerland
- MHNJP:** (= MUSM)
- MHNL:** Muséum d'Histoire Naturelle de Lyon, Lyon, France (no longer extant, now = MMC)
- MHNLS:** Museo de Historia Natural La Salle, Fundación La Salle de Ciencias Naturales [formerly Museo de Ciencias Naturales], Caracas, Distrito Capital, Venezuela.
- MHNM:** Museo Nacional de Historia Natural y Antropología [formerly Museo de Historia Natural de Montevideo], Montevideo, Montevideo, Uruguay
- MHNMF:** Museum d'Histoire Naturelle de Marseille, Marseille, France
- MHNN:** Muséum d'Histoire Naturelle de Neuchâtel, Neuchâtel, Switzerland (includes MZN)
- MHNPB:** Museum d'Histoire Naturelle Pays-Bas, Leiden, the Netherlands (no longer extant, now = RMNH)
- MHNR:** Muséum d'Histoire Naturelle de La Rochelle, La Rochelle, France
- MHNSM:** Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima, Lima, Perú
- MHNSR:** Museo de Historia Natural de San Rafael, San Rafael, Mendoza, Argentina
- MHNUC:** Museo de Historia Natural Universidad del Cauca, Popoyán, Colombia
- MICP:** Museo Instituto "Clodomiro Picado," Universidad de Costa Rica, San José, Costa Rica
- MISGF:** Museum of the Institute of Science of the Government of Formosa, Taipei, Taiwan (no longer extant)
- MJU:** Museo Jenensis Universitatis, Germany (no longer extant)
- MLB:** Museo Lugdunensi Batavorum, Leiden, the Netherlands (no longer extant)
- MLH:** Museum Lampianum, Hannover, Germany (no longer extant, now = ZPW)
- MLP:** Museo de La Plata, Universidad de La Plata, Buenos Aires, Buenos Aires, Argentina
- MLPA:** (= MLP)
- MLS:** Museo de Historia Natural [formerly Museo del Instituto] de La Salle, Bogotá, Cundinamarca, Colombia (destroyed by fire 9–10 April 1948)
- MLU:** Institut für Zoologie und Zoologisches Sammlung, Martin-Luther-Universität, Halle-Wittenberg, Germany
- MM:** Museum of Monaco, Monte Carlo, Monaco (no longer extant; now = ZSM)
- MMBR:** Musée de la Mer, Brest, Finistère, France
- MMC:** Muséum au Musée des Confluences, Lyon, France [to open in 2014] (includes MGL & MNHL)
- MMK:** Museo de la Misión de Kavanayen, Kavanayen, Bolívar, Venezuela
- MML-PV:** Museo Municipal de Lamarque Rio Negro, Neuquén, Neuquén, Argentina
- MMS:** Macleay Museum, University of Sydney, Sydney, Australia (no longer extant; now in AMS)
- MMUS:** (= MMS)
- MN:** (= MNRJ)
- MNA:** Museum of Northern Arizona, Flagstaff, Arizona, USA
- MNBA:** Museo Nacional de Buenos Aires, Buenos Aires, Argentina (no longer extant, now = MACN)
- MNCN:** Museo Nacional de Ciencias Naturales, Madrid, Madrid, Spain
- MNCR:** Museo Nacional de Costa Rica, San José, San José, Costa Rica
- MNGL:** (= MHGI)
- MNH:** (= HNHM)
- MNHMU:** (= MHNM)
- MNHN:** Muséum National d'Histoire Naturelle, Paris, Ile-de-France, France (includes LSNUI)
- MNHNC:** Museo Nacional de Historia Natural, Zoología, Santiago, Santiago, Chile
- MNHNCU:** Museo Nacional de Historia Natural, La Habana, Habana, Cuba
- MNHNM:** (= MHNM)
- MNHNP:** Museo Nacional de Historia Natural Edificio Patria, Tacuan E/25 de Mayo/Cer. Cora, Asunción, Paraguay
- MNHNU:** (= MHNM)
- MNHSR:** Museo de Historia Natural de San Rafael, San Rafael, Argentina
- MNK:** Museo de Historia Natural "Noel Kempff Mercado," Santa Cruz, Santa Cruz, Bolivia
- MNKNU:** Museum of Nature, V.N. Karazin Kharkiv National University, Kharkiv, Ukraine
- MNKR:** (= MNK)
- MNRJ:** Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Guanabara, Brazil
- MP:** Museum Principis, Sweden (no longer extant; now in ZMUU)
- MPB:** (= MHNPB)
- MPCA:** Museo Provincial de Cipolletti "Carlos Ameghino," Cipolletti, Río Negro, Argentina
- MPEG:** Museu Paraense "Emílio Goeldi," Zoologia, Belém, Pará, Brazil
- MPI:** Museo di Pavia, Lombardy, Pavia, Italy
- MPSP:** Museu Paulista, São Paulo, São Paulo, Brazil (no longer extant; now = MZUSP)
- MRAC:** Musée Royal de l'Afrique Centrale [Koninklijk Museum voor Midden Afrika], Tervuren, Flanders, Belgium
- MRF:** (= IRMC)
- MRSN:** (= MSNTO)
- MSB:** Department of Biology, Museum of Southwestern Biology, University of New Mexico, Albuquerque, New Mexico, USA
- MSK:** Muhammed Sharif Khan private collection, Rabwah, Pakistan
- MSNG:** Museo Civico di Storia Naturale "Giacomo Doria," Genova, Liguria, Italy
- MSNM:** Museo Civico di Storia Naturale di Milano, Milano, Lombardia, Italy (includes MZUT) [partially destroyed in 1943 during World War II, including Jan's (1853–1866) collection of 1000 species, types, and catalogues]
- MSNTO:** Museo Civico di Storia Naturale di Torino [formerly Museo Regionale di Scienze Naturali], Torino, Piemonte, Italy (formerly MRSN)
- MSP:** Madras Snake Park Trust, Mamallapuram, Tamil Nadu, India
- MSUVP:** Vertebrate Paleontology Collection, Michigan State University, East Lansing, Michigan, USA

- MT:** Musée de Toulouse, Toulouse, Haute-Garonne, France
- MTD:** Museum für Tierkunde, Senckenberg Naturhistorische Sammlungen, Dresden, Saxony, Germany (formerly MTKD) [partially destroyed 13 Feb. 1945 during World War II]
- MTKD:** (= MTD)
- MTR:** Miguel T. Rodrigues field numbers
- MUSM:** Museo de Historia Natural “Javier Prado,” Universidad Nacional Major de San Marcos, Lima, Lima, Perú (formerly MHNJP)
- MUVP:** Vertebrate Paleontology Collection, Midwestern University, Snyder, Texas, USA
- MV:** Museo Caesareo Vindobonensi, Wien, Austria (no longer extant)
- MVP:** Museum of Vertebrate Paleontology, University of California, Berkeley, California, USA
- MVZ:** Museum of Vertebrate Zoology, University of California at Berkeley, Berkeley, California, USA
- MW:** M. Ward private collection, Australia
- MWNH:** Museum Wiesbaden, Naturhistorische Landesammlung, Wiesbaden, Hesse, Germany (formerly NMSW and SMW) [partially destroyed Aug. 1940–March 1945 during World War II but some types survived]
- MZB:** Museum Zoologicum Bogoriense, Juanda 3, Kebun Raya, Bogor, Java, Indonesia
- MZFC:** Museo de Zoología “Alfonso L. Herrera,” Facultad de Ciencias, Universidad Nacional Autónoma de México, México, Distrito Federal, Mexico
- MZN:** Musée Zoologique de Neuchâtel, Neuchâtel, Switzerland (= MHNN)
- MZUB:** Museo di Zoologia dell’Università di Bologna, Bologna, Italy (includes IBI)
- MZUC:** Museo de Zoología de la Universidad de Concepción, Concepción, Concepción, Chile
- MZUF:** Museo di Storia Naturale di Firenze, Sezione di Zoologia “La Specola,” Università degli Studi di Firenze, Firenze, Toscana, Italy (includes NHCL)
- MZUN:** Museo di Zoologia di Napoli, Università degli Studi di Napoli Federico II, Naples, Campania, Italy
- MZUS:** Musée de Zoologie de la Ville de Strasbourg, Université de Strasbourg, Strasbourg, Alsace, France [partially destroyed in 1943–Aug. 1944 during World War II]
- MZUSP:** Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil (includes MPSP)
- MZUSP-FN:** Museu de Zoologia da Universidade de São Paulo field numbers
- MZUT:** Museo Zoologico, Università di Torino, Torino, Italy (now in MSNM)
- NCF:** Department of Forest Insects, Northwestern College of Forestry, Xian, Shaanxi, China
- NHCL:** New Herpetological Collection of Benedetto Lanza, Museo di Storia Naturale di Firenze, Sezione di Zoologia “La Specola,” Università degli Studi di Firenze, Firenze, Toscana, Italy (now in MZUF)
- NHMB:** (= NMBA)
- NHMG:** (= GNM)
- NHMV:** (= NMW)
- NHMW:** (= NMW)
- NHR:** Department of Vertebrate Zoology, Naturhistoriska Riksmuseet, Stockholm, Stockholm, Sweden (includes MAFR & MDR)
- NHRM:** (= NHR)
- NK:** (= MNK)
- NLO:** Nikolai L. Orlov field numbers
- NMB:** Naturhistorisches Museum Braunschweig, Brunswick, Germany (no longer extant, now = SNMBR) [destroyed 15 Oct. 1944 during World War II]
- NMBA:** Naturhistorisches Museum Basel, Basel, Switzerland
- NMBE:** Naturhistorisches Museum Bern, Bern, Switzerland
- NMC:** National Museums of Canada, National Museum of Natural Sciences, Ottawa, Ontario, Canada
- NMK:** National Museum, Nairobi, Central, Kenya
- NMM:** National Museum, Kuala Lumpur, Selangor, West Malaysia (includes FMMS and SM)
- NM/M:** Umtali Museum, Umtali, Southern Rhodesia (no longer extant, now = NMZB)
- NMP:** National Museum, Prague, Czech Republic
- NMSL:** (= CMS)
- NMSR:** (= NMZB)
- NMSW:** Naturhistorischen Museums der Stadt Wiesbaden, Wiesbaden, Hesse, Germany (= MWNH)
- NMSZ:** National Museum of Scotland [formerly Royal Scottish Museum], Edinburgh, Scotland, UK
- NMT:** National Museum, Dar es Salaam, Dar es Salaam, Tanzania
- NMV:** Museum Victoria [formerly National Museum of Victoria], Melbourne, Victoria, Australia
- NMW:** Naturhistorisches Museum, Wien, Austria
- NMWGP:** Naturhistorisches Museum, Geologie-Palaontologie, Wien, Austria
- NMZB:** Natural History Museum, Bulawayo, Zimbabwe (includes NMZB-UM)
- NMZB-UM:** Natural History Museum, Bulawayo, Zimbabwe (Umtali Museum collection)
- NQT:** Nguyen Quang Truong field numbers
- NRM:** (= NHR)
- NRS:** (= NHR)
- NSM:** National Science Museum, Bangkok, Thailand
- NSMT:** National Science Museum, Tokyo, Japan
- NTI:** Animal Industry Branch, Northern Territory Administration, Alice Springs, Australia
- NTM:** Northern Territory Museum of Arts and Sciences [formerly Museum and Art Gallery of the Northern Territory], Darwin, Northern Territory, Australia
- NTM A/S:** Northern Territory Museum of Arts and Sciences, Alice Springs, Australia
- NUS:** National University of Singapore, Singapore (no longer extant, now = ZRC)
- NWNH:** Staatliches Museum Wiesbaden, Wiesbaden, Hesse, Germany (= SMW)
- NWU:** Natural History Museum, Northwestern University, Chicago, Illinois, USA
- OEHW:** Otto E.H. Wucherer private collection
- OF:** MHNJP Ophidia collection numbers
- OGM:** Olduvai Gorge Museum, Olduvai Gorge, Ngorongoro Conservation Area, Tanzania



- OMNH:** Osaka Museum of Natural History, Osaka, Japan
- ORSTOM:** Office de Recherche Scientifique et Technologique Outre Mer, Paris, France
- OSGP:** Olivier S.G. Pauwels field numbers
- OUM:** Bodleian Library, Oxford University Museum, Oxford, England, UK
- PCM:** Philadelphia Commercial Museum, Philadelphia, Pennsylvania, USA (no longer extant)
- PEM:** Port Elizabeth Museum, Port Elizabeth, Cape of Good Hope, South Africa
- PEPD:** P.E.P. Deraniyagala private collection, Colombo, Sri Lanka
- PIAN:** Paleontologicheskoy Institut [Paleontological Institute], Akademia Nauk, Moscow, Russia
- PIMUZ:** Paläontologisches Institut und Museum der Universität, Zürich, Switzerland
- PIUB:** Paläontologisches Institut, Rheinische Friedrich-Wilhelms-Universität Bonn, Bonn, North Rhine-Westphalia, Germany
- PK:** P.J.R. Kok field numbers
- PM:** Philadelphia Museum or C.W. Peale Museum, Philadelphia, Pennsylvania, USA (no longer extant, 1846; now = MCZ)
- PMNH:** (= YPM)
- PNM:** Philippine National Museum, Manila, Luzon, the Philippines [destroyed January 1945 during World War II]
- PT:** Proyecto Tupinambis, Argentina field numbers
- PTB:** Prince Therese von Bayern collection (no longer extant, now = Staatliches Museum für Völkerkunde, Munich, Germany)
- PU:** Princeton University, Natural History Museum, Princeton, New Jersey, USA
- PUL:** Purdue University, Lafayette, Indiana, USA (no longer extant)
- QCAZ:** Pontífica Universidad Católica del Ecuador, Quito, Pichincha, Ecuador
- QM:** Centre for Biodiversity, Queensland Museum, Brisbane, Queensland, Australia
- QMB:** (= QM)
- QMF:** Queensland Museum Fossil Collection, Brisbane, Queensland, Australia
- QMP:** Quetta Museum, Quetta, Baluchistan, Pakistan (no longer extant)
- QSMI:** Queen Saovabha Memorial Institute, Thai Red Cross Society, Bangkok, Thailand
- RAN:** Ronald A. Nussbaum private collection
- RBS:** Robert B. Stuebing field numbers
- RCSM:** Museum of Royal College of Surgeons, London, England, UK
- RE:** Robert E. Elbel field numbers
- RGMC:** (= MRAC)
- Rh-E.F.:** Musée de Gannat, Gannat, France
- RLB:** René L. Bourret field numbers
- RM:** (= RMBR)
- RMAC:** (= MRAC)
- RMBR:** Raffles Museum of Biodiversity Research, Singapore, Singapore
- RMNH:** Naturalis-Nationaal Natuurhistorisch Museum [formerly Rijksmuseum van Natuurlijke Historie], Leiden, the Netherlands (includes MHNPB & ZMA)
- RMNH.RENA:** (= RMNH)
- ROM:** Royal Ontario Museum, Toronto, Ontario, Canada
- RSI:** Razi State Vaccine and Serum Institute, Tehran, Iran
- RSL:** Radcliffe Science Library (formerly Bodleian Library), University of Oxford, London, United Kingdom (Cantor sketches in "Drawings of animals," vols. 1–2)
- RSM:** Royal Scottish Museum, Edinburgh, Scotland, UK
- RSR:** Rajendra S. Rana private collection (included in GU/VAS)
- RT:** Richard Thomas private collection, San Juan, Puerto Rico
- RUSB:** Department of Earth Sciences, Indian Institute of Technology, Roorkee, India
- SAM:** South African Museum, Cape Town, Cape of Good Hope, South Africa
- SAMA:** South Australian Museum, Adelaide, South Australia, Australia
- SAMA-FN:** South Australian Museum field numbers
- SBH:** S. Blair Hedges field numbers
- SBRI:** Sichuan Biological Research Institute, Chengdu, Sichuan, China (= CIB)
- SCUM:** Sichuan University Museum, Chengdu, Sichuan, China
- SDSM:** Museum of Geology, South Dakota School of Mines, Rapid City, South Dakota, USA
- SDSNH:** San Diego Society of Natural History, San Diego Natural History Museum, Balboa Park, San Diego, California, USA (includes LMK)
- SERI:** (= CIB)
- SGDB:** Geological collection of the opencast mine Bílina [Sbirky geologie, Doly Bílina], Czech Republic
- SHNBA:** (= MACN)
- SIBAC:** Southwest Institute of Biology, Academia Sinica, Chengdu, Sichuan, China (= CIB)
- SIM:** Smithsonian Institution Museum, Washington, D.C., USA (= USNM)
- SIPT:** State Institute of Pedagogy, Tiraspol, Russia
- SJP:** (= CSJP)
- SM:** Selangor Museum, Kuala Lumpur, Selangor, West Malaysia (no longer extant, now = NMM)
- SMF:** Mertens catalogue, Natur-Museum und Forschungs-Institut Senckenberg, Frankfurt am Main, Germany.
- SMF-B:** Oskar Boettger catalogue, Museum der Senckenbergischen Naturforschenden Gesellschaft, Frankfurt am Main, Germany (= SMF)
- SMF-M:** Robert Mertens catalogue, Museum der Senckenbergischen Naturforschenden Gesellschaft, Frankfurt am Main, Germany (= SMF)
- SMF-R:** Eduard Rüppell catalogue, Museum der Senckenbergischen Naturforschenden Gesellschaft, Frankfurt am Main, Germany (= SMF)
- SMK:** Sarawak Museum, Kuching, Sarawak, East Malaysia
- SMNH:** Saskatchewan Museum of Natural History, Regina, Saskatchewan, Canada
- SMNHC:** Shanghai Museum of Natural History, Shanghai, Jiangxi, China

- SMNK:** Staatliche Museum für Naturkunde Karlsruhe [formerly Landessammlungen für Naturkunde Karlsruhe], Karlsruhe, Germany
- SMNS:** Staatliches Museum für Naturkunde in Stuttgart [Stuttgart State Museum of Natural History], Ludwigsburg, Germany [partially destroyed Sept. 1944 during World War II]
- SMP:** (= SMPSMU)
- SMPSMU:** Shuler Museum of Paleontology, Southern Methodist University, Dallas, Texas, USA
- SMW:** (= MWNH)
- SMWN:** Staatsmuseum-Windhoek [State Museum], Windhoek, Khomas, Namibia
- SNHM:** Shanghai Museum of Natural History, Huanqpu, Shanghai, China
- SNM:** Singapore National Museum, Singapore (no longer extant, now = ZRC)
- SNMBR:** Staatliches Naturhistorisches Museum Braunschweig, Brunswick, Germany (includes NMB)
- SNP:** Sochi National Park, Sochi, Russia
- SP:** Sabah Parks Zoological Museum, Gunung Kinabalu Park, Sabah, East Malaysia
- SPLUE:** Paläontologische Sammlung, Friedrich-Alexander Universität [formerly Sammlungen des Paläontologischen Lehrstuhls des Universität Erlangen], Erlangen-Nürnberg, Bavaria, Germany
- SRAR:** Society for Research of Amur Region, Vladivostok, Primorsky Krai, Russia (no longer extant)
- STUM:** Santo Tomas University Museum, Rizal, Manila, Luzon, the Philippines
- SU:** Stanford University, Palo Alto, California, USA (no longer extant, now in CAS as CAS-SU)
- SUP:** Silliman University, Dumaguete City, Negros Oriental, the Philippines
- SYS:** Museum of Biology, Sun Yat-Sen University [Zhongshan University], Guangzhou, China
- SZE:** Sistematiik Zooloji Enstitüsü, Bornova-Izmir, Turkey
- SZN:** Stazione Zoologica “Anton Dohrn,” Naples, Campania, Italy (includes UNZM)
- TCWC:** Texas Cooperative Wildlife Collection, Texas A & M University, College Station, Texas, USA
- THNHM:** Thailand Natural History Museum, National Science Museum, Bangkok, Thailand
- TIU:** Science College Museum, Tokyo Imperial University, Tokyo, Japan
- TM:** (= TMP)
- TMP:** Transvaal Museum of Natural History, Northern Flagship Institution, Pretoria, Transvaal, South Africa
- TMT:** Georgian National Museum [formerly Tiflis Museum], Tbilisi, Georgia
- TNRC:** Thai National Reference Collection, Thailand Institute of Scientific and Technological Research, Bangkok, Krung Thep Mahanakhon, Thailand (= NSM)
- TST:** T.S. Traill private collection
- TUB:** Technical University of Berlin, Berlin, Berlin, Germany
- UA:** Université d’Antananarivo, Antananarivo, Antananarivo, Madagascar
- UADZ:** Department of Zoology, University of Arequipa, Arequipa, Peru
- UANL:** Laboratorio de Herpetología, Universidad Autónoma de Nuevo León, Nuevo León, Mexico
- UAZ:** Department of Ecology and Evolutionary Biology, University of Arizona, Tucson, Arizona, USA
- UBIPRO:** Unidad de Biología, Tecnología y Prototipos, Tlalnepantla, México, Mexico
- UCB:** (= MVZ)
- UCBL:** Département des Sciences de la Terre, Université Claude-Bernard, Lyon 1, Rhône-Alps, France
- UCBP:** (= MVP)
- UCG:** Universidade Católica de Goiás, Goiânia, Goiás, Brazil
- UCM:** Museum of Natural History, University of Colorado, Boulder, Colorado, USA
- UCMP:** University of California, Museum of Paleontology, Los Angeles, California, USA
- UCP:** Museo de Historia Natural de la Universidad del Cauca, Popoyán, Cauca, Colombia
- UCR:** Museo de Zoología, Universidad de Costa Rica, San José, San José, Costa Rica
- UCV:** Universidad Central de Venezuela, Institute of Tropical Medicine, Caracas, Distrito Federal, Venezuela
- UF:** Florida Museum of Natural History [formerly Florida State Museum], University of Florida, Gainesville, Florida, USA
- UFAC-PV:** Coleção de Paleovertebrados, Laboratório de Pesquisas Paleontológicas, Universidade Federal do Acre, Rio Branco, Brazil
- UGVP:** Vertebrate Paleontology Collection, University of Georgia, Athens, Georgia, USA
- UHESM:** Hydroelectric Power Plant of Serra da Mesa Collection, Universidade Católica de Goiás, Goiânia, Goiás, Brazil
- UIMNH:** Museum of Natural History, University of Illinois, Urbana, Illinois, USA
- ULABG:** Colección de Anfibios y Reptiles del Laboratorio de Biogeografía, Universidad de Los Andes, Mérida, Venezuela
- UM:** Umtali Museum (no longer extant; now = NMZB)
- UMB:** Überseemuseum, Bremen, Bremen, Germany
- UMMP:** Museum of Paleontology, University of Michigan, Ann Arbor, Michigan, USA
- UMMZ:** Museum of Zoology, University of Michigan, Ann Arbor, Michigan, USA
- UNAH:** Departamento de Biología, Universidad Nacional Autónoma de Honduras, Ciudad Universitaria, Tegucigalpa, Francisco Morazán, Honduras
- UNAM:** Departamento de Zoología, Universidad Nacional Autónoma de México, Ciudad México, Distrito Federal, Mexico (= CNAR)
- UNAM-LT:** Estación de Biología Tropical “Los Tuxtlas,” Universidad Nacional Autónoma de México, Catemaco, Veracruz, Mexico
- UNAMV:** (= UNAM-LT)
- UNM:** (= MSB)
- UNNE-CHC:** Colección Herpetológica Corrientes, Universidad Nacional del Nordeste, Corrientes, Corrientes, Argentina
- UNS:** University of Natural Sciences, Ho Chi Minh City, Ho Chi Minh, Vietnam

- UNSM:** Nebraska State Museum, University of Nebraska, Lincoln, Nebraska, USA
- UNZM:** University of Naples Zoological Museum, Naples, Campania, Italy (no longer extant, now = SZN)
- UOMNH:** University of Oklahoma Museum of Natural History, Norman, Oklahoma, USA
- UPNG:** University of Papua New Guinea, Port Moresby, Central, Papua New Guinea
- UPR:** University of Puerto Rico, Mayagüez, Puerto Rico
- UPVI:** Laboratoire de Paléontologie des Vertébrés, Université Paris VI, Paris, Ile-de-France, France
- UR:** (= URJ)
- URJ:** Agriculture and Home Economics Division, University of the Ryukyus, Nishihara, Ryukyu Islands, Japan
- US:** (= MZUS)
- USL:** University of Southwestern Louisiana, Lafayette, Louisiana, USA
- USNM:** National Museum of Natural History [formerly United States National Museum], Smithsonian Institution, Washington, District of Columbia, USA
- USNM-FN:** National Museum of Natural History field numbers
- USTL:** Université des Sciences et Techniques du Languedoc, Montpellier II, Languedoc, France [partially destroyed in 1944 during World War II]
- UTA:** Collection of Vertebrates, Department of Biology, University of Texas at Arlington, Arlington, Texas, USA
- UTEP:** Laboratory for Environmental Biology, Department of Biological Sciences and Centennial Museum, University of Texas at El Paso, El Paso, Texas, USA
- UU:** Universiteitmuseum Utrecht, Universiteit Utrecht, Utrecht, the Netherlands
- UUZM:** Zoological Museum, University of Utah, Salt Lake City, Utah, USA
- UV:** Departamento de Biología, Universidad del Valle, Cali, Valle, Colombia
- UVC:** (= UV)
- UVG:** Universidad del Valle de Guatemala, Guatemala City, Guatemala
- UZM:** (= ZMUC)
- UZMK:** Universitetets Zoologiske Museum, København, Denmark
- VAS:** (= GU/RSR/VAS)
- VLKE:** Vernay-Lang Kalahari Exped., Namibia, Africa, Mar.–Sept. 1930
- VM:** Vladivostock Museum, Vladivostock, Primorsky Krai, Russia
- VNMN:** Vietnam National Museum of Nature, Hanoi, Hanoi, Vietnam (includes CRES, VNUH)
- VNUH:** (= VNMN)
- VPI:** Vida Preciosa International, Boerne, Texas, USA
- VR:** J. V. Rueda field numbers
- WAM:** Western Australian Museum, Perth, Western Australia, Australia
- WED:** William E. Duellman field numbers
- WHC:** William Hyde Cabinet, Philadelphia, Pennsylvania
- WHM:** William Hunter Museum, London, England, UK (now Hunterian Museum and Art Gallery)
- WHT:** Wildlife Heritage Trust of Sri Lanka, Colombo, Sri Lanka
- WML:** Clore Natural History Centre, World Museum Liverpool [formerly Derby Museum], Liverpool, England, UK (includes DML)
- WRH:** W. Ron Heyer field numbers
- WS:** W. Schultze private collection, Manila, Philippines
- YBU:** College of Life Science and Food Engineering, Yibin University, Yibin, China
- YPM:** Peabody Museum of Natural History, Yale University, New Haven, Connecticut, USA (formerly PMNH)
- YU:** Department of Zoology, Yunnan Normal University, Kunming, Yunnan, China
- ZCIKU:** (= MNKNU)
- ZDEU:** Zoology Department, Ege University, Turkey
- ZDKU:** Museum of Natural History, Kharkiv University, Kharkiv, Ukraine
- ZFMK:** Zoologisches Forschungsmuseum [formerly Forschungsinstitut und Museum] “Alexander Koenig,” Bonn, North Rhine-Westphalia, Germany
- ZIAS:** Zoological Institute, Academia Sinica [Chinese Academy of Sciences], Shanghai, China
- ZIB:** Zoological Institute, Bonn, North Rhine-Westphalia, German (no longer extant) [destroyed 7–9 March 1945 during World War II]
- ZIK:** I. I. Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine, Kiev, Ukraine
- ZIKP:** Department of Paleozoology, Institute of Zoology, National Academy of Sciences of Ukraine, Kiev, Ukraine
- ZIL:** (= ZISP)
- ZIMG:** (= ZMG)
- ZIN:** (= ZISP)
- ZIN PC:** (= ZISP)
- ZISP:** Zoological Institute, Russian Academy of Sciences, St. Petersburg [formerly Leningrad], Russia (includes AIS, ZIL, ZIN & ZIN PC)
- ZIUS:** Zoologiska Institutionen, Stockholms Universitet, Stockholm, Sweden
- ZM:** Zoologisches Museum, Kanpur, Uttar Pradesh, India
- ZMA:** Instituut voor Taxonomische Zoölogie [formerly Zoölogisch Museum], Universiteit van Amsterdam, Amsterdam, the Netherlands (now = RMNH)
- ZMB:** Museum für Naturkunde [formerly Zoologischen Museum], Leibniz-Institut für Evolutions- und Biodiversitätsforschung, Universität-Humboldt zu Berlin, Berlin, Berlin, Germany (includes MB) [partially destroyed 22–23 Nov. 1944 and 3 Feb. 1945 during World War II]
- ZMBP:** Museum für Naturkunde [formerly Paläontologischen Museum], Leibniz-Institut für Evolutions- und Biodiversitätsforschung, Universität-Humboldt zu Berlin, Berlin, Berlin, Germany
- ZMG:** Zoologisches Museum, Johann-Friedrich-Blumenbach-Institut für Zoologie und Anthropologie, Göttingen, Göttingen, Germany

- ZMH:** Zoologisches Museum Hamburg [formerly Zoologisches Institut und Museum], Universität Hamburg, Hamburg, Hamburg, Germany [partially destroyed in July 1943 during World War II, including type collection and catalogues]
- ZMK:** Zoological Museum, Kristiania, Oslo, Oslo, Norway (no longer extant, now = ZMUO)
- ZMMU:** Zoological Museum of Mikhail V. Lomonosov, Moscow State University [formerly Imperial Moscow University], Moscow, Russia
- ZMT:** S. Janashia State Museum of Georgia, Zoological Section, Georgian Academy of Sciences, Tbilisi, Georgia
- ZMUC:** Vertebrater, Zoologisk Museum, Københavns Universitet, København, København, Denmark
- ZMUH:** Zoologisches Museum, Universität Halle, Halle, Germany [partially destroyed in 31 March–5 April 1945 during World War II]
- ZMUL:** Zoologiska Museet, Universitet Lund, Lund, Sweden
- ZMUO:** Zoologisk Museum, Universitetets i Oslo, Oslo, Norway
- ZMUU:** Zoologiska Museet, Uppsala Universitet, Uppsala, Uppsala, Sweden (includes MP & MAF)
- ZMUZ:** (= ZMZ)
- ZMZ:** Zoologisches Museum, Universität Zürich, Zürich, Switzerland
- ZMW:** (= NMW)
- ZPPAN:** (= IZPAN)
- ZPUW:** (= ZPW)
- ZPW:** Zakład Paleozoologii, Instytut Zoologiczny, Uniwersytet Wrocławski, Wrocław, Poland
- ZPWM:** Zakład Mineralogii, Instytut Geologicznych, Uniwersytet Wrocławski, Wrocław, Poland
- ZRC:** Zoological Reference Collection, Department of Life Sciences, National University of Singapore, Singapore (includes FMSM, NUS, RM & SNM)
- ZSI:** Zoological Survey of India, Kolkata [Calcutta], West Bengal, India
- ZSIC:** (= ZSI)
- ZSM:** Zoologisches Staatssammlung München [formerly Zoologisches Sammlung des Bayerischen Staates], München, Bayern, Germany (includes MM) [partially destroyed 24–25 April 1944 and 11 April 1945 [Spix collection] during World War II]
- ZSS:** Zoologische Sammlung zu Stettin, Szczecin, Poland
- ZUEC:** Departamento de Zoologia and Museu de História Natural, Universidade Estadual de Campinas “Adão José Cardoso,” Campinas, São Paulo, Brazil
- ZZS:** (= ZZSD)
- ZZSD:** Zakład Zoologii Systematycznej i Doswiadczałnej [Institute of Systematic and Experimental Zoology], Polish Academy of Sciences, Cracow, Poland



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# Valid Genera and Species

### **ACALYPTOPHIS Boulenger, 1896a** (*nomen substitutum*) (Elapidae)

**Synonyms:** *Acalyptus* A.-M.-C. Duméril, 1853 (*nomen praeoccupatum*), *Acolyptus* – Higgins, 1873 (*nomen incorrectum*), *Acalyphis* – Fayerer, 1877 (*nomen incorrectum*), *Acalyphus* – Hoffmann, 1890 (*nomen incorrectum*), *Acatyptus* – Hoffmann, 1890 (*nomen incorrectum*), *Pseudodistira* Kinghorn, 1926, *Agalytophis* – Maass-Berlin, 1933 (*nomen incorrectum*), *Acalyitephis* – Briceño-Rossi, 1934 (*nomen incorrectum*), *Acalyptophis* – Rosenfeld, 1963 (*nomen incorrectum*), and *Acalptophis* – Minton & Dunson, 1985 (*nomen incorrectum*).

**Type species:** *Acalyptus peronii* A.-M.-C. Duméril, 1853.

**Distribution:** Marine waters of Sino-Australia, including Arafura Sea, Coral Sea, Gulf of Carpentaria, Gulf of Thailand, South China Sea and Timor Sea.

**Sources:** E.H. Taylor, 1965, McDowell, 1972a, L.A. Smith, 1974, Cogger, 1975, Cogger et al., 1983a, Ehmann, 1992, Golay et al., 1993, O'Shea, 1996, Ineich & Rasmussen, 1997, David & Ineich, 1999, Bauer & Sadlier, 2000, Ineich & Laboute, 2002, Wells, 2007, Xiang & Li, 2009, Zaher et al., 2009, I. Das, 2010, 2012, A.R. Rasmussen et al., 2011 and Hoser, 2012e.

**Remarks:** A synonym of *Hydrophis fide* Sanders et al., 2013.

#### **1. *Acalyptophis peronii* (A.-M.-C. Duméril, 1853).** **Mém. Acad. Sci. Paris 23: 522. (*Acalyptus peronii*)**

**Synonyms:** *Acalyptus superciliosus* A.-M.-C. Duméril, Bibron & Duméril, 1854b, *Acalyptus superciliosus peroni* Duméril, Bibron & Duméril, 1854b, and *Pseudodistira horrida* Kinghorn, 1926.

**Type:** Holotype, MNHN 7711 (F. Péron & C.A. Lesueur, 1800–1804).

**Type locality:** “Nouvelle-Hollande?” [= Australia].

**Distribution:** Sino-Australia. Southern China (Guangdong, Hong Kong), Taiwan, Vietnam, Malaysia, E Indonesia (West Papua: Joes Is.), Papua New Guinea (Western), Australia (Northern Territory, Queensland, N Western Australia) and New Caledonia.

### **ACANTHOPHIS Daudin, 1803c** (*nomen substitutum*) (Elapidae)

**Synonyms:** *Acanthurus* Daudin, 1803b (*nomen praeoccupatum*), *Acantophis* – Fischer von Waldheim, 1808 (*nomen incorrectum*), *Acanthophis* Leach, 1814

(*nomen praeoccupatum*), *Ophryas* Merrem, 1820, *Ophyrus* – Bory de Saint-Vincent, 1824 in 1822–1831 (*nomen incorrectum*), *Acantophis* Gray, 1825 (*nomen emendatum*), *Ophyas* – Gray, 1825 (*nomen incorrectum*), *Acantophis* Berthold in Latreille, 1827 (*nomen emendatum*), *Ophrias* Cuvier, 1829 (*nomen emendatum*), *Acantrophis* – Cuvier, 1836 (*nomen incorrectum*), *Orophias* Oken, 1836 (*nomen emendatum*), *Acanthopes* – Swainson, 1839 (*nomen incorrectum*), *Acauthophis* – Steindachner, 1867 (*nomen incorrectum*), *Acantopis* – Senna, 1886 (*nomen incorrectum*), *Acanthopsis* Sherborn, 1902 (*nomen emendatum*), *Acanthiophis* – Nikolsky, 1916 (*nomen incorrectum*), *Ancanthophis* – Fairley, 1929 (*nomen incorrectum*), and *Acanthopus* – Trethewie, 1956 (*nomen incorrectum*).

**Type species:** *Acanthophis cerastinus* Daudin, 1803c.

**Distribution:** Austro-Papua.

**Sources:** F. Werner, 1923b, Storr, 1981b, Cogger et al., 1983a, Schwaner et al., 1985, Hoser 1989, 1995, 1998b, 2002a, 2012e, Hutchinson, 1990, Ehmann, 1992, Golay et al., 1993, Greer, 1997, Keogh, 1998, David & Ineich, 1999, Cogger, 2000, Fry et al., 2001, 2002, Scanlon & Lee, 2004, Wüster et al., 2005, Sanders et al., 2008 and Zaher et al., 2009.

#### **1. *Acanthophis antarcticus* (G. Shaw & Nodder, 1802 in 1789–1813).** **Nat. Misc. 13: pl. 535, 1 p. (*Boa antarctica*)**

**Synonyms:** *Boa palpebrosa* G. Shaw, 1802 (*nomen oblitum*), *Acanthophis cerastinus* Daudin, 1803c, *Acanthophis brownii* Leach, 1814, *Boa ambigua* Leach, 1814, *Ophryas acantophis* Merrem, 1820, *Vipera sorda* Salvado, 1851 (*nomen nudum*), *Boa aculeata* Boulenger, 1896 (*nomen nudum*), *Acanthopus antarcticus* – Trethewie, 1956 (*nomen incorrectum*), *Acanthophis barkley* – Mollier, Chwetzoff, Frachon & Ménez, 1989 (*nomen incorrectum*), *Acanthophis schistos* Wells & Wellington, 1985, and *Acanthophis antarcticus cliffrosswellingtoni* Hoser, 2002a.

**Type:** Holotype, not designated, a 305–380 mm specimen, lost *fide* Cogger et al. (1983: 217).

**Type locality:** “Australasia.”

**Distribution:** Eastern and S Australia (New South Wales, Queensland, S South Australia, N Victoria, S Western Australia, Boxer, Fraser, Groote Eylandt Hareby, Figure of Eight, Hook, Reevesby and South Twin Peak Is.), NSL–350 m.

**Sources:** F. McCoy, 1878f, Johnston & Ellins, 1979, Shine, 1980d, F. Parker, 1982, McDowell, 1984, G.R.

Johnston, 1987, Bush et al., 1995, O'Shea, 1996, J.C. Murphy & Schlager, 2003 and Wüster et al., 2005.

**Remarks:** In accordance with Art. 23.9.2 of the Code (ICZN, 1999), *Boa antarctica* Shaw & Nodder is designated a *nomen protectum* and *Boa palpebrosa* Shaw a *nomen oblitum*.

**2. *Acanthophis ceramensis* A.C.L.G. Günther, 1863. Proc. Zool. Soc. London 31(1): 58. (*Acanthophis cerastinus ceramensis*)**

**Synonyms:** *Acanthophis groenveldi* Hoser, 2002a, and *Acanthophis macgregori* Hoser, 2002a.

**Types:** Syntypes (3), BMNH 1863.2.28.34–36, one male, females, and juveniles (Stevens) 31 Oct.–18 Dec. 1859 or 26 Feb.–4 Apr. 1860.

**Type locality:** “North Ceram” [= N Seram, Maluku, E Indonesia].

**Distribution:** Eastern Indonesia (Maluku: Seram, Tanimbar).

**3. *Acanthophis hawkei* Wells & Wellington, 1985. Aust. J. Herp. (Suppl. 1): 43.**

**Synonym:** *Acanthophis wolffi* Hoser, 1998b.

**Type:** Holotype, NTM 3677, an adult specimen (H. van Dyk, 20 April 1977).

**Type locality:** “1.5 miles south west of Brunette Downs Station Homestead, Barkly Tablelands. Northern Territory, Australia.”

**Distribution:** Northern Australia (Northern Territory), 215 m.

**Sources:** Hoser, 1998b, Wickramaratna et al., 2003a and Wüster et al., 2005.

**4. *Acanthophis laevis* Macleay, 1877. Proc. Linn. Soc. N.S.W. (1877–1878) 2(1): 40–41.**

**Synonyms:** *Acanthophis crotalusei* Hoser, 1998b (*nomen incorrigendum*), *Acanthophis barnetti* Hoser, 1998b, *Acanthophis crotalusi* Wüster et al., 2001b (*nomen corrigendum*), and *Acanthophis yuwoni* Hoser, 2002a.

**Type:** Holotype, AMS 31932 (formerly MMS 693), a 398+ mm specimen (W.J. Macleay, July 1875).

**Type locality:** “Kato, New Guinea” [= Mawatta, S Western Prov., Papua New Guinea, ca. 9°05'S, 142°58'E, elevation 20 m].

**Distribution:** Papua New Guinea (Central, Eastern Highlands, East Sepik, Enga, Gulf, Madang, Morobe, National Capital District, Oro, Simbu, Southern Highlands, Western, Western Highlands, West Sepik and Karkar Is.), NSL–1800 m.

**Sources:** Goldman et al., 1969, O'Shea, 1996 and Wüster et al., 2005.

**Remarks:** Possibly a synonym of *A. praelongus* fide Wüster et al., 2005.

**5. *Acanthophis praelongus* E.P. Ramsay, 1877. Proc. Linn. Soc. N.S.W. (1877–1878) 2(1): 72–73.**

**Type:** Holotype, AMS 451, a 419 mm specimen (W. Powell).

**Type locality:** “Cape York, North Australia” [probably near Somerset, N Queensland].

**Distribution:** Austro-Papua. Extreme E Indonesia (West Papua, Kai Is.), Papua New Guinea (East Sepik, Western) and N Australia (N Northern Territory, N Queensland, ext. N Western Australia), NSL–600 m.

**Sources:** Storr, 1981b, O'Shea, 1996 and Wickramaratna et al., 2003a.

**6. *Acanthophis pyrrhus* Boulenger, 1898d. Ann. Mag. Nat. Hist. (7) 2(7): 75.**

**Synonym:** *Acanthophis armstrongi* Wells & Wellington, 1985.

**Type:** Holotype, BMNH 1946.1.18.62, a 530 mm female (E. Gerrard, 1850–1898).

**Type locality:** “Station Point, Southern Central Australia.”

**Distribution:** Western Australia (S Northern Territory, ext. SW Queensland, W South Australia, Western Australia), NSL–895 m.

**Source:** Schulz, 1990a.

**7. *Acanthophis rugosus* Loveridge, 1948. Bull. Mus. Comp. Zool. 101(2): 392–393. (*Acanthophis antarcticus rugosus*)**

**Synonyms:** *Acanthophis lancasteri* Wells & Wellington, 1985, *Acanthophis cummingsi* Hoser, 1998b (*nomen incorrigendum*), *Acanthophis lancasteri bottomi* Hoser, 1998, and *Acanthophis cummingsi* – Wüster et al., 2001b (*nomen corrigendum*).

**Type:** Holotype, MCZ 22812, a 595 mm male (P.T.L. Putnam, 1927).

**Type locality:** “Merauke, southwest Dutch New Guinea” [= Merauke, SE Papua, ext. E Indonesia, 8°30'S, 140°24'E, elevation NSL].

**Distribution:** Austro-Papua. Eastern Indonesia (SE Papua), possibly S Papua New Guinea (Western) and N Australia (N Northern Territory, NW Queensland, NE Western Australia), NSL–1500 m.

**Sources:** O'Shea, 1996, Hoser, 1998a, Aplin & Donnellan, 1999, Fry et al., 2001, 2002, Wickramaratna et al., 2003a–b and Wüster et al., 2005.

**8. *Acanthophis wellsi* Hoser, 1998b. Monitor 9(2): 37–39, 2 photos. (*nomen corrigendum*)**

**Synonyms:** *Acanthophis wellsei* Hoser, 1998b (*nomen incorrigendum*), *Acanthophis wellsi* Alpin & Donnellan, 1999 (*nomen corrigendum*), and *Acanthophis wellsei donnellani* Hoser, 2002a.

**Type:** Holotype, WAM 8886, a 250+ mm juvenile (K.H. Burton, before 26 Nov. 1945).

**Type locality:** “Wittenoom Gorge, WA, Lat: 22°15’ Long: 118°23’” [= Blue Asbestos Mine, Western Australia, Australia].

**Distribution:** Western Australia (NW Western Australia), NSL–800 m.

**Sources:** Aplin & Donnellan, 1999, Fry et al., 2002, Hoser, 2002a, Wickramaratna et al., 2003a and Wüster et al., 2005.

**Remarks:** Taxonomic status unclear, possibly a synonym of *A. pyrrhus*.

### **ACHALINUS W.C.H. Peters, 1869** (Xenodermatidae)

**Synonyms:** *Ophielaps* Sauvage, 1877, *Cochalinus* Rhumbler, 1910, *Achalinopsis* Steindachner, 1913a, *Ophiolaps* – Maki, 1931 (*nomen incorrectum*), *Achalinus* – Wang & Wang, 1956 (*nomen incorrectum*), and *Achalinopsis* – Wang & Wang, 1956 (*nomen incorrectum*).

**Type species:** *Achalinus spinalis* W.C.H. Peters, 1869.

**Distribution:** Southeastern Asia.

**Sources:** Maki, 1931, Bourret, 1935a, Ota & Toyama, 1989a, Zhao & Adler, 1993 and Zaher et al., 2009.

#### **1. *Achalinus ater* Bourret, 1937b. Bull. Gén. Instr. Publ. Hanoi 17(4): 72. (*nomen substitutum*)**

**Synonym:** *Achalinus niger* Bourret, 1935a (*nomen praeoccupatum*).

**Types:** Syntypes (4), MNHN 1935.49 and MNHN 1938.128 [formerly RLB M.454, a 325 mm male, RLB M.455, a 349 mm female, RLB M.793, a 372 mm female, and RLB M.795, a 252 mm male] (R.L. Bourret, 1934), location of other syntypes unknown.

**Type locality:** “Tonkin (Tam dao alt. 900m)” [Vietnam].

**Distribution:** Southern China (Gansu, Guangxi, Guizhou) and N Vietnam (Vinh Phuc), 450–1100 m.

**Sources:** Hu et al., 1973, Zhao & Jiang, 1977, Wen, 1983, Orlov et al., 2000, Zhao, 2006, V.S. Nguyen et al., 2009 and I. Das, 2010, 2012.

**Remarks:** Original description in Bourret (1935a: 103, fig. 2). Types not in MNHN nor listed in MNHN catalogue *vide* David (*in litt*). A synonym of *A. rufescens* Boulenger *vide* M.A. Smith (1943: 127).

#### **2. *Achalinus formosanus* Boulenger, 1908h. Ann. Mag. Nat. Hist. (8) 2(8): 222.**

**Synonyms:** *Achalinopsis sauteri* Steindachner, 1913a, and *Achalinus formosanus chigirai* Ota & Toyama, 1989b.

**Type:** Holotype, BMNH 1946.1.7.78, an 853–860 mm female (A. Moltrecht, April 1907).

**Type locality:** “Punkiho, Kagi district, Central Formosa” [= Punkiho, Chiayi Prefecture, cen. Taiwan].

**Distribution:** Taiwan (Chiayi) and S Japan (Ryukyus: Iriomotejima Is.).

**Sources:** Maki, 1931, Ota & Toyama, 1989b and Xiang & Li, 2009.

**Remarks:** Head of holotype illustrated by Ota & Toyama (1989a: fig. 2).

#### **3. *Achalinus hainanus* C. Huang in S. Hu, Zhao & Huang, 1975. Acta Zool. Sinica 21(4): 380–381, 384 (English abst.), figs. 3a–c.**

**Type:** Holotype, ASIZB 1076, a 290 mm female (20 Jan. 1964).

**Type locality:** “Chien Fung Ling, Hainan, altitude 800m” [China].

**Distribution:** Southern China (Hainan), 800 m. Known only from type locality.

#### **4. *Achalinus jinggangensis* (Zong & Ma, 1983). Acta Herp. Sinica 2(2): 61–62, 63 (English abst.) 3 figs. (*Achalinopsis jinggangensis*)**

**Type:** Holotype, SNHM 82X118, a 460 mm female (native 17 Oct. 1982).

**Type locality:** “Dajing Village, Jinggangshan, Jiangxi, alt. 940m” [China].

**Distribution:** Southern China (Jiangxi), 940 m. Known only from type series.

#### **5. *Achalinus meiguensis* S.-Q. Hu & Zhao, 1966. Acta Zootaxon. Sinica 3(2): 162–164, pl. 1, figs. 4–5, pl. 2, figs. 4–6.**

**Type:** Holotype, CIB 639101, an adult female (X.-Y. Tang, 22 May 1963).

**Type locality:** “Liang Ho Kou, Meigu Hsien, Szechwan, altitude 2,520 m” [= Sichuan Prov., China].

**Distribution:** Southwestern China (W Sichuan), 1200–2520 m.

**Sources:** Inger et al., 1990 and P. Guo et al., 1999b.

#### **6. *Achalinus niger* Maki, 1931. Monogr. Snakes Japan: 60–61, figs. 27–28, pl. 19.**

**Type:** Holotype, NSMT H2562 (formerly KIU no. a), a 599–668 mm male (M. Maki, June 1925).

**Type locality:** “Mt. Arisan, Central Formosa” [= Mt. Ali, ext. S Nantou Co., cen. Taiwan, ca. 23°35’N, 120°49’E, ca. 2000 m].

**Distribution:** Taiwan (Nantou), 2000 m.

**Sources:** Huang, 1995, Ota, 1997 and Xiang & Li, 2009.

#### **7. *Achalinus rufescens* Boulenger, 1888c. Ann. Mag. Nat. Hist. (6) 2(7): 43.**

**Synonyms:** *Achalinus meridianus* M.A. Smith, 1923a, and *Stoliczkaia kwangsiensis* Fan, 1931.

**Type:** Holotype, BMNH 1946.1.12.37, a 290 mm specimen (C. Ford, 1882–1888).

**Type locality:** “Hongkong,” China.