

**Synopsis of the Snakes of the Philippines
A Synthesis of Data from Biodiversity Repositories,
Field Studies, and the Literature**

Alan E. Leviton^{1,4*}, **Cameron D. Siler**^{2,5}, **Jeffrey L. Weinell**³, and **Rafe M. Brown**^{3,5*}

¹ *Herpetology Division, Institute of Biodiversity Science & Sustainability, California Academy of Sciences, 55 Music Concourse Drive, San Francisco, California 94118; Email: aleviton@calacademy.org.* ² *Department of Biology and Sam Noble Museum, University of Oklahoma, 2401 Chautauqua Ave., Norman, OK 73072-7029, USA; Email: camsiler@ou.edu.* ³ *Department of Ecology and Evolutionary Biology and Biodiversity Institute, University of Kansas, Lawrence, Kansas 66045; Email: (JW) jweine2@gmail.com; (RB) rafe@ku.edu.* ⁴ *Research Associate, Division of Amphibians & Reptiles, Department of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, DC, USA.* ⁵ *Zoology Division, National Museum of the Philippines, Rizal Park, Burgos Ave., Ermita 1000, Manila, Philippines.*

* Corresponding authors: AEL (aleviton@calacademy.org); RMB (rafe@ku.edu)

Table of Contents

Introduction	401
Museum symbolic codes	402
Acknowledgments	403
Synopsis of Snakes of the Philippines	405
Superfamily Typhlopoidea	407
Family Gerrhopilidae	407
Family Typhlopidae, Subfamily Asiatyphlopinae	407
Superfamily Pythonoidea	412
Family Pythonidae	412
Family Xenopeltidae	413
Superfamily Acrochordoidea	414
Family Acrochordidae	414
Superfamily Colubrioidea	414
Family Pareidae	414
Family Homalopsidae	415
Family Colubridae	417
Subfamily Ahaetullinae	417
Subfamily Calamarinae	422
Subfamily Colubrinae	429
Subfamily Natricinae	444
Subfamily Sibynophiinae	448
Family Lamprophiidae	449
Subfamily Cyclocorinae	449
Subfamily (<i>incertae sedis</i>) Pseudaspidinae	453
Family Elapidae	453
Subfamily Elapinae	453
Subfamily Hydrophiinae	458
Subfamily Laticaudinae	468
Family Viperidae, Subfamily Crotalinae	470
General geographic distribution table by island	473
Bibliography	483
Appendix	509
Distribution maps	510
Photo figures of living snakes	547



The Philippine Archipelago, with major landmasses and other geographical features indicated.
Prepared by Jeffrey L. Weinell.

INTRODUCTION

An up-to-date synopsis of the snake fauna of the Philippine Archipelago is long overdue. Nearly 100 years have elapsed since Edward Harrison Taylor published his comprehensive volume, *The Snakes of the Philippines* (Taylor 1922a), and since then a significant volume of literature has appeared and extensive field survey and site inventory fieldwork has been conducted. The latter, launched in the 1960s with the exploits of Drs. Angel C. Alcala (Silliman University, Dumaguete City, Philippines), and the late Walter C. Brown (Menlo College, Menlo Park, California), has continued in recent years by Charles Ross, Ronald Crombie, and the extensive field studies of Arvin Diesmos, Rafe Brown, Cameron Siler, Maren Gaulke, and their colleagues and students in the Philippines, United States, and Europe.

In this synopsis, we provide basic information relating to each of the currently known species of snakes that has been recorded from the Philippines. The references included with each account provide guidance to literature that contains additional information; for instance, we provide skeletal synonymies (chresonymies, *sensu* Smith and Smith [1972:445]) that include references to literature in which more extensive synonymy compilations are available, notably in the publications of Taylor (1922a), Leviton (1963 *et seq.*), as well as recent compilations by Murphy et al. (2012), McDiarmid et al. (1999), Wallach et al. (2014), Uetz et al. (2018, *The Reptile Database*). We also provide a comprehensive bibliography to the literature and, where possible, photographs of living animals.

We take note of at least one recent compilation that deals with the venomous snakes of the Archipelago by Leviton, Brown and Siler (2014), and of a cluster of recent reports of biodiversity surveys by Brown, Diesmos, Siler, and colleagues (1996–2015) and Gaulke (1986–2011), that have vastly increased our knowledge of the breadth of faunal complexities and species distributions. We highlight the discovery of numerous new species and include these in the archipelago's fauna for the first time. We also call the reader's attention to several earlier seminal articles that dealt with patterns of distribution of the Philippine herpetofauna, among them, Taylor (1922a, 1928), Inger (1954, on amphibian distribution in the Philippines; 1999), Leviton (1963), Brown (WC) and Alcala (1970), Inger and Voris (2001), Siler et al. (2011, 2012, 2013), Diesmos et al. (2014, 2015), Diesmos, Alcala, Siler, and (RM) Brown (2014), Brown et al. (1995, 2000, 2012, 2013), and Sanguiña et al. (2016).

Higher-level classification of snakes has changed dramatically over the past decade, primarily as a result of several large, well-sampled phylogenetic analyses of DNA sequence data. Contributions by Vidal (2007), Vidal et al. (2010), Pyron et al. (2011, 2013), Figueroa et al. (2016), and Weinell & Brown (2017) have proposed broad nomenclatural changes to traditional classifications of the last century, many of which have been readily adopted by snake systematists — whereas others have been met with skepticism. For the most part, these studies have been based on molecular data from few loci and, thus, may be expected to change and/or be overturned in the near future by impending combined analyses of genomic and phenotypic data, which show promise for creditable, well-supported phylogenetic estimates, and, we hope, stable resulting classifications. In anticipation of comprehensive phylogenomic snake studies, and acknowledging the subjectivity inherent in currently proposed higher-level ranks, we have adopted a tentative suprafamilial arrangement for this summary of Philippine snakes reflecting current taxonomic summaries (e.g., Wallach et al. 2014). This conservative approach reflects our view that this paper is not the appropriate venue to enter into a discussion of the merits of recently proposed classifications. For example, we do not take a stance on the advisability of partitioning the Colubroidea into named suprafamilial groups, e.g., Pareatoidea, Elapoidea, Viperioidea (*vide* Vidal et al. 2007), because we expect estimates of relationships, and support for many clades, to change significantly in the near future.

Information relating to Conservation Status of included species was retrieved from the online IUCN Red List of Threatened Species (Version 2016–3.1 <www.iucnredlist.org>, downloaded on

10 March 2017), which we explored for a crude, preliminary appraisal of the conservation status of the populations of snakes inhabiting the Philippine Islands. Although many of the species are referenced as either “Data Deficient” or “not assessed” for the purposes of determining their conservation status, a number are indeed listed as “Endangered.” In our review of these assessments it has become abundantly clear that for many species the heightened level of threatened status is based not on a knowledge of their local abundance, population status, or habitat requirements, but solely on a formulaic interpretation of their geographical area of occurrence (IUCN 2016). This is problematic for several reasons inasmuch as it reduces confidence in the value of the IUCN assessments and throws into question the conservation value of secondary sources, negative data, and conclusions derived from the absence of substantive results (see comments in Brown et al. 2012, 2013), for instance, *Ramphotyphlops suluensis*, known only from two small islands in the Sulu Archipelago that have only once been surveyed (by Gaulke) in the last century since Taylor, *Cerberus microlepis*, known only from a single lake on the Bicol Peninsula of Luzon, or *Lycodon chrysoprateros*, a species originally believed to be restricted only to Dalupiri Island (Ota and Ross 1994). These species illustrate the challenge of drawing conclusions based on negative data. Elevated conservation threat levels inferred in all three cases have involved a primary justification derived from presumed range-restricted geography, which has yet to be assessed empirically (see comments by McLeod et al. 2013; Diesmos et al. 2014; Sanguila et al. 2016). Such inferences, based on negative data, are not conclusive, defensible interpretations of the extent of a species’ geographic occurrence data. To make matters worse, recent systematic studies have seriously questioned the validity of *C. microlepis* and *L. chrysoprateros* (Alfaro et al. 2004; Siler et al. 2013), which identifies an even more alarming pattern to conservation status assessments: poorly known species (those encountered once or a few times) tend to end up in elevated threat categories (IUCN 2017). In these instances, we recommend converting such species to “Data Deficient” to flag them, and to draw the attention of future researchers to these gaps in our collective knowledge. They need to be studied inasmuch as there have been no actual new data pertaining to these species for more than 100 years. How can they be anything other than “Data Deficient?”

Distribution maps and photographs of living snake specimens referenced in the species accounts, are incorporated into the Appendix that follows the Bibliography References section.

In closing, we wish to emphasize that we have prepared this historical overview covering the period from the late 18th Century into the early 21st Century to provide an updated foundation upon which our international colleagues, and especially the scientific community in the Philippines, will build. It is our hope that our compilation of Philippine species distributions and taxonomic status, will stimulate future research on poorly-known taxa, snake communities from unexplored areas, natural history studies and, ultimately, hopefully result in biologically meaningful, data-informed conservation assessments.

MUSEUM SYMBOLIC CODES

The following symbolic codes are used to designate museums that hold type materials of snake species that have been reported from the Philippines.

- BMNH** Natural History Museum, London [formerly British Museum (Natural History)] (London, England)
- CAS** California Academy of Sciences (San Francisco, California, USA)
- CAS-SU** Stanford University collection at the California Academy of Sciences (**CAS**).
- CM** Carnegie Museum (Pittsburgh, Pennsylvania, USA)
- CNHM** Chicago Natural History Museum [see **FMNH**]
- EHT** Edward Harrison Taylor [field numbers]; now at **CAS**, **CM**, and **KU**
- FMNH** Field Museum of Natural History (Chicago, Illinois, USA)
- KU** University of Kansas Biodiversity Institute [formerly Museum of Natural History] (Lawrence, Kansas, USA)

- MCZ** Museum of Comparative Zoology, Harvard University (Cambridge, Massachusetts, USA)
MHNB Muséum d'Histoire Naturelle de Bâle (see as **NMBA**)
MNHN Muséum national d'Histoire naturelle (Paris, France)
MZUF Museo Zoologico Università Firenze (Florence, Italy)
NMBA Naturhistorisches Museum Basel (Basel, Switzerland)
NMH Naturhistorisches Museum zu Hamburg (also as **ZMH**) (Hamburg, Germany)
NMW Naturhistorisches Museum, Wien (Vienna, Austria)
PNM Philippine National Museum (Manila, Luzon, Philippines)
RMNH Nederlands Centre for Biodiversity Naturalis [merger of Naturalis-Nationaal Natuurhistorisch Museum [formerly Rijksmuseum van Natuurlijke Historie] and Zoological Museum Amsterdam [**ZMA**]].
RNH Rijksmuseum van Natuurlijke Historie (Leiden, Netherlands) (also as **RMNH**)
SMF Senckenberg Forschungsinstitut und Naturmuseum (Frankfurt am Main, Germany)
STUM Santo Thomas University, Museum (Manila, Luzon, Philippines)
SU Stanford University (Stanford, California, USA) (see as **CAS-SU**)
UF Florida Museum of Natural History (University of Florida, Gainesville, Florida, USA)
USNM National Museum of Natural History, [formerly United States National Museum], Smithsonian Institution (Washington, DC, USA)
UZMK (see as **ZMUC**)
ZFMK Zoologisches Forschungsmuseum "Alexander Koenig", Bonn (Bonn, Germany)
ZIN (see as **ZISP**)
ZISP Zoological Institute, Russian Academy of Sciences (St. Petersburg, Russia) (also as **ZIN**)
ZMB Museum für Naturkunde [formerly Zoologischen Museum], Humboldt-Universität (Berlin, Germany)
ZMH Zoological Museum Hamburg (Hamburg, Germany)
ZMUC Københavns Universitet, Zoologisk Museum (Copenhagen, Denmark) (see also **UZMK**)

ACKNOWLEDGMENTS

This report is an outgrowth of many decades of activity on the part of the authors, their institutions, their collaborators, and students. For Philippine snake-specific insight, we thank A.C. Alcala (Silliman University), A.C. Diesmos (PNM), M. Gaulke (GeoBio Center LMU, Germany), and the late W.C. Brown (Menlo College, California), and R.V. Sison (PNM) — all of whom have provided years of collaboration, many discussions, advice, and support. We are grateful to curators and staff at institutions housing critical Philippine snake collections, including G. Zug, R. Crombie, K. de Queiroz, A. Wynn, and the late D. Cochran and J. Peters (USNM), R. Inger, H. Voris, H. Marx, A. Resetar (FMNH), J. Rosado, J. Hanken, L. Ford, and the late A. Loveridge, E. Williams (MCZ), S. Rogers, and the late J. McCoy (CM), T. LaDuc, D. Cannatella (TNHC), A. Grandison, E.N. Arnold (BMNH), I. Ineich, and the late J. Guibé (MNHM), J. Vindum, R. Drewes, M. Koo, and L. Scheinberg (CAS), J. Watters (OU), D. Blackburn (UF), and L. Welton (KU). We deeply appreciate and thank A.C. Diesmos, J.B. Fernandez, V. Garcia, K. Hesed, N.A. Huron, L. Soriano, J. Tashjian, and H. Voris for the use of their photographs. We thank K. Allen, M. Sanguila, N. Huron, J. Watters, C. Linkem, and M. Koo for assistance with data, georeferencing, and maps, and our families for their unwavering support. We thank the Philippine-American Education Foundation (PAEF) for its continued support of student research initiatives.

Philippine field work has been supported by a U.S. National Science Foundation (NSF) grant to W.C. Brown and verification and rectification of CAS specimen-associated data was supported by NSF funds to AEL and J. Vindum. Recent field work (2005–2017) has been supported by NSF grants to RMB (DEB 073199, 0743491, 0910341, 1418895, and 1655553) and CDS (IOS 1353683, DEB 0804115) and Fulbright and Fulbright-Hayes fellowships to CDS.

We deeply appreciate the critical reviews of the manuscript provided by both Drs. Aaron Bauer and George Zug that led to significant improvements of the presentation. Nonetheless, though we accepted most of their suggestions, we are still responsible for errors of omission and commission.



The unpatterned orange morph of Philippine *Boiga cynodon* photographed in 2016 in the University of the Philippines at Los Baños Quezon Land Grant Forest Reserve, Municipality of Siniloan, Quezon Province, southeastern Luzon Island, Photo: Rafe M. Brown.

Synopsis of the Snakes of the Philippines

A Checklist



Reference map illustrating the major Philippine faunal regions as defined by the Pleistocene Aggregate Island Complexes (PAICs). Selected island groups, such as the Babuyans, Batanes, the Romblon Island Group (RIG), and the Sulu Archipelago, are also indicated.

Class Reptilia, Order Squamata, Suborder Serpentes

Superfamily Typhlopoidea (Scolecoiphidia)

Family Gerrhopilidae Vidal, Marin, Morini, Donnellan, Branch, Thomas, Vences, Wynn, Cruaud, and Hedges 2010

Gerrhopilus hedraeus (Savage, 1950)

Negros Island Blind Snake

Typhlops hedraeus Savage, 1950:49, fig. 1.— Wynn and Leviton, 1993:44.— Wallach, 1993:271.— McDiarmid, Campbell, and Touré, 1999:104.— Siler, Swab, Oliveros, Diesmos, Averia, Alcala, and Brown, 2012:457.

Gerrhopilus hedraeus, Vidal, Marin, Morini, Donnellan, Branch, Thomas, Vences, Wynn, Cruaud, and Hedges, 2010:3.— Pyron and Wallach, 2014:43.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:170.

TYPE LOCALITY AND TYPE SPECIMEN(S).— At about 1500 feet above Luzuriaga, 6 mi SW of Dumaguete, Oriental Negros Prov., Negros Id., Philippines. Holotype: CAS-SU (Rept.) 12346.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 14D [p. 125]).— Bohol, Cebu, Marinduque, Mindanao, Mindoro, Negros, Pacijan, Tablas.

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

Gerrhopilus manilae (Taylor, 1919)

Manila Blind Snake

Typhlops manilae Taylor, 1919:106; 1922a:56.— McDiarmid, Campbell, and Touré, 1999:110.

Malayotyphlops manilae, Hedges, Marion, Lipp, Marin, and Vidal, 2014:38.

Gerrhopilus manilae, Pyron and Wallach, 2014:43.

TYPE LOCALITY AND TYPE SPECIMEN(S).— “from type, an unnumbered specimen in Santo Tomas Museum, labeled ‘Filipinas;’ locality and collector unknown; probably from Luzon.” (Taylor [1919:105]). Holotype: STUM unnumbered.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 15A [p. 126]).— Luzon.

REMARKS.— See remarks in Pyron and Wallach (2014:44) relating to the transfer of *Typhlops* (also as *Malayotyphlops*) *manilae* to the genus *Gerrhopilus*.

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1 (listed under *Typhlops manilae*).

Family Typhlopidae Merrem, 1820

Subfamily Asiatyphlopinae Hedges, Marion, Lipp, Marin, and Vidal, 2014

Acutotyphlops banaorum Wallach, Brown (RM), Diesmos, and Gee, 2007 Photo figure 1

Balbalan Blind Snake

Acutotyphlops banaorum Wallach, Brown, Diesmos, and Gee, 2007:692, figs. 2, 3b, 4.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Philippines, near Barangay Balbalasang, Municipality of Balbalan, Kalinga Province, Luzon Id., Philippines. Holotype: PNM 9280.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 2B [p. 113]).— Luzon (Prov.: Kalinga [known only from the type locality]).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

Indotyphlops braminus* (Daudin, 1803)*Photo figure 2**

Common Blind Snake; Brahminy Blind Snake

Eryx braminus Daudin, 1803, 7:279.*Typhlops braminus*, Cuvier, 1829, 2:406.— Taylor, 1922a:50, fig. 2; 1922d:136; 1923:542.*Argyrophis truncatus* Gray, 1845:138 (type locality: Philippines).*Ramphotyphlops braminus*, Ross and Gonzales, 1992:69.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:14.— Gaulke, 1999:280.— McDiarmid, Campbell, and Touré, 1999:59.— Ferner, Brown, Sison, and Kennedy, 2001:54[21]*.— Diesmos, Brown, and Gee, 2004:71.— Wallach, 2009:34.— Gaulke, 2011:332–333, fig. 228.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:190.— Oliveros, Ota, Crombie, and Brown, 2011:16.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:191; 2012:457.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:484, fig. 47.— Devan-Song and Brown, 2012:16, fig. 38.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:92.— Wallach, Williams, and Boundy, 2014:614.— Sanguila, Cobb, Siler, Diesmos, Alcala, and Brown, 2016:106.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:172.*Indotyphlops braminus*, Hedges, Marion, Lipp, Marin, and Vidal, 2014:37.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Vizagapatam [= Vishakhapatnam], India (see comments in McDiarmid, Campbell, and Touré [1999:59], also Bauer [2015:42]). Type based on pl. 43 (“Rondoo Talooloo Pam”) in Russell (1796:48) (*vide* McDiarmid et al., *op. cit.*; see also Bauer, *op. cit.*).**PHILIPPINE DISTRIBUTION** (Map 19C [p. 130]).— (widely distributed) Babuyan Ids. (Camiguin Norte, Dalupiri), Basilan, Batanes Ids. (Batan, Ivojos), Bohol, Busuanga, Calamian Ids. (Calauit), Camiguin Sur, Cebu, Guimaras (also Panubolon Id.), Luzon (Prov.: Albay, Bataan, Batangas, Cavite, Ilocos Norte, Kalinga, Laguna, Manila, Quezon, Rizal, Sorsogon, Zambales), Mindanao (Prov.: Bukidnon, Lanao del Norte, Sarangani, Zamboanga del Norte), Marinduque, Masbate, Mindoro, Negros (Prov.: Negros Occidental, Negros Oriental), Palawan, Panay (Prov.: Aklan, Antique, Iloilo; also Ids.: Borocay, Gigantes Sur, Semirara, Sibay), Polillo, Samar, Sibuyan, Sulu Archipelago (Jolo [*vide* Taylor [1923:542]], Tablas).**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Widely distributed throughout Southeast and Southwest Asia, Africa, and elsewhere (see McDiarmid et al. [1999:61]), Wallach [2009:34 *et seq.*], Wallach et al. [2014:614].**CONSERVATION STATUS [IUCN].**— The conservation status of *Indotyphlops braminus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life* as *Ramphotyphlops braminus*.***Malayotyphlops andyi* Wynn, Diesmos, and Brown (RM), 2016**

Andy’s Blind Snake

Malayotyphlops andyi Wynn, Diesmos, and Brown, 2016:164, figs. 1 [map], 5.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Nassiping Reforestation Project area, Barangay Nassiping, Sierra Madre Mt. Range, Municipality of Gattaran, Cagayan Prov., Luzon Id., Philippines. Holotype: PNM 9779).**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 23D [p. 134]).— Luzon (Prov.: Cagayan).**CONSERVATION STATUS [IUCN].**— The conservation status of *Malayotyphlops andyi* has not been

* Number in brackets, here and elsewhere following the formal publication page number is the page number in the preprint version that was distributed before formal publication.

assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Malayotyphlops canlaonensis* (Taylor, 1917)**

Taylor's Worm Snake; Taylor's Blind Snake

Typhlops canlaonensis Taylor, 1917:354; 1922a:55.— McDiarmid, Campbell, and Touré, 1999:94.
Malayotyphlops canlaonensis, Hedges, Marion, Lipp, Marin, and Vidal, 2014:38.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Type locality: Canlaon Volcano at ~ 750 m, Negros Id., Philippines. Holotype: CM 2666.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 24A [p. 135]).— Negros (Prov.: Negros Occidental [Canlaon Volcano]).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Malayotyphlops castanotus* (Wynn and Leviton, 1993)**

Brown-bellied Blind Snake; Western Visayan Blind Snake

Typhlops castanotus Wynn and Leviton, 1993:35, fig. 1.— McDiarmid, Campbell, and Touré, 1999:94.— Ferner, Brown, Sison, and Kennedy, 2001:54[21].— Gaulke, 2011:334–335, figs. 229, 230.
Malayotyphlops castanotus, Hedges, Marion, Lipp, Marin, and Vidal, 2014:38.

TYPE LOCALITY AND TYPE SPECIMEN(S).— 8 km W of Pulpandan, Inampulugan Id., Guimares Prov., Philippines. Holotype: CAS-SU (Rept.) 27940.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 24B [p. 135]).— Boracay Id. (Prov.: Aklan), Inampulugan (Guimares Prov.), Negros (Prov.: Negros Occidental, Negros Oriental), Panay (Prov.: Aklan [northern coast], Antique).

CONSERVATION STATUS [IUCN].— The conservation status of *Malayotyphlops castanotus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Malayotyphlops collaris* (Wynn and Leviton, 1993)**

Light-collared Blind Snake

Typhlops collaris Wynn and Leviton, 1993:41, fig. 3.— McDiarmid, Campbell, and Touré, 1999:95.
Malayotyphlops collaris, Hedges, Marion, Lipp, Marin, and Vidal, 2014:38.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Mt. Anuling, Caramoan Municipality, Camarines Sur Prov., Luzon Id., Philippines. Holotype: UF 55123.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 24C [p. 135]).— Luzon (Prov.: Camarines Sur [eastern tip of Caramoan Peninsula at 150–250 m elevation]).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Malayotyphlops denrorum* Wynn, Diesmos, and Brown (RM), 2016**

Sierra Madre Blind Snake

Malayotyphlops denrorum Wynn, Diesmos, and Brown, 2016:163, figs. 1 [map], 4.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Sitio Apaya, Barangay Dibulan, Apaya Creek area, Sierra Madre Mt. Range, San Mariano Municipality, Isabela Prov., Luzon Id., Philippines. Holotype: PNM 9813).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 24D [p. 135]).— Luzon (Prov.: Isabela).

CONSERVATION STATUS [IUCN].— The conservation status of *Malayotyphlops denrorum* has not been assessed for the IUCN Red List [2016] ver. 3.1.

***Malayotyphlops hypogius* (Savage, 1950)**

Cebu Blind Snake

Typhlops hypogia Savage, 1950:52, fig. 2.— McDiarmid, Campbell, and Touré, 1999:104.— Ferner, Brown, Sison, and Kennedy, 2001:54[21].

Malayotyphlops hypogius, Hedges, Marion, Lipp, and Vidal, 2014:38.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:170, fig. 36.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Cebu, Philippines. Holotype: CAS-SU (Rept.) 12347.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 25A [p. 136]).— Cebu, Panay (identification with hesitation by Ferner et al. [2001:54{21}]).

REMARKS.— See comments under *M. luzonensis*.

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Malayotyphlops luzonensis* (Taylor, 1919)**

Luzon Worm Snake; Luzon Blind Snake

Typhlops luzonensis Taylor, 1919:105; 1922a:52; 1922d:136.— McDiarmid, Campbell, and Touré, 1999:109.— Bucol, Alcala, Averia, Alcala, and Alcala, 2011:112.— Oliveros, Ota, Crombie, and Brown, 2011:16.

Typhlops luzonensis [sic], Brown, McGuire, Ferner, Icarangal Jr., and Kennedy, 2000:190.

Malayotyphlops luzonensis, Hedges, Marion, Lipp, Marin, and Vidal, 2014:38.— Wynn, Diesmos, and Brown, 2016:161, figs. 1 [map], 3.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:170.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Mt. Makiling, Laguna Prov., Luzon Id., Philippines. Holotype: CM 2653.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 25B [p. 136]).— Babuyan Claro, Camiguin Norte, Cebu, Luzon (Prov.: Aurora, Laguna), Marinduque, Masbate, Negros (Prov.: Negros Occidental), Pacijan, Poro, Semirara, Siquijor.

REMARKS.— See discussion in Supsup et al. (2016:170) relating to the identity of *Malayotyphlops* populations inhabiting the Visayan Island complexes and Luzon (including *M. luzonensis*, *M. ruber*, and *M. hypogius*), also comments by Sanguila et al. (2016:107) regarding specimens of *Malayotyphlops* sp. (cf. “*luzonensis*”) from the Mindanao faunal region.

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Malayotyphlops ruber* (Boettger, 1897)**

Samar Blind Snake

Typhlops ruber Boettger, 1897:164.— Taylor, 1922a:55; 1922d:136.— McDiarmid, Campbell, and Touré, 1999:118.

Malayotyphlops ruber, Hedges, Marion, Lipp, Marin, and Vidal, 2014:38.— Wynn, Diesmos, and Brown, 2016:162, figs. 1 [map], 2.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Samar Id., Philippines. Holotype: SMF 16616.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 25C [p. 136]).— Samar.

REMARKS.— See comments under *M. luzonensis*.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Malayotyphlops ruficaudus* (Gray, 1845)*Photo figures 3–4[5]**

Red-tailed Worm Snake; Red-tailed Blind Snake

Anilios ruficauda Gray, 1845:136.*Typhlops jagorii* Peters, 1861:684 (type locality: Abhang des Vulkan Ysarog, Luzon; holotype: ZMB 3964 [fide McDiarmid et al. [1999:118]].— Taylor, 1922a:53.*Typhlops petersi* Steindachner, 1867:515, pl. 13, figs. 7–9 (type locality: “Philippinen”).*Typhlops ruficauda*, Taylor, 1922a:54.*Typhlops ruficaudus*, Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:14.— McDiarmid, Campbell, and Touré, 1999:118.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Bal-aquit, Uy, Villaseran, Yarra, and Brown, 2011:190, fig. 8E (fig. labeled *Typhlops ruficaudatus* [sic]).— Devan-Song and Brown, 2012:16.— Siler, Swab, Oliveros, Diesmos, Averia, Alcala, and Brown, 2012:457.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:92.*Malayotyphlops ruficauda*, Hedges, Marion, Lipp, Marin, and Vidal, 2014:38.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— “Philippines” Syntypes (3): BMNH 1946.1.11.4–1946.1.11.6.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 25D [p. 136]).— Babuyan Ids. (Camiguin Norte), Luzon (Prov.: Bulacan, Camarines Sur, Isabela, Laguna, Manila, Zambales), Marinduque, Negros, Sibuyan, Tablas.**CONSERVATION STATUS [IUCN].**— Data Deficient [2016] ver. 3.1.***Ramphotyphlops cumingii* (Gray, 1845)****Photo figures 6–7**

Cuming’s Worm Snake; Cuming’s Blind Snake

Onychophis Cumingii Gray, 1845:133.*Typhlops longicauda* Taylor 1919:108; 1922a:63, pl. 1, figs. 1a–c (type locality: Bunawan, Agusan Prov., Mindanao).*Typhlops rugosa* Taylor 1919:109 (type locality: Bunawan, Agusan Prov., Mindanao).*Typhlops cumingii*, Taylor, 1922a:66, figs. 4a–c; 1922b:196.*Typhlops dendrophis* Taylor, 1922a:60 (type locality: Bunawan, Agusan Prov., Mindanao).*Typhlops mindanensis* Taylor 1922a:65 (type locality: Bunawan, Agusan Prov., Mindanao).*Ramphotyphlops cumingii*, Wynn and Leviton, 1993:45.— Wallach, 1993:271.— McDiarmid, Campbell, and Touré, 1999:63.— Ferner, Brown, Sison, and Kennedy, 2001:54[21].— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:172, fig. 35.— Supsup, Guinto, Redoblado, and Somez. 2017:9, fig. 5f.*Ramphotyphlops* cf. *cumingii*, Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:106.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— “Philippines” and “Indian Ocean” Syntypes (3) BMNH 1946.1.11.19–20, 1946.1.10.83.**PHILIPPINE DISTRIBUTION** (Map 32C [p. 143]).— Bohol, Cebu, Marinduque, Masbate, Mindanao (Prov.: Davao Oriental), Negros (Prov.: Negros Occidental, Negros Oriental), Polillo, Sibuyan, Sicogon.**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— One of the syntypes, without locality, and according to Boulenger (1893, 1:51) collected by Sir. E. Belcher, is listed by McDiarmid et al. (1999:63) as “Indian Ocean” (“. . . obviously in reference to an island in the Indian Ocean.”). Except for this doubtful record, this species is known only from the Philippines.**CONSERVATION STATUS [IUCN].**— Data Deficient [2016] ver. 3.1.

***Ramphotyphlops marxi* (Wallach, 1993)**

Marx's Worm Snake; Marx's Blind Snake

Typhlops marxi Wallach, 1993:263, figs. 1–2.— McDiarmid, Campbell, and Touré, 1999:110.
Ramphotyphlops marxi, Hedges, Marion, Lipp, Marin, and Vidal, 2014:39.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Tarabucan (12°13'N, 124°35'E), four miles SE of spur of Sigarag Mountains, Matuguinao Municipality, northern Western Samar Prov., Samar Id., Philippines. Holotype: FMNH 96520.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 32D [p. 143]).— Samar (known only from the type locality).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Ramphotyphlops olivaceus* (Gray, 1845)**

Olive-colored Blind Snake

Onychophis olivaceus Gray, 1845:133.
Typhlops olivaceus, Taylor, 1922a:58 (no Philippine records).
Ramphotyphlops olivaceus, Wynn and Leviton, 1993:45.— Wallach, 1993:271.— McDiarmid, Campbell, and Touré, 1999:71.

TYPE LOCALITY AND TYPE SPECIMEN(S).— “Philippines”. Holotype: BMNH 1946.1.10.57.

PHILIPPINE DISTRIBUTION.— Basilan, Samar, Sulu Archipelago (Bubuan, Sibutu).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES) (Map 33A [p. 144]).— Indonesia (Ambon, Borneo, Ceram [Seram], Mysool, Sangihe Ids., Sulawesi); Malaysia (Sarawak); (? British Solomon Ids. [Barbour, 1914]).

CONSERVATION STATUS [IUCN].— The conservation status of *Ramphotyphlops olivaceus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Ramphotyphlops suluensis* (Taylor, 1918)**

Sulu Islands Worm Snake

Typhlops suluensis Taylor, 1918a:257–259, 265; 1922a:61, fig. 3a–c; 1922b:196.
Ramphotyphlops suluensis, Gaulke, 1994b:141; 1995b:45, figs. 1–2; 1996:52, fig. 7.— Hedges, Marion, Lipp, Marin, and Vidal, 2014:39.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Bubuan Id., Sulu Archipelago, Philippines. Holotype: PNM 2001 (type destroyed during WW II).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 33B [p. 144]).— Basilan, Sulu Archipelago (Bubuan, Sibutu).

REMARKS.— Treated as a synonym of *R. olivaceus* by McDowell (1974:43) and McDiarmid et al. (1999:71).

CONSERVATION STATUS [IUCN].— Endangered B1ab(iii) [2016] ver. 3.1.

Superfamily Pythonoidea

Family Pythonidae Fitzinger, 1843

***Malayopython reticulatus* (Schneider, 1801)**

Reticulated Python

Boa reticulata Schneider, 1801:264.

Photo figure 8

- Python reticulatus*, Taylor, 1922a:68; 122d:136.— Ross and Gonzales, 1992:64.— Gaulke, 1994b:137; 1996:49; 1999:279; 2001:34.— Gaulke and Altenbach, 1994:63.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:12.— Gaulke, 1999:279.— McDiarmid, Campbell, and Touré, 1999:179.— Ferner, Brown, Sison, and Kennedy, 2001:51[18].— Bucol, Alcala, Avera, Alcala, and Alcala, 2011:112.— Oliveros, Ota, Crombie, and Brown, 2011:12.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:191, fig. 37.— Wallach, Williams, and Boundy, 2014:610.
- Python reticulatus reticulatus*, David, Pauwels, Lays, and Lenglet, 2006:213.— Gaulke, 2011:328–331, figs. 225–227.
- Brogammerus reticulatus*, Rawlings, Rabosky, Donnellan, and Hutchinson, 2008:619.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:484.— Devan-Song and Brown, 2012:11, fig. 22.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:72, fig. 72.
- Malayopython reticulatus*, Reynolds, Niemiller, and Revell, 2014:206–207, figs. 1–2 [cladograms].— Sy and Tan, 2015:220.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:106.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:170.

TYPE LOCALITY AND TYPE SPECIMEN(S).— locality of type specimen not given, restricted to ‘Java’ by Brongersma (1972:58). Neotype: ZFMK 32378; type locality “Rengit, West Malaysia” (*vide* Auliya et al. [206–207]; see also Wallach et al. [2014:610]).

PHILIPPINE DISTRIBUTION (Map 23C [p. 134]).— (widely distributed) Babuyan Ids. (Cagayan, Dalupiri), Basilan, Bohol, Calamian Ids. (Calauit), Catanduanes, Cebu, Itbayat, Leyte, Lubang, Luzon (Prov.: Aurora, Ilocos Norte, Isabela, Laguna, Quezon, Sorsogon, Zambales), Marinduque, Masbate, Mindanao (Prov.: Agusan del Norte, Sarangani, South Cotabato, Zamboanga del Sur [Zamboanga City]), Mindoro (Occidental, Oriental), Negros, Palawan, Panay, Polillo, Samar, Siargao, Siquijor, Sulu Archipelago (Bongao, Jolo, Siasi, Sibutu, Tawi-Tawi), Tablas.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Widely distributed (see Wallach et al. [2014:610]).

CONSERVATION STATUS [IUCN].— The conservation status of *Malayopython reticulatus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life* as *Malayopython reticulatus reticulatus* (Schneider, 1801).

Family Xenopeltidae Bonaparte, 1845

Xenopeltis unicolor Reinwardt in F. Boie, 1827

Iridescent Earth Snake; [Asian]Sunbeam Snake

- Xenopeltis unicolor* Reinwardt in F. Boie, 1827:564; 1865:Livr. 9, pl. 5.— Taylor, 1922a:73, text-fig. 2, pl. 2.— Leviton, 1983:197.— Gaulke, 1994b:141.— McDiarmid, Campbell, and Touré, 1999:159.— Wallach, Williams, and Boundy, 2014:787.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia. Type unknown.

PHILIPPINE DISTRIBUTION.— Balabac, Palawan, Sulu Archipelago (Bongao, Jolo, Sanga-Sanga).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES) (Map 37D [p. 148+-]).— Southeast Asia from Myanmar to Vietnam and south through Malaysian Peninsula and Malaysian Sarawak to western Indonesia (Borneo, Java, Sulawesi, Sumatra). (See McDiarmid et al. [1999] and Wallach et al. [2014] for details.)

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Superfamily Acrochordoidea

Family Acrochordidae Jan, 1863

Acrochordus granulatus (Schneider, 1799)

Photo figures 9–11

Marine File Snake; Little File Snake; Wart Snake

Hydrus granulatus Schneider, 1799:243.

Acrochordus granulatus, Cantor, 1847:59.— Smith, 1943:134.— McDiarmid, Campbell, and Touré, 1999:227.— Gaulke and Altenbach, 1994:63.— Gaulke, 1999:278; 2011:232–233; figs. 153–154.— Ferner, Brown, Sison, and Kennedy, 2001:51[18].— Bucol, Alcala, Averia, Alcala, and Alcala, 2011:112.— Siler and Sy, 2011:280, fig. 1.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:482.— Wallach, Williams, and Boundy, 2014:8.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:167.

Chersydrus granulatus, Gray, 1849:61.— Taylor, 1922a:77, pl. 3, fig. 1; 1922d:136.

Chersydrus granulatus luzonensis Loveridge, 1938:209.

TYPE LOCALITY AND TYPE SPECIMEN(S).— India (restricted by Smith [1943:134]). Type un-known.

PHILIPPINE DISTRIBUTION (Map 2A [p. 113]).— Bantayan, Calamian Ids. (Calauit), Cebu, Guimaras, Luzon (Prov.: Batangas, Cavite, Ilocos Norte, Laguna, Manila, [Manila Bay], Quezon, Rizal), Masbate, Negros (Prov.: Negros Occidental, Negros Oriental), Palawan, Panay (Prov.: Iloilo), Siquijor.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Coastal waters from west coast of India (as far north as Bombay), Sri Lanka, east coast of India, coasts of Myanmar, Malaysia, and east through the Indonesian Archipelago to the north coast of Australia and the Solomon Islands.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Superfamily Colubroidea

Family Pareidae Romer, 1956

Aplopeltura boa (H. Boie in F. Boie, 1828)

Photo figure 12

Blunt-headed Tree Snake; Blunt-headed Slug Snake

Amblycephalus boa H. Boie in F. Boie, 1828:1034.

Aplopeltura boa, Duméril, Bibron, and Duméril, 1854:444.— Wallach, Williams, and Boundy, 2014:48.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:105.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:105, fig. 77.— Sy and Binaday, 2016:261.— Supsup, Guinto, Redoblado, and Somez. 2017:7, fig. 5b.

Haplopeltura boa, Boettger, 1892:134.— Taylor, 1922a:281, pl. 34, figs. 7–9.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Parang, western Java, Indonesia. Holotype: RMNH 984.

PHILIPPINE DISTRIBUTION (Map 3B [p. 114]).— Balabac, Bohol, Basilan, Dinagat, Leyte, Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Davao City, Davao Oriental, Misamis Oriental, South Cotabato, Zamboanga del Sur [Zamboanga City]), Palawan, Samar (Prov.: Eastern, Western).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Southeastern Asia, Myanmar, southern Thailand, West and East Malaysia, western Indonesia.

REMARKS.— Reported for the first time from Luzon by Sy and Binaday (*q.v.*, 2016) from a single observation (photo voucher). The species' natural occurrence on Luzon is unlikely (the taxon is otherwise restricted to the Mindanao faunal region islands of Mindanao, Samar, Leyte, Bohol, etc), and photo vouchers are not always reliable, so we withhold judgment. However, we note that the Sy and Binaday (*op. cit. supra*) record comes from the extreme southern tip of the Bicol Peninsula, directly across from northern Samar Island, where the species has been documented. Therefore, the Sorsogon record is worth further investigation.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

ADDITIONAL REFERENCES.— Guo et al., 2011.

Family Homalopsidae Bonaparte, 1845

Cerberus microlepis Boulenger, 1896

Lake Buhi Bockadam; Lake Buhi Dog-faced Water Snake

Cerberus microlepis Boulenger, 1896, 3:18.— Murphy, Voris, and Karns, 2012:13, figs. 6, 10.—
Murphy and Voris, 2014:12, fig. 13.— Wallach, Williams, and Boundy, 2014:153.
Hurria microlepis, Taylor, 1922a:114, pl. 6, figs. 1–3; 1923:547.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Philippines. Syntypes (2): BMNH 1946.1.7.24–25.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 9A [p. 120]).— Luzon (Bicol Peninsula [Camarines Sur Prov. {Lake Buhi}]).

REMARKS.— Recent molecular studies by Alfaro et al. (2004) demonstrated that this species is nested within the Philippine *Cerberus schneiderii* complex and that it is scarcely 2% genetically different from nearby populations. However, as observed by Murphy, Voris, and Karns (2012:21), “*Cerberus microlepis* is geographically isolated, as well as ecologically and morphologically distinct and on its own evolutionary trajectory, suggesting it is more than an ecomorph.” They point out that in a followup discussion to their 2004 publication, Alfaro et al. (2008) suggested that “divergence of *C. microlepis* from its coastal ancestor is estimated at 2.0 MYA (1.0–3.1 MYA)” (Murphy, Voris, and Karns [2012:21]).

We accept the conclusions of Murphy et al. (2012) and recognize *C. microlepis* as a distinct species.

CONSERVATION STATUS [IUCN].— Endangered B1ab(iii,v) [2016] ver. 3.1.

N.B. Consideration of this taxon as “Endangered,” which appears to be based primarily, if not solely, on its known area of occurrence, is problematic for reasons noted above, especially given the lack of survey and inventory data from the surrounding region and/or other freshwater systems of the Bicol Peninsula.

Cerberus schneiderii (Schlegel, 1837)

Dog-faced Water Snake

Photo figure 13

Homalopsis schneiderii Schlegel, 1837b:341.
Cerberus unicolor Gray, 1849:65 (type locality: Philippines).
Hurria rhynchops, Taylor, 1922a:111; 1923:546.
Cerberus rhynchops, Ross and Gonzales, 1992:65.— Gaulke and Altenbach, 1994:63.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:12.— Ferner, Brown, Sison, and Kennedy, 2001:52[19].— Bucol, Alcala, Averia, Alcala, and Alcala, 2011:112.— Gaulke, 2011:256–257, figs. 169–171.— Devan-Song and Brown, 2012:12.
Cerberus schneiderii, Murphy, Voris, and Karns, 2012:17, figs. 8–9.— Brown, Siler, Oliveros, Wel-

ton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:90, fig. 96.—Murphy and Voris, 2014:13, fig. 15.—Wallach, Williams, and Boundy, 2014:153.—Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:14.—Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:170, fig. 33.

TYPE LOCALITY AND TYPE SPECIMEN(S).—Timor, Indonesia. Lectotype: RMNH 1173 (designated by Murphy et al. [2012:18] [*q.v.*]).

PHILIPPINE DISTRIBUTION (Map 9B [p. 120]).—“Documented on most major islands of the Philippines . . .” (Brown et al. [2013:90]). Bantayan, Bohol, Catanduanes, Cebu, Cuyo, Dinagat, Luzon (Prov.: Cavite, Laguna, Manila, Rizal, Zambales), Masbate, Negros (Prov.: Negros Oriental), Palawan, Romblon, Panay (Prov.: Aklan, Antique, Capiz, Iloilo), Polillo, Siquijor, Sulu Archipelago (Jolo).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).—Coasts of Indonesia, Malaysia, Singapore, Thailand. (See Murphy, Voris, and Karns [2012:17], Murphy and Voris [2014:13], and Wallach et al. [2014:153], for details.)

REMARKS.—See Murphy, Voris, and Karns (2012:17) for an extensive synonymy and discussion relating to the adoption of this new combination for what was formerly known in the Philippines as *Cerberus rhynchops* (see also pp. 14–17 for a discussion relating to the restriction of *Cerberus rhynchops* to the South Asian population [i.e., India, Thailand, and the Andaman and Nicobar Islands]).

CONSERVATION STATUS [IUCN].—Not distinguished from *C. rhynchops*, which is listed as of Least Concern [2016] ver. 3.1.

Fordonia leucobalia (Schlegel, 1837)

White-bellied [crab-eating] Water Snake

Homalopsis leucobalia Schlegel, 1837b:345, pl. 13, figs. 8–9.—Taylor, 1922a:115.

Fordonia leucobalia, Gray, 1842:75.—Murphy and Voris, 2014:20.—Wallach, Williams, and Boundy, 2014:293.

TYPE LOCALITY AND TYPE SPECIMEN(S).—Timor, Indonesia. Lectotype: RMNH 1161 (designated by Iskandar and Colijn [2001:92]).

PHILIPPINE DISTRIBUTION.—Mindanao (*vide* Wallach et al. [2014:293]).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).—India (Bengal), Myanmar, Vietnam, Nicobar Ids., Malaysia, Singapore, Indonesia (Java, Sumatra, Timor) to northern Australia.

REMARKS.—Wallach et al. (2014:293) include Luzon in their distribution statement but we know of no confirmed record for its occurrence there.

CONSERVATION STATUS [IUCN].—Least Concern [2016] ver. 3.1.

Gerarda prevostiana (Eydoux and Gervais, 1837)

Gerard’s Water Snake

Coluber (Homalopsis) prevostianus Eydoux & Gervais, 1837:5, pl. 16, figs. 4–6.

Gerarda bicolor Gray, 1849:77 (*vide* Smith, 1943:394).

Gerarda prevostiana, Cope, 1862:1.—Smith, 1943:394, figs. 125–126.—Murphy and Voris, 2014:20, fig. 27.—Wallach, Williams, and Boundy, 2014:301.

TYPE LOCALITY AND TYPE SPECIMEN(S).—“Manille”, Luzon Id., Philippines. Syntypes (2): MNHN 3758 and 7593 (*vide* Wallach et al. [2014:301]).

PHILIPPINE DISTRIBUTION.—Palawan.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES) (Map 14C [p. 125]).—India (Bombay and

Malabar regions), Sri Lanka, Myanmar (Gulf of Martaban), west coast of Malay Peninsula, East Malaysia (Sarawak).

REMARKS.— Wallach et al. (2014:301) note that the “Original description reprinted in Eydoux & Gervais (1837b:7–72, pl. 30, figs. 4–6). Plates incorrectly labeled 15 in text (1837a:5) and 29 in text (1837b:70).”

That this species occurs in or near Manila, Luzon, is highly unlikely and the record for its occurrence there most probably originated by the syntypical specimens being shipped to the MNHN from the port of Manila.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Family Colubridae Opper, 1811

Subfamily Ahaetullinae Figueroa, McKelvy, Grismer, Bell, and Lalivaux, 2016

Ahaetulla prasina prasina (Reinwardt in F. Boie, 1827)

Green Vine Snake; Oriental Whipsnake; Gunther’s Whip Snake

Dryophis prasinus Reinwardt in H. Boie, 1826b:238 (*nomen nudum*); in F. Boie, 1827:col. 545.— Boettger, 1895:4–5; 1898:106.— Griffin, 1909:600; 1911:264.— Taylor, 1922a:219.

Ahaetulla prasina prasina, Leviton, 1968:81, fig. 1.— Gaulke, 1999:278.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia. Syntypes (2):RMNH 782 (now RMNH 782 and 47582 [*fide* Wallach et al. [2014:20]]).

PHILIPPINE DISTRIBUTION (Map 2C [p. 113]).— Balabac, Busuanga, Calamian Ids. (Calaut Id.), Coron, Culion, Palawan.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Indonesia: Borneo (Kalimantan), Riau (also as Riou); East Malaysia: (Borneo [Sabah, Sarawak]), West Malaysia (Malay Peninsula); Singapore.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Ahaetulla prasina preocularis (Taylor, 1922)

Photo figures 14–16

Philippine Vine Snake

Dryophis preocularis Taylor, 1922a:222, text-fig. 19a–b, pl. 28; 1922d:138.

Ahaetulla prasina preocularis, Leviton, 1968:85, fig. 1.— Smith, 1993:96.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:12.— Gaulke, 2001:32; 2011:236–238, figs. 155–156.— Ferner, Brown, Sison, and Kennedy, 2001:51[18], fig. 47.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:187.— Oliveros, Ota, Crombie, and Brown, 2011:13, figs. 6A–B.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:190.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente. Diesmos, and Diesmos, 2012:482, fig. 41.— Devan-Song and Brown, 2012:11, figs. 23–24.— Siler, Swab, Oliveros, Diesmos, Averia, Alcala, and Brown, 2012:456.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:72, figs. 73–74.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:89.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:167, fig. 25.— Supsup, Guinto, Redoblado, and Somez. 2017:7, fig. 5b.

Ahaetulla prasina, Diesmos, Brown, and Gee, 2004:71 (identification tentative).

TYPE LOCALITY AND TYPE SPECIMEN(S).— Bunawan, Agusan del Sur Prov., Mindanao Id., Philippines. Holotype: CM 2617.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 2D [p. 113]).— Babuyan Ids. (Camiguin Norte), Basilan, Batanes Ids. (Batan, Sabtang), Bohol, Camiguin Sur, Cebu, Dinagat, Jolo, Leyte,

Luzon (Prov.: Aurora, Bulacan, Cagayan, Camarines Sur, Ifugao, Ilocos Norte, Isabela, Laguna, Kalinga, Rizal, Sorsogon, Zambales), Marinduque, Masbate, Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Bukidnon, Cagayan, Davao del Sur, South Cotabato, Ilocos Norte, Isabela, Lanao del Norte, Maguindanao, Misamis Oriental, Surigao del Sur, Zamboanga del Norte, Zamboanga del Sur [Zamboanga City]), Mindoro, Negros (Prov.: Negros Occidental, Negros Oriental), Panay (Prov.: Aklan, Antique, Capiz, Iloilo), Polillo, Samar, Sibu, Tablas.

CONSERVATION STATUS [IUCN].— Not distinguished from *A. prasina*, which is listed as of Least Concern [2016] ver. 3.1.

***Ahaetulla prasina suluensis* Gaulke, 1994**

Sulu Vine Snake; Sulu Whipsnake

Ahaetulla prasina suluensis Gaulke, 1994a:45; 1994b:137; 1996:49.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Sanga-Sanga Id., Sulu Archipelago, Philippines. Holotype: SMF 74845.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 3A [p. 114]).— Sulu Archipelago (Bongao, Sanga-Sanga, Siasi, Sibu, Tawi-Tawi).

CONSERVATION STATUS [IUCN].— The conservation status of *Ahaetulla prasina suluensis* has not been assessed for the IUCN Red List [2016] ver. 3.1.

***Chrysopelea paradisi paradisi* H. Boie in F. Boie, 1827**

Paradise Tree Snake; Garden Flying Snake

Chrysopelea paradisi H. Boie, 1826b:237 (*nomen nudum*); H. Boie in F. Boie, 1827:547.— Leviton, 1964c:134 (part).— Wallach, Williams, and Boundy, 2014:166 (part).

Chrysopelea paradisi paradisi, Mertens, 1968:202, fig. 4.— Gaulke, 1994b:138; 1996:50.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia Neotype: RMNH 885 (see Mertens [1968:203]).

PHILIPPINE DISTRIBUTION (Map 9C [p. 120]).— Sulu Archipelago (Sibu).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Western Indonesia, Malaysia, Myanmar, Thailand, Andaman Ids.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Chrysopelea paradisi variabilis* Mertens, 1968**

Photo figures [17–18], 19

Paradise Tree Snake

Chrysopelea ornata, (part) Günther, 1858:146.— Boulenger, 1896:196.— Griffin, 1911:264.— Taylor, 1922a:216, pl. 11, figs. 6–8 (notes typ. err. in his earlier publs.).

Crysopelea [sic] ornata, Taylor, 1917:366; 1918:261; 1922d:138.

Chrysopelea paradisi, Leviton, 1964b:133 (part).— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:12.— Ferner, Brown, Sison, and Kennedy, 2001:52[19].— Bucol, Alcalá, Averia, Alcalá, and Alcalá, 2011:111.— Gaulke, 2011:260–261, figs. 172–176.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188, fig. 7F.— Oliveros, Ota, Crombie, and Brown, 2011:14.— Devan-Song and Brown, 2012:12, fig. 27.— Siler, Swab, Oliveros, Diesmos, Averia, Alcalá, and Brown, 2012:456.— Wallach, Williams, and Boundy, 2014:166 (part).— Sanguila, Cobb, Siler, Diesmos Alcalá, and Brown, 2016:90.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:167.

Chrysopelea paradisi variabilis Mertens, 1968:204, fig. 5.— Gaulke, 1994b:138.— Gaulke and Altenbach, 1994:63.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Samar, Philippines. Holotype: SMF 20281.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 9D [p. 120]).— Babuyan Ids. (Calayan, Dalupiri), Balabac, Bantayan, Banton, Basilan, Camiguin, Cebu, Dinagat, Kalotkot, Leyte, Luzon (Prov.: Bataan, Batangas, Bulacan, Cavite, Laguna, Quezon, Rizal, Sorsogon, Zambales), Marongas, Masbate, Medis, Mindanao (Prov.: Agusan del Norte, Zamboanga del Sur [Zamboanga City]), Mindoro, Negros (Prov.: Negros Oriental), Palawan, Panay (Prov.: Aklan, Antique, Iloilo), Polillo, Romblon, Samar, Siagao, Sibuyan, Siquijor, Sulu Archipelago (Bongao, Bubuan, Jolo, Sanga-Sanga, Tawi-Tawi), Tablas.

CONSERVATION STATUS [IUCN].— The conservation status of *Chrysopelea paradisi variabilis* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Dendrelaphis flavescens* Gaulke, 1994**

Sulu Islands Tree Snake

Dendrelaphis caudolineatus flavescens Gaulke, 1994b:138, fig. 2.

Dendrelaphis flavescens, van Rooijen and Vogel, 2012:11, fig. 6.— Wallach, Williams, and Boundy, 2014:214.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Sanga-Sanga Id., Sulu Archipelago, Philippines. Holotype: SMF 74846.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 12A [p. 123]).— Sulu Archipelago (Bongao, Bubuan, Sanga-Sanga, Tawi-Tawi) (*vide* van Rooijen and Vogel [2012:11–12]).

REMARKS.— Wallach, Williams, and Boundy (2014:214) also list in their distribution statement, but without support, “Sitanki”, which may refer to Sitangkai, an islet in close proximity to Tawi-Tawi.

CONSERVATION STATUS [IUCN].— The conservation status of *Dendrelaphis flavescens* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Dendrelaphis fuliginosus* Griffin, 1909**

Philippine Lamp-black Tree Snake

Dendrelaphis fuliginosus Griffin, 1909:55; 1911:261.— Taylor, 1922a:172 (as doubtful synonym of *D. modestus*).— van Rooijen and Vogel, 2012:12, figs. 7–8.— Wallach, Williams, and Boundy, 2014:214.

Dendrelaphis caudolineatus terrificus (part), Leviton, 1970b:389.— Ferner et al., 2000:19.

Dendrelaphis caudolineatus cf. terrificus, Gaulke, 2011:272–273, figs. 182–183.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Negros Id., Philippines. Neotype: FMNH 67409 (see van Rooijen and Vogel [2012:12]).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 12B [p. 123]).— Cebu, Masbate, Mindoro, Negros, Panay (*vide* van Rooijen and Vogel [2012:12–13]).

CONSERVATION STATUS [IUCN].— The conservation status of *Dendrelaphis fuliginosus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Dendrelaphis levitoni* van Rooijen and Vogel, 2012**

Leviton’s Bronze-back Tree Snake

Dendrelaphis levitoni van Rooijen and Vogel, 2012:13, fig. 9.— Wallach, Williams, and Boundy, 2014:215.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Puerto Princesa, Palawan Id., Philippines. Holotype: CAS 15803.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 12C [p. 123]).— Balabac, Candaraman, Palawan (*vide* van Rooijen and Vogel [2012:13–14]).

CONSERVATION STATUS [IUCN].— The conservation status of *Dendrelaphis levitoni* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Dendrelaphis luzonensis* Leviton, 1961**

Photo figure 20

Luzon Bronze-back Tree Snake

Dendrelaphis caudolineatus luzonensis Leviton, 1961:1; 1968:386.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:13.— Brown, McGuire, Ferner, Icarangal Jr., and Kennedy, 2000:189.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkoncoo, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188.— Oliveros, Ota, Crombie, and Brown, 2011:15.— Devan-Song and Brown, 2012:13, fig. 29.

Dendrelaphis luzonensis, van Rooijen and Vogel, 2012:15, fig. 10.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:483, fig. 43.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:78, fig. 82.— Wallach, Williams, and Boundy, 2014:215.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Los Bños, Laguna Prov., Luzon Id., Philippines. Holotype: CAS 61134.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 12D [p. 123]).— Babayan Ids. (Calayan, Camiguin Norte, Dalupiri), Luzon (Prov.: Albay, Aurora, Baay, Batangas, Bulacan, Cagayan, Isabela, Camarines Norte, Camarines Sur, Ilocos Norte, Kalinga, Laguna, Pangasinan, Quezon, Rizal, Zambales), Marinduque, Masbate (?), Ticao (?).

CONSERVATION STATUS [IUCN].— The conservation status of *Dendrelaphis luzonensis* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Dendrelaphis marenae* Vogel and van Rooijen, 2008**

Photo figure 21

Gaulke's Bronze-back Tree Snake

Dendrelaphis pictus pictus, (part) Gaulke, 1994b:140.— Leviton, 1968:374.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:12.— Brown, McGuire, Ferner, Icarangal Jr., and Kennedy, 2000:189, fig. 29.— Ferner, Brown, Sison, and Kennedy, 2001:52[19], fig. 48.

Dendrelaphis marenae Vogel and van Rooijen, 2008:13, figs. 9–14, 17.— Gaulke, 2011:276–277, figs. 184–185.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:483.— Siler, Swab, Oliveros, Diesmos, Averia, Alcala, and Brown, 2012:456.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:78, fig. 83.— Wallach, Williams, and Boundy, 2014:215.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:92.— Supsup, Guinto, Redoblado, and Somez, 2017:9, fig. 5d.

Denrelaphis [sic] marenae, Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:169, fig. 28.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Albay Prov., Luzon Id., Philippines. Holotype: MNHN 1994.059.

PHILIPPINE DISTRIBUTION (Map 13A [p. 124]).— Balabac, Bantayan, Basilan, Bohol, Busuanga, Calauit, Camiguin, Candaraman, Carabao, Catanduanes, Cebu, Culion, Guimaras, Kalotkot, Leyte, Luzon (Prov.: Albay, Aurora, Batangas, Cagayan, Isabela, Camarines

Norte, Camarines Sur, Ilocos Norte, Laguna, Manila, Nueva Vizcaya, Quezon, Sorsogon, Zambales), Marinduque, Masbate, Mindanao (Prov.: Agusan del Sur, Bukidnon, Davao, Davao Oriental, Lanao, Misamis Oriental, Zamboanga), Mindoro, Negros (Prov.: Negros Occidental, Negros Oriental), Palawan, Panay (Prov.: Aklan, Antique, Capiz, Iloilo), Polillo, Samar, Siagao, Siquijor, Surigao, Sulu Archipelago (Bongao, Cagayan Sulu, Jolo), Tablas. (After Vogel and van Rooijen [2008:20]; stated as based on Leviton [1968]; additional locations based on Siler et al. [2012], and Brown et al. [2013].)

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Indonesia (Sulawesi).

CONSERVATION STATUS [IUCN].— The conservation status of *Dendrelaphis marenae* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Dendrelaphis philippinensis* Günther, 1879**

Philippine Bronze-back Tree Snake

Dendrophis philippinensis Günther, 1879:78.— van Rooijen and Vogel, 2012:17, figs. 12–13.— Wallach, Williams, and Boundy, 2014:216.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:169.

Dendrelaphis terrificus, Taylor, 1922a:174, pl. 23.

Dendrelaphis caudolineatus terrificus, Meise and Hennig, 1932:280 (in part).— Leviton, 1970b:389.— Smith, 1993:97.— Ferner, Brown, Sison, and Kennedy, 2001:52[19].— Gaulke, 2001:27, fig.3.— David, Pauwels, Lays, and Lenglet, 2006:216.— Bucol, Alcala, Averia, Alcala, and Alcala, 2011:112.

Dendrelaphis philippinensis, Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:93.

TYPE LOCALITY AND TYPE SPECIMEN(S).— northern Mindanao Id., Philippines. Holotype: BMNH 1946.1.6.69 (formerly BMNH 1877.10.9.62).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 13B [p. 124]).— Basilan, Bohol, Camiguin Sur, Catanduanes, Cebu, Dinagat, Kalotkot, Leyte, Luzon (Prov.: Albay [southern], Camarines Sur, Sorsogon), Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Bukidnon, Cotabato, Davao, Davao del Sur, Lanao del Norte, Lanao del Sur, Misamis Occidental, Maguindanao, Sultan Kudarat, South Cotabato, Zamboange del Norte, Zamboanga de Sur), Polillo, Samar, Siargao, Siquijor. (After van Rooijen and Vogel, 2012:19; details for Mindanao modified from details provided by Leviton [1968], Ferner et al. [2001], Gaulke [2001], David et al. [2006], Sanguila et al. [2016].)

REMARKS.— Van Wallach et al. (2014:216) include Camiguin, Dinagat, Kalotkot, Samar, Siquijor, and Surigao in their distribution statement for this species and attribute the distribution to van Rooijen and Vogel (2012). Curiously, van Rooijen and Vogel do not include Samar or Kalotkot in their distribution statement for the species on page 19 but do so in the discussion on page 21. Otherwise, no where in their paper do they include Camiguin, Dinagat, Siquijor, and Surigao in their distribution statement for *D. philippinensis* (see van Rooijen and Vogel [2012:19, 21]).

CONSERVATION STATUS [IUCN].— The conservation status of *Dendrelaphis philippinensis* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Dryphiops philippina* Boulenger, 1896**

Philippine Keeled-bellied Whip Snake

Photo figure 22

Dryphiops philippina Boulenger, 1896:195, pl. 9, fig. 2.— Taylor, 1922a:213, pl. 6, figs. 4–6;

1922d:138.— Leviton, 1964c:141.— Brown and Alcala, 1970:114.— Smith, 1993:97.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:13.— Gaulke, 2011:279–280, figs. 186–188.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkoncoo, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188.— Devan-Song and Brown, 2012:13, fig. 30.— Siler, Swab, Oliveros, Diesmos, Averia, Alcala, and Brown, 2012:456.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:81, fig. 84.— Wallach, Williams, and Boundy, 2014:246.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Cape Engaño, Cagayan Prov., Luzon Id. (by subsequent selection by Leviton [1964c:142]). Lectotype: BMNH 1946.1.8.7, designated by Leviton (1964c:142).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 13D [p. 124]).— Luzon (Prov.: Bataan, Batangas, Bulacan, Cagayan, Laguna, Nueva Vizcaya, Rizal, [Subic Bay], Zambales), Marinduque, Mindanao (Prov.: Davao del Sur [Mt. Talomo], Zamboanga del Sur [Zamboanga City]), Mindoro, Negros (Prov.: Negros Occidental, Negros Oriental), Panay (Prov.: Aklan, Antique), Romblon, Sibuyan, Siquijor, (?) Samar.

CONSERVATION STATUS [IUCN].— Vulnerable A4c [2016] ver. 3.1.

***Dryophiops rubescens* (Gray, 1834)**

Indonesian [Malaysian] Keeled-bellied Whip Snake; Red [Brown] Whip Snake

Dipsas rubescens Gray, 1834:pl. 84, fig. 2.

Dryophiops rubescens, Boulenger, 1896:194.— Taylor, 1925:99, 110.— Leviton, 1964b:140.— Wallach, Williams, and Boundy, 2014:246.

TYPE LOCALITY AND TYPE SPECIMEN(S).— “Malay Peninsula ?” (see Boulenger [1896:194]). Holotype: BMNH 1946.1.9.62.

PHILIPPINE DISTRIBUTION (Map 14A [p. 125]).— Coron (Peñon de Coron) (*vide* Taylor [1925:99, 110]).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Western Indonesia, Western Malaysia, Singapore, Thailand Peninsula.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Subfamily Calamarinae Bonaparte, 1838

***Calamaria bitorques* Peters, 1872**

Photo figure 23

Banded Reed Snake

Calamaria bitorques Peters, 1872:585.— Taylor, 1922a:185.— Inger and Marx, 1965:104, fig. 27.— Brown, McGuire, Ferner, Icarangal Jr., and Kennedy, 2000:189, fig. 28.— Diesmos, Brown, and Gee, 2004:71.— Gaulke and Vogel, 2005:19–23, figs. 2–5.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:74, fig. 78.— Wallach, Williams, and Boundy, 2014:133.

Calamaria cf bitorques, Gaulke, 2011:252–253, figs. 165–166.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Luzon Id., Philippines. Holotype: ZMB 7444.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 5C [p. 116]).— Luzon (Prov.: Aurora, Cagayan, Camarines Sur, Ifugao, Isabela, Kalinga, Nueva Vizcaya, Quezon, Rizal, Sorsogon), Panay (Prov.: Aklan).

REMARKS.— A single specimen from Sablayan, Mindoro, in the KU collections is most likely a new species, though closely related to *C. bitorques*.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Calamaria gervaisii Duméril, Bibron, and Duméril, 1854

REMARKS.— The *C. gervaisii* group of subspecies is in serious need of review. Three of the nominal taxa conform to biogeographic/faunal regions, notably *C. g. hollandi*, *C. g. iridiscens*, and *C. g. gervaisii*, but the status of *C. g. polillensis* is in doubt.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Calamaria gervaisii gervaisii Duméril, Bibron, and Duméril, 1854

Photo figure 24

Northern Philippine Reed Snake; Gervais' Reed Snake

Calamaria gervaisii Duméril, Bibron, and Duméril, 1854a:76.— Jan, 1862:5, 8; 1865, Livr. 10, pl. 2, fig. 1.— Taylor, 1922a:187; 1922d:138; 1923:550.— Marx and Inger, 1955:180 (part).— Wallach, Williams, and Boundy, 2014:134 (part).

Calamaria gervaisii, Müller, 1883:283.— Inger and Marx, 1965:106, fig. 28 (part).— Ross and Gonzales, 1992:64.— Brown, McGuire, Ferner, Icarangal Jr., and Kennedy, 2000:189.— Gaulke 2011:254–255, figs 167–168.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkoncoo, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188, fig. 7E.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:483.— Oliveros, Ota, Crombie, and Brown, 2011:14.— Siler, Swab, Oliveros, Diesmos, Averia, Alcala, and Brown, 2012:456.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:74, fig. 79.

Calamaria gervaisii gervaisii, Taylor, 1922a:187.

Calamaria mindorensis Boulenger, 1895:481 (type locality: Mindoro Id.; holotype: BMNH [not confirmed]).

Calamaria tropica Taylor, 1922a:194 (type locality: Naujan, Mindoro Id.; holotype: CAS 62069).

TYPE LOCALITY AND TYPE SPECIMEN(S).— “Java” (in error), otherwise unrestricted (see Inger and Marx, 1965:107). Syntypes (2): MNHN 7202a–b (formerly 2314 and 7202).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 5D [p. 116]).— Babuyan Ids. (Camiguin Norte), Catanduanes, Luzon (Prov.: Albay, Aurora, Bataan, Benguet, Bulacan, Cagayan, Camarines Norte, Camarines Sur, Carabao, Ilocos Norte, Isabela, Kalinga, Laguna, Manila, Nueva Vizcaya, Rizal, Pampangas), Mindoro (Prov.: Occidental Mindoro), Romblon Id. Group (? Carabao, Tablas).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Calamaria gervaisii hollandi Taylor, 1923

Holland's Reed Snake

Calamaria gervaisii Fischer, 1885:80 (part).— Marx and Inger, 1955:180; 1965:106 (part).— Smith, 1993:97.— David, Pauwels, Lays, and Lenglet, 2006:214.— Beukema, 2011.— Wallach, Williams, and Boundy, 2014:134 (part).— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:89, fig. 64.

Calamaria hollandi Taylor, 1923:550.— Marx and Inger, 1955:202.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Port Holland, Basilan Id., Philippines. Holotype: CAS 60471 (formerly EHT 1255).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 6A [p. 117]).— Basilan, Mindanao (Prov.: Agusan del Norte, Bukidnon, Davao City, Davao del Norte, Lanao, Maguindanao, Misamis Oriental, Zamboanga City).

CONSERVATION STATUS [IUCN].— Only reported as *C. gervaisii*, Least Concern [2016] ver. 3.1.

***Calamaria gervaisii iridescens* Taylor, 1917**

Visayan Reed Snake

Calamaria gervaisii, Günther, 1879:77 (part).— Boulenger, 1894a:338 (part).— Marx and Inger, 1955:180; 1965:106 (part).— Ferner, Brown, Sison, and Kennedy, 2001:52[18].— Siler, Swab, Oliveros, Diesmos, Averia, Alcalá, and Brown. 2012:456.— Wallach, Williams, and Boundy, 2014:133 (part).— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:167, fig. 31.

Calamaria gervaisii iridescens Taylor, 1917:360; 1922a:188.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Canlaon Volcano, Negros Occidental Prov., Negros Id., Philippines. Holotype: CM [not confirmed].

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 6B [p. 117]).— Cebu, Masbate, Negros (Prov.: Negros Occidental, Negros Oriental), Panay (Prov.: Iloilo), Romblon Id. Group (? Carabao).

CONSERVATION STATUS [IUCN].— Only reported as *C. gervaisii*, Least Concern [2016] ver. 3.1.

***Calamaria gervaisii polillensis* Taylor, 1923**

Polillo Island Reed Snake

Calamaria polillensis Taylor, 1923:549.— Marx and Inger, 1955:205.

Calamaria gervaisii Inger and Marx, 1965:106 (part).

TYPE LOCALITY AND TYPE SPECIMEN(S).— Polillo Id., Philippines. Holotype: CAS 62455.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 6C [p. 117]).— Polillo.

REMARKS.— Whether this nominal taxon deserves recognition as distinct from the neighboring Luzon population of *C. g. gervaisii* is an open question.

CONSERVATION STATUS [IUCN].— Only reported as *C. gervaisii*, Least Concern [2016] ver. 3.1.

***Calamaria joloensis* Taylor, 1922a**

Jolo Island Reed Snake

Calamaria joloensis Taylor, 1922b:203, pl. 7, figs. 2–3.— Inger and Marx, 1965:102.— Wallach, Williams, and Boundy, 2014:136.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Jolo Id., Sulu Archipelago, Philippines. Holotype: CAS 60901 (formerly EHT 1855).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 6D [p. 117]).— Sulu Archipelago (Jolo).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

Calamaria lumbricoidea* H. Boie in F. Boie, 1827*Photo figures 25–26**

Variable Reed Snake

Calamaria lumbricoidea H. Boie in F. Boie, 1827:540.— Inger and Marx, 1965:75, fig. 20.— David, Pauwels, Lays, and Lenglet, 2006:214.— Beukema, 2011.— Wallach, Williams, and Boundy, 2014:137.— Sanguila, Cobb, Siler, Diesmos Alcalá, and Brown, 2016:89, fig. 65.

Calamaria philippinica Steindachner, 1867:514–515, pl. 8, figs. 4–6 (type locality: “Philippinen”; holotype: NMW 23441).

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia (*vide* Schlegel [1837b:27, pl. 1, figs. 14–16]). Lectotype: RMNH 10543, designated by Inger and Mark (1965:77).

PHILIPPINE DISTRIBUTION (Map 7A [p. 118]).— Basilan, Biliran, Bohol, Camiguin Sur, Dinagat, Leyte (Prov.: Leyte, Southern Leyte), Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Bukidnon, Cotabato, Davao City, Lanao del Norte, Lanao del Sur, Misamis Occidental, Misamis Oriental, Sarangani, South Cotabato, Surigao del Sur, Zamboanga del

Norte, Zamboanga City). (Partly after David, Pauwels, Lays, and Lenglet, 2006:214; for northeastern Mindanao, Sanguila et al., 2016.)

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Malaysia (West Malaysia; Sabah and Sarawak [Borneo]); Indonesia (Borneo, Java, Mentawai Archipelago, Natunas Ids., Nias, Sumatra); Singapore, Thailand. (After David, Pauwels, Lays, and Lenglet [2006:214].)

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Calamaria palawanensis* Inger and Marx, 1965**

Palawan Reed Snake; Palawan Worm Snake

Calamaria everetti, (part) Boulenger, 1894:340.— Griffin, 1909c:599; 1911:262.— Taylor, 1922a:191, fig. 17.

Calamaria palawanensis Inger and Marx, 1965:134, fig. 35.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Palawan Id., Philippines. Holotype: CAS 62151.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 7B [p. 118]).— Palawan.

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Calamaria suluensis* Taylor, 1922d**

Sulu Reed Snake; Yellow-bellied Reed Snake

Calamaria suluensis Taylor, 1922d:189.— Inger and Marx, 1965:123, fig. 31.— Wallach, Williams, and Boundy, 2014:140.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Deramakot, North Borneo (based on neotype selection).

Holotype in Bureau of Science, Manila, lost during WWII; Neotype: FMNH (formerly CNHM) 76294, designated by Inger and Marx (1965:123); neotype from locality in North Borneo that is 180 km from original type locality of Cagayan Sulu in the Philippines.

PHILIPPINE DISTRIBUTION (Map 7C [p. 118]).— Cagayan Sulu.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— northern Borneo.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Calamaria virgulata* H. Boie in F. Boie, 1827**

Short-tailed Reed Snake

Calamaria virgulata H. Boie in F. Boie, 1827:540.— Inger and Marx, 1965:186.— Wallach, Williams, and Boundy, 2014:140.

Calamaria mearnsi Stejneger, 1907b:30 (type locality Tangob, Mindanao Id.). Taylor, 1922a:193.

Calamaria zamboangensis Leviton, 1952:239, fig. 1 (type locality: Zamboanga, Mindanao Id.; holotype: CAS-SU 13476).

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia but emended to Tjihandjavar, western Java, by Brongersma (1950) (see Wallach et al. [2014:140], for additional details).

Holotype: RMNH 39.

PHILIPPINE DISTRIBUTION.— Mindanao [see Remarks below], Palawan, Sulu Archipelago.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES) (Map 7D [p. 118]).— western Indonesia, East Malaysia (Sabah). (See Inger and Marx [1965:186], also Wallach et al. [2014:140], for details.)

REMARKS.— The Mindanao records for *C. virgulata* (see above, Inger and Marx, 1965, and Wallach et al., 2014) most probably should be referred to *C. lumbricoidea* [q.v.].

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Pseudorabdion ater* (Taylor, 1922b)*Photo figure 27**

Zamboanga Burrowing Snake

Typhlogeophis ater Taylor, 1922b:202, pl. 7, figs. 6–7.*Pseudorabdion ater*, Leviton and Brown (WC), 1959:486.—Alcala, 1986:156.—Wallach, Williams, and Boundy, 2014:595.**TYPE LOCALITY AND TYPE SPECIMEN(S).**—“Pasananka” [= Pasonanca], Zamboanga del Sur [Zamboanga City] Prov., Mindanao Id., Philippines. Holotype: CAS 62043 (formerly EHT 1103).**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 30C [p. 141]).—Mindanao (Prov.: Zamboanga del Sur [Zamboanga City] [Pasonanca]).**REMARKS.**—Taylor placed this species in *Typhlogeophis* without explanation. He apparently did not compare it with specimens of Philippine *Pseudorabdion*.**CONSERVATION STATUS [IUCN].**—Least Concern [2016] ver. 3.1.***Pseudorabdion longiceps* (Cantor, 1847)**

Cantor’s Dwarf Reed Snake

Calamaria longiceps Cantor, 1847:910, pl. 40, fig. 1.*Oxycalamus longiceps*, Günther, 1864:199 (redescription of type specimen).*Pseudorhabdion longiceps*, Boulenger, 1885:389; 1894:329 (Nias Island).—Boettger, 1891:107 (Sumatra [Deli]).—Boulenger, 1903:175 (listed).—Bourret, 1936:266, fig. 105.—Haas, 1950:562.—Tweedie, 1953:51, 122, 129, fig. 12a–b; 1957:53, 126, 133, fig. 13a–b.—Leviton and Brown (WC), 1959:481, figs. 1–2 (see for extended synonymy).*Pseudorhabdium longiceps*, Boulenger, 1894:329.—Griffin, 1911:261 (Luzon Island [after Peters, 1861; probably in error]).—Boulenger, 1912:154 (Philippine Islands [probably in error]).—de Rooij, 1917:146, text-fig. 61 (Philippine Islands [probably in error]).—Taylor, 1922a:178 (distribution compiled; description quoted from Boulenger, 1894).*Pseudorahbdion [sic] longiceps*, Smith, 1930:57.*Rabdion torquatum* Duméril, 1853:441 (*nomen nudum*). Duméril, Bibron, and Duméril, 1854:119 (type locality: Macassar; type in MNHN).—Casto de Elera, 1895:426 (various Philippine localities listed, but source of data unknown).*Pseudorabdion torquatum*, Jan, 1862:10; 1863:30; 1865, Livr. 10, pl. 3, fig. 3.*Rhabdion torquatum*, Peters, 1861:684.—Boettger, 1886:106.**TYPE LOCALITY AND TYPE SPECIMEN(S).**—Pinang, Malay Peninsula. Holotype: BMNH 1946.1.2.13.**PHILIPPINE DISTRIBUTION.**—Frequently listed but supposed records unverified.**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**—Indonesia: Borneo (Kuching, Penrissen Road, Pontianak, Sebruang Valley, Simanggang); Celebes (Macassar); Nias; Sumatra (Ajerbangis, Deli, Gunung, Indragiri, Langkat, Oberlangkat, Sahilan, Sing-karah, Tebing Tinggi). Malaya: (Bangnara, Fraser’s Hill, Johore, Pa-hang [Gunong Tahan], Perak, Pinang, Selangor, Singapore, Wellesley Province). Riou Archipelago: Pulu Galang. Thailand: (Ban Gnara, Patani).**REMARKS.**—This is the most widely distributed species of *Pseudorabdion*. It differs from the other species in possessing a preocular scale. In other characters, *P. longiceps* agrees most closely with *P. oxycephalum* and *P. ater*.**CONSERVATION STATUS [IUCN].**—Least Concern [2016] ver. 3.1.

***Pseudorabdion mcnamarae* Taylor, 1917b**

McNamara's Dwarf Reed Snake; McNamara's Burrowing Snake

Pseudorhabdium mcnamarae Taylor, 1917:363, text-fig. 2a–e; 1922a:180, text-fig. 15a–c (redescription of type); 1922b:201 (suggests relationship to *P. minutum*).

Pseudorhabdium minutum Taylor, 1922b:200, pl. 7, figs. 4–5 (type locality: Balbalan, Kalinga Subprov., Luzon Id.; holotype: CAS 61544 [formerly Taylor F772]).

Pseudorabdion mcnamarae, Leviton and Brown (WC), 1959:498, fig. 8.— Ferner, Brown, Sison, and Kennedy, 2001:53[20], fig. 50.— Gaulke, 2001:29, fig. 8; 2011:307–308, figs. 208–209.— Siler, Swab, Oliveros, Diesmos, Averia, Alcalá, and Brown, 2012:456.— Wallach, Williams, and Boundy, 2014:596.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:169.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Canlaon Volcano, Negros Id., Philippines. Holotype: CM 2606.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 30D [p. 141]).— Biliran, Cebu, Luzon (Prov.: Isabela), Masbate, Negros (Prov.: Negros Occidental), Panay (Prov.: Aklan, Antique), Sibuyan, Tablas.

REMARKS.— In possessing a lori-ocular scale this species agrees with the Bornean and Celebesian species formerly placed in the genus *Agrophis*. In other characters *P. mcnamarae* approaches *P. oxycephalum*. *Pseudorabdion taylori* from Mindanao is related to *P. mcnamarae*.

Pseudorabdion cf. *mcnamarae* has been reported from Luzon (Prov.: Isabela) by Brown (2013:84, fig. 91), but the authors also suggest that the West Visayan and Luzon populations are likely distinct species (Brown et al., 2013:84–85).

CONSERVATION STATUS [IUCN].— Vulnerable B2ab(ii,iii) [2016] ver. 3.1.

***Pseudorabdion montanum* Leviton and Brown (WC), 1959**

Mountain Burrowing Snake; Mountain Reed Snake

Pseudorabdion montanum Leviton and Brown, 1959:491, figs. 5–6.— Wallach, Williams, and Boundy, 2014:596.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:167.

TYPE LOCALITY AND TYPE SPECIMEN(S).— north side of north peak of Cuernos de Negros, Negros Oriental Prov., Negros Id., Philippines. Holotype: CAS-SU 21080.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 31A [p. 142]).— Cebu, Negros (Cuernos de Negros).

CONSERVATION STATUS [IUCN].— Endangered B1ab(iii)+2ab(iii) [2016] ver. 3.1.

***Pseudorabdion oxycephalum* (Günther, 1858)**

Gunther's Dwarf Reed Snake; Negros Light-scaled Burrowing Snake

Rhabdosoma oxycephalum Günther, 1858:242.

Oxycalamus oxycephalus, Günther, 1873:168, figs.— Boettger, 1886:105.— Casto de Elera, 1895:425.

Pseudorhabdium oxycephalum, Boulenger, 1894:329.— Griffin, 1911:262.— Taylor, 1917:364; 1922a:179, fig. 14 (description after Boulenger, figs. after Günther [not Boulenger as stated]).

Typhlogeophis brevis Günther, 1879:77 (type locality: Mindanao or Dinagat Island; type BMNH [not confirmed]).— Boettger, 1886:106.— Boulenger, 1894:351, pl. 20.— Griffin, 1911:262.— Taylor, 1922a:183, text-fig. 16, pl. 24, figs. 1–4 (description and figs. after Boulenger); 1922b:202 (comparison with *T. ater*); 1928:236.

Typhlogeophis brevis, Casto de Elera, 1895:425 (listed).

Pseudorabdion oxycephalum, Leviton and Brown (WC), 1959:487, figs. 3–4.— Brown, McGuire, Ferner, Icarangal Jr., and Kennedy, 2000:190, fig. 32.— Ferner, Brown, Sison, and Kennedy, 2001:53[20].— Gaulke, 2011:309–310, fig. 210.— Wallach, Williams, and Boundy, 2014:596.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:169, fig. 32.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Philippines. Holotype: BMNH 1946.1.1.99.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 31b [p. 142]).— Cebu, Masbate, Negros (Prov.: Negros Occidental, Negros Oriental), Panay (Prov.: Aklan). Localities needing confirmation include: Calamianes Ids., Luzon (Prov.: Aurora, Bataan, Nucva Ecija), Mindanao or Dinagat Ids.

REMARKS.— This small, distinctive species of *Pseudorabdion*, once thought to be rare, has been found with increasing frequency on Negros Island. The species has been reported from other islands, Luzon (Casto de Elera [1895]), Mindanao or Dinagat (type of *Typhlogeophis brevis* Günther), and the Calamianes (specimen in the collection of CAS), but these records need confirmation.

Also, see Leviton and Brown (1959:487 *et seq.*) for a discussion of the status of *Typhlogeophis brevis* Günther, which was based on a single specimen said to have come from Mindanao or Dinagat islands, and was distinguished from *P. oxycephalum* in having its eyes “hidden” beneath the ocular scale.

Pseudorabdion oxycephalum, endemic to the Philippine Islands, does not appear to be close to Sulawesi or Bornean species. Indeed, its closest relative, *P. montanum*, is at present known only from the highlands on Negros Island.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Pseudorabdion talonuran* Brown (RM), Leviton, and Sison, 1999**

Panay Cloud Forest Dwarf Reedsnake

Pseudorabdion talonuran Brown, Leviton, and Sison, 1999:7, figs.1 (map), 2–3, 4 (habitat).— Ferner, Brown, Sison, and Kennedy, 2001:53[20].— Gaulke, 2011:311–312.— Wallach, Williams, and Boundy, 2014:597.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Mt. Madja-as, Barangay Allojipan, Culasi Municipality, Antique Prov., Panay Id., Philippines. Holotype: PNM 2712.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 31C [p. 142]).— Panay (Prov.: Antique [Barangay Allojipan, Munic. Culasi]).

REMARKS.— *Pseudorabdion* cf. *talonuran*, Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos (2013:86), from Isabela Prov., Luzon, may represent a distinct species.

CONSERVATION STATUS [IUCN].— Vulnerable D2 [2016] ver. 3.1.

***Pseudorabdion taylori* Leviton and Brown (WC), 1959**

Taylor’s Dwarf Reed Snake; Taylor’s Burrowing Snake

Pseudorabdion taylori Leviton and Brown, 1959:502, figs. 9–10.— Wallach, Williams, and Boundy, 2014:597.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Saub, Cotabato Prov., Mindanao Id., Philippines. Holotype: MCZ 25749.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 31D [p. 142]).— Mindanao (Prov.: Cotabato [Saub], Davao del Sur).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

Subfamily Colubrinae Oppell, 1811

Boiga angulata (Peters, 1861)

Photo figure 28

Philippine Blunt-headed Tree Snake

Dipsas (*Dipsadomorphus*) *angulata* Peters, 1861:688.

Boiga angulata, Griffin, 1910:213; 1911:263.— Taylor, 1922a:204, pl. 26, figs. 1–3, pl. 27.— Leviton, 1970a:295.— Ross and Gonzales, 1992:64.— Wallach, Williams, and Boundy, 2014:99.

Boiga cf. *angulata*, Gaulke, 2001:23, figs. 1a–b; 2011:240–241, figs. 157–158.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Leyte Id., Philippines (restricted to “NE shore of Leyte Is. between Tacloban (11°5′N, 125°00′E) and Dulag (10°57′N, 125°02′E),” by Wallach et al. [2014:99]). Holotype: ZMB 4000.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 3C [p. 114]).— Bohol, Catanduanes, Leyte, Luzon (Prov.: Laguna, Sorsogon, Zambales), Mindanao (Prov.: Bukidnon, North Cotabato, Davao del Sur, Lanao, Zamboanga City), Negros, Panay (Prov.: Alkan, Antique), Panay (Prov.: Antique), Polillo.

REMARKS.— According to Taylor (1923:553), *Boiga angulata*, also *B. schultzei*, are related to *B. drapiezii* (see Leviton [1970a:310–311]; also RM Brown, unpublished data). Jeffrey Weinell (2017, pers. comm.) suggested that the following citations for *Boiga angulata* are in error inasmuch as the associated images are of *B. cynodon* (Ferner, Brown, Sison, and Kennedy [2001:51{18}]; Devan-Song and Brown [2012:12, fig. 25]).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Boiga cynodon (H. Boie in F. Boie, 1827)

Photo figure 29

Dog-toothed Cat Snake

Dipsas cynodon H. Boie in F. Boie, 1827:549.

Boiga cynodon, Taylor, 1922a:206; 1922d:139; 1923:553.— Leviton, 1970a:299.— Smith, 1993:96.— Gaulke, 1994b:137; 1996:49; 2001:26, fig. 2; 2011:243–245, figs. 159–161.— Ferner, Brown, Sison, and Kennedy, 2001:52[19].— Oliveros, Ota, Crombie, and Brown, 2011:13, figs. 6C, 6D.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:190, fig. 30.— Siler, Swab, Oliveros, Diesmos, Averia, Alcala, and Brown, 2012:456.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:74, fig. 75.— Wallach, Williams, and Boundy, 2014:100.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:89.— Supsup, Guinto, Redoblado, and Somez, 2017:7, fig. 5c.

Boiga cf. *cynodon*, Ferner, Brown, Sison, and Kennedy, 2001:51[18].

TYPE LOCALITY AND TYPE SPECIMEN(S).— Sumatra, Indonesia (in error); corrected to Java, Indonesia (see Wallach et al. [2014:100]). Holotype: RMNH 974 (see remarks in Wallach et al. [2014:100] in re: recognition of holotype specimen).

PHILIPPINE DISTRIBUTION (Map 3D [p. 114]).— Babuyan Ids. (Calayan, Camiguin Norte), Basilan, Bohol, Carabao, Culion, Dinagat, Inampulugan, Lubang, Leyte, Luzon (Prov.: Aurora, Cagayan, Ilocos Norte, Isabela, Laguna, Nueva Ecija, Quezon, Sorsogon), Mindanao (Prov.: Agusan del Sur, Cotabato, Davao Oriental, NE Mindanao, Zamboanga City), Negros (Prov.: Negros Occidental), Paan de Azucar, Palawan, Panay (Prov.: Alkan, Antique), Polillo, Romblon, Siquijor, Sulu Archipelago (Sibutu, Tawi-Tawi), Tablas.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Indonesia (Sumatra), Malaysia (West and Borneo), Singapore, Camboidia, Thailand, Myanmar, eastern India.

REMARKS.— Ferner et al. (2001:51[18]) report the discovery of this species, the first for the

Visayan Island group, but they pose that the identification remains to be firmly established. See also Remarks for *Boiga angulata* (above).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Boiga dendrophila divergens* Taylor, 1922a**

Photo figure 30

Northern Philippine Mangrove Snake

Boiga dendrophila divergens Taylor, 1922a:201; 1922c:299; 1922d:139.— Leviton, 1970a:305.— Gaulke, Demegillo, and Vogel, 2005:5 *et seq.*, figs. 4–5.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188, fig. 7D.— Oliveros, Ota, Crombie, and Brown, 2011:14, fig. 7A.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:190, fig. 31.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:74, fig. 76.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Mt. Makiling, Laguna Prov., Luzon Id., Philippines. Holotype: CM 2143.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 4A [p. 115]).— Babuyan Ids. (Calayan), Luzon (Prov.: Aurora, Bulacan, Cagayan, Camarines Norte, Camarines Sur, Laguna, Nueva Ecija, Quezon, Sorsogon, Rizal), Polillo.

CONSERVATION STATUS [IUCN].— The conservation status of *Boiga dendrophila divergens* has not been assessed for the IUCN Red List [2016] ver. 3.1.

***Boiga dendrophila latifasciata* (Boulenger, 1896)**

Photo figures 31–32

Southern Philippine Mangrove Snake

Dipsadomorphus dendrophilus latifasciatus Boulenger, 1896:71.

Boiga dendrophila latifasciata, Taylor, 1922a:198.— Brongersma, 1934:218, pl. 1, figs. 6, 8, 10, pl. 2, figs. 10, 12.— Leviton, 1970a:307.— Smith, 1993:96.— Gaulke, Demegillo, and Vogel, 2005:5 *et seq.*, figs. 6–7.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Syntypes from Butuan, Agusan del Norte Prov. and Zamboanga del Sur [Zamboanga City] Prov., Mindanao Id., Philippines. Syntypes: BMNH (not confirmed).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 4B [p. 115]).— Dinagat (?), Leyte, Mindanao (Prov.: Agusan del Sur, Bukidnon, Davao del Sur, Zamboanga del Sur [Zamboanga City]), Samar, Siargao.

CONSERVATION STATUS [IUCN].— The conservation status of *Boiga dendrophila latifasciata* has not been assessed for the IUCN Red List [2016] ver. 3.1.

***Boiga dendrophila levitoni* Gaulke, Demegillo, and Vogel, 2005**

Photo figure 33

Leviton's Mangrove Snake; Panay Mangrove Snake

Boiga dendrophila levitoni Gaulke, Demegillo, and Vogel, 2005:8, figs. 1–3.— Gaulke, 2011:246–249, figs. 162–164.

Boiga cf. *dendrophila*, Ferner, Brown, Sison, and Kennedy, 2001:51[18].

TYPE LOCALITY AND TYPE SPECIMEN(S).— Sitio Batiw, Barangay Badiangan, Municipality of Pandan, Antique Prov., Panay Id., Philippines. Holotype: PNM 7940.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 4C [p. 115]).— Panay (Prov.: Antique, Iloilo [Gigantes Norte Id.] and probably other islands of the West Visayas region).

CONSERVATION STATUS [IUCN].— The conservation status of *Boiga dendrophila levitoni* has not been assessed for the IUCN Red List [2016] ver. 3.1.

Boiga dendrophila multicincta* (Boulenger, 1896)*Photo figure 34**

Palawan Mangrove Snake

Dipsadomorphus dendrophilus multicinctus Boulenger, 1896:71.*Boiga dendrophilia multicincta*, Taylor, 1922a:200, pl. 25, pl. 26, figs. 4–6.—Brongersma, 1934:216.—Leviton, 1970a:309.—Minton and Dunson, 1978:107.—Gaulke, Demegillo, and Vogel, 2005:5 *et seq.*, figs. 8–9.—Dolorosa, 2014:39, fig. 1.**TYPE LOCALITY AND TYPE SPECIMEN(S).**—restricted to Puerto Princesa, Palawan Id., Philippines by Brongersma (1934:216). Holotype: BMNH (not confirmed).**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 4D [p. 115]).—Balabac, Palawan.**REMARKS.**—For comments on illegal trading in this and other Palawan snakes as well as habitat destruction, see Dolorosa (2014), also Mendizabal (2011) and Ramirez (2012).**CONSERVATION STATUS [IUCN].**—The conservation status of *Boiga dendrophilia multicincta* has not been assessed for the IUCN Red List [2016] ver. 3.1.***Boiga drapiezii* ssp. (H. Boie in F. Boie, 1827)**

White-spotted Cat Snake

Dipsas drapiezii H. Boie in F. Boie, 1827:549.*Boiga drapiezii*, Wallach, Williams, and Boundy, 2014:101.—Binaday and Lobos, 2016:425*Boiga drapiezii drapiezii*, Gaulke, 1994b:137.**TYPE LOCALITY AND TYPE SPECIMEN(S).**—Java, Indonesia (see Wallach et al. [2014:101], for restrictions of type locality). Holotype: RMNH 1006.**PHILIPPINE DISTRIBUTION.**—Luzon (Prov.: Laguna, Quezon, Sorsogon), Mindanao (Prov.: Zamboanga del Sur [Zamboanga City]), Sulu Archipelago (Tawi-Tawi).**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**—(widely distributed according to Vogel [2015:7]) Thailand, Malaysia (West Malaysia and Borneo), Singapore, Indonesia (Java, Mentawai Ids., Sumatra, Naturna Ids., Borneo); Myanmar (*vide* Lee et al. [2015]).**REMARKS.**—As noted above under *Boiga angulata*, both *B. angulata* and *B. schultzei* are likely color variants of *B. drapiezii* (see early comments by Taylor [1923:553], also Leviton, [1970a:310–311]).**CONSERVATION STATUS [IUCN].**—Least Concern [2016] ver. 3.1.***Boiga philippina* (Peters, 1867)****Photo figure 35**

Luzon Cat Snake

Dipsas philippina W. Peters, 1867:27.*Dipsadomorphus philippinus*, Boulenger, 1896:77.*Boiga philippina*, Griffin, 1911:263.—Taylor, 1922a:206.—Leviton, 1970a:312.—Oliveros, Ota, Crombie, and Brown, 2011:14, fig. 7B.—Devan-Song and Brown, 2012:12, fig. 26.—Brown, Siler, Oliveros, Welton, Rock, Swab, van Weerd, van Beijnen, Rodriguez, Jose, and Diesmos, 2013:74, fig. 77.—Wallach, Williams, and Boundy, 2014:104.**TYPE LOCALITY AND TYPE SPECIMEN(S).**—Ylases (= Ilocos Prov.), Luzon Id., Philippines. Holotype: NMW 23401.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 5A [p. 116]).—Babuyan Ids. (Babuyan Claro), Luzon (Prov.: Cagayan, Camarines Sur, Isabela, Ilocos, Laguna, Zambales).**REMARKS.**—Although Leviton (1970:312) speculated that this species could be conspecific with *B. angulata*, recent phylogenetic studies (J. Weinell, pers. obser.) seem to rule out the possibility of a close relationship between the two species. Furthermore, although Vogel

(2015:13) suggested that *B. philippina* belongs to the *B. drapiezii* complex, his comments do not appear to be based on any new accompanying data.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1. The confusion surrounding the identity and distribution of this species suggests it should be classified as “Data Deficient” until field and taxonomic studies clarify its status.

***Boiga schultzei* Taylor, 1923**

Photo figure 36

Schultze’s Blunt-headed Tree Snake

Boiga schultzei Taylor, 1923:552, pl. 3, fig. 3.— Leviton, 1970a:310.

Boiga drapiezii schultzei, Gaulke, 1994b:138.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Palawan Id., Philippines. Holotype: MCZ 25791.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 5B [p. 116]).— Palawan.

REMARKS.— Related to and possibly conspecific with *Boiga drapiezii* (Taylor [1923:553]; see also Leviton [1970a:310–311], and RMB, unpublished data). See Remarks above for *Boiga angulata*.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Coelognathus erythrurus erythrurus* (Duméril, Bibron, and Duméril, 1854a) Photo figure 37**

Southern Philippine Rat Snake

Plagiodon erythrurus Duméril, Bibron, and Duméril, 1854:175.

Spilotes melanurus, Günther, 1879:78 (Leyte).

Composoma melanurum var. *manillensis*, Müller, 1883:285 (Mindanao).

Composoma melanurum var. *erythrurum*, Fischer, 1885:80, 101 (süd-Mindanao).— Boettger, 1886:108 (part: Leyte, Samar, Mindanao).

Coluber erythrurus, Boulenger, 1894:62 (part: northern Leyte).— Boettger, 1895:3, 5 (part: Leyte, Mindanao, Samar, Sulu [= Jolo]); 1898:54 (part: Samar).

Elaphe erythrura, Griffin, 1911:260 (part: northern Leyte, Samar).— Taylor, 1918a:260 (Bongao); 1922a:156 (part: Mindanao).— Leviton, 1979:108.

Elaphe erythrura erythrura, Smith, 1993:97.— Gaulke, 1994b:140 (part).

Coelognathus erythrurus, Helfenberger 2001:52.— Wallach, Williams, and Boundy, 2014:169 (part).

Coelognathus erythrura erythrura, David, Pauwels, Lays, and Lenglet, 2006:215.— Sanguila, Cobb, Siler, Diesmos Alcalá, and Brown, 2016:92.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java (in error), corrected to Samar Id., Philippines (see Leviton [1979:108, 110]). Lectotype: MNHN 7224, designated by Leviton [1979:103]).

PHILIPPINE DISTRIBUTION (Map 10A [p. 121]).— Basilan, Bohol, Camiguin Sur, Camotes Ids. (Pacijan, Poro), Dinagat, Leyte (Prov.: Leyte), Mindanao (Prov.: Agusan del Sur, Bukidnon, South Cotabato, Davao, Maguindanao, Misamis Occidental, Sarangani, Zamboanga City), Samar (Prov.: Eastern Samar), Sulu Archipelago (Bongao, Jolo, Siasi). (See summary in David, Pauwels, Lays, and Lenglet [2006:215] [in part].)

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Indonesia (Sulawesi, Butung) (see Remarks below).

REMARKS.— Leviton (1979:109) noted that specimens he had seen from Leyte, Samar, and eastern Mindanao appeared to have a more variegated mottled pattern on the tail than specimens he had seen from the Zamboanga Peninsula and the Sulu Archipelago, but because of the small sample size, he could not be sure how variable this might be. However, he

also observed that in view of the differences seen among populations of other snakes inhabiting both eastern and western Mindanao (e.g., *Cyclocorus nuchalis* and *Rhabdophis auriculara*), and given the island's past Pleistocene geological history, future investigations may indeed justify recognition of two taxa.

The population inhabiting the Indonesian islands of Sulawesi and Butung may represent a distinct subspecies, *E. e. celebensis*.

CONSERVATION STATUS [IUCN].— The conservation status of *Coelognathus erythrurus erythrurus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Coelognathus erythrurus manillensis* (Jan, 1863)**

Photo figure 38

Northern Philippine Rat Snake

Composoma melanurus, Duméril, Bibron, and Duméril, 1854:301 (part: var. C [“varieté de Manille”]).

Elaphe melanurus manillensis Jan, 1863:61 (based on Duméril, Bibron, and Duméril, 1854:301); 1867:Livr. 21, pl. 4, fig. 2.

Coluber erythrurus, Boulenger, 1894:62 (part: Luzon).— Boettger, 1895:3, 5 (part: Luzon); 1898:54 (Luzon).

Elaphe erythrura, Taylor, 1922a:156 (part: Luzon, Polillo); 1922b:138 (Luzon); 1922d:138.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:13.

Elaphe erythrura erythrura, Leviton, 1963c:390, 395, 403 (Luzon, Mindoro, Polillo).

Elaphe erythrura manillensis, Leviton, 1979:110.— Brown, McGuire, Ferner, Icarangal Jr., and Kennedy, 2000:189.

Coelognathus erythrurus, Wallach, Williams, and Boundy, 2014:169 (part).

Coelognathus erythrurus manillensis, McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonceo, Balaguit, Uy, Villaseran, Yarra, and Brown, 2011:188.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:483.— Devan-Song and Brown, 2012:12.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:78, fig. 80.

Coelognathus erythrura manillensis, Oliveros, Ota, Crombie, and Brown, 2011:14.

TYPE LOCALITY AND TYPE SPECIMEN(S).— “Manille”. Type based on Duméril, Bibron, and Duméril (1854:301); MNHN (not confirmed).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 10Bb [p. 121]).— Batanes Ids. (Batan), Babuyan Ids. (Barit, Calayan, Dalupiri), Luzon (Prov.: Albay, Aurora, Benguet, Bulacan, Cagayan, Camarines Sur, Cavite, Ifuago, Ilocos Norte, Isabela, Laguna, Manila, Nueva Vizcaya, Quezon, Pampanga, Sorsogon, Zambales), Mindoro (Prov.: Occidental Mindoro), Polillo.

REMARKS.— Reported from Catanduanes Id., off the southeast coast of Luzon (see *Elaphe erythrura*, Ross and Gonzales [1992:66], who ascribe color pattern features as most like those of *C. e. psephenourus* of the Visayan Island group). It may well be that the Polillo, southern Luzon, Cantaduanes populations represent a distinct taxon.

Recent observations (and specimens in Kansas University [KU] collections) demonstrate that the “psephenoura-like” phenotype maybe widespread on Bicol Peninsula as well (recent KU specimens from Sorsogon Prov.).

CONSERVATION STATUS [IUCN].— The conservation status of *Coelognathus erythrurus manillensis* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

Coelognathus erythrurus psephenourus* (Leviton, 1979)*Photo figure 39**

Western Visayan Rat Snake

Coluber erythrurus, Boulenger, 1894:62 (part: Negros).— Boettger, 1895:3, 5 (part: Negros).*Elaphe erythrura*, Griffin, 1911:260 (Negros).— Taylor, 1917:359 (Negros); 1922a:156 (part: Negros).*Elaphe erythrura erythrura*, Leviton, 1963c:384, 298, 402 (part: Cebu, Negros, Panay).*Elaphe erythrura psephenoura* Leviton, 1979:111.— Gaulke and Altenbach, 1994:63.— Ferner, Brown, Sison, and Kennedy, 2001:52[19].— Gaulke, 2001:32; 2011:264–265, figs. 177, 187.*Coelognathus erythrura*, Bucol, Alcalá, Averia, Alcalá, and Alcalá, 2011:111.*Coelognathus erythrurus*, Wallach, Williams, and Boundy, 2014:169 (part).*Coelognathus erythrurus psephenoura*, Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:168, fig. 26.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Barrio Asia, Negros Occidental Prov., Negros Id., Philippines. Holotype: CAS 110957.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 10C [p. 121]).— Cebu, Guimaras, Inampulugan, Masbate, Negros (Prov.: Negros Occidental, Negros Oriental), Panay (Prov.: Aklan, Antique, Capiz, Iloilo), Siquijor, Tablas.**REMARKS.**— See Remarks under *Coelognathus erythrurus manillensis* regarding possible presence of this subspecies throughout the Quezon-Bicol Faunal subregion (Catanduanes and Polillo Ids., and the Bicol Peninsula of Luzon).**CONSERVATION STATUS [IUCN].**— The conservation status of *Coelognathus erythrurus psephenoura* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.***Coelognathus philippinus* (Griffin, 1909a)**

Palawan Rat Snake

Coluber erythrurus, Boettger, 1895:3, 5 (Calamian Ids.); 1898:54 (part: Culion).*Elaphe erythrura*, Griffin, 1909:597 (Palawan).*Elaphe philippina* Griffin, 1909:597; 1911:260 (Palawan).— Taylor, 1922a:159 (part: Balabac, Busuanga, Palawan [Iwahig, Taytay]).*Elaphe erythrura philippina*, Leviton, 1963c:382, 385 (Busuanga, Culion, Palawan); 1979:113.— Gaulke, 1994b:140; 1996:50, fig. 3; 1999:278.*Coelognathus philippinus*, Helfenberger 2001:52.— Wallach, Williams, and Boundy, 2014:170.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Iwahig, Palawan Id., Philippines. Lectotype: CAS 62143, designated by Leviton (1979:114).**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 10D [p. 121]).— Palawan Archipelago (Balabac, Busuanga, Calamian Ids. [Calauit], Culion, Palawan), Sulu Archipelago (Bongao, Sanga-Sanga, Sibutu, Tawi-Tawi).**REMARKS.**— For a long time, this species was considered a subspecies of *Coelognathus* (formerly *Elaphe*) *erythrurus* but more recently Helfenberger (2001) demonstrated its distinctness from *C. erythrurus* that justifies its recognition as a separate and only distantly related species.**CONSERVATION STATUS [IUCN].**— The conservation status of *Coelognathus philippinus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Dryocalamus philippinus* Griffin, 1909a**

Philippine Bridal Snake

Dryocalamus philippinus Griffin, 1909b:596.— Taylor, 1922a:123, pl. 10, fig. 2, pl. 11, figs. 1, 3.— Wallach, Williams, and Boundy, 2014:248.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Iwahig, Palawan Id., Philippines. Neotype: CAS 62174, “designated by Leviton herein” (stated designation by Leviton, courtesy of Wallach et al. [2014:245]).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 13C [p. 124]).— Balabac, Palawan (Iwahig, Puerto Princesa).

REMARKS.— Leviton (1959:262) expressed his opinion that *D. philippinus* and *D. tristrigatus* were conspecific. Wallach et al. (2014:245) cited Leviton but the question of conspecificity remains unresolved.

CONSERVATION STATUS [IUCN].— Vulnerable A4c [2016] ver. 3.1.

Gonyosoma oxycephalum* (Reinwardt in F. Boie, 1827)*Photo figures 40–41**

Red-tailed Racer; Red-tailed Green Ratsnake

Coluber oxycephalus Reinwardt in F. Boie, 1827:537.

Gonyosoma oxycephalum, Taylor, 1922d:138.— Gaulke, 2011:281–282, figs. 189–191.— Oliveros, Ota, Crombie, and Brown, 2011:14.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:190.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:483.— Devan-Song and Brown, 2012:13, fig. 31.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:81, fig. 85.— Wallach, Williams, and Boundy, 2014:310.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:94, fig. 67.— Supsup, Guinto, Redoblado, and Somez, 2017:9, fig. 5c.

Gonyosoma oxycephala, Gaulke, 1994b:140.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:13, fig. 14.— Ferner, Brown, Sison, and Kennedy, 2001:52[19].

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia. Holotype: MNHN 677.

PHILIPPINE DISTRIBUTION (Map 15B [p. 126]).— Babuyan Ids. (Calayan, Camiguin Norte), Balabac, Batan, Bohol, Dinagat, Leyte, Lubang, Luzon (Prov.: Aurora, Ilocos Norte, Isabela, Laguna, Nueva Vizcaya, Quezon, Sorsogon, Zambales), Marinduque, Mindanao (Prov.: Agusan del Sur, Davao Oriental, South Cotabato, Surigao del Sur, Zamboanga City), Negros, Palawan, Panay (Prov.: Aklan, Antique, Iloilo), Sabtang, Sibuyan, Sulu Archipelago (Bongao).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Southeast Asia (Andaman Ids., Myanmar, Thailand, Cambodia, Laos, Vietnam, Malaysia, western Indonesia).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Liopeltis philippinus* (Boettger, 1897)**

Philippine Smooth [Reed] Snake

Ablabes philippinus Boettger, 1897:164.— Griffin, 1911:261.

Liopeltis philippinus, Taylor, 1922a:164, pl. 20.— Leviton, 1964a:370.— Mertens, 1967:90.— Gaulke, 1999:278.— Wallach, Williams, and Boundy, 2014:377.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Culion (restricted by Leviton [1964a:370]; see also Mertens [1967:90]). Lectotype: SMF 19318 (*vide* Mertens [1967:90]; selected from suite of three Syntypes: SMF 8281, 8282 a–b).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 20C [p. 131]).— Busuanga, Calamian Ids. (Calautit),

Culion, Palawan. (Boettger also lists Samar but both Leviton (*op cit.*) and Mertens (*op. cit.*) question this reference.)

CONSERVATION STATUS [IUCN].— The conservation status of *Liopeltis philippinus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Liopeltis tricolor* (Schlegel, 1837)**

Schlegel's Smooth Snake; Malayan Reed Snake; Tricolored Ringsnake

Herpetodryas tricolor Schlegel, 1837b:187, pl. 6, figs. 16–18.

Liopeltis tricolor, Cope, 1860:559.— Taylor, 1922a:162, pl. 11, figs. 3–5, pl. 19.— Leviton, 1964a:372.— Wallach, Williams, and Boundy, 2014:378.

Ablabes tricolor, Boulenger, 1894a:281.— Griffin, 1909:599; 1911:201.— Taylor, 1918a:260.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia. Syntypes (3): RMNH 492, 671, 679.

PHILIPPINE DISTRIBUTION.— Palawan, Sulu Archipelago (Bubuan).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES) (Map 20D [p. 131]).— Western Indonesia, Malaysia (Peninsula; Sarawak), Singapore, southern Thailand, southern Cambodia (see Wallach, Williams, and Boundy [2014:378], for details).

REMARKS.— See Leviton (1963:372) for additional Philippine synonymy references. See also comments by David and Vogel (1996:93) and a good photo in Stuebing and Inger (1999:158).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Lycodon alcalai* Ota and Ross, 1994**

Photo figures 42–43

Alcala's Wolf Snake

Lycodon alcalai Ota and Ross, 1994:159–162, figs. 2–5.— Lanza, 1999:89, 98.— Siler, Oliveros, Santanen, and Brown, 2013:268, fig. 3.— Wallach, Williams, and Boundy, 2014:391.

Lycodon cf. *alcalai*, Oliveros, Ota, Crombie, and Brown, 2011:15, fig. 7D.

TYPE LOCALITY AND TYPE SPECIMEN(S).— ~2.5 km ENE of Basco on west slope of Mt. Iraya [elev. 150 m], Batan Id, Batanes Ids, off of northern Luzon Id., Philippines. Holotype: PNM 990.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 21A [p. 132]).— Babuyan Ids. (Babuyan Claro, Calayan, Camiguin Norte), also Batan and Sabtang Ids., off of northern Luzon.

REMARKS — Siler et al. (2013) sampled both known islands within the distribution of *L. alcalai*, and inferred a very shallow divergence between this species and *L. bibonius* but no genetic divergence between *L. alcalai* and *L. chrysoprateros*, a species described from Dalupiri Island (Ota and Ross [1994]) and with which *L. alcalai* may be conspecific.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Lycodon aulicus* (Linnaeus, 1758)**

See *Lycodon capucinus* below.

***Lycodon bibonius* Ota and Ross, 1994**

Photo figure 4

Crombie's Asian Wolf Snake

Lycodon bibonius Ota and Ross, 1994:162–165, figs. 6–7.— Lanza, 1999:89, 97.— Gaulke, 2002:89–90.— Oliveros, Ota, Crombie, and Brown, 2011:15, fig. 7C.— Siler, Oliveros, Santanen, and Brown, 2013:268, fig. 3.— Wallach, Williams, and Boundy, 2014:391.

TYPE LOCALITY AND TYPE SPECIMEN(S).— ca. 1.5 km E of Mambit (elev. 70 m), Camiguin Norte Island, Babuyan Islands, off of northern Luzon Id., Philippines. Holotype: PNM 2044.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 21B [p. 132]).— Babuyan Ids. (Babuyan Claro, Camiguin Norte).

REMARKS.— Siler et al. (2013) demonstrated a close relationship between *L. bibonius* and *L. alcalai*.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Lycodon capucinus* (H. Boie in F. Boie, 1827)**

Common Asian Wolf Snake

Lycodon capucinus H. Boie, 1826b:238 (*nomen nudum*); H. Boie in F. Boie, 1827:551.

Lycodon tessellatus Jan, 1863b:96 (type locality: “Manila”. Luzon Id., Philippines; holotype: NMW 21708).— Müller, 1888:288.— Leviton, 1965c:130.— Ota and Ross, 1994:170 et seq.— Lanza, 1999:89, 98.— Ota, 2000:301, figs. 1a–c.— Wallach, Williams, and Boundy, 2014:397.

Ophites tessellatus, Taylor, 1922a:124.

Lycodon aulicus capucina, Boettger, 1898:37.

Ophites aulicus, Taylor, 1922a:120, figs. 11a–b.

Lycodon aulicus capucinus, Leviton, 1965c:131.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:13.— Ferner, Brown, Sison, and Kennedy, 2001:53[20], fig. 49.

Lycodon aulicus (part), Lanza, 1999:94–95, 98.— Taylor, 1922d:137.

Lycodon capucinus, Gaulke and Altenbach, 1994:63.— Gaulke, 2011:288–289, figs 194–195.— McLeod, Siler, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:190.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:483.— Devan-Song and Brown, 2012:13.— Siler, Swab, Oliveros, Diesmos, Averia, Alcala, and Brown, 2012:456.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:81, fig. 88.— Wallach, Williams, and Boundy, 2014:392.— Bauer, 2015:54.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:94, fig. 68.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:169.

Lycodon aulicus / capucinus, Siler, Oliveros, Santanen, and Brown, 2013:268, 270–271, fig. 3.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia (original description based on pl. 37 in Russell, 1802); pl. 37 in Russell designated as Lectotype by Wallach, Williams, and Boundy (2014:392) (see also comments by Bauer [2015:54]).

PHILIPPINE DISTRIBUTION (Map 21C [p. 132]).— Bantayan, Bohol, Carabao, Cebu, Camiguin Sur, Cuyo, Dinagat, Leyte, Luzon (Prov.: Aurora, Bulacan, Cagayan, Camarines Norte, Ilocos Norte, Isabela, Laguna, Manila, Nueva Vizcaya, Quezon, Zambales), Masbate, Mindanao, Mindoro, Negros, Panay, Romblon, Samar, Semirara, Tablas.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Widely distributed throughout southeastern Asia (see Lanza [1999:95] and Wallach et al. [2014:392] for details).

REMARKS.— See Leviton (1965c:131) for an extensive synonymy for Philippine records.

Lycodon capucinus is a problematic species, often considered as a synonym of *Lycodon aulicus* differing only in the highly variable aspects of coloration (see discussion in Lanza [1999:94]). Based on aspects of its distribution in the Philippines, Leviton (1965c:134–135) suggested that its nomen superior, *L. aulicus*, was an introduced species. See also Siler, Oliveros, Santanen, and Brown (2013) for preliminary discussion of the lack of genetic diversity within the *aulicus/capucinus* species group.

Lycodon tessellatus, which, with a degree of hesitation we refer to the synonymy of *L. capucinus*, was formerly treated as a distinct, if somewhat suspect species, known only from the type specimen from Manila, and its placement has been the subject of considerable confusion since its description by Jan in 1863. Most recently, Ota (2000:299–304) reexamined the type specimen and provided new data that led him to suggest that “It is thus probable that *L. tessellatus* is most closely related to *L. aulicus* [*L. capucinus* in the Philippines]. However, [other characters notwithstanding] it differs in having three series of prominent alternating black spots on the dorsum, at least in the anterior part of the body . . . Detailed character analysis and molecular studies of additional specimens are necessary to clarify the relationships of this enigmatic species.” (Ota [2000:302]). We concur.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Lycodon chrysoprateros* Ota and Ross, 1994**

Dalupiri Island Asian Wolf Snake; Ross’ Wolf Snake

Lycodon chrysoprateros Ota and Ross, 1994:165–168, figs. 8–9.— Lanza, 1999:89, 98.— Gaulke, 2002:89–90.— Oliveros, Ota, Crombie, and Brown, 2011:15.— Siler, Oliveros, Santanen, and Brown, 2013:268, fig. 3.— Wallach, Williams, and Boundy, 2014:393.

TYPE LOCALITY AND TYPE SPECIMEN(S).— east side of Dalupiri Id., Babuyan Ids., northern Luzon, Philippines. Holotype: PNM 2045.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 21D [p. 132]).— Dalupiri Id., Babuyan Ids. (off of northern Luzon Id.).

REMARKS.— Siler et al. (2013) used a multilocus molecular analysis DNA sequences to demonstrate that *L. chrysoprateros* is nearly genetically identical to *L. alcalai* (the Batanes Islands) as well as all populations on Calayan and Babuyan Claro islands. We suspect that *L. chrysoprateros* and *L. alcalai* may be conspecific.

CONSERVATION STATUS [IUCN].— Critically Endangered B1ab(iii) (IUCN [2016] ver. 3.1). See comments in the Introduction relating to the IUCN assessment of conservation status.)

***Lycodon dumerilii* (Boulenger, 1893)**

Photo figure 45–46

Duméril’s Asian Wolf Snake

Stegonotus dumerilii Boulenger, 1893:368.— Taylor, 1922a:130.

Odontomus mülleri, Günther, 1879:78.

Dryocalamus mccroryi Taylor, 1922b:197, pl. 6, figs. 1–3 (type locality: Abung-Abung, Basilan Ids.; holotype: CAS 60346 [formerly EHT 1517]).

Lycodon dumerili, Leviton, 1965c:121.— Lanza, 1999:89, 98, fig. 3.— Ota and Ross, 1994:170 et seq., fig.12b.— Gaulke, 2002:89–90.

Lycodon dumerilii, Siler, Oliveros, Santanen, and Brown, 2013:268, 272, fig. 3.— Wallach, Williams, and Boundy, 2014:393.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:94, fig. 69.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Surigao, Surigao del Norte Prov. (formerly Surigao Prov.), Mindanao Id., Philippines. Lectotype: BMNH 1946.1.15.6 (formerly BMNH 77.10.9.67) (Lectotype designated by Leviton, 1965c:123).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 22A [p. 133]).— Basilan, Dinagat, Leyte, Mindanao (Prov.: Agusan del Sur, Cotabato, Davao del Sur, Surigao del Norte, Zamboanga), Samar, Siargao.

REMARKS.— Examination of a large adult specimen from Samar in the collections of the California Academy of Sciences (CAS-SU 13233), which almost precisely matches the descrip-

tion of “*Stegonotus muelleri*” in Boulenger (1893:367), appears to suggest that Boulenger’s reference can be assigned to *Lycodon dumerilii*. Both the BMNH and CASU specimens are large adults and the typical cross-bars are obscured by a near uniform darkening of the dorsum. The Academy specimen shows the faintest hint of former lighter cross-bars, at best about 20 in number, that were narrower than the darker areas. None encroached upon the ventrals. However, the BMNH specimen and the one we examined here are significantly larger than any known species included in the genus *Lycodon* and thus we recognize *Stegonotus muelleri* (*q.v.*) as a distinct group pending further study. Furthermore, *S. muelleri* has been collected with greatly increased frequency; indeed, there are now several dozen specimens in the University of Kansas (KU) collections from Samar, Leyte and eastern Mindanao. See additional comments herein under *Stegonotus muelleri*.

CONSERVATION STATUS [IUCN].— The conservation status of *Lycodon dumerilii* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Lycodon fausti* Gaulke, 2002**

Faust’s Asian Wolf Snake

Lycodon fausti Gaulke, 2002:87, figs. 2–3; 2011:292–293, figs. 196–198.— Wallach, Williams, and Boundy, 2014:393.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Barangay Guia, Municipality Pandan, Antique Province, NW Panay Peninsula, Panay Id., Philippines. Holotype: PNM 7271.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 22B [p. 133]).— Panay (Prov.: Alkan, Antique).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Lycodon ferroni* Lanza, 1999**

Ferron’s Asian Wolf Snake

Lycodon ferroni Lanza, 1999:90, 97, figs. 1–2.— Gaulke, 2002:89–90.— Wallach, Williams, and Boundy, 2014:393.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Lungib Ginbagsangan, about 32 km by air NNE of Catabogan (“Barrio Kag-Toto-Og; Provincia Samar Occidental”), Samar Id., Philippines. Holotype: MZUF 36690.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 22C [p. 133]).— Samar (Prov.: Western Samar).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Lycodon muelleri* Duméril, Bibron, and Duméril, 1854**

Photo figure 47

Müller’s Asian Wolf Snake

Lycodon mülleri Duméril, Bibron, and Duméril, 1854:382.

Stegonotus dumerili (*nec* Boulenger), Boettger:1898:39.— Griffin, 1911:259 (in part).

Haplonodon philippinensis Griffin, 1910:212 (type locality: Polillo Island; type destroyed; neotype CAS 62425 [designated by Leviton, 1965c:127]).— Taylor, 1922a:126, text-figs. 13a–b, pl. 9.; 1922b:199; 1922d:137.

Lycodon muelleri, Leviton, 1965c:125.— Ross and Gonzales, 1992:67.— Ota and Ross, 1994:170 et seq., fig. 12a.— Lanza, 1999:89, 97.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:190, fig. 32.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:84, fig. 89.— Siler, Oliveros, Santanen, and Brown, 2013:268, 272, fig. 3.— Wallach, Williams, and Boundy, 2014:395.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java (in error); restricted to Luzon Id., Philippines by Leviton (1965:126). Syntypes (2): MNHN 848 and 1320.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 22D [p. 133]).— Batan (Itbayat), Catanduanes, Luzon (Prov.: Albay, Aurora, Camarines Norte, Cavite, Isabela, Laguna, Quezon, Sorsogon), Marinduque, Mindoro, Polillo.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Lycodon sealei* Leviton, 1955**

Photo figures 48–50

Seale's Banded Asian Wolf Snake

Ophites subcinctus, Taylor, 1922a:124, text-figs. 12a–b, pl. 8.

Lycodon subcinctus, Wallach, Williams, and Boundy, 2014:396 (part).

Lycodon subcinctus sealei Leviton, 1955:195; 1965c:128.— Lanza, 1999:89, 96.— Siler, Oliveros, Santanen, and Brown, 2013:271.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Puerto Princesa, Palawan Id., Philippines. Holotype: CAS 15819.

PHILIPPINE DISTRIBUTION.— Palawan.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES) (Map 23A [p. 134]).— Possibly also northern Borneo (Mt. Kina Balu [also as Kinabalu], Sandakan, Sungai).

REMARKS.— Siler et al. (2013) used a multilocus phylogenetic study to demonstrate a substantial genetic divergence between *L. subcinctus* from Malaysia, Thailand, and Palawan. This plus the highly distinctive (reduced) banding pattern endemic to Palawan, suggests that this western Philippine lineage ought to be recognized as a distinct species.

CONSERVATION STATUS [IUCN].— The conservation status of *Lycodon sealei* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Lycodon solivagus* Ota and Ross, 1994**

Northern Luzon Asian Wolf Snake

Lycodon solivagus Ota and Ross, 1994:168–170, figs. 10–11.— Lanza, 1999:89, 97.— Gaulke, 2002:89–90.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:84.— Siler, Oliveros, Santanen, and Brown, 2013:272.— Wallach, Williams, and Boundy, 2014:396.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Cabatacan Barrio, Lasam, Cagayan Prov., Luzon Id., Philippines. Holotype: PNM 2046.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 23B [p. 134]).— Luzon (Prov.: Cagayan, Nueva Vizcaya).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Lycodon tessellatus*, Jan, 1863**

Lycodon tessellatus Jan, 1863b:96.— Müller, 1888:288.— Leviton, 1965c:130.— Ota and Ross, 1994:170 et seq.— Lanza, 1999:89, 98.— Ota, 2000:301, figs. 1a–c.— Wallach, Williams, and Boundy, 2014:397.

Ophites tessellatus, Taylor, 1922a:124.

TYPE LOCALITY AND TYPE SPECIMEN(S).— “Manila”, Luzon Id., Philippines. Holotype: NMW 21708.

REMARKS.— See Remarks under *Lycodon capucinus*.

Oligodon ancorus* (Girard, 1857)*Photo figure 51**

Luzon Kukri Snake; Northern Short-headed Snake

Xenodon ancorus Girard, 1857:182.*Holarchus ancorus*, Taylor, 1922a:140, pl. 17, figs. 1–2, pl. 18, fig. 3; 1922d:137; 1923:548.*Oligodon ancorus*, Leviton, 1963a:463.— McLeod, Siler, Diesmos, Garcia, Arkoncoo, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188.— Devan-Song and Brown, 2012:13, fig. 32.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:84.— Wallach, Williams, and Boundy, 2014:483.— Sup-sup, 2016:428.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— not given but subsequently stated as Manila, Luzon Id., Philippines (Girard [1858:168]). Holotype: USNM 5521.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 27B [p. 138]).— Luzon (Prov.: Albay, Aurora, Bataan, Batangas, Benguet, Bulacan, Cagayan, Camarines Sur, Kalinga, Laguna, Manila, Nueva Ecija, Nueva Vizcaya, Quezon, Rizal, Sorsogon, Quezon, Zambales), Mindoro (Prov.: Oriental Mindoro).**REMARKS.**— See Leviton (1963a:464) for comments on specimens said to have come from localities other than those mentioned here.**CONSERVATION STATUS [IUCN].**— Near Threatened [2016] ver. 3.1.***Oligodon maculatus* (Taylor, 1918b)****Photo figures 52–54**

Mindanao Kukri Snake; Barred Short-headed Snake

Holarchus maculatus Taylor, 1918b:364, pl. 1; 1922a:143, pl. 15; 1925:109.*Oligodon maculatus*, Leviton, 1963a:469.— Smith, 1993:98.— David, Pauwels, Lays, and Lenglet, 2006:216, fig. 10.— Wallach, Williams, and Boundy, 2014:489.— Sanguila, Cobb, Siler, Diesmos Alcalá, and Brown, 2016:96, fig. 70.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Bunawan, Agusan del Sur Prov., Mindanao Id., Philippines. Holotype: CM 2571.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 27C [p. 138]).— Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Cotabato, Davao del Sur, South Cotabato, Surigao del Norte, Zamboanga City).**CONSERVATION STATUS [IUCN].**— Least Concern [2016] ver. 3.1.***Oligodon meyerinkii* (Steindachner, 1891)**

Sulu Kukri Snake; Sulu Short-headed Snake

Simotes meyerinkii Steindachner, 1891:294.*Holarchus meyerinkii*, Taylor, 1922a:139, pl. 17, figs. 6–7; 1922c:197.*Oligodon meyerinkii*, Leviton, 1963a:471.— Gaulke, 1993b:3–6, figs. 1–3; 1994b:140; 1996:50, fig. 4.— Wallach, Williams, and Boundy, 2014:490.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Sulu-Inseln (= Jolo Id. [Sulu Archipelago]), Philippines. Syntypes (2): NMW 25828a–b.**PHILIPPINE DISTRIBUTION** (Map 27D [p. 138]).— Sulu Archipelago (Bongao, Jolo, Papahag [also as Papahang], Sibutu, Tawi-Tawi).**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— northern Borneo (without exact locality).**CONSERVATION STATUS [IUCN].**— Endangered B2ab(iii) [2016] ver. 3.1.

***Oligodon modestus* Günther, 1864**

Spotted-bellied Short-headed Snake; West Visayan Kukri Snake

Oligodon modestus Günther, 1864:210.— Wallach, Williams, and Boundy, 2014:490.*Oligodon modestum*, Taylor, 1922a:147, pl. 13, figs. 3–5.— Leviton, 1963a:473.— Ferner, Brown, Sison, and Kennedy, 2001:53[20].— Gaulke, 2001:28, figs. 5–6; 2011:296–297, figs. 199–201.— Siler, Swab, Oliveros, Diesmos, Averia, Alcalá, and Brown, 2012:456.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Philippines; restricted to Negros Oriental Prov., Negros Id., Philippine Ids., by Leviton (1963a:474). Holotype: BMNH 1946.1.5.54.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 28A [p. 139]).— Luzon (Prov.: Manila), Mindanao (Prov.: Surigao del Sur), Negros (Prov.: Negros Occidental, Negros Oriental), Panay (Prov.: Aklan, Antique), Tablas.**REMARKS.**— We believe that the Luzon and Mindanao records are in error and that the specimens supposedly collected at these locations were not carefully examined or there was a mixup of locality data accompanying the specimens (see comment by Leviton [1963a:474, footnote]). Inasmuch as the type specimen came from Negros Island, it is highly probable that this species is restricted to the West Visayan Island PAIC group, which includes Negros, Panay and Tablas islands, from which specimens have been collected and examined by one or more of the current authors.**CONSERVATION STATUS [IUCN].**— The conservation status of *Oligodon modestus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.***Oligodon notospilus* Günther, 1873****Photo figures 55–56**

Palawan Kukri Snake; Palawan Short-headed Snake

Oligodon notospilus Günther, 1873:169, pl. 28, fig. A.— Taylor, 1922a:148, pl. 7, fig. 2, pl. 17, figs. 3–5, pl. 18, fig. 1.— Wallach, Williams, and Boundy, 2014:491.*Oligodon vertebralis notospilus*, Leviton, 1963a:477.— Gaulke, 1999:279.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Mindanao Id., Philippines [? in error; see Remarks below]. Holotype: BMNH 1946.1.3.23.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 28B [p. 139]).— Balabac, Busuanga, Calauit, Mindanao (doubtful [see Remarks below]), Palawan (Iwahig, Puerto Princesa, Mt. Mantalingahan, Municipality of Brooke's Point).**REMARKS.**— We believe that the locality data accompanying the type specimen to be in error inasmuch as this species is known only from islands in the Palawan Archipelago. For details see comments by Leviton (1963a:478 *et seq.*).**CONSERVATION STATUS [IUCN].**— The conservation status of *Oligodon notospilus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.***Oligodon perkinsi* (Taylor, 1925)**

Perkins Kukri Snake; Perkin's Short-headed Snake

Holarchus perkinsi Taylor, 1925:108.*Oligodon perkinsi*, Leviton, 1963a:476.— Wallach, Williams, and Boundy, 2014:491.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Culion Id., Philippines. Holotype: MCZ 25725 (formerly EHT 1164).**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 28C [p. 139]).— Culion.

CONSERVATION STATUS [IUCN].— Near Threatened [2016] ver. 3.1.

***Ptyas carinata* (Günther, 1858)**

Keel-scaled Rat Snake

Coryphodon carinatus Günther, 1858:112.

Zaocys carinatus, Günther, 1864:156.— Taylor, 1922a:136, pl. 12, figs. 2, 4.— Leviton, 1983:202.

Ptyas carinatus, Malkmus, Manthey, Vogel, Hoffmann, and Kosuch, 2002:360.

Ptyas carinata, David and Das 2004.— Wallach, Williams, and Boundy, 2014:604.

TYPE LOCALITY AND TYPE SPECIMEN(S).— restricted to Borneo by Günther (1864:256). Lectotype: BMNH 1946.1.11.35 (designated by Günther [1864:256]).

PHILIPPINE DISTRIBUTION (Map 32A [p. 143]).— Palawan.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Widely distributed throughout southeastern Asia (see Wallach, Williams, and Boundy [2014:604] for details).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Ptyas luzonensis* (Günther, 1873)**

Photo figures 57–59

Smooth-scaled Rat Snake; Smooth-scaled Mountain Rat Snake; Philippine Rat Snake

Zaocys luzonensis Günther, 1873:165, pl. 18.— Taylor, 1922a:135, pl. 12, figs. 1, 3, pl. 13, figs. 1–2; 1922c:296; 1922d:138.— Leviton, 1983:201.— Ross and Gonzales, 1992:68.— Diesmos, Brown, and Gee, 2004:71.— Gaulke, 2001:30, fig. 10; 2011:316; 2011:316–317, figs. 214–216, 218.— Ferner, Brown, Sison, and Kennedy, 2001:53[20].— Diesmos, Brown, and Gee, 2004:71.

Ptyas luzonensis, McLeod, Siler, Diesmos, Diesmos, Garcia, Arkoncoo, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188, fig. 8C.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:483.— Devan-Song and Brown, 2012:14, fig. 33.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:86, fig. 92.— Wallach, Williams, and Boundy, 2014:606.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Luzon Id., Philippines. Holotype: BMNH 1946.1.7.89.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 32B [p. 143]).— Catanduanes, Leyte, Luzon (Prov.: Albay, Aurora, Bulacan, Cagayan, Camarines del Norte, Camarines del Sur, Ilocos Norte, Kalinga, Laguna, Quezon, Sorsogon, Zambales), Negros, Panay, Polillo.

REMARKS.— Preliminary review suggests that the taxonomic relationships of the West Visayan (Negros, Panay) and Mindanao PAIC (Leyte Id.) populations should be reviewed.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Stegonotus muelleri* Duméril, Bibron, and Duméril, 1854:682**

Photo figures 60–61

Müller's Ratsnake

Stegonotus mülleri Duméril, Bibron, and Duméril, 1854:682.

Spilotes samarensis Peters, 1861:685 (type locality: “Cubo-Cubo, Insel Samar”; holotype: ZMB 4294)

Stegonotus muelleri Boulenger, 1893:367.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:96, fig. 71.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Samar Id., Philippines. Holotype: MNHN 848.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 35C [p. 146]).— Dinagat, Leyte (Prov.: Leyte, Southern Leyte), Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Davao del Sur, Misamis Occidental, Misamis Oriental, Sarangani, South Cotabato, Surigao del Norte), Samar.

REMARKS.— In his review of the Philippine species of *Lycodon*, Leviton (1965) commented on

Boulenger's reference to *Stegonotus muelleri* (Boulenger [1893:367]), which, according to Boulenger was based on *Stegonotus mülleri* Duméril, Bibron, and Duméril (1854:682). At the time Leviton stated that he was "restricting the nominal genus *Stegonotus* to include but a single species, *S. mülleri*" (Leviton [1965:120]) then known from Samar Island in the Philippines, as had been reported on by Boulenger, who had also included Peters' *Spilotes samarensis* (Peters [1861:685]), also from Samar, in the synonymy of *S. muelleri*. Unfortunately, and at the same time, Leviton overlooked a specimen that was resident in the Stanford University collections, now at the California Academy of Sciences (CAS-SU 13233), that bears the locality Mercedes, Samar Island, Philippines, collected 25 July 1945 by Ralph F. Annereaux. An examination of this animal and with reference to both Duméril, Bibron, and Duméril and to Boulenger, indicates that this is a much larger snake than any of the known species of *Lycodon*, and it likely does indeed represent a distinct group that should be recognized in the Philippines. Furthermore, recent investigations indicate that it is rather widespread throughout the northern Mindanao PAIC islands of Leyte, Samar, Dinagat, and eastern Mindanao (Sanguila et al. [2016]).

Whether or not the Papuan species that have been assigned to the genus *Stegonotus* are indeed related to the Philippine species is an open question as is the possibility of differentiation between Samar-Leyte populations versus those from Mindanao (*sensu* Peters 1861).

CONSERVATION STATUS [IUCN].— Near Threatened [2016] ver. 3.1

Subfamily Natricinae Bonaparte, 1838

Opisthotropis alcalai Brown (WC) and Leviton, 1961

Photo figures 62–63

Alcala's Mountain Keelback

Opisthotropis alcali Brown (WC) and Leviton, 1961:2, fig. 1.— Wallach, Williams, and Boundy, 2014:498.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Cugat Creek, west side of Dapitan Peak, Mt. Malindang, Zamboanga del Norte Prov., Mindanao Id., Philippines. Holotype: CAS-SU 22250.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 29A [p. 140]).— Mindanao (Prov.: Zamboanga City [formerly Zamboanga del Sur], Zamboanga del Norte).

CONSERVATION STATUS [IUCN].— Endangered B1ab(iii)+2ab(iii) [2016] ver. 3.1.

Opisthotropis typica (Mocquard, 1890a)

Photo figure 64–65

Sabah Keelback Snake

Helicopsoides typicus Mocquard, 1890:154.

Opisthotropis typica, Brown (WC) and Leviton, 1961:2, 4.— Wallach, Williams, and Boundy, 2014:500.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Mt. Kinabalu, North Borneo. Holotype: MNHN 1889.216.

PHILIPPINE DISTRIBUTION (Map 29B [p. 140]).— Palawan (Brooke's Point).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— East Malaysia (Sabah [Mt. Kina Balu {also as Kinabalu}]).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Rhabdophis auriculatus auriculatus* (Günther, 1858)*Photo figure 66**

Günther's Philippine Keelback Snake; Günther's White-lined Water Snake

Tropidonotus auriculata Günther, 1858:80.— Boulenger, 1893:261, pl. 17, fig. 1 (part).*Natrix auriculata*, Griffin, 1911:257 (part).— Taylor, 1922a:89, text-fig. 7, pl. 4, figs. 2–4.*Rhabdophis auriculata auriculata*, Leviton, 1970c:356, figs. 2–3, 7.— Smith, 1993:98.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:97, fig. 72.*Rhabdophis auriculatus auriculatus*, David, Pauwels, Lays, and Lenglet, 2006:218, fig. 12.*Rhabdophis auriculatus*, Wallach, Williams, and Boundy, 2014:621 (part).**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Philippines, restricted to Mt. Apo, Davao Prov., Mindanao Id. by Leviton (1970:356). Holotype: BMNH 1946.1.15.16.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 33C [p. 144]).— Dinagat, Leyte, Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Cotabato, Davao City, Davao Occidental, Misamis Oriental, South Cotabato, Surigao del Sur), Samar.**CONSERVATION STATUS [IUCN].**— The conservation status of *Rhabdophis auriculatus auriculatus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life* as *Rhabdophis auriculata* and as such it is listed by IUCN as Least Concern.***Rhabdophis auriculatus myersi* Leviton, 1970**

Myers' Philippine Keelback Snake; Myers' White-lined Water Snake

Tropidonotus auriculatus, Boulenger, 1893:261 (part).*Natrix auriculata* (part), Taylor, 1922c:294; 1923:542.*Rhabdophis auriculata myersi* Leviton, 1970c:349, figs. 3–6.*Rhabdophis auriculatus*, Beukema, 2011.— Wallach, Williams, and Boundy, 2014:621 (part).**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Dapitan Peak, New Pinan, SW side of Buena Suerte, Misamis Occidental Prov., Mindanao Id., Philippines. Holotype: CAS-SU (Rept.) 23391.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 33D [p. 144]).— Basilan, Bohol, Mindanao (Prov.: Misamis Occidental, Zamboanga del Norte, Zamboanga del Sur [Zamboanga City]).**CONSERVATION STATUS [IUCN].**— The conservation status of *Rhabdophis auriculatus myersi* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life* as *Rhabdophis auriculata* and as such it is listed by IUCN as Least Concern.***Rhabdophis barbouri* (Taylor, 1922)**

Barbour's Philippine Keelback Snake

Natrix barbouri Taylor, 1922c:291; 1922d:137.*Natrix crebripunctata*, Taylor, 1922a:91.*Macropophis barbouri*, Malnate, 1960:48, 52.*Rhabdophis barbouri*, Malnate and Underwood, 1988:195.— Wallach, Williams, and Boundy, 2014:621.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Balbalan, Kalinga Subprov., Luzon Id., Philippines. Holotype: CAS 61552 (formerly EHT 939).**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 34A [p. 145]).— Luzon (Prov.: Kalinga, Laguna).**REMARKS.**— As observed by Malnate and Underwood (1988:195), "In having high counts of ventrals, subcaudals, and maxillary teeth, *barbouri* shows some resemblance to Philippine *Tropidonophis negrosensis* and *dendrophips*", other characters are "significantly differ-

ent . . . but are present in Philippine species of *Rhabdophis*. *Natrix barbouri* Taylor, therefore, is assigned to *Rhabdophis*.”

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Rhabdophis chrysargos* (Schlegel, 1837)**

Speckle-bellied Keelback Snake

Tropidonotus chrysargos Schlegel, 1837b:312, pl. 12, figs. 6–7.

Natrix chrysarga, Taylor, 12922a:87, pl. 4, fig. 5.

Rhabdophis chrysargos, Wallach, Williams, and Boundy, 2014:622.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia, suggested by Schlegel who states, “ne m’ont pas permis d’hésiter à adopter les vues de M.M. Kuhl et Reinwardt qui ont découvert ces Tropidonotes à l’île Java” (Schlegel. 1837b:312); further restricted to “Mt. Megamendung, Westjava” (*fide* Manthey and Grossmann, 1997:387). Lectotype: RMNH 10426 (formerly RMNH 1051), designated by Iskandar and Colijin (2001:104) (*fide* Wallach et al., 2014:622).

PHILIPPINE DISTRIBUTION (Map 34B [p. 145]).— Balabac, Calamian Ids. (Busuanga, Culion), Palawan.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Indonesia (Anambas Archipelago, Bali, Flores, Java, Kalimantan, Mentawai Archipelago, Nias, Simeulue, Sumatra, Ternate, Borneo, Laos, southern Burma (Myanmar), southern Thailand, Cambodia, Vietnam, Malaysia (Malaya and East Malaysia, Pulau Tioman), China (Hainan, Hong Kong)

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Rhabdophis lineatus* (Peters, 1861)**

Photo figure 67

Zigzag-lined Water Snake

Tropidonotus lineatus Peters 1861:686–687.— Boulenger 1893:262.

Natrix lineata, Taylor 1922a:92, pl. 4, figs. 6–7, pl. 5; 1922c:293.

Rhabdophis lineatus, Bauer et al. 1995:75.— David, Pauwels, Lays, and Lenglet, 2006:219, fig. 13.— Wallach, Williams, and Boundy, 2014:623.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:99, fig. 73.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Loquilocun, Insel Samar, Philippines. Syntypes (2): ZMB 3976a–b (*fide* Wallach et al. [2014:623] but also see additional comments by Wallach et al. [*op. cit.*] in regard to erroneous recognition of an additional syntype, NMW 23469, by Tiedemann and Häpül [1980:63; 1994:76]).

PHILIPPINE DISTRIBUTION (ENDEMIC [Map 34C {p. 145}]).— Basilan, Biliran, Bohol, Dinagat, Leyte (Prov.: Leyte, Southern Leyte), Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Davao del Sur, Misamis Oriental, South Cotabato, Zamboanga del Sur [Zamboanga City]), Samar (Prov.: Eastern Samar, Samar [formerly Western Samar]).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Rhabdophis spilogaster* (H. Boie in F. Boie, 1827)**

Photo figure 68

Boie’s Keelback Snake

Tropidonotus spilogaster H. Boie in Schlegel, 1826:237 (*nomen nudum*).— H. Boie in F. Boie, 1827:535.— Müller, 1883:286.— Boulenger, 1893:257; 1894:83.

Natrix stolatus, Taylor, 1922a:84.

Natrix spilogaster, Taylor, 1922a:86, pl. 4, fig. 1; 1922d:137.

Rhabdophis spilogaster, Harding and Welch, 1980:99.— Ross and Gonzales, 1992:67.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:13, fig. 15.— Brown, McGuire, Ferner, Icarangal, Jr., and Kennedy, 2000:190, fig. 33.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188.— Oliveros, Ota, Crombie, and Brown, 2011:16.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:484, fig. 45.— Devan-Song and Brown, 2012:14, fig. 34.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:88, fig. 93.— Wallach, Williams, and Boundy, 2014:624.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Philippines (restricted to Luzon Id. by Wallach et al. [2014:624]). Syntypes (5): RMNH 1048a–b, RMNH 1049a–c (*vide* Wallach et al. [2014:624]).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 34D [p. 145]).— Babuyan Ids. (Camiguin Norte), Batanes Ids. (Batan), Catanduanes, Lubang, Luzon (Prov.: Aurora, Bataan, Batangas, Bulacan, Camarines Norte, Cavite, Ifugao, Ilocos Norte, Isabela, Laguna, Manila, Mountain, Nueva Vizcaya, Pampanga, Quezon, Rizal, Zambales), Polillo.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Tropidonophis dendrophiops* (Günther, 1883)**

Photo figure 69

Spotted Water Snake

Tropidonotus dendrophiops Günther 1883:136.

Tropidonophis dendrophiops Günther 1883:136.— Malnate and Underwood, 1988:85, figs. 2 [map], 3.— Smith, 1993:99.— David, Pauwels, Lays, and Lenglet, 2006:219, fig. 14.— Beuke-ma, 2011a:178, fig. 4.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:88, fig. 94.— Wallach, Williams, and Boundy, 2014:735.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:100, fig. 74.— Supsup, Guinto, Redoblado, and Somez, 2017:9, fig. 5g.

Natrix dendrophiops dendrophiops, Taylor, 1922a:95.

Natrix dendrophiops, Taylor, 1922c:294.

Macropophis dendrophiops, Malnate, 1960:48, 52, fig. 1 [map].

TYPE LOCALITY AND TYPE SPECIMEN(S).— Zamboanga, Mindanao Id., Philippines. Holotype: BMNH 1946.1.15.41 (original number BMNH 82.11.25.13).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 37B [p. 148]).— Basilan, Biliran, Bohol, Camiguin Sur, Dinagat, Leyte, Luzon (Prov.: Cagayan, Isabela), Mindanao (Prov.: Agusan del Sur, Davao, Davao del Sur, Davao Oriental, Misamis Oriental, South Cotabato, Zamboanga del Sur [Zamboanga City]), Samar, Siquijor.

REMARKS.— Malnate and Underwood (1988:85), based largely on body scale characters and dentition, assigned two Philippine species formerly included in the genus *Natrix* and/or *Rhabdophis*, to *Tropidonophis*, i.e., *T. dendrophiops*, and *T. negrosensis*. Although we do not feel comfortable with these assignments and believe that the two nominal species should be reassigned to the now well-established genus *Rhabdophis*, we hesitate to do so pending a thorough genomic analysis. Also, with respect to the placement of the long enigmatic species “*Natrix barbouri* Taylor, 1922”, as noted in the Remarks under *Rhabdophis barbouri*, despite similarities in some features with *Tropidonophis*, they referred *barbouri* to *Rhabdophis* (Malnate and Underwood 1988:195).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Tropidonophis negrosensis* (Taylor, 1917b)**

Negros Keelback Snake; Negros Spotted Snake

Natrix dendrophiops negrosensis Taylor, 1917b:356; 1922a:97, fig. 8.*Macropophis barbouri*, Malnate, 1960:49, 52, fig. 1 [map].*Tropidonophis negrosensis*, Malnate and Underwood, 1988:81, figs. 1, 2 [map].— Ferner, Brown, Sison, and Kennedy, 2001:53[20].— Gaulke, 2001:30, fig. 9; 2011:313–315–255, figs. 211–213.— Wallach, Williams, and Boundy, 2014:737.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:170, fig. 30.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Canloan Volcano, Negros Occidental Prov., Negros Id., Philippines. Holotype: CM 2261.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 37C [p. 148]).— Azucar, Cebu, Masbate, Mindoro, Negros (Prov.: Negros Occidental, Negros Oriental), Paan de Azucar, Panay (Prov.: Iloilo), Sicogon (Prov.: Iloilo). Siquijor.**REMARKS.**— A population identified as *T. cf. negrosensis* is herein reported from Lubang Id., based on material in the KU collection (Map 37A [p. 148]). See also Remarks under *T. dendrophiops*.**CONSERVATION STATUS [IUCN].**— Vulnerable B1ab(iii)+2ab(iii) [2016] ver. 3.1.**Subfamily Sibynophiinae Dunn, 1928*****Sibynophis bivittatus* (Boulenger, 1894)****Photo figure 70**

Palawan White-striped Snake

Polydontophis bivittatus Boulenger, 1894:82.*Sibynophis bivittatus*, Taylor, 1922a:80, pl. 10, fig. 1.— Leviton, 1964a:376.— Wallach, Williams, and Boundy, 2014:659.*Sibynophis geminatus bivittatus*, Gaulke, 1993a:151.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Palawan Id., Philippines. Syntypes (2): BMNH 1946.1.1.48–49.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 35A [p. 146]).— Busuanga, Culion, Dumarán, Palawan.**CONSERVATION STATUS [IUCN].**— Least Concern [2016] ver. 3.1.***Sibynophis geminatus geminatus* (H. Boie, 1826a)**

Boie's Many-tooth Snake; Striped Black-headed Snake

Coluber geminatus Oppel in H. Boie, 1826a:col. 211.*Sibynophis geminatus geminatus*, Gaulke, 1993a:151; 1994b:141.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Java, Indonesia. Syntypes (3): MNHN 3392–93 and RMNH 687 (*fide* Wallach et al. [2014:660]).**PHILIPPINE DISTRIBUTION** (Map 35B [p. 146]).— Sulu Archipelago (Tawi-Tawi).**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Southwestern Indonesia.**REMARKS.**— Wallach et al. (2014:660) exclude this species from the Philippines and, without explanation, assign the Tawi-Tawi record to *Sibynophis melanocephalus*. Boie (1826a) attributes the name to Oppel although Boie provides the diagnosis.**CONSERVATION STATUS [IUCN].**— Least Concern [2016] ver. 3.1.

Family Lamprophiidae Fitzinger, 1843

REMARKS.— The placement of the genera *Oxyrhabdium* and *Psammodynastes* in the family Lamprophiidae has been and is the subject of considerable controversy (see Lawson et al. [2005]; Vidal et al. [2007]; Pyron et al. [2011, 2013]; Figueroa et al. [2016]). Indeed, as Pyron et al. (2011:341) observed, “We follow Vidal et al. (2007) in tentatively recognizing Lamprophiidae as a single family, including Aparallactinae, Atractaspidinae, Lamprophiinae, Psammophiinae, and Pseudoxyrophiinae. . . . [however] The genera *Buhoma*, *Oxyrhabdium*, and *Psammodynastes* cannot be placed confidently within the existing subfamilies of Lamprophiidae.” But even more recently, Weinell and Brown (2017) provided reasonably conclusive evidence for the placement of *Oxyrhabdium* along with *Cyclocorus* and *Hologerrhum* within the Lamprophiidae clade but as a distinct subfamily group. We do note that whereas *Myersophis* with *Oxyrhabdium* may be congeneric, in this account we treat them as distinct genera, pending further study. Lastly, we have not fully resolved the placement of *Psammodynastes*, which we believe is reasonably associated with the Lamprophiidae, but how it relates to recognized subfamilies with the family is still under investigation.

Subfamily Cyclocorinae Weinell and Brown, 2017

Cyclocorus lineatus alcalai Leviton, 1967

Alcala’s Northern Triangle-spotted Snake

Cyclocorus lineatus alcalai Leviton, 1967:529.— Ferner, Brown, Sison, and Kennedy, 2001:52[19].— Gaulke, 2011:268–269, figs. 179–181.— Siler, Swab, Oliveros, Diesmos, Averia, Alcala, and Brown, 2012:456.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:169, fig. 27.

Cyclocorus lineatus, Wallach, Williams, and Boundy, 2014:200 (part).

TYPE LOCALITY AND TYPE SPECIMEN(S).— ridge on north side of Maite River, 5 km west of Valencia, Negros Oriental Prov., Negros Id., Philippines. Holotype: CAS 101587 (formerly SU [Rept.] 18191).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 11A [p. 122]).— Cebu, Guimaras, Inampulugan, Negros (Prov.: Negros Occidental, Negros Oriental), Panay (Prov.: Alkan, Antique), Tablas.

CONSERVATION STATUS [IUCN].— The conservation status of *Cyclocorus lineatus alcalai* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

Cyclocorus lineatus lineatus (Reinhardt, 1843)

Photo figures 71–72

Northern Triangle-spotted Snake

Lycodon lineatus Reinhardt, 1843:241, pl. 1, figs. 7–9.

Cyclocorus lineatus, Duméril, 1853:461.— Taylor, 1922a:106 (in part); 1922d:137.— Leviton, 1967:528.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:12.— Diesmos, Brown, and Gee, 2004:71.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:190.— Wallach, Williams, and Boundy, 2014:200 (part).

Cyclocorus lineatus lineatus, Ross and Gonzales, 1992:65.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:12.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188, fig. 8A.— Oliveros, Ota, Crombie, and Brown, 2011:14.— Devan-Song and Brown, 2012:13, fig. 28.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, Diesmos, 2013:78, fig. 81.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Manila, Luzon Id., Philippines. Holotype: ZMUC 60489.
PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 11B [p. 122]).— Babuyan Ids. (Calayan, Camiguin Norte), Cantanduanes, Lubang, Luzon (Prov.: Albay, Aurora, Bataan, Cagayan, Isabela, Kalinga, Laguna, Pampanga, Quezon, Rizal, Sorsogon, Zambales), Mindoro, Marinduque, Mindoro, Polillo.

CONSERVATION STATUS [IUCN].— The conservation status of *Cyclocorus lineatus lineatus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*. Under the nomen *Cyclocorus lineatus*, IUCN shows it as of Least Concern (IUCN [2016] ver. 3.1).

***Cyclocorus nuchalis nuchalis* Taylor, 1923**

Photo figures 73–74

Southern Triangle-spotted Snake

Cyclocorus nuchalis Taylor, 1923:543, pl. 3, figs. 1–2.— Beukema, 2011.— Wallach, Williams, and Boundy, 2014:200 (part).

Cyclocorus nuchalis nuchalis, Smith, 1993:96.— David, Pauwels, Lays, and Lenglet, 2006:215, fig. 9.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Pasananka [= Pasonanca], Zamboanga del Sur [Zamboanga City] Prov., Mindanao Id., Philippines. Holotype: CAS 62558 (formerly EHT 1428).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 11C [p. 122]).— Basilan, Mindanao (Prov.: Bukidnon, Misamis Occidental, Sarangani, South Cotabato, Zamboanga del Sur [Zamboanga City], Zamboanga del Norte). (See summary David, Pauwels, Lays, and Lenglet [2006:251].)

CONSERVATION STATUS [IUCN].— Least Concern [listed as *C. nuchalis*]; under *C. nuchalis nuchalis*, “This taxon has not yet been assessed for the IUCN Red List, but is in the *Catalogue of Life: Cyclocorus nuchalis nuchalis* Taylor, 1923” (IUCN [2016] ver. 3.1).

***Cyclocorus nuchalis taylori* Leviton, 1967**

Photo figure 75

Taylor’s Southern Triangle-spotted Snake

Cyclocorus nuchalis taylori Leviton, 1967:532.— Smith, 1993:97.— Wallach, Williams, and Boundy, 2014:200 (part).— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:92, fig. 66.— Supsup, Guinto, Redoblado, and Somez. 2017:7, fig. 6.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Butuab, Agusan del Norte Prov., Mindanao Id., Philippines. Holotype: CAS 15242.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 11D [p. 122]).— Camiguin Sur, Dinagat, Leyte (Prov.: Leyte), Mindanao (Prov.: Agusan del Norte, Bunawan, Davao City, Davao del Norte, Davao Oriental), Samar, Siargao (Prov.: Surigao del Norte).

CONSERVATION STATUS [IUCN].— The conservation status of *Cyclocorus lineatus taylori* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Hologerrhum dermali* Brown (RM), Leviton, Ferner, and Sison, 2000**

Dermal’s Cylindrical Snake; Crombie’s Stripe-lipped Snake

Hologerrhum dermali Brown, Leviton, Ferner, and Sison, 2000:7.— Ferner, Brown, Sison, and Kennedy, 2001:52[19].— Gaulke, 2011:284–287, figs. 192–193.— Wallach, Williams, and Boundy, 2014:328.

TYPE LOCALITY AND TYPE SPECIMEN(S).— 1510 m above sea level in the area known locally as “Hanggud Tubig” (“Big Water”), on the western face of Mt. Madja-as, Barangay Alojipan, Municipality of Culasi, Antique Prov., Panay Id., Philippines. Holotype: PNM 2711.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 16B [p. 127]).—Panay (Prov.: Aklan, Antique), Sibuyan [observed and photographed but no voucher specimens].

REMARKS.—We are indebted to Leonard G. Soriano who provided a verifiable photograph to authenticate the first and only known record to date for the occurrence of this species on Sibuyan Island.

CONSERVATION STATUS [IUCN].—Endangered B1ab(iii) [2016] ver. 3.1.

***Hologerrhum philippinum* Günther, 1858**

Photo figure 76

Philippine Stripe-lipped Snake; Philippine Cylindrical Snake

Hologerrhum philippinum Günther, 1858:186; 1873:171; 1879:78 (specimen *Cyclochorus lineatus*, *fide* Boulenger, 1896:33).—Boettger, 1886:115.—Castro De Elera, 1895:438 (specimen probably an example of *Cyclochorus lineatus*).—Boulenger, 1896:33.—Griffin, 1911:263 (err. typ.).—Taylor, 1922a:116; pl. 7, fig. 1; 1922b:200, 1922d:138.—Ross and Gonzales, 1991:67.—Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:13, fig. 14.—McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:188, fig. 8B.—Phenix, Phenix, Siler, Brown, and Diesmos, 2011:614, fig. 1.—Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:81, figs. 86–87.—Wallach, Williams, and Boundy, 2014:328.

Cyclochorus maculatus, Jan, 1870:36 (genus name misspelled; specimen *H. philippinum* with doubtful locality data).

Cyclochorus lineatus var. *maculatus* Fischer, 1885:81.

TYPE LOCALITY AND TYPE SPECIMEN(S).—Philippines. Holotype: BMNH 1946.1.2.41.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 16C [p. 127]).—Catanduanes, Luzon (Prov.: Bataan, Bulacan, Cagayan, Camarines Norte, Caminaraes Sur, Isabel, Kalinga, Laguna, Mountain, Quezon, Sorsogon, Zambales), Marinduque, Polillo.

CONSERVATION STATUS [IUCN].—Least Concern [2016] ver. 3.1.

***Myersophis alpestris* Taylor, 1963**

Photo figure 77

Myers' Mountain Snake

Myersophis alpestris Taylor, 1963:430.—Leviton, 1983:212, fig. 4.

TYPE LOCALITY AND TYPE SPECIMEN(S).—in mountains near Banaue, Ifugao Subprovince, Mountain Prov., Luzon Id., Philippines. Holotype: KU 203012 (formerly EHT-HMS 3109; *fide* Leviton [1983:212]).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 26B [p. 137]).—Luzon (Prov.: Mountain, Nueva Vizcaya [Mt. Palali]).

CONSERVATION STATUS [IUCN].—Data Deficient [2016] ver. 3.1.

***Oxyrhabdium leporinum leporinum* (Günther, 1858)**

Photo figures 78–79, [80–82]

Northern Philippine Banded Burrowing Snake

Rhabdosoma leporinum Günther, 1858:12 (part*).

Stenognathus brevirostris Peters, 1872:586 (type locality: Philippines; syntypes ZMB 7440 [2 specimens, *fide* Bauer et al. 1995:74]).

Oxyrhabdium leporinum, Boulenger, 1893:303, pl. 19, fig. 2.—Taylor, 1922a:103, figs. 10a–b; 1922c:296.—Wallach, Williams, and Boundy, 2014:506 (part).

Oxyrhabdium leporinum leporinum, Leviton, 1958:296; 1965a:417.—Brown, McGuire, Ferner, Icarangal Jr., and Kennedy, 2000:189, fig. 30.—Diesmos, Brown, and Gee, 2004:71.—McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and

Brown, 2011:189.— Oliveros, Ota, Crombie, and Brown, 2011:16.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:484, fig. 46.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:90, fig. 97.

TYPE LOCALITY AND TYPE SPECIMEN(S).— “Philippine Islands” but one of the two syntypes was shown to be a specimen of *O. modestum* by Boulenger (1893:303); “Luzon” by subsequent selection by Boulenger (1893:303, pl. 19, fig. 2). Lectotype: BMNH 1946.1.13.98.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 29C [p. 140]).— Babuyan Ids. (Calayan), Luzon (Prov.: Aurora, Batangas, Benguet, Bulacan, Cagayan, Ilocos Norte, Kalinga, Laguna, Nueva Viscaya, Nueva Ecija, Quezon), Marinduque, Mindoro.

CONSERVATION STATUS [IUCN].— The conservation status of *Oxyrhabdium leporinum leporinum* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life* under the species name *O. leporinum* and under this nomen it is shown as Least Concern (IUCN [2016] ver. 3.1).

***Oxyrhabdium leporinum visayanum* Leviton, 1957**

Photo figure 83

Western Visayan Banded Philippine Burrowing Snake

Oxyrhabdium leporinum visayanum Leviton, 1958:299; 1965a:417.— Gaulke, 2011:300–301, figs. 202–203.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:170, fig. 29.

Oxyrhabdium leporinum, Wallach, Williams, and Boundy, 2014:506 (part).

TYPE LOCALITY AND TYPE SPECIMEN(S).— Maite River at elev. ~ 915 m, Cuernos de Negros, Negros Oriental Prov., Negros Id., Philippines. Holotype: CAS-SU 18907.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 29D [p. 140]).— Cebu, Negros (Prov.: Negros Occidental, Negros Oriental), Panay (Prov.: Antique).

CONSERVATION STATUS [IUCN].— The conservation status of *Oxyrhabdium leporinum visayanum* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life* under the species name *O. leporinum* and under this nomen it is shown as Least Concern (IUCN [2016] ver. 3.1).

***Oxyrhabdium modestum* (Duméril, Bibron, and Duméril 1854a)**

Photo figure 84

Non-banded Philippine Burrowing Snake

Stenognathus modestus Duméril, Bibron and Duméril, 1854:504.

Oxyrhabdium modestum, Boulenger, 1893:302).— Taylor, 1922a:100, figs. 9a–c; 1922c:295.— Leviton, 1958:289; 1965a:410.— Smith, 1993:98.— David, Pauwels, Lays, and Lenglet, 2006:217, fig. 11.— Beukema, 2011b:93.— Wallach, Williams, and Boundy, 2014:507.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:104, fig. 76.— Supsup, Guinto, Redoblado, and Somez. 2017:9, fig. 5h.

TYPE LOCALITY AND TYPE SPECIMEN(S).— “Java” [in error]; Mindanao Id., Philippines (designated by Leviton [1958:291]). Syntypes (2): MNHN 7301a–b.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 30A [p. 141]).— Basilan, Biliran, Bohol, Camiguin Sur, Catanduanes, Dinagat, Leyte, Maripipi, Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Bukidnon, Cotabato, Davao, Davao Oriental, Davao del Sur, Misamis Occidental, Misamis Oriental, South Cotabato, Sarangani, Zamboanga del Norte, Zamboanga del Sur [Zamboanga City]), Samar. (Reports from Negros and Panay need confirmation.)

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Subfamily [*incertae sedis*] Pseudaspidinae
[*fide* Vidal et al., 2007, nec Pyron et al., 2011]

***Psammodynastes pulverulentus* (H. Boie in F. Boie, 1827)**

Photo figures 85–86

Mole viper; Philippine Mock Viper; Dark-spotted Mock Viper

Psammophis pulverulentus H. Boie in F. Boie, 1827:547.

Lycodon bairdi Steindachner, 1867:90 (type locality Philippines).

Psammodynastes pulverulentus, Boulenger, 1890:363; 1896:172.— Taylor, 1922a:209, figs. 18a–c; 1922c:298; 1922d:138.— Smith, 1943:268, fig. 117.— Leviton, 1983:205, figs. 2–3.— Brown, McGuire, Ferner, Icarangal Jr., and Kennedy, 2000:189, fig. 31.— Ferner, Brown, Sison, and Kennedy, 2001:53[20].— Gaulke, 2001:28.— Beukema, 2011b:93.— Oliveros, Ota, Crombie, and Brown, 2011:6.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:483, fig. 44.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:84, fig. 90.— Wallach, Williams, and Boundy, 2014:574 (part).— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:105.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:169.

Psammodynastes pulverulentus pulverulentus, David, Pauwels, Lays, and Lenglet, 2006:217.— Gaulke, 2011:304–305, figs 204–207.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia. Lectotype: RMNH 765 (designated by Inger in Van Wallach et al. [2014:574]).

PHILIPPINE DISTRIBUTION (Map 30B [p. 141]).— Balabac, Basilan, Batan Ids. (Batan, Sabtang), Bohol, Calamian Archipelago (Busuanga), Camiguin Sur, Cebu, Dinagat, Leyte, Luzon (Prov.: Albay, Aurora, Cagayan, Camarines Norte, Camarines Sur, Ilocos Norte, Isabela, Laguna, Nueva Vizcaya, Quezon, Sorsogon), Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Bukidnon, Davao, Lanao del Sur, Misamis Occidental, Misamis Oriental, South Cotabato, Surigao del Norte, Zamboanga del Norte, Zamboanga del Sur [Zamboanga City]), Negros (Prov.: Negros Occidental, Negros Oriental), Palawan, Panay, Polillo, Samar, Siargao, Sulu Archipelago (Bongao, Jolo).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Widely distributed from India and throughout Southeast Asia, southern and eastern China, Taiwan. (See David, Pauwels, Lays, and Lenglet [2006:218]; also Miller and Zug [2016:fig. 1 {distribution map}].)

CONSERVATION STATUS [IUCN].— The conservation status of *Psammodynastes pulverulentus* has not been assessed for the IUCN Red List [2016] ver. 3.1.

(Dangerously Venomous snakes)

Family Elapidae F. Boie, 1827

Subfamily Elapinae F. Boie, 1827

***Calliophis bilineata* Peters, 1881**

Two-striped Coral Snake

Calliophis bilineatus Peters, 1881:109.— Boettger, 1886:117.

Doliophis bilineatus, Boulenger, 1896:404.— Griffin, 1909c:600; 1911:266.— Taylor, 1922a:274, pl. 34, figs. 5–6, pl. 35, fig. 3.

Maticora intestinalis bilineata, Leviton, 1964d:532.— Gaulke, 1999:279.

Calliophis intestinalis, Wallach, Williams, and Boundy, 2014:143 (part).

Calliophis bilineata, Leviton, Brown, and Siler, 2014:493, fig. 31.

TYPE LOCALITY AND TYPE SPECIMEN(S).— “Insula Philippinensis Palawan” [= Palawan], Philippines. Holotype ZMB 10004 [*vide* Bauer et al. 1995:75].

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 8A [p. 119]).— Balabac, Busuanga, Calauit, Culion, Palawan.

CONSERVATION STATUS [IUCN].— This taxon has not yet been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Calliophis philippina* Günther, 1864**

Photo figures 87–90

Philippine [banded or striped] Coral Snake

Callophis intestinalis var. *Philippina* Günther, 1864:349.

Adeniophis philippinus, Meyer, 1886:614.— Boettger, 1886:117.— Casto de Elera, 1895:441.

Doliophis philippinus, Boulenger, 1896:404.— Griffin, 1911:266.— Taylor, 1918a:261; 1922a:277, pl. 35, figs. 1–2; 1922c:301.

Maticora intestinalis philippina, Leviton, 1964d:533.— Smith, 1993:99.

Calliophis intestinalis, Wallach, Williams, and Boundy, 2014:143 (part).

Calliophis philippina, Leviton, Brown, and Siler, 2014:494, figs. 10, 32A–B.— Sanguila, Cobb, Siler, Diesmos Alcalá, and Brown, 2016:14, fig. 75.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Philippine Ids. Holotype: BMNH [not confirmed].

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 8B [p. 119]).— Camiguin Sur, Dinagat, Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Davao, Lanao del Sur, Misamis Occidental, Misamis Oriental, Zamboanga City, Zamboanga del Norte), Samar.

CONSERVATION STATUS [IUCN].— The conservation status of *Calliophis philippina* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Calliophis salitan* Brown (RM), Smart, Leviton, and Smith, 2018**

Photo figure 91

Dinagat Island Banded Coral Snake

Calliophis sp., Sanguila, Cobb, Siler, Diesmos Alcalá, and Brown, 2016:101.

Calliophis salitan. Brown, Smart, Leviton, and Smith, 2018:93, figs. 1, 4–7.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Mt. Cambinliasa [elev. 195 m], sitio Cambinlia (Studlon), Barangay Santiago, Municipality Loreto, Dinagat Id., Dinagat Ids. Prov., Mindanao PAIC, Philippines. Holotype: PNM 9844 (formerly KU 310164).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 8C [p. 119]).— Dinagat Island.

CONSERVATION STATUS [IUCN].— Not available as of IUCN [2016] ver. 3.1.

***Calliophis suluensis* Steindachner, 1891**

Sulu Islands Banded Coral Snake

Callophis intestinalis suluensis Steindachner, 1891:295.

Maticora intestinalis suluensis, Leviton, 1964d:535.— Gaulke, 1994b:141.

Calliophis intestinalis, Wallach, Williams, and Boundy, 2014:143 (part).

Calliophis suluensis, Leviton, Brown, and Siler, 2014:494.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Sulu Archipelago, Philippines. Holotype not traced.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 8D [p. 119]).— Sulu Archipelago (Jolo, Siasi).

CONSERVATION STATUS [IUCN].— The conservation status of *Calliophis suluensis* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

Hemibungarus calligaster* (Wiegmann, 1834b)*Photo figure 92**

[Annulated or Barred] Philippine False Coral Snake

Elaps calligaster Wiegmann, 1834b:253, pl. 20, fig. 2.*Calliophis caligaster* [*sic*], Müller, 1883:289.*Hemibungarus calligaster*, Taylor, 1922a:269, pl. 33, figs. 1–2, pl. 34, figs. 1–2; 1922c:300; 1922d:139.—Castoe et al., 2007:809 et seq. (part) —Devan-Song and Brown, 2012:14.—Leviton, Brown, and Siler, 2014:495, figs. 8B, 9, 33.—Wallach, Williams, and Boundy, 2014:319 (part).*Calliophis calligaster calligaster*, Leviton, 1964d:543.—Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:14.*Hemibungarus calligaster calligaster*, McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonceo, Bal-aquit, Uy, Villaseran, Yarra, and Brown, 2011:188.—Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:190, fig. 33.—Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:88, fig. 95.**TYPE LOCALITY AND TYPE SPECIMEN(S).**—Manila, Luzon Id., Philippines. Holotype: ZMB 2742.**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 15C [p. 126]).—Luzon (Prov.: Albay, Bataan, Bulacan, Camarines Sur, Isabela, Laguna, Manila, Quezon, Rizal, Zambales), Mindoro (Prov.: Mindoro Occidental).**REMARKS.**—Ross and Gonzales (1992:68) cite two specimens from Catanduanes as well as two from the Bicol region of Luzon that in their view differ from previously recognized “races” of *H. calligaster*, i.e., *H. calligaster* and *H. gemianulus*, and therefore left the matter of assignment to future study.**CONSERVATION STATUS [IUCN].**—Least Concern [2016] ver. 3.1.***Hemibungarus gemianulus* Peters, 1872**

[Double-barred] Philippine False Coral Snake; Barred Coral Snake

Hemibungarus gemianulus Peters, 1872:587.—Leviton, Brown, and Siler, 2014:495.—Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:169.*Hemibungarus calligaster*, Taylor, 1922a:269, pl. 33, figs. 1–2, pl. 34, figs. 1–2 (part).—Castoe et al., 2007:809 et seq. (part)—Wallach, Williams, and Boundy, 2014:319 (part).*Calliophis calligaster gemianulus*, Leviton, 1964d:545.—Gaulke and Altenbach, 1994:63.—Ferner, Brown, Sison, and Kennedy, 2001:54[21].*Hemibungarus calligaster gemianulus*, Gaulke, 2011:320–321, figs. 219–221.**TYPE LOCALITY AND TYPE SPECIMEN(S).**—“Philippine Ids.” Holotype: ZMB 7405 (*vide* Bauer Bauer et al. [1995:76]).**PHILIPPINE DISTRIBUTION (ENDEMIC)** (Map 15D [p. 126]).—Cebu, Guimaras, Masbate, Negros (Prov.: Negros Occidental, Negros Oriental), Panay (Prov.: Aklan, Antique, Iloilo).**CONSERVATION STATUS [IUCN].**—The conservation status of *Hemibungarus calligaster* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.***Hemibungarus mcclungi* Taylor, 1922a****Photo figure 93**

McClung’s Philippine Coral Snake

Hemibungarus mcclungi Taylor, 1922a:272, pl. 33, fig. 3, pl. 34, figs. 3–4; 1922b:300.—Leviton, Brown, and Siler, 2014:495.*Calliophis calligaster mcclungi*, Leviton, 1964d:547.*Hemibungarus calligaster mcclungi*, Siler and Welton, 2010:428.

Hemibungarus calligaster cf. *mcclungi*, Siler and Welton, 2010:428.

Hemibungarus calligaster, Wallach, Williams, and Boundy, 2014:319 (part).

TYPE LOCALITY AND TYPE SPECIMEN(S).— Polillo Id., Philippines. Holotype: Philippine Bureau of Science, Manila; destroyed during WWII. Neotype: CAS 62431 (formerly EHT 302, designated by Leviton [1964b:547]).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 16A [p. 127]).— Cantanduanes, Luzon (Prov.: Aurora, Bicol Peninsula [Albay, Camarines Sur], Quezon, Sorsogon), Polillo.

CONSERVATION STATUS [IUCN].— The conservation status of *Hemibungarus mcclungi* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life* as *Hemibungarus calligaster mcclungi* Taylor, 1922 (IUCN [2016] ver. 3.1).

Naja philippinensis Taylor, 1922a

Photo figures 94

Northern Philippine Cobra

Naja tripudians caeca, (part) Boulenger, 1896:383 (specimen o, from Lepanto, Luzon).

Naja naja philippinensis Taylor, 1922a:265; 1922c:301; 1922d:139.— Leviton, 1965b:539.

Naja philippinensis, Gaulke and Altenbach, 1994:63.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:14.— Diesmos, Brown, and Gee, 2004:71.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente. Diesmos, and Diesmos, 2012:484.— Devan-Song and Brown, 2012:15, fig. 35.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:88.— Leviton, Brown, and Siler, 2014:496, figs. 4, 34, 35A–B.— Wallach, Williams, and Boundy, 2014:462.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Manila, Luzon Id., Philippines. Holotype: Philippine Bureau of Science, Manila; destroyed during WWII. Neotype: (PNM [not confirmed]).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 26C [p. 137]).— Luzon (Prov.: Aurora, Batangas, Benguet, Bulacan, Cavite, Cagayan, Ilocos Norte, Kalinga, Laguna, Nueva Vizcaya, Pangpanga, Pangasinan, Quezon, Rizal, Zambales), Marinduque, Masbate, Mindoro.

CONSERVATION STATUS [IUCN].— Near Threatened [2016] ver. 3.1.

Naja samarensis Peters, 1861

Southern Philippine Cobra; Samar Cobra

Naja tripudians var. *samarensis* Peters, 1861:690.

Naja samarensis, Boulenger, 1896:385.— Wüster and Thorpe, 1990:336–341.— Smith, 1993:99.— David, Pauwels, Lays, and Lenglet, 2006:220.— Leviton, Brown, and Siler, 2014:496, fig. 35C.— Wallach, Williams, and Boundy, 2014:462.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:103.

Naja naja samarensis, Taylor, 1922a:259; 1922c:302.— Leviton, 1964b:542.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Loquilocum, Samar Id., Philippines. Holotype: ZMB 3955.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 26D [p. 137]).— Bohol, Camiguin Sur, Dinagat, Leyte, Mindanao (Prov.: Agusan del Norte, Bukidnon, Davao del Sur, Lanao, Misamis Occidental, South Cotabato, Zamboanga City), Samar.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Naja sumatrana* F. Müller, 1887**

Equatorial or Sumatran Spitting Cobra

Naja tripudians var. *sumatrana* Müller, 1887:277.*Naja naja miolepis*, Taylor, 1922a:262, text-fig. 30.— Leviton, 1965b:538.*Naja sumatrana*, Wüster and Thorpe, 1989:336–341.— Broadley, Rage, and Toriba, 1993:192.— David and Ineich, 1999:168.— Gaulke, 1999:279.— Leviton, Brown, and Siler, 2014:497.— Wallach, Williams, and Boundy, 2014:463.— Sy, et al., 2016:427.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Solok, Sumatera Barat Prov., Sumatra, Indonesia. Holotype: NMBA 2244.**PHILIPPINE DISTRIBUTION** (Map 27A [p. 138]).— Busuanga, Calamian Ids. (Calauit), Culion, Palawan.**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Thailand (southern), Malaysia (Peninsula, Borneo), Indonesia (Borneo).**CONSERVATION STATUS [IUCN].**— Least Concern [2016] ver. 3.1.***Ophiophagus hannah* (Cantor, 1836)****Photo figure 95**

King Cobra

Hamadryas hannah Cantor, 1836:87, pls. 10–12; 1838:72.*Ophiophagus hannah*, Günther, 1864:341.— Leviton, 1965b:544.— Alcalá, 1986a:161; 1986b:161.— Broadley, Rage, and Toriba, 1993:195.— David and Ineich, 1999:171.— Diesmos, Brown, and Gee, 2004:71.— David, Pauwels, Lays, and Lenglet, 2006:220.— Castoe et al., 2007:809 et seq.— Gaulke, 2011:324–327, figs. 322–324.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:189.— Siler, Welton, Brown, Infante, and Diesmos, 2011:297, fig. 1.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:190.— Devan-Song and Brown, 2012:15, fig. 36.— Sy and Wallbank, 2013:110.— Leviton, Brown, and Siler, 2014:497, figs. 7A–B, 36–37.— Wallach, Williams, and Boundy, 2014:497.— Sy, de Layola, Yu, and Diesmos, 2015:220.— Sy and Boos, 2015:220.— Sanguila, Cobb, Siler, Diesmos Alcalá, and Brown, 2016:14.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:170, fig. 34.— Sy, 2016a:263; 2016b:264.— Sy, Baniqued, and Diesmos, 2016:264.*Naja hannah*, Taylor, 1922a:256, text-fig. 29, pl. 31, figs. 2–3; 1922d:139.— Smith, 1943:436.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Sundarbans (also as Sunderbuns), nr. Calcutta, Bengal, India. Holotype: BMNH 1996.451.**PHILIPPINE DISTRIBUTION** (Map 28D [p. 139]).— Balabac, Bohol, Catanduanes, Cebu, Dinagat, Leyte (Prov.: Leyte), Luzon (Prov.: Aurora, Benguet, Bulacan, Camarines Norte, Isabela, Kalinga, Laguna, Nueva Ecija, Nueva Vizcaya, Pangasinan, Sorsogon, Zambales), Mindanao (Prov.: Davao del Sur, Zamboanga del Norte, Zamboanga del Sur [Zamboanga City], South Cotabato), Mindoro, Negros (Prov.: Negros Oriental), Palawan, Panay (Prov.: Antique), Polillo, Romblon, Sulu Archipelago (Jolo).**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Widely distributed throughout Southeast Asia, from Pakistan through South and Southeast Asia, southern China, Malaysia, Singapore, Indonesia. (See Wallach, Williams, and Boundy [2014:497] for details.)**CONSERVATION STATUS [IUCN].**— Vulnerable A2acd [2016] ver. 3.1.

Subfamily Hydrophiinae Fitzinger, 1843****Aipysurus eydouxii* (Gray, 1849)**

Spine-tailed or Marbled Sea Snake

Tomogaster eydouxii Gray, 1849:59.*Aipysurus eydouxii*, Smith, 1926:14, fig. 7.— David and Ineich, 1999:58.— Leviton, Brown, and Siler, 2014:500.— Wallach, Williams, and Boundy, 2014:21.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Indian Ocean. Holotype: BMNH 1946.1.6.86 (formerly BMNH III.10.1; *fide* Smith [1926:16]).**PHILIPPINE DISTRIBUTION.**— no verifiable records or voucher specimens.**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Widely distributed in coastal waters off of Australia (Queensland, Northern Territory, Western Australia), New Guinea, Indonesia, Gulf of Thailand, Singapore, Malaysia, South China Sea.**REMARKS.**— Although reported for the Philippines, no verifiable records or voucher specimens. Taylor (1922a:227) states, “I have seen no specimens. Both Boulenger [1896:304] and Wall [1910:189] give the Philippines as part of its range, and the species is included in the present work on their authority.”; Smith (1926:16) also questions the authenticity of Boulenger’s report.**CONSERVATION STATUS [IUCN].**— Least Concern [2016] ver. 3.1.***Emydocephalus annulatus* Krefft, 1869**

Annulated Sea Snake; Turtleheaded Sea Snake

Emydocephalus annulatus Krefft, 1869:322.— Smith, 1926:26, fig. 14.— Alcala, 1986a:162.— David and Ineich, 1999:91.— Leviton, Brown, and Siler, 2014:501.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— “Probably the Australian Seas” (see David and Ineich [1999:91]). Syntypes (2): AMS 454 and 6633.**PHILIPPINE DISTRIBUTION** (Map 15B [p. 125]).— “Probably all over Philippine seas” (Alcala [1986:163]) but without exact references.**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Australia, Papua New Guinea, Indonesia (Irian), Loyalty Islands.**CONSERVATION STATUS [IUCN].**— Least Concern [2016] ver. 3.1.***Hydrophis* [*Kolpophis*] *annandalei* (Laidlaw, 1901)**

Annandale’s Sea Snake; Bigheaded Sea Snake

Distira annandalei Laidlaw, 1901:579, pl. 35.*Kolpophis annandalei*, Smith, 1926:106, fig. 31.— David and Ineich, 1999:121.— Wallach, Williams, and Boundy, 2014:345.*Hydrophis* [*Kolpophis*] *annandalei*, Leviton, Brown, and Siler, 2014:502.

* As the authors stated in an earlier publication (Leviton, Brown, and Siler [2014:501–502]), David and Ineich (1999:104) reviewed the controversy surrounding the use of the name *Hydrophis* to include several nominal taxa, *Disteira*, *Leioselasma*, and *Aturia* that had been recognized by various authors. In so doing, they followed Rasmussen (1996), who also recommended recognizing *Astrotia* and *Enhydrina* as distinct genera. More recently, several phylogenetic studies have led to the abandonment of at least 10 heretofore recognized genera by placing them and their included species in the genus *Hydrophis* (Sanders et al. [2013]; Pyron et al. [2013]). Although we have adopted the newly proposed taxonomic arrangements here, we have also indicated where those changes have occurred by including in brackets [] the genus name to which the respective species had been previously assigned. It should be noted that the bracketed name does not imply a subgenus designation. The authors mistakenly assigned *Microcephalophis gracilis* to *Hydrophis*, neglecting to note that Sanders et al. (2013:584) specifically recommended continued recognition of *Microcephalophis* as a distinct genus from the *Hydrophis* core group to include *M. gracilis* and *M. cantoris*.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Patani Bay, Malaysia Peninsula. Holotype: BMNH 1946.1.17.56 (formerly BMNH 1926.10.18.1; *fide* Smith [1926:107]).

PHILIPPINE DISTRIBUTION.— Philippines (not yet reported from the Philippines but has been reported from coastal waters of northern Borneo [Brunei] and Vietnam in the South China Sea as well as the Gulf of Thailand).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Indonesia (Java), Singapore, Malaysia, and Thailand (see David and Ineich [1999:121] for references).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Hydrophis [Thalassophis] anomalus* Schmidt, 1852**

Anomalous Sea Snake

Thalassophis anomalus Schmidt, 1852:81.— Smith, 1926:104, fig. 30.— David and Ineich, 1999:197.— Stuebing and Inger, 1999:221.— Wallach, Williams, and Boundy, 2014:702.

Hydrophis [Thalassophis] anomalus, Leviton, Brown, and Siler, 2014:502.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia. Holotype: ZMH 3342 (formerly ZMH 402 [*fide* Wallach et al. {2014:702}],

PHILIPPINE DISTRIBUTION.— Not yet reported from coastal Philippine waters but one record for the northern coast of Borneo [Brunei] and elsewhere in the Gulf of Thailand.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Indonesia (Java, Kalimantan, Moluccas), Malaysia, Singapore, Thailand, Vietnam.

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Hydrophis atriceps* Günther, 1864**

Southeast Asian Sea Snake; Blackheaded Banded Sea Snake

Hydrophis atriceps Günther, 1864:371, fig.— McCarthy, 1993c:230.— David and Ineich, 1999:104.— Rasmussen, 2001:4001, 1 fig.— Leviton, Brown, and Siler, 2014:503, figs. 19B, 23A, 24A.— Wallach, Williams, and Boundy, 2014:334.

Disteira cincinmatii Van Denburgh and Thompson, 1908:41, pl. (type locality: Manila Bay, off Cavite, Luzon Id.; holotype: CAS 15016).

Hydrophis fasciatus atriceps, Smith, 1926:97, fig. 27; 1943:465.

Hydrophis fasciatus, Alcalá, 1986a:164.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Siam. Syntypes (2): BMNH 1946.1.2.62 (formerly BMNH 62.11.1.255), and BMNH 63.9.29.5; *fide* Smith [1926:98]; see also Wallach et al. [2014:334].

PHILIPPINE DISTRIBUTION (Map 16D [p. 127])— Luzon (Prov.: Cavite [Manila Bay]), Mindanao, Samar, Sulu Archipelago, Visayan Sea.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— coastal waters off the east coast of Malaysia, Gulf of Thailand, Vietnam, southern China, Indonesia to western New Guinea, and northern Australia.

REMARKS.— This species is so similar in appearance to *H. fasciatus* that the two have been regarded as conspecific, though treated as distinct subspecies (Smith [1926, 1943]), but recent studies have treated them as distinct species (see McCarthy [1993:230, 234]; David and Ineich [1999:104, 109]; Wallach et al. [2014:462]). Alcalá (1986:164) referred to records from the Visayan Sea and areas around Samar, Mindanao, and the Sulu islands to *H. fasciatus* but David and Ineich (1999:105) noted that “According to A. R. Rasmussen (pers. comm., June 1996), all references of *Hydrophis fasciatus* based on specimens taken East

of Malacca Strait, from Gulf of Thailand to southern China and to the north coast of Australia, belong to *Hydrophis atriceps*; we follow his interpretation.” We accept this interpretation as well.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Hydrophis [Chitulia] belcheri* (Gray, 1849)**

Belcher’s Sea Snake; Faint-banded Sea Snake

Aturia belcheri Gray, 1849:46.

Hydrophis belcheri, Smith, 1926:52.— McCarthy, 1993c:230.— David and Ineich, 1999:105.— Ferner, Brown, Sison, and Kennedy, 2001:54[21].— Rasmussen et al., 2011:5.— Leviton, Brown, and Siler, 2014:503.

Chitulia belcheri, Wallach, Williams, and Boundy, 2014:163.

TYPE LOCALITY AND TYPE SPECIMEN(S).— New Guinea. Holotype: BMNH 1946.1.1.97 (formerly BMNH III.3.2.a; *fide* Smith [1926:53]).

PHILIPPINE DISTRIBUTION (Map 17A [p. 128]).— Philippines, unknown, although Alcala (1986a:166) states that it “has been recorded from the central Philippine sea.”; see also comment by Ferner et al. (2001:54[21]), who cite Alcala (1986). Otherwise, it has been reported from the coastal waters off of Vietnam in the South China Sea (Rasmussen et al. [2011:5]).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Gulf of Thailand, Vietnam, Indonesia, and New Guinea. (N.B.: David and Ineich [1999:105], citing earlier discussions by McDowell [1972:217] and McCarthy and Warrell [1991:162–163], refer the Australasian records to *Hydrophis pacificus*, but see also Kharin [2005:161], whose observations heighten the confusion regarding the identification of samples of populations supposedly belonging to *H. belcheri*. See also comments by Rasmussen [2001] relating to *H. coggeri*.)

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Hydrophis brookii* Günther, 1872**

Brook’s Sea Snake

Hydrophis brookii Günther, 1872:597, fig.— Smith, 1926:99.— David and Ineich, 1999:106.— Stuebing and Inger, 1999:207.— Rasmussen et al., 2011:5.— Leviton, Brown, and Siler, 2014:504.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Sarawak [coast], Borneo, Malaysia. Holotype: BMNH 1946.1.1.57 (formerly BMNH 72.2.16.58; *fide* Smith [1926:101]).

PHILIPPINE DISTRIBUTION.— Unknown in the Philippines, but it has been reported from South China Sea, along the coast of Sarawak, Borneo (Smith [1926:101]; Stuebing and Inger, [1999:207]), and Vietnam (David and Ineich [1999:106]; Rasmussen [2011:5]).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Thailand, Indonesia, Malaysia, Singapore, Vietnam, Sarawak coast of Borneo.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Hydrophis caeruleus* (Shaw, 1802)**

Blue-grey Sea Snake; Dwarf Sea Snake

Hydrus caeruleus Shaw, 1802:561.

Hydrophis caeruleus, Smith, 1926:90, fig. 26.— David and Ineich, 1999:106.— Sanders, Lee,

Mumpuni, Bertozzi, and Rasmussen, 2013:579 *et seq.*— Pyron, Burbrink, and Wiens, 2013:28, fig. 24.

Polyodontognathus caeruleus, Wallach, Williams, and Boundy, 2014:563.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Indian Ocean. Holotype: BMNH 1946.1.3.90 (formerly BMNH III.6.13.a; *fide* Smith [1926:92]).

PHILIPPINE DISTRIBUTION.— Philippines (this species has not been recorded from the Philippines but it has been reported from off the Sarawak Coast of northern and western Borneo (Stueling and Inger [1999:208]).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Widely distributed from coastal Pakistan to western Indonesia, Australia (see David and Ineich [199:106] for details).

REMARKS.— According to Stueling and Inger (1999:208) off the Sarawak coast (Borneo) this snake on occasion has been caught up in shrimp trawls, more frequently in sheltered embayments rather than the open sea. The authors also note that although a small non-aggressive snake, with “a small mouth and tiny fangs”, it possesses a dangerous venom, and it can produce a “serious, even fatal bite.”

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Hydrophis [Leioselasma] coggeri* Kharin, 1984**

Cogger’s Sea Snake; Pacific Yellow-banded Sea Snake; Slender-necked Sea Snake

Leioselasma coggeri Kharin, 1984a:1538, fig. b.— David and Ineich, 1999:107.— Rasmussen, 2001:4002, figs.— Wallach, Williams, and Boundy, 2014:358.

Hydrophis coggeri, Leviton, Brown, and Siler, 2014:504.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Port Suva, Fiji Ids. Holotype ZISP 19681.

PHILIPPINE DISTRIBUTION.— said to occur in the Philippines (Rasmussen [2001:4002] and distribution map; also Zug [2013:229]) but most likely *H. melanocephalus* (see Rasmussen et al. [2011:6]).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— north coast of Australia, New Caledonia, east to Vanuatu and Fiji.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Hydrophis [Lapemis] curtus* Shaw, 1802**

Photo figure 96

Short or Hardwicke’s Sea Snake

Lapemis curtus Shaw, 1802:562.— Zhao and Adler, 1993:269.— Gritis and Voris, 1990:1–11.— Whitaker and Captain, 2004:398, photo (p. 399). McCarthy, 1993d:244.— David and Ineich, 1999:121.— Wallach, Williams, and Boundy, 2014:354.

Lapemis hardwickii Gray in Hardwicke and Gray, 1835, vol. 2, pl. 87.— Smith, 1926:108, fig. 32, pl. 1, fig. 3; 1943:468, figs. 148–149.— Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:14.— Ferner, Brown, Sison, and Kennedy, 2001:54[21].— Devan-Song and Brown, 2012:14.

Lapemis curtus hardwickii, McCarthy, 1993d:244.

Hydrophis curtus, Sanders, Lee, Mumpuni, Bertozzi, and Rasmussen, 2013:579 *et seq.*— Pyron, Burbrink, and Wiens, 2013:28, fig. 24.

Hydrophis [Lapemis] curtus, Leviton, Brown, and Siler, 2014:504, figs. 27D, 28–29, 37–38.

TYPE LOCALITY AND TYPE SPECIMEN(S).— India. Holotype: BMNH 1946.1.17.59 (formerly BMNH III.2.2.a; *fide* Smith [1926:110]).

PHILIPPINE DISTRIBUTION (Map 17B [p. 128]).— Luzon (Prov.: Cavite [Manila Bay], Manila

[Manila Bay], Pangasian [Lingayen Gulf], Rizal, Zambales), Mindanao (Prov.: Zamboanga del Sur [Zamboanga City]), Negros (Prov.: Negros Occidental), (also reported from the Visayan Sea [*fide* Alcalá {1986:170}], and listed from Negros and Panay [*fide* Wallach et al. {2014:355}]).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Widely distributed, from the Persian Gulf to Austrakalia, along the southeast coast of India to Straits of Malacca, Indonesia, Australia, and north to China, Taiwan, and Japan. (See Wallach et al. [2014:354] for details.)

REMARKS.— Gritis and Voris (1990) do not recognize *Lapemis hardwickii* [now *Hydrophis hardwicki*] as a distinct species, placing it in the synonymy of *L. curtus*. McCarthy (1993) recognized it as a subspecies of *L. curtus*, allowing that the nominate form inhabits coastal waters from the Persian Gulf to the shores of western India, and *L. curtus hardwickii* ranges from the coastal waters of Sri Lanka and eastern India to New Guinea and Australia and north to the coast of China, the Philippines, and Japan (see also David and Ineich [1999:121–122]). Smith (1926:113, 1943:471) argued that *L. curtus* ranges from the Persian Gulf to the west coast of India as far as Sri Lanka but that it is unknown along the east coast of India. We follow Gritis and Voris inasmuch as theirs is the most comprehensive analysis of character variation done so far, and based on their study there are no morphological features that justify recognizing two species although we emphasize that recent phylogenetic studies (Sanders et al. [2013]) place the genus *Lapemis* and its included species in the genus *Hydrophis*.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Hydrophis cyanocinctus Daudin, 1803

Photo figure 97

Annulated Sea Snake; Many-banded Sea Snake; Bluebanded Sea Snake

Hydrophis cyanocinctus Daudin, 1803, 7:383.— Smith, 1926:56, fig. 20; 1943:454.— David and Ineich, 1999:108.— Whitaker and Captain, 2004:392, photo (p. 303).— Leviton, Brown, and Siler, 2014:505, figs. 19B, 20B, 23B, 25B, 26A–B, 39.— Sanders, Lee, Mumpuni, Bertozzi, and Rasmussen, 2013:579 *et seq.*— Pyron, Burbrink, and Wiens, 2013:28, fig. 24.— Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:169.

Leioselasma cyanocincta, Wallach, Williams, and Boundy, 2014:358.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Sunderbunds [= Sunderbans] (Ganges Delta), India. Holotype: BMNH 1946.1.9.23 (formerly BMNH 96.3.25.6; *fide* Smith [1926:61]) (see also Russell [1801:pl. 9] [*fide* David and Ineich {1999:108}]).

PHILIPPINE DISTRIBUTION (Map 17C [p. 128]).— Cebu, Luzon (Prov.: Cavite [Manila Bay]; Manila [Manila Bay]), Mindanao (Prov.: Basilan [Pilas Id.]), Visayan region [*fide* Alcalá {1986a:164}]).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Extensive range from Persian/Arabian Gulf east to Indonesia and north to the Idzu Sea, Japan (see David and Ineich [1999:108] for details).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Hydrophis inornatus (Gray, 1849)

REMARKS (Map 17D [p. 128]).— According to David and Ineich (1999:111), Rasmussen (1989) referred records of Philippine and Indonesian *H. inornatus* to *H. ornatus* (see Rasmussen synonymy [1989:399], also comments on p. 410). Rasmussen also states, “However, the acceptance of *H. inornatus* as a separate species is explicitly preliminary and further study

may show that the type specimen of *H. inornatus* is an aberrant specimen of *H. ornatus*.” (Rasmussen [1989:415]). (See also Leviton, Brown, and Siler [2014:506]).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Hydrophis [Kerilia] jerdoni* Gray, 1849**

Jerdon’s Sea Snake

Kerilia jerdoni Gray, 1849:57.— Smith, 1926:31, fig. 15.— David and Ineich, 1999:120.— Stuebing and Inger, 1999:214.— Rasmussen et al., 2011:8.— Wallach, Williams, and Boundy, 2014:345.

Hydrophis [Kerilia] jerdoni, Leviton, Brown, and Siler, 2014:507.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Madras, India. Holotype: BMNH 1946.1.10.11 (formerly BMNH III.8.1.a; *fide* Smith [1926:32]).

PHILIPPINE DISTRIBUTION.— Philippines (not recorded from the Philippines but reported from coastal waters of northern Borneo and elsewhere in the South China Sea north to Taiwan).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Widely distributed from coastal waters of southeast Indian Peninsula, Sri Lanka, Myanmar, Thailand, Mergui Archipelago, Malacca Straits, Singapore, and west and northwest coast of Borneo.

REMARKS.— Two subspecies of *Kerilia jerdoni* have been recognized, but not all authors agree on their status. *Kerilia j. jerdoni* is the form that would be encountered in the Bay of Bengal along the coasts of southeast India, Sri Lanka, and Myanmar, whereas *K. j. siamensis* ranges from the east coast of Peninsular Thailand to the Borneo coast (Rasmussen and Anderson [1990]).

We have assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013).

Although not yet recorded from the Philippines, its occurrence in shallow coastal waters off the coast of northern Borneo suggests it will likely be found in coastal waters off of the Palawan Island group and perhaps in the Sulu Sea.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Hydrophis [Mediohydrophis] klossi* Boulenger, 1912**

Kloss’s Sea Snake

Hydrophis klossi Boulenger, 1912:190.— Smith, 1926:68, fig. 21.— Stuebing and Inger, 1999:210.— David and Ineich, 1999:112.— Leviton, Brown, and Siler, 2014:507.

Mediohydrophis klossi, Wallach, Williams, and Boundy, 2014:422.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Selangor, Malaysia Peninsula. Holotype: BMNH 1946.1.10.8 (formerly BMNH 1920.6.3.7; *fide* Smith [1926:69]).

PHILIPPINE DISTRIBUTION.— Philippines (not yet reported from Philippine waters; Stuebing and Inger [1999:210] report one specimen off the coast of northern Borneo).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— east coast of Malay Peninsula, Thailand, Singapore, western Indonesia (Sumatra).

REMARKS.— We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013).

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Hydrophis [Chitulia] lamberti* Smith, 1917**

Lambert’s Sea Snake

Hydrophis lamberti Smith, 1917:340.— Rasmussen, 1989:410.— David and Ineich, 1999:112.— Rasmussen et al., 2011:6.— Leviton, Brown, and Siler, 2014:507.

Hydrophis ornatus, (part) Smith, 1926:81.—Dunson and Minton, 1978:281.—Minton, 1978:151.
Chitulia lamberti, Wallach, Williams, and Boundy, 2014:163.

TYPE LOCALITY AND TYPE SPECIMEN(S).—Bight of Bangkok, Thailand. Holotype: BMNH 1946.1.9.20 (formerly BMNH 1921.2.11.13' *fide* Smith [1926:83]).

PHILIPPINE DISTRIBUTION (Map 18A [p. 129]).—Gigantes Ids. (Prov.: Iloilo), Luzon (Manila Bay).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).—Singapore, Gulf of Thailand, Vietnam.

REMARKS.—We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013:583) and Pyron et al. (2013).

CONSERVATION STATUS [IUCN].—Least Concern [2016] ver. 3.1.

***Hydrophis [Leioselasma] melanocephalus* Gray, 1849**

Black-headed Sea Snake; Slender-necked Sea Snake

Hydrophis sublaevis var. *melanocephalus* Gray, 1849:53.

Hydrophis melanocephalus, Smith, 1926:64.—McCarthy, 1993c:237.—David and Ineich, 1999:114.—Leviton, Brown, and Siler, 2014:508.

Leioselasma melanocephala, Wallach, Williams, and Boundy, 2014:359.

TYPE LOCALITY AND TYPE SPECIMEN(S).—Indian Ocean? (questioned by Smith [1926:65]); “China Sea or even . . . the Ryukyus’ via lectotype selection” (Wallack et al. [2014:359]).
Lectotype: BMNH 1946.1.9.22 (formerly BMNH 47.3.4.68; *fide* Smith [1926:65]).

PHILIPPINE DISTRIBUTION.—Philippines (*fide* Rasmussen [2011]; David and Ineich [1999]) but without locality details.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).—Vietnam, China, Taiwan, Japan (Ryukyu Ids.).

REMARKS.—We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013).

CONSERVATION STATUS [IUCN].—Data Deficient [2016] ver. 3.1.

***Hydrophis [Chitulia] ornatus* (Gray, 1842)**

Ornate Sea Snake; Reef Sea Snake; Spotted Sea Snake

Aturia ornata Gray, 1842b:61.

Hydrophis ornatus, Smith, 1926:81, fig. 24.—David and Ineich, 1999:116.—Whitaker and Captain, 2004:394, photo (p. 395).—Leviton, Brown, and Siler, 2014:508, figs. 24B, 40–41.

Hydrophis ornatus ornatus, Smith, 1943:460.—McCarthy, 1993c:239.

Chitulia oprnata, Wallach, Williams, and Boundy, 2014:164.

TYPE LOCALITY AND TYPE SPECIMEN(S).—Indian Ocean. Holotype: BMNH 1946.1.23.72 (formerly BMNH III.3.1.a; *fide* Smith [1926:83]).

PHILIPPINE DISTRIBUTION (Map 18B [p. 129]).—Gigantes Sur, Luzon (Prov.: Cavite [Manila Bay], Rizal [Manila Bay]), Panay.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).—Persian [Arabian] Gulf to New Guinea and Australia and north along the coast of China to the Ryukyu Ids. (See also comments by Zug [2013:230] relating to reports of occurrence in the Gilbert Islands.)

REMARKS.—We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013).

CONSERVATION STATUS [IUCN].—Least Concern [2016] ver. 3.1.

***Hydrophis [Acalyptophis] peronii* (A.H.A. Duméril, 1853)**

Spiny-headed Sea Snake or Horned Sea Snake

Acalyptus peronii A.H.A. Duméril, 1853:522.*Acalyptophis peronii*, Boulenger, 1896:269.— Smith, 1926:102, figs. 28–29.— David and Ineich, 1999:55.— Wallach, Williams, and Boundy, 2014:2.*Hydrophis [Acalyptophis] peronii*, Leviton, Brown, and Siler, 2014:509, figs. 20C, 42.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— New Holland (but questioned by Smith, 1926:103). Holotype: MNHN 7177.**PHILIPPINE DISTRIBUTION.**— Philippines (unknown, but it has been reported from the coast of the Malaysian Peninsula and Vietnam in the South China Sea).**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Gulf of Siam, including coastal Thailand, Vietnam, Malaysia, Indonesia, South China Sea north to Taiwan, and east to New Guinea, New Caledonia, and Australia.**REMARKS.**— We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013:583) and Pyron et al. (2013).**CONSERVATION STATUS [IUCN].**— Least Concern [2016] ver. 3.1.***Hydrophis [Pelamis] platurus* (Linnaeus, 1758)****Photo figure 98**

Pelagic Sea Snake; Yellow-bellied Sea Snake

Anguis platura Linnaeus, 1766:391.*Pelamis platurus*, Smith, 1926:116, fig. 33; 1943:476.— McCarthy, 1993e:245.— David and Ineich, 1999:174.— Whitaker and Captain, 2004:402, photo (p. 403).*Pelamis platura*, Rasumussen et al., 2011:9.— Wallach, Williams, and Boundy, 2014:529.*Hydrophis [Pelamis] platurus*, Leviton, Brown, and Siler, 2014:509, figs. 27A, 27C, 30, 43–44.*Hydrophis platyurus [sic]*, Sanguila, Cobb, Siler, Diesmos Alcalá, and Brown, 2016:103.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Not stated. Holotype not traced (see Wallach et al. [2014:529]).**PHILIPPINE DISTRIBUTION** (Map 18C [p. 129]).— Gigantes Ids., Luzon (but said to be widely distributed), Mindanao (Prov.: Zamboanga Sibugay [Sibuguey Bay]), Sulu Archipelago (Jolo, Sibutu), Surigao.**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Most widely distributed of all sea snakes, from east coast of Africa throughout southern and eastern coastal Asia, as far north as southern Siberia, throughout Indonesia to Australia and Tasmania, also from Gulf of Panama north to Baja California in western North America and Hawaiian Islands. (See Wallach et al. [2014:529] for details.)**REMARKS.**— We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013).**CONSERVATION STATUS [IUCN].**— Least Concern [2016] ver. 3.1.***Hydrophis [Enhydrina] schistosus* (Daudin, 1803)****Photo figure 99**

Beaked Sea Snake; Hooked-nosed Sea Snake

Hydrophis schistosus Daudin, 1803, 7:386.*Enhydrina schistosa*, Smith, 1926:36, fig. 17; 1943:449, fig. 144.— McCarthy, 1993b:227.— David and Ineich, 1999:92.— Whitaker and Captain, 2004:390, photo (p. 391).— Wallach, Williams, and Boundy, 2014:265.

Disteira schistosa, McDowell, 1972:239–244.

Hydrophis [*Enhydrina*] *schistosus*, Leviton, Brown, and Siler, 2014:510, figs. 20A, 21B, 22, 45.

TYPE LOCALITY AND TYPE SPECIMEN(S).—“Restricted to Tranquebar [= Tharangambadi], Tamil Nadu State, SE India . . . *vide* M.A. Smith (1926a: 39)” (Wallach et al. [2014:265]; see also Bauer [2015:46]). Type based on Russell, 1801, p. 11, pl. x and p. 13, pl. xi. According to Wallach et al. (*op. cit.*), “Holotype, BMNH 1946.1.10.7 (formerly RCSM & BMNH 1921.7.28.1) . . .”

PHILIPPINE DISTRIBUTION.— Philippines (although there are no specific records, its wide range and occurrence in the South China Sea in muddy bottoms of coastal waters and at the mouths of streams, makes its occurrence in the coastal waters of southwestern Philippines likely).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Persian/Arabian Gulf (Iraq, Iran), Oman, Pakistan, India, Myanmar, Thailand, Malaysia, Singapore, Indonesia, east to New Guinea and Australia (David and Ineich [1999:92]).

REMARKS.— Stuebing and Inger note that “The Beaked Sea Snake is a dangerous species, with potent venom and a reputation in Peninsula Malaysia for biting fishermen. Because of its preference for muddy bottoms, it is sometimes trod upon in shallow tidal flats by people who wade barefoot while netting prawns.” (Stuebing and Inger [1999:207].)

REMARKS.— We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Hydrophis* [*Leioselasma*] *semperi* Garman, 1881**

Photo figure 100

Lake Taal Sea snake

Hydrophis semperi Garman, 1881:85.— Smith, 1926:63.— McCarthy, 1993c:240.— David and Ineich, 1999:118.— Leviton, Brown, and Siler, 2014:511, fig. 46.

Leioselasma semperi, Wallach, Williams, and Boundy, 2014:360.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Lake Taal, Luzon Id., Philippines. Holotype: MCZ 4352.

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 18D [p. 129]).— Luzon (Prov.: Batangas [Lake Taal]).

REMARKS.— We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013).

CONSERVATION STATUS [IUCN].— Vulnerable B1ab(iii,v); D2 [2016] ver. 3.1.

***Hydrophis* [*Leioselasma*] *spiralis* (Shaw, 1802)**

Photo figure 101

Yellow Sea Snake

Hydrus spiralis Shaw, 1802:564, pl. 125.

Hydrophis spiralis, Smith, 1926:48.— David and Ineich, 1999:118.— Leviton, Brown, and Siler, 2014:511, figs. 25A, 26C–D.

Leioselasma spiralis, Wallach, Williams, and Boundy, 2014:360.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Indian Ocean. Holotype: BMNH 1946.1.6.94 (formerly BMNH III.6.10.c) (see comment by Smith [1926:50], also Bauer [2015:57]).

PHILIPPINE DISTRIBUTION (Map 19A [p. 130]).— Philippines (a single record, juvenile, from Mergusi [Smith {1926:50}] has been repeatedly cited without further evidence of presence in Philippine coastal waters; Wallach et al. [2014:360] include Tablas in their distribution list).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Widely distributed from the Persian/Ara-

bian Gulf east to Malaysia and Indonesia (see David and Ineich [1999:118]; Wallach et al. [2014:360]).

REMARKS.— We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Hydrophis [Astrotia] stokesii* (Gray, 1846)**

Malayan [or Stokes'] Sea Snake

Hydrus stokesii (part) Gray in Stokes, 1846:502.

Astrotia stokesi, Wall, 1909:250.

Astrotia stokesii, Smith, 1926:113.— Dunson and Minton, 1978:282.— David and Ineich, 1999:63.— Wallach, Williams, and Boundy, 2014:59.

Hydrophis [Astrotia] stokesii, Leviton, Brown, and Siler, 2014:512, figs. 27B, 47.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Australian seas. Holotype: BMNH 1946.1.17.12 (formerly BMNH III.9.1.d; *fide* Smith [1926:115]).

PHILIPPINE DISTRIBUTION (Map 19B [p. 130]).— Gigantes Sur (Prov.: Iloilo) (see Dunson and Minton [1978:282]).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Widely distributed from India to Australia and north into the South China Sea. (See David and Ineich [1999:63], and Wallach, et al. [2014:59] for details.)

REMARKS.— We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013).

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Hydrophis [Praescutata; Thalassophina] viperinus* (Schmidt, 1852)**

Grey Sea Snake

Thalassophis viperina Schmidt, 1852:79, pl. 3.

Thalassophina viperina, Smith, 1926:33, fig. 16.— Rasmussen, 1997:23.— Wallach, Williams, and Boundy, 2014:702.

Praescutata viperina, David and Ineich, 1999:177.— Stuebing and Inger, 1999:220.

Hydrophis [Praescutata] viperinus, Leviton, Brown, and Siler, 2014:512.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Java, Indonesia. Holotype: NMH (also as ZMH) 404 (*fide* Smith [1926:35]).

PHILIPPINE DISTRIBUTION.— Philippines (not yet reported from coastal Philippine waters but present in the South China Sea and Gulf of Thailand).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Widely distributed from Persian/Arabian Gulf to eastern Asia, including off the coasts of northern Borneo (Sarawak), Thailand, Vietnam, China, as far north as Taiwan (for details see David and Ineich [1999:177]; Stuebing and Inger [1999:220]; Wallach et al. [2014:702]), as well as eastward to northern Australia and into the western Pacific (Zug [2013:231]).

REMARKS.— We have tentatively assigned this species to *Hydrophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013).

CONSERVATION STATUS [IUCN].— The conservation status of *Hydrophis viperinus* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Microcephalophis gracilis* (Shaw, 1802)**

Common Small-headed Sea Snake

“Kadell nagam” Russel, 1801:15, pl. 13.

Hydrus gracilis Shaw, 1802:560.*Microcephalophis gracilis*, Smith, 1926:121, fig. 34. — David and Ineich, 1999:110. — Rasmussen, Elmberg, Gravlund, and Ineich, 2011:6. — Sanders, Lee, Mumpuni, Bertozzi, and Rasmussen, 2013:584. — Wallach, Williams, and Boundy, 2014:431.*Hydrophis gracilis*, Leviton, Brown, and Siler, 2014:506, fig. 19C.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Type locality unknown. Holotype: BMNH 1946.1.17.37 (formerly BMNH III.4.1.a; *fide* Smith [1926:123]).**PHILIPPINE DISTRIBUTION** (Map 26A [p. 137]).— Luzon (Manila Bay).**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Widely distributed from Persian/Arabian Gulf (coastal Saudi Arabia, Kuwait, Iraq, Iran, and Oman) east to the Bay of Bengal, Gulf of Thailand, Malaya and Singapore, South China Sea, and Indonesia, to New Guinea (Gulf of Guinea). (See Wallach et al., 2014:431, for details.)**REMARKS.**— We have retained this species in the genus *Microcephalophis* consistent with the treatments of *Hydrophis* and related nominal genera by Sanders et al. (2013) and Pyron et al. (2013) (see also footnote p. 60 herein).**CONSERVATION STATUS [IUCN].**— Least Concern [2016] ver. 3.1.**Subfamily Laticaudinae Cope, 1879*****Laticauda colubrina* (Schneider, 1799)****Photo figure 102**

Yellow-lipped sea krait

Hydrus colubrinus Schneider, 1799:238.*Laticauda colubrina*, Taylor, 1922a:231, pl. 29. — Smith, 1926:6; 1943:443. — McCarthy, 1993a:146. — David and Ineich, 1999:123. — Brown, Ferner, Sison, Gonzales, and Kennedy, 1996:14. — Ferner, Brown, Sison, and Kennedy, 2001:54[21]. — Whitaker and Captain, 2004:386, photo (p. 387). — Bucol, Alcala, Averia, Alcala, and Alcala, 2011:112. — Oliveros, Ota, Crombie, and Brown, 2011:16. — Rasmussen et al., 2011:9. — Devan-Song and Brown, 2012:15. — Siler, Swab, Oliveros, Diesmos, Averia, Alcala, and Brown, 2012:456, fig. 23. — Leviton, Brown, and Siler, 2014:513, figs. 16A, 17B, 18B, 48. — Supsup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:169.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Type locality “Ostindischens Meer” in the ZMB catalog (Bauer [1998:139] and Wallach et al. [2014:355]). Holotype: ZMB 9078 (*fide* Smith [1926:8]).**PHILIPPINE DISTRIBUTION** (Map 19D [p. 130]).— Babuyan Ids. (Babuyan Claro, Barit, Calayan, Dalupiri, Mabag). Bantayan, Bohol, Cebu, Luzon (Manila Bay, Verde Island Passage; [Prov.: Zambales {Subig Bay}]), Maestre de Campo (Romblon Id. group), Mindanao (Prov.: Zamboanga City), Negros (Prov.: Negros Oriental), Panay, Siquijor, Sulu Archipelago (Jolo, Sitanki).**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Smith (1943:444) states that this species is not commonly met in “Indian and Indo-Chinese waters” though it is not uncommon at Singapore. Minton (1975:26, Table 1) suggests that although rare in the Bay of Bengal, it may not be uncommon along the Myanmar coast and the west coast of the Malayasian Peninsula. Also coastal waters of Thailand, Malaysia, western Indonesia as far east as Polynesia and north along the east Asian coast to southern Japan.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Laticauda laticaudata* (Linnaeus, 1758)**

Photo figure 103

Brown-lipped Sea Krait; Black-banded Sea Krait

Coluber laticaudatus Linnaeus, 1758:222 (part).

Laticauda laticaudata, Taylor, 1922a:4.— Smith, 1926:4, fig. 5; 1943:442.— McCarthy, 1993a:146.— David and Ineich, 1999:124.— Oliveros, Ota, Crombie, and Brown, 2011:16.— Rasmussen et al., 2011:9.— Leviton, Brown, and Siler, 2014:514, figs. 17A, 18A, 49.— Sup-sup, Puna, Asis, Redoblado, Panaguinit, Guinto, Rico, Diesmos, Brown, and Mallari, 2016:170.

TYPE LOCALITY AND TYPE SPECIMEN(S).— “In Indiis”. Lectotype: NHR Lin-87, designated by Stejneger (1907a:402) (see Wallach et al. [2014:356]).

PHILIPPINE DISTRIBUTION (Map 20A [p. 131]).— [coastal waters of the islands of] Babuyan Ids. (Calayan), Bantayan, Gato, Jolo, Luzon, Mindanao, Mindoro [northern], Samar, Sulu Archipelago (Jolo).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Smith (1943:443) states that it is “rare in the Oriental region (Calcutta and Little Nicobar Harbour).” On the other hand, Minton (1975:26, table 1) suggests that although rare in the Bay of Bengal, it may not be uncommon along the west coast of the Malayan Peninsula. Also western Indonesia (Sumatra and Java) to Australia, Melanesia and Polynesia, and north along the east coast of Asia to southern Japan. (See Wallach et al., 2014:356 for a summary of its reported distribution.)

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Laticauda semifasciata* (Reinwardt in Schlegel, 1837)**

Half-banded Sea Krait

Platurus semifasciatus Reinwardt in Schlegel, 1837b:516.

Laticauda semifasciata, Taylor, 1922a:234, pl. 3, fig. 2, pl. 30; 1923:554.— Smith, 1926:10, fig. 6.— David and Ineich, 1999:125.— Oliveros, Ota, Crombie, and Brown, 2011:16.— Rasmussen et al., 2011:9.— Leviton, Brown, and Siler, 2014:514.

Pseudolaticauda semifasciata, Kharin, 1984b:135.— Wallach, Williams, and Boundy, 2014:592.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Moluccas. Holotype: RMNH 1468 (see also comments by Stejneger [1907a:409]).

PHILIPPINE DISTRIBUTION (Map 20B [p. 131]).— [coastal waters of the islands of] Babuyan Ids. (Babuyan Claro), Bohol, Capones, Cuyo, Gato, Luzon (Prov.: Zambales [coast of]), Negros (Prov.: Negros Oriental), Palawan, Sulu Id., Visayas (see David and Ineich [1999:125] and Wallach [2014:592]).

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— China, Taiwan, Japan, Russia, Indonesia (*vide* David and Ineich [1999:125]; Rasmussen et al. [2011:9]; Wallach et al. [2014:592]).

REMARKS.— We know of no recent genomic data to evaluate the status of the generic affiliation of *Laticauda semifasciata* or its congener, *L. schistorhynchus*. Based on morphological considerations, Kharin (1984) proposed the genus *Pseudolaticauda* to accommodate these two species, and this arrangement has been recognized by Wallach et al. (2014:592). However, we note that Rasmussen et al. (2011:9) retain this species in *Laticauda*, as did David and Ineich (1999:125) for reasons given, and we herein accept this assignment.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

Family Viperidae Oppel, 1811
Subfamily Crotalinae Oppell, 1811

Trimeresurus (Parias) flavomaculatus* (Gray, 1842)*Photo figures 104–109**

Philippine Pit Viper

Magaera flavomaculata Gray, 1842:49.*Parias flavomaculata*, Gray, 1849:11.*Trimeresurus flavomaculatus*, Günther, 1879:79.— Taylor, 1922a:288; 122d:139.— Leviton, 1964c:257.— Ross and Gonzales, 1992:69.— David and Ineich, 1999:284.— Gumprecht, Tillack, Orlov, Captain, and Ryabov, 2004:32, 25 col. photos (pp. 181–186).— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:190, fig. 8D.— Oliveros, Ota, Crombie, and Brown, 2011:16, figs. 8B, 8C.— Brown, Oliveros, Siler, Fernandez, Welton, Buenavente, Diesmos, and Diesmos, 2012:484, fig. 48.— Devan-Song and Brown, 2012:15, fig. 37.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:93*Trimeresurus flavomaculatus flavomaculatus*, Leviton, 1964c:257.— Toriba, 1993a:98.— David & Ineich, 1999:284.— Gaulke, 2001:33, figs. 11–12.*Trimeresurus halieus* Griffin 1910:214 (type locality: Polillo Islands).— Taylor, 1922a:286.*Trimeresurus flavomaculatus halieus*, Leviton, 1964c:262.— Toriba, 1993a:98.— David & Ineich, 1999:284.*Parias flavomaculatus*, David, Pauwels, Lays, and Lenglet, 2006:220, figs. 15–16.— Beukema, 2011:178, fig. 3.— Gaulke, 2011:336–339, figs. 231–233.— Siler, Welton, Siler, Brown, Bucol, Diesmos, and Brown, 2011:191, fig. 34–36.— Wallach, Williams, and Boundy, 2014:526 (part).*Parias* cf. *flavomaculatus*, Oliveros, Ota, Crombie, and Brown, 2011:16, figs. 8B, 8C.*Trimeresurus schadenbergi* Fischer, 1885:116 (type locality: “Süd-Mindanao”).*Trimeresurus (Parias) flavomaculatus*, Leviton, Brown, and Siler, 2014:515, figs. 11A, 15A–B, 50A–G.*Trimeresurus* cf. *flavomaculatus*, Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:107, fig. 78.**TYPE LOCALITY AND TYPE SPECIMEN(S).**— Luzon Id., Philippines (restricted by Leviton, 1964c:260). Lectotype: BMNH 1946.1.19.34 (formerly BMNH i.3.1a), designated by Iskandar and Colijn (2001:158).**PHILIPPINE DISTRIBUTION** (Map 35D [p. 146]).— Babuyan Ids. (Babuyan Claro, Calayan, Camiguin Norte, Dalipiri), Biliran, Catanduanes, Leyte, Luzon (Prov.: Aurora, Bataan, Bulacan, Cagayan, Camarines Norte, Ilocos Norte, Ifugao, Isabela, Kalinga, Laguna, Quezon, Sorsogon, Zambales), Mindanao (Prov.: Davao del Norte, Davao del Sur, Lanao del Sur), Mindoro (Prov.: Oriental Mindoro), Negros (Negros Occidental), Panay (Prov.: Aklan, Antique), Polillo, Samar (Prov.: Eastern Samar, Western Samar), Siquijor. (*T. cf. flavomaculatus*: Dinagat, Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Misamis Oriental).**GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).**— Endemic to the Philippines.**CONSERVATION STATUS [IUCN].**— Least Concern [2016] ver. 3.1.***Trimeresurus (Parias) mcgregori* (Taylor, 1919)****Photo figure 110–113**

McGregor's Philippine Pitviper

Trimeresurus mcgregori Taylor, 1919:110; 1922a:284.— Gumprecht, Tillack, Orlov, Captain, and Ryabov, 2004:35, 18 col. photos (pp. 246–250).

Trimeresurus flavomaculatus mcgregori, Leviton, 1964c:261.— Toriba, 1993a:98.— David and Ineich, 1999:284.

Parias mcgregori, Oliveros, Ota, Crombie, & Brown 2011:6.

Trimeresurus (Parias) mcgregori, Leviton, Brown, and Siler, 2014:517, figs. 14, 51.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Batan Id., Batanes Group, off northern Luzon Id., Philippines. Holotype: PNM 748 (destroyed during WWII); Neotype: CAS 60525, designated by Leviton (1964c:261).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 36A [p. 147]).— Babuyan Ids. (Calayan, Camiguin Norte), Batan Id.

CONSERVATION STATUS [IUCN].— Data Deficient [2016] ver. 3.1.

***Trimeresurus (Parias) schultzei* (Griffin, 1909)**

Schultz's Philippine Pitviper

Trimeresurus schultzei Griffin, 1909:601; 1911:267.— Taylor, 1922a:292, pl. 36.— Leviton, 1964c:263.— Toriba, 1993a:105.— David & Ineich, 1999:290.— Gumprecht, Tillack, Orlov, Captain, and Ryabov, 2004:37, 9 col. photos (pp. 288–289).

Trimeresurus (Parias) schultzei, Leviton, Brown, and Siler, 2014:518, fig. 13.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Palawan [Iwahig]. Holotype: PNM 315 (destroyed during WW II).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 36B [p. 147]).— Balabac, Palawan.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

***Tropidolaemus philippensis* (Gray, 1842)**

Photo figure 114

Philippine Temple Pitviper

Trimeresurus philippensis Gray, 1842:48.— Taylor, 1922a:295, pl. 37, fig.1.

Tropidolaemus hombronii Guichenot in Jacquinot and Guichenot [*q.v.*], 1853:23, pl. 2, fig. 3.

Trimeresurus wagleri, Leviton, 1964c:265.

Tropidolaemus wagleri, Toriba, 1993b, 108.— David & Ineich, 1999:295 (doubtfully included in *T. wagleri*).

Tropidolaemus philippensis, Vogel, David, Lutz, van Rooijen, and Vidal, 2007:31, figs. 25–26.— Leviton, Brown, and Siler, 2014:518, figs. 52B, E–F.— Wallach, Williams, and Boundy, 2014:734.— Sanguila, Cobb, Siler, Diesmos Alcalá, and Brown, 2016:119, fig. 80.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Philippines. Holotype: BMNH 1946.1.17.67 (*vide* Vogel et al. [2007:31]).

PHILIPPINE DISTRIBUTION (ENDEMIC) (Map 36C [p. 147]).— Dinagat, Leyte, Mindanao (Prov.: Agusan del Norte, Bukidnon, Cotabato, Davao City, Davao del Norte, Misamis Oriental), Samar.

REMARKS.— *Tropidolaemus philippensis* and *T. subannulatus* were formerly included in the ubiquitous species *T. wagleri*, but the assignment was seriously questioned by David and Ineich (1999:295–296). Indeed, recent studies have demonstrated that several recognizable species have been inappropriately parading under the nominal taxon *T. wagleri*, *T. philippensis* among them, as well as populations known from southern Mindanao and the Zamboanga Peninsula. On the large and topographically diverse island of Mindanao, and on careful examination, the Zamboanga population appears to be quite distinct from populations inhabiting other parts of the island, although Vogel et al. (2007) referred it to *T. philippensis*. Recent unpublished studies by Brown et al. suggest otherwise, and it is likely that the taxon *T. hombronii* (type locality, Zamboanga) will have to be resurrected from the synonymy of *T. philippensis* to accommodate the Zamboanga and, possibly, the

Basilan populations. Furthermore, recently documented populations of tropidolaemids found on Leyte, Dinagat, Samar, and northeast Mindanao bear strong resemblances to *T. philippensis* but also to *T. subannulatus* (see Vogel et al. [2007:30, fig. 24] from Negros; also figs. 79–80 in Sanguila et al. [2016]). We have refrained from suggesting any changes at this time because this too is said to be under study by Vogel and David (see also remarks under *Trimeresurus [Parias] flavomaculatus* and *Tropidolaemus subannulatus*). For additional details, see Leviton, Brown, and Siler (2014:518 and figs. 52B, E–F).

CONSERVATION STATUS [IUCN].— The conservation status of *Tropidolaemus philippensis* has not been assessed for the IUCN Red List [2016] ver. 3.1, but IUCN notes that it is listed in the *Catalogue of Life*.

***Tropidolaemus subannulatus* (Gray, 1842)**

Photo figures 115–119

Philippine Temple Pitviper; Northern Philippine Temple Pit Viper; Bornean Keeled Green Pit Viper

Trimeresurus subannulatus Gray, 1842:48.

Trimeresurus wagleri (part), Taylor, 1922a:296.— Leviton, 1964c:265.— Toriba, 1993b:108.— David & Ineich, 1999:295.

Trimeresurus wagleri alboviridis Taylor, 1917:366 (type locality Isabela, Occidental Negros, Negros Id., Philippines; holotype: CM R2433).

Trimeresurus wagleri wagleri, Taylor, 1922c:302.

Tropidolaemus wagleri, Burger, 1971:2, 20, 41, 86 (part).— Gaulke, 1994b:141 (part); 1996:51, figs. 5–6.— McDiarmid, Campbell, and Touré, 1999:349 (part).— Gumprecht, Tillack, Orlov, Captain, and Ryabov, 2004:41–42 (part), 8 col. photos (pp. 339–340).

Tropidolaemus cf. *wagleri*, Ferner, Brown, Sison, and Kennedy, 2001:55[22], figs. 51–52.

Tropidolaemus subannulatus, Vogel, David, Lutz, van Rooijen, and Vidal, 2007:23, figs. 12–16.— Gaulke, 2011:340–341, figs. 234–236.— McLeod, Siler, Diesmos, Diesmos, Garcia, Arkonco, Balaquit, Uy, Villaseran, Yarra, and Brown, 2011:190.— Brown, Siler, Oliveros, Welton, Rock, Swab, Van Weerd, van Beijnen, Jose, Rodriguez, Jose, and Diesmos, 2013:93.— Leviton, Brown, and Siler, 2014:519, figs. 5A–B, 11, 12A–C, 52A, C–D.— Sanguila, Cobb, Siler, Diesmos Alcala, and Brown, 2016:109, fig. 79.

TYPE LOCALITY AND TYPE SPECIMEN(S).— Philippines. Syntypes (2): BMNH 1946.1.19.32–33 (formerly BMNH i.2.7a).

PHILIPPINE DISTRIBUTION (Map 36D [p. 147]).— Balabac; Basilan, Bohol, Dinagat, Leyte, Luzon (Prov.: Albay, Bulacan, Cavite, Cagayan, Camarines Norte, Isabela, Laguna, Quezon), Mindanao (Prov.: Agusan del Norte, Agusan del Sur, Lanao del Norte, Misamis Oriental, Zamboanga City), Negros (Prov.: Negros Occidental, Negros Oriental), Palawan, Panay (Prov.: Alkan, Antique), Samar, Sulu Archipelago (Jolo, Siasi, Sibutu, Tawi-Tawi), Tumindao.

GENERAL DISTRIBUTION (OTHER THAN PHILIPPINES).— Malaysia (Borneo [Sabah, Sarawak]); Indonesia (Belitung, Borneo [Kalimantan], Buton, Kalimantan, Sangehe Archipelago, Sulawesi) (see Vogel, et al. [2007:23, 31] for details).

REMARKS.— Given the variation observed among samples of this species studied by Vogel et al. (2007), they concluded, “We refrain from giving a more detailed description here, as the variation among this species or complex of species will be discussed in the next and forthcoming paper of the series. A splitting into several taxa seems to be likely.” (Vogel et al., 2007:23). As noted by Gaulke (1994:141), these seemingly non-aggressive but dangerously venomous snakes are actually beneficial to humans because their dietary preferences include agricultural pest species, rodents, and even large rats.

CONSERVATION STATUS [IUCN].— Least Concern [2016] ver. 3.1.

General geographic distribution of snakes in the Philippine Archipelago

Azucar	<i>Tropidonophis negrosensis</i>	Basilan	<i>Indotyphlops braminus</i> <i>Ramphotyphlops olivaceus</i> <i>Ramphotyphlops suluiensis</i> <i>Malayopython reticulatus</i> <i>Aplopeltura boa</i> <i>Ahaetulla prasina preocularis</i> <i>Boiga cynodon</i> <i>Calamaria gervaisii hollandi</i> <i>Calamaria lumbricoidea</i> <i>Chrysopelea paradisi variabilis</i> <i>Coelognathus erythrurus erythrurus</i> <i>Cyclocorus nuchalis nuchalis</i> <i>Dendrelaphis marenae</i> <i>Dendrelaphis philippinensis</i> <i>Lycodon dumerilii</i> <i>Oxyrhabdium modestum</i> <i>Psammodynastes pulverulentus</i> <i>Rhabdophis auriculatus myersi</i> <i>Rhabdophis lineatus</i> <i>Tropidonophis dendrophiops</i> <i>Tropidolaemus subannulatus</i>
Babuyan Claro (Babuyan Ids.)	<i>Boiga philippina</i> <i>Lycodon cf. alcalai</i> <i>Lycodon bibonius</i> <i>Laticauda colubrina</i> <i>Laticauda semifasciata</i> <i>Trimeresurus (Parias) cf. flavomaculatus</i>	Batan (Batanes Ids.)	<i>Indotyphlops braminus</i> <i>Python reticulatus</i> <i>Ahaetulla prasina preocularis</i> <i>Coelognathus erythrurus manillensis</i> <i>Gonyosoma oxycephalum</i> <i>Lycodon alcalai</i> <i>Lycodon muelleri</i> <i>Psammodynastes pulverulentus</i> <i>Rhabdophis spilogaster</i> <i>Trimeresurus (Parias) mcgregori</i>
Balabac	<i>Xenopeltis unicolor</i> <i>Aplopeltura boa</i> <i>Ahaetulla prasina prasina</i> <i>Boiga cynodon</i> <i>Boiga dendrophila multicincta</i> <i>Chrysopelea paradisi variabilis</i> <i>Coelognathus philippinus</i> <i>Dendrelaphis levitoni</i> <i>Dendrelaphis marenae</i> <i>Dryocalamus philippinus</i> <i>Gonyosoma oxycephalum</i> <i>Oligodon notospilus</i> <i>Psammodynastes pulverulentus</i> <i>Rhabdophis chrysargos</i> <i>Calliophis bilineata</i> <i>Ophiophagus hannah</i> <i>Trimeresurus (Parias) schultzei</i> <i>Tropidolaemus subannulatus</i>	Biliran	<i>Calamaria lumbricoidea</i> <i>Oxyrhabdium modestum</i> <i>Pseudorabdion mcnamarae</i> <i>Rhabdophis lineatus</i> <i>Tropidonophis dendrophiops</i>
Bantayan	<i>Acrochordus granulatus</i> <i>Cerberus schneiderii</i> <i>Chrysopelea paradisi variabilis</i> <i>Dendrelaphis marenae</i> <i>Lycodon capucinus</i> <i>Laticauda colubrina</i> <i>Laticauda laticaudata</i>	Bohol	<i>Gerrhopilus hedraeus</i> <i>Gerrhopilus manilae</i> <i>Indotyphlops braminus</i> <i>Ramphotyphlops cumingii</i> <i>Malayopython reticulatus</i>
Banton	<i>Chrysopelea paradisi variabilis</i>		
Barit (Babuyan Ids.)	<i>Coelognathus erythrurus manillensis</i> <i>Laticauda colubrina</i>		

- Cerberus schneiderii*
Aplopeltura boa
Ahaetulla prasina preocularis
Boiga angulata
Boiga cynodon
Calamaria lumbricoidea
Coelognathus erythrurus erythrurus
Dendrelaphis marenae
Dendrelaphis philippinensis
Gonyosoma oxycephalum
Lycodon capucinus
Oxyrhabdium modestum
Psammodynastes pulverulentus
Rhabdophis auriculatus myersi
Rhabdophis lineatus
Tropidonophis dendrophiops
Naja samarensis
Ophiophagus hannah
Laticauda colubrina
Laticauda semifasciata
Tropidolaemus subannulatus
- Bongao (Sulu Archipelago)
- Indotyphlops braminus*
Malayopython reticulatus
Xenopeltis unicolor
Ahaetulla prasina suluensis
Chrysopelea paradisi variabilis
Coelognathus philippinus
Dendrelaphis flavescens
Dendrelaphis marenae
Gonyosoma oxycephalum
Oligodon meyerinkii
Psammodynastes pulverulentus
- Boracay (off of Panay)
- Indotyphlops braminus*
Malayotyphlops castanotus
- Bubuan (Sulu Archipelago)
- Ramphotyphlops olivaceus*
Ramphotyphlops suluensis
Chrysopelea paradisi variabilis
Dendrelaphis flavescens
Liopeltis tricolor
Oligodon vertebralis notospilus
- Busuanga (Calamian Archipelago)
- Indotyphlops braminus*
Ahaetulla prasina prasina
Coelognathus philippinus
Dendrelaphis marenae
- Liopeltis philippinus*
Oligodon notospilus
Psammodynastes pulverulentus
Rhabdophis chrysargos
Sibynophis bivittatus
Calliophis bilineata
Naja sumatrana
- Cagayan Sulu (Sulu Archipelago)
- Calamaria suluensis*
Dendrelaphis marenae
- Calamian Ids. (see also Calauit)
- Malayopython reticulatus*
Acrochordus granulatus
 (?) *Pseudorabdion oxycephalum*
- Calauit (Calamian Archipelago)
- Indotyphlops braminus*
Malayopython reticulatus
Acrochordus granulatus
Ahaetulla prasina prasina
Dendrelaphis caudolineatus caudolineatus
Dendrelaphis marenae
Coelognathus philippinus
Liopeltis philippinus
Oligodon notospilus
Calliophis bilineata
Naja sumatrana
- Calayan (Babuyan Ids.)
- Malayopython reticulatus*
Boiga dendrophila divergens
Chrysopelea paradisi variabilis
Coelognathus erythrurus manillensis
Cyclocorus lineatus lineatus
Dendrelaphis luzonensis
Gonyosoma oxycephalum
Lycodon cf. alcalai
Oxyrhabdium leporinum leporinum
Laticauda colubrina
Laticauda laticaudata
Trimeresurus (Parias) cf. flavomaculatus
- Camiguin (unspecified Norte or Sur)
- Indotyphlops braminus*
Chrysopelea paradisi variabilis
Dendrelaphis marenae
Psammodynastes pulverulentus
Tropidonophis dendrophiops
Trimeresurus (Parias) flavomaculatus

	<i>Trimeresurus (Parias) mcgregori</i>		<i>Ptyas luzonensis</i>
Camiguin Norte (Babuyan Ids.)	<i>Indotyphlops braminus</i>		<i>Rhabdophis spilogaster</i>
	<i>Malayotyphlops luzonensis</i>		<i>Hemibungarus mcclungi</i>
	<i>Malayotyphlops ruficaudus</i>		<i>Ophiophagus hannah</i>
	<i>Ahaetulla prasina preocularis</i>		<i>Trimeresurus (Parias) flavomaculatus</i>
	<i>Boiga cynodon</i>	Cebu	<i>Gerrhopilus hedraeus</i>
	<i>Calamaria gervaisii</i>		<i>Indotyphlops braminus</i>
	<i>Cyclocorus lineatus lineatus</i>		<i>Malayotyphlops hypogius</i>
	<i>Dendrelaphis luzonensis</i>		<i>Malayotyphlops luzonensis</i>
	<i>Gonyosoma oxycephalum</i>		<i>Ramphotyphlops cumingii</i>
	<i>Lycodon cf. alcalai</i>		<i>Malayopython reticulatus</i>
	<i>Lycodon bibonius</i>		<i>Acrochordus granulatus</i>
	<i>Lycodon chrysoprateros</i>		<i>Cerberus schneiderii</i>
	<i>Rhabdophis spilogaster</i>		<i>Ahaetulla prasina preocularis</i>
	<i>Trimeresurus (Parias) cf. flavomaculatus</i>		<i>Calamaria gervaisii iridiscens</i>
Camiguin Sur	<i>Ahaetulla prasina preocularis</i>		<i>Chrysopelea paradisi variabilis</i>
	<i>Calamaria lumbricoidea</i>		<i>Coelognathus erythrurus psephenourus</i>
	<i>Coelognathus erythrurus erythrurus</i>		<i>Cyclocorus lineatus alcalai</i>
	<i>Oxyrhabdium modestum</i>		<i>Dendrelaphis fuliginosus</i>
	<i>Tropidonophis dendrophiops</i>		<i>Dendrelaphis marenae</i>
	<i>Calliophis philippinus</i>		<i>Dendrelaphis philippinensis</i>
Camotes Ids. (see Pacijan, Poro)			<i>Lycodon capucinus</i>
Candaraman			<i>Oxyrhabdium leporinum visayanum</i>
	<i>Dendrelaphis levitoni</i>		<i>Psammodynastes pulverulentus</i>
	<i>Dendrelaphis marenae</i>		<i>Pseudorabdion mcnamarae</i>
Capones			<i>Pseudorabdion montanum</i>
	<i>Laticauda semifasciata</i>		<i>Pseudorabdion oxycephalum</i>
Carabao			<i>Tropidonophis negrosensis</i>
	<i>Calamaria gervaisii gervaisii</i>		<i>Hemibungarus gemianulis</i>
	<i>Dendrelaphis marenae</i>		<i>Ophiophagus hannah</i>
	<i>Lycodon capucinus</i>		<i>Hydrophis cyanocinctus</i>
Catanduanes			<i>Laticauda colubrina</i>
	<i>Malayopython reticulatus</i>		<i>Laticauda laticaudata</i>
	<i>Cerberus schneiderii</i>	Coron (Calamian Archipelago)	<i>Ahaetulla prasina prasina</i>
	<i>Boiga angulata</i>		<i>Dendrelaphis philippinensis</i>
	<i>Boiga dendrophila latifasciata</i>		(?) <i>Dryophiops rubescens</i>
	<i>Calamaria gervaisii gervaisii</i>	Culion (Calamian Archipelago)	<i>Ahaetulla prasina prasina</i>
	<i>Cyclocorus lineatus lineatus</i>		<i>Boiga cynodon</i>
	<i>Dendrelaphis marenae</i>		<i>Coelognathus philippinus</i>
	<i>Dendrelaphis philippinensis</i>		<i>Dendrelaphis marenae</i>
	<i>Hologerrhum philippinum</i>		<i>Liopeltis philippinus</i>
	<i>Lycodon muelleri</i>		<i>Oligodon perkinsi</i>
	<i>Oxyrhabdium modestum</i>		<i>Rhabdophis chrysargos</i>
			<i>Sibynophis bivittatus</i>

- Calliophis bilineata*
Naja sumatrana
- Cuyo
Cerberus schneiderii
Lycodon capucinus
Laticauda semifasciata
- Dalupiri (Babuyan Ids.)
Indotyphlops braminus
Malayotyphlops luzonensis
Python reticulatus
Boiga philippina
Chrysopelea paradisi variabilis
Coelognathus erythrurus manillensis
Dendrelaphis luzonensis
Lycodon chrysoprateros
Laticauda colubrina
Trimeresurus (Parias) cf. flavomaculatus
- Dinagat
Cerberus schneiderii
Ahaetulla prasina preocularis
Boiga cynodon
(?) *Boiga dendrophila latifasciata*
Calamaria lumbricoidea
Calliophis salitan
Chrysopelea paradisi variabilis
Gonyosoma oxycephalum
Lycodon dumerilii
Oxyrhabdium modestum
Psammodynastes pulverulentus
(?) *Pseudorabdion oxycephalum*
Rhabdophis lineatus
Stegonotus muelleri
Tropidonophis dendrophlops
Naja samarensis
Ophiophagus hannah
(?) *Tropidolaemus philippensis*
(?) *Tropidolaemus subannulatus*
- Dumaran
Sibynophis bivittatus
- Gato
Laticauda laticaudata
Laticauda semifasciata
- Gigantes (off of Panay)
Hydrophis [Chitulia] lamberti
Hydrophis [Pelamis] platurus
- Gigantes Sur (off of Panay)
Indotyphlops braminus
Hydrophis [Chitulia] ornatus
Hydrophis [Astrotia] stokesii
- Guimaras
Indotyphlops braminus
Acrochordus granulatus
Coelognathus erythrurus psephenourus
Cyclocorus lineatus alcalai
Dendrelaphis marenae
Dendrelaphis philippinensis
Hemibungarus gemianulis
- Inampulugan
Malayotyphlops castanotus
Boiga cynodon
Coelognathus erythrurus psephenourus
Cyclocorus lineatus alcalai
- Itbayat
Lycodon muelleri
Malayopython reticulatus
- Ivojos (Babuyan Ids.)
Indotyphlops braminus
- Jolo (Sulu Archipelago)
Indotyphlops braminus
Malayopython reticulatus
Xenopeltis unicolor
Cerberus schneiderii
Ahaetulla prasina preocularis
Calamaria joloensis
Chrysopelea paradisi variabilis
Coelognathus erythrurus erythrurus
Dendrelaphis marenae
Oligodon meyerinkii
Psammodynastes pulverulentus
Calliophis suluensis
Ophiophagus hannah
Hydrophis [Pelamis] platurus
Laticauda colubrina
Laticauda laticaudata
Trimeresurus (Parias) flavomaculatus
Tropidolaemus subannulatus
- Kalotkot
Chrysopelea paradisi variabilis
Dendrelaphis marenae
Dendrelaphis philippinensis

Leyte

Malayopython reticulatus
Aplopeltura boa
Ahaetulla prasina preocularis
Boiga angulata
Boiga cynodon
Boiga dendrophila latifasciata
Calamaria lumbricoidea
Chrysopelea paradisi variabilis
Coelognathus erythrurus erythrurus
Cyclocorus nuchalis taylori
Dendrelaphis marenae
Dendrelaphis philippinensis
Gonyosoma oxycephalum
Lycodon capucinus
Lycodon dumerilii
Oxyrhabdium modestum
Psammodynastes pulverulentus
Ptyas luzonensis
Rhabdophis auriculatus auriculatus
Rhabdophis lineatus
Stegonotus muelleri
Tropidonophis dendrophiops
Naja samarensis
Ophiophagus hannah
Trimeresurus (Parias) flavomaculatus
 (?) *Tropidolaemus philippensis*
 (?) *Tropidolaemus subannulatus*

Boiga angulata
Boiga cynodon
Boiga dendrophila divergens
Boiga drapiezii ssp.
Boiga philippina
Calamaria bitorques
Calamaria gervaisii gervaisii
Chrysopelea paradisi variabilis
Coelognathus erythrurus manillensis
Cyclocorus lineatus lineatus
Dendrelaphis luzonensis
Dendrelaphis marenae
Dendrelaphis philippinensis
Dryophiops philippina
Gonyosoma oxycephalum
Hologerrhum philippinum
Lycodon capucinus
Lycodon muelleri
Lycodon solivagus
 (?) *Lycodon tessellatus*
Myersophis alpestris
Oligodon ancorus
Oligodon modestus
Oxyrhabdium leporinum leporinum
Psammodynastes pulverulentus
Pseudorabdion mcnamarae
 (?) *Pseudorabdion oxycephalum*
Ptyas luzonensis
Rhabdophis auriculatus auriculatus
Rhabdophis barbouri
Rhabdophis spilogaster
Hemibungarus calligaster
Hemibungarus mcclungi
Naja philippinensis
Ophiophagus hannah
Hydrophis atriceps
Hydrophis [Lapemis] curtus
Hydrophis cyanocinctus
Hydrophis [Chitulia] lamberti
Hydrophis [Chitulia] ornatus
Hydrophis [Pelamis] platurus
Hydrophis [Leioselama] semperi
Microcephalophis gracilis
Laticauda colubrina
Laticauda laticaudata
Laticauda semifasciata
Trimeresurus (Parias) flavomaculatus
Tropidolaemus subannulatus

Lubang

Malayopython reticulatus
Cyclocorus lineatus lineatus
Gonyosoma oxycephalum
Rhabdophis spilogaster

Ophiophagus hannah
Hydrophis atriceps
Hydrophis [Lapemis] curtus
Hydrophis cyanocinctus
Hydrophis [Chitulia] lamberti
Hydrophis [Chitulia] ornatus
Hydrophis [Pelamis] platurus
Hydrophis [Leioselama] semperi
Microcephalophis gracilis
Laticauda colubrina
Laticauda laticaudata
Laticauda semifasciata
Trimeresurus (Parias) flavomaculatus
Tropidolaemus subannulatus

Luzon

Gerrhopilus manilae
Acutotyphlops banaorum
Indotyphlops braminus
Malayotyphlops andyi
Malayotyphlops collaris
Malayotyphlops denrorum
Malayotyphlops luzonensis
Malayotyphlops ruber
Malayotyphlops ruficaudus
Malayopython reticulatus
Acrochordus granulatus
Cerberus microlepis
Cerberus schneiderii
 (?) *Gerarda prevostiana*
Ahaetulla prasina preocularis

Mabag (Babuyan Ids.)

Laticauda colubrina

Marinduque

Indotyphlops braminus
Malayopython reticulatus
Gerrhopilus hedraeus
Malayotyphlops luzonensis
Malayotyphlops ruficaudus
Ramphotyphlops cumingii
Ahaetulla prasina preocularis
Cyclocorus lineatus lineatus
Dendrelaphis luzonensis
Dendrelaphis marenae
Dryophiops philippina
Gonyosoma oxycephalum
Hologerrhum philippinum
Lycodon muelleri
Oxyrhabdium leporinum leporinum
Naja philippinensis

Malayopython reticulatus
Aplopeltura boa
Cerberus schneiderii
 (?) *Fordonia leucobalia*
Ahaetulla prasina preocularis
Boiga angulata
Boiga cynodon
Boiga dendrophila latifasciata
Boiga drapiezii ssp.
Calamaria gervaisii hollandi
Calamaria lumbricoidea
Calamaria virgulata
Chrysopelea paradisi variabilis
Coelognathus erythrurus erythrurus
Cyclocorus nuchalis nuchalis
Cyclocorus nuchalis taylori
Dendrelaphis marenae
Dendrelaphis philippinensis
 (?) *Dryophiops philippina*
Gonyosoma oxycephalum

Maripipi

Oxyrhabdium modestum

Lycodon capucinus

Marongas

Chrysopelea paradisi variabilis

Lycodon dumerilii

Masbate

Indotyphlops braminus
Malayotyphlops luzonensis
Ramphotyphlops cumingii
Malayopython reticulatus
Acrochordus granulatus
Cerberus schneiderii
Ahaetulla prasina preocularis
Calamaria gervaisii iridescens
Chrysopelea paradisi variabilis
Coelognathus erythrurus psephenourus
Dendrelaphis fuliginosus
 (?) *Dendrelaphis luzonensis*
Dendrelaphis marenae
Lycodon capucinus
Pseudorabdion mcnamarae
Tropidonophis negrosensis
Hemibungarus gemianulis
Naja philippinensis

Oligodon maculatus
Oligodon modestus
 (?) *Oligodon notospilus* (doubtful)
Opisthotropis alcalai
Oxyrhabdium modestum
Psammodynastes pulverulentus
Pseudorabdion ater
 (?) *Pseudorabdion oxycephalum*
Pseudorabdion taylori
Rhabdophis auriculatus auriculatus
 (eastern)
Rhabdophis auriculatus myersi
 (western)
Rhabdophis lineatus
Stegonotus muelleri
Tropidonophis dendrophiops
Calliophis philippina
Naja samarensis
Ophiophagus hannah
Hydrophis atriceps
Hydrophis [Lapemis] curtus
Hydrophis cyanocinctus
Hydrophis [Pelamis] platurus
Laticauda colubrina
Laticauda laticaudata
Trimeresurus (Parias) flavomaculatus
 (?) *Tropidolaemus hombronii*
 (?) *Tropidolaemus philippensis*
 (?) *Tropidolaemus subannulatus*

Medis

Chrysopelea paradisi variabilis

Mindanao

Gerrhopilus hedraeus
Indotyphlops braminus
 (?) *Malayotyphlops luzonensis*
Ramphotyphlops cumingii

Mindoro

Gerrhopilus hedraeus
Indotyphlops braminus
Malayotyphlops ruber
Malayopython reticulatus
Ahaetulla prasina preocularis
Calamaria gervaisii gervaisii
Chrysopelea paradisi variabilis
Coelognathus erythrurus manillensis
Cyclocorus lineatus lineatus
Dendrelaphis fuliginosus
Dendrelaphis marenae
Dryophiops philippina
Lycodon capucinus
Lycodon muelleri
Oligodon ancorus
Oxyrhabdium leporinum leporinum
Tropidonophis negrosensis
Hemibungarus calligaster
Naja philippinensis
Ophiophagus hannah
Laticauda laticaudata
Trimeresurus (Parias) flavomaculatus

Pseudorabdion montanum
Pseudorabdion oxycephalum
Ptyas luzonensis
Tropidonophis negrosensis
Hemibungarus gemianulis
Ophiophagus hannah
Hydrophis [Lapemis] curtus
Laticauda colubrina
Laticauda semifasciata
Trimeresurus (Parias) flavomaculatus
Tropidolaemus subannulatus

Paan de Azucar

Boiga cynodon
Tropidonophis negrosensis

Pacijan (Camotes Ids.)

Gerrhopilus hedraeus
Malayotyphlops luzonensis
Malayotyphlops ruber
Coelognathus erythrurus erythrurus

Palawan

Indotyphlops braminus
Malayopython reticulatus
Xenopeltis unicolor
Acrochordus granulatus
Aplopeltura boa
Cerberus schneiderii
Gerarda prevostiana
Ahaetulla prasina prasina
Boiga cynodon
Boiga dendrophila multicincta
Boiga schultzei
Calamaria palawanensis
Calamaria virgulata
Chrysopelea paradisi variabilis
Coelognathus philippinus
Dendrelaphis levitoni
Dendrelaphis marenae
Dryocalamus philippinus
Gonyosoma oxycephalum
Liopeltis philippinus
Liopeltis tricolor
Lycodon sealei
Oligodon notospilus
Opisthotropis typica
Psammodynastes pulverulentus
Ptyas carinata
Rhabdophis chrysargos
Sibynophis bivittatus
Calliophis bilineata

Negros

Gerrhopilus hedraeus
Indotyphlops braminus
Malayotyphlops canlaonensis
Malayotyphlops castanotus
Malayotyphlops luzonensis
Malayotyphlops ruficaudus
Ramphotyphlops cumingii
Malayopython reticulatus
Acrochordus granulatus
Cerberus schneiderii
Ahaetulla prasina preocularis
Boiga angulata
Boiga cynodon
Calamaria gervaisii iridiscens
Chrysopelea paradisi variabilis
Coelognathus erythrurus psephenourus
Cyclocorus lineatus alcalai
Dendrelaphis fuliginosus
Dendrelaphis marenae
Dryophiops philippina
Gonyosoma oxycephalum
Lycodon capucinus
Oligodon modestus
Oxyrhabdium leporinum visayanum
 (?) *Oxyrhabdium modestum*
Psammodynastes pulverulentus
Pseudorabdion mcnamarae

Naja sumatrana
Ophiophagus hannah
Laticauda semifasciata
Trimeresurus (Parias) flavomaculatus
Trimeresurus (Parias) schultzei
Tropidolaemus subannulatus

Panay

Indotyphlops braminus
Malayotyphlops castanotus
 (?) *Malayotyphlops hypogius*
Malayopython reticulatus
Acrochordus granulatus
Cerberus schneiderii
Ahaetulla prasina preocularis
Boiga angulata
Boiga cynodon
Boiga dendrophila levitoni
Boiga drapiezii ssp.
Calamaria bitorques
Calamaria gervaisii iridescens
Chrysopelea paradisi variabilis
Coelognathus erythrurus psephenourus
Cyclocorus lineatus alcalai
Dendrelaphis fuliginosus
Dendrelaphis marenae
Dryophiops philippina
Gonyosoma oxycephalum
Hologerrhum dermali
Lycodon capucinus
Lycodon fausti
Oligodon modestus
Oxyrhabdium modestum
Psammodynastes pulverulentus
Pseudorabdion mcnamarae
Pseudorabdion talonuran
Ptyas luzonensis
Tropidonophis negrosensis
Hemibungarus gemianulis
Ophiophagus hannah
Laticauda colubrina
Trimeresurus (Parias) flavomaculatus
Tropidolaemus subannulatus

Panubolon (see also Guimaras)

Indotyphlops braminus

Papahag [also as Papahang] (Sulu Archipelago)

Oligodon meyerinkii

Polillo

Indotyphlops braminus
Ramphotyphlops cumingii
Malayopython reticulatus
Cerberus schneiderii
Ahaetulla prasina preocularis
Boiga angulata
Boiga cynodon
Boiga dendrophila divergens
Calamaria gervaisii polillensis
Chrysopelea paradisi variabilis
Coelognathus erythrurus manillensis
Cyclocorus lineatus lineatus
Dendrelaphis marenae
Dendrelaphis philippinensis
Hologerrhum philippinum
Lycodon muelleri
Psammodynastes pulverulentus
Ptyas luzonensis
Rhabdophis spilogaster
Hemibungarus meclungi
Ophiophagus hannah
Trimeresurus (Parias) flavomaculatus

Poro (Camotes Ids.)

Malayotyphlops luzonensis
Malayotyphlops ruber
Coelognathus erythrurus erythrurus

Romblon

Cerberus schneiderii
Boiga cynodon
Chrysopelea paradisi variabilis
Dryophiops philippina
Lycodon capucinus
Ophiophagus hannah
Laticauda colubrina

Sabantang (Batanes Ids.)

Ahaetulla prasina preocularis
Gonyosoma oxycephalum
Lycodon alcalai
Psammodynastes pulverulentus

Samar

Indotyphlops braminus
Malayotyphlops ruber
Ramphotyphlops marxi
Ramphotyphlops olivaceus
Malayopython reticulatus

- Aplopeltura boa*
Ahaetulla prasina preocularis
Boiga dendrophila latifasciata
Chrysopelea paradisi variabilis
Coelognathus erythrurus erythrurus
Cyclocorus nuchalis taylori
Dendrelaphis marenae
Dendrelaphis philippinensis
Dryophiops philippina (?)
Lycodon capucinus
Lycodon dumerilii
Lycodon ferroni
Oxyrhabdium modestum
Psammodynastes pulverulentus
Rhabdophis auriculatus auriculatus
Rhabdophis lineatus
Stegonotus muelleri
Tropidonophis dendrophlops
Calliophis philippina
Naja samarensis
Hydrophis atriceps
Laticauda laticaudata
Trimeresurus (Parias) flavomaculatus
 (?) *Tropidolaemus philippensis*
 (?) *Tropidolaemus subannulatus*
- Sanga Sanga (Sulu Archipelago)
Xenopeltis unicolor
Ahaetulla prasina suluensis
Chrysopelea paradisi variabilis
Coelognathus philippinus
Dendrelaphis flavescens
- Semirara (off of Panay)
Indotyphlops braminus
Malayotyphlops luzonensis
Lycodon capucinus
- Siargao
Malayopython reticulatus
Boiga dendrophila latifasciata
Chrysopelea paradisi variabilis
 (?) *Cyclocorus nuchalis taylori*
Dendrelaphis marenae
Lycodon dumerilii
Psammodynastes pulverulentus
- Siasi (Sulu Archipelago)
Malayopython reticulatus
Ahaetulla prasina suluensis
- Coelognathus erythrurus erythrurus*
Calliophis suluensis
Tropidolaemus subannulatus
- Sibay (off of Panay)
Indotyphlops braminus
- Sibutu (Sulu Archipelago)
Ramphotyphlops olivaceus
Ramphotyphlops suluensis
Malayopython reticulatus
Ahaetulla prasina preocularis
Ahaetulla prasina suluensis
Boiga cynodon
Chrysopelea paradisi paradisi
Coelognathus philippinus
Dendrelaphis ? (caudolineatus)
Oligodon meyerinkii
Hydrophis [Pelamis] platurus
Tropidolaemus subannulatus
- Sibuyan
Indotyphlops braminus
Malayotyphlops ruficaudus
Ramphotyphlops cumingii
Chrysopelea paradisi variabilis
Dryophiops philippina
Gonyosoma oxycephalum
Pseudorabdion mcnamarae
- Sicogon
Ramphotyphlops cumingii
Tropidonophis negrosensis
- Siquijor
Malayotyphlops luzonensis
Boiga cynodon
Chrysopelea paradisi variabilis
Dendrelaphis marenae
Dryophiops philippina
Tropidonophis dendrophlops
Trimeresurus (Parias) flavomaculatus
- Sicogon
Ramphotyphlops cumingii
Tropidonophis negrosensis
- Sitanki (Sulu Archipelago)
Laticauda colubrina

Sulu Archipelago (unspecified ids.)	(?) <i>Hydrophis</i> [<i>Leioselasma</i>] <i>spiralis</i>
<i>Calamaria virgulata</i>	
<i>Hydrophis atriceps</i>	
Sulu (= Jolo, Sulu Archipelago)	Tawitawi (Sulu Archipelago)
<i>Laticauda laticaudata</i>	<i>Malayopython reticulatus</i>
<i>Laticauda semifasciata</i>	<i>Ahaetulla prasina suluensis</i>
	<i>Boiga cynodon</i>
	<i>Boiga drapiezii</i> ssp.
Surigao	<i>Chrysopelea paradisi variabilis</i>
<i>Dendrelaphis marenae</i>	<i>Coelognathus philippinus</i>
<i>Hydrophis</i> [<i>Pelamis</i>] <i>platurus</i>	<i>Dendrelaphis flavescens</i>
	<i>Dendrelaphis marenae</i>
	<i>Oligodon meyerinkii</i>
Tablas	<i>Sibynophis geminatus geminatus</i>
<i>Indotyphlops braminus</i>	<i>Tropidolaemus subannulatus</i>
<i>Gerrhopilus hedraeus</i>	
<i>Malayotyphlops ruber</i>	Ticao
<i>Malayotyphlops ruficaudus</i>	(?) <i>Dendrelaphis luzonensis</i>
<i>Ahaetulla prasina preocularis</i>	
<i>Boiga cynodon</i>	Tumindao
<i>Calamaria gervaisii gervaisii</i>	<i>Tropidolaemus subannulatus</i>
<i>Chrysopelea paradisi variabilis</i>	
<i>Coelognathus erythrurus psephenourus</i>	Visayan Sea area
<i>Cyclocorus lineatus alcalai</i>	<i>Hydrophis atriceps</i>
<i>Dendrelaphis marenae</i>	<i>Hydrophis cyanocinctus</i>
<i>Lycodon capucinus</i>	<i>Hydrophis</i> [<i>Lapemis</i>] <i>curtus</i>
<i>Oligodon modestus</i>	<i>Laticauda semifasciata</i>
<i>Pseudorabdion mcnamarae</i>	

BIBLIOGRAPHY

- ADLER, KRAIG. 2015. The planning and publication history of Patrick Russell's classic book, "Indian Serpents". *Hamadryad* 37(1 & 2):12–17.
- ALCALA, ANGEL C. 1986a. *Amphibians and Reptiles*. JMC Press, Quezon City, Philippines. xiv + 195 pp. [NB: Publication sponsored by Natural Resources Center, Ministry of Natural Resources and the University of the Philippines.]
- ALCALA, ANGEL C. 1986b. *Philippine poisonous animals*. Pages 77–158. JMC Press, Quezon City, Philippines. [NB: Publication sponsored by Natural Resources Center, Ministry of Natural Resources and the University of the Philippines.]
- ALCALA, ELY L., ANGEL C. ALCALA, AND C.N. DOLINO. 2004. Amphibians and reptiles in tropical rainforest fragments on Negros Island, the Philippines. *Environmental Conservation* 31(3 [Sept.]):254–261.
- ALFARO, M.E., D.R. KARNS, H.K. VORIS, E. ABERNATHY, AND S.L. SELLINS. 2004. Phylogeny of *Cerberus* (Serpentes: Homalopsinae) and phylogeny of *Cerberus rhynchops*: diversification of a coastal marine snake in Southeast Asia. *Journal of Biogeography* 31:1277–1292.
- ALFARO, M.E., D.R. KARNS, H.K. VORIS, C.D. BROCK, AND B.L. STUART. 2008. Phylogeny, evolutionary history, and biogeography of Oriental-Australian rear-fanged water snakes (Colubridae: Homalopsidae) inferred from molecular and nuclear DNA sequences. *Molecular Phylogenetics and Evolution* 46: 576–593.
- AMARAL, AFRÂNIO DO. 1926. Nota de Nomenclatura Ophiologica. Sobre a diferenciacao dos nomes genericos *Lachesis*, *Trimeresurus* e *Bothrops*. *Revista do Museu Paulista* 14:34–40.
- AMARAL, AFRÂNIO DO. 1929. Lista remissiva dos ophidios da regioa neotropica. *Memorias do Instituto de Butantan* 4:129–271.
- ANDERSSON, LARS GABRIEL. 1899. Catalogue of Linnean type-specimens of snakes in the Royal Museum in Stockholm. *Bihang till K. Svenska Vetenskapakademiens Handlingar* 24(6):1–35.
- AULIYA, MARK, PATRICK MAUSFELD, ANDREAS SCHMITZ, AND WOLFGANG BÖHME. 2002. Review of the reticulated python (*Python reticulatus* Schneider, 1801) with the description of new subspecies from Indonesia. *Naturwissenschaften* 89:201–213.
- AUTH, DAVID L., KURT AUFFENBERG, AND DAVID K. DORMAN. 1990. *Gerarda prevostiana* (Gerard's water snake). *Herpetological Review* 21(2):41.
- BACOLOD, PRIMITIVO T. 1984. Notes on sea snake fishery on Gato Islet, Cebu Island, Philippines and a proposal for a conservation and management program. *Philippine Scientist* 21:155–163.
- BANKS, NATHAN. 1914. New Acarina. *Journal of Entomology and Zoology, Pomona College* 6(2):55–66.
- BARBOUR, THOMAS. 1912. A contribution to the zoogeography of the East Indian Islands. *Memoirs of the Museum of Comparative Zoology, Harvard College* 44(1):1–203.
- BARME, MICHEL. 1967. Venomous sea snakes (Hydrophiidae). Pages 285–308 in W. Bucherl, E.E. Buckley, and V. Deulofeu, eds., *Venomous Animals and their Venoms*. Vol. 1. Academic Press, New York, New York, USA.
- BAUER, AARON M. 1998. Some Asian herpetological specimens of historical note in the Zoological Museum, Berlin. *Hamadryad* 23(s):133–149.
- BAUER, AARON M. 2015. Patrick Russell's snakes and their role as type specimens. *Hamadryad* 37(1 & 2): 18–65.
- BAUER, AARON M., RAINER GÜNTHER, AND M. KLIPFEL. 1995. *The Herpetological Contributions of Wilhelm C.H. Peters (1815–1883)*. SSAR (Society for the Study of Amphibians and Reptiles) Facsimile Reprints in Herpetology. 714 pp.
- BAUER, AARON M., VAN WALLACH, AND RAINER GÜNTHER. 2002. An annotated catalogue of the scolecophidian, alethinophidian, and macrostomatan snakes in the collection of the Museum für Naturkunde der Humboldt-Universität zu Berlin. *Mitteilungen aus dem Museum für Naturkunde in Berlin, Zoologische Reihe* 78(1):157–176.
- BEIRN, JAMES THOMAS. 1979. Sea snakes of Gato Island. *Explorers Journal* 57(2):90–91.

- BERGMAN, R.A.M. 1955. The anatomy of *Xenopeltis unicolor*. *Zoologische Mededelingen Leiden* 33:209–225.
- BEUKEMA, WOUTER. 2011a. First record of the genus *Tropidonophis* (Serpentes: Colubridae) and rediscovery of *Parias flavomaculatus* (Serpentes: Viperidae) on Siquijor Island, Philippines. *Herpetology Notes* 4:177–179, 4 figs.
- BEUKEMA, WOUTER. 2011b. Herpetofauna of disturbed forest fragments on the lower Mt. Kitanglad Range, Mindanao Island, Philippines. *Salamandra* 47(2 [20 May]):90–98, 4 figs.
- BINADAY, JAKE WILSON B. 2016. *Boiga drapiezii* (White-spotted Cat Snake). Philippines: Luzon Island: Sorogon Province. *Herpetological Review* 47(3):425.
- BOETTGER, OSKAR. 1886. Aufzählung der von den Philippinen bekannten Reptilien und Batrachier. *Berichte über die Senckenbergische Naturforschende Gesellschaft in Frankfurt am Main* 1886:91–134.
[NB: Taylor (1922:20) comments “Many of the species of snakes are incorrectly included in the list, and many are represented under more than one name. His work is merely a compilation from the works of other authors.”; (snakes, pp. 104–120).]
- BOETTGER, OSKAR. 1888. Über aussere Geschlechtscharactere bei den Seeschlangen. *Zoologischer Anzeiger* 11(284):395–398.
- BOETTGER, OSKAR. 1889. [Moellendorff collection of Philippine reptiles]. *Berichte über die Senckenbergische Naturforschende Gesellschaft in Frankfurt am Main* 1889:xxvi.
- BOETTGER, OSKAR. 1890. [List of reptiles and batrachians from Leyte, Philippine Islands, sent in by Dr. Fr. von Moellendorff]. *Berichte über die Senckenbergische Naturforschende Gesellschaft in Frankfurt am Main* 1890:lxiii.
- BOETTGER, OSKAR. 1892. [List of Philippine snakes sent in by Dr. Moellendorff]. *Berichte über die Senckenbergische Naturforschende Gesellschaft in Frankfurt am Main* 1892:xlx.
- BOETTGER, OSKAR. 1893. [Reptiles from Manila]. *Berichte über die Senckenbergische Naturforschende Gesellschaft in Frankfurt am Main* 1893:xxix.
- BOETTGER, OSKAR. 1895. Beitrag zur herpetologischen Kenntniss der Calamianen, Philippinische Inseln. *Abhandlungen und Berichte des königlichen Zoologischen und Anthropologisch-Ethnographischen Museums zu Dresden* (7):1–5.
- BOETTGER, OSKAR. 1897a. Neue Reptilien und Batrachier von den Philippinen. *Zoologischer Anzeiger* 20(531):161–166.
- BOETTGER, OSKAR. 1897b. [Reptiles from Manila, Cebu, Samar, and Culion obtained by Dr. O. Dr. Moellendorff and Otto Koch]. *Berichte über die Senckenbergische Naturforschende Gesellschaft in Frankfurt am Main* 1897:lv.
- BOETTGER, OSKAR. 1898. *Katalog der Reptilien-Sammlung in Museum der Senckenbergischen Naturforschenden Gesellschaft in Frankfurt am Main*. 2. Teil. *Schlangen*. Gebrüder Knauer, Frankfurt am Main, Germany. ix + 160 pp.
- BOETTGER, OSKAR. 1899. Bau, Lebensweise und Unterscheidung der Schlangen. *Berichte über die Senckenbergische Naturforschende Gesellschaft in Frankfurt am Main* 1899:75–88.
- BOETTGER, OSKAR. 1905. [List of reptiles from the Philippines]. *Berichte über die Senckenbergische Naturforschende Gesellschaft in Frankfurt am Main* 1905:170.
- BOGERT, CHARLES M. 1943. Dentional phenomena in cobras and other elapids with notes on the adaptive modifications of fangs. *Bulletin of the American Museum of Natural History* 81:285–360.
- BOGERT, CHARLES M. 1945. Hamadryas pre-occupied for the king cobra. *Copeia* 1945:47.
- BOGERT, CHARLES M. 1966. Index to species for which hemipenes are depicted in “Crocodiles, Lizards, and Snakes of North America”. Division of Amphibians and Reptiles, National Museum of Natural History, Smithsonian Institution, Washington, DC, USA. 8 pp.
- BOIE, FRIEDRICH. 1826. Generalübersicht der Familien und Gattungen der Ophidier. *Isis von Oken (Jena)* (X):cols. 981–982.
- BOIE, FRIEDRICH. 1827. Bemerkungen über Merrem’s Versuch eines Systems der Amphibien. 1te Lieferung. Ophidier. *Isis von Oken (Jena)* 20:cols. 506–566.
- BOIE, HEINRICH. 1826a. Merkmale einiger japanischen Lurche. *Isis von Oken (Jena)*, (II):cols. 204–216.
- BOIE, HEINRICH. 1826b. Notice sur l’erpétologie de l’Ile de Java. *Bulletin des Sciences Naturelles et de Géolo-*

- gie (12th section of the *Bulletin Universal des Sciences et de l'Industrie*) 9:233–240. (Published by Schlegel, Hermann, 1826 [q.v.] following Boie's death.)
- BOIE, HEINRICH. 1828. Briefen von Heinr. Boie zu Java, an Hn. Schlegel, Conservator anim. vertebr. am Konigl. niederl. Museum. *Isis von Oken (Jena)* 21:cols. 1025–1035.
- BOSCH, HERMAN A. J. IN DEN. (see in den Bosch, H.A.J.)
- BOULENGER, GEORGE A. 1891. Remarks on the herpetological fauna of Mount Kina Baloo, North Borneo. *Annals and Magazine of Natural History*, ser. 6, 7(35):341–345.
- BOULENGER, GEORGE A. 1893a. *Catalogue of the Snakes in the British Museum (Natural History). Volume I, containing the families Typhlopidae, Glauconiidae, Boidae, Ilysiidae, Uropeltidae, Xenopeltidae, and Colubridae aglyphae, part.* Trustees of the British Museum (Natural History), by Taylor and Francis, London, England, UK. xiii + 448 pp.
- BOULENGER, GEORGE A. 1893b. Description of new reptiles and batrachians obtained in Borneo by Mr. A. Everett and Mr. C. Hose. *Proceedings of the Zoological Society of London* 1893:522–528.
- BOULENGER, GEORGE A. 1894. *Catalogue of the Snakes in the British Museum (Natural History). Volume II, containing the conclusion of the Colubridae aglyphae.* Trustees of the British Museum (Natural History), by Taylor and Francis, London, England, UK. xi + 382 pp.
- BOULENGER, GEORGE A. 1895. Description of two new snakes of the genus *Calamaria*. *Annals and Magazine of Natural History*, ser.6, 16(67):481.
- BOULENGER, GEORGE A. 1896. *Catalogue of the Snakes in the British Museum (Natural History). Volume III, containing the Colubridae (Opisthoglyphae and Proteroglyphae), Amblycephalidae, and Viperidae.* Trustees of the British Museum (Natural History), by Taylor and Francis, London, England, UK. xiv + 727 pp.
- BOULENGER, GEORGE A. 1905. Remarks on Mr. N. Rosén's list of the snakes in the Zoological Museums of Lund and Malmö. *Annals and Magazine of Natural History*, ser. 7, 15(32):283–284.
- BOULENGER, GEORGE A. 1912. *A Vertebrate Fauna of the Malay Peninsula from the Isthmus of Kra to Singapore Including the Adjacent Islands. Reptilia and Batrachia.* Taylor and Francis (authorized by the Government of the Federated Malay States), London, England, UK. xiii + 294 pp., 79 figs., foldout map.
- BOURRET, RENÉ. 1934. Notes herpétologiques sur l'Indochine française. II. Sur quelques serpentes des montagnes du Tonkin. *Bulletin général de l'Instruction publique, Hanoi* April:149–157.
- BOURRET, RENÉ. 1936. *Les Serpents de l'Indochine.* Tome II. *Catalogue systématique descriptif.* Henri Basuyau, Toulouse, France. 505 pp.
- BROADLEY, DONALD G., JEAN-CLAUDE RAGE, AND MICHICISA TORIBA. 1993. *Naja Laurenti*, 1768. Pages 184–193 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World.* Azemiops S.A., Aïre-Geneva, Switzerland.
- BRONGERSMA, LEO D. 1930. Abnormal coloration of *Xenopeltis unicolor* Reinw. *Copeia* 1930:87.
- BRONGERSMA, LEO D. 1934. Contribution to Indo-Australian herpetology. *Zoologische Mededelingen Leiden* 17(3/4):xii + 161–251.
- BRONGERSMA, LEO D. 1938. On the presence or absence of hypapophyses under the posterior precaudal vertebrae in some snakes. *Zoologische Mededelingen Leiden* 20:240–242.
- BRONGERSMA, LEO D. 1956. The palato-maxillary arch in some Asiatic Dipsadinae (Serpentes). *Proceedings of the Koninklijke Nederlandsche Akademie van Wetenschappen (Amsterdam)* 59:439–446.
- BROWN, RAFF M., JOHN W. FERNER, ROGELIO V. SISON, PEDRO C. GONZALES, AND ROBERT S. KENNEDY. 1996. Amphibians and reptiles of the Zambales Mountains of Luzon Island, Republic of the Philippines. *Herpetological Natural History* 4(1):1–22.
- BROWN, RAFF M., AND S.I. GUTTMAN. 2002. Phylogenetic systematics of the *Rana signata* complex of Philippine and Bornean stream frogs: Reconsideration of Huxley's modification of Wallace's Line at the Oriental-Australian faunal zone interface. *Biological Journal of the Linnean Society, London* 76: 393–461.
- BROWN, RAFF M., ALAN E. LEVITON, JOHN W. FERNER, AND ROGELIO V. SISON. 2001. A new snake of the genus *Hologerrhum* Günther (Reptilia; Squamata; Colubridae) from Panay Island, Philippines. *Asiatic Her-*

petological Research 9:9–22.

- BROWN, RAFAEL M., ALAN E. LEVITON, AND ROGELIO V. SISON. 2000 [1999]. Description of a new species of *Pseudorabdion* (Serpentes: Colubridae) from Panay Island, Philippines with a revised key to the genus. *Asiatic Herpetological Research* 8:7–12.
- BROWN, RAFAEL M., JIMMY A. MCCUIRE, JOHN W. FERNER, NICANDRO ICARANGAL, JR., AND ROBERT S. KENNEDY. 2000. Amphibians and reptiles of Luzon Island, II: Preliminary report on the herpetofauna of Aurora Memorial National Park, Philippines. *Hamadryad* 25(2):175–195, 33 figs.
- BROWN, RAFAEL M., CARL H. OLIVEROS, CAMERON D. SILER, JASON B. FERNANDEZ, LUKE J. WELTON, PERRY ARCHIVAL C. BUENAVENTE, MAE LOWE L. DIESMOS, AND ARVIN C. DIESMOS. 2012. Amphibians and reptiles of Luzon Island (Philippines), VII: Herpetofauna of Ilocos Norte Province, Northern Cordillera Mountain Range. *Check List* 8(3):469–490.
- BROWN, R.M., C.D. SILER, C.H. OLIVEROS, J.A. ESSELSTYN, A.C. DIESMOS, P.A. HOSNER, C.W. LINKEM, A.J. BARLEY, J.R. OAKS, M.B. SANGUILA, L.J. WELTON, D.S. BLACKBURN, R.G. MOYLE, A.T. PETERSON, AND A.C. ALCALA. 2013. Evolutionary processes of diversification in a model island archipelago. *Annual Review of Ecology, Evolution, and Systematics* 44:411–435.
- BROWN, RAFAEL M., UTPAL SMART, ALAN E. LEVITON, AND ERIC N. SMITH. 2018. A new species of Long-glanded Coralsnake of the Genus *Calliophis* (Squamata: Elapidae) from Dinagat Island, with notes on the biogeography and species diversity of Philippine *Calliophis* and *Hemibungarus*. *Herpetologica* 74(1 [March; online 06Feb.2018]):89–104, 8 figs., 3 tables. (online: <<http://hijournals.org/doi/full/10.1655/Herpetologica-D-17-00008?code=herl-site>>) (Accessed 06 Feb. 2018)
- BROWN, WALTER C. 1991. Lizards of the genus *Emoia* (Scincidae) with observations on their evolution and biogeography. *Memoirs of the California Academy of Sciences* (15):94.
- BROWN, WALTER C., AND ANGEL C. ALCALA. 1970. The zoogeography of the herpetofauna of the Philippine Islands, a fringing archipelago. *Proceedings of the California Academy of Sciences*, ser. 4, 38: 105–130.
- BROWN, WALTER C., AND ALAN E. LEVITON. 1961. Discovery of the snake genus *Opisthotropis* in the Philippine Islands, with description of a new species. *Occasional Papers of the Natural History Museum of Stanford University* (8):1–5.
- BURGER, WILLIAM LESLIE. 1971. *Genera of Pitvipers*. Ph.D. University of Kansas. 186 pp., 9 figs.
- CANTOR, THEODORE E. 1836. Sketch of an undescribed hooded serpent (*Hamadryas hannah*). *Asiatic Researches* 19:87–93, 3 pls.
[NB: Volume 19 of *Asiatic Researches* was published in 1836, and plates 1 through 9, associated with the pre-Cantor articles, bear imprint volume number XIX, yet the plates associated with Cantor's paper are imprinted "Vol. XX." It is possible that Cantor's three plates were not printed with his article that appeared in vol. 19, and which likely appeared in the first half of 1836, but were included in vol. 20, which was opened later that same year. *Asiatic Researches* was first issued in 1788 as "*Asiatic Researches; or, Transactions of the Society, instituted in Bengal, for enquiring into the History, the Antiquities, the Arts and Sciences, and Literature of Asia*. Volume the First." and printed in Calcutta by Manuel Cantopher. The first volume was reprinted in London and bears a date of 1798. Volume 19, part 1 was printed in Calcutta in 1836 by the Bengal Military Orphan Press, Calcutta under the name "Asiatic Researches".]
- CANTOR, THEODORE E. 1838. "A notice of the *Hamadryas*, a genus of Hooded Serpents with poisonous fangs and maxillary teeth." *Proceedings of the Zoological Society of London* 1838(part 4):72–76.
- CANTOR, THEODORE E. 1847. Catalogue of reptiles inhabiting the Malayan Peninsula and islands. *Journal of the Asiatic Society of Bengal* 16:607–656, 897–952, 1026–1078.
- CASTO DE ELERA, R. P. FR. 1895. *Catálogo sistemático de toda la Fauna de Filipinas conocida hasta al presente, y á la vez et de la Colección zoológica del Museo de PP. Dominicos del Colegio-Universidad de Santo Tomás de Manila escrito con motivo de la Exposición Regional Filipina*. Colegio de Santo Tomas, Manila, Philippines. viii + 701 pp.
[NB: Snakes {Ofidios}, pp. 423–445.]
- CASTOE, TODD A., ERIC N. SMITH, RAFAEL M. BROWN, AND CHRISTOPHER L. PARKINSON. 2007. Higher-level phylogeny of Asian and American coralsnakes, their placement within the Elapidae (Squamata), and the sys-

- tematic affinities of the enigmatic Asian coral snake *Hemibungarus calligaster* (Wiegmann, 1834). *Zoological Journal of the Linnean Society* 151:809–832, 5 figs., 3 tables, Appendices 801–802.
- COPE, EDWARD D. 1859. Catalogue of the venomous serpents in the museum of the Academy of Natural Sciences of Philadelphia, with notes on the families, genera, and species. *Proceedings of the Academy of Natural Sciences of Philadelphia* 11:332–347.
- COPE, EDWARD D. 1860. Catalogue of the Colubridae in the museum of the Academy of Natural Sciences of Philadelphia, with notes and descriptions of new species. *Proceedings of the Academy of Natural Sciences of Philadelphia* 12:241–266.
- COPE, EDWARD D. 1861. Catalogue of the Colubridae in the museum of the Academy of Natural Sciences of Philadelphia. Part 3. *Proceedings of the Academy of Natural Sciences of Philadelphia* 12: 553–566.
- COPE, EDWARD D. 1862. [Un-titled] Reported as comments at meeting of the Academy on the dentition of the Siamese river snake, *Herpeton tentaculatum*. The native country of *Gerardia prevostiana*. On *Rhabdosoma* (*Catastoma*). *Proceedings of the Academy of Natural Sciences of Philadelphia* 14:1.
- COPE, EDWARD D. 1886. An analytical table of the genera of snakes. *Proceedings of the American Philosophical Society* 23:479–499.
- COPE, EDWARD D. 1893. Prodrômus of a new system of the non-venomous snakes. *American Naturalist* 27:477–483.
- COPE, EDWARD D. 1900. *The Crocodilians, Lizards, and Snakes of North America*. In: Annual Report of the Board of Regents of the Smithsonian Institution . . . for the Year ending June 30, 1898; Report of the U.S. National Museum, Part II. [U.S.] Government Printing Office, Washington, D.C. xi-xvii + 151–1270 pp., 347 text-figs, 36 pls.
- DARLINGTON JR., PHILIP J. 1957. *Zoogeography: The Geographical Distribution of Animals*. John Wiley & Sons, New York, New York, USA. xiii + 675 pp., 80 figs.
- DAUDIN, FRANÇOIS MARIE. 1803. *Histoire naturelle, générale particulière des reptiles*, vol. 7. F. Dufart, Paris, France. 436 pp.
- DAVID, PATRICK, AND INDRANEIL DAS. 2004. On the grammar of the gender of *Ptyas* Fitzinger, 1843 (Serpentes: Colubridae). *Hamadryad* 28(1–2):113–116.
- DAVID, PATRICK, AND IVAN INEICH. 1999. Les Serpens venimeux du monde: systématique et répartition. *Dumerilia*, vol. 3. Association des Amis du Laboratoire des Reptiles et Amphibiens du Muséum (AALRAM) (Muséum national d'Histoire naturelle), Paris, France. 499 pp.
- DAVID, PATRICK, OLIVIER S.G. PAUWELS, PASCAL F.A.G. LAYS, AND GEORGES L. LENGLET. 2006. On a collection of reptiles from southern Mindanao Island, the Philippines. *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique, Biologie* 76:201–227, 16 figs., 5 tables.
- DAVID, PATRICK, AND GERNOT VOGEL. 1996. *The Snakes of Sumatra: An Annotated Checklist and Key with Natural History Notes*. Chimaira Buchhandels-gesellschaft, Frankfurt-am-Main, Germany. 260 pp.
- DAVID, PATRICK, GERNOT VOGEL, AND ALAIN DUBOIS. 2011. On the need to follow rigorously the Rules of the Code for the subsequent designation of a nucleospecies (type species) for a nominal genus which lacked one: the case of the nominal genus *Trimeresurus* Lacépède. 1804 (Reptilia: Squamata: Viperidae) *Zootaxa* 2992(2992):1–51.
- DE LANG, RUND, AND GERNOT VOGEL. 2005. *The Snakes of Sulawesi: A Field Guide to the Land Snakes of Sulawesi with Identification Keys*. Chimaira Buchhandels-gesellschaft, Frankfurt am Main, Germany. 321 pp., 189 figs.
- DE LEON, WALFRIDO. 1946. Cobra venom — its possibilities in Philippine medicine. *Journal of the Philippine Medical Association* 22(1):1–6.
- DE LEON, WALFRIDO, AND ENRIQUE SALAFRANCA. 1957 [1956]. Cobra-anti-venom serum production at the Alabang Serum and Vaccine Laboratories. *Philippine Journal of Science* 85(4):477–487. NB: Cover dated December 1956 but published 5 August 1957.]
- DERANIYAGALA, PAULUS E. P. 1960. The taxonomy of the cobras of Southeastern Asia. *Spolia Zeylanica* 29:41–63.
- DE ROOIJ, NELLY (Petronella Johanna). 1917. *The Reptiles of the Indo-Australian Archipelago*. II. *Ophidia*.

- E. J. Brill, Leiden, Netherlands. xiv + 334 pp., 117 figs.
- DEVAN-SONG, ANNE, AND RAFF M. BROWN. 2012. Amphibians and reptiles of Luzon Island, Philippines. VI. The herpetofauna of the Subic Bay area. *Asian Herpetological Research* 3(1):1–20, 38 figs., 2 tables.
- DICKERSON, ROY. 1924. Tertiary paleogeography of the Philippines. *Philippine Journal of Science* 25:11–48.
- DICKERSON, ROY. 1928a. Introduction. Pages 21–30 in R. Dickerson, ed., *Distribution of Life in the Philippines*. Bureau of Science, Manila, Philippines.
- DICKERSON, ROY. 1928b. Mammals of the Philippines. Pages 273–280 in R. Dickerson, ed., *Distribution of Life in the Philippines*. Bureau of Science, Manila, Philippines.
- DICKERSON, ROY. 1928c. Tertiary and Quaternary palaeogeography of the Philippines. Pages 76–96 in R. Dickerson, ed., *Distribution of Life in the Philippines*. Bureau of Science, Manila, Philippines.
- DIESMOS, A.C., RAFF M. BROWN, AND G.V.A. GEE. 2004. Preliminary report on the amphibians and reptiles of Balbalasang-Balbalan National Park, Luzon Island, Philippines. *Sylvatrop, Technical Journal of Philippine Ecosystems and Natural Resources* 13:63–80.
- DIESMOS, A.C., A.C. ALCALA, C.D. SILER, AND R.M. BROWN. 2014. Status and Conservation of Philippine Amphibians. Pages 310–336 in H. Heatwole and I. Das, eds., *Conservation Biology of Amphibians of Asia. Status of Conservation and Decline of Amphibians: Eastern Hemisphere*. Natural History Publications (Borneo), Kota Kinabalu, Malaysia.
- DOLOROSA, ROGER G. 2014. Notes on Mangrove Snake, *Boiga dendrophila multicincta* (Boulenger, 1896) in Iwahig River, Puerto Princesa City. *The Palawan Scientist* 6:39–41, 1 fig.
- DORIA, GIULIANO, AND MASSIMO PETRI. 2010. *Pseudorabdion* in the Museum of Genova with description of two new species from Sumatra and a revised key to the genus. *Annali del Museo Civico di Storia Naturale di Genova* 102:187–201.
- DOWLING, HERNDON GLENN. 1951a. A proposed method of expressing scale reductions in snakes. *Copeia* 1951:131–134.
- DOWLING, HERNDON G. 1951b. A proposed standard system of counting ventrals in snakes. *British Journal of Herpetology* 1:97–99.
- DOWLING, HERNDON G. 1958. A taxonomic study of the ratsnakes. VI. Validation of the genera *Gonyosoma* Wagler and *Elaphe* Fitzinger. *Copeia* 1958:29–40.
- DOWLING, HERNDON G. 1959. Classification of the Serpents: A critical review. *Copeia* 1959:38–52.
- DOWLING, HERNDON G, AND JAY M SAVAGE. 1960. A guide to the snake hemipenes: A survey of basic structure and systematic characteristics. *Zoologica* 45:17–28.
- DUELLMAN, WILLIAM E. 1958. A monographic study of the colubrid snake genus *Leptodeira*. *Bulletin of the American Museum of Natural History* 114:1–152.
- DUMÉRIL, AUGUST HENRI ANDRÉ. 1853. Prodrôme de la classification des reptiles ofidiens. *Mémoires de l'Académie des Sciences de l'Institut de France* 23:399–536, 2 pls.
- DUMÉRIL, AUGUST MARIE CONSTANT, GABRIEL BIBRON, AND AUGUST HENRI ANDRÉ DUMÉRIL. 1854a. *Erpétologie générale ou histoire naturelle complète des reptiles*. Tome Septième-Première Partie. Librairie Encyclopédique de Roret, Paris, France. xvi + 780 pp.
- DUMÉRIL, AUGUST MARIE CONSTANT, GABRIEL BIBRON, AND AUGUST HENRI ANDRÉ DUMÉRIL. 1854b. *Erpétologie générale ou histoire naturelle complète des reptiles*. Tome Septième-Deuxième Partie. Librairie Encyclopédique de Roret, Paris, France. xii + 781–1536 pp.
- DUNN, EMMETT REID. 1928. A tentative key and arrangement of the American genera of Colubridae. *Bulletin of the Antivenin Institute of America* 2:18–24.
- DUNN, EMMETT REID. 1951. The status of the snake genera *Dipsas* and *Sibon*, a problem for “Quantum evolution”. *Evolution* 5:355–358.
- DUNN, EMMETT REID, AND MERLE TAYLOR DUNN. 1940. Generic names proposed in herpetology by E.D. Cope. *Copeia* 1940:69–76.
- DUNSON, WILLIAM A. 1978. Role of the skin in sodium and water exchange of aquatic snakes placed in seawater. *American Journal of Physiology* 235(3):R151–R159.
- DUNSON, WILLIAM A., AND MARGARET K. DUNSON. 1979. A possible new salt gland in a marine homalopsid snake (*Cerberus rhynchops*). *Copeia* 1979(4):661–672.

- DUNSON, WILLIAM A., AND SHERMAN A. MINTON JR. 1978. Diversity, distribution, and ecology of Philippine marine snakes (Reptilia, Serpentes). *Journal of Herpetology* 12(3):281–286.
- EVANS, GEORGE HENRY. 1903. The king-cobra, or hamadryad-*Naia bungarus* (Boulenger), *Ophiophagus elaps* (Günther). *Journal of the Bombay Natural History Society* 14:409–418.
- FERNER, JOHN W., RAFAEL M. BROWN, ROGELIO V. SISON, AND ROBERT S. KENNEDY. 2001. The amphibians and reptiles of Panay Island, Philippines. *Asiatic Herpetological Research* 9:34–70.
- FIGUEROA, ALEX, ALEXANDER D. MCKELVY, L. LEE GRISMER, CHARLES D. BELL, AND SIMON P. LAILVAUX. 2016. A species-level phylogeny of extant snakes with description of a new colubrid subfamily. *PLOS ONE*, DOI:10.1371/journal.pone.0161070 September 7, pp. 1–31, 10 figs.
- FISCHER, JOHANN GUSTAV. 1882. Herpetologische Bemerkungen. I. Bemerkungen über einzelne Stücke der Schlangen-Sammlung des Kön. Zoologischen Museums in Dresden. *Archiv für Naturgeschichte* 48(3):282–286.
- FISCHER, JOHANN GUSTAV. 1885. Ichthyologische und Herpetologische Bemerkungen. IV: Ueber eine Collection von Amphibien und Reptilien von Mindanao. *Jahrbuch Hamburg Wissenschaft Anstalt* 2:80–81.
- FITZINGER, LEOPOLDO JOSEPH FRANZ JOHANN. 1826. *Neue Classification der Reptilien nach ihren natürlichen Verwandtschaften nebst eine verwandtschaft-Tafel und einem verzeichnisse der Reptilien-Sammlung der K. K. zoologisches Museum zu Wien*. J.G. Heubner, Wien [Vienna], Austria. viii + 66 pp., 1 foldout pl.
- FITZINGER, LEOPOLDO JOSEPH FRANZ JOHANN. 1843. *Systema Reptilium*. Braunmüller et Seidel, Vindobonae (Wien [Vienna]), Austria. 106 + iv + (3) pp.
- FORCART, LOTHAR. 1954. Die Taxonomie von *Lycodon florensis* Rooij und *Stegonotus sutteri* Forcart (Ophidia, Colubridae). *Verhandlungen der naturforschenden Gesellschaft in Basel* 65(1):7–8.
- GARMAN, SAMUEL W. 1881. New or little-known reptiles and fishes in the museum collection. *Bulletin of the Museum of Comparative Zoology, Harvard University* 8(3):85–93.
- GAULKE, MAREN. 1986. Zum Beutefangverhalten der Schumuckbaumschlange *Chrysopelea paradisi* Boie, 1829 (Serpentes: Colubridae). *Salamandra* 22(2/3):211–212.
- GAULKE, MAREN. 1987. Herpetologische Beobachtungen auf der Insel Calauit (Philippinen). *Die Aquarien und Terrarien Zeitschrift* 7(40):319–322.
- GAULKE, MAREN. 1993a. First record of the polyodont snake *Sibynophis geminatus geminatus* (Boie, 1826) from the Philippines, with a discussion of *Sibynophis bivittatus* (Boulenger, 1894). *Herpetological Journal* 3(4):151–152, tables 1–2.
- GAULKE, MAREN. 1993b. Zur Taxonomie und Biologie von *Oligodon meyerinkii* (Steindachner, 1891). *Sauria* 15(3):3–6, 3 figs.
- GAULKE, MAREN. 1994a. Eine neue Unterart des Malaysischen Baumschnüfflers, *Ahaetulla prasina suluensis* n. subsp. *Senckenbergiana Biologica* 73(1–2 [15 Apr.]):45–47, 1 table.
- GAULKE, MAREN. 1994b. Contribution to the snake fauna of the Sulu Archipelago, with the description of a new subspecies of *Dendrelaphis caudolineatus* (Gray, 1834). *Herpetological Journal* 4(4):136–144.
- GAULKE, MAREN. 1994c. Notes on the herpetofauna of Panaon and Samar, east Visayans, Philippines. *Hamadryad* 19:1–10.
- GAULKE, MAREN. 1995a. Der Sulu Archipel - Besiedlungsgeschichte, Geologie und Herpetofauna. *Natur und Museum* 127(7):217–226.
- GAULKE, MAREN. 1995b. Observations on arboreality in a Philippine blind snake. *Asiatic Herpetological Research* 6:45–48.
- GAULKE, MAREN. 1996. Die Herpetofauna von Sibutu Island (Philippinen), unter Berücksichtigung zoogeographischer und ökologischer Aspekte. *Senckenbergiana Biologica* 75(1/2):45–56, 7 figs., 2 tables.
- GAULKE, MAREN. 1999. Die Herpetofauna von Calauit Island (Calamianes-Inseln, Provinz Palawan, Philippinen) (Amphibia et Reptilia). *Faunistische Abhandlungen, Staatliches Museum für Tierkunde Dresden* 21(19 [15 July]):273–282, 1 fig. [map].
- GAULKE, MAREN. 2001. Die Herpetofauna von Sibaliw (Panay), einem der letzten Tieflandregenwaldgebiete der West-Visayas, Philippinen — Teil II: Schlangen. *Herpetofauna (Weinstadt)* 23(131):23–34.
- GAULKE, MAREN. 2002. A new species of *Lycodon* from Panay Island, Philippines (Reptilia, Serpentes, Colubridae). *Spixiana* 25(1):85–92.

- GAULKE, MAREN. 2011. *The Herpetofauna of Panay Island, Philippines*. Chimaira Buchhandelsgesellschaft, Frankfurt am Main, Germany. 390 pp., 258 figs.
- GAULKE, MAREN, AND ALEXANDER V. ALTENBACH. 1994. Contribution to the knowledge of the snake fauna of Masbate (Philippines) (Squamata: Serpentes). *Herpetozoa* 7(1/2):63–66.
- GAULKE, MAREN, ARNOLD DEMEGILLO, JOCHEN REITER, AND BENJAMIN TACUD. 2003. Additions to the herpetofauna of Panay Island, Philippines. *Salamandra* 39(2):111–122.
- GAULKE, MAREN, ARNOLD DEMEGILLO, AND GERNOT VOGEL. 2004. Eine neue Unterart der Mangroven-Nachbaumnatter von den Philippinen [A new subspecies of the Mangrove snake from the Philippines]. *Herpetofauna (Weinstadt)* 25(143):5–16.
- GAULKE, MAREN, AND GERSOM OPERIANO. 2006. *Oxyrhabdium leporinum visayanum**, Gebänderte Philippinische Wühlschlange [*Oxyrhabdium leporinum visayanum**, Banded Philippine Burrowing Snake]. *Sauria* 28(3):51–52.
- GAULKE, MAREN, AND GERNOT VOGEL. 2005. Verbreitungsnachweis und Längenrekord *Calamaria bitorques* Peters, 1872. *Sauria* 27(1):19–23, 6 figs.
- GIRARD, CHARLES FRÉDÉRIC. 1857. Descriptions of some new reptiles, collected by the U.S. Exploring Expedition under the command of Capt. Charles Wilkes, U.S.N. Third Part.— Including the species of Ophidians, exotic to North America. *Proceedings of the Academy of Natural Sciences of Philadelphia* 1857(August):181–182.
- GIRARD, CHARLES FRÉDÉRIC. 1858. *Herpetology*. In: United States Exploring Expedition, during the years 1838, 1839, 1840, 1841, 1842, under the command of Charles Wilkes, U.S.N. Vol. XX. C. Sherman & Son, Philadelphia, Pennsylvania, USA. 17 + 496 pp.
- GISTEL, JOHANNES VON NEPOMUK FRANZ XAVER. 1848. *Naturgeschichte des Thierreichs für höhere Schulen*. Scheitlin & Kraiss, Stuttgart, Germany. xvi + 216 pp.
[NB: No specific Philippine listings. Adler notation on his photocopy of this paper: “Acad. Nat. Sci. Phila. has copy of ed. 1 (1848).” According to Adler, the 1851 paper (of which he has a photocopy) is identical to the 1848 publ. Adler also notes, “see Dubois 1987 *Alytes* 6:45–46 for review of Gistel’s names.”; 617 figs., 32 pls.]
- GOLAY, PHILIPPE. 1985. *Checklist and Keys to the Terrestrial Proteroglyphs of the World (Serpentes: Elapidae-Hydrophiidae)*. Fondation culturelle Elapsoidea, Genève, Switzerland. ix + 91 pp.
- GOLAY, PHILIPPE, HOBART M. SMITH, DONALD G. BROADLEY, JAMES R. DIXON, COLIN MCCARTHY, JEAN-CLAUDE RAGE, BEAT SCHÄTTI, AND MICHIHISA TORIBA. 1993. *Endoglyphs and Other Major Venomous Snakes of the World: A Checklist*. Azemiops S.A., Herpetological Data Center, Aïre-Geneva, Switzerland. xv + 478 pp.
- GORMAN, GEORGE C., PAUL LICHT, AND FRED MCCOLLUM. 1981. Annual reproductive pattern in three species of marine snakes from the central Philippines [*sic*]. *Journal of Herpetology* 15(3):335–354.
- GRAY, JOHN EDWARD. 1842. Synopsis of the species of rattle snakes, or family of Crotalidae. *The Zoological Miscellany* (2):47–51.
- GRAY, JOHN EDWARD. 1843. Description of two new species of reptiles from the collection made during the voyages of *H.M.S. Sulfur*. *Annals and Magazine of Natural History* 11(57):46.
- GRAY, JOHN EDWARD. 1849. *Catalogue of the Specimens of Snakes in the Collection of the British Museum*. Trustees of the British Museum, London, UK. xv + 125 pp.
- GREENE, HARRY W. 1989. Defensive behaviour and feeding biology of the Asian mock viper, *Psammodynastes pulverulentus* (Colubridae), a specialized predator on scincoid lizards. *Chinese Herpetological Research* 2(2):21–32.
- GRESSITT, JUDSON LINSLEY. 1937. Note on a Philippine cobra. *Copeia* 1937(1):73.
- GRIFFIN, LAWRENCE E. 1909a. Two new species of snakes found in the Philippine Islands. *Philippine Journal of Science* 4(1):55–56.
- GRIFFIN, LAWRENCE E. 1909b. Poisonous snakes of the Philippine Islands. *Philippine Journal of Science* 4(3):203–204.
- GRIFFIN, LAWRENCE E. 1909c. A list of snakes found in Palawan. *Philippine Journal of Science* 4(6):595–601.
- GRIFFIN, LAWRENCE E. 1910. A list of snakes from the island of Polillo, P.I., with descriptions of a new genus

- and two new species. *Philippine Journal of Science* 5(4):211–218.
- GRIFFIN, LAWRENCE E. 1911. A check-list and key of Philippine snakes. *Philippine Journal of Science* 6(5):253–268.
- GRITIS, PAUL, AND HAROLD K. VORIS. 1990. Variability and significance of parietal and ventral scales in the marine snakes of the genus *Lapemis* (Serpentes: Hydrophiidae), with comments on the occurrence of spiny scales in the genus. *Feldiana: Zoology* (56):i-iii, 1–13.
- GUICHENOT, ALPHONSE. 1853. (see Jacquinot, Honoré, and Alphonse Guichenot. 1853)
- GUMPRECHT, ANDREAS, FRANK TILLACK, NIKOLAI L. ORLOV, ASHOK CAPTAIN, AND SERGEI RAYABOV. 2004. *Asian Pitvipers*. Geje Books Berlin, Berlin, Germany. 368 pp.
- GÜNTHER, ALBERT C.L.G. 1858. *Catalogue of Colubrine Snakes in the Collection of the British Museum*. Trustees of the British Museum, London, UK. xvi + 281 pp.
- GÜNTHER, ALBERT C.L.G. 1859. On the genus *Elaps* Wagler. *Proceedings of the Zoological Society of London* 1859:79–89.
- GÜNTHER, ALBERT C.L.G. 1860. Note on *Psammophis Perroteti*, D. & B. *Annals and Magazine of Natural History* 6:428–429.
- GÜNTHER, ALBERT C.L.G. 1862. On new species of snakes in the collection of the British Museum. *Annals and Magazine of Natural History* 9:124–132.
- GÜNTHER, ALBERT C.L.G. 1864. *The Reptiles of British India*. Robert Hardwick (for the Ray Society), London, England, UK. xxvii + 452, 26 pls.
- GÜNTHER, ALBERT C.L.G. 1873. Notes on some reptiles and batrachians obtained by Dr. Adolf Bernhard Meyer in Celebes and the Philippine Islands. *Proceedings of the Zoological Society of London* 1873: 165–172, 2 pls.
- GÜNTHER, ALBERT C.L.G. 1879. List of the mammals, reptiles, and batrachians sent by Mr. Everett from the Philippine Islands. *Proceedings of the Zoological Society of London* 1879(5):74–79.
- GÜNTHER, ALBERT C.L.G. 1883. Description of two new snakes from the “Challenger” collections. *Annals and Magazine of Natural History* 11:136–137.
- GUO, YUHONG, YUNKE WU, SHUMPING HE, HAITAO SHI, AND ERMI ZHAO. 2011. Systematics and molecular phylogenetics of Asian snail-eating snakes. *Zootaxa* 3001(3001):57–65, 2 figs., 1 table.
- GYI, KO KO. 1970. A revision of colubrid snakes of the subfamily Homalopsinae. *University of Kansas Publications of the Museum of Natural History* 20(2):47–223.
- HAAS, C.P.J. DE. 1950. Checklist of the snakes of the Indo-Australian Archipelago (Reptiles, Ophidia). *Treubia* 20:511–625.
- HAAS, GEORG. 1931. Die kiefermuskulatur und die Schädelmechanik der Schlangen in Vergleichender Darstellung. *Zoologische Jahrbücher. Abteilung für Anatomie und Ontogenie der Tier* 53:127–198.
- HAHN, DONALD E. 1980. Liste der rezenten Amphibien und Reptilien: Anomalepididae, Leptotyphlopidae, Typhlopidae. *Das Tierreich* 101:i-xii+1–93.
- HARDING, KEITH A., AND KENNETH R.G. WELCH. 1980. *Venomous Snakes of the World: A Checklist*. Pergamon Press, Oxford, UK. x + 188 pp.
- HEANEY, L.R. 1985. Zoogeographic evidence for middle and Late Pleistocene land bridges to the Philippine Islands. *Modern Quaternary Research in Southeast Asia* 9:127–143.
- HEATWOLE, HAROLD, ALANA GRECHI, AND HELENE MARSH. 2017. Paleoclimatology, paleogeography, and the evolution and distribution of sea kraits (Serpentes: Elapidae: *Laticauda*). *Herpetological Monographs* 31(1; Dec. 2017):1–17.
- HEDGES, S. BLAIR, ANGELA B. MARION, KELLY M. LIPP, JULIE MARIN, AND NICOLAS VIDAL. 2014. A taxonomic framework for typhlopoid snakes from the Caribbean and other regions (Reptilia, Squamata). *Caribbean Herpetology* 49:1–61, tables 1–3, Appendix.
- HELFFENBERGER, NOTKER. 2001. Phylogenetic relationships of Old World ratsnakes based on visceral organ topology, osteology, and allozyme variation. *Russian Journal of Herpetology* 8(Suppl. 1):1–62.
- HERRE, ALBERT WILLIAM CHRISTIAN THEODORE. 1928. True fresh-water fishes of the Philippines. Pages 242–247 in R. Dickerson, ed., *Distribution of Life in the Philippines*. Bureau of Science, Manila, Philippines.

- HERRE, ALBERT W.C.T. 1942. Notes on Philippine sea snakes. *Copeia* 1942(1):7–9.
- HERRE, ALBERT W.C.T., AND D.S. RABOR. 1949. Notes on Philippine sea snakes of the genus *Laticauda*. *Copeia* 1949(4):282–284.
- HORNSTEDT, CLAÉS FREDRIK. 1787. Beskrifning på en Ny Orm från Java. *Kongl. Vetenskaps Academiens nya Handlingar, Stockholm* 8:306–308.
- IN DEN BOSCH, HERMAN A.J. 1985. Snakes of Sulawesi: Checklist, key and additional biogeographical remarks. *Zoologische Verhandlungen, Leiden* 217:3–50 pp.
- IN DEN BOSCH, HERMAN A.J., AND IVAN INEICH. 1994. The Typhlopidae of Sulawesi (Indonesia): A review with a description of a new genus and a new species (Serpentes: Typhlopidae). *Journal of Herpetology* 28(2):206–217.
- INGER, ROBERT F. 1954. Systematics and zoogeography of Philippine Amphibia. *Fieldiana: Zoology* 33: 181–531.
- INGER, ROBERT F. 1967. A new colubrid snake of the genus *Stegonotus* from Borneo. *Fieldiana: Zoology* 51(5):77–83.
- INGER, ROBERT F. AND PHILIP J. CLARK. 1943. Partition of the genus *Coluber*. *Copeia* 1943: 141–145.
- INGER, ROBERT F., AND ALAN E. LEVITON. 1966. The taxonomic status of Bornean snakes of the genus *Pseudorabdion* Jan and of the nominal genus *Idiopholis* Mocquard. *Proceedings of the California Academy of Sciences*, ser. 4, 34(4):307–314.
- INGER, ROBERT F., AND HYMEN MARX. 1962. Variation of hemipenes and cloaca in the colubrid snake *Calamaria lumbricoidea*. *Systematic Zoology* 11(1):32–38.
- INGER, ROBERT F., AND HYMEN MARX. 1965. The systematics and evolution of the Oriental colubrid snakes of the genus *Calamaria*. *Fieldiana: Zoology* 49:1–304, 73 figs.
- INGER, ROBERT F., AND HAROLD K. VORIS. 2001. The biogeographical relations of the frogs and snakes of Sundaland. *Journal of Biogeography* 28:863–891, 4 figs., 7 tables, Appendix.
- ISKANDAR, D.T., AND E. COLJIN. 2002. *A Checklist of Southeast Asian and New Guinean Reptiles*. Part I: *Serpentes*. Biodiversity Conservation Project, Djakarta, Java, Indonesia.
- IUCN. 2017. Guidelines for using the IUCN redlist categories and criteria, version 13. Electronic material available at <<http://cmsdocs.s3.amazonaws.com/RedListGuidelines.pdf>>.
- JACQUINOT, HONORÉ, AND ALPHONSE GUICHENOT. 1853. Reptiles et Poissons. Zoologie, vol. 3, pt. 2, pp. 1–28 [reptiles section {including section on amphibians}], pls. 1–6 in Jacques Bernard Hombron and Honoré Jacquinot, *Dumont d'Urville, Voyage au Pole Sud et dans l'Océanie sur les corvettes l'Astrolabe et Zélé pendant les années 1837–1838–1839–1840*, Zoologie, vol. 3. Gide et J. Baudry, Éditeurs, Paris, France.
- JAN, GEORG. 1857. Cenni sul Museo Civico di Milano ed indice sistematico dei rettili ed anfibi eposti nel medesimo. Luigi di Giacomo Pirola, Milano, Italia. 61 pp.
- JAN, GEORG. 1862. Enumerazione sistematica della specie d'Ophidi del gruppo Calamaridae. *Archivo Zool. Anat. Fisiol. Modena* 2(1):1–76.
[NB: Reprinted in August, 1862 as *Prodromo dell'Iconografia Generale degli Ofidi*. II. Parte. V. Gruppo: *Calamaridae*, with the addition of an introduction by Jan, pp. iii–xii, pp. iii–x dated 20 dicembre 1861 and pp. x–xii, 1 Agosto 1862.; pls. 5–6.]
- JAN, GEORG. 1863a. *Elenco sistematico degli Ofidi. Descritti e disegnati per l'Iconographia Generale*. A. Lombardi, Milano, Italy. vii + 143 pp.
- JAN, GEORG. 1863b. Enumerazione sistematica degli ofidi appartenenti al gruppo Coronellidae. *Archivo Zool. Anat. Fisiol. Modena* 2(2):213–330.
[NB: Reprinted in August, 1863 as *Prodromo dell'Iconografia Generale degli Ofidi*. II.^a Parte. VI.^o Gruppo: *Coronellidae*, pp. (2) + 3–120.]
- JENSEN, LAURITZ A., GERALD D. SCHMIDT, AND ROBERT E. KUNTZ. 1983. A survey of cestodes from Borneo, Palawan and Taiwan, with special reference to three new species. *Proceedings of the Helminthological Society of Washington* 50(1):117–134.
- KARNS, DARYL R., ASHLEY O'BANNON, HAROLD K. VORIS, AND LEE A. WEIGT. 2000. Biogeographical impli-

- cations of mitochondrial DNA variation in the Bockadam snake (*Cerberus rhynchops*, Serpentes: Homalopsinae) in Southeast Asia. *Journal of Biogeography* 27:391–402.
- KLUSMEYER, BORIS, AND BERND FAUSTEN. 1994. Haltung und Nachzucht der Bambusotter *Trimeresurus flavomaculatus halieus*. *Salamandra* 30(3):174–184.
- KROON, CHARLES. 1973. A second specimen of the colubrid snake *Boiga philippina*. *Herpetologica* 29(1): 51–53.
- LACÉPÈDE, BERNARDE GERMAINE ÉTIENNE. 1789. *Histoire Naturelle des Quadrupèdes Ovipares et des Serpens*. Hôtel de Thou, Paris, France. 1–8 + 9–19 + [20] + 1–77 + 78–144 + 1–527 pp., 22 pls.
- LANGENBERGER, GERHARD. 2004. Ophiophagus behavior in *Psammodynastes pulverulentus* in the Philippines. *Hamadryad* 29(1):140.
- LANZA, BENEDITTO. 1999. A new species of *Lycodon* from the Philippines, with a key to the genus (Reptilia Serpentes Colubridae). *Tropical Zoology* 12:89–104, 3 figs.
[NB: Includes a key to identify all species included by Lanza in the genus *Lycodon*.]
- LANZA, BENEDITTO, AND S. BOSCHERINI. 2000. The gender of the genera *Podarcis* Wagler 1830 (Lacertidae), *Pelamis* Daudin 1803 (Hydrophiidae), and *Uropletis* Cuvier 1829 (Uropeltidae). *Tropical Zoology* 13:327–329.
- LAURENT, RAYMOND F. 1948. Notes sur quelques reptiles appartenant à la collection du Musée Royal d'Histoire Naturelle de Belgique. II. Formes asiatiques et néo-guinéennes. *Bulletin du Musée royal d'Histoire Naturelle de Belgique* 24(17):1–12.
- LAURENTI, JOSEPHI NICOLAI. 1768. *Synopsis Reptilium emendatam cum Experimentis circa Venena et Antidota Reptilium Austriacorum, quod Autoritate et Consensu*. Joan. Thomas, Viennae. (4) + 214 + (3), 5 pls.
- LAWSON, ROBIN, JOSEPH B. SLOWINSKI, B.J. CROTHER, AND FRANK T. BURBRINK. 2005. Phylogeny of the Colubroidea (Serpentes): new evidence from mitochondrial and nuclear genes. *Molecular Phylogenetics and Evolution* 37:581–601.
- LAZELL, JAMES. 1998. Morphology and status of the snake genus “*Ptyas*”. *Herpetological Review* 29(30):134.
- LEVITON, ALAN E. 1952. A new Philippine snake of the genus *Calamaria*. *Journal of the Washington Academy of Sciences* 42(7):239–240.
- LEVITON, ALAN E. 1953. Catalogue of the amphibian and reptile types in the Natural History Museum of Stanford University. *Herpetologica* 8:121–132.
- LEVITON, ALAN E. 1955. Systematic notes on the Asian snake *Lycodon subcinctus*. *Philippine Journal of Science* 84(2):195–203.
- LEVITON, ALAN E. 1957. A review of the Philippine snakes of the genus *Oxyrhabdium* (Serpentes: Colubridae). *Wasmann Journal of Biology* 15(2):285–303.
- LEVITON, ALAN E. 1958. Reinstatement of the generic name *Rabdion* A.H.A. Duméril for a monotypic genus of Asian burrowing snakes. *Herpetologica* 14:47–48.
- LEVITON, ALAN E. 1961. Description of a new subspecies of the Philippine snake *Dendrelaphis caudolineatus*. *Occasional Papers of the Natural History Museum of Stanford University* (9):1–6.
- LEVITON, ALAN E. 1961. Keys to the dangerously venomous terrestrial snakes of the Philippine Islands. *Silliman Journal* 8(2):98–106.
- LEVITON, ALAN E. 1963a [1962]. Contribution to a review of Philippine snakes, I. The snakes of the genus *Oligodon*. *Philippine Journal of Science* 91(4):459–484, 1 fig.
- LEVITON, ALAN E. 1963b. Grant No. 2816 (1960), \$600. A re-evaluation of the systematic and zoogeographic status of Philippine snakes. *Year Book of the American Philosophical Society* 1963:337–338.
- LEVITON, ALAN E. 1963c. Remarks on the zoogeography of Philippine terrestrial snakes. *Proceedings of the California Academy of Sciences*, ser. 4, 31:369–416, 1 fig.
- LEVITON, ALAN E. 1964a [1963]. Contributions to a review of Philippine snakes, II. The snakes of the genera *Liopeltis* and *Sibynophis*. *Philippine Journal of Science* 92(3):367–381.
- LEVITON, ALAN E. 1964b. Contributions to a review of Philippine snakes, IV. The genera *Chrysopelea* and *Dryophiops*. *Philippine Journal of Science* 93(1):131–145.
- LEVITON, ALAN E. 1964c. Contributions to a review of Philippine snakes, V. The snakes of the genus

Trimeresurus. *Philippine Journal of Science* 93(2):251–276.

- LEVITON, ALAN E. 1964d [1963]. Contributions to a review of Philippine snakes, III. The snakes of the genera *Maticora* and *Calliophis*. *Philippine Journal of Science* 92(4):523–550.
- LEVITON, ALAN E. 1965a [1964]. Contributions to a review of Philippine snakes, VI. The snakes of the genus *Oxyrhabdium*. *Philippine Journal of Science* 93(3):407–422, 1 fig.
- LEVITON, ALAN E. 1965b [1964]. Contributions to a review of Philippine snakes, VII. The snakes of the genera *Naja* and *Ophiophagus*. *Philippine Journal of Science* 93(4):531–550.
- LEVITON, ALAN E. 1965c. Contributions to a review of Philippine snakes, VIII. The snakes of the genus *Lycodon* H. Boie. *Philippine Journal of Science* 94(1):117–149, 2 figs.
- LEVITON, ALAN E. 1967 [1965]. Contributions to a review of Philippine snakes, IX. The snakes of the genus *Cyclocorus*. *Philippine Journal of Science* 94(4):519–533, 4 figs.
- LEVITON, ALAN E. 1968a [1967]. Contributions to a review of Philippine snakes, X. The snakes of the genus *Ahaetulla*. *Philippine Journal of Science* 96(1):73–90, 1 fig.
- LEVITON, ALAN E. 1968b. The venomous terrestrial snakes of East Asia, India, Malaya, and Indonesia. Pages 529–576 in E.E. Buckley and V. Deulofeu, eds., *Venomous Vertebrates*. Vol. 1. Academic Press, New York, New York, USA..
- LEVITON, ALAN E. 1970a [1970]. Contributions to a review of Philippine snakes, XI. The snakes of the genus *Boiga*. *Philippine Journal of Science* 97(3):291–314, 2 figs.
- LEVITON, ALAN E. 1970b [1968]. Contributions to a review of Philippine snakes, XII. The Philippine snakes of the genus *Dendrelaphis*. *Philippine Journal of Science* 97(4):371–396, 2 figs.
- LEVITON, ALAN E. 1970c. Description of a new subspecies of *Rhabdophis auriculata* in the Philippines, with comments on the zoogeography of Mindanao Island. *Proceedings of the California Academy of Sciences*, ser. 4, 38(18):347–362, 7 figs.
- LEVITON, ALAN E. 1979 [1977]. Contributions to a review of Philippine snakes, XIII. The snakes of the genus *Elaphe*. *Philippine Journal of Science* 106(3–4):99–128, 5 figs.
- LEVITON, ALAN E. 1983. Contribution to a review of Philippine snakes, XIV. The snakes of the genera *Xenopeltis*, *Zaocys*, *Psammodynastes* and *Myersophis*. *Philippine Journal of Science* 112(3–4 [July–December]):195–223, 4 figs.
- LEVITON, ALAN E., AND BENJAMIN H. BANTA. 1956. Catalogue of the amphibian and reptile types in the Natural History Museum of Stanford University. Supplement Number 1. *Herpetologica* 12:213–219.
- LEVITON, ALAN E., RAFFAELLA M. BROWN, AND CAMERON D. SILER. 2014. The dangerously venomous snakes of the Philippine Archipelago. Pages 473–530 in G.C. Williams and T.M. Gosliner, eds., *The Coral Triangle: The 2011 Hearst Biodiversity Philippine Expedition*. California Academy of Sciences, San Francisco, California, USA.
- LEVITON, ALAN E., AND WALTER C. BROWN. 1959. A review of the snakes of the genus *Pseudorabdion* with remarks on the status of the genera *Agrophis* and *Typhlogeophis* (Serpentes: Colubridae). *Proceedings of the California Academy of Sciences*, ser. 4, 29:475–508, 10 figs.
- LEVITON, ALAN E., AND HAROLD E. MUNSTERMAN. 1956. The generic status and subfamily relationships of the colubrid snakes of the genus *Sibynophis* in Madagascar. *Occasional Papers of the Natural History Museum of Stanford University* (4):1–11.
- LIDTH DE JEUDE, THEODOR WILLEM VAN. 1890. Note VIII. On a collection of snakes from Dehli. *Notes of the Leyden Museum* 12:17–27.
- LILLYWHITE, HARVEY B., AND TAMIR M. ELLIS. 1994. Ecophysiological aspects of the coastal-estuarine distribution of acrochordid snakes. *Estuaries* 17(1A):53–61.
- LILLYWHITE, HARVEY B., ALLAN W. SMITH, AND MARTIN E. FEDER. 1988. Body fluid volumes in the aquatic snake, *Acrochordus granulatus*. *Journal of Herpetology* 22(4):434–438.
- LOVERIDGE, ARTHUR. 1938. A new freshwater snake (*Chersydrus granulatus luzonensis*) from the Philippines. *Proceedings of the Biological Society of Washington* 51:209–210.
- LOVERIDGE, ARTHUR. 1944. A new elapid snake of the genus *Maticora* from Sarawak, Borneo. *Proceedings of the Biological Society of Washington* 57:105–106.
- LUTZ, MARIO. 2006. Die Kobras des Philippinischen Archipels. Teil I: Die Philippinen-Kobra, *Naja*

- philippinensis* Taylor, 1922. *Sauria* 28(3):5–11.
- MACLEAY, WILLIAM. 1877. The ophiidians of the Chevert Expedition. *Proceedings of the Linnean Society of New South Wales* 2:33–41.
- MALHOTRA, ANITA, AND ROGER S. THORPE. 2004. The phylogeny of four mitochondrial gene regions suggests a revised taxonomy for Asian pitvipers (*Trimeresurus* and *Ovophis*). *Molecular Phylogenetics and Evolution* 32:83–100.
- MALKMUS, RUDOLF, ULRICH MANTHEY, GERNOT VOGEL, PETER HOFFMANN, AND JOACHIM KOSUCH. 2002. *Amphibians & Reptiles of Mount Kinabalu (North Borneo)*. A.R.G. Gantner Verlag K.G. 424 pp., figs. I-CXVIII [drawings], 1-384 [photos], 61 tables.
- MALNATE, EDMOND V. 1960. Systematic division and evolution of the colubrid snake genus *Natrix*, with comments on the subfamily Natricinae. *Proceedings of the Academy of Natural Sciences of Philadelphia* 112(3 [23 Sept.]):41–71, 4 figs. [maps], 1 table.
- MALNATE, EDMOND V., AND GARTH UNDERWOOD. 1988. Australasian natricine snakes of the genus *Tropidonophis*. *Proceedings of the Academy of Natural Sciences of Philadelphia* 140(1 [28 July]):59–201, 33 figs., 32 tables.
- MARX, HYMEN, AND ROBERT F. INGER. 1955. Notes on snakes of the genus *Calamaria*. *Fieldiana: Zoology* 37:167–209.
- MASLIN, THOMAS PAUL. 1942. Evidence for the separation of the crotalid genera *Trimeresurus* and *Bothrops*, with a key to the genus *Trimeresurus*. *Copeia* 1942:18–24.
- MAYR, ERNST. 1944. Wallace's Line in the light of recent zoogeographic studies. *Quarterly Review of Biology* 19:1–14.
- MCCARTHY, COLIN. 1986. Relationships of the laticaudine sea snakes. *Bulletin of the British Museum of Natural History* 50(2):127–161.
- MCCARTHY, COLIN. 1993a. *Laticauda* Laurenti, 1768. Pages 145–148 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aïre-Geneva, Switzerland.
- MCCARTHY, COLIN. 1993b. *Enhydrina* Gray, 1849. Pages 227–228 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aïre-Geneva, Switzerland.
- MCCARTHY, COLIN. 1993c. *Hydrophis* Latrielle 1801. Pages 229–242 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aïre-Geneva, Switzerland.
- MCCARTHY, COLIN. 1993d. *Lapemis* Gray, 1834. Pages 243–245 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aïre-Geneva, Switzerland.
- MCCARTHY, COLIN. 1993e. *Pelamis* Gray, 1834. Pages 245–247 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aïre-Geneva, Switzerland.
- MCCOY, C.J., AND DONALD E. HAHN. 1979. The yellow-bellied sea snake, *Pelamis platurus* (Reptilia: Hydrophiidae), in the Philippines. *Annals of the Carnegie Museum* 48(14):231–234.
- MCDIARMID, ROY W., JONATHAN A. CAMPBELL, AND T'SHAKA A. TOURÉ. 1999. *Snake Species of the World. A Taxonomic and Geographic Reference*. The Herpetologists' League, Washington, DC, USA. xi + 511 pp.
- MCDOWELL JR., SAMUEL B. [Review of] Systematic division and evolution of the colubrid snake genus *Natrix*, with comments on the subfamily Natricinae, by E.V. Malnate. *Copeia* 1961(4):502–506.
- MCDOWELL JR., SAMUEL B. 1972. The genera of sea-snakes of the *Hydrophis* group (Serpentes: Elapidae). *Transactions of the Zoological Society of London* 32(3):189–247, 1 fig.
- MCDOWELL JR., SAMUEL B. 1974. A catalogue of the snakes of New Guinea and the Solomons, with special reference to those in the Bernice P. Bishop Museum, Part I. Scolecophidia. *Journal of Herpetology* 8(1):1–57.
- MCDOWELL JR., SAMUEL B. 1987. Systematics. Pages 3–50 in R.A. Seigel, J.T. Collins, and S.S. Novak, eds., *Snakes: Ecology and Evolutionary Biology*. Macmillan, New York.

- MCGREGOR, RICHARD C. 1928. Birds of the Philippines. Pages 168–213 in R. Dickerson, ed., *Distribution of Life in the Philippines*. Bureau of Science, Manila, Philippines.
- MCLEOD, DAVID S., CAMERON D. SILER, ARVIN C. DISEMOS, MAE L. DIESMOS, VHON S. GARCIA, ANGELA O. ORKONCEO, KELVIN L. BALAQUIT, CHARLENE C. UY, MARIDEN M. VOILLASERAN, EARLE C. YARRA, AND RAFAEL M. BROWN. 2011. Amphibians and reptiles of Luzon Island, V: The herpetofauna of Angat Dam Watershed, Bulacan Province, Luzon Island, Philippines. *Asiatic Herpetological Research* 2(4):177–198, 2 figs., 1 table.
- MEISE, WILHELM, AND EMIL HANS WILLI HENNIG. 1932. Die Schlangengattung *Dendrophis*. *Zoologischer Anzeiger (Leipzig)* 99(11/12):273–297.
- MEISE, WILHELM, AND EMIL HANS WILLI HENNIG. 1935. Zur Kenntnis von *Dendrophis* und *Chrysopelea*. Ein Beitrag zur systematischen Bewertung der Opisthoglypha. *Zoologischer Anzeiger (Leipzig)* 109: 138–150.
- MELL, RUDOLF. 1929. *Beiträge zur Fauna sinica*. IV. Grundzüge einer Ökologie der chinesischen Reptilien und einer herpetologischen Tiergeographie Chinas. Walter de Gruyter, Berlin, Germany. ix + 282 pp., 34 figs., 6 col. pls., map.
- MELL, RUDOLF. 1930. Beiträge zur Lurch- und Kriechtier fauna Kwangsi's. 4. Schlangen. *Sitzungsberichte der Naturforschenden Gesellschaft Freunde, Berlin* 1930:319–326.
- MELL, RUDOLF. 1931. Preliminary contribution to an ecology of East Asiatic reptiles, especially snakes. *Lingnan Science Journal* 8:187–197.
- MENDIZABAL, BUTCH. 2011. Deadly snakes seized in Palawan. ABS-CBN News. com <<http://news.abs-cbn.com/nation/regions/08/31/11/deadly-snakes-seized-palawan>> (accessed 05 May 2016)
- MERREM, BLASIVS. 1820. *Tentamen Systematis Amphibiorum [Versuch eines Systems der Amphibien]*. Johann Christian Krieger, Marburg. xv + 191 [German], xv + 191 [Latin] pp. [NB: All text in German and Latin on facing pages.]
- MERRILL, ELMER D. 1928. Flora of the Philippines. Pages 130–167 in R. Dickerson, ed., *Distribution of Life in the Philippines*. Bureau of Science, Manila, Philippines.
- MERTENS, ROBERT F.W. 1922. Verzeichnis der Typen in der herpetologischen Sammlung des Senckenbergischen Museums. *Senckenbergiana* 4(6):162–183.
- MERTENS, ROBERT F.W. 1930. Die Amphibien und Reptilien der Inseln Bali, Lombok, Sumbawa und Flores (Beiträge zur Fauna der Kleinen Sunda-Inseln, 1). *Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft* 42:115–344.
- MERTENS, ROBERT F.W. 1934. Die Schlangengattung *Dendrelaphis* Boulenger in systematischer und zoogeographischer Beziehung, I. *Archiv für Naturgeschichte, Leipzig* 3(2):187–204.
- MERTENS, ROBERT F.W. 1943. Systematische und ökologische Bemerkungen über die Regenbogenschlangen, *Xenopeltis unicolor* Reinwardt. *Der Zoologische Garten, Frankfurt-am-Main* 15:213–220.
- MERTENS, ROBERT F.W. 1956. Proposed use of the plenary powers to preserve the generic name “Elaphe” Fitzinger, 1833 (Class Reptilia). *Bulletin of Zoological Nomenclature, London* 11(11):347–348.
- MERTENS, ROBERT F.W. 1959. Liste der Warane Asiens und der Indo-australischen Inselwelt mit systematischen Bemerkungen. *Senckenbergiana Biologica* 40(5/6):221–240.
- MERTENS, ROBERT F.W. 1967. Die herpetologische Sektion des Natur Museums und Forschungs-Institutes Senckenberg in Frankfurt a. M. nebst einem Verzeichnis ihrer Typen. *Senckenbergiana Biologica* 48(A [24 Nov.]):1–105.
- MERTENS, ROBERT F.W. 1968. Die Arten und Unterarten der Schmuckbaumschlangen (*Chrysopelea*). *Senckenbergiana Biologica* 49(3/4 [31 July]):191–217, 5 figs.
- MEYER, ADOLF BERNHARD. 1869. Über den Giftapparat der Schlangen insbesondere über den der Gattung *Callophis* Gray. *Monatsberichte der königlich [preussischen] Akademie der Wissenschaften zu Berlin* 1869:193–215, 2 pls.
- MEYER, ADOLF BERNHARD. 1870. Some remarks on the poison-glands of the genus *Callophis*. *Proceedings of the Zoological Society of London* 1870(25):368–369.
- MEYER, ADOLF BERNHARD. 1886. Die Giftdrüsen bei der Gattung *Adeniophis* Pet. *Sitzungsberichte der Akademie Wissenschaften zu Berlin* 30:611–614.

- MILLER, ARYCH H., AND GEORGE R. ZUG. 2016. Morphology and biology of the Asian Common Mockviper, *Psammodynastes pulverulentus* (Boie, 1827) (Serpentes: Lamprophiidae): a focus on Burmese populations. Morphology and biology of the Asian Common Mockviper. *Proceedings of The Biological Society of Washington* 129:173–194, 6 figs., 5 tables.
- MINTON JR., SHERMAN A. 1978. Serological relations of some Philippine sea snakes. *Copeia* 1978(1):151–154.
- MINTON JR., SHERMAN A. 1975. Geographic distribution of sea snakes. Pages 21–31 in W.A. Dunson, ed., *The Biology of Sea Snakes*. University Park Press, Baltimore, Maryland, USA.
- MINTON JR., SHERMAN A., AND MILTON S. DA COSTA. 1975. Serological relationships of sea snakes and their evolutionary implications. Pages 33–55 in W.A. Dunson, ed., *The Biology of Sea Snakes*. University Park Press, Baltimore, Maryland, USA.
- MINTON JR., SHERMAN A., HERNDON G. DOWLING, AND FINDLAY E. RUSSELL. [1966]. (See United States Navy.)
- MINTON JR., SHERMAN A., AND WILLIAM A. DUNSON. 1978. Observations on the Palawan mangrove snake, *Boiga dendrophila multicincta* (Reptilia, Serpentes, Colubridae). *Journal of Herpetology* 12(1):107–108.
- MITTLEMAN, M.B. 1947. Geographic variation in the sea snake *Hydrophis ornatus* (Gray). *Proceedings of the Biological Society of Washington* 60:1–8.
- MOCQUARD, FRANÇOIS. 1887. Contribution à l'histoire du genre *Psammodynastes*. *Bulletin de la Société Philomatique, Paris*, ser. 7, 11(4):172–179, pls. 3–4.
- MOCQUARD, FRANÇOIS. 1888. Seconde contribution à l'histoire du genre *Psammodynastes*. *Bulletin de la Société Philomatique, Paris*, ser. 7, 12:104.
- MOCQUARD, FRANÇOIS. 1915. Les genres *Trimeresurus* et *Lachesis* ne sont pas identiques. *Bulletin du Muséum National d'Histoire Naturelle, Paris* 21:115–117.
- MONSERRAT, C., O. SCHOBL, AND L.E. GUERRERO. 1920. Venom of the Philippine cobra (alupong) *Naja naja philippinensis*. *Philippine Journal of Science* 17(1):59–64.
- MÜLLER, FRIEDRICH. 1884. Dritter Nachtrag zum Katalog der herpetologischen Sammlung des Basler Museums. *Verhandlungen der naturforschenden Gesellschaft in Basel* 7:274–299.
- MURPHY, JOHN C., AND HAROLD K. VORIS. 1994. A key to the homalopsine snakes. *The Snake* 26:123–133.
- MURPHY, JOHN C., AND HAROLD K. VORIS. 2014. A checklist and key to the homalopsid snakes (Reptilia, Squamata, Serpentes), with the description of new genera. *Fieldiana: Life and Earth Sciences* 8 [24 September] (8):iv + 43, 13 figs.
- MURPHY, JOHN C., HAROLD K. VORIS, AND DARYL R. KARNS. 2012. The dog-faced water snakes, a revision of the genus *Cerberus* Cuvier, (Squamata, Serpentes, Homalopsidae), with the description of a new species. *Zootaxa* 3484(3484):1–34, 10 figs., 3 tables.
- MURPHY, JOHN C., HAROLD K. VORIS, B.H.C.K. MURTHY, JOSHUA TRAUB, AND CHRISTINA CUMBERBATCH. 2012. The masked water snakes of the genus *Homalopsis* Kuhl & van Hasselt, 1822 (Squamata, Serpentes, Homalopsidae), with the description of a new species. *Zootaxa* (3208):1–26, 11 figs., 1 table.
- NUÑEZA, OLGA M., FRITZIE B. ATEs, AND APOLINARIO A. ALICANTE. 2010. Distribution of endemic and threatened herpetofauna in Mt. Malindang, Mindanao, Philippines. *Biodiversity and Conservation* 19(2 [February]):503–518.
- OPPEL, [NICOLAUS] MICHAEL. 1811. *Die Ordnungen, Familien und Gattungen der Reptilien als Prodrum einer Naturgeschichte derselben. Animalia vertebrata. Classis III. Reptilia*. Joseph Lindauer, München, Germany. xii + 71 pp.
- OTA, HIDETOSHI. 2000. A long overlooked holotype: taxonomic notes on *Lycodon tessellatus* Jan 1863 (Squamata Colubridae), with a revised key to Philippine species of the genus. *Tropical Zoology* 13(2):299–304.
- OTA, HIDETOSHI, AND CHARLES A. ROSS. 1994. Four new species of *Lycodon* (Serpentes: Colubridae) from the northern Philippines. *Copeia* 1994(1):159–174.
- PETERS, WILHELM CARL HARTWEG. 1861. Eine zweite Übersicht (vergl. *Monatsberichte* 1859, p. 269) der von Hrn. F. Jagor auf Malacca, Java, Borneo und den Philippinen gesammelten und dem Kgl. zoologischen Museum überstandten Schlangen. *Monatsberichte der königlich [preussischen] Akademie der Wissenschaften zu Berlin* 1861:683–691.
- PETERS, WILHELM CARL HARTWEG. 1862a. Präparate von zur craniologischen Unterscheidung der Schlangen-

- gattung *Elaps* und machte eine Mittheilung über eine neue Art der Gattung *Simotes*, *S. semicinctus*. *Monatsberichte der königlich [preussischen] Akademie der Wissenschaften zu Berlin* 1862: 635–638.
- PETERS, WILHELM CARL HARTWEG. 1862b. Über die craniologischen Verschiedenheiten der Grubenottern (*Trigonocephali*) und über eine neue Art der Gattung *Bothriechis*. *Monatsberichte der königlich [preussischen] Akademie der Wissenschaften zu Berlin* 1862:670–674.
- PETERS, WILHELM CARL HARTWEG. 1867. Herpetologische Notizen. *Monatsberichte der königlich [preussischen] Akademie der Wissenschaften zu Berlin* 1867:13–37.
- PETERS, WILHELM CARL HARTWEG. 1871. Über neue Reptilien aus Ostafrika und Sarawak (Borneo), vorzüglich aus der Sammlung des Hrn. Marquis A. Doria zu Genua. *Monatsberichte der königlich [preussischen] Akademie der Wissenschaften zu Berlin* 1871:566–581.
- PETERS, WILHELM CARL HARTWEG. 1872a. Über drei neue Schlangenarten (*Calamaria bitorques*, *Stenognathus brevirostris* und *Hemibungarus gemianulus*) von den Philippinen. *Monatsberichte der königlich [preussischen] Akademie der Wissenschaften zu Berlin* 1872:585–587.
- PETERS, WILHELM CARL HARTWEG. 1872b. Über einige von Hrn. Dr. A. B. Meyer bei Gorontalo und auf den Togian-Inseln gesammelte Amphibien. *Monatsberichte der königlich [preussischen] Akademie der Wissenschaften zu Berlin* 1872:581–585.
- PETERS, WILHELM CARL HARTWEG. 1881. Über die Verscheidenheit von *Syngnathus* (*Belonichthys*) *zambensis* Ptrs. und *S. (B.) mento* Bleeker und über eine neue Art der Schlangengattung *Callophis* von den Philippinen. *Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin* 1881(7):107–109.
- PHENIK, ERIKSEN, JOHN PHENIK, CAMERON D. SILER, AND RAFAEL M. BROWN. 2011. *Hologerrhum philippinum* (Philippine stripe-lipped snake), reproduction. *Herpetological Review* 42(4):614, 1 fig.
- POPE, CLIFFORD H. 1935. *The Reptiles of China*. American Museum of Natural History, New York, New York, USA. x + 640 pp.
- POPE, CLIFFORD H., AND SARAH H.D. POPE. 1933. A study of the green pit vipers of S. E. Asia and Malaysia, commonly identified as *Trimeresurus gramineus* (Shaw), with description of a new species from Peninsular India. *American Museum Novitates* (620):1–12.
- PUNAY, EMMANUEL Y. 1975. Commercial sea snake fisheries in the Philippines. Pages 489–502 in W.A. Dunson, ed., *The Biology of Sea Snakes*. University Park Press, Baltimore, Maryland, USA.
- PYRON, R. ALEXANDER, FRANK T. BURBRINK, GUARINO R. COLLI, ADRIAN NIETO MONTES DE OCA, LAURIE J. VITT, CAITLIN A. KUCZYNSKI, AND JOHN J. WIENS. 2011. The phylogeny of advanced snakes (Colubroidea), with discovery of a new subfamily and comparison of support methods for likelihood trees. *Molecular Phylogenetics and Evolution* 58:329–342, 3 figs.
- PYRON, R. ALEXANDER, FRANK T. BURBRINK, AND JOHN J. WIENS. 2013. A phylogeny and revised classification of Squamata, including 4161 species of lizards and snakes. *BMC Evolutionary Biology* 13(93): 26–53.
- PYRON, R. ALEXANDER, AND VAN WALLACH. 2014. Systematics of the blindsnakes (Serpentes: Scolecophidia: Typhlopoidea) based on molecular and morphological evidence. *Zootaxa* 3829(1):1–81, 3 figs., 8 tables.
- RABOR, DIOSCORO S. 1981. *Philippine Reptiles and Amphibians*. Pundasyon sa Pagpapaulad ng Kaalaman sa Pagtuturo ng Agham, Ink. [Foundation for the Advancement of Science Education, Inc.], Quezon City, Luzon, Philippines. vi + 79 pp.
- RAMIREZ, JUN. 2012. Environmental destruction in Palawan bared. *Tempo*. <<http://www.tempo.com.ph/2012/02/environmental-destruction-in-palawan-bared/#.UjTvt39lyzE>> (accessed 05 May 2016)
- RASMUSSEN, ARNE REDSTED. 2001. Sea Snakes. Pages 3987–4008 in K.E. Carpenter and V.H. Niem, eds., *Boney Fishes, Part 4 (Labridae to Latimeridae), Estuarine Crocodiles, Sea Turtles, Sea Snakes and Marine Mammals*. Vol. 6. FAO (Food and Agriculture Organization of the United Nations), Rome, Italy.
- RASMUSSEN, ARNE REDSTED. 2002. Phylogenetic analysis of the “true” aquatic elapid snakes Hydrophinae (*sensu* Smith et al., 1977) indicates two independent radiations into water. *Steenstrupia* 27(1):47–63, 3 figs.
- RASMUSSEN, ARNE REDSTED, JOHAN ELMBERG, PETER GRAVLUND, AND IVAN INEICH. 2011. Sea snakes (Serpentes: subfamilies Hydrophiinae and Laticaudinae) in Vietnam: a comprehensive checklist and an

- updated identification key. *Zootaxa* 2894(2894):1–20, 2 figs.
- RASMUSSEN, ARNE REDSTED, AND IVAN INEICH. 2010. Species diversity in the genus *Emydocephalus* Kreft, 1869 (Serpentes, Elapidae, Hydrophiinae): Insight from morphology and anatomy. *Herpetological Review* 41:285–290.
- RASMUSSEN, JENS B. 1975. Geographic variation, including an evolutionary trend, in *Psammodynastes pulverulentus* (Boie, 1827) (Boiginae, Homalopsidae, Serpentes). *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening* 138:39–64.
- RASMUSSEN, JENS B. 1990. The retina of *Psammodynastes pulverulentus* (Boie, 1827) and *Telescopus fallax* (Fleischmann, 1831) with a discussion of their phylogenetic significance (Colubroidea, Serpentes). *Zeitschrift für zoologische Systematik und Evolutionsforschung* 28(4):269–276.
- RAWLINGS, LESLEY H., DANIEL L. RABOSKY, STEVE C. DONNELLAN, AND MARK N. HUTCHISON. 2008. Python phylogenetics: inference from morphology and mitochondrial DNA. *Biological Journal of the Linnean Society, London* 93:603–619, 5 figs., 1 table.
- REINHARDT, JOHANNES THEODOR. 1843. Beskrivelse af nogle nye Slangearter. *Kongelige Danske Videnskaberne Selskabs Naturvidenskabelige og Mathematiske Afhandlinger* 10: 233–279, 2 pls.
- REYES, ARTURO C., AND CARL LAMANNA. 1956 [1955]. Snakebite mortality in the Philippines. *Philippine Journal of Science* 84(2):189–194.
[NB: Cover date June 1955 but published 27 December 1956.]
- REYNOLDS, R. GRAHAM, MATTHEW L. NIEMILLER, AND LIAM J. REVELL. 2014. Toward a Tree-of-Life for the boas and pythons: Multilocus species-level phylogeny with unprecedented taxon sampling. *Molecular Phylogenetics and Evolution* 71:201–213, 3 figs., 2 tables.
- ROOIJ, NELLY DE (Petronella Johanna de). (see as de Rooij, Nelly)
- ROOIJAN, JOHAN VAN (see as van Rooijan, Johan)
- ROSÉN, NILS VALFRID. 1905. List of snakes in the Zoological Museum of Lund and Malmö, with descriptions of new species and a new genus. *Annals and Magazine of Natural History* 15:168–181.
- ROSÉN, NILS VALFRID. 1905. Reply to Mr. G.A. Boulenger. *Annals and Magazine of Natural History* 16: 126–129.
- ROSS, CHARLES A., ANGLE C. ALCALA, AND ROGELIO V. SISON. 1987. Distribution of *Zaocys luzonensis* (Serpentes: Colubridae) in the Visayan Islands, Philippines. *Silliman Journal* 34(1–4):29–31.
- RUIZ, JOSÉ M. 1951. Sobre a distincão genésica dos crotalidae (Ophidia: Crotaloidea) baseada em alguns caracteres osteológicos. *Memorias do Instituto de Butantan* 23:104–114.
- RUSSELL, PATRICK. 1796. *An Account of Indian Serpents collected on the Coast of Coromandel; containing Descriptions and Drawings of Each Species, together with Experiments and Remarks on their Several Poisons*. George Nicol, London, England, UK. vii + 91 pp., 46 pls.
[NB: for additional information about this publication see Adler, Kraig (2015), also Bauer, Aaron (2015).]
- RUSSELL, PATRICK. 1801–1809/1810. *A Continuation of an Account of Indian Serpents collected on the Coast of Coromandel; containing Descriptions and Drawings of Each Species, together with Experiments and Remarks on their Several Poisons*. G. and W. Nicol, London. v + 57 pp., 42 pls.
[NB: for additional information about this publication see Adler, Kraig (2015), also Bauer, Aaron (2015).]
- RUSTIA, R.J. 1957. Management of snake bite: Combined thioalcium with dextrose and coramine. *Journal of the Philippine Medical Association* 33:127–128.
- SALAFRANCA, E.S. 1967. Longevity of *Naja naja philippinensis* under stress of venom extraction. *Zoologica* 52:41–47.
- SANDERS, KATE L., MICHAEL S.Y. LEE, MUMPUNI, TERRY BERTOZZI, AND ARNE REDSTED RASMUSSEN. 2013. Multilocus phylogeny and recent rapid radiation of the viviparous sea snakes (Elapidae: Hydrophiinae). *Molecular Phylogenetics and Evolution* 66:575–591, 4 figs., 1 table, Appendices A and B.
- SANGUILA, M.B., K.A. COBB, C.D. SILER, A.C. DIESMOS, A.C. ALCALA, AND R.M. BROWN. 2016. The amphibians and reptiles of Mindanao Island, southern Philippines, II: the herpetofauna of northeast Mindanao and adjacent islands. *Zookeys* 624:1–132, 81 figs., 2 tables. (doi: 10.3897/zookeys.634.9814)

- SAVAGE, JAY M. 1950. Two new blind snakes (genus *Typhlops*) from the Philippine Islands. *Proceedings of the California Zoological Club, Stanford University* 1(10):49–54.
- SAVAGE, JAY M. 1952. Two centuries of confusion: The history of the snake name *Ahaetulla*. *Bulletin of the Chicago Academy of Science* 9:203–216.
- SAWAI, Y., K. Koba, T. OKONOJI, S. MISHIMA, Y. KAWAMURA, H. CHINZEI, ABU BAKAR BIN IBRAHIM, T. DEVARAJ, SRIPRAJAI PHONG-AKSARA, CHALOEM PURANANANDA, E.S. SALAFRANCA, J.S. SUMPAICO, C.S. TSENG, J.F. TAYLOR, C.S. WU, AND T.P. KUO. 1971. An epidemiological study of snakebites in the Southeast Asia. *The Snake* 3(2):97–128, 6 figs., 7 maps, 128 tables.
- SCHÄTTI, BEAT, AND MICHEL GUILLOD. 1990. Bemerkungen zur Rassengliederung bei der Philippinischen Bambusotter, *Trimeresurus flavomaculatus* (Gray, 1842). *Herpetofauna (Weinstadt)* 12(66):32–34.
- SCHENKEL, E. 1901. Achter Nachtrag zum Katalog der herpetologischen Sammlung des Basler Museums. *Verhandlungen der naturforschenden Gesellschaft in Basel* 13(1):142–199.
- SCHLEGEL, HERMANN. 1826. Notice sur l'Erpetologie de l'île de Java; par M. Boié (Ouvrage manuscrit). *Bulletin des Sciences Naturelles et de Géologie* 9(2):233–240. (See also Boie, Heinrich, 1826b.)
- SCHLEGEL, HERMANN. 1837a. *Essai sur la Physionomie des Serpens, Partie Générale*. Arnz & Comp., Leide. i–xxvii + 1–251 [+ i–xv + (1)] pp. (NB: Index, pp. i–xv may be bound with *Partie Générale* or *Partie Descriptive*.)
- SCHLEGEL, HERMANN. 1837b. *Essai sur la Physionomie des Serpens, Partie Descriptive*. Arnz & Comp., Leide. 1–606 [+ i–xv + (1)] pp. (NB: Index, pp. i–xv may be bound with *Partie Générale* or *Partie Descriptive*.)
- SCHMIDT, KARL P. 1931. On the zoogeography of the Holarctic region. *Lingnan Science Journal* 10:441–449.
- SCHMIDT, KARL P. 1937. The history of *Elaps collaris*. *Field Museum of Natural History, Zoological Series* 20:361–364.
- SCHMIDT, KARL P. 1950. Modes of evolution discernible in the taxonomy of snakes. *Evolution* 4: 79–86.
- SCHMIDT, KARL P., AND WALTER L. NECKER. 1936. The scientific name of the American smooth green snake. *Herpetologica* 1:63–64.
- SCHMIDT, PHILIPP. 1852. Beiträge zur ferneren Kenntniss der Meerschlangen. *Abhandlungen aus dem Gebiete der Naturwissenschaften Verein in Hamburg* 2(2):69–86.
- SCHNEIDER, JOHANN GOTTLÖB THEAENUS. 1799. *Historiae Amphibiorum naturalis et literariae. Fasciculus Primus continens Ranas, Calamitas, Bufones, Salamandras et Hydros in genera et species descriptos notisque suis distinctos*. Friederici Formmanni, Ienae [=Jena], Germany. xiii + (1) + 364 + (2) pp., 2 pls.
- SCHNEIDER, JOHANN GOTTLÖB THEAENUS. 1801. *Historiae amphibiorum naturalis et literariae. Fasciculus secundus continens Crocodilos, Scincos, Chamaesauras, Boas, Pseudoboas, Elapes, Angues, Amphisbaenas et Caecilias*. Friederici Formmanni, Ienae [=Jena], Germany. vi + 374 pp., 2 pls.
- SCHULT, K.-D. 1988. Die hinterasiatischen Kletternattern der Gattung *Elaphe*. Teil 14. *Elaphe subradiata* (Schegel, 1837) und *Elaphe erythrura* (Duméril & Bibron, 1854). *Sauria* 10(3):17–20.
- SCHULT, K.-D. 1989. Asian rat snakes of the *Elaphe* genus. Part 14. *Elaphe subradiata* (Schlegel, 1837) and *Elaphe erythrura* (Duméril & Bibron, 1854). *Snake Keep* 3(4):14–17.
- SCHULTZE, WILLY. 1928. Insects of the Philippines. Pages 248–266 in R. Dickerson, ed., *Distribution of Life in the Philippines*. Bureau of Science, Manila, Philippines.
- SCLATER, WILLIAM L. 1891. Notes on a collection of snakes in the Indian Museum with descriptions of several new species. *Journal of the Asiatic Society of Bengal* 60:230–250.
- SHELFORD, R. 1906. A note on “flying” snakes. *Proceedings of the Zoological Society of London* 1906: 227–230.
- SILER, CAMERON D., JAMIE R. OAKS, LUKE J. WELTON, CHARLES W. LINKEM, JOHN C. SWAB, ARVIN C. DIEMOS, AND RAFAEL M. BROWN. 2012. Did geckos ride the Palawan raft to the Philippines? *Journal of Biogeography* 39:1217–1234.
- SILER, CAMERON D., CARL H. OLIVEROS, ANSSI SANTANEN, AND RAFAEL M. BROWN. 2013. Multilocus phylogeny reveals unexpected diversification patterns in Asian wolf snakes (genus *Lycodon*). *Zoologica Scripta* 42(3):262–277, 3 figs., Appendix.

- SILER, CAMERON D., JOHN C. SWAB, CARL H. OLIVEROS, ARVIN C. DIESMOS, LEONARDO AVERIA, ANGEL C. ALCALA, AND RAFF M. BROWN. 2012. Amphibians and reptiles, Romblon Island Group, central Philippines: Comprehensive herpetofaunal inventory. *Check List* 8(3):443–462.
- SILER, CAMERON D., AND EMERSON Y. SY. 2011. *Acrochordus granulatus* (Marine File Snake). Aberrant coloration. *Herpetological Review* 42(2):280.
- SILER, CAMERON D., AND LUKE J. WELTON. 2010. Geographic variation in Philippine mimicry system: Hypothesized widespread coral snake (*Hemibungarus calligaster*) mimicry by lepidopteran larvae (*Bracca* sp.) on Luzon Island, Philippines. *Herpetological Review* 41(4):427–430, 2 figs., 1 table.
- SILER, CAMERON D., LUKE J. WELTON, RAFF M. BROWN, CARLOS INFANTE, AND ARVIN C. DIESMOS. 2011. *Ophiophagus hanna* (King Cobra). Diet. *Herpetological Review* 42(2):297, 1 fig.
- SILER, CAMERON D., LUKE J. WELTON, JESSI M. SILER, JOSEPH BROWN, ABNER BUCOL, ARVIN C. DIESMOS, AND RAFF M. BROWN. 2011. Amphibians and reptiles, Luzon Island, Aurora Province and Aurora Memorial National Park, northern Philippines: New island distribution records. *Check List* 7(2):182–195.
- SLEVIN, JOSEPH R., AND ALAN E. LEVITON. 1956. Holotype specimens of reptiles and amphibians in the collection of the California Academy of Sciences. *Proceedings of the California Academy of Sciences*, ser. 4, 28(14):529–560.
- SLOWINSKI, JOSEPH B., JEFF BOUNDY, AND ROBIN LAWSON. 2001. The phylogenetic relationships of Asian coral snakes (Elapidae: *Calliophis* and *Maticora*) based on morphological and molecular characters. *Herpetologica* 57(2):233–245.
- SMITH, BRIAN E. 1995. Notes on a collection of squamate reptiles from eastern Mindanao, Philippine Islands. Part 2: Serpentes. *Asiatic Herpetological Research* 5:96–102.
- SMITH, MALCOLM A. 1914. The snakes of Bangkok. *Journal of the Natural History Society of Siam* 1: 5–18, 93–104.
- SMITH, MALCOLM A. 1926. *Monograph of the Sea-Snakes (Hydrophiidae)*. Trustees of the British Museum, London, England, UK. xvii + (3) + 130 pp.
- SMITH, MALCOLM A. 1928. The status of some recently described genera and species of snakes. *Annals and Magazine of Natural History* 1:494–497.
- SMITH, MALCOLM A. 1930. The Reptilia and Amphibia of the Malay Peninsula. *Bulletin of the Raffles Museum, Singapore* (3):1–135.
- SMITH, MALCOLM A. 1934. The classification of snakes in accordance with their dentition. *Proceedings of the Royal Society of London* 27:1081–1083.
- SMITH, MALCOLM A. 1942. Remarks on the nasal pit in snakes. *Copeia* 1942:256.
- SMITH, MALCOLM A. 1943. *The Fauna of British India, Ceylon and Burma including the Whole of the Indo-Chinese Region. Reptilia and Amphibia. Vol. III — Serpentes*. Taylor and Francis, London, England, UK. xii + 583 pp., 166 text-figs., fold-out map.
- STASZKO, RAY, AND JERRY G. WALLS. 1994. *Rat Snakes: A Hobbyist's Guide to Elaphe and Kin*. TFH Publ., Inc., Neptune City, New Jersey, USA. 208 pp.
- STEINDACHNER, FRANZ. 1867. Über drei neue Schlangenarten. *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien* 14:513–516.
- STEINDACHNER, FRANZ. 1891. Ueber einiger neue und seltene Reptilien- und Amphibien-Arten. *Sitzungsberichten der Akademie der Wissenschaften in Wien, Mathem.-naturw. Klasse* 100(1891):291–315, pls. 1–2.
- STEJNEGER, LEONHARD H. 1907a. *Herpetology of Japan and Adjacent Territory*. Bulletin of the United States National Museum 58. xx + 577 pp., 409 figs., 35 pls.
- STEJNEGER, LEONHARD H. 1907b. A new calamarine snake from the Philippine Islands. *Smithsonian Miscellaneous Collection* (50):30–31.
- STEJNEGER, LEONHARD H. 1922. List of snakes collected in Bulungan, northeast Borneo by Carl Lumholtz, 1914. *Meddelelser fra det Zoologiske Museum Kristiania* (2):1–8.
- STEJNEGER, LEONHARD H. 1933. The ophidian generic names *Ahaetulla* and *Dendrophis*. *Copeia* 1933: 199–203.

- STRAUCH, ALEXANDER. 1869. Synopsis der Viperiden, nebst Bemerkungen über die geographische Verbreitung dieser Giftschlangen-Familie. *Mémoires l'Académie Impériale des Sciences de St.-Pétersbourg*, ser. 7, 14(6):1–144, 2 pls.
- STUEBING, ROBERT B., AND ROBERT F. INGER. 1999. *A Field Guide to the Snakes of Borneo*. Natural History Publications (Borneo), Kota Kinabalu, Sabah. viii + 254 + (252) pp.
- STULL, OLIVE GRIFFITH. 1936. A checklist of the family Boidae. *Proceedings of the Boston Society of Natural History* 40:387–408.
- SUPSUP, CHRISTIAN E. 2016. *Oligodon ancorus* (Northeastern Short-headed Snake). Philippines: Luzon Island: Aurora Province. *Herpetological Review* 47(3):428.
- SUPSUP, CHRISTIAN E., FAITH M. GUINTO, BERNARD R. REDOBLADO, AND RAI S. SOMEZ. 2017. Amphibians and reptiles from the Mt. Hamiguitan Range of eastern Mindanao Island, Philippines: new distribution records. *Check List* 13(3)(Art. 2121):1–14, 6 figs. (including 20 photos, 2 maps)
- SUPSUP, CHRISTIAN E., NEVONG M. PUNA, AUGUSTO A. ASIS, BERNARD R. REDOBLADO, MARIA FATIMA G. PANAGUINIT, FAITH M. GUINTO, EDMUND B. RICO, ARVIN C. DIESMOS, RAFE M. BROWN, AND NEIL ALDRIN D. MALLARI. 2016. Amphibians and reptiles of Cebu, Philippines: The poorly understood herpetofauna of an island with very little remaining natural habitat. *Asian Herpetological Research* 7(3):151–179, 36 figs., 2 tables.
- SWEENEY, R. 1993. Fishing for snakes at Manila Zoo. *Herptile* 18(2):69–71.
- SWEENEY, R. 1994. McGregor's pit viper, *Trimeresurus flavomaculatus mcgregori*. *Herptile* 19(2): 71, 86–88.
- SWORDER, G.H. 1923. A list of snakes of Singapore Island. *Singapore Naturalist* 2:55–73.
- SY, EMERSON Y. 2016a. *Ophiophagus hannah* (King Cobra). Philippines: Cebu Island: Cebu Province: Cebu City. *Herpetological Review* 43(2):263.
- SY, EMERSON Y. 2016b. *Ophiophagus hannah* (King Cobra). Philippines: Mindanao Island: Zamboanga del Norte Province. *Herpetological Review* 47(2):264.
- SY, EMERSON Y., RUSSEL D. BANIQUED, AND ARVIN C. DIESMOS. 2016. *Ophiophagus hannah* (King Cobra). Philippines: Luzon Island: Nueva Ecija Province. *Herpetological Review* 43(2):263.
- SY, EMERSON Y., AND JAKE WILSON B. BINADAY. 2016. *Aplopeltura boa* (Blunt-headed Slug Snake). Philippines: Luzon Island: Sorsogon Province: Municipality of Bulusan. *Herpetological Review* 47(2):260.
- SY, EMERSON Y., AND RONNY BOOS. 2015. *Ophiophagus hannah* (King Cobra). Philippines: Leyte Island: Leyte Province. *Herpetological Review* 46(2):220.
- SY, EMERSON Y., QUEROBIN S. DYCOCO JR., ALAYANA ZEN A. RODRIGUEZ, STEVE G. DU, MARZ ANGELO S. WISCO, CHRISTIAN MANUEL M. PANGILINAN, GLENN S. BANAGUAS. 2016. *Naja sumatrana* (Equatorial Spitting Cobra). Philippines: Busuanga Island: Palawan Province. *Herpetological Review* 47(3):427.
- SY, EMERSON Y., LOUISE ABIGAEL DE LAYOLA, CHRISTOPHER MARIANO T. YU, AND ARVIN C. DIESMOS. 2015. *Ophiophagus hannah* (King Cobra), Philippines: Luzon Island: Pangasinan Province. *Herpetological Review* 46(2):220.
- SY, EMERSON Y., AND ERNEST KURT TAN. 2015. *Malayopython reticulatus* (Reticulated Python). Philippines: Romblon Province: Tablas Island. *Herpetological Review* 46(2):220.
- SY, EMERSON Y., AND MARK WALLBANK. 2013. *Ophiophagus hannah* (King Cobra). Philippines: Romblon Province. *Herpetological Review* 44(4):110.
- TANNER, VASCO M. 1948. Pacific Islands Herpetology No. 1, Mariana Islands: A new species of *Typhlops*. *Great Basin Naturalist* 9(1–2):1–20.
- TANNER, VASCO M. 1949. Pacific Islands herpetology no. II, Philippine Islands. *Great Basin Naturalist* 9(3–4):25–39.
- TAYLOR, EDWARD H. 1917. Snakes and lizards known from Negros, with descriptions of new species and new subspecies. *Philippine Journal of Science* 12(6):353–382.
- TAYLOR, EDWARD H. 1918a. Reptiles of the Sulu Archipelago. *Philippine Journal of Science* 13(5): 233–267.
- TAYLOR, EDWARD H. 1918b. Two new snakes of the genus *Holarchus* with descriptions of other Philippine species. *Philippine Journal of Science* 13(6):359–369.

- TAYLOR, EDWARD H. 1919. New or rare Philippine reptiles. *Philippine Journal of Science* 14(1): 105–125.
- TAYLOR, EDWARD H. 1922a. *The Snakes of the Philippine Islands*. Bureau of Science, Manila, Philippines. 312 pp., 32 text-figs., 63 tables, 37 pls.
- TAYLOR, EDWARD H. 1922b. Additions to the herpetological fauna of the Philippine Islands. I. *Philippine Journal of Science* 21(2):161–204.
- TAYLOR, EDWARD H. 1922c. Additions to the herpetological fauna of the Philippine Islands, II. *Philippine Journal of Science* 21(3):257–302.
- TAYLOR, EDWARD H. 1922d. Herpetological fauna of Mount Makiling. *Philippine Agriculturist* 11(5):127–139.
- TAYLOR, EDWARD H. 1923. Additions to the herpetological fauna of the Philippine Islands, III. *Philippine Journal of Science* 22(5):515–555.
- TAYLOR, EDWARD H. 1925. Additions to the herpetological fauna of the Philippine Islands, IV. *Philippine Journal of Science* 26(1):97–111.
- TAYLOR, EDWARD H. 1928. Amphibians, lizards and snakes of the Philippines. Pages 214–241 in R. Dickerson, ed., *Distribution of Life in the Philippines*. Bureau of Science, Manila, Philippines.
- TAYLOR, EDWARD H. 1963. New and rare Oriental serpents. *Copeia* 1963(2):429–433.
- TAYLOR, EDWARD H., AND HOBART M. SMITH. 1943. A review of American sibynophine snakes, with a proposal of a new genus. *University of Kansas Science Bulletin* 29:301–337.
- THOMPSON, JOSEPH C. 1913a. Contributions to the anatomy of the Ophidia. *Proceedings of the Zoological Society of London* 83(3):414–425, 2 figs.
- THOMPSON, JOSEPH C. 1913b. Notes on serpents in the family Colubridae. *Proceedings of the Academy of Natural Sciences of Philadelphia* 65(5):213–218.
- THOMPSON, JOSEPH C. 1913c. Contributions to the synonymy of serpents in the family Elapidae. *Proceedings of the Academy of Natural Sciences of Philadelphia* 65(11):508–515.
- THOMPSON, JOSEPH C. 1913d. The correct status of *Elaps collaris* Schlegel. *Notes of the Leyden Museum* 35:171–175.
- THOMPSON, JOSEPH C. 1914. Further contributions to the anatomy of the Ophidia. *Proceedings of the Zoological Society of London* 1914:379–402.
- TIEDEMANN, FRANZ, AND MICHAEL HÄPUL. 1980. Typenkatalog der Herpetologischen Sammlung. Teil II: Reptilia. Pages 1–79 in N.M. Wien, ed., *Kataloge der wissenschaftlichen Sammlungen des Naturhistorischen Museums in Wien*. Naturhistorischen Museums Wien, Vienna, Austria.
- TIEDEMANN, FRANZ, AND MICHAEL HÄPUL. 1994. Katalog der Typen der Herpetologischen Sammlung nach den Stand vom 1. Jänner 1994. Teil II: Reptilia. Pages 1–102 in N.M. Wien, ed., *Kataloge der wissenschaftlichen Sammlungen des Naturhistorischen Museums in Wien*. Naturhistorischen Museums Wien, Vienna, Austria.
- TORIBA, MICHICISA. 1990. Venomous snakes of medical importance in the Philippines. Pages 463–469 in P. Gopalakrishnakone and L.M. Chou, eds., *Snakes of Medical Importance (Asia-Pacific Region)*. National University of Singapore and International Society on Toxicology (Asia-Pacific Section), Singapore.
- TORIBA, MICHICISA. 1993a. *Trimeresurus* Lacepede, 1804. Pages 94–108 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aire-Geneva, Switzerland.
- TORIBA, MICHICISA. 1993b. *Tropidolaemus* Wagler, 1830. Pages 108–109 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aire-Geneva, Switzerland.
- TORIBA, MICHICISA. 1993c. *Hemibungarus* W. Peters, 1862. Pages 139–143 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aire-Geneva, Switzerland.
- TORIBA, MICHICISA. 1993d. *Maticora* Gray, 1834. Pages 150–154 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aire-Geneva, Switzerland.

- TORIBA, MICHICISA. 1993e. *Ophiophagus* Günther, 1864. Pages 195–196 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aire-Geneva, Switzerland.
- TORIBA, MICHICISA. 1993f. *Rhabdophis* Fitzinger, 1843. Pages 249–254 in P. Golay, H.M. Smith, D.G. Broadley, J.R. Dixon, C. McCarthy, J.-C. Rage, B. Schätti, and M. Toriba, eds., *Endoglyphs and other Major Venomous Snakes of the World*. Azemiops S.A., Aire-Geneva, Switzerland.
- TUBANGUI, MARCOS A. 1933. Trematode parasites of Philippine vertebrates, VI. Descriptions of new species and classification. *Philippine Journal of Science* 52(2):167–197.
- TUBANGUI, MARCOS A., AND VICTORIA A. MASILUNGAN. 1936. Notes on Philippine linguatulids (Arthropoda: Pentastomida). *Philippine Journal of Science* 60(4):399–405.
- TUBANGUI, MARCOS A., AND VICTORIA A. MASILUNGAN. 1936. Trematode parasites of Philippine vertebrates, VII: Additional records of new species. *Philippine Journal of Science* 58(4):435–445.
[NB: Dated Dec. 1935 but actually published 24 Jan. 1936.]
- TUBANGUI, MARCOS A., AND VICTORIA A. MASILUNGAN. 1938. Nematodes in the collection of the Philippine Bureau of Science, III. *Philippine Journal of Science* 64(3):257–267.
[NB: Cover date Nov. 1937 but published 31 Jan. 1938.]
- TWEEDIE, MICHAEL WILLMER FORBES. 1953. *The Snakes of Malaya*. Government Printing Office, Singapore, Malaya. (6) + 139 pp., 26 text-figs., 12 pls.
- UETZ, PETER, AND JIRÍ HOŠEK. 2016. The Reptile Database. <<http://www.reptile-database.org>> (accessed 20 April 2016).
- UNDERWOOD, GARTH. 1967. *A Contribution to the Classification of Snakes*. British Museum (Natural History), London, England, UK. x + 179 pp.
- UNITED STATES NAVY. [1966]. *Poisonous Snakes of the World. A Manual for Use by U.S. Amphibious Forces*. Department of the Navy, Bureau of Medicine and Surgery, NAVMED P-5099. U.S. Government Printing Office, Washington, DC, USA. viii + 212, 120 text figs., 8 col. pls.
[NB: Authorship not specifically stated but manuscript assembled by Sherman A. Minton, Jr., Herndon G. Dowling, and Findlay E. Russell.]
- UTIGER, URS, BEAT SCHÄTTI, AND NOTKER HELFENBERGER. 2005. The Oriental colubrine genus *Coelognathus* Fitzinger, 1843 and classification of Old and New World racers and ratsnakes (Reptilia, Squamata, Colubridae, Colubrinae). *Russian Journal of Herpetology* 12(1):39–60.
- VAN DENBURGH, JOHN, AND JOSEPH C. THOMPSON. 1908. Description of a new species of sea snake from the Philippine Islands, with a note on the palatine teeth in the Proteroglypha. *Proceedings of the California Academy of Sciences* ser. 4, 3:42–48.
- VAN ROOIJEN, JOHAN, AND GERNOT VOGEL. 2012. A revision of the taxonomy of *Dendrelaphis caudolineatus* (Gray, 1834) (Serpentes: Colubridae). *Zootaxa* 3272(3272):1–25, 6 figs.
- VIDAL, NICOLAS, ANNE-SOPHIE DELMAS, PATRICK DAVID, CORINNE CRUAUD, ARNAUD COULOUX, AND S. BLAIR HEDGES. 2007. The phylogeny and classification of caenophidian snakes inferred from seven nuclear protein-coding genes. *C.R. Biologies* 330:182–187, 2 figs.
- VIDAL, NICOLAS, JULIE MARIN, MARINA MORINI, STEVE DONNELLAN, WILLIAM R BRANCH, RICHARD THOMAS, MIGUEL VENCES, ADDISON HARTWELL WYNN, CORINNE CRUAUD, AND S. BLAIR HEDGES. 2010. Blindsnake evolutionary history tree reveals long history on Gondwana. *Biology Letters (Royal Society of London)* 6:558–561, 1 fig.
- VOGEL, GERNOT. 2006. *Venomous Snakes of Asia — Giftschlangen Asiens*. Edition Chimaira & Rodgan, Aqualog Verlag ACS, Frankfurt am Main, Germany. 148 pp.
- VOGEL, GERNOT, PATRICK DAVID, MARIO LUTZ, JOHAN VAN ROOIJEN, AND NICOLAS VIDAL. 2007. Revision of the *Tropidolaemus wagleri*-complex (Serpentes: Viperidae: Crotalinae). I. Definition of included taxa and redescription of *Tropidolaemus wagleri* (Boie, 1827). *Zootaxa* 1644(1644):1–40, 30 figs., 7 tables.
- VOGEL, GERNOT, AND JOHAN VAN ROOIJEN. 2008. Contributions to a review of the *Dendrelaphis pictus* (Gmelin, 1789) complex — 2, the eastern forms (Serpentes: Colubridae). *Herpetozoa* 21(1/2):3–29, 6 figs., 6 tables.
- VOGT, THEODOR. 1922. Zur Reptilien- und Amphibienfauna Südchinas. *Archiv für Naturgeschichte* 88(10):

135–146.

[NB: Snakes, pp. 137–143; no Philippine records.]

- VOGTMAN, DONALD B. 1950. The relative efficiency of two types of anti-venom sera in neutralizing cobra venom. *Copeia* 1950(3):225–228.
- VORIS, HAROLD K. 1977. The phylogeny of the sea snakes (Hydrophiidae). *Fieldiana: Zoology* 70:79–166.
- VORIS, HAROLD K. 2000. Maps of Pleistocene sea levels in Southeast Asia: shorelines, river systems and time durations. *Journal of Biogeography* 27(5):1153–1167.
- VORIS, HAROLD K., AND HEATHER H. VORIS. 1983. Feeding strategies in marine snakes: an analysis of evolutionary, morphological, behavioral and ecological relationships. *American Zoology* 23:411–425.
- WAGLER, JOHANN GEORG. 1828. *Descriptiones et Icones Amphibiorum. Fasciculus primus*. J.G. Cottae (J.G. Cotta'schen Buchhandlung), Monarchii, Stuttgartiae et Tubingae (München, Stuttgart, und Tübingen). 30 (unnumbered) pp.
- WALL, FRANK. 1907a. Ovoviviparous habitat of the painted tree-snake (*Dendrophis pictus*). *Journal of the Bombay Natural History Society* 18:189.
- WALL, FRANK. 1907b. Reduction in the species of the genus *Polydontophis*. Suppression of *P. subpunctatus*. *Journal of the Bombay Natural History Society* 17:823–824.
- WALL, FRANK. 1907c. Viviparous habit of the false Himalayan viper (*Psammodynastes pulverulentus*). *Journal of the Bombay Natural History Society* 18:204.
- WALL, FRANK. 1908. A popular treatise on the common Indian snakes. Part 6. The golden tree-snake (*Chrysopelea ornata*). *Journal of the Bombay Natural History Society* 18:227–243.
- WALL, FRANK. 1909. A popular treatise on the common Indian snakes. Part 9 (*Lycodon aulicus*). *Journal of the Bombay Natural History Society* 19:87–106.
- WALL, FRANK. 1910a. A popular treatise on the common Indian snakes. Part 12 (*Dendrophis pictus*). *Journal of the Bombay Natural History Society* 19:775–792.
- WALL, FRANK. 1910b. Notes on snakes collected in Upper Assam. *Journal of the Bombay Natural History Society* 19:825–845.
- WALL, FRANK. 1910c. A popular treatise on the common Indian snakes. Part 13 (*Ancistrodon himalayanus*, *Psammodynastes pulverulentus*). *Journal of the Bombay Natural History Society* 20:65–69.
- WALL, FRANK. 1912. The breeding of the false Himalayan viper (*Psammodynastes pulverulentus*). *Journal of the Bombay Natural History Society* 21:686.
- WALL, FRANK. 1913. A popular treatise on the common Indian snake. Part 20 (*Naja tripudians*). *Journal of the Bombay Natural History Society* 22:243–259, 550–568.
- WALL, FRANK. 1921. Remarks on the Indian species of *Dendrophis* and *Dendrelaphis*. *Journal of the Bombay Natural History Society* 22:151–162.
- WALL, FRANK. 1923. A review of the Indian species of the genus *Oligodon*, suppressing the genus *Simotes*. *Records of the Indian Museum* 25:305–354.
- WALL, FRANK. 1924. The hamadryad or king cobra, *Naja hannah* (Cangtor). *Journal of the Bombay Natural History Society* 30:189–195.
- WALL, FRANK. 1925a. Handlist of the snakes of the Indian Empire. Part V. *Journal of the Bombay Natural History Society* 30:242–252.
- WALL, FRANK. 1925b. Notes on snakes collected in Burma in 1924. *Journal of the Bombay Natural History Society* 30:805–821.
- WALL, FRANK. 1926. The reticulate python: *Python reticulatus* (Schneider). *Journal of the Bombay Natural History Society* 31:84–90.
- WALL, FRANK, AND GEORGE H. EVANS. 1900. Notes on Ophidia collected in Burma from May to December, 1899. *Journal of the Bombay Natural History Society* 13:343–354.
- WALL, FRANK, AND GEORGE H. EVANS. 1901. Burmese snakes. Notes on specimens including 45 species of ophidian fauna collected in Burma from 1st January to 30th June, 1900. *Journal of the Bombay Natural History Society* 13:611–620.
- WALLACH, VAN. 1988. Status and redescription of the genus *Padangia* Werner, with comparative visceral data on *Collorhadbium* Smedley and other genera (Serpentes: Colubridae). *Amphibia-Reptilia* 9(1):

61–76.

- WALLACH, VAN. 1993. A new species of blind snake, *Typhlops marxi*, from the Philippines (Serpentes: Typhlopidae). *Raffles Bulletin of Zoology* 41(2 [31 December]):263–278, 2 figs., 2 tables.
- WALLACH, VAN. 2009. *Ramphotyphlops braminus* (Daudin): s synopsis of morphology, taxonomy, nomenclature and distribution (Serpentes: Typhlopidae). *Hamadryad* 34(1):34–62, 3 figs.
- WALLACH, VAN, RAFAEL M. BROWN, A.C. DIESMOS, AND G.V.A. GEE. 2007. An enigmatic new species of blind snake from Luzon Island, northern Philippines, with a synopsis of the genus *Acutyphlops* (Serpentes: Typhlopidae). *Journal of Herpetology* 41(4 [December]):690–702, 2 figs., 1 table.
- WALLACH, VAN, KENNETH L. WILLIAMS, AND JEFF BOUNDY. 2014. *Snakes of the World: A Catalogue of Living and Extinct Species*. CRC Press, Boca Raton, Florida, USA. xxvii + 1209 pp.
- WATT, GEORGE, R. DAVID, AND G. THEAKSON. 1985. Seasnake bites in a freshwater lake. *American Journal of Tropical Medicine and Hygiene* 34(4):770–773.
- WEGNER, A.M.R. 1954. The snakes of the genus *Maticora* Gray with special reference to *Maticora bivirgata bivirgata* (Boie) and *M. intestinalis intestinalis* (Laurenti). *Penggemar Alam* 34:55–58.
- WEINELL, JEFFREY L., AND RAFAEL M. BROWN. 2017, 2018. Discovery of an old, archipelago-wide, endemic radiation of Philippine snakes. *Molecular Phylogenetics and Evolution* [2017] (online) <<https://doi.org/10.1016/j.ympev.2017.11.004>>; [2018] (print) 119:144–150, 3 figs..
- WELCH, KENNETH R.G. 1988. *Snakes of the Orient: A Checklist*. Robert E. Krieger Co., Malabar, Florida, USA. vii + 183 pp.
- WERNER, FRANZ JOSEF MARIA. 1921. Synopsis der Schlangenfamilie der Boiden auf Grund des Boulenger'schen Schlangenkatalogs (1893/96). *Archiv für Naturgeschichte* 87(7):230–265.
- WERNER, FRANZ JOSEF MARIA. 1921. Synopsis der Schlangenfamilie der Typhlopiden auf Grund des Boulenger'schen Schlangenkatalogs (1893–1896). *Archiv für Naturgeschichte* 87(7):266–338.
- WERNER, FRANZ JOSEF MARIA. 1923. Übersicht der Gattungen und Arten der Schlangen der Familie Colubridae. I. Teil mit einem Nachtrag zu den übrigen Familien. *Archiv für Naturgeschichte* 89(8):138–199.
- WERNER, FRANZ JOSEF MARIA. 1924. Neue oder wenig bekannte Schlangen aus dem Naturhistorischen Staatsmuseum in Wien. *Sitzungsberichten der Akademie der Wissenschaften in Wien, Mathem.-naturw. Klasse* 133(1–3):29–56.
- WERNER, FRANZ JOSEF MARIA. 1926. Neue oder bekannte Schlangen aus dem Naturhistorischen Staatsmuseum (III. Teil). *Sitzungsberichten der Akademie der Wissenschaften in Wien, Mathem.-naturw. Klasse* 135:243–257.
- WERNER, FRANZ JOSEF MARIA. 1929. Übersicht der Gattungen und Arten der Schlangen aus der Familie Colubridae. III. Teil (Colubrinae) mit einem Nachtrag zur den übrigen Familien. *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere* 57:1–196.
- WIEGMANN, AREND FRÉDÉRIC AUGUST HEINRICH. 1834. Amphibien. Pages 433–522, Beiträge zur Zoologie, gesammelt auf einer Reise um die Erde, von Dr. F. J. F. Meyen, M.d.A.d.N. Sander'schen Buchhandlung zu Berlin, Breslau und Bonn.
[NB: See comments by Bauer & Adler (2001) on the order in which the different printings of the Meyen reports appeared. The volume cited here, according to Bauer and Adler, though stating on the title pages of each of the parts as appearing in the “*Acta Acad. Caes. Leop. Carol. Nat. Cur.* Vol. XVII. P.I.” actually appeared before it appeared in the *Acta*. The pages in the volume bear dual pagination numbers, e.g. “436 (186),” the first as it appears in the full volume, the second the already assigned pagination for the *Acta*. Thus, Wiegmann's Amphibian section is numbered 433–435 (actually these pages are unnumbered) followed by 436 (186)-522(268). In a like manner the reptile and amphibian plates are dually numbered, LII (XIII)-LXI (XXII)., pls. 52–61.]
- WIEGMANN, AREND FRÉDÉRIC AUGUST HEINRICH. 1834a. Amphibien. Pages 433–518, Beiträge zur Zoologie, gesammelt auf einer Reise um die Erde von Dr. F.J.F. Meyen. Für den Verfasser in Commission den Sander'schen Buchhandlung zu Berlin (C.W. Eichhoff), Breslau und Bonn.
[NB: Author's name shown as “Dr. A.F.A. Wiegmann dem Jüngern” on title page [p. 433 of Meyen volume]. Pagination of *Nova Acta* version indicated in parentheses: 433–435 [183–185 {but not shown on pages or until p. 436}], 436[186]-518[268]; pls. in Meyen vol./*Nova Acta* numbered 52/13–61/22. See

- also Wiegmann's "Nachträgliche Bemerkungen" chapter, numbered in *Nova Acta* as 268a–d. Original description and pl. of *Elaps calligaster* (pl. 59, fig. 2 [pl. 20, fig. 2 in *Nova Acta*], pls. 52–61.)
- WIEGMANN, AREND FRÉDÉRIC AUGUST HEINRICH. 1834b. Nachträgliche Bemerkungen zur Beschreibung der Amphibien in Meyen's Beiträgen zur Zoologie. Pages 519–522, Beiträge zur Zoology, gesammelt auf einer Reise um die Erde von Dr. F.J.F. Meyen. Für den Verfasser in Commission den Sander'schen Buchhandlung zu Berlin (C.W. Eichhoff), Breslau und Bonn.
[NB: Annotated: "Berlin im October 1834." See also Wiegmann's Siebente Abhandlung. Amphibien. Pagination of *Nova Acta* version indicated in parentheses: 433–435[183–185 {but not shown on pages or until p. 436}], 436[186]–518[268]; pls. in Meyen vol./*Nova Acta* numbered 52/13–61/22. See also Wiegmann's "Nachträgliche Bemerkungen" chapter, numbered in *Nova Acta* as 268a–d but here as 519[268]–522[268].]
- WIEGMANN, AREND FRÉDÉRIC AUGUST HEINRICH. 1834c. Beiträge zur Zoologie, gesammelt auf einer Reise um die Erde, von Dr. F.J.F. Meyen, M.d.A.d.N. Siebente Abhandlung. Amphibien. *Nova Acta Academiae Caesareae Leopoldino-Carolinae Germanicae Naturae Curiosorum Halle* 17(1):185–268, 268a–d, 11 pls.
[NB: According to Bauer and Adler (2001), preprints of this paper were included in F.J.F. Meyen (1834), *Reise um die Erde* (q.v.) and then issued in the *Nova Acta*, also in 1834, though somewhat later (but not much since Meyen signed the foreword to the book [pp. iii–iv] on 15 Sept. 1834).]
- WIEGMANN, AREND FRÉDÉRIC AUGUST HEINRICH. 1835. Berichte über die Fortschritte der Zoologie im Jahre 1834. *Archiv für Naturgeschichte* 2(3):255–348.
- WÜSTER, WOLFGANG. 1996. Taxonomic changes and toxinology: systematic revisions of the Asiatic cobras (*Naja naja* species complex). *Toxicon* 34(4):399–406.
- WÜSTER, WOLFGANG, AND ROGER S. THORPE. 1989. Population affinities of the Asiatic cobra (*Naja naja*) species complex in south-east Asia: Reliability and random resampling. *Linnean Society of London, Biological Journal* 36:391–409.
- WÜSTER, WOLFGANG, AND ROGER S. THORPE. 1990. Systematics and biogeography of the Asiatic cobra (*Naja naja*) species complex in the Philippines. Pages 333–344 in G. Peters and R. Hutterer, eds., *Vertebrates in the Tropics*. Alexander Koenig Zoological Research Institute and Zoological Museum, Bonn, Germany.
- WÜSTER, WOLFGANG, AND ROGER S. THORPE. 1991. Asiatic cobras: Systematics and snakebite. *Experimentia (Basel)* 47:205–209.
- WÜSTER, WOLFGANG, AND ROGER S. THORPE. 1992. Dentitional phenomena in cobras revisited: spitting and fang structure in Asiatic species of *Naja* (Serpentes: Elapidae). *Herpetologica* 48(4):424–434.
- WYNN, ADDISON H. 1988. Geographic distribution. *Typhlops ater*. *Herpetological Review* 19(3):60.
- WYNN, ADDISON H., AND ALAN E. LEVITON. 1993. Two new species of blind snake, genus *Typhlops* (Reptilia: Squamata: Typhlopidae), from the Philippine Archipelago. *Proceedings of the Biological Society of Washington* 106(1 [8 April]):34–45, 3 figs.
- ZHAO, ER-MI. 1995. Intraspecific classification of some Chinese snakes. *Sichuan Journal of Zoology* 14(3):107–112.
- ZUG, GEORGE R. 2013. *Reptiles and Amphibians of the Pacific Islands*. University of California Press, Berkeley, California, USA. x + 306 pp, 30 text-figs., 35 pls.

Page intentionally left blank

Appendix

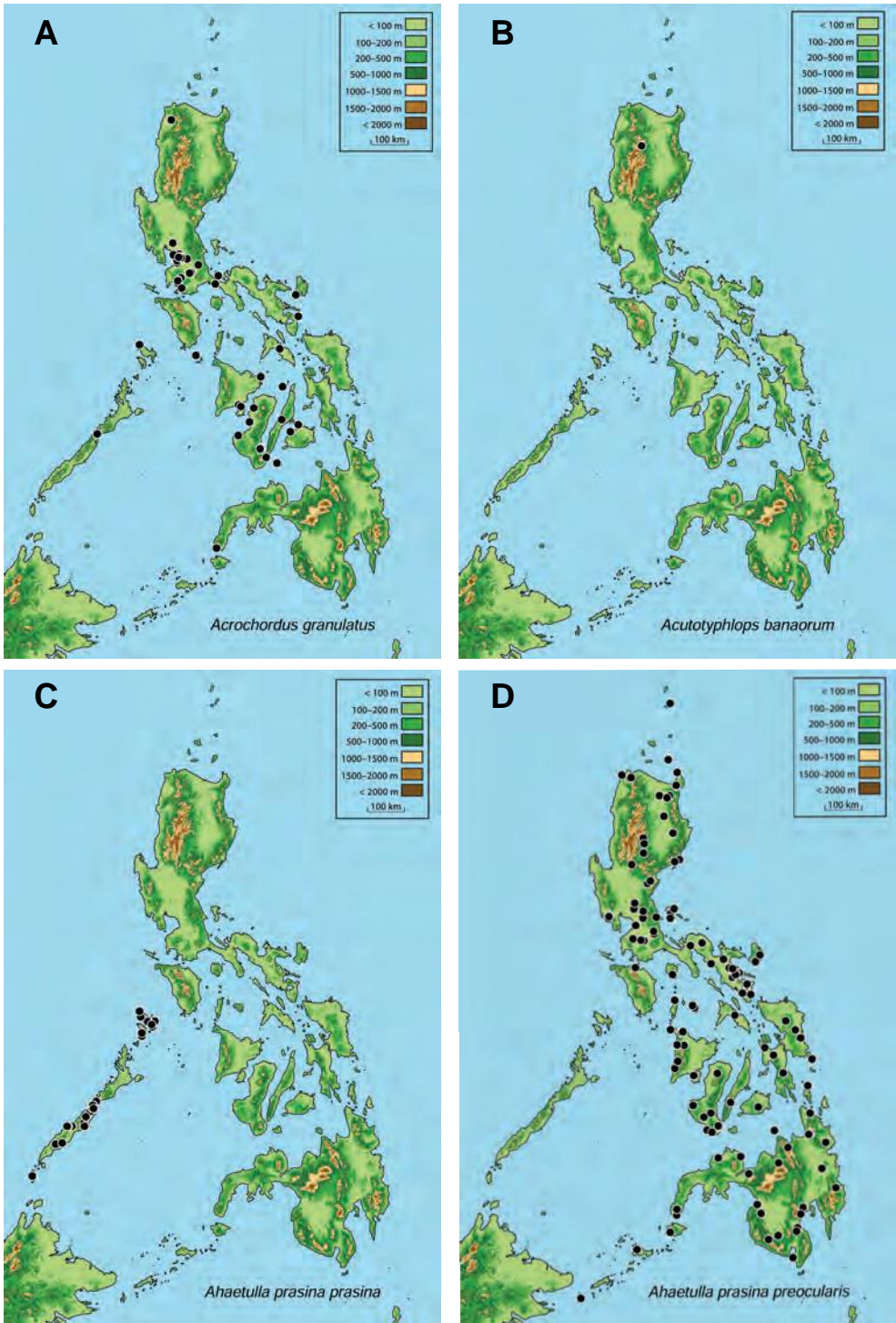
Distribution Maps and Photographs

**Distribution maps (pages 510–546) arranged
alphabetically by genus and species;
Map sheets numbered 1–37 (145 maps)**

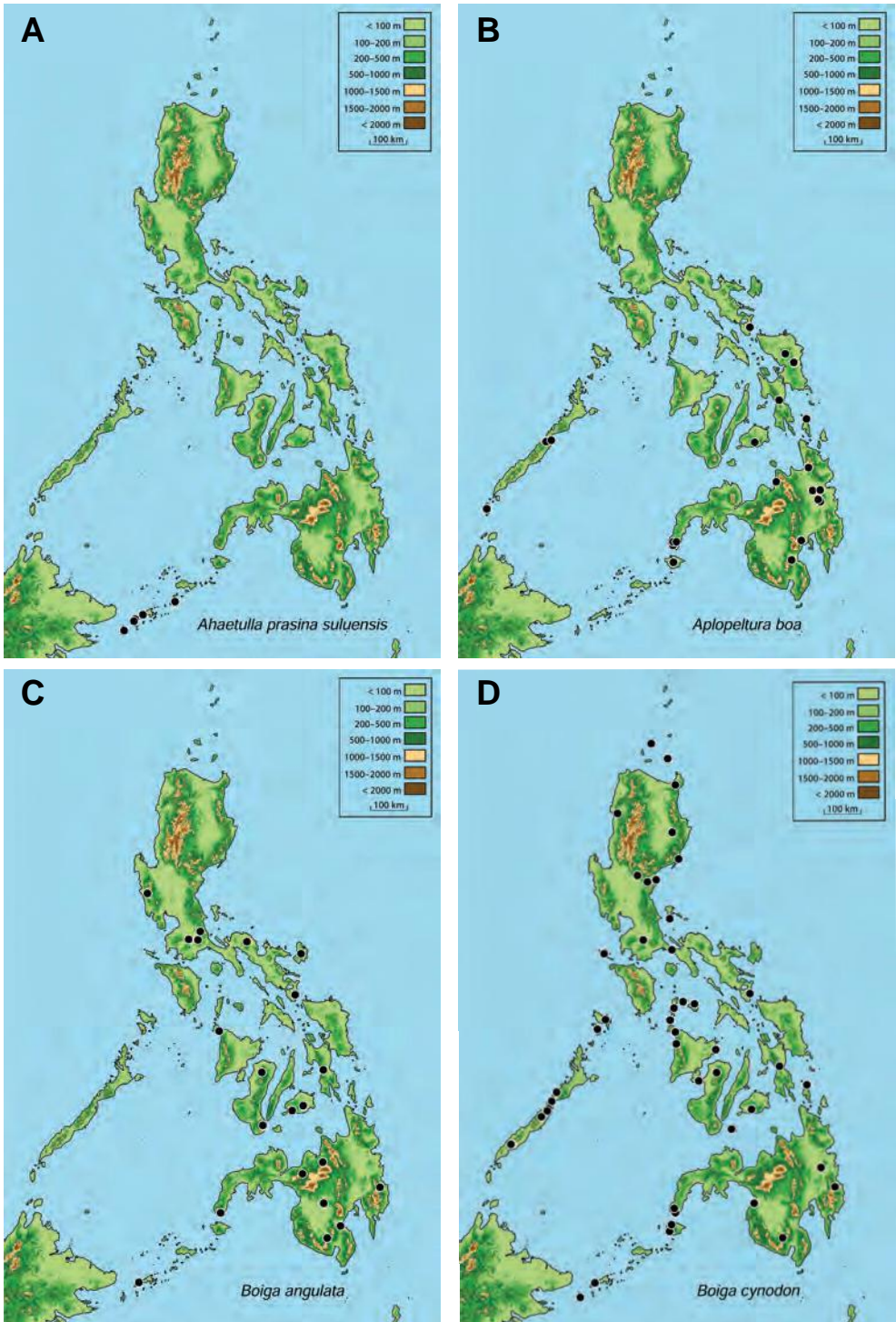
**Photo figures (pages 547-568) numbered
sequentially 1–119 and ordered by Superfamily,
Family, and Subfamily groups and within the groups,
alphabetically by genus and species**



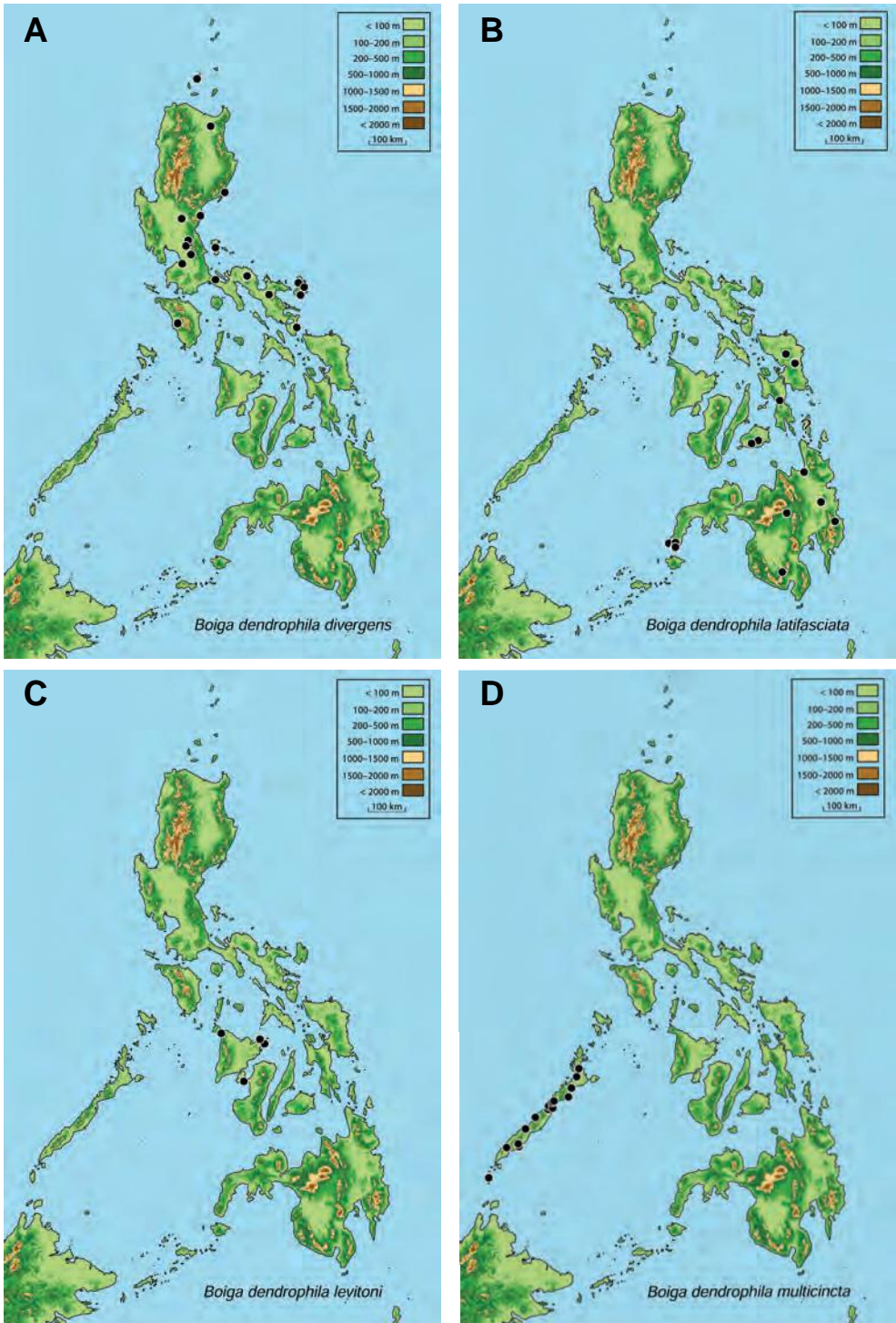
MAP 1. Topographic base map for the Philippine Archipelago.



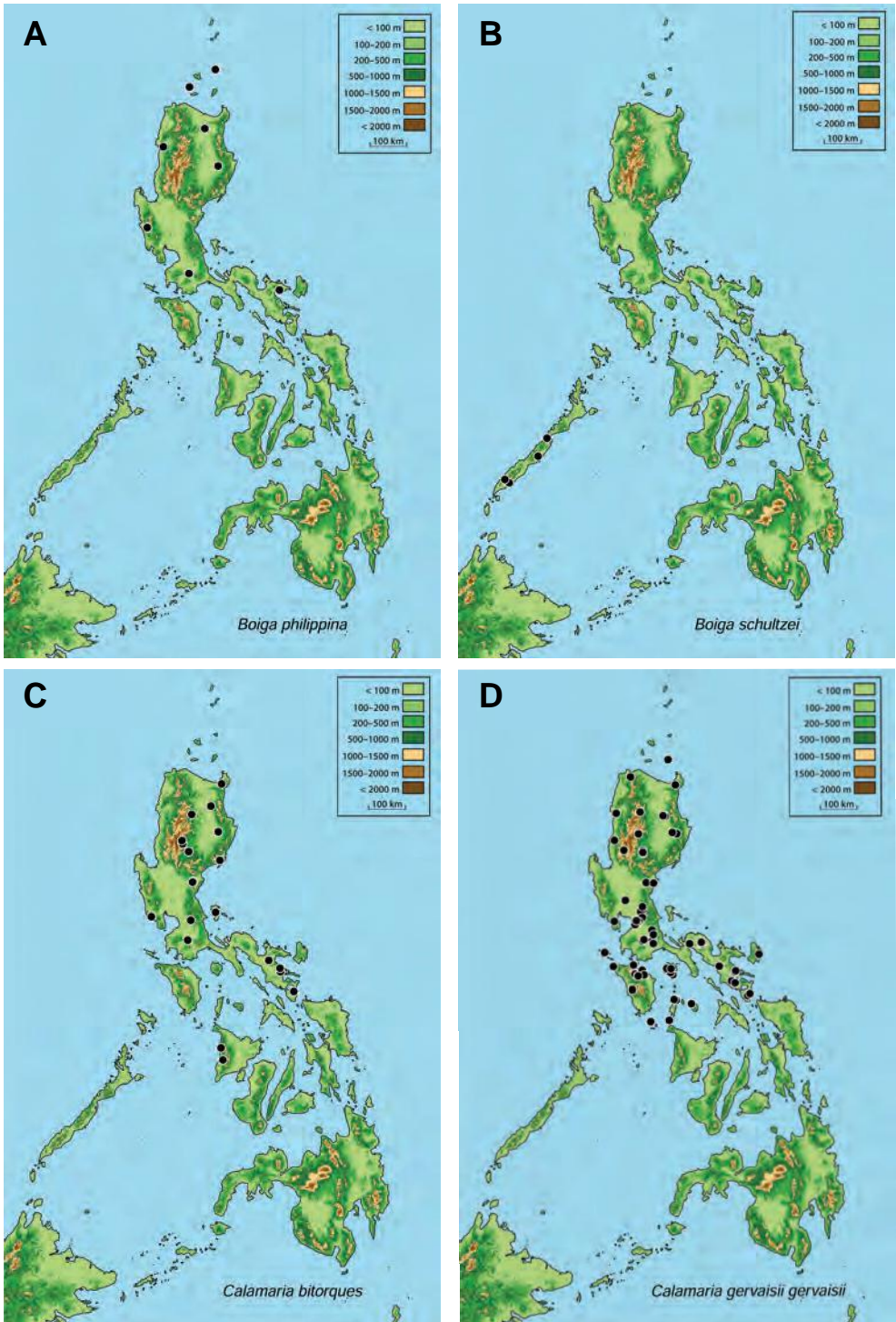
MAPS 2A–D. Geographic range maps for Philippine records of (A) *Acrochordus granulatus*; (B) *Acutotyphlops banaorum*; (C) *Ahaetulla prasina prasina*; (D) *Ahaetulla prasina preocularis*.



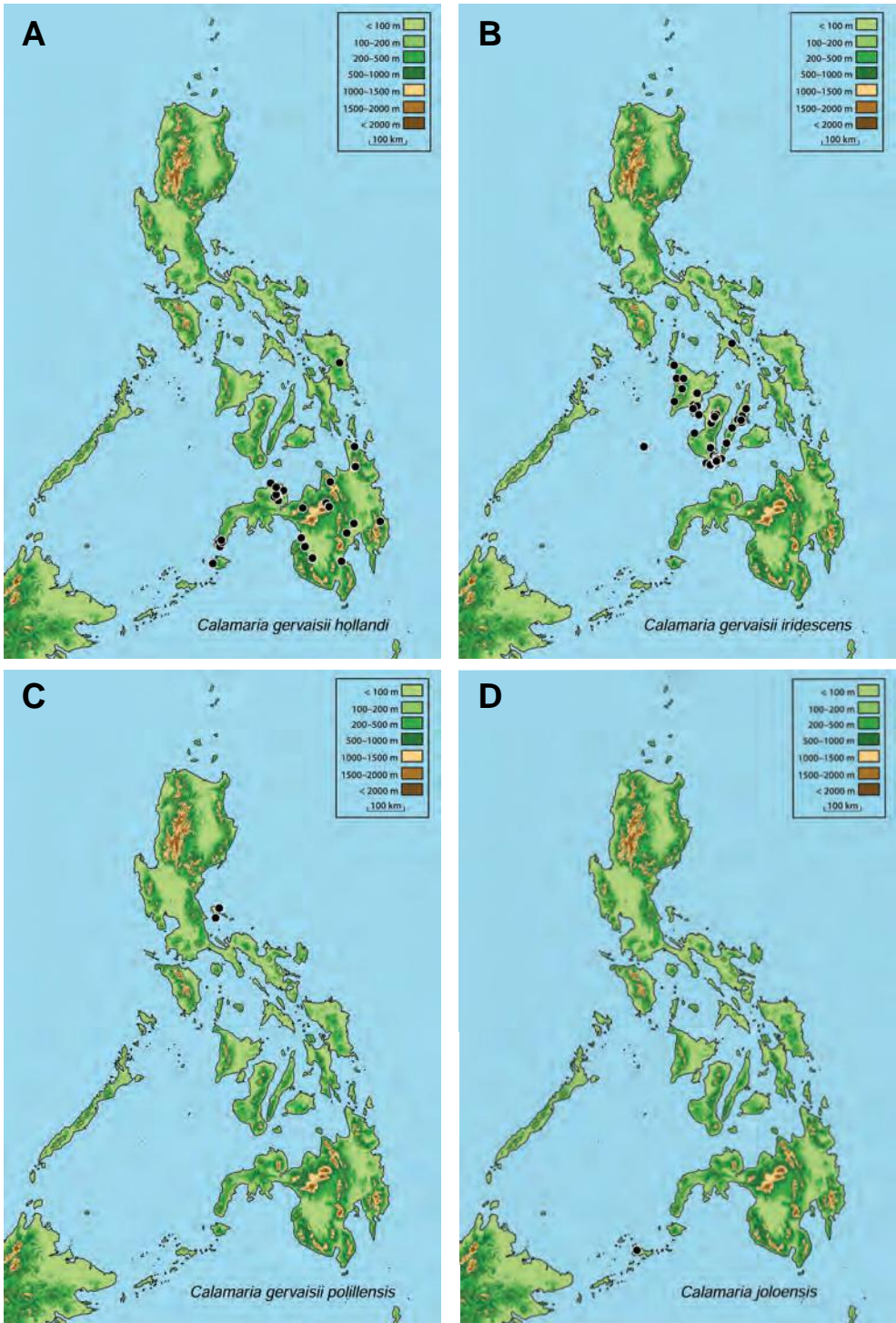
MAPS 3A–D. Geographic range maps for Philippine records of (A) *Ahaetulla prasina suluensis*; (B) *Aplopeltura boa*; (C) *Boiga angulata*; (D) *Boiga cynodon*.



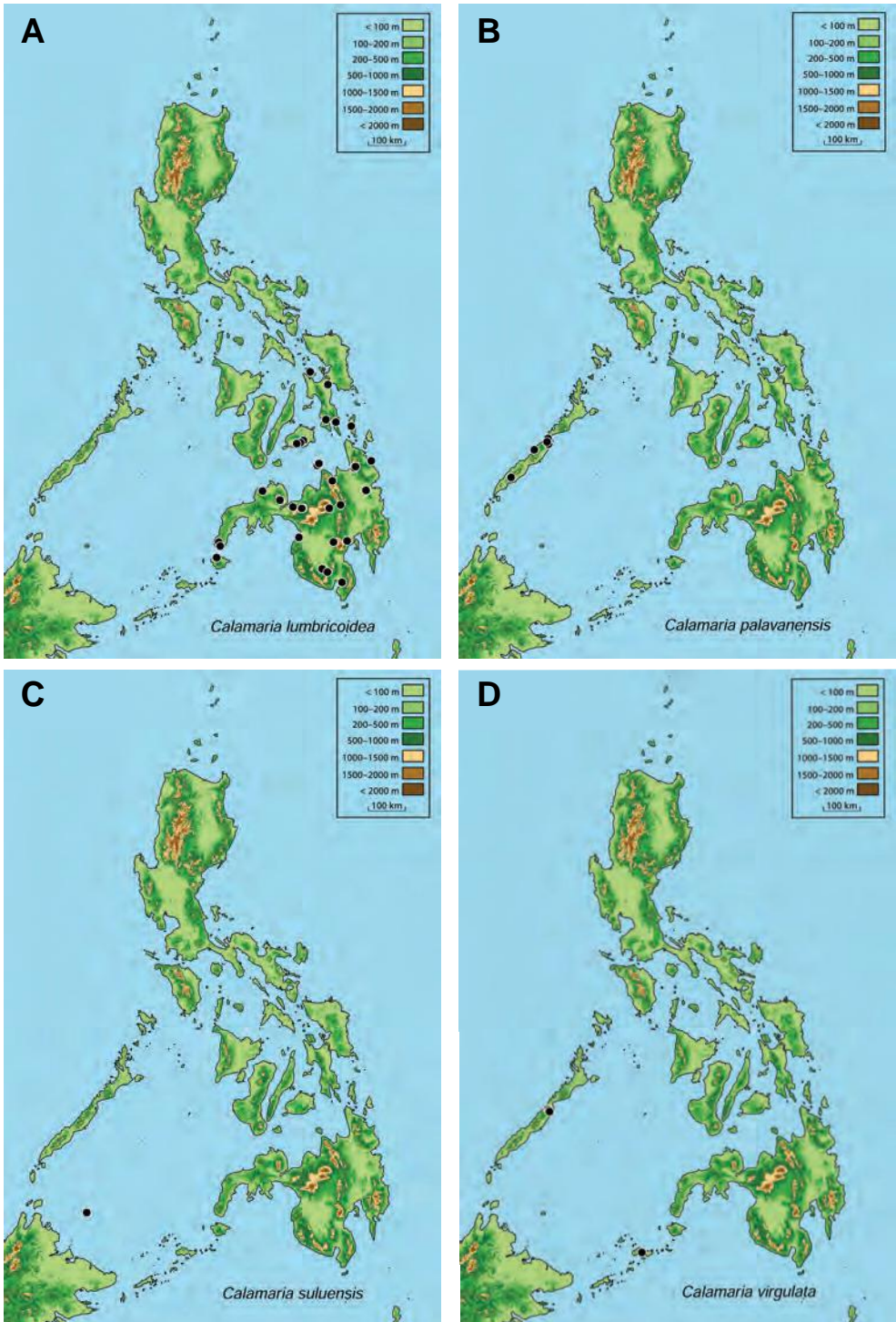
MAPS 4A–D. Geographic range maps for Philippine records of (A) *Boiga dendrophila divergens*; (B) *Boiga dendrophila latifasciata*; (C) *Boiga dendrophila leytوني*; (D) *Boiga dendrophila multicincta*.



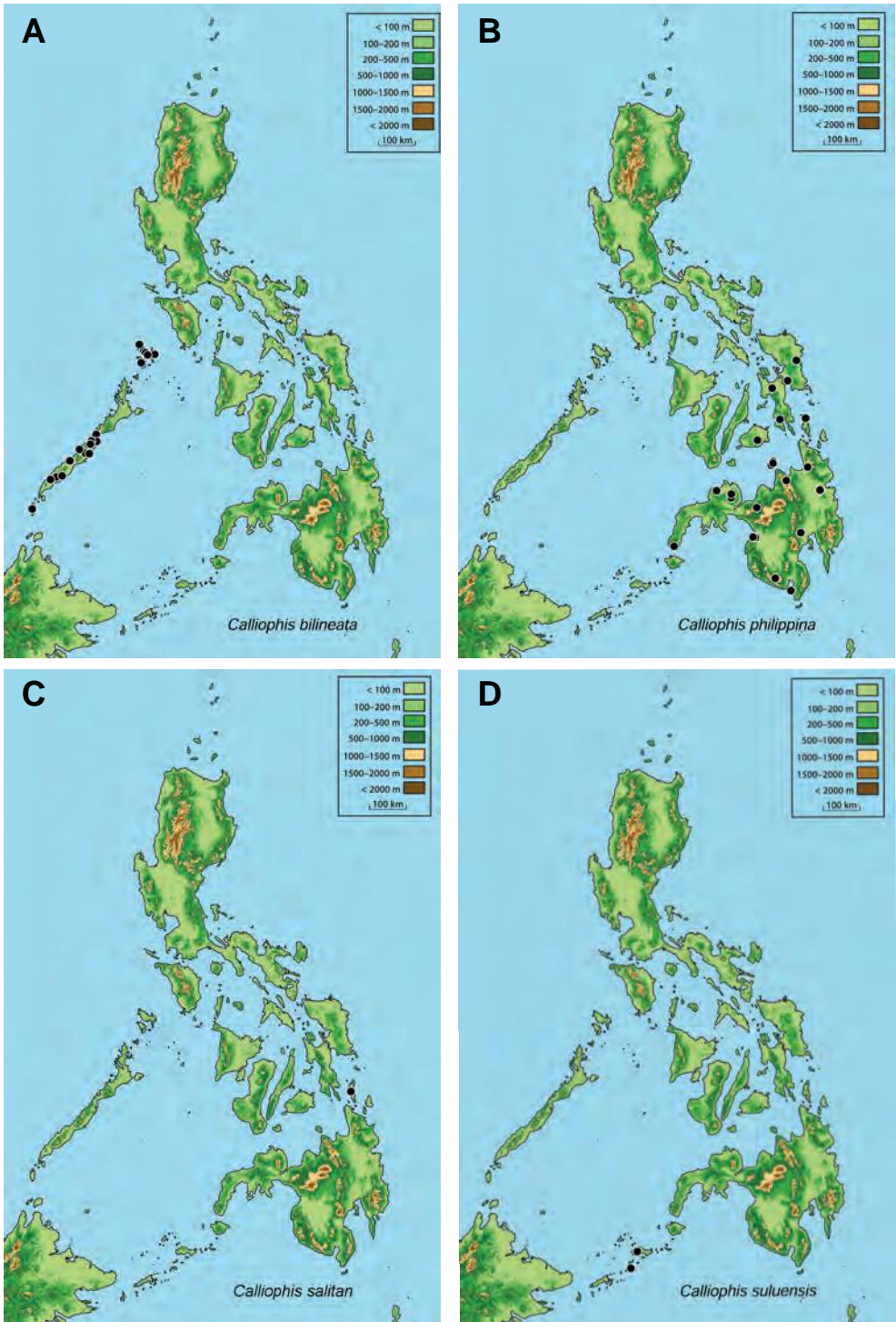
MAPS 5A–D. Geographic range maps for Philippine record of: (A) *Boiga philippina*; (B) *Boiga schultzei*; (C) *Calamaria bitorques*; (D) *Calamaria gervaisii gervaisii*.



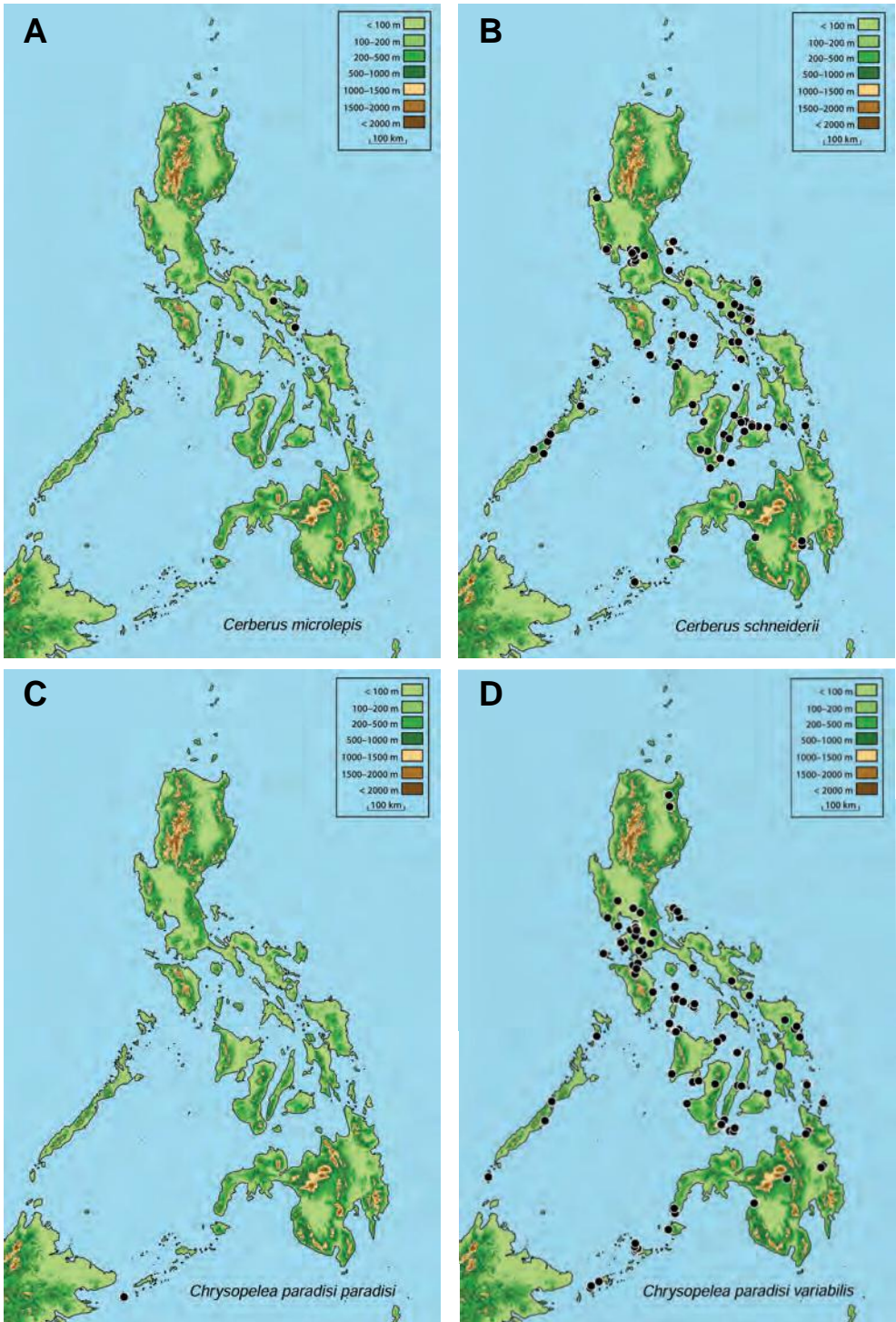
MAPS 6A–D. Geographic range maps for Philippine records of (A) *Calamaria gervaisii hollandii*; (B) *Calamaria gervaisii iridescens*; (C) *Calamaria gervaisii polillensis*; (D) *Calamaria joloensis*.



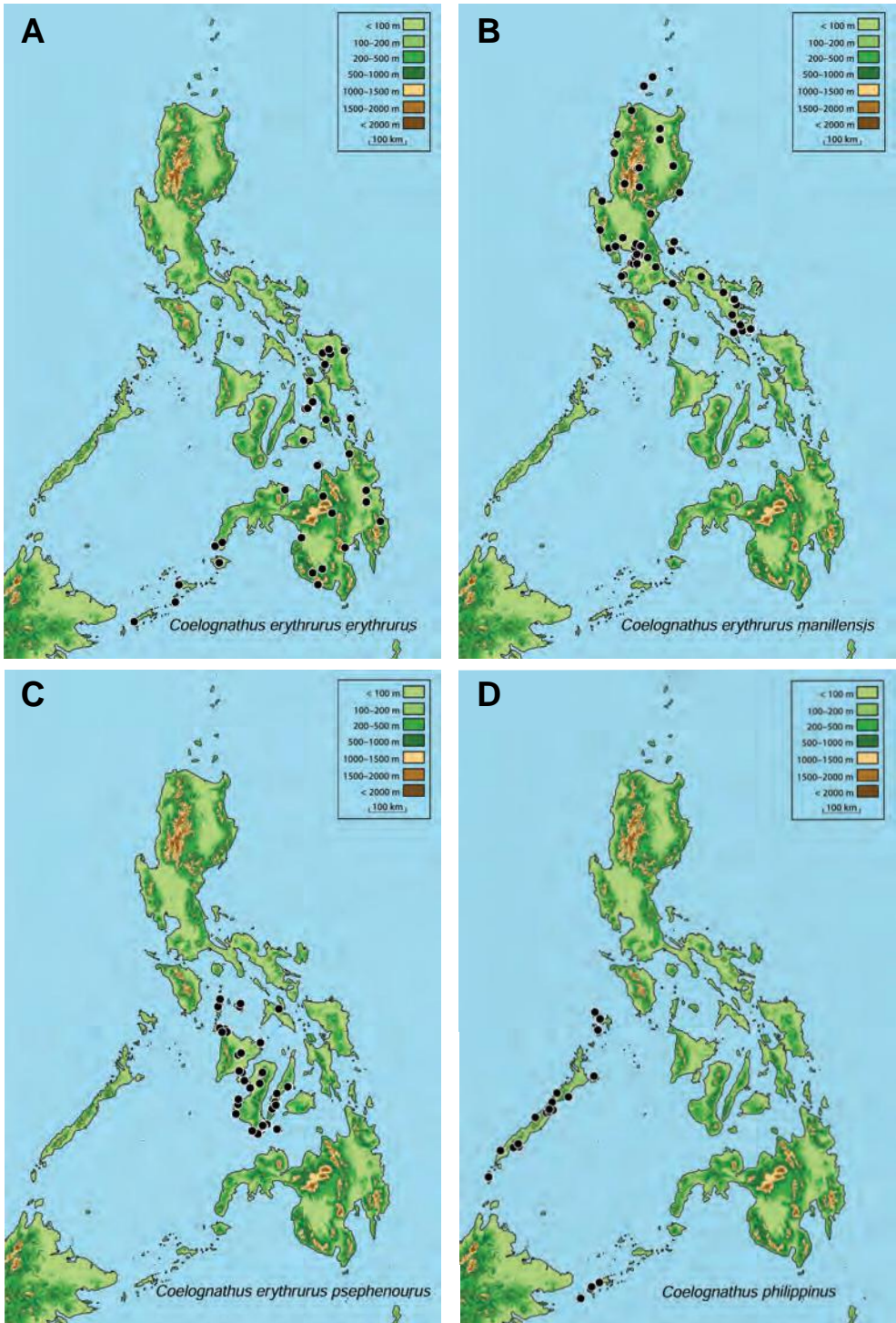
MAPS 7A–D. Geographic range maps for Philippine records of (A) *Calamaria lumbricoidea*; (B) *Calamaria palavanensis*; (C) *Calamaria suluensis*; (D) *Calamaria virgulata*.



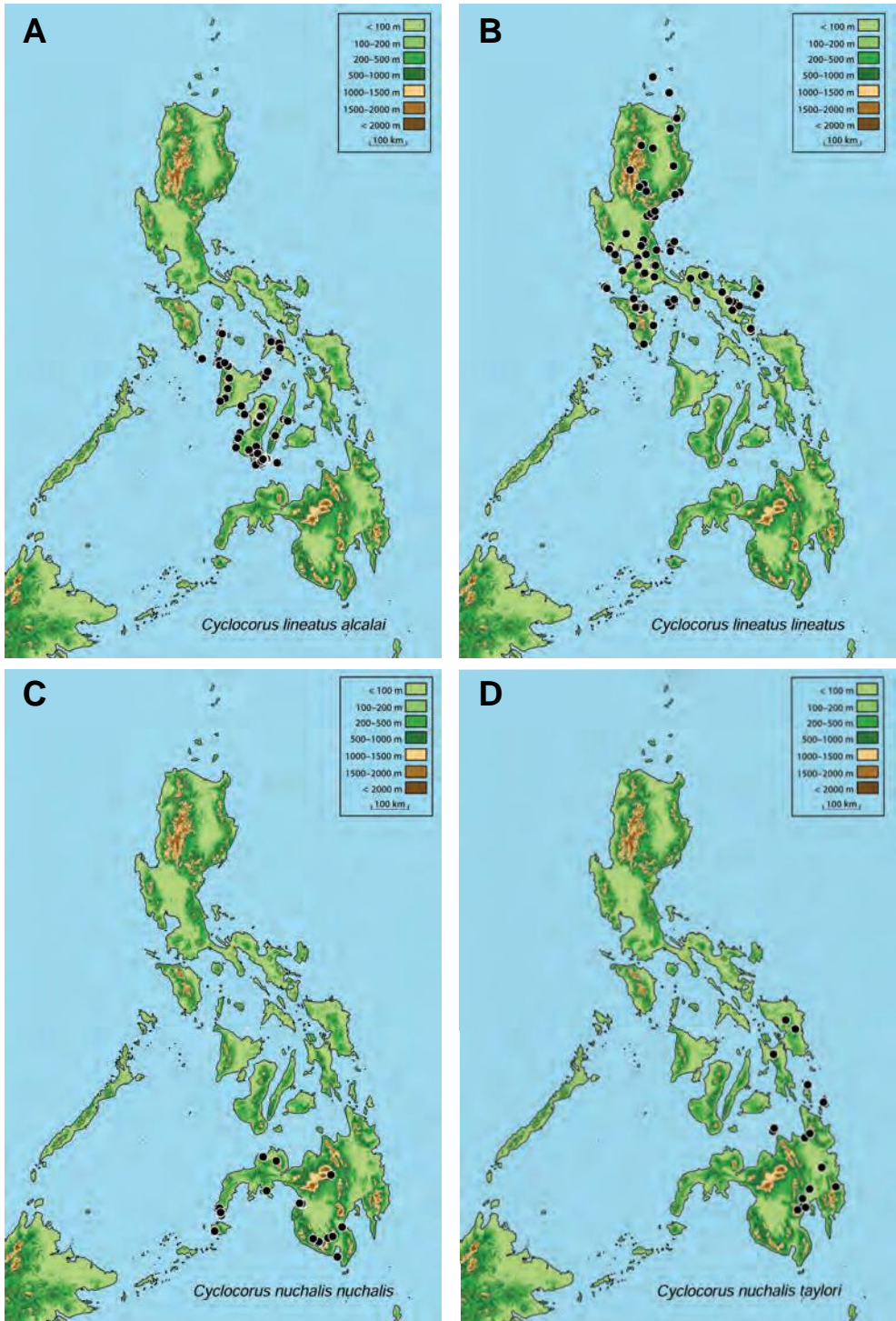
MAPS 8A–D. Geographic range maps for Philippine records of (A) *Calliophis bilineata*; (B) *Calliophis philippina*; (C) *Calliophis salitan*; (D) *Calliophis suluensis*.



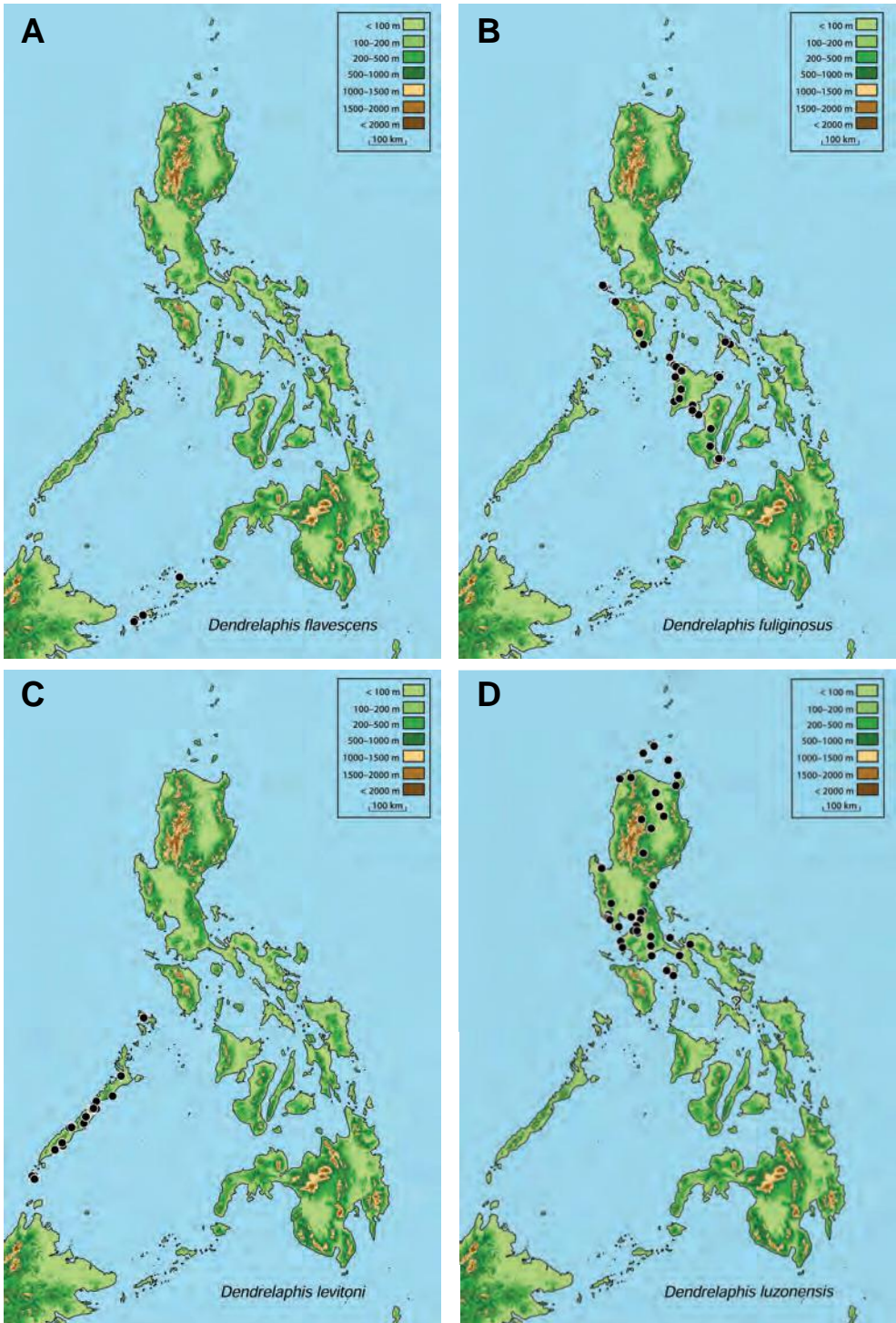
MAPS 9A–D. Geographic range maps for Philippine records of (A) *Cerberus microlepis*; (B) *Cerberus schneiderii*; (C) *Chrysopelea paradisi paradisi*; (D) *Chrysopelea paradisi variabilis*.



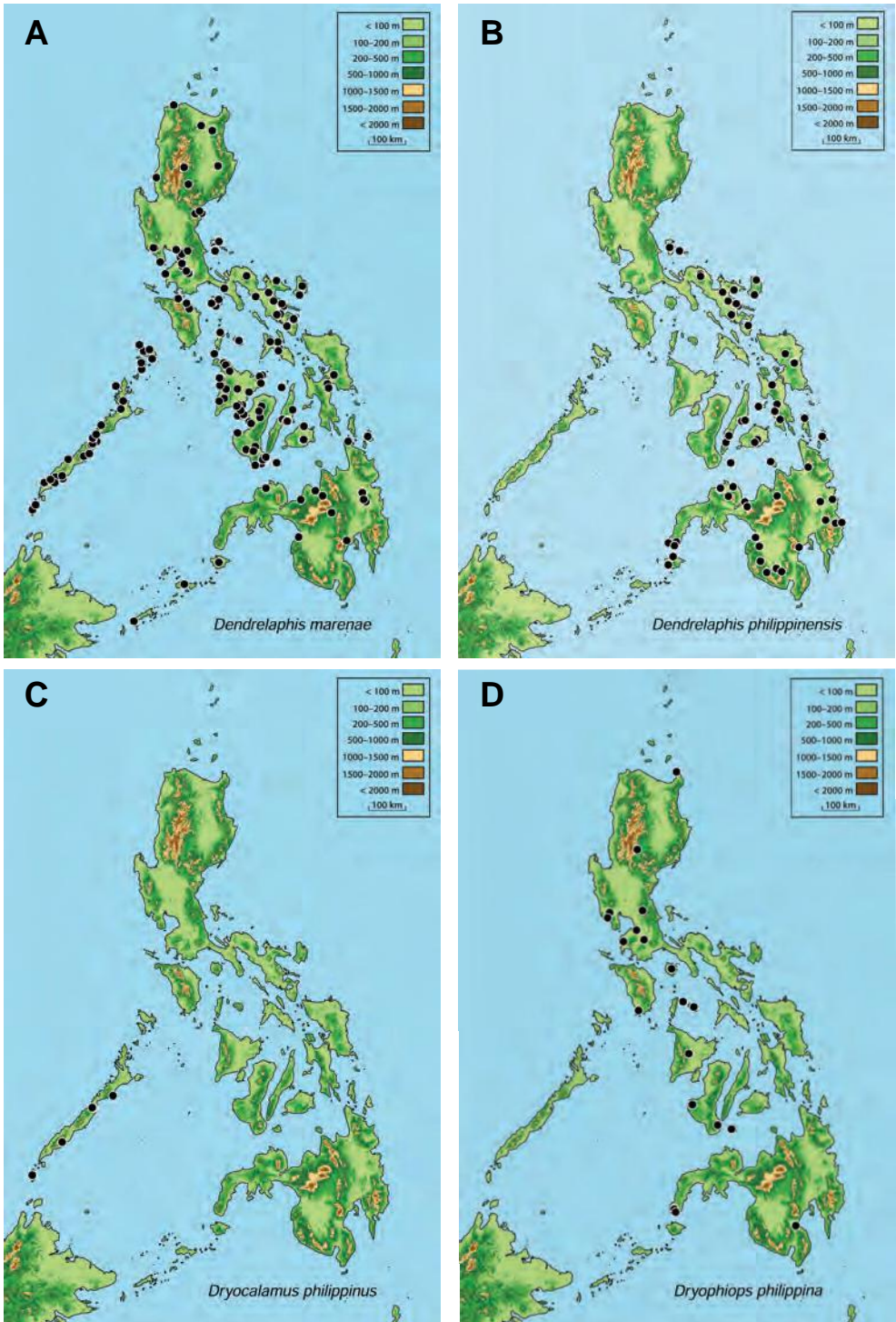
MAPS 10A–D. Geographic range maps for Philippine records of (A) *Coelognathus erythrurus erythrurus*; (B) *Coelognathus erythrurus manillensis*; (C) *Coelognathus erythrurus psephenourus*; (D) *Coelognathus philippinus*.



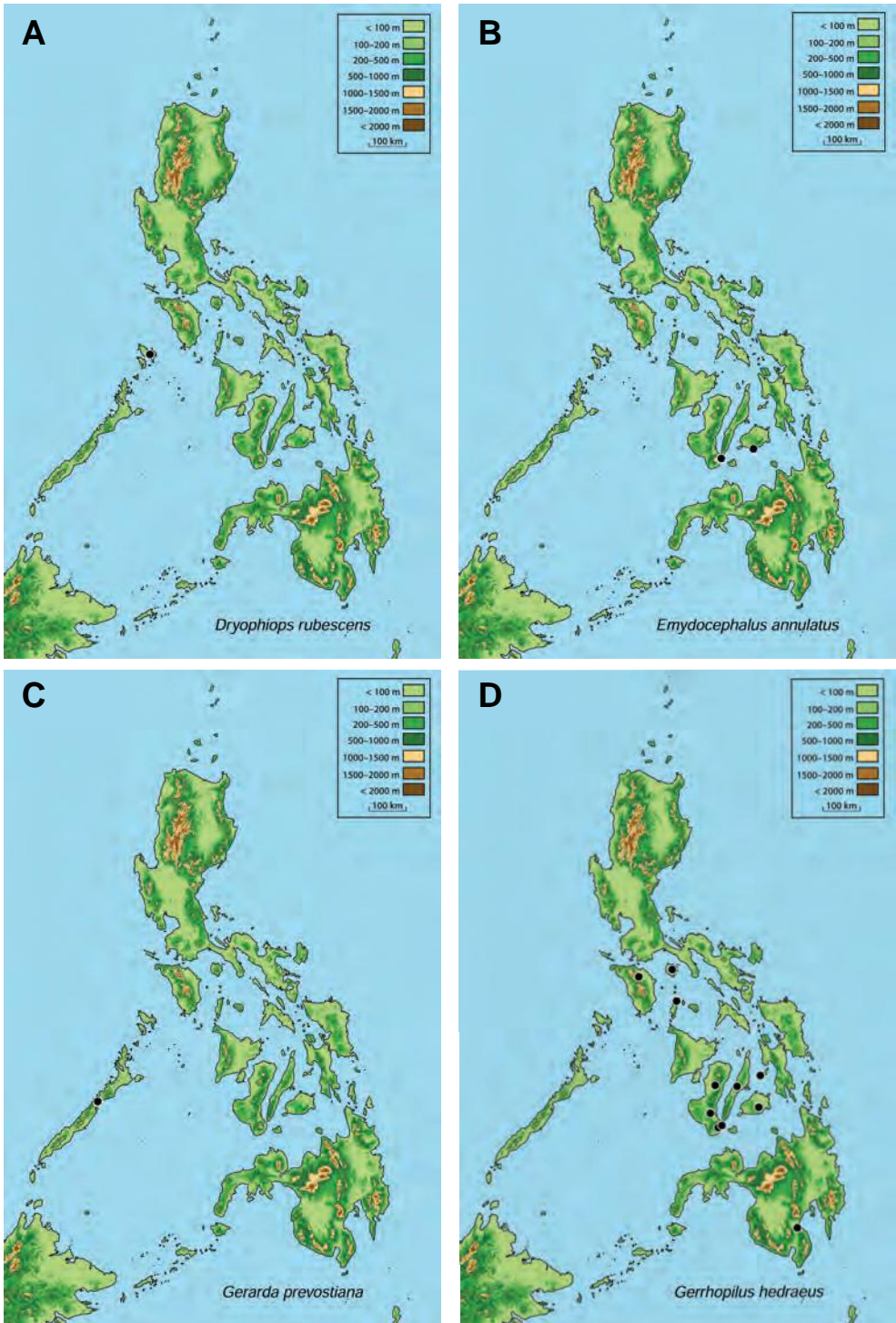
MAPS 11A–D. Geographic range maps for Philippine records of (A) *Cyclocorus lineatus alcalai*; (B) *Cyclocorus lineatus lineatus*; (C) *Cyclocorus nuchalis nuchalis*; (D) *Cyclocorus nuchalis taylori*.



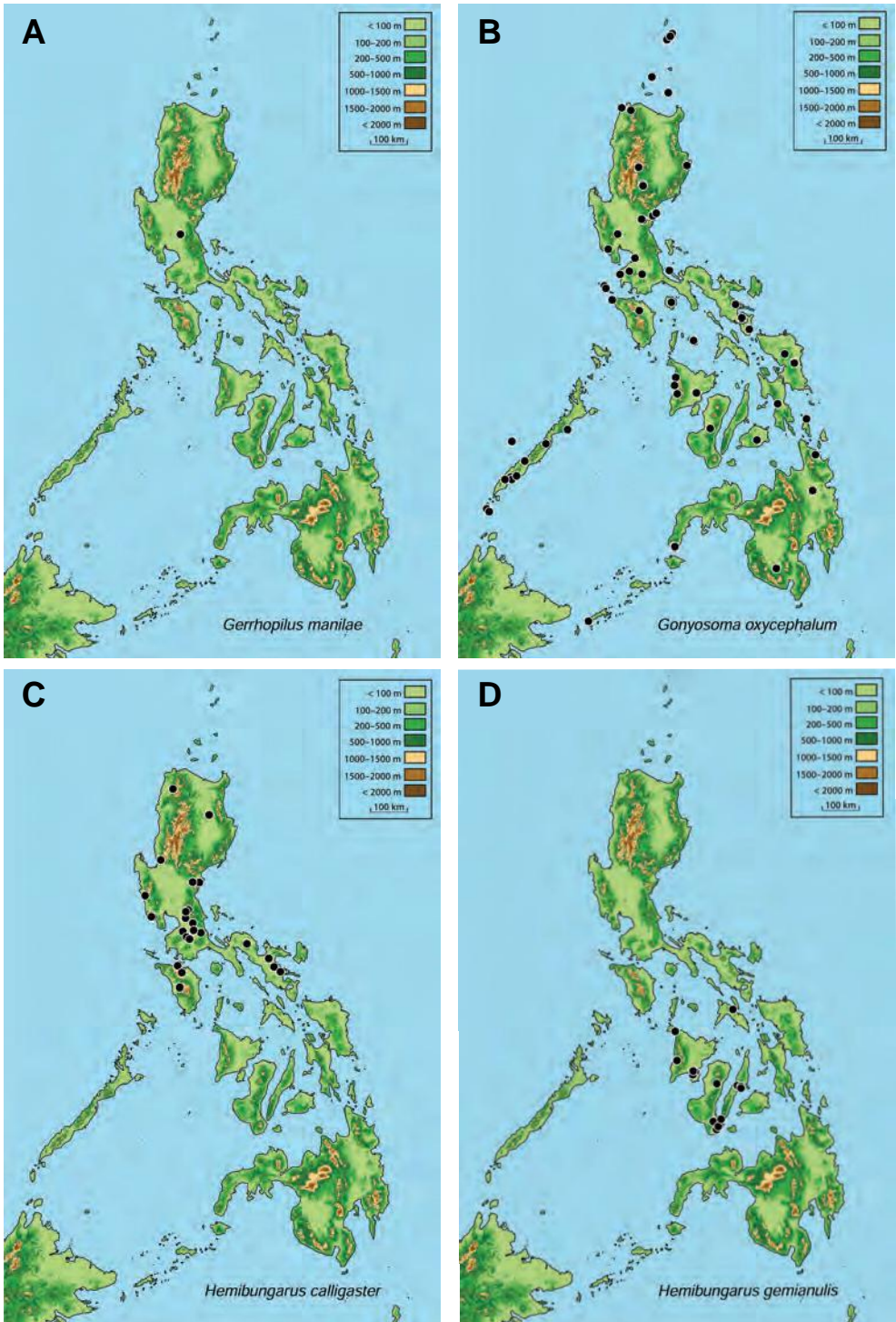
MAPS 12A–D. Geographic range maps for Philippine records of (A) *Dendrelaphis flavescens*; (B) *Dendrelaphis fuliginosus*; (C) *Dendrelaphis levitoni*; (D) *Dendrelaphis luzonensis*.



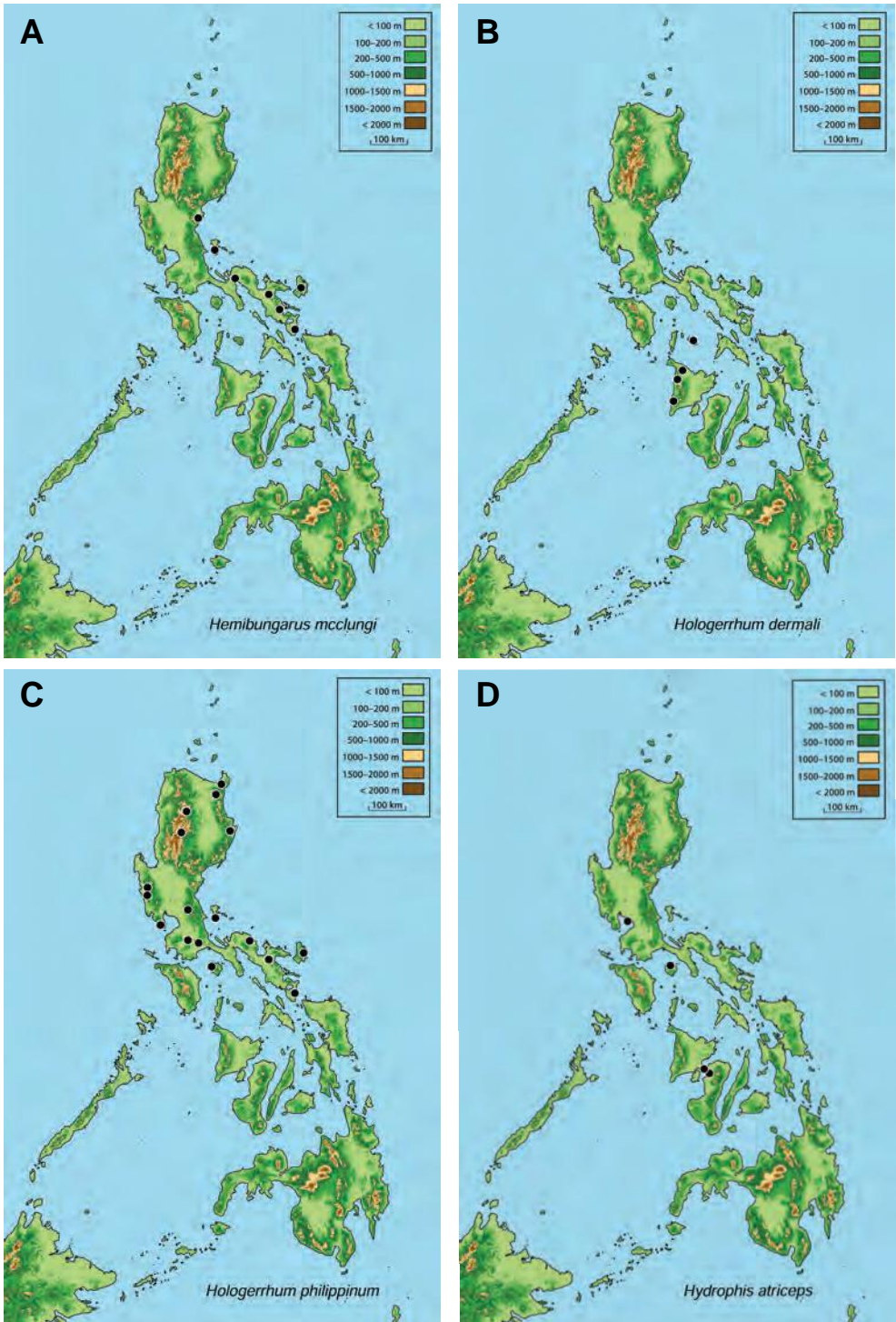
MAPS 13A–D. Geographic range maps for Philippine records of (A) *Dendrelaphis marenae*; (B) *Dendrelaphis philippinensis*; (C) *Dryocalamus philippinus*; (D) *Dryophiops philippina*.



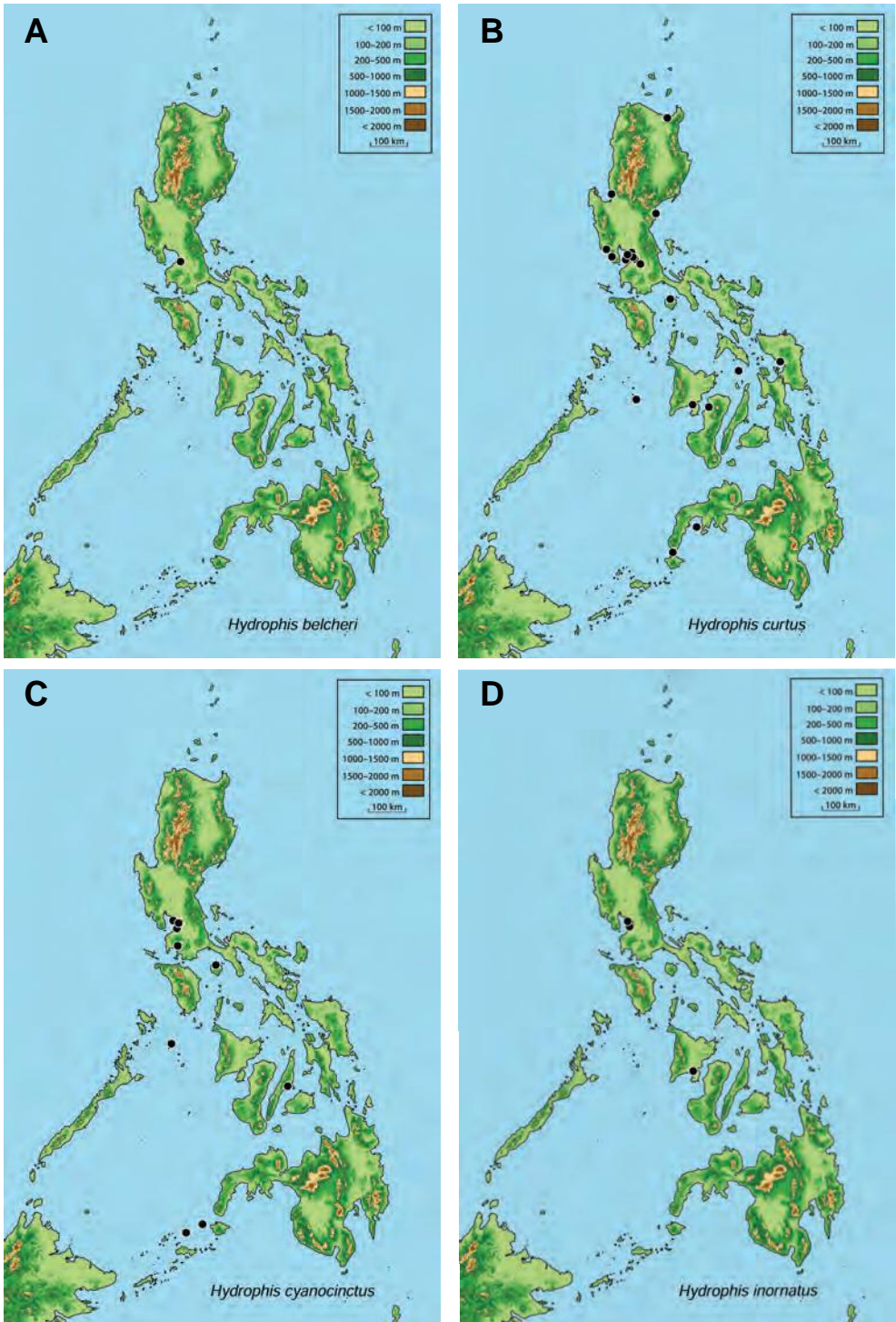
MAPS 14A–D. Geographic range maps for Philippine records of (A) *Dryophiops rubescens*; (B) *Emydocephalus annulatus*; (C) *Gerarda prevostiana*; (D) *Gerrhopilus hedraeus*.



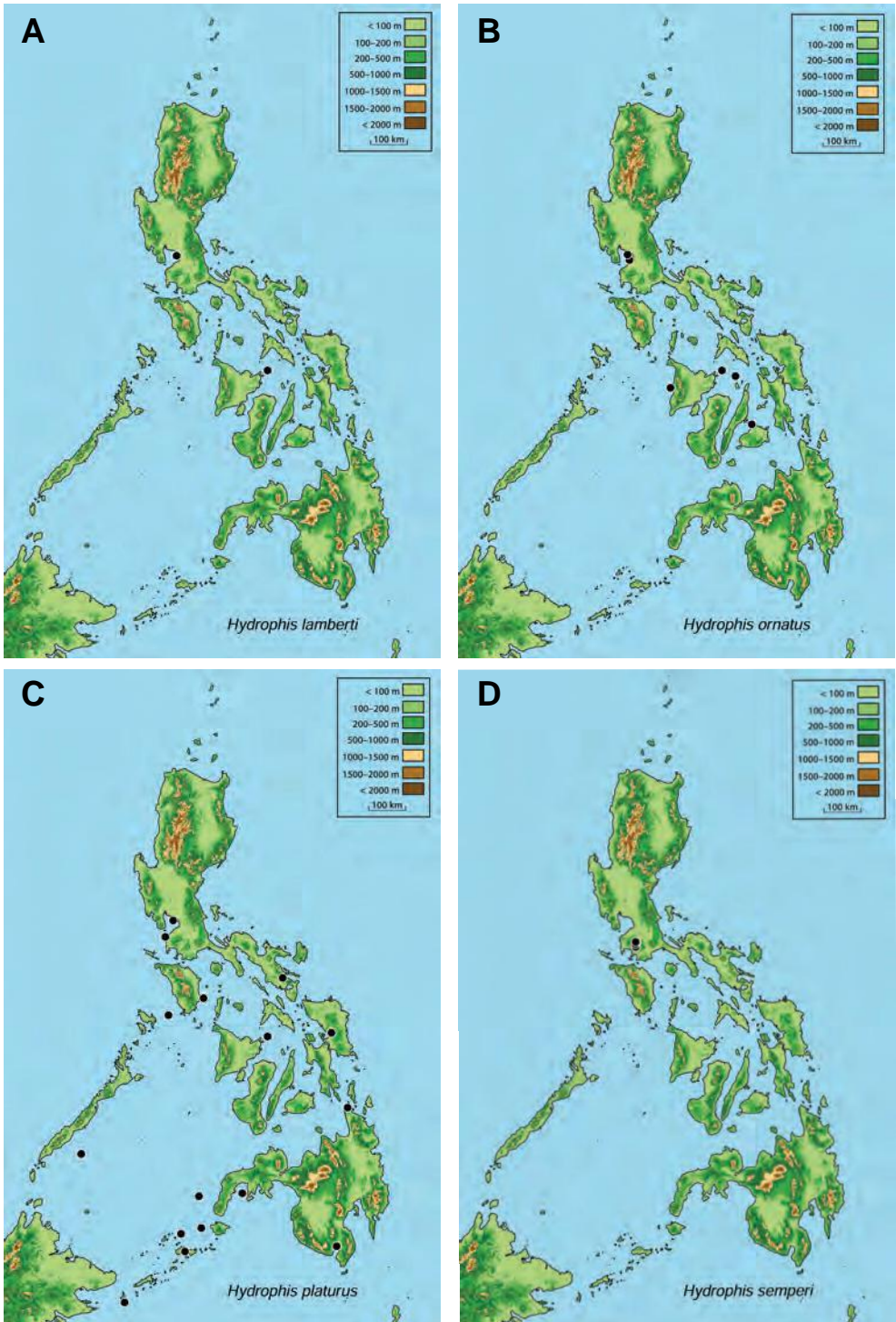
MAPS 15A–D. Geographic range maps for Philippine records of (A) *Gerrhopilus manilae*; (B) *Gonyosoma oxycephalum*; (C) *Hemibungarus calligaster*; (D) *Hemibungarus gemianulis*.



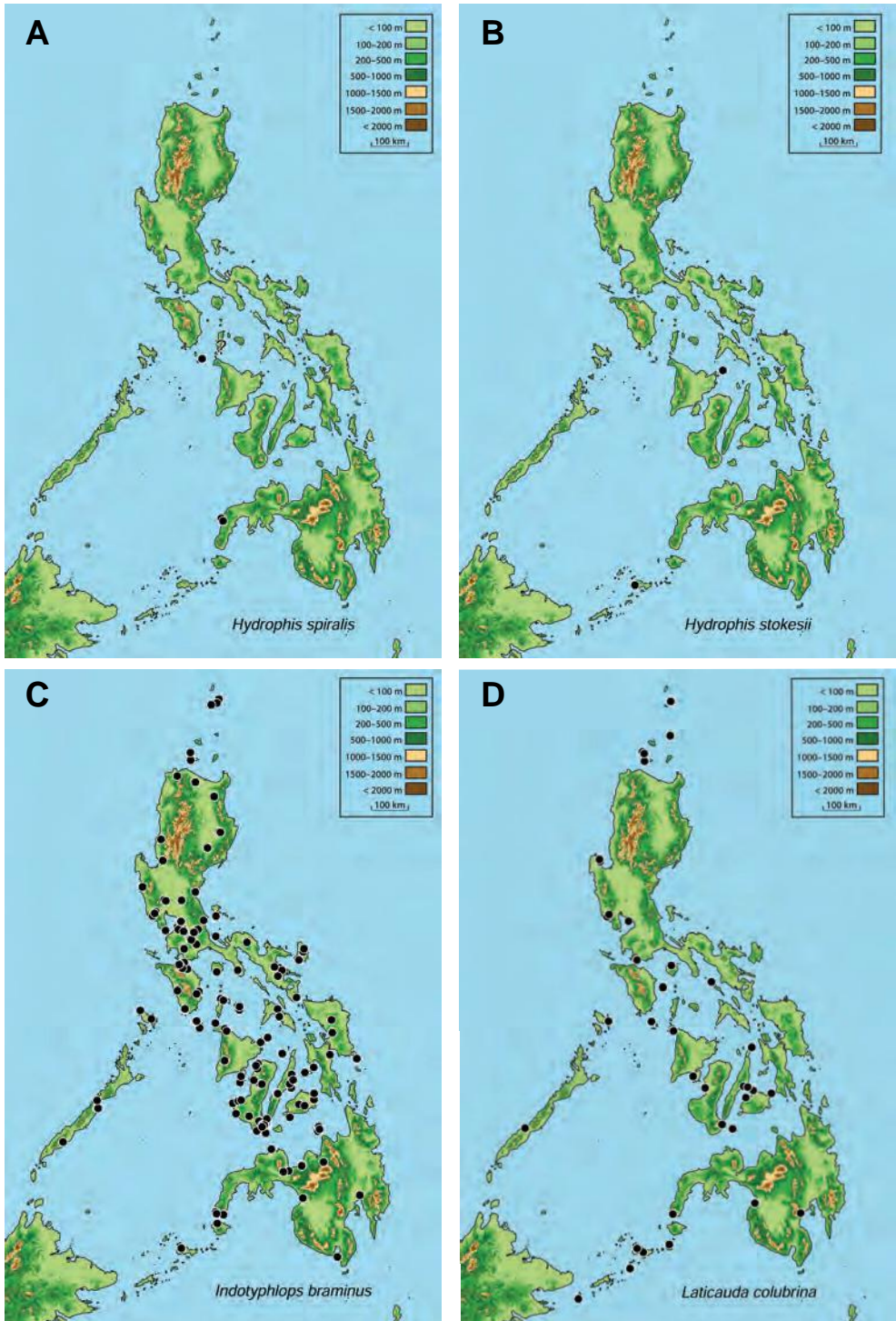
MAPS 16A–D. Geographic range maps for Philippine records of (A) *Hemibungarus mcclungi*; (B) *Hologerrhum dermali*; (C) *Hologerrhum philippinum*; (D) *Hydrophis atriceps*.



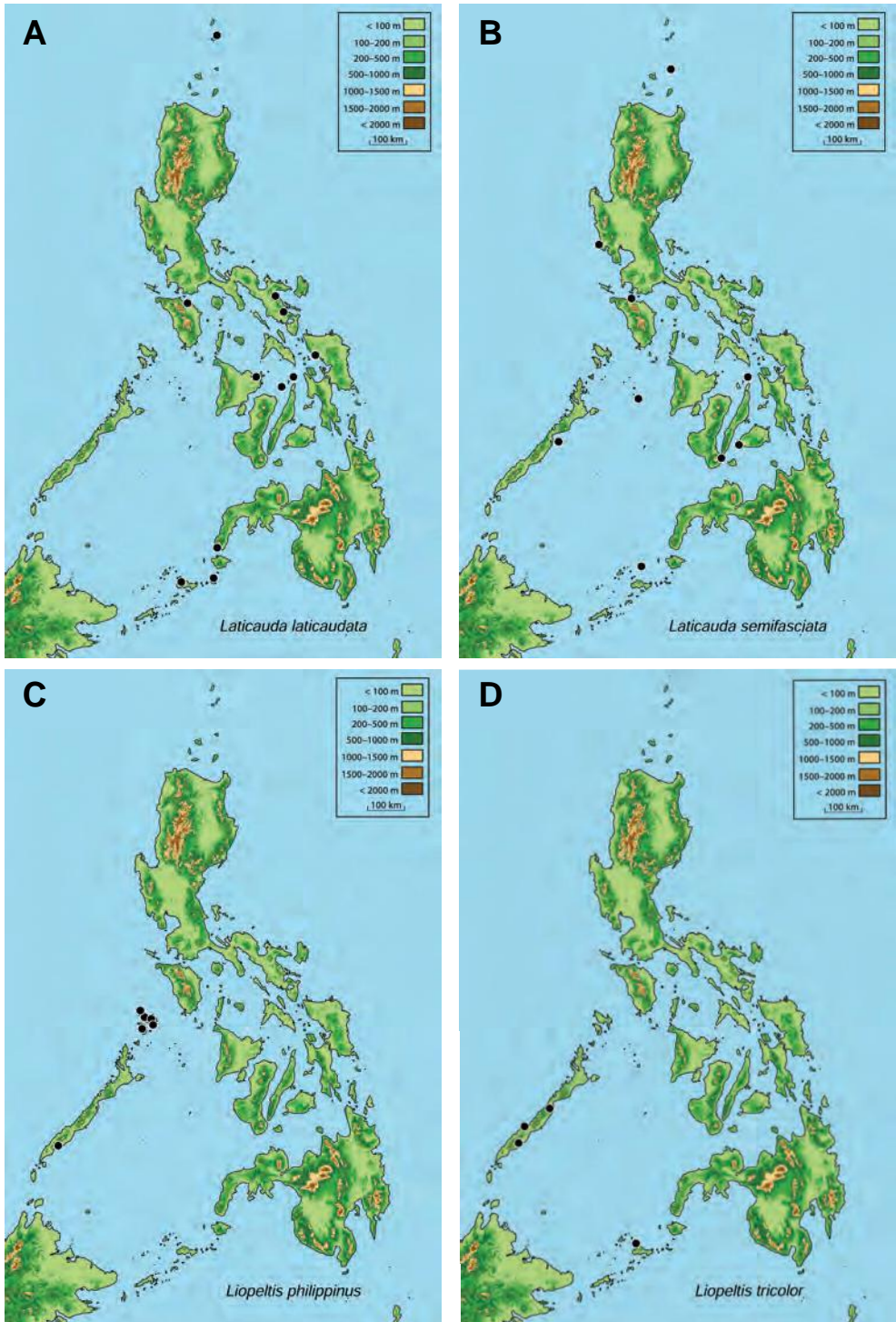
MAPS 17A–D. Geographic range maps for Philippine records of (A) *Hydrophis belcheri*; (B) *Hydrophis curtus*; (C) *Hydrophis cyanocinctus*; (D) *Hydrophis inornatus*.



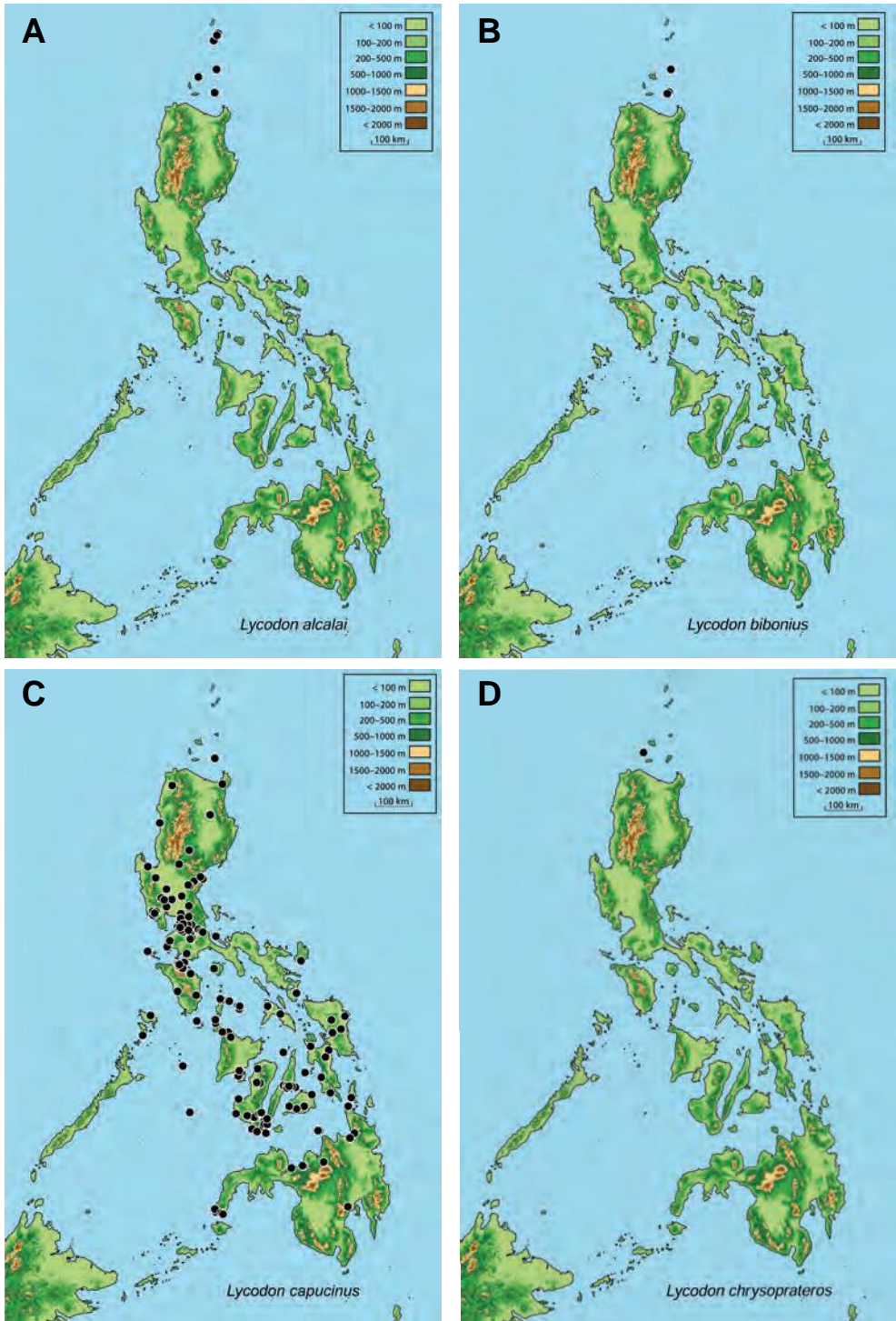
MAPS 18A–D. Geographic range maps for Philippine records of (A) *Hydrophis lamberti*; (B) *Hydrophis ornatus*; (C) *Hydrophis platurus*; (D) *Hydrophis semperi*.



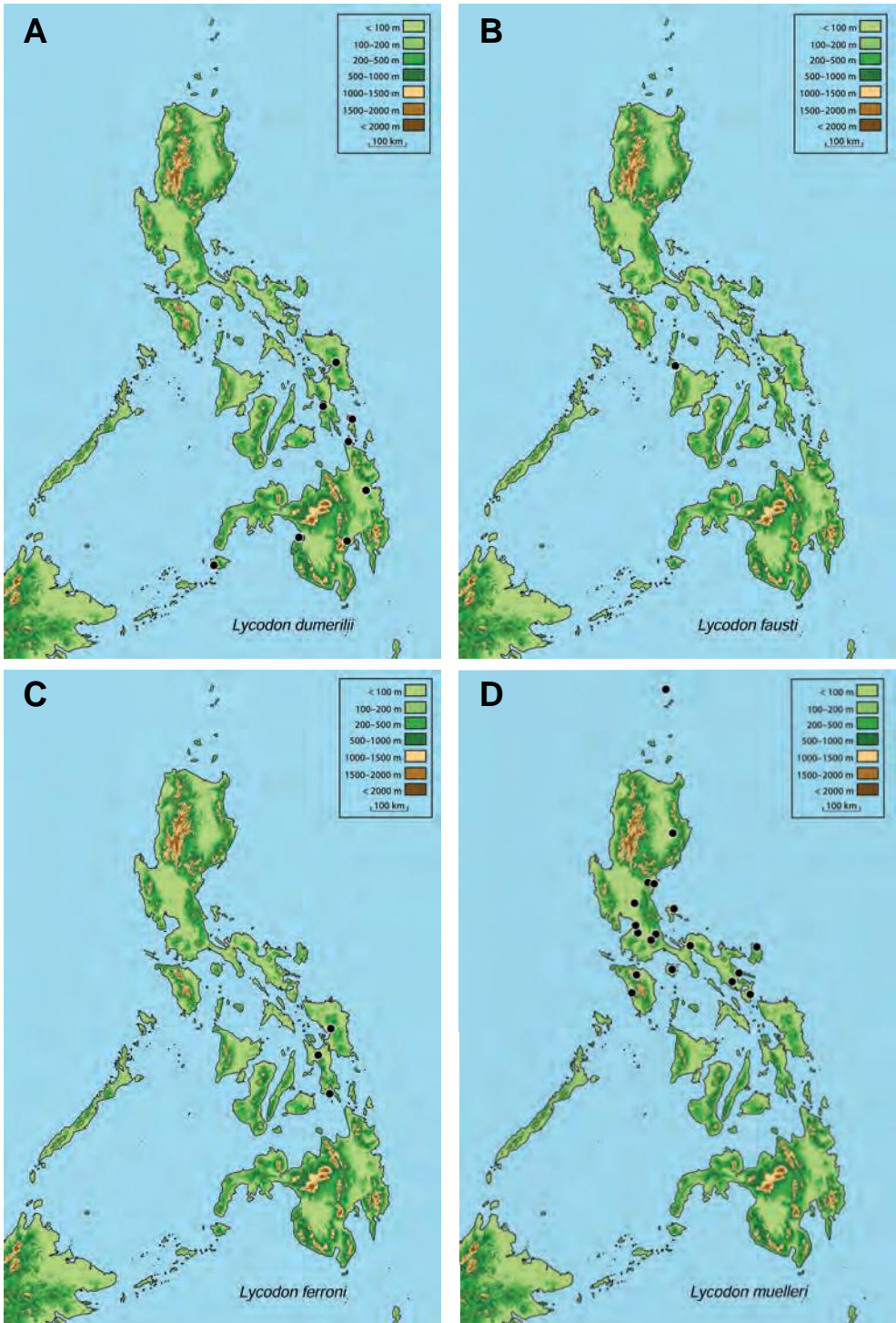
MAPS 19A–D. Geographic range maps for Philippine records of (A) *Hydrophis spiralis*; (B) *Hydrophis stokesii*; (C) *Indotyphlops braminus*; (D) *Laticauda colubrina*.



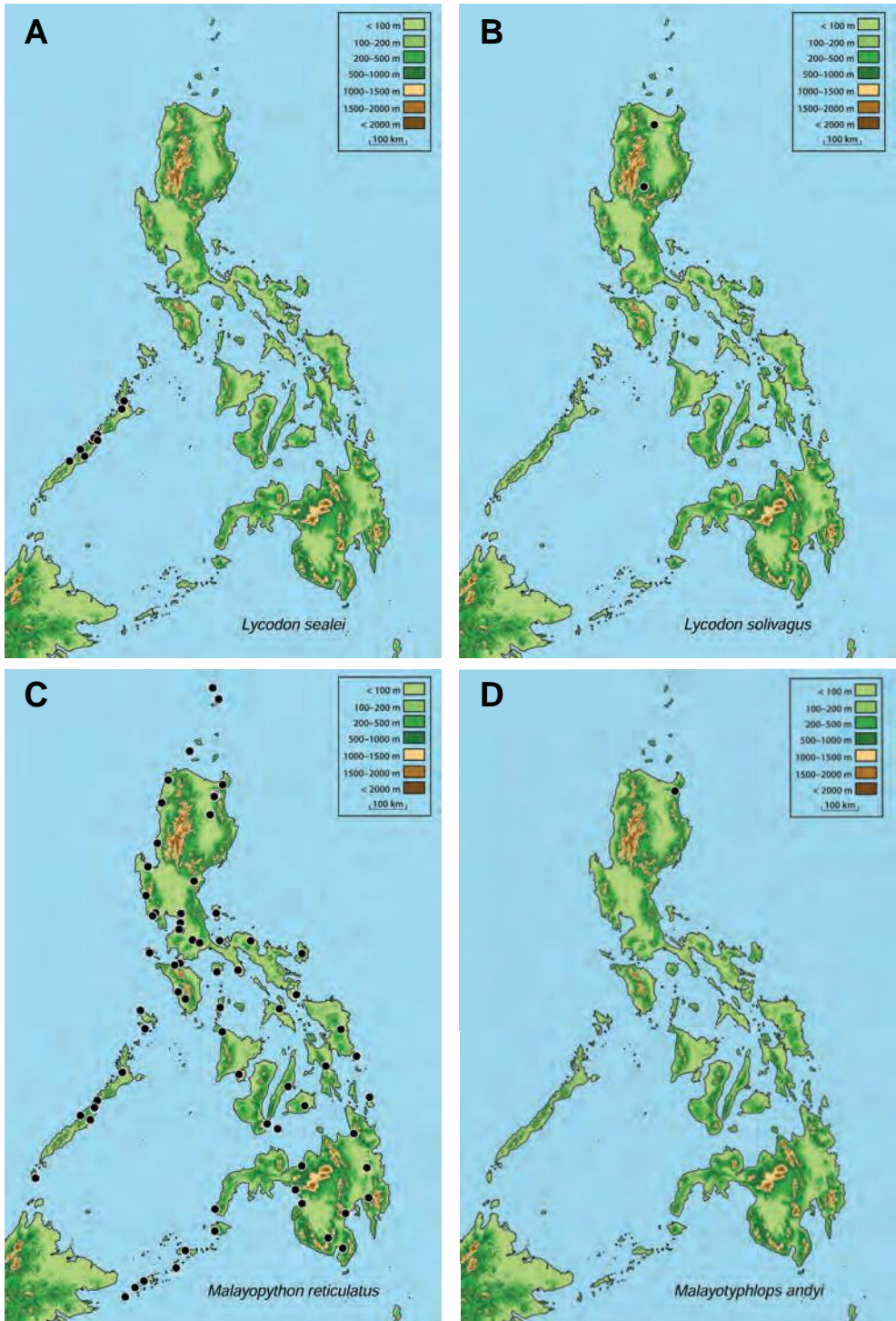
MAPS 20A–D. Geographic range maps for Philippine records of (A) *Laticauda laticaudata*; (B) *Laticauda semifasciata*; (C) *Liopeltis philippinus*; (D) *Liopeltis tricolor*.



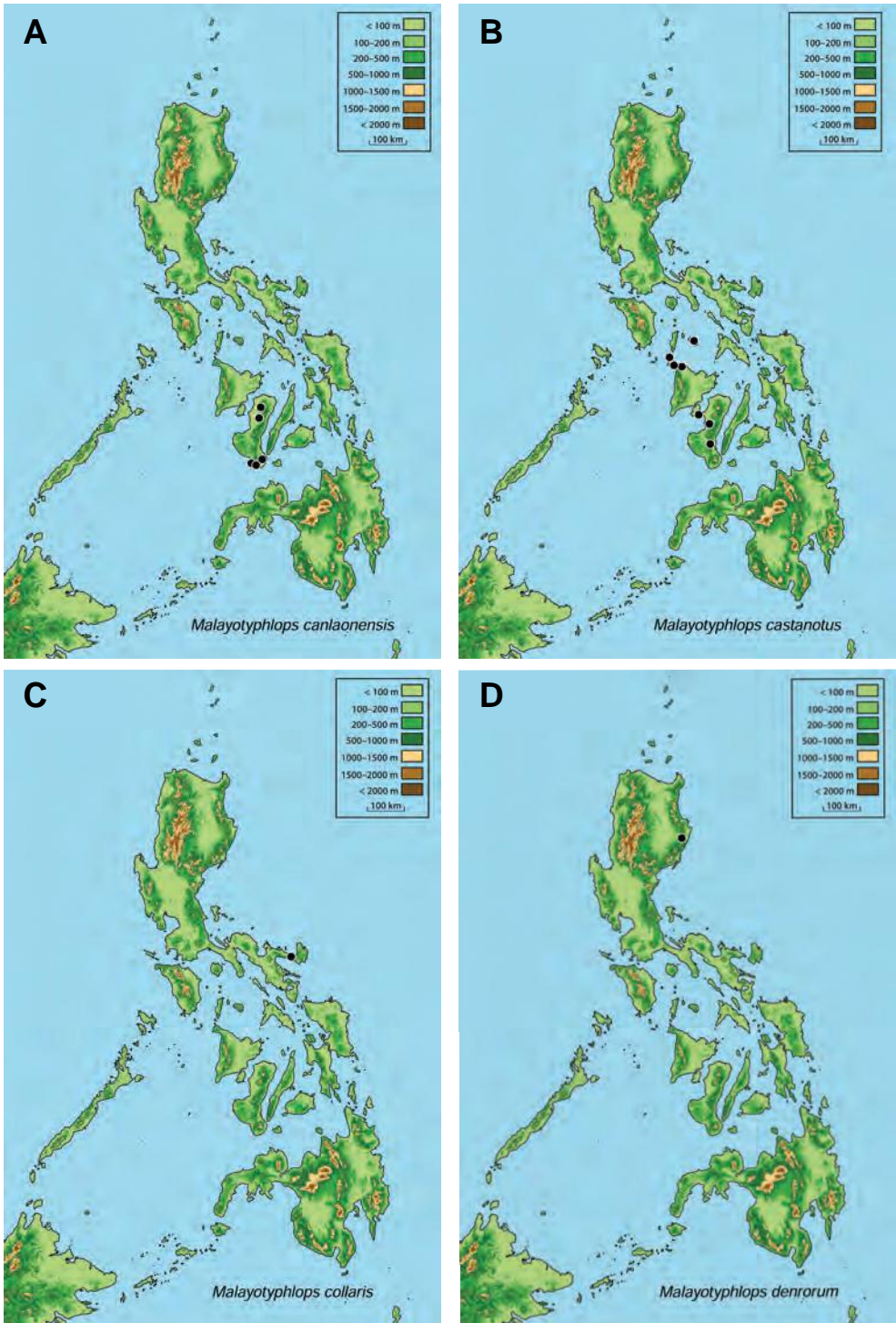
MAPS 21A–D. Geographic range maps for Philippine records of (A) *Lycodon alcalai*; (B) *Lycodon bibonius*; (C) *Lycodon capucinus*; (D) *Lycodon chrysoprateros*.



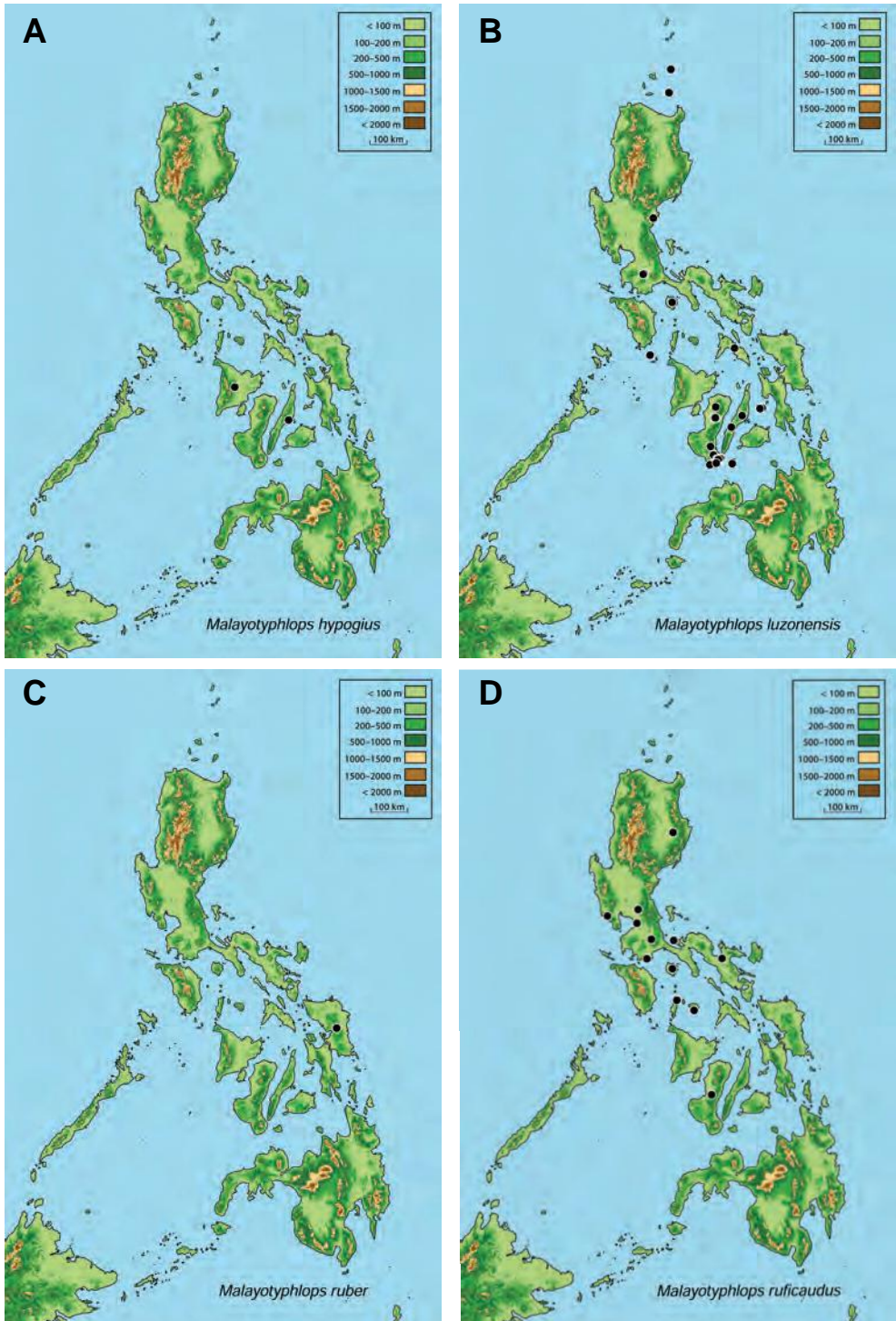
MAPS 22A–D. Geographic range maps for Philippine records of (A) *Lycodon dumerilii*; (B) *Lycodon fausti*; (C) *Lycodon ferroni*; (D) *Lycodon muelleri*.



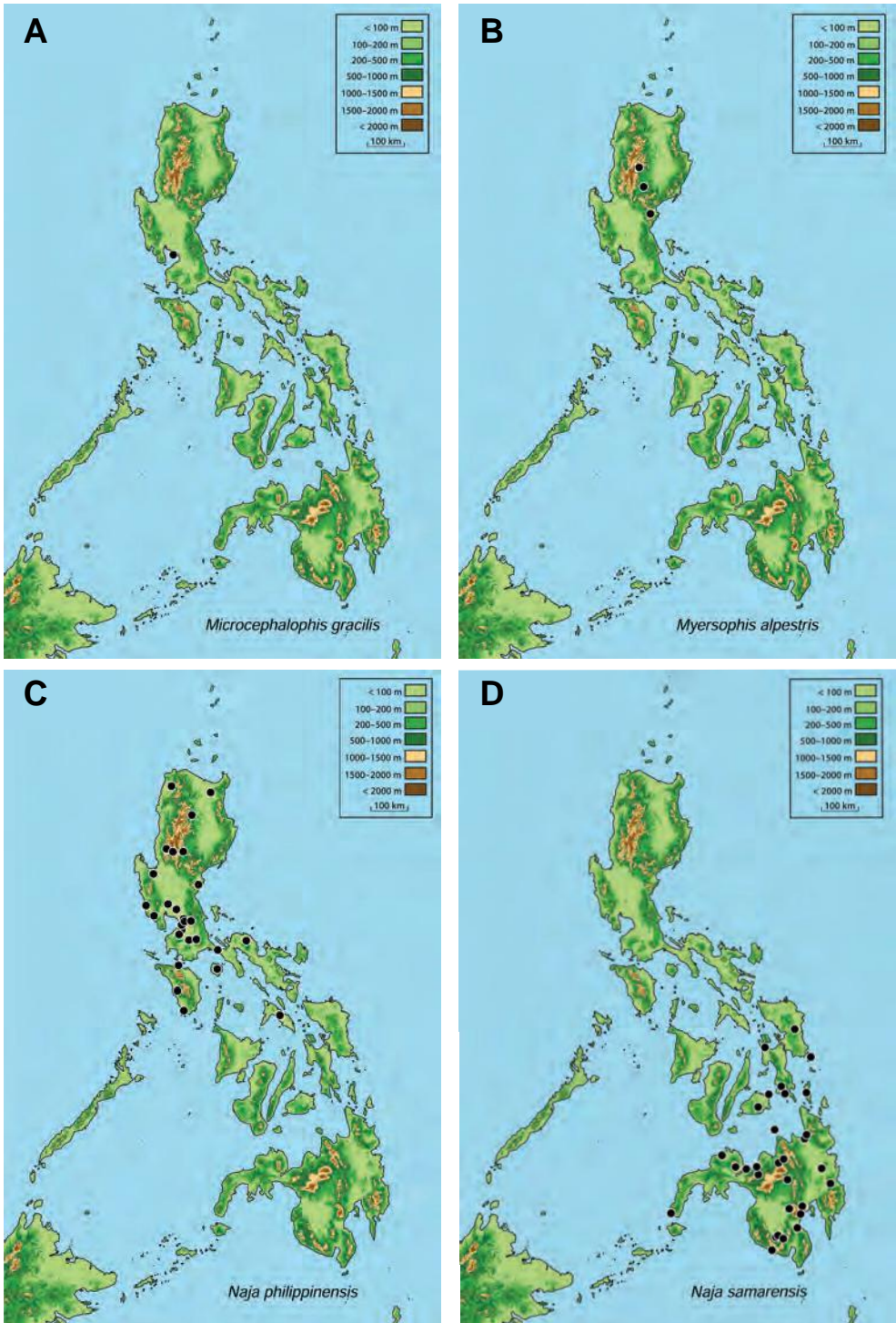
MAPS 23A–D. Geographic range maps for Philippine records of (A) *Lycodon sealei*; (B) *Lycodon solivagus*; (C) *Malayopython reticulatus*; (D) *Malayotyphlops andyi*.



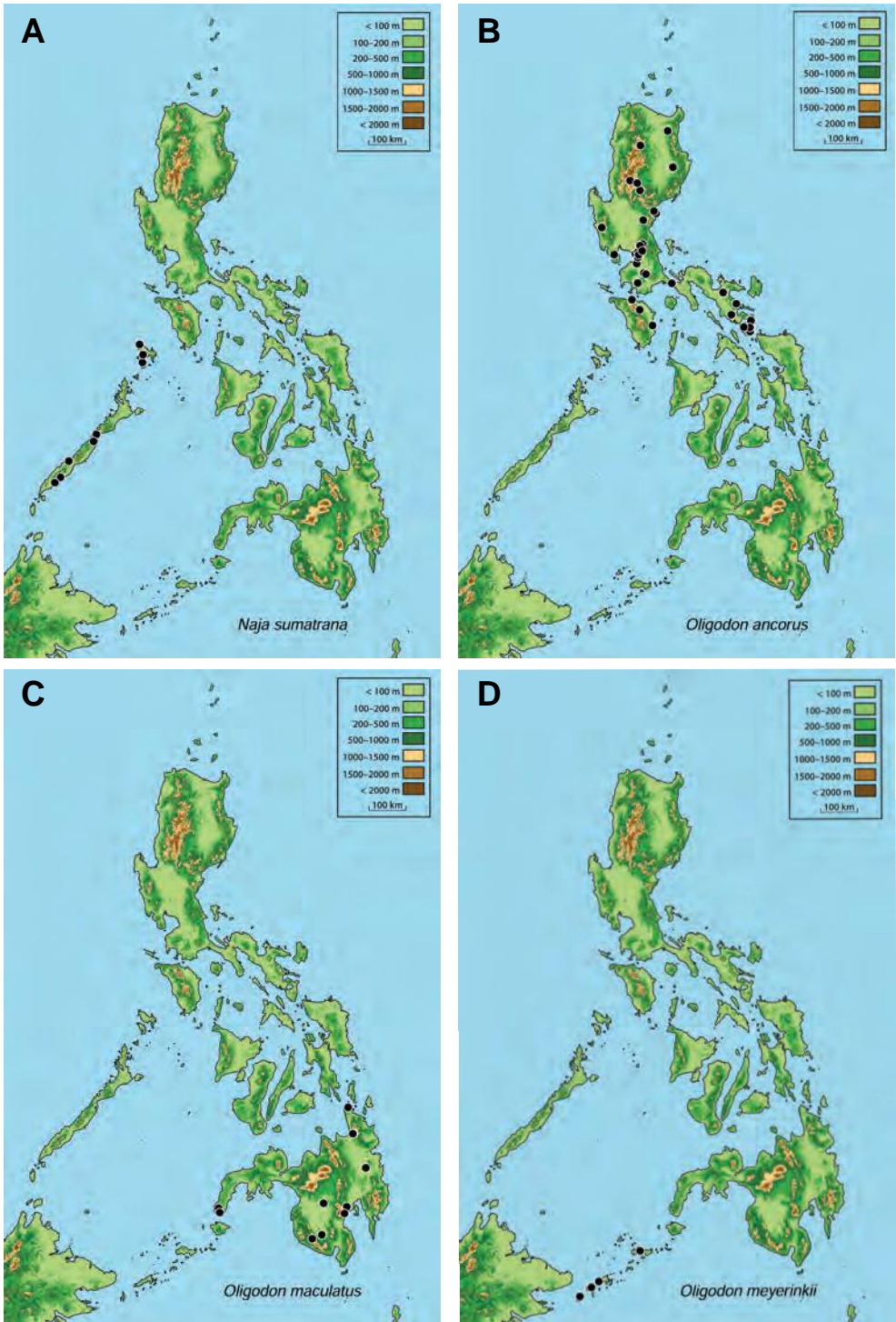
MAPS 24A–D. Geographic range maps for Philippine records of (A) *Malayotyphlops canlaonensis*; (B) *Malayotyphlops castanotus* ; (C) *Malayotyphlops collaris*; (D) *Malayotyphlops denrorum*.



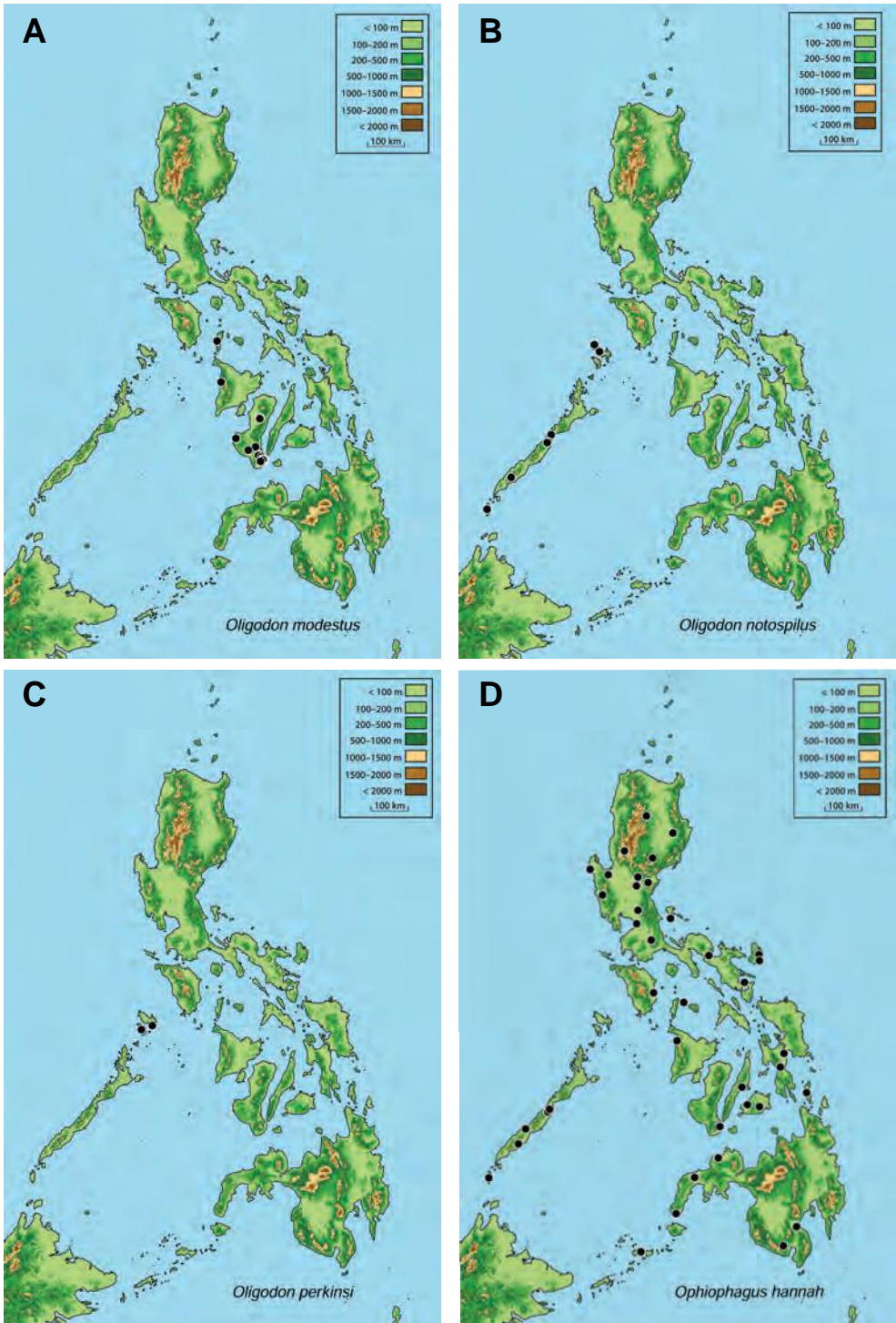
MAPS 25A–D. Geographic range maps for Philippine records of (A) *Malayotyphlops hypogius*; (B) *Malayotyphlops luzonensis*; (C) *Malayotyphlops ruber*; (D) *Malayotyphlops ruficaudus*.



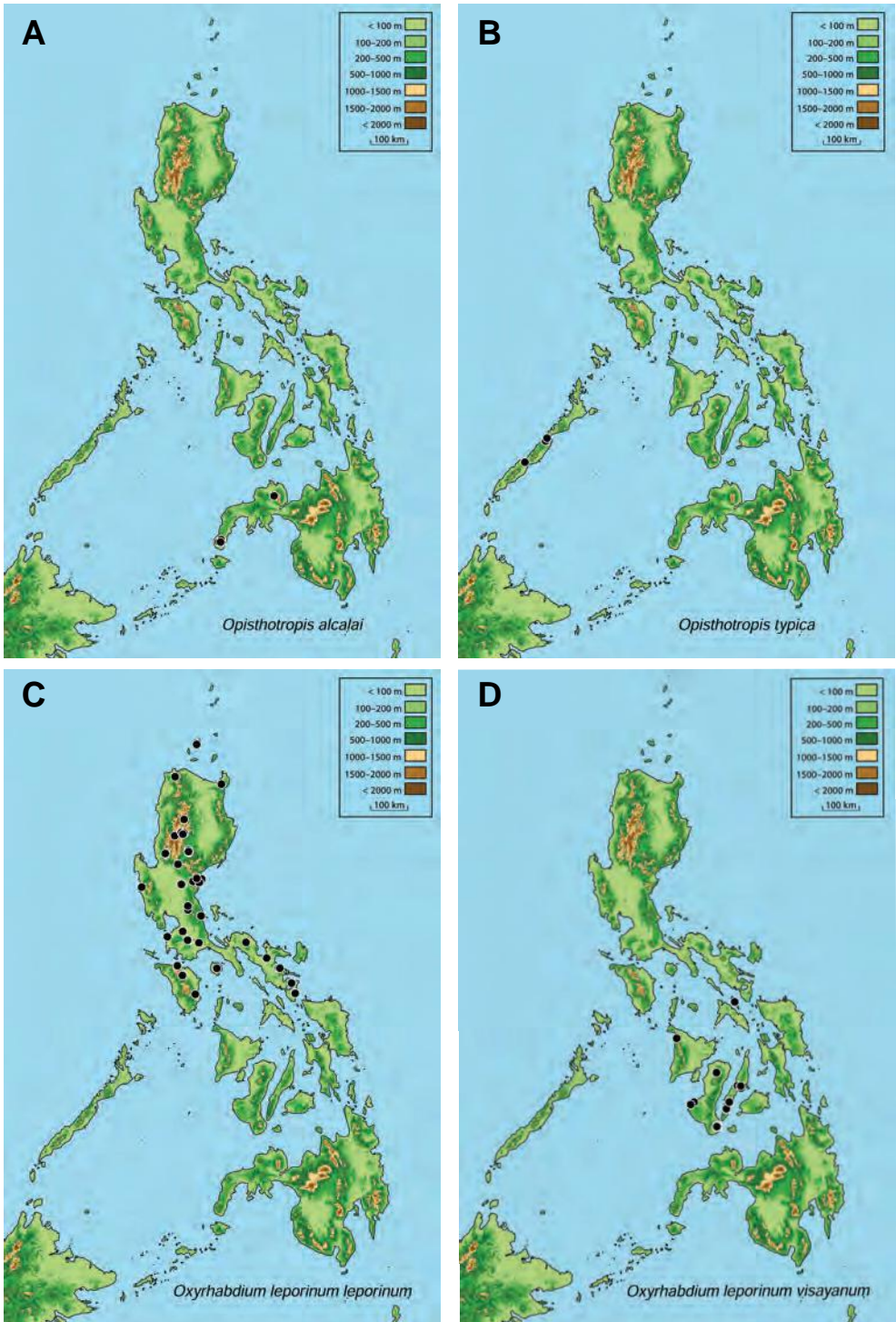
MAPS 26A–D. Geographic range maps for Philippine records of (A) *Microcephalophis gracilis*; (B) *Myersophis alpestris*; (C) *Naja philippinensis*; (D) *Naja samarensis*.



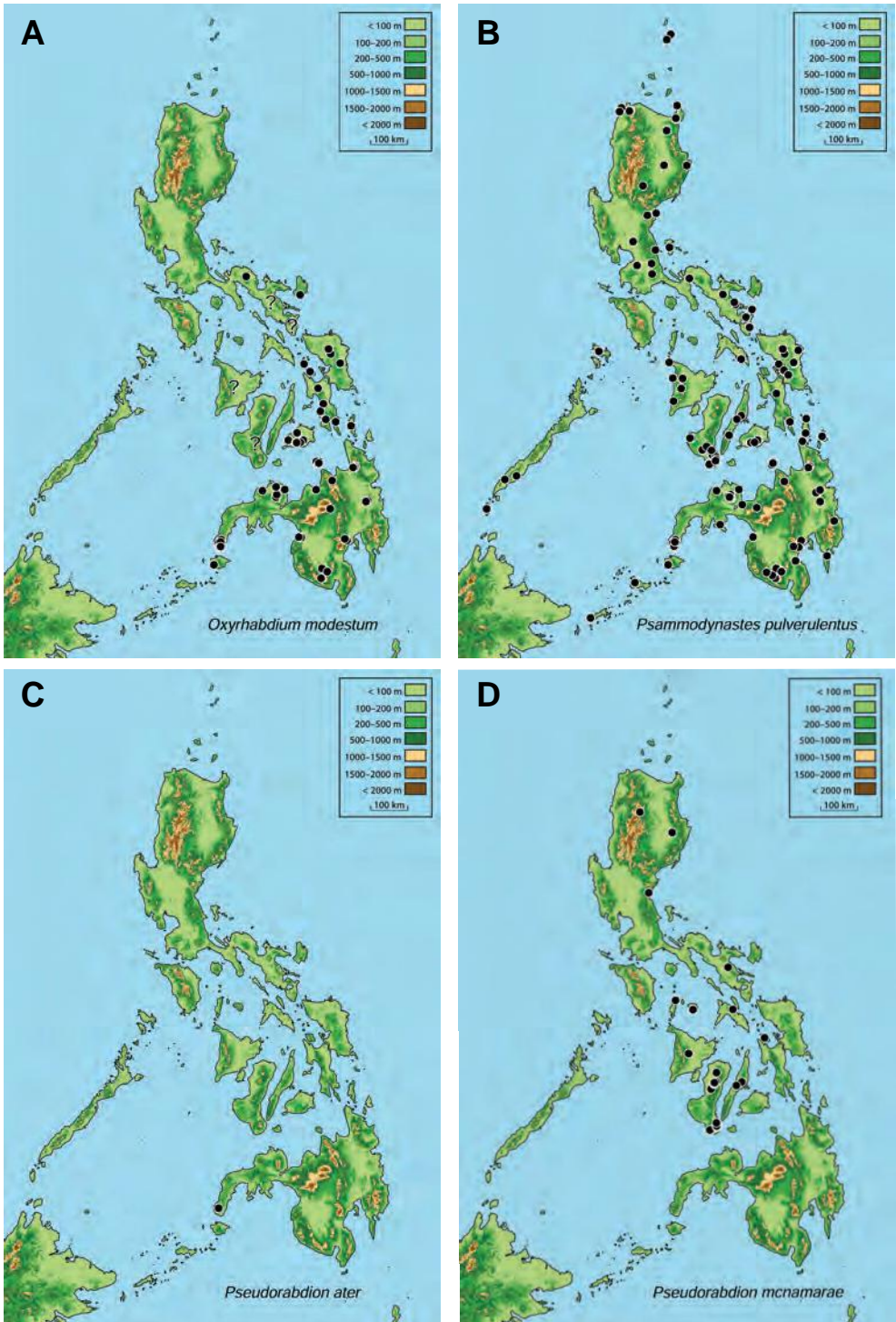
MAPS 27A–D. Geographic range maps for Philippine records of (A) *Naja sumatrana*; (B) *Oligodon ancorus*; (C) *Oligodon maculatus*; (D) *Oligodon meyerinkii*.



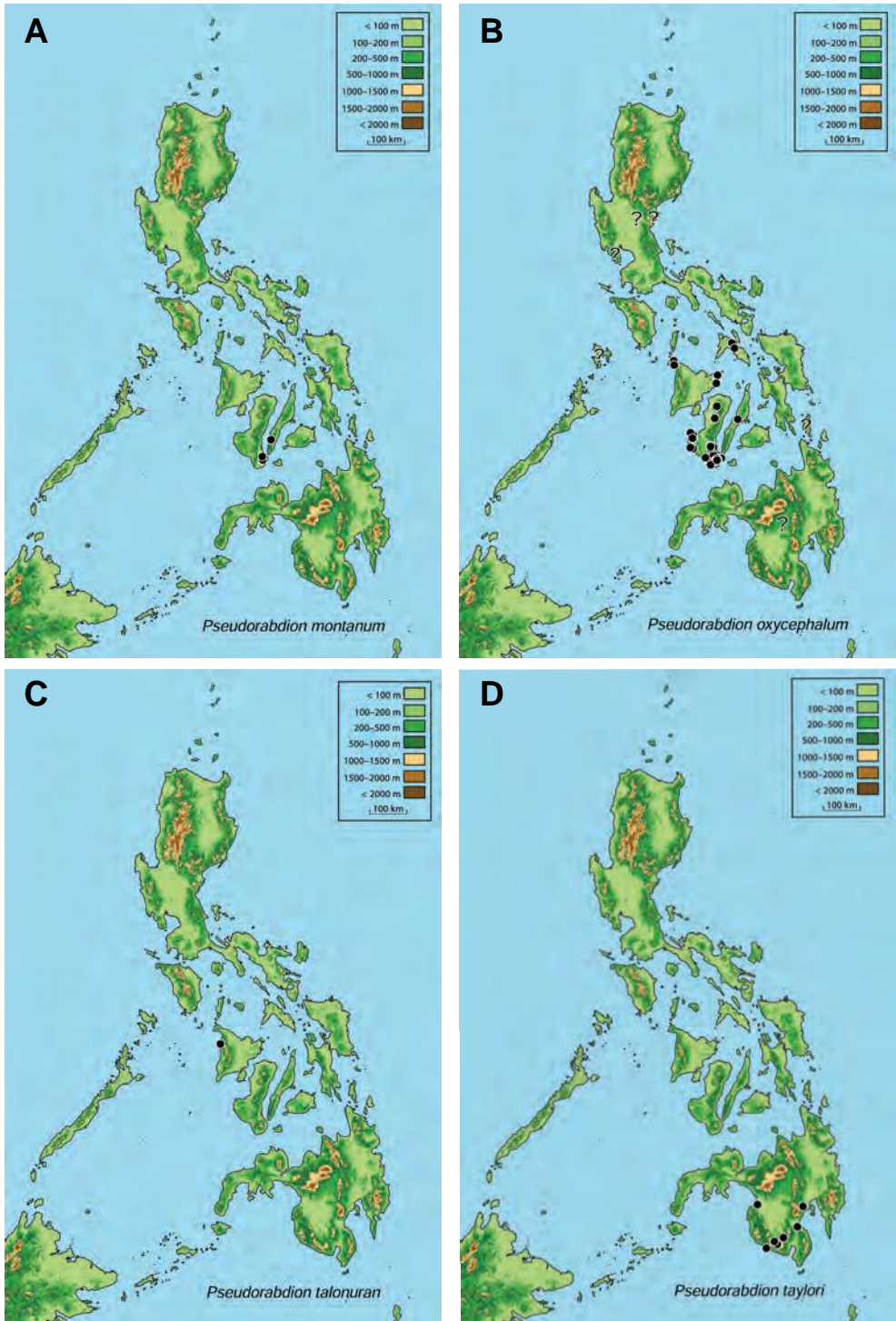
MAPS 28A–D. Geographic range maps for Philippine records of (A) *Oligodon modestus*; (B) *Oligodon notospilus*; (C) *Oligodon perkinsi*; (D) *Ophiophagus hannah*.



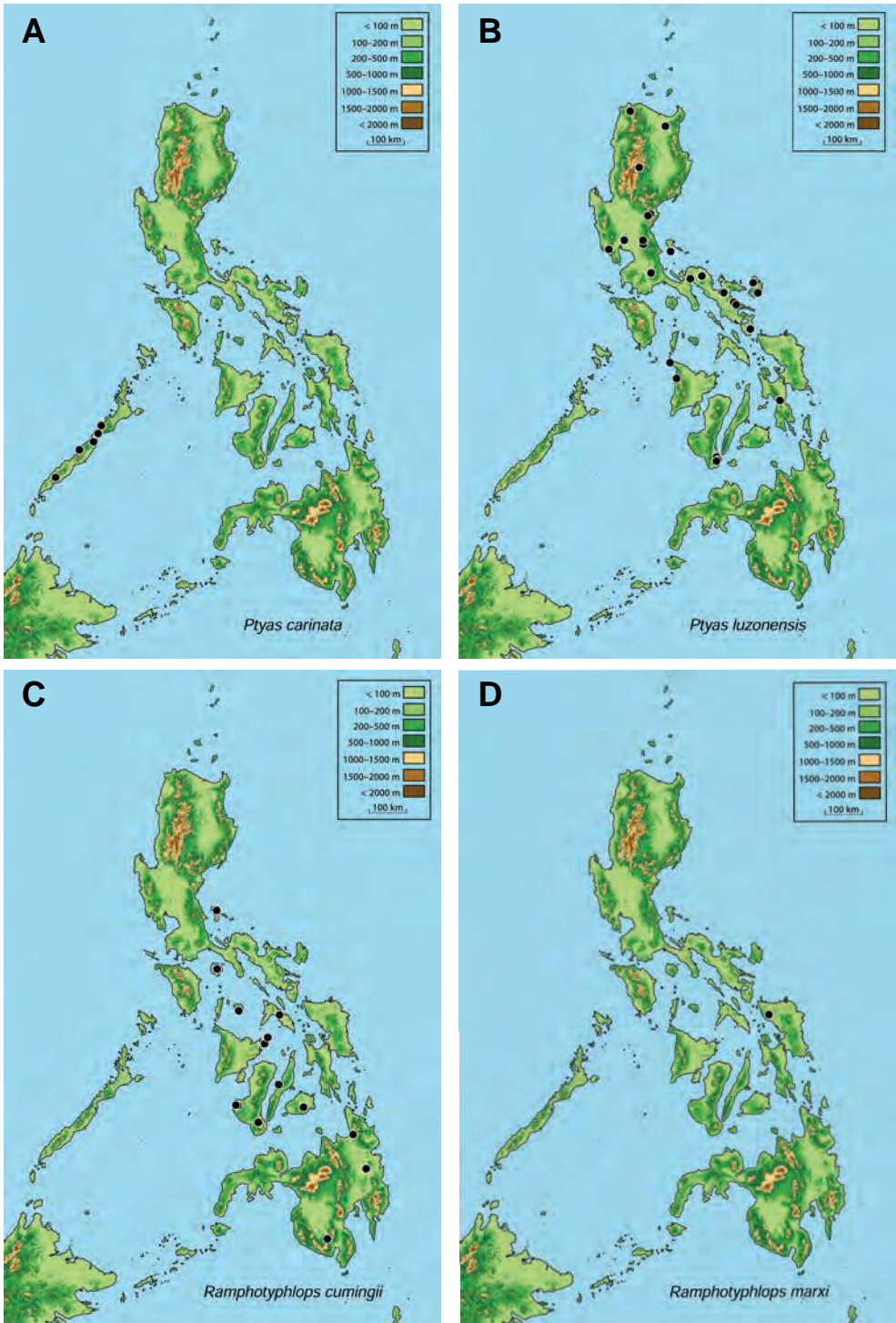
MAPS 29A–D. Geographic range maps for Philippine records of (A) *Opisthotropis alcajai*; (B) *Opisthotropis typica*; (C) *Oxyrhabdium leporinum leporinum*; (D) *Oxyrhabdium leporinum visayanum*.



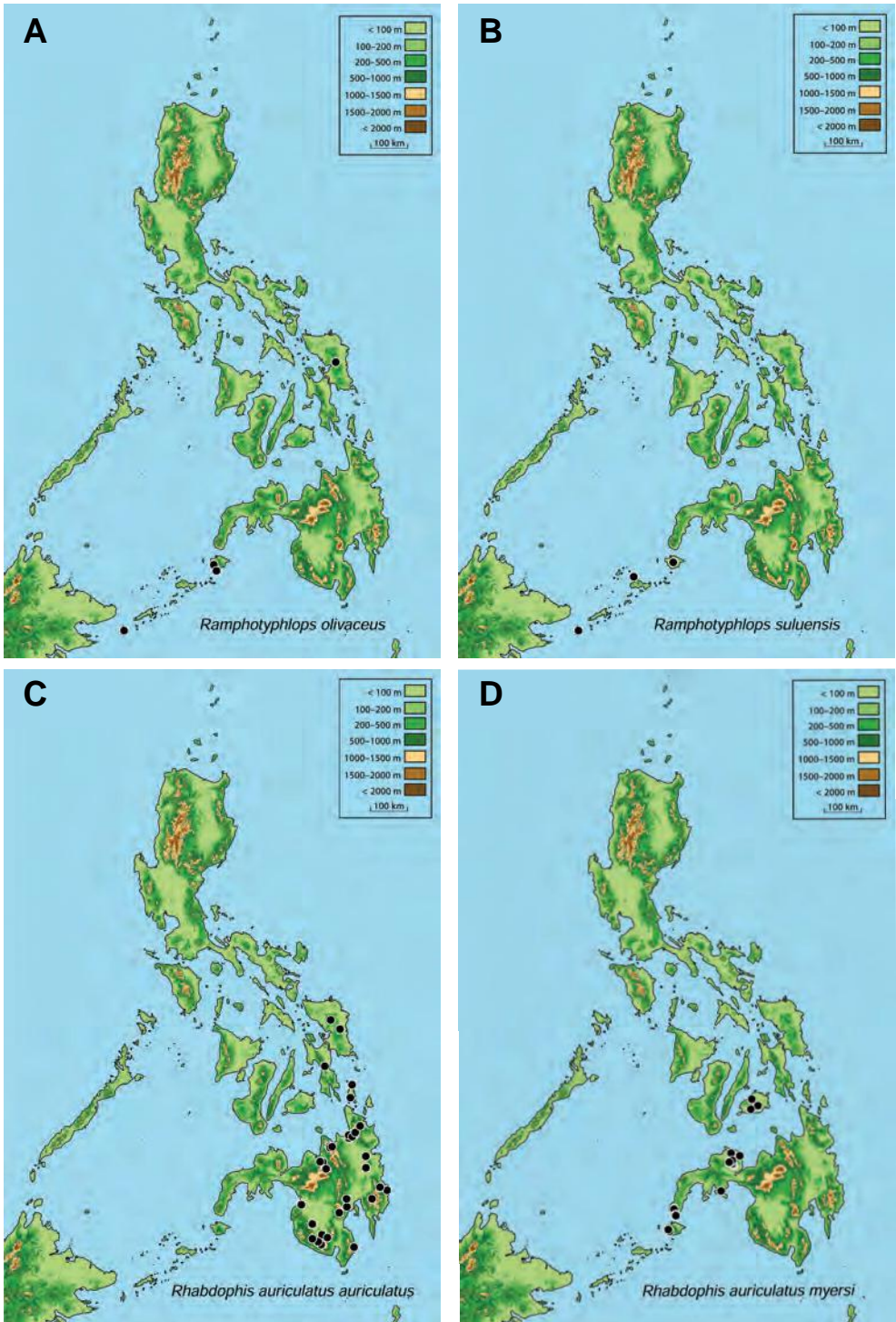
MAPS 30A–D. Geographic range maps for Philippine records of (A) *Oxyrhabdium modestum*; (B) *Psammodynastes pulverulentus*; (C) *Pseudorabdion ater*; (D) *Pseudorabdion mcnamarae*.



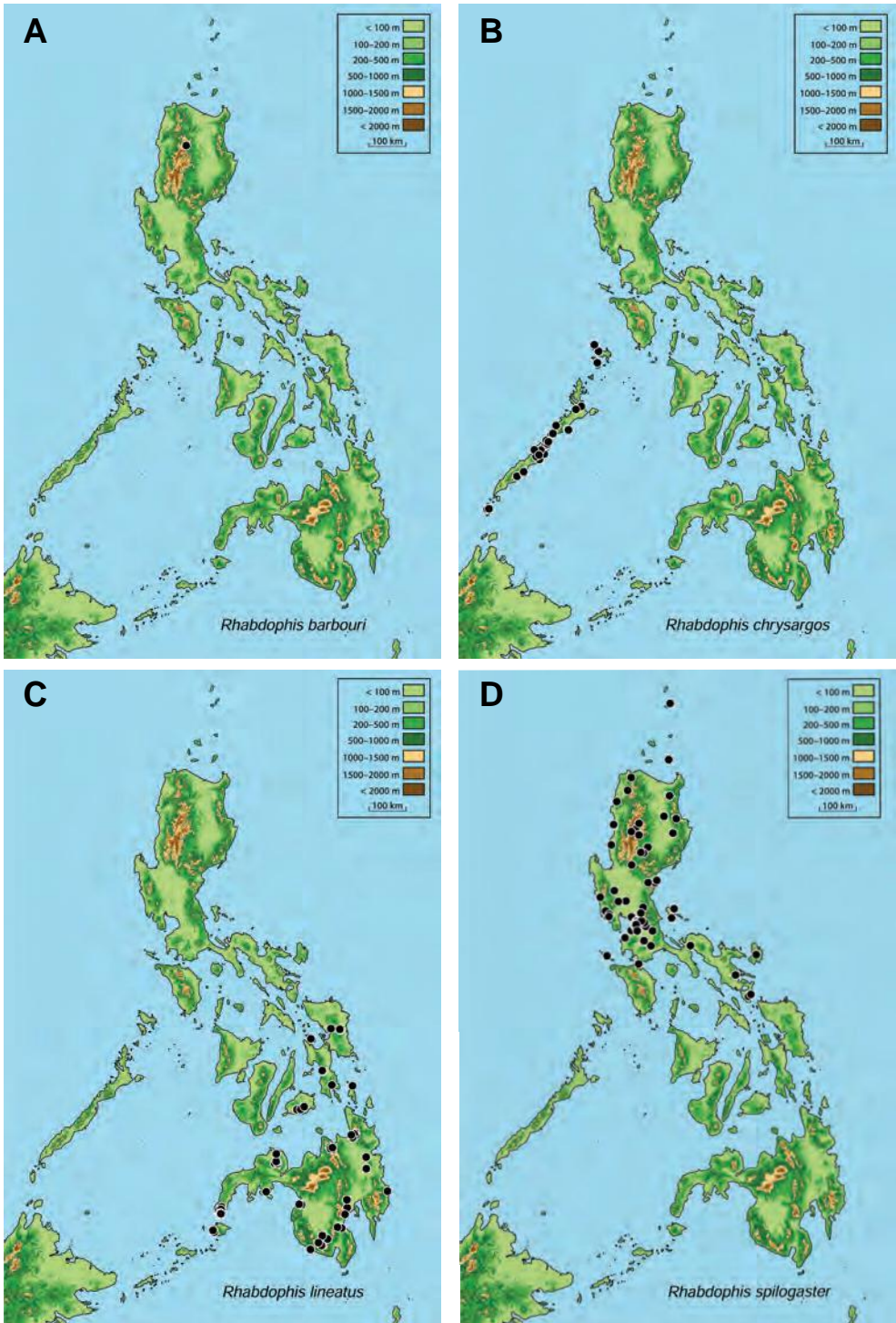
MAPS 31A–D. Geographic range maps for Philippine records of (A) *Pseudorabdion montanum*; (B) *Pseudorabdion oxycephalum*; (C) *Pseudorabdion talonuran*; (D) *Pseudorabdion taylori*.



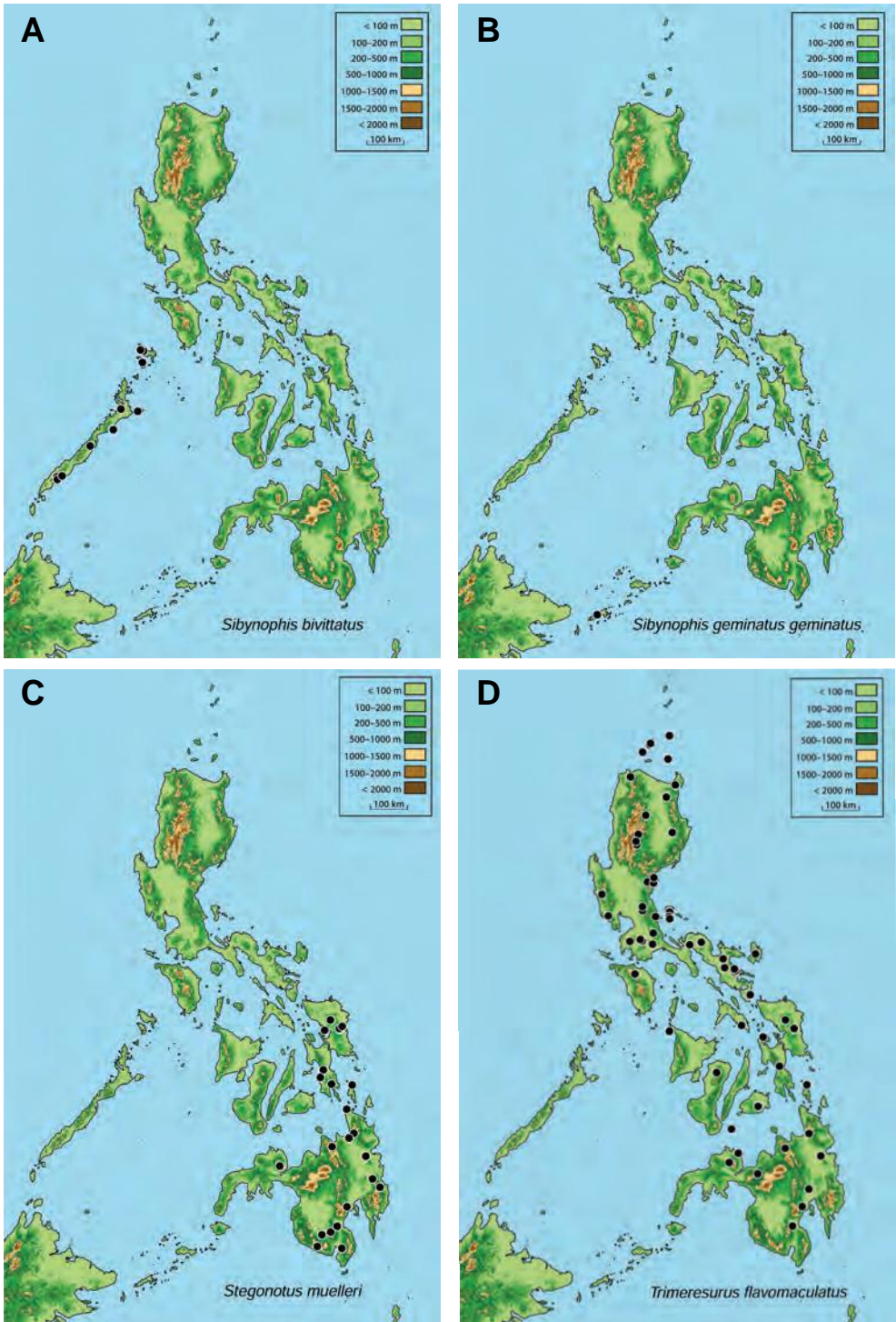
MAPS 32A–D. Geographic range maps for Philippine records of (A) *Ptyas carinata*; (B) *Ptyas luzonensis*; (C) *Ramphotyphlops cumingii*; (D) *Ramphotyphlops marxi*.



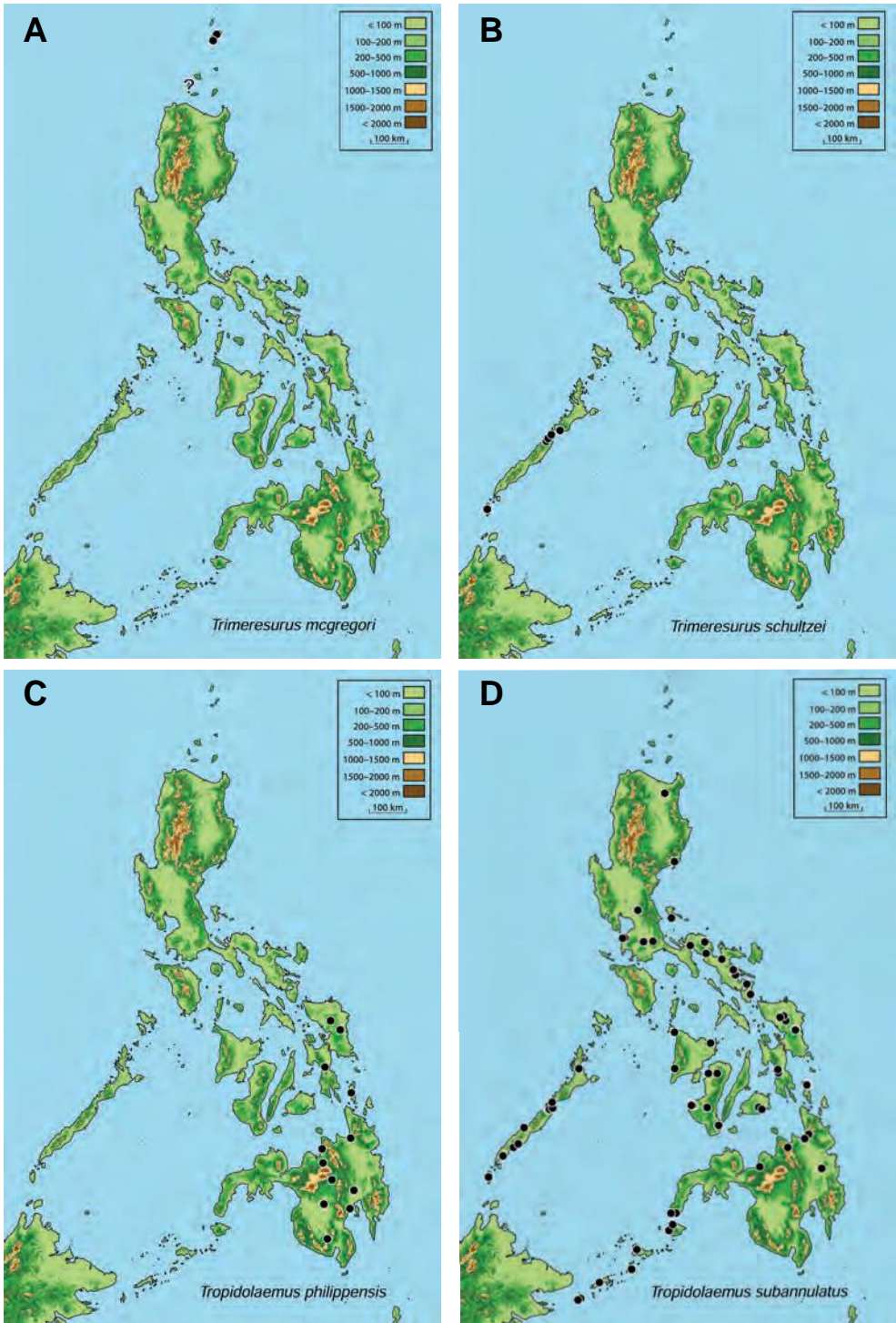
MAPS 33A–D. Geographic range maps for Philippine records of (A) *Ramphotyphlops olivaceus*; (B) *Ramphotyphlops suluensis*; (C) *Rhabdophis auriculatus auriculatus*; (D) *Rhabdophis auriculatus myersi*.



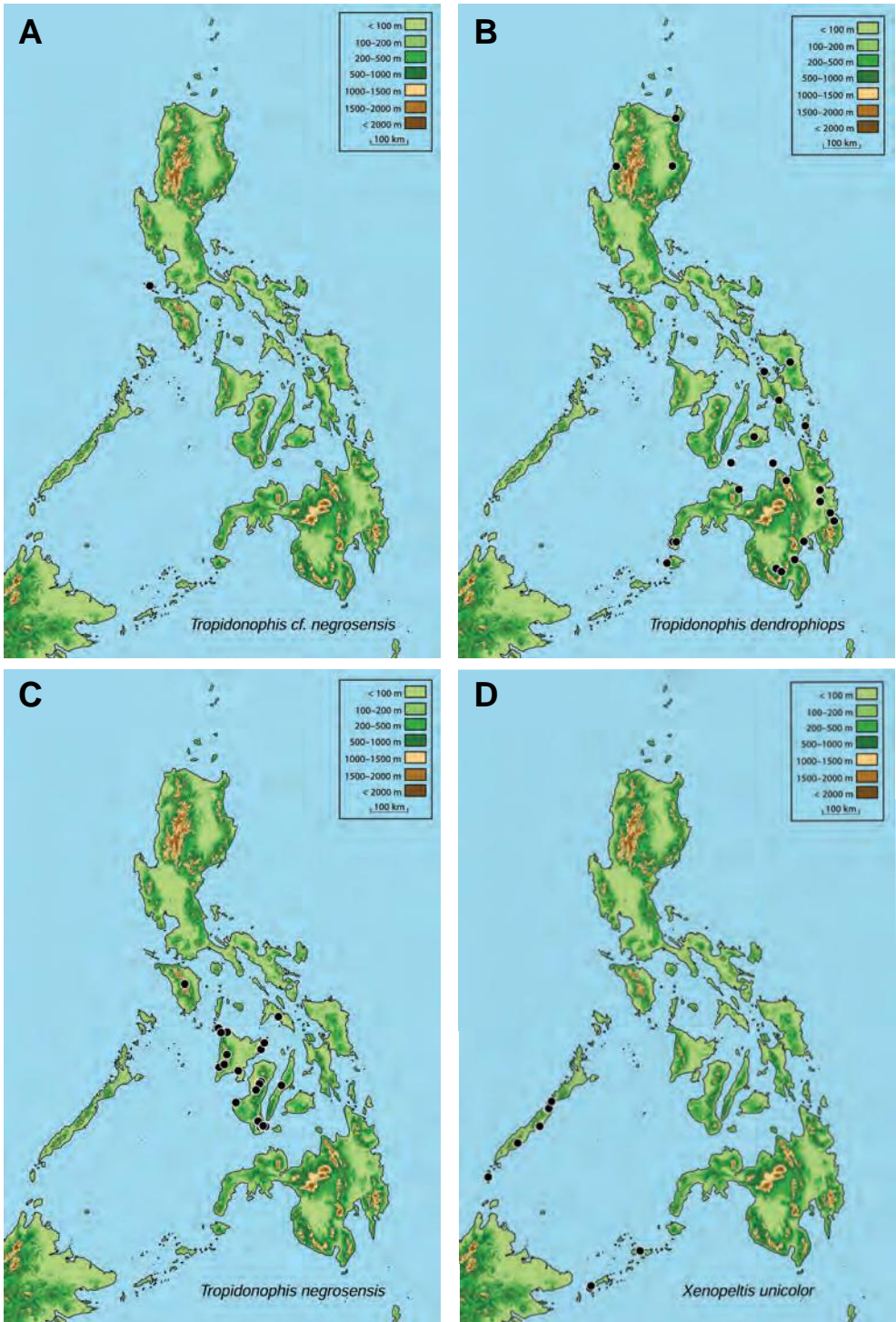
MAPS 34A–D. Geographic range maps for Philippine records of (A) *Rhabdophis barbouri*; (B) *Rhabdophis chrysargos*; (C) *Rhabdophis lineatus*; (D) *Rhabdophis spilogaster*.



MAPS 35A–D. Geographic range maps for Philippine records of (A) *Sibynophis bivittatus*; (B) *Sibynophis geminatus geminatus*; (C) *Stegonotus muelleri*; (D) *Trimeresurus flavomaculatus*.



MAPS 36A–D. Geographic range maps for Philippine records of (A) *Trimeresurus mcgregori*; (B) *Trimeresurus schultzei*; (C) *Tropidolaemus philippensis*; (D) *Tropidolaemus subannulatus*.



MAPS 37A–D. Geographic range maps for Philippine records of (A) *Tropidonophis cf. negrosensis*; (B) *Tropidonophis dendrohiops*; (C) *Tropidonophis negrosensis*; (D) *Xenopeltis unicolor*.

Photographs

Photographers: Rafe Brown (RMB), Arvin C. Diesmos (ACD), Jason B. Fernandez and Rafe Brown (JBF/RMB), Vhon Garcia (VG), Kyle Hesed (KH), Nicholas A. Huron (NAH), Cameron Siler (CDS), John Tashjian (JT), Harold Voris (HV), Jeffrey L. Weinell (JF)

N.B.: Within Superfamily-Family-Subfamily groups, photographs are arranged alphabetically by genus and within a genus, by species.

Page intentionally left blank

Superfamily Typhlopoidea
Family Typhlopidae



FIGURE 1. *Acutotyphlops banaorum* (Kalinga Prov., Luzon Id.) (FMNH 262249 [paratype]). Photo © RMB.
 FIGURE 2. *Indotyphlops braminus* (Ilocos Norte Prov., Luzon Id.) (KU 329680). Photo © RMB.
 FIGURE 3. *Malayotyphlops ruficaudus* (Camarines Sur Prov., Luzon Id.) (TNHC 62474). Photo © RMB.
 FIGURE 4. *Malayotyphlops* cf. *ruficaudus* (Cagayan Prov., Calayan Id.) (KU 323931). Photo © RMB.
 FIGURE 5. *Malayotyphlops* sp. (Laguna Land Grant, Luzon Id.) (KU uncat.; field no. RMB 20573). Photo © RMB.
 FIGURE 6. *Ramphotyphlops cumingii* (Augsan del Norte Prov., Mindanao Id.) (KU 334468). Photo © RMB.
 FIGURE 7. *Ramphotyphlops cumingii* (head) (Augsan del Norte Prov., Mindanao Id.) (KU 334468). Photo © RMB.

Superfamily Pythonoidea
Family Pythonidae



FIGURE 8. *Malayopython reticulatus* (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 23519). Photo © JBF/RMB.

Superfamily Acrochordoidea
Family Acrochoridae

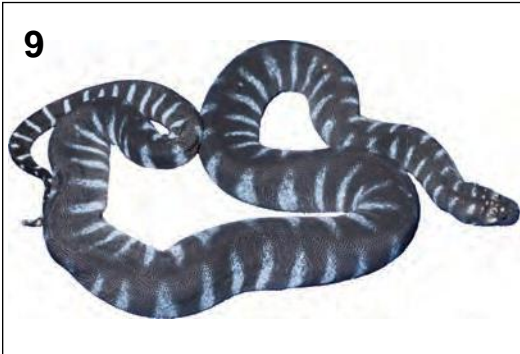


FIGURE 9. *Acrochordus granulatus* (locality unknown, Philippine Ids.) (KU 327186). Photo © CDS.

FIGURE 10. *Acrochordus granulatus* (albino) (locality unknown, Philippine Ids.) (KU 327187). Photo © CDS.



FIGURE 11. *Acrochordus granulatus* (blotched) (locality unknown, Philippine Ids.) (KU 327188). Photo © CDS.

Superfamily Colubroidea
Family Pareidae



FIGURE 12. *Aplopeltura boa* (Zamboanga City Prov., Mindanao Id.) (KU 315147). Photo © RMB.

Family Homalopsidae



FIGURE 13. *Cerberus schneideri* (Guimaras Prov., Guimaras Id.) (KU 302979). Photo © CDS.

Family Colubridae: Subfamily Ahaetuliinae



FIGURE 14. *Ahaetulla prasina preocularis* (Zambales Prov., Luzon Id.) (TNHC 62721). Photo © RMB.



FIGURE 15. *Ahaetulla prasina preocularis* (Ilocos Prov., Luzon Id.) (KU 329698). Photo © RMB.



FIGURE 16. *Ahaetulla prasina preocularis* (yellow phase) (Camiguin Norte, Luzon Id.) (KU 304666). Photo © RMB.

FIGURE 17. *Chrysopelea paradisi* (adult) (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 22665). Photo © RMB.

FIGURE 18. *Chrysopelea paradisi* (juvenile) (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 23230). Photo © RMB.

FIGURE 19. *Chrysopelea paradisi variabilis* (Eastern Samar Prov., Samar Id.) (KU 337270). Photo © CDS.

FIGURE 20. *Dendrelaphis luzonensis* (Quezon Land Grant, Luzon Id.) (KU uncat.; field no. RMB 20371). Photos © JBF/RMB.

FIGURE 21. *Dendrelaphis marenae* (Eastern Samar Prov., Samar Id.) (KU 344197). Photo © RMB.

FIGURE 22. *Dryophiops philippina* (Zamboanga City Prov., Mindanao Id.) (KU 315167). Photo © RMB.

Family Colubridae: Subfamily Calamariinae



FIGURE 23. *Calamaria bitorques* (Nueva Vizcaya Prov., Luzon Id.) ([KU 325970). Photo © RMB.

FIGURE 24. *Calamaria gervaisii gervaisii* (Ilocos Norte Prov., Luzon Id.) ([KU 329684). Photo © RMB.

FIGURE 25. *Calamaria lumbricoidea* (adult) (Agusan de Sur Prov., Mindanao Id.) (KU 334476). Photo © RMB.

FIGURE 26. *Calamaria lumbricoidea* (juvenile) (Misamis Oriental Prov., Mindanao Id.) (KU 334478). Photo © RMB.

FIGURE 27. *Pseudorabdion ater* (male) (Zamboanga City Prov., Mindanao Id.) (KU 315197). Photo © RMB.

Family Colubridae: Subfamily Colubrinae



FIGURE 28. *Boiga angulata* (Laguna Prov., Luzon Id.) (KU uncat.; field no. RMB 19777). Photo © RMB.

FIGURE 29. *Boiga cynodon* (Sorsogon Prov., Luzon Id.) (TNHC 62721). Photo © RMB.

FIGURE 30. *Boiga dendrophila divergens* (Luzon Id.) (KU uncat.; field no. RMB19986). Photo © RMB.

FIGURE 31. *Boiga dendrophila latifasciata* (male) (Zamboanga City Prov., Mindanao Id.) (KU 334994). Photo © RMB.

FIGURE 32. *Boiga dendrophila latifasciata* (hunting) (West Mindanao Id.). Photo © RMB.

FIGURE 33. *Boiga dendrophila levitoni* (Iloilo Prov., Gigante Norte Id.) (KU 302959). Photo © CDS.



FIGURE 34. *Boiga dendrophila multincta* (Puerto Princessa, Palawan Id.) (KU309444). Photo © RMB.
 FIGURE 35. *Boiga philippina* (Cagayan Prov., Babuyan Claro Id.) (KU 304855). Photo © RMB.
 FIGURE 36. *Boiga schultzei* (Narra, Palawan Id.) (KU 327776). Photo © RMB.
 FIGURE 37. *Coelognathus erythrus erythrus* (Eastern Samar Prov., Samar Id.) (KU 344143). Photo © RMB.
 FIGURE 38. *Coelognathus erythrus manillensis* (Isabella Prov., Luzon Id.) (PNM uncat.; field no. ACD 3092). Photo © ACD/KH.
 FIGURE 39. *Coelognathus erythrus psephenourus* (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 23101). Photo © RMB.



FIGURE 40. *Gonyosoma oxycephalum* (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 22921). Photo © JBF/RMB.

FIGURE 41. *Gonyosoma oxycephalum* (head) (Eastern Samar Prov., Samar Id.) (KU 344269). Photo © JBF/RMB.

FIGURE 42. *Lycodon alcalai* (Cagayan Prov., Camiguin Norte Id.) (KU 304589). Photo © RMB.

FIGURE 43. *Lycodon alcalai* (head) (Cagayan Prov., Camiguin Norte Id.) (KU 304589). Photo © RMB.

FIGURE 44. *Lycodon bibonius* (Cagayan Prov., Babuyan Claro Id.) (KU 304852). Photo © RMB.

FIGURE 45. *Lycodon dumerilii* (Leyte Prov., Leyte Id.) (PNM 7751). Photo © RMB.

FIGURE 46. *Lycodon dumerilii* (Eastern Samar Prov., Samar Id.) (KU 344364). Photo © JBF/RMB.



FIGURE 47. *Lycodon muelleri* (Laguna Land Grant, Luzon Id.) (KU uncat.; field no. RMB 20574). Photo © RMB.
 FIGURE 48. *Lycodon sealei* (all black adult) (Puerto Princessa, Palawan Id.) (KU 309447). Photo © RMB.
 FIGURE 49. *Lycodon sealei* (head) (Puerto Princessa, Palawan Id.) (KU 309447). Photo © RMB.
 FIGURE 50. *Lycodon sealei* (juvenile) (Narra, Palawan Id.) (KU 327571). Photo © RMB.
 FIGURE 51. *Oligodon ancorus* (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 23918). Photo © RMB.
 FIGURE 52. *Oligodon maculatus* (adult) (Zamboanga City Prov., Mindanao Id.) (KU 315171). Photo © RMB.
 FIGURE 53. *Oligodon maculatus* (juvenile) (Zamboanga City Prov., Mindanao Id.) (KU 315172). Photo © RMB.



FIGURE 54. *Oligodon maculatus* (juvenile) (Agusan del Norte Prov., Mindanao Id.) (KU 334450). Photo © RMB.
 FIGURE 55 *Oligodon notospilus* (adult) (Brooke's Point, Palawan Id.) (KU 309637). Photo © RMB.
 FIGURE 56. *Oligodon notospilus* (head) Brooke's Point, Palawan Id.) (KU 309637). Photo © RMB.
 FIGURE 57. *Pryas luzonensis* (Sorsogon, Salvacion, Luzon Id.) (KU uncat.; field no. RMB 23519). Photo © JBF/RMB.
 FIGURE 58. *Pryas luzonensis* (male) (Camarines Norte Prov., Luzon Id.) (KU 313912). Photo © RMB.
 FIGURE 59. *Pryas luzonensis* (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 23519). Photo © JBF/RMB.



Family Colubridae: Subfamily Natricinae



FIGURE 60. *Stegonotus muelleri* (Agusan del Sur Prov., Mindanao Id.) (KU 320004). Photo © RMB.
 FIGURE 61. *Stegonotus muelleri* (head) (Eastern Samar Prov., Samar Id.) KU 344536. Photo © RMB.
 FIGURE 62. *Opisthotropis alcalai* (Zamboanga City Prov., Mindanao Id.) (KU 315173). Photo © RMB.
 FIGURE 63. *Opisthotropis alcalai* (head) (Zamboanga City Prov., Mindanao Id.) (KU 315173). Photo © RMB.
 FIGURE 64. *Opisthotropis typica* (Municipality Quezon, Palawan Id.) (KU 334754). Photo © RMB.
 FIGURE 65. *Opisthotropis typica* (head) (Municipality Quezon, Palawan Id.) (KU 334754). Photo © RMB.
 FIGURE 66. *Rhabdophis auriculatus auriculatus* (Agusan del Norte Prov., Mindanao Id.) (KU 334441). Photo © RMB.



FIGURE 67. *Rhabdophis lineatus* (Misamis Oriental Prov., Mindanao Id.) (KU 334463). Photo © RMB.
FIGURE 68. *Rhabdophis spilogaster* (Subic, Zambales Prov., Luzon Id.) (TNHC 62735). Photo © RMB.
FIGURE 69. *Tropidonophis dendrophiops* (Cagayan Prov., Luzon Id.) (KU 330031). Photo © RMB.

Family Colubridae: Subfamily Sibynophinae



FIGURE 70. *Sibynophis bivittatus* (Brooke's Point, Palawan Id.) (KU 309608). Photo © RMB.

Family Lamprophiidae: Subfamily Cyclocorinae



FIGURE 71. *Cyclocorus lineatus lineatus* (Laguna Prov., Luzon Id.) (KU uncat.; field no. RMB 20572). Photo © RMB.

FIGURE 72. *Cyclocorus lineatus lineatus* (Mindoro Occidental Prov., Lubang Id.) (KU 304095). Photo © RMB.

FIGURE 73. *Cyclocorus nuchalis nuchalis* (Zamboanga City Prov., Mindanao Id.) (KU 315164). Photo © RMB.

FIGURE 74. *Cyclocorus nuchalis nuchalis* (Zamboanga City Prov., Mindanao Id.) (KU 315165). Photo © RMB.

FIGURE 75. *Cyclocorus nuchalis taylori* (Agusan del Norte Prov., Mindanao Id.) (KU 334469). Photo © RMB.

FIGURE 76. *Hologerrhum philippinum* (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 24603). Photo © JBF.

FIGURE 77. *Myersophis alpestris* (Holotype) (Mountain Prov., Luzon Id.) (KU 203012). Photo © JLW.



FIGURE 78. *Oxyrhabdium leporinum leporinum* (Ilocos Norte Prov., Luzon Id.) (KU 329691). Photo © RMB.

FIGURE 79. *Oxyrhabdium leporinum leporinum* (green phase) (Albay Prov., Luzon Id.) (OU uncat.; field no. CDS 7043). Photo © NAH.

FIGURE 80. *Oxyrhabdium* cf. *leporinum* (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 24655). Photo © JBF/RMB.

FIGURE 81. *Oxyrhabdium* cf. *leporinum* (Laguna Prov., Luzon Id.) (KU uncat.; field no. RMB 20570). Photo © RMB

FIGURE 82. *Oxyrhabdium* cf. *leporinum* (Quezon Prov., Luzon Id.) (KU uncat.; field no. RMB 19937). Photo © RMB.

FIGURE 83. *Oxyrhabdium leporinum visayanum* (Negros Occidental Prov., Negros Id.) (Not collected). Photo © RMB.

FIGURE 84. *Oxyrhabdium modestum* (Agusan del Norte Prov., Mindanao Id.) (KU 334388). Photo © RMB.

Family Lamprophiidae: Subfamily Pseudaspinae



Family Elapidae: Subfamily Elapinae



FIGURE 85. *Psammodynastes pulverulentus* (Western Samar Prov., Samar Id.) (OMNH 44541). Photo © CDS.

FIGURE 86. *Psammodynastes pulverulentus* (Western Samar Prov., Samar Id.) (OMNH 44542). Photo © CDS.

FIGURE 87. *Calliophis philippina* (dorsal) (Misamis Oriental Prov., Mindanao Id.) (KU 334481). Photo © RMB.

FIGURE 88. *Calliophis philippina* (ventral) (Misamis Oriental Prov., Mindanao Id.) (KU 334481). Photo © RMB.

FIGURE 89. *Calliophis philippina* (Zamboanga City Prov., Mindanao Id.) (KU 314913), Photo © RMB.

FIGURE 90. *Calliophis philippina* (head) (Zamboanga City Prov., Mindanao Id.), Photo © RMB.

FIGURE 91. *Calliophis salitan* (Holotype) (Dinagat Ids. Prov., Dinagat Id.) (PNM 9844 [formerly KU 310164]). Photo © RMB.



Family Elapidae: Subfamily Hydrophiinae



FIGURE 92. *Hemibungarus calligaster* (Aurora Prov., Luzon Id.) (KU 323337). Photo © CDS.
 FIGURE 93. *Hemibungarus mcclungi* (juvenile) (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 22674). Photo © JBF/RMB.
 FIGURE 94. *Naja philippinensis* (Mt. Mayon, Albay Prov., Luzon Id.) (photo no. CDS 6438). Photo © NAH.
 FIGURE 95. *Ophiophagus hannah* (juvenile). Photo © JT.
 FIGURE 96. *Hydrophis [Lapemis] curtus*. Photo © HV.
 FIGURE 97. *Hydrophis cyanocinctus*. Photo © HV.
 FIGURE 98. *Hydrophis [Palemis] platurus*. Photo © JT.

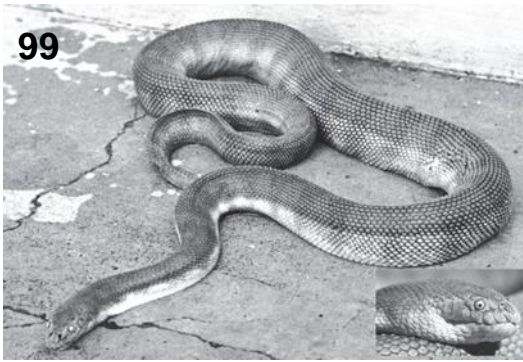


FIGURE 99. *Hydrophis* [*Enhydrina*] *schistosus*. Photo © HV.

FIGURE 100. *Hydrophis* [*Leioselasma*] *semperi*. Photo © VG.

FIGURE 101. *Hydrophis* [*Leioselasma*] *spiralis*. Photo © HV.

Family Elapidae: Subfamily Laticaudinae



FIGURE 102. *Laticauda colubrina*. Photo © CDS.
FIGURE 103. *Laticauda laticaudata*. Photo © JT.

103

Family Viperidae: Subfamily Crotalinae



FIGURE 104. *Trimeresurus flavomaculatus* (Cagayan Prov., Luzon Id.) (KU 330049). Photo © RMB.

FIGURE 105. *Trimeresurus flavomaculatus* (Laguna Prov., Luzon Id.) (KU uncat.; field no. RMB 19801). Photo © RMB.

FIGURE 106. *Trimeresurus* cf. *flavomaculatus* (red phase) (Agusan del Norte Prov., Mindanao Id.) (KU 334433). Photo © RMB.

FIGURE 107. *Trimeresurus* cf. *flavomaculatus* (green phase) (Misamis Oriental Prov., Mindanao Id.) (KU 334466). Photo © RMB.

FIGURE 108. *Trimeresurus* cf. *flavomaculatus* (Agusan del Norte Prov., Mindanao Id.) (KU 334432). Photo © RMB.

FIGURE 109. *Trimeresurus* cf. *flavomaculatus* (hunting frogs) (Camiguin Norte Prov., Babuyan Ids.) (individual not collected). Photo © RMB.



FIGURE 110. *Trimeresurus mcgregori* (grey phase) (Batanes Prov., Batan Id.) (KU 314037). Photo © JBF/RMB.

FIGURE 111. *Trimeresurus mcgregori* (male) (Batanes Prov., Batan Id.) (KU 314045). Photo © JBF/RMB.

FIGURE 112. *Trimeresurus mcgregori* (adult) (Batanes Prov., Batan Id.) (KU 314040 [yellow], KU 314041 [gray]). Photo © JBF/RMB.

FIGURE 113. *Trimeresurus mcgregori* (Batanes Prov., Batan Id.) (KU 314046). Photo © JBF/RMB.

FIGURE 114. *Tropidolaemus philippensis* (male) (Misimas Oriental Prov., Mindanao Id.) (KU 334490). Photo © RMB.

FIGURE 115. *Tropidolaemus subannulatus* (Puerto Princesa, Palawan Id.) (KU 309565). Photo © RMB.



FIGURE 116. *Tropidolaemus subannulatus* (Dinagat Prov., Dinagat Id.) (KU 306592). Photo © CDS.

FIGURE 117. *Tropidolaemus subannulatus* (Zamboanga City Prov. Mindanao Id.) (KU 315211). Photo © RMB.

FIGURE 118. *Tropidolaemus subannulatus* (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 23394). Photo © JBF/RMB.

FIGURE 119. *Tropidolaemus subannulatus* (juvenile male) (Sorsogon Prov., Luzon Id.) (KU uncat.; field no. RMB 22673). Photo © RMB.