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Amphibians of the Philippines, Part I: Checklist of the Species

**Arvin C. Diesmos^{1,†}, Jessa L. Watters^{2,†}, Nicholas A. Huron^{2,3}, Drew R. Davis⁴,
Angel C. Alcala⁵, Ronald I. Crombie⁶, Leticia E. Afuang⁷, Genevieve Gee-Das⁸,
Rogelio V. Sison^{9,§}, Marites B. Sanguila¹⁰, Michelle L. Penrod², Marie J. Labonte²,
Conner S. Davey², E. Austin Leone², Mae L. Diesmos¹¹, Emerson Y. Sy¹²,
Luke J. Welton¹³, Rafe M. Brown¹³, and Cameron D. Siler^{2,3,*}**

¹ Herpetology Section, Zoology Division, Philippine National Museum, Rizal Park, Burgos St., Manila, Philippines; ² Sam Noble Oklahoma Museum of Natural History, University of Oklahoma, 2401 Chautauqua Ave., Norman, OK 73072-7029, USA; ³ Department of Biology, University of Oklahoma, 730 Van Vleet Oval, Norman, OK 73019, USA; ⁴ Department of Biology, University of South Dakota, 414 East Clark St., Vermillion, SD 57069, USA; ⁵ Angelo King Center for Research and Environmental Management, Silliman University, 2F Marine Laboratory, Bantayan, Dumaguete City, Philippines; ⁶ 1489 Tunnel Rd, Santa Barbara, CA 93105, USA; ⁷ Animal Biology Division, Institute of Biological Sciences, College of Arts and Sciences, University of the Philippines Los Baños, Laguna 4031, Philippines; ⁸ Herpetofauna Research Group, Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia; ⁹ Herpetology Section, Zoology Division, National Museum of the Philippines, Padre Burgos Avenue, Ermita, 1000 Manila, Philippines; ¹⁰ Father Saturnino Urios University, 8600 Butuan City, Philippines; ¹¹ University of Santo Tomas, Manila, Philippines; ¹² Philippine Center for Terrestrial and Aquatic Research, 1198 Benavidez Street, Unit 1202, Sta. Cruz, Manila, Philippines; ¹³ Biodiversity Institute and Department of Ecology and Evolutionary Biology, University of Kansas, 1345 Jayhawk Blvd., Lawrence, KS 66045-7593, USA

The herpetological fauna of the Philippine Islands is high in diversity and endemism (Brown and Diesmos 2009; Brown et al. 2013; Diesmos et al. 2014), yet faces threats such as habitat modification and loss, natural catastrophes (i.e., Typhoon Haiyan), invasive species, hunting for food or the pet trade, and the spread of chytrid fungus (Sodhi et al. 2004; Diesmos et al. 2006, 2012; Rowley et al. 2010; Brown et al. 2012). New species descriptions have been steadily rising since the early 1990s due to increased sampling, an awareness of species boundaries based on phylogenetic studies, and changes in our understanding of what defines a species (Figure 1 [p. 489]; Brown et al. 2001, 2008, 2013; Diesmos et al. 2002, 2012; Diesmos and Brown 2011; Brown and Stuart 2012). Developing a complete species list for amphibians is essential for conservation planning and informed management decisions. Previous lists (Brown 2007; Diesmos and Brown 2011; Diesmos et al. 2014) were derived in part from working compendiums, developed and distributed separately by RIC and ACD; these simple lists focused on taxonomic and conservation status of the included species, respectively, but were of limited use for other purposes.

Herein we provide a comprehensive checklist of Philippine amphibian diversity, created by searching worldwide museum databases for Philippines taxa, augmented with a thorough review of recently published new species descriptions. Museum records from 33 museums were obtained either through direct contact with museum websites and personnel or through database portals such

[†]Authors made equal contributions to this manuscript

[§]Deceased

*Corresponding author, e-mail: camsiler@ou.edu

as VertNET (<http://vertnet.org>) and Global Biodiversity Information Facility (GBIF, <http://www.gbif.org>). In total, we reviewed 43,222 specimen records.

In this checklist, information associated with each species has the following sequence: (1) the original source, (2) a non-exhaustive, representative synonymy (see also comments below), (3) the type locality as reported in the authoritative description and holotype catalog number, if known, and (4) distribution within the Philippines and identification of endemism. Distributions are given as island names only, with species considered present on each reported island. Full citations for all authoritative descriptions are provided in the Literature Cited section.

Distribution dot maps were created based on a total of 4,015 unique localities from the georeferenced museum records described above using ArcMap v.10.3.1 (Figures 2–30, 43). Due to lack of precise locality data or coordinates for some museum records, a proportion of known species occurrences may not have been included in the dot maps. Topographic maps were created in ArcMap v.10.3.1 using the digital elevation model (DEM) layers based on NASA's Shuttle Radar Topographic Mission (SRTM). The SRTM data are available for free at approximately 90 meters resolution (3 arc-second projections; Reuter et al. 2007; CIAT-CSI SRTM 2015). Representative photos of most currently recognized species have also been provided (Figures 31–42, 44).

Although every effort was made to provide detailed taxon-specific synonyms for every species, the emphasis of this study was to provide an updated documentation and concise overview of the current diversity of amphibians in the Philippines. We direct readers to additional primary sources and amphibian biodiversity information products for original species descriptions and complete synonymies: Amphibian Species of the World (<http://research.amnh.org/vz/herpetology/amphibia/>; Frost 2015) and AmphibiaWeb (<http://amphibiaweb.org>; Amphibia Web 2015).

Museum designation symbolic codes follow Sabaj Pérez (2014): British Museum of Natural History (BMNH); California Academy of Sciences (CAS); California Academy of Sciences, Stanford University (CAS-SU); Carnegie Museum (CM); Field Museum of Natural History (FMNH); Museum of Comparative Zoology, Harvard University (MCZ); Museum National d'Histoire Naturelle (MNHN); Museo Civico di Storia Naturale (MSNG); Naturhistorisches Museum (NHMW of NMW); National Museum of the Philippines (formerly Philippine National Museum; NMPH or PNM); Naturalis Biodiversity Center (RMNH); Senckenberg Forschungsinstitut und Naturmuseum (SMF); National Museum of Natural History, Smithsonian Institution (USNM); Museum für Naturkunde (ZMB).

Amphibians of the Philippines, Part II, which will include identification keys for the amphibian fauna, will be issued in 2016.

Class Amphibia, Order Anura**Family Bombinatoridae*****Barbourula busuangensis* Taylor and Noble 1924**

Barbourula busuangensis Taylor and Noble 1924

Type locality and holotype specimen: Philippines, “small stream in the southern part of Busuanga [Island], the largest island of the Calamianes group” (Taylor and Noble 1924) (MCZ 14004).

Philippine distribution: Balabac, Busuanga, Culion, Palawan (Endemic).

Figures 3 and 31.

Family Bufonidae***Ansonia mcgregori* (Taylor 1922)**

Bufo mcgregori Taylor 1922, 1944; Slevin and Leviton 1956; Van Tuijl 1995

Ansonia muelleri Inger 1954

Ansonia mcgregori, Inger 1960

Type locality and holotype specimen: Philippines, Mindanao, Zamboanga, near Pasonanka (= Pasonanca) (CAS 61839).

Philippine distribution: Mindanao (Endemic).

Figures 3 and 31.

***Ansonia muelleri* (Boulenger 1887)**

Bufo muelleri Boulenger 1887; Frost 1985

Ansonia muelleri, Inger 1954; Alcala and Brown 1998

Type locality and holotype specimen: Philippines, Mindanao (BMNH 1947.2.20.57).

Philippine distribution: Dinagat, Mindanao (Endemic).

Figures 3 and 31.

***Ingerophrynus philippinus* (Boulenger 1887)**

Bufo philippinus Boulenger 1887; Iskandar 1998; Inger, 1999

Bufo divergens Mocquard 1890

Bufo biporcatus philippinus, Inger 1954; Alcala and Brown 1998

Ingerophrynus philippinus, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Type locality and holotype specimen: Philippines, Palawan, Puerto Princesa (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Balabac, Busuanga, Culion, Dumarán, Palawan (Endemic).

Figures 3 and 31.

***Pelophryne albotaeniata* Barbour 1938**

Pelophryne albotaeniata Barbour 1938

Pelophryne albotaeniata albotaeniata, Inger 1954

Type locality and holotype specimen: Philippines, Palawan, Thumb Peak (4,500 ft. elev.) (MCZ 23291).

Philippine distribution: Palawan (Endemic).

Figure 4.

***Pelophryne brevipes* (Peters 1867)**

Hylaplesia brevipes Peters 1867

Bufo brevipes, Cope 1867; Boulenger 1882

Pelophryne brevipes, Barbour 1938

Type locality and holotype specimen: Philippines, Mindanao, Zamboanga (NMW 16554, syntype).

Philippine distribution: Basilan, Mindanao (Endemic).

Figures 4 and 31.

***Pelophryne lighti* (Taylor 1920)**

Nectophryne lighti Taylor 1920

Pelophryne lighti, Barbour 1938; Inger 1960

Pelophryne brevipes, Inger 1954

Pelophryne albotaeniata lighti, Inger 1954

Type locality and holotype specimen: Philippines, Mindanao, Agusan Province, Bunawan (E. H.

Taylor Collection No. 189, destroyed).

Philippine distribution: Bohol, Leyte, Mindanao, Samar (Endemic).

Figures 4 and 31.

***Rhinella marina* (Linnaeus 1758)**

Rana marina Linnaeus 1758

Bufo brasiliensis Laurenti 1768

Rana gigas Walbaum 1784

Rana humeris-armata Lacépède 1788

Rana humeris-armata, Bonnaterre 1789

Bufo marinus Schneider 1799; Gravenhorst 1829

Bufo agua Sonnini de Manoncourt and Latreille 1801

Rana brasiliensis Shaw 1802

Bufo horridus Daudin 1802

Bufo humeralis Daudin 1803

Bombinator maculatus Merrem 1820

Rana maxima Merrem 1820

Bombinator horridus Merrem 1820

Bufo maculiventris Spix 1824

Bufo lazarus Spix 1824

Bufo albicans Spix 1824

Bufo horribilis Weigmann 1833

Docidophryne agua Fitzinger 1843

Docidophryne Lazarus Fitzinger 1861

Phrynoidis agua Cope 1862

Bufo marinus var. *horribilis* Peters 1873; Lynch and Fugler 1965

Bufo marinus var. *fluminensis* Jiménez de la Espada 1875

Bufo marinus var. *napensis* Jiménez de la Espada 1875

Bufo pithecodactylus Werner 1899

Bufo marinus, Barbour and Noble 1920

Bufo marinus marinus, Schmidt 1932

Bufo angustipes Taylor and Smith 1945

Bufo pythecodactylus Rivero 1961

Chaunus marinus, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Rhinella marina, Chaparro, Pramuk, and Gluesenkamp 2007

Rhinella marinus, Pramuk, Robertson, Sites, and Noonan 2008

Type locality and holotype specimen: America (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Alabat, Bohol, Calayan, Catanduanes, Cebu, Cocomo, Dinagat, Gigantes Norte, Leyte, Lubang, Luzon, Marinduque, Masbate, Mindanao, Mindoro, Negros, Palawan, Panay, Polillo, Romblon Island Group, Sicogon, Samar, Ticao, Verde (Introduced; Diesmos et al. 2006).

Figures 4 and 31.

Family Ceratobatrachidae

Alcalus mariae (Inger 1954)

Micrixalus mariae Inger 1954

Ingerana (*Ingerana*) *mariae*, Dubois 1987 “1986”

Taylorana mariae, Fei, Ye, and Jiang 2010

Alcalus mariae, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Palawan, Mantalingajan Range, south slope of Mount Balabag (FMNH 51360).

Philippine distribution: Palawan (Endemic).

Figures 12 and 35.

Platymantis banahao Brown, Alcala, Diesmos, and Alcala 1997

Platymantis banahao Brown, Alcala, Diesmos, and Alcala 1997

Platymantis (*Lahatnanguri*) *banahao*, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Quezon Province, NE slope of Mt. Banahao (1,100 m elev.) (CAS 201208).

Philippine distribution: Luzon (Endemic).

Figures 5 and 32.

Platymantis bayani Siler, Alcala, Diesmos, and Brown 2009

Platymantis bayani Siler, Alcala, Diesmos, and Brown 2009

Platymantis (*Tahananpuno*) *banahao*, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Samar, Eastern Samar Province, Municipality of Taft, Barangay San Rafael, Taft Forest (11.80255°N, 125.29276°E; WGS84; 140 m elev.) (PNM 9501).

Philippine distribution: Samar (Endemic).

Figures 5 and 32.

Platymantis biak Siler, Diesmos, Likem, Diesmos, and Brown 2010

Platymantis biak Siler, Diesmos, Linkem, Diesmos, and Brown 2010

Platymantis (*Lahatnanguri*) *biak*, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Bulacan Province, Municipality of San Miguel and Doña Remedios Trinidad, Barangay Biak na Bato (15.1084°N, 121.0724°E; 190 m elev.) (PNM 9679).

Philippine distribution: Luzon (Endemic).

Figure 5.

***Platymantis cagayanensis* Brown, Alcala, and Diesmos 1999**

Platymantis cagayanensis Brown, Alcala, and Diesmos 1999

Platymantis (Lupacolus) cagayanensis, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Cagayan Province, Central Cordillera, Santa Praxedes Town, Taggat Forest Reserve (50–100 m elev.) (PNM 6691).

Philippine distribution: Luzon, Palau (Endemic).

Figures 5 and 32.

***Platymantis cornutus* (Taylor 1922)**

Cornufer cornutus Taylor 1922

Platymantis cornutus, Zweifel 1967

Platymantis cornuta, Günther 1999

Platymantis (Lahatnanguri) cornutus, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Mountain Province, Kalinga, Balbalan (CAS 61476).

Philippine distribution: Luzon (Endemic).

Figures 6 and 32.

***Platymantis corrugatus* (Duméril 1853)**

Hylodes corrugatus Duméril 1853

Platymantis plicifera Günther 1858

Hylodes (Halophilus) corrugatus, Cope 1862

Halophila (Platymantis) plicifera, Peters 1863

Platymantis corrugata, Boulenger 1918; Günther 1999

Rana (Platymantis) rugata Van Kampen 1923

Platymantis corrugatus corrugatus, Loveridge 1948

Platymantis (Tagomukhus) corrugatus, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Java (in error, according to Inger 1954) (MNHNP 4884).

Philippine distribution: Bohol, Cagraray, Camiguin Sur, Camotes Island Group, Catanduanes, Cebu, Dinagat, Leyte, Luzon, Mindanao, Mindoro, Negros, Panay, Polillo, Ponson, Poro, Rapu-Rapu, Samar, Sicomogon, Siquijor (Endemic).

Figures 6 and 32.

***Platymantis diesmosi* Brown and Gonzalez 2007**

Platymantis diesmosi Brown and Gonzalez 2007

Platymantis (Tahananpuno) diesmosi, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Albay Province, Municipality of Tiwi, Barangay Bantshaw, Sitio Purok 7, area known locally as 'Tamagong,' NW slope of Mt.

(13.436667°N, 123.59°E; WGS84; 950 m elev.) (PNM 8499).

Philippine distribution: Luzon (Endemic).

Figures 6 and 32.

***Platymantis dorsalis* (Duméril 1853)**

Cornufer dorsalis Duméril 1853

Hylodes (Halophilus) dorsalis, Cope 1862

Halophila jagorii Peters 1863

Halophila platydactyla Günther 1864

Platymantis meyeri Günther 1873; Boulenger 1918

Cornufer jagorii, Boulenger 1882

Cornufer meyeri, Boulenger 1882; Inger 1954

Cornufer laticeps Taylor 1920

Rana (Platymantis) dorsalis, Guibé 1950 “1948”

Cornufer dorsalis, Brown and Inger 1964; Brown 1965

Platymantis dorsalis, Zweifel 1967; Brown and Alcala 1970a, b

Platymantis (Lupacolus) dorsalis, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Java (in error, according to Barbour 1923) (MNHNP 4880).

Philippine distribution: Alabat, Calagna-an, Cagraray, Catanduanes, Cebu, Danjugan, Leyte, Lubang, Luzon, Marinduque, Masbate, Negros, Pan de Azucar, Panay, Polillo, Rapu-Rapu, Sicogon, Ticao (Endemic).

Figures 6 and 32.

***Platymantis guentheri* (Boulenger 1882)**

Cornufer guentheri Boulenger 1882; Inger 1954

Cornufer worcesteri Stejneger 1905

Cornufer ingeri Brown and Alcala 1963

Platymantis ingeri, Zweifel 1967

Platymantis guentheri, Zweifel 1967

Platymantis (Tahananpuno) guentheri, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Dinagat (BMNH 1947.2.31–34).

Philippine distribution: Biliran, Bohol, Dinagat, Leyte, Mindanao, Samar (Endemic).

Figures 7 and 33.

***Platymantis hazelae* (Taylor 1920)**

Philautus hazelae Taylor 1920

Cornufer rivularis Taylor 1922

Rhacophorus (Philautus) hazelae, Ahl 1931

Platymantis hazelae, Inger 1954; Zweifel 1967; Brown and Alcala 1970a, b

Cornufer hazelae, Inger 1954; Brown 1965

Platymantis (Tirahanulap) hazelae, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, central northern Negros, Canlaon Volcano (ca. 1,000 m elev.) (CM 3427).

Philippine distribution: Negros, Masbate (Endemic).

Figures 7 and 33.

Platymantis indepressus* Brown, Alcala, and Diesmos 1999Platymantis indepressus* Brown, Alcala, and Diesmos 1999*Platymantis indepressa*, Günther 1999*Platymantis (Lupacolus) indepressus*, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Mt. Banahao (1,080 m elev.) (CAS 201196)

Philippine distribution: Luzon (Endemic).

Figure 7.

Platymantis insulatus* Brown and Alcala 1970Platymantis insulatus* Brown and Alcala 1970a, b*Platymantis insulata*, Günther 1999*Platymantis (Lahatnanguri) insulatus*, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Gigante Sur Island (CAS 117441).

Philippine distribution: Gigante Norte, Gigante Sur (Endemic).

Figures 7 and 33.

Platymantis isarog* Brown, Brown, Alcala, and Frost 1997Platymantis isarog* Brown, Brown, Alcala, and Frost 1997*Platymantis reticulatus* Brown, Brown, and Alcala 1997*Platymantis (Tirahanulap) isarog*, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, southeastern Luzon, Camarines Peninsula, Mt. Isarog (1,200–1,300 m elev.) (CAS 197218).

Philippine distribution: Luzon (Endemic).

Figures 8 and 33.

Platymantis lawtoni* Brown and Alcala 1974Platymantis lawtoni* Brown and Alcala 1974*Platymantis (Tirahanulap) lawtoni*, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Tablas, Dubduban (ca. 800 ft. elev.) (CAS 135732)

Philippine distribution: Romblon Island Group (Endemic).

Figures 8 and 33.

Platymantis levigatus* Brown and Alcala 1974Platymantis levigatus* Brown and Alcala 1974*Platymantis levigata*, Günther 1999*Platymantis (Lahatnanguri) levigatus*, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Tablas, San Agustin, Dubduban (ca. 650 ft. elev.) (CAS 136097).

Philippine distribution: Romblon Island Group (Endemic).

Figures 8 and 33.

***Platymantis luzonensis* Brown, Alcala, Diesmos, and Alcala 1997**

Cornifer guentheri, Inger 1954

Platymantis guentheri, Brown and Alcala 1970

Platymantis luzonensis Brown, Alcala, Diesmos, and Alcala 1997

Platymantis (Tahananpuno) luzonensis, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Laguna Province, Mt. Makiling (ca. 600 m elev.) (CAS 196368).

Philippine distribution: Luzon, Polillo (Endemic).

Figures 8 and 33.

***Platymantis mimulus* Brown, Alcala, and Diesmos 1999**

Platymantis mimulus Brown, Alcala, and Diesmos 1997

Platymantis mimula, Günther 1999

Platymantis (Lupacolus) mimulus, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Laguna Province, Los Banos, Mt. Maquilang (ca. 400 m elev.) (CAS 136097).

Philippine distribution: Luzon (Endemic).

Figure 9.

***Platymantis montanus* (Taylor 1922)**

Cornifer montanus Taylor 1922

Platymantis montanus, Zweifel 1967

Platymantis montana, Günther 1999

Platymantis (Tirahanulap) montanus, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Laguna Province, Mount Banahao (ca. 1,500 m elev.) (CAS 61179).

Philippine distribution: Luzon (Endemic).

Figures 9 and 33.

***Platymantis naomii* Alcala, Brown, and Diesmos 1998**

Platymantis naomii Alcala, Brown, and Diesmos 1998

Platymantis naomiae, Iskandar and Colijn 2000

Platymantis (Lupacolus) naomii, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, southeast slope of Mt. Banahao on Tayabas side (ca. 1,400 m elev.) (CAS 204746).

Philippine distribution: Luzon (Endemic).

Figure 9.

***Platymantis negrosensis* Brown, Alcala, Diesmos, and Alcala 1997**

Platymantis negrosensis Brown, Alcala, Diesmos, and Alcala 1997

Platymantis (Tahananpuno) negrosensis, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Negros, Negros Oriental Province, Lake Balinsasayao (CAS 137416).

Philippine distribution: Negros, Panay (Endemic).

Figures 9 and 34.

***Platymantis paengi* Siler, Linkem, Diesmos, and Alcala 2007**

Platymantis paengi Siler, Linkem, Diesmos, and Alcala 2007

Platymantis (Lupacolus) paengi, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Panay, Antique Province, Municipality of Pandan, Barangay Duyong, in an area known locally as 'Mt. Lihidan' (11.41465°N, 122.10465°E; WGS84; 180 m elev.) (PNM 9239).

Philippine distribution: Panay (Endemic).

Figures 10 and 34.

***Platymantis panayensis* Brown, Brown, and Alcala 1997**

Platymantis panayensis Brown, Brown, and Alcala 1997

Platymantis (Tirahanulap) panayensis, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Panay, Aklan Province, Libacao, northwest ridge approach to Mt. Madja-as (ca. 1,410 m elev.) (PNM 2495).

Philippine distribution: Panay (Endemic).

Figure 10.

***Platymantis polillensis* (Taylor 1922)**

Philautus polillensis Taylor 1922

Rhacophorus polillensis, Ahl 1931

Cornufer polillensis, Inger 1954

Platymantis polillensis, Zweifel 1967

Platymantis polilloensis, Alcala 1986; Brown, Brown, and Alcala 1997

Platymantis (Tirahanulap) polillensis, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Polillo, near the southern end of island (CAS 62250).

Philippine distribution: Luzon, Polillo (Endemic).

Figures 10 and 34.

***Platymantis pseudodorsalis* Brown, Alcala, and Diesmos 1999**

Platymantis pseudodorsalis Brown, Alcala, and Diesmos 1999

Platymantis (Lupacolus) pseudodorsalis, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Mt. Banahao (PNM 6689).

Philippine distribution: Luzon (Endemic).

Figure 10.

***Platymantis pygmaeus* Alcala, Brown, and Diesmos 1998**

Platymantis pygmaeus Alcala, Brown, and Diesmos 1998

Platymantis pygmaea, Günther 1999

Platymantis (Lahatnanguri) pygmaeus, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Isabela Province, Municipality of Palanan, Barangay Didian, Sitio Natapdukan, Northern Sierra Madre Natural Park

(16.9655°N, 122.4038°E; WGS84; 55–65 m elev.) (PNM 6255).

Philippine distribution: Luzon, Sibuyan (Endemic).

Figures 11 and 34.

***Platymantis quezoni* Brown, De Layola, Lorenzo, Diesmos, and Diesmos 2015**

Platymantis (Lupacolus) quezoni Brown, De Layola, Lorenzo, Diesmos, and Diesmos 2015

Platymantis “sp. 27”, Brown, Siler, Richards, Diesmos, and Cannatella, 2015

Type locality and holotype specimen: Philippines, Luzon, Quezon Province, Municipality of Atimonan, Barangay Malinao Ilaya, Quezon Protected Landscape (13.989°N, 121.818°E; WGS84; 275 m elev.) (PNM 9817, formerly KU 339542).

Philippine distribution: Luzon (Endemic).

Figures 43 and 44.

***Platymantis rabori* Brown, Alcala, Diesmos, and Alcala 1997**

Platymantis rabori Brown, Alcala, Diesmos, and Alcala 1997

Platymantis (Tahananpuno) rabori, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Bohol, Sierra Bullones, Cantaub (CAS 136889).

Philippine distribution: Bohol, Leyte, Mindanao, Samar (Endemic).

Figures 11 and 34.

***Platymantis sierramadrensis* Brown, Alcala, Ong, and Diesmos 1999**

Platymantis sierramadrensis Brown, Alcala, Ong, and Diesmos 1999

Platymantis (Tirahanulap) sierramadrensis, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Quezon Province, Municipality of General Nakar, Barangay Umiray, at Sitio Mapidjas (PNM 6465).

Philippine distribution: Luzon (Endemic).

Figures 11 and 34.

***Platymantis spelaeus* Brown and Alcala 1982**

Platymantis spelaeus Brown and Alcala 1982

Platymantis spelaea, Günther 1999

Platymantis (Lupacolus) spelaeus, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Negros, southern Negros Oriental, Basay, Tiya-banan Barrio, in limestone cave (CAS 153469).

Philippine distribution: Negros (Endemic).

Figures 11 and 34.

***Platymantis subterrestris* (Taylor 1922)**

Cornufer subterrestris Taylor 1922; Inger 1954

Platymantis subterrestris, Zweifel 1967; Brown and Alcala 1970

Platymantis (Tirahanulap) subterrestris, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Mountain Province, near kilometer 101 on the Mountain Trail (CAS 61518).

Philippine distribution: Luzon (Endemic).

Figures 12 and 34.

***Platymantis taylori* (Brown, Alcala, and Diesmos 1999)**

Platymantis taylori Brown, Alcala, and Diesmos 1999

Platymantis (Lupacolus) taylori, Brown, Siler, Richards, Diesmos, and Cannatella 2015

Type locality and holotype specimen: Philippines, Luzon, Province of Isabela, Municipality of Palanan, Barangay Didian, eastern Sierra Madre Mountains in Sitio Natapdukan (PNM 6884).

Philippine distribution: Luzon (Endemic).

Figures 12 and 35.

Family Dicroglossidae

***Fejervarya moodiei* (Taylor 1920)**

Rana cancrivora Gravenhorst 1829

Rana tigrina angustopalmata Van Kampen 1907; Barbour 1912

Rana tigrina var. *cancrivora*, Boulenger 1918

Rana cancrivora, Annandale 1918

Rana (Rana) crancrivora, Boulenger 1920

Rana moodiei, Taylor 1920

Rana cancrivora cancrivora, Dunn 1928; Inger 1954

Rana cancrivora raja Smith 1930

Dicroglossus cancrivorus, Deckert 1938

Rana raja, Taylor 1962

Rana (Euphlyctis) cancrivora, Dubois 1981

Euphlyctis cancrivora, Poynton and Broadley 1985

Limnonectes (Hoplobatrachus) cancrivorus, Dubois 1987 “1986”

Limnonectes (Hoplobatrachus) moodiei, Dubois 1987 “1986”

Limnonectes (Hoplobatrachus) raja, Dubois 1987 “1986”

Limnonectes (Fejervarya) raja, Dubois 1992

Limnonectes (Fejervarya) cancrivorus, Dubois 1992

Fejervarya raja, Iskandar 1998

Fejervarya cancrivora, Iskandar 1998

Fejervarya moodiei, Dubois and Ohler 2000

Type locality and holotype specimen: Indonesia, Java (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Apo, Bohol, Boracay, Busuanga, Cagraray, Calagna-an, Caluya, Camiguin Sur, Cebu, Clara, Cuyo, Dumarán, Dinagat, Gigantes Norte, Gigantes Sur, Guimaras, Inampulugan, Jau, Lapinín Chico, Lapiníg Grande, Leyte, Lubang, Luzon, Mactán, Marinduque, Masbate, Mindanao, Mindoro, Negros, Pacijan, Palawan, Pan de Azúcar, Panay, Polillo, Ponson, Rapu-Rapu, Romblón Island Group, Sicogon, Sulu Archipelago, Ticao, Tintiman, Verde (Non-endemic).

Figures 12 and 34.

***Fejervarya vittigera* (Wiegmann 1834)**

Rana vittigera Wiegmann 1834

Rana limnocharis vittigera, Inger 1954

Rana (Fejervarya) vittigera, Dubois 1984

Euphlyctis limnocharis vittigera, Poynton and Broadley 1985

Limnonectes (Fejervarya) vittiger, Dubois 1987 “1986”

Rana limnocharis, Alcala and Brown 1998

Fejervarya vittigera, Iskandar 1998

Type locality and holotype specimen: Philippines, southern Luzon, Laguna Bay (CAS 61636).

Philippine distribution: Bohol, Cagraray, Caluya, Camiguin Sur, Cebu, Cocomo, Dinagat, Guimaras, Leyte, Lubang, Luzon, Marinduque, Masbate, Mindanao, Mindoro, Negros, Palawan, Pan de Azucar, Panay, Polillo, Romblon Island Group (Endemic).

Figures 13 and 35.

***Hoplobatrachus rugulosus* (Wiegmann 1834)**

Rana chinensis Osbeck 1765

Rana rugulosa Wiegmann 1834; Annandale 1918; Alcala and Brown 1998

Rana tigrina pantherina Steindachner 1867; Boulenger 1920; Taylor and Elbel 1958

Hydrostentor pantherinus, Steindachner 1867

Rana tigrina, Flower 1899

Rana esculenta chinensis, Wolterstorff 1906

Rana burkilli Annandale 1910

Rana tigrina var. *burkilli*, Boulenger 1918

Rana tigrina rugulosa, Smith 1930; Fang and Chang 1931

Rana (Euphlyctis) rugulosa, Dubois 1981

Euphlyctis tigrina rugulosa, Poynton and Broadley 1985

Limnonectes (Hoplobatrachus) rugulosus, Dubois 1987 “1986”

Tigrina rugulosa, Fei, Ye, and Huang 1990

Hoplobatrachus rugulosus, Dubois 1992

Hoplobatrachus chinensis, Ohler, Swan, and Daltry, 2002

Type locality and holotype specimen: China, vicinity of Canton (ZMB 3721).

Philippine distribution: Caluya, Luzon, Masbate, Mindoro, Panay (Introduced; Diesmos et al. 2006).

Figures 13 and 35.

***Limnonectes acanthi* (Taylor 1923)**

Rana macrodon blythii (part) Boulenger 1920

Rana acanthi Taylor 1923; Taylor and Elbel 1958

Rana macrodon acanthi, Inger 1954; Brown and Alcala 1955

Rana magna acanthi, Inger 1958

Limnonectes (Limnonectes) acanthi, Dubois 1987 “1986”

Type locality and holotype specimen: Philippines, Calamian Islands, Busuanga Island (CAS 32577).

Philippine distribution: Balabac, Busuanga, Culion, Mindoro, Moro, Palawan (Endemic).

Figures 13 and 35.

***Limnonectes diuatus* (Brown and Alcala 1977)**

Rana diuata Brown and Alcala 1977

Limnonectes (Limnonectes) diuatus, Dubois 1987 “1986”

Type locality and holotype specimen: Philippines, Mindanao, Agusan del Norte Province, Cabadbaran, Diuata Mountains, south side of Mt. Hilong-hilong, Taguibo River (ca. 1,000 m elev.) (CAS 133500).

Philippine distribution: Mindanao (Endemic).

Figure 13.

***Limnonectes fernerii* Siler, McVay, Diesmos, and Brown 2009**

Limnonectes fernerii Siler, McVay, Diesmos, and Brown 2009

Type locality and holotype specimen: Philippines, Mindanao, Davao Del Norte Province, Municipality of Monkayo, Mt. Pasian in the Simulaw River Drainage, 2.3 km N, 1.0 km E of peak (7.971183°N, 126.297367°E; WGS84; 1,409 m elev.) (PNM 9506).

Philippine distribution: Mindanao (Endemic).

Figure 14.

***Limnonectes leytenis* (Boettger 1893)**

Hylarana mindanensis Girard 1853

Rana mindanensis Boettger 1886

Rana leytenis, Boettger 1893; Inger 1966

Rana microdisca Boulenger 1920

Rana microdisca leytenis, Inger 1954; Mertens 1967

Limnonectes (*Limnonectes*) *leytenis*, Dubois 1987 “1986”

Type locality and holotype specimen: Philippines, Mindanao, unknown caldera (SMF 4931).

Philippine distribution: Basilan, Bohol, Camiguin Sur, Cebu, Dinagat, Leyte, Mindanao, Negros, Romblon Island Group, Samar, Sulu Archipelago (Endemic).

Figures 14 and 35.

***Limnonectes macrocephalus* (Inger 1954)**

Rana macrodon Boulenger 1882 (partim)

Rana magna Stejneger 1909 (partim)

Rana macrodon macrocephala Inger 1954

Rana magna macrocephala, Inger 1958

Rana (*Euphlyctis*) *magna macrocephala*, Dubois 1981

Euphlyctis magna macrocephala, Poynton and Broadley 1985

Limnonectes (*Limnonectes*) *macrocephalus*, Dubois 1987 “1986”

Type locality and holotype specimen: Philippines, Luzon, Tayabas Province, Sampaloc (FMNH 40519).

Philippine distribution: Alabat, Cagraray, Catanduanes, Luzon, Marinduque, Masbate, Polillo, Rapu-Rapu (Endemic).

Figures 14 and 35.

***Limnonectes magnus* (Stejneger 1910)**

Rana macrodon Boulenger 1882 (partim)

Rana magna Stejneger 1910; Boulenger 1920

Rana modesta Roux 1918

Rana macrodon blythii Boulenger, 1920 (partim)

Rana modesta magna, Smith 1927

Rana macrodon magna, Inger 1954 (partim)

Rana magna magna, Inger 1958 (partim)

Rana (*Euphlyctis*) *magna*, Dubois 1981 (partim)

Euphlyctis magna, Poynton and Broadley 1985 (partim)

Limnonectes (*Limnonectes*) *magnus*, Dubois 1987 “1986” (partim)

Type locality and holotype specimen: Philippines, Mindanao, Mount Apo, between Todaya and

camp (4,000–6,000 ft. elev.) (USNM 35231).

Philippine distribution: Basilan, Biliran, Bohol, Camiguin Sur, Dinagat, Leyte, Mindanao, Samar (Endemic).

Figures 14 and 36.

***Limnonectes micrixalus* (Taylor 1923)**

Rana micrixalus Taylor 1923; Inger 1954; Dubois 1987 “1986”

Limnonectes micrixalus, Slevin and Leviton 1956

Type locality and holotype specimen: Philippines, Basilan, Abungabung (CAS 60143).

Philippine distribution: Basilan, Mindanao (Endemic).

Figure 15.

***Limnonectes palavanensis* (Boulenger 1894)**

Rana palavanensis Boulenger 1894; Boulenger 1920; Inger and Voris 1988

Rana microdisca palavanensis, Inger 1954

Rana (Euphlyctis) microdisca palavanensis, Dubois 1981

Euphlyctis palavanensis, Poynton and Broadley 1985

Limnonectes (Limnonectes) palavanensis, Dubois 1987 “1986”

Type locality and holotype specimen: Philippines, Palawan Island (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Palawan (Non-endemic).

Figures 15 and 36.

***Limnonectes parvus* (Taylor 1920)**

Rana parva Taylor 1920; Inger 1954

Rana microdisca parva Inger 1966

Rana (Euphlyctis) microdisca parva Dubois 1981

Euphlyctis microdisca parva Poynton and Broadley 1985

Limnonectes (Limnonectes) parvus, Dubois 1987 “1986”

Type locality and holotype specimen: Philippines, Mindanao, Agusan Province, Bunawan (CM 3241).

Philippine distribution: Basilan, Mindanao (Endemic).

Figures 15 and 36.

***Limnonectes visayanus* (Inger 1954)**

Rana macrodon Boulenger 1882

Rana macrodon blythii (part) Boulenger 1920

Rana magna Taylor 1923; Brown and Alcala 1970

Rana macrodon visayanus, Inger 1954

Rana magna visayanus, Inger 1958

Limnonectes (Limnonectes) visayanus, Dubois 1987 “1986”

Type locality and holotype specimen: Philippines, Siquijor Island (FMNH 61636).

Philippine distribution: Bohol, Calagna-an, Cebu, Guimaras, Masbate, Negros, Panay, Poro, Romblon Island Group, Sicogon, Siquijor, Ticao (Endemic).

Figures 15 and 36.

***Limnonectes woodworthi* (Taylor 1923)**

Rana woodworthi Taylor 1923

Limnonectes (Limnonectes) woodworthi, Dubois 1987 “1986”

Type locality and holotype specimen: Philippines, Luzon, Laguna Province, near Los Baños (CAS 61000).

Philippine distribution: Camiguin Norte, Catanduanes, Luzon, Polillo (Endemic).

Figures 16 and 36.

***Occidozyga diminutiva* (Taylor 1922)**

Micrixalus diminutiva Taylor 1922; Alcalá and Brown 1998

Staurois diminutives, Forcart 1946

Ooeidozyga diminutives, Inger 1954

Occidozyga diminutiva, Dubois 1981

Phrynoglossus diminutives, Dubois 1987 “1986”

Phrynoglossus diminutiva, Inger 1999; Fei, Ye, and Jiang 2010

Type locality and holotype specimen: Philippines, Mindanao, Zamboanga, “near Pasananka” (CAS 61842).

Philippine distribution: Basilan, Mindanao, Sulu Archipelago (Endemic).

Figures 16 and 36.

***Occidozyga laevis* (Günther 1858)**

Oxyglossus laevis Günther 1858; Bourret 1927

Phrynoglossus laevis, Peters 1867

Oxyglossis laevis, Smith 1916

Oxydozyga laevis, Mertens 1927

Ooeidozyga laevis, Smith 1927

Oxydozyga laevis laevis, Mertens 1930

Phrynoglossus laevis laevis, Mertens 1934

Ooeidozyga laevis laevis, Inger 1954

Occidozyga laevis, Dubois 1981; Alcalá and Brown 1998

Type locality and holotype specimen: Philippines (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Alabat, Balabac, Bohol, Bonoan, Busuanga, Cagraray, Calagna-an, Calauit, Camiguin Sur, Catanduanes, Cebu, Coron, Dinagat, Guimaras, Inampulugan, Leyte, Lubang, Luzon, Marinduque, Masbate, Mindanao, Mindoro, Negros, Palawan, Panay, Polillo, Romblon Island Group, Samar, Sicogon, Sulu Archipelago (Non-endemic).

Figures 16 and 36.

Family Eleutherodactylidae

***Eleutherodactylus planirostris* (Cope, 1862)**

Hylodes planirostris Cope 1862

Eleutherodactylus planirostris, Stejneger 1904

Eleutherodactylus ricordii planirostris, Shreve 1945

Eleutherodactylus planirostris planirostris, Schwartz 1965

Eleutherodactylus (Euhyas) planirostris, Hedges 1989; Heinicke, Duellman, and Hedges 2007

Euhyas planirostris, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler 2006

Type locality and holotype specimen: New Providence Island, Bahamas (25.024936°N,

77.467209°W) (Peabody Essex Museum, presumed lost).

Philippine distribution: Luzon, Mindanao (Introduced; Olson et al. 2014; Sy et al. 2015).

Figure 16.

Family Megophryidae

***Leptobrachium lumadorum* Brown, Siler, Diesmos, and Alcala 2009**

Leptobrachium lumadorum Brown, Siler, Diesmos, and Alcala 2010 “2009”

Type locality and holotype specimen: Philippines, Mindanao, Zamboanga Del Sur Province, Zamboanga City, Barangay Baluno, Pasonanca Natural Park, Sitio km 24 (7.108°N, 122.0289°E; WGS84) (PNM 9561).

Philippine distribution: Basilan, Dinagat, Mindanao (Endemic).

Figures 17 and 36.

***Leptobrachium mangyanorum* Brown, Siler, Diesmos, and Alcala 2009**

Leptobrachium mangyanorum Brown, Siler, Diesmos, and Alcala 2010 “2009”

Type locality and holotype specimen: Philippines, Mindoro, Mindoro Oriental Province, Municipality of Victoria, Barangay Loyal, Sitio Panguisan, Panguisan River (13.150104°N, 121.200246°E; WGS84) (PNM 9559).

Philippine distribution: Mindoro, Semirara (Endemic).

Figures 17 and 37.

***Leptobrachium tagbanorum* Brown, Siler, Diesmos, and Alcala 2009**

Leptobrachium tagbanorum Brown, Siler, Diesmos, and Alcala 2010 “2009”

Type locality and holotype specimen: Philippines, Palawan, Palawan Province, Municipality of Puerto Princesa City, Barangay Irawan, Irawan Watershed (9.8333°N, 118.650°E; WGS84) (PNM 9560).

Philippine distribution: Palawan (Endemic).

Figures 17 and 37.

***Megophrys ligayae* Taylor 1920**

Megalophrys ligayae Taylor 1920; Inger 1999

Megophrys monticola ligayae, Inger 1954

Megophrys ligayae, Iskandar 1998

Type locality and holotype specimen: Philippines, northern Palawan (CM 3304, now CM 84521).

Philippine distribution: Balabac, Palawan (Endemic).

Figures 17 and 37.

***Megophrys stejnegeri* Taylor 1920**

Megophrys stejnegeri Taylor 1920

Megophrys monticola stejnegeri, Inger 1954

Megophrys stejnegeri, Iskandar 1998

Type locality and holotype specimen: Philippines, Mindanao, Agusan Province, Bunawan (CM 3394).

Philippine distribution: Bohol, Dinagat, Leyte, Mindanao, Samar (Endemic).

Figures 18 and 37.

Family Microhylidae***Chaperina fusca* Mocquard 1892***Chaperina fusca* Mocquard 1892; Inger, 1954*Microhyla leucostigma* Boulenger 1899*Chaperina beyeri* Taylor 1920*Nectophryne picturata* Smith 1921*Sphenophryne fusca*, Van Kampen 1923; Nieden, 1926*Sphenophryne beyeri* Van Kampen 1923*Sphenophryne leucostigma* Smith 1925

Type locality and holotype specimen: Borneo, Sintang (MNHN 91-49).

Philippine distribution: Basilan, Mindanao, Palawan, Sulu Archipelago (Non-endemic).

Figures 18 and 37.

Kalophrynus sinensis* Peters 1867Kalophrynus pleurostigma* var. *sinensis* Peters 1867*Kalophrynus sinensis*, Zug 2015

Type locality and holotype specimen: “Hongkong” [in error] (ZMB 5696). (NB: See Frost, 2015, for additional details of the complex synonymy associated with this nominal species.)

Philippine distribution: Basilan, Bohol, Camiguin Sur, Culion, Dinagat, Leyte, Mindanao, Samar (Non-endemic).

Figures 18 and 37.

Kaloula baleata* (Müller in Van Oort and Müller 1836)Bombinator baleatus* Müller in Van Oort and Müller 1836*Hyladactylus baleatus*, Tschudi 1838*Hylaedactylus baleatus*, Duméril and Bibron 1841*Hylaedactylus balteatus*, Lichtenstein and Martens 1856*Hylaedactylus baleatus* var. *concatenata* Lichtenstein and Martens 1856*Hylaedactylus lividus* Bleeker 1857*Bombinator (Hylaedactylus) baleatus*, Schlegel 1858*Hylaedactylus celebensis* Günther 1859 “1858”*Kaloula baleata*, Günther 1859 “1858”; Barbour 1909*Callula baleata*, Cope 1867; Boulenger 1882*Calohyla celebensis*, Peters 1872*Plectropus baleatus*, Knauer 1883*Kaloula baleata baleata*, Inger 1954*Kaloula baleata ghoshi*, Cherchi 1954

Type locality and holotype specimen: Indonesia, Java, Krawang (RMNH 22118).

Philippine distribution: Palawan (Non-endemic).

Figure 18.

Kaloula conjuncta* (Peters 1863)Hylaedactylus (Holonectes) conjunctus* Peters 1863*Callula conjuncta*, Cope 1867*Kaloula conjuncta*, Taylor 1920*Kaloula negrosensis* Taylor 1922

Kaloula conjuncta conjuncta, Inger 1954 (partim)

Kalaoula conjuncta negrosensis, Inger 1954 (partim)

Kaloula conjuncta stickeli, Inger 1954

Kaloula conjuncta meridionalis, Inger 1954 (partim)

Type locality and holotype specimen: Philippines, Luzon Island (NMW 22888).

Philippine distribution: Alabat, Borocay, Caluya, Catanduanes, Cebu, Guimaras, Leyte, Luzon, Mindanao, Mindoro, Negros, Pacijan, Panay, Polillo, Poro, Romblon Island Group, Semirara, Siquijor, Sulu Archipelago (Endemic).

Figures 19 and 37.

***Kaloula kalingensis* Taylor, 1922**

Kaloula kalingensis Taylor 1922; Ross and Gonzales 1992

Kaloula baleata kalingensis, Inger 1954

Type locality and holotype specimen: Philippines, Luzon, Mountain Province, Kalinga, Balbalan (CAS 61462).

Philippine distribution: Luzon, Palaui (Endemic).

Figures 19 and 37.

***Kaloula kokacii* Ross and Gonzales 1992**

Kaloula kokacii Ross and Gonzales 1992

Type locality and holotype specimen: Philippines, Catanduanes, Gigmoto Municipality, from abaca near the Buadan River, Summit Boradan (8.5 km W and 1 km N of Gigmoto) (13.8°N, 124.316667°E; WGS84; 200–300 m elev.) (PNM 2043).

Philippine distribution: Catanduanes, Luzon (Endemic).

Figure 19.

***Kaloula picta* (Duméril and Bibron 1841)**

Plectropus pictus Duméril and Bibron 1841; Guibé 1950

Kaloula picta, Günther 1859; Parker 1934

Callula picta, Günther 1864

Type locality and holotype specimen: Philippines, Luzon, Manille (= Manila) (MNHNP 5027).

Philippine distribution: Alabat, Babuyan Island Group, Bohol, Caluya, Camiguin Sur, Catanduanes, Cebu, Cocomo, Cuyo, Dinagat, Guimaras, Lapinig Grande, Leyte, Lubang, Luzon, Mactan, Mindanao, Mindoro, Negros, Palawan, Panay, Polillo, Ponson, Rapu-Rapu, Samar, Semirara, Verde (Endemic).

Figures 19 and 38.

***Kaloula pulchra* Gray 1831**

Kaloula pulchra Gray 1831; Barbour 1909

Hylaedactylus bivittatus Cantor 1847; Boulenger 1882; Günther, 1859 “1858”; Bourret 1942

Callula pulchra, Günther 1864

Caloula pulchra, Stoliczka 1870

Calohyla pulchra, Peters and Doria 1878

Callula macrodactyla Boulenger, 1887; Parker 1934; Bourret 1942

Callula (Kallula) pulchra, Bourret 1927

Kaloula pulchra pulchra, Parker 1934

Kaloula pulchra hainana, Gressitt 1938

Kaloula pulchra macrocephala, Bourret 1942

Kaloula macrocephala Ohler 2003

Type locality and holotype specimen: China (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Cebu, Luzon, Mindoro, Palawan (Introduced; Diesmos et al. 2006; Sy et al. 2014).

Figures 20 and 38.

***Kaloula rigida* Taylor 1922**

Kaloula rigida Taylor 1922; Parker 1934; Slevin and Leviton 1956

Type locality and holotype specimen: Philippines, Luzon, Mountain Province, Kalinga, Balbalan (CAS 61475).

Philippine distribution: Luzon (Endemic).

Figures 20 and 38.

***Kaloula walteri* Diesmos, Brown, and Alcala 2002**

Kaloula walteri Diesmos, Brown, and Alcala 2002

Type locality and holotype specimen: Philippines, Luzon, Quezon Province, Barangay Lalo, Municipality of Tayabas, on the southeast slope of Mt. Banahao (14.066667°N, 121.483333°E; WGS84; 950 m elev.) (PNM 6725).

Philippine distribution: Luzon, Polillo (Endemic).

Figures 20 and 38.

***Microhyla petrigena* Inger and Frogner 1979**

Microhyla (Microhyla) petrigena, Dubois 1987

Type locality and holotype specimen: Malaysia, Borneo, Sarawak, Kapit District, Nanga Tekalit. (FMNH 207705).

Philippine distribution: Tawi-Tawi (Non-endemic).

Figures 20 and 38.

***Oreophryne anulata* (Stejneger 1908)**

Phrynixalus anulatus Stejneger 1908; Taylor 1920

Chaperina visaya Taylor 1920

Phrynixalus annulatus Taylor 1920

Oreophryne annulata, Parker 1934; Inger 1954

Type locality and holotype specimen: Philippines, Mindanao, Davao (USNM 35399).

Philippine distribution: Leyte, Mindanao, Samar (Endemic).

Figures 21 and 38.

***Oreophryne nana* Brown and Alcala 1967**

Oreophryne nana Brown and Alcala 1967

Type locality and holotype specimen: Philippines, Camiguin, Mt. Hibok-hibok, on the northwest side of Nacawa volcano (1,800–3,000 ft. elev.) (CAS-SU 22055).

Philippine distribution: Camiguin Sur (Endemic).

Figures 21 and 38.

Family Ranidae

Amnirana nicobariensis (Stoliczka 1870)

Hyla bilineata Van-Ernest in Daudin 1800; Daudin in Sonnini de Manoncourt and Latreille 1801

Calamita bilineatus Merrem 1820

Auletris bilineatus, Wagler 1830

Hylorana nicobariensis Stoliczka 1870; Deckert 1938

Rana macularia var. *javanica* Horst 1883

Rana javanica, Boulenger 1884; Van Kampen 1907

Rana nicobariensis, Boulenger 1885

Rana erythraea var. *elongata*, Werner 1892

Rana lemniscata Boettger 1893

Rana (Hylorana) nicobariensis, Boulenger 1920

Rana sanchezi Taylor 1920

Rana suluensis Taylor 1920

Rana (Hylorana) nicobariensis, Boulenger 1920; Van Kampen 1923

Rana nicobariensis javanica, Mertens 1927

Rana nicobariensis nicobariensis, Inger 1954

Rana (Sylvirana) nicobariensis, Dubois 1992

Rana nicobariensis, Alcalá and Brown 1998

Sylvirana nicobariensis, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Hylarana nicobariensis, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007

Amnirana nicobariensis, Oliver, Prendini, Kraus, and Raxworthy 2015

Type locality and holotype specimen: Indonesia, Java (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Palawan, Sulu Archipelago (Non-endemic).

Figure 21.

Hylarana erythraea (Schlegel 1837)

Hyla erythraea Schlegel 1837

Hylarana erythraea, Tschudi 1838; Bourret 1942; Fei, Ye, and Huang 1990; Chen, Murphy, Lathrop, Ngo, Orlov, Ho, and Somorjai 2005

Limnodytes erythraeus, Duméril and Bibron 1841

Hylorana erythraea, Günther 1864; Deckert 1938

Rana erythraea, Boulenger 1882

Rana (Hylorana) erythraea, Boulenger in Mason 1882

Rana (Hylarana) erythraea, Müller 1887

Rana (Limnodytes) erythraea, Bourret 1927

Type locality and holotype specimen: Sumatra (RMNH 1744, 1746, 1749; MNHNP 4570–4572, syntypes).

Philippine distribution: Borocay, Calagna-an, Guimaras, Leyte, Luzon, Masbate, Mindoro, Negros, Panay, Romblon Island Group, Samar (Introduced; Diesmos et al. 2006).

Figures 21 and 38.

Lithobates catesbeianus* (Shaw 1802)Rana catesbeiana* Shaw, 1802; Boulenger 1920; Dubois 1987 “1986”*Rana pipiens* Daudin 1802*Rana taurina* Cuvier 1817*Rana mugiens* Merrem, 1820*Rana scapularis* Harlan, 1826*Rana conspersa* Le Conte 1855*Rana catesbyana* Cope 1889; Werner 1909*Rana* (*Rana*) *catesbeiana*, Boulenger, 1920*Rana nantaiwuensis* Hsü 1930*Rana mugicus* Angel 1947*Rana* (*Aquarana*) *catesbeiana*, Dubois, 1992; Hillis 2007*Rana* (*Novirana*, *Aquarana*) *catesbeiana*, Hillis and Wilcox 2005*Lithobates catesbeianus*, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006*Lithobates* (*Aquarana*) *catesbeianus*, Dubois 2006

Type locality and holotype specimen: North America (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Leyte, Luzon, Mindanao, Mindoro, Panay (Introduced; Diesmos et al. 2006).

Figures 22 and 39.

Pulchrana grandocula* (Taylor 1920)Rana grandocula* Taylor 1920; Inger and Tan 1996*Rana philippinensis* Taylor 1920*Rana yakani* Taylor 1922*Rana signata gradocula*, Inger 1954; Alcalá and Brown 1998*Rana signata*, Frost 1985*Rana* (*Pulchrana*) *grandocula*, Dubois 1992*Pulchrana grandocula*, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006*Hylarana grandocula*, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007; Brown and Siler 2013*Pulchrana grandocula*, Oliver, Prendini, Kraus, and Raxworthy 2015

Type locality and holotype specimen: Philippines, Mindanao, Agusan Province, near Bunawan (CM 3501).

Philippine distribution: Basilan, Biliran, Bohol, Camiguin Sur, Dinagat, Leyte, Mindanao, Samar (Endemic).

Figures 22 and 39.

Pulchrana guttmani* (Brown 2015)Rana grandocula* Brown and Guttman 2002 (partim)*Hylarana* sp. 2, Brown and Siler 2013*Hylarana guttmani* Brown 2015

Type locality and holotype specimen: Philippines, southern Mindanao Island, South Cotabato

Province (~2 km north of border with Sarangani Province), Municipality of Kiamba, Barangay Badtasan, Sitio Banate, Mt. Busa (6.0923°N, 124.6709°E; WGS84; 1,200 m elev.) (PNM 9790, formerly KU 326399).

Philippine distribution: Mindanao (Endemic).

Figure 43.

***Pulchrana mangyanum* (Brown and Guttman 2002)**

Rana mangyanum Brown and Guttman 2002

Pulchrana mangyanum, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Hylarana mangyanum, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007; Brown and Siler 2013

Pulchrana mangyanum, Oliver, Prendini, Kraus, and Raxworthy 2015

Type locality and holotype specimen: Philippines, Mindoro, Oriental Mindoro Province, Municipality of Puerto Galera (within 1 km of the border of the Municipality of San Teodoro), Barangay Villafior (15 km from Puerto Gallera City on Puerto Gallera-Calapan Road), Tamaraw Falls (unnamed river) (150 m elev.) (PNM 6270).

Philippine distribution: Mindoro, Semirara (Endemic).

Figures 22 and 39.

***Pulchrana melanomenta* (Taylor 1920)**

Rana melanomenta Taylor 1920; Brown and Gittman 2002

Rana (Pulchrana) melanomenta, Dubois 1992

Pulchrana melanomenta, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Hylarana melanomenta, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007; Brown and Siler 2013

Pulchrana melanomenta, Oliver, Prendini, Kraus, and Raxworthy 2015

Type locality and holotype specimen: Philippines, Sulu Archipelago, Papahag Island (Bur. Sci. Manila No. 1661, destroyed).

Philippine distribution: Papahag (Endemic).

Figure 22.

***Pulchrana moellendorffi* (Boettger 1893)**

Rana moellendorffi Boettger 1893; Brown and Gittman 2002

Rana (Hylarana) moellendorffi, Boulenger 1920

Rana signata moellendorffi, Inger 1954; Alcalá and Brown 1998

Rana (Hylarana) moellendorffi, Dubois 1987 “1986”

Rana (Pulchrana) moellendorffi, Dubois 1992

Pulchrana moellendorffi, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Hylarana moellendorffi, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007; Brown and Siler 2013

Pulchrana moellendorffi, Oliver, Prendini, Kraus, and Raxworthy 2015

Type locality and holotype specimen: Philippines, Calamianes Island Group, Culion Island

(SMF 5432).

Philippine distribution: Balabac, Busuanga, Caluit, Coron, Culion, Palawan (Endemic).

Figures 23 and 39.

***Pulchrana similis* (Günther 1873)**

Polypedates similis Günther 1873

Rana similis, Boulenger 1882; Brown and Guttman 2002

Rana (Hylarana) signata Boulenger 1920

Rana signata similis, Inger 1954; Alcala and Brown 1998

Rana (Pulchrana) similis, Dubois 1992

Pulchrana similis, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Hylarana similis, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007; Brown and Siler 2013

Pulchrana similis, Oliver, Prendini, Kraus, and Raxworthy 2015

Type locality and holotype specimen: Philippines, Luzon, Laguna del Bay (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Cagraray, Catanduanes, Luzon, Polillo, Rapu-Rapu (Endemic).

Figures 23 and 39.

***Sanguirana albotuberculata* (Inger 1954)**

Rana everetti albotuberculata Inger 1954

Rana (Chalcorana) albotuberculata, Dubois 1992

Rana albotuberculata, Brown, McGuire, and Diesmos 2000

Hydrophylax albotuberculata, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Hylarana albotuberculata, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007

Chalcorana albotuberculata, Fei, Ye, and Jiang 2010

Sanguirana albotuberculata, Fuiten, Welton, Diesmos, Barley, Oberheide, Duya, Rico, and Brown 2011

Type locality and holotype specimen: Philippines, Leyte, Cabalian (MCZ 23190).

Philippine distribution: Leyte, Mindanao, Samar (Endemic).

Figures 23 and 39.

***Sanguirana aurantipunctata* Fuiten, Welton, Diesmos, Barley, Oberheide, Duya, Rico, and Brown 2011**

Type locality and holotype specimen: Philippines, Luzon, Nueva Vizcaya Province, Municipality of Quezon, Barangay Maddiangat, Sitio Parola, Mt. Palali (16.438°N, 121.225°E; WGS84; 1,500 m elev.) (PNM 9727).

Philippine distribution: Luzon (Endemic).

Figures 23 and 39.

***Sanguirana everetti* (Boulenger 1882)**

Rana everetti Boulenger 1882; Brown, McGuire, and Diesmos 2000

Rana mearnsi Stejneger 1905

Rana dubita Taylor 1920

Rana (Hylarana) everetti, Boulenger 1920

Rana (Hylarana) mearnsi Boulenger 1920

Rana merrilli Taylor 1922

Rana (Hylarana) everetti, Van Kampen 1923; Dubois 1987 “1986”

Rana everetti everetti, Inger 1954

Rana (Chalcorana) everetti, Dubois 1992

Hydrophylax everetti, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Hylarana everetti, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007

Chalcorana everetti, Fei, Ye, and Jiang 2010

Sanguirana everetti, Fuiten, Welton, Diesmos, Barley, Oberheide, Duya, Rico, and Brown 2011

Type locality and holotype specimen: Philippines, Mindanao, Zamboanga (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Mindanao (Endemic).

Figures 24 and 39.

***Sanguirana igorota* (Taylor 1922)**

Rana igorota Taylor 1922; Brown, McGuire, and Diesmos 2000

Rana everetti luzonensis Inger 1954

Rana (Chalcorana) luzonensis, Dubois 1992

Hydrophylax igorata, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Hylarana igorota, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007

Chalcorana igorota, Fei, Ye, and Jiang 2010

Sanguirana igorata, Fuiten, Welton, Diesmos, Barley, Oberheide, Duya, Rico, and Brown 2011

Type locality and holotype specimen: Philippines, Luzon, Kalinga Subprovince, Balbalan (CAS 61484).

Philippine distribution: Luzon (Endemic).

Figures 24 and 40.

***Sanguirana luzonensis* (Boulenger 1896)**

Rana luzonensis Boulenger 1896; Dubois 1987 “1986”; Brown, McGuire, and Diesmos 2000

Rana (Hylarana) luzonensis, Boulenger 1920

Rana guerreroi Taylor 1920

Rana merilli Taylor 1922

Rana igorata Taylor 1922

Rana tafti Taylor 1922

Rana everetti luzonensis, Inger 1954; Alcalá and Brown 1998

Rana (Chalcorana) luzonensis, Dubois 1992

Hydrophylax luzonensis, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Hylarana luzonensis, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007

Chalcorana luzonensis, Fei, Ye, and Jiang 2010

Sanguirana luzonensis, Fuiten, Welton, Diesmos, Barley, Oberheide, Duya, Rico, and

Brown 2011

Type locality and holotype specimen: Philippines, N. Luzon Highlands of Lepauto (= Lepanto)
(Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Luzon, Catanduanes, Marinduque, Polillo (Endemic).

Figures 24 and 40.

***Sanguirana sanguinea* (Boettger 1893)**

Rana sanguinea, Boettger 1893; Inger 1954

Rana varians Boulenger 1894

Rana (*Hylarana*) *sanguinea*, Boulenger 1920

Rana (*Hylarana*) *variens*, Boulenger 1920

Hylorana varians, Deckert 1938

Rana (*Hylarana*) *sanguinea*, Dubois 1987 “1986”

Rana (*Hylarana*) *variens*, Dubois 1987 “1986”

Hylarana (*Hylarana*) *variens*, Fei, Ye, and Huang 1990

Rana (*Sanguirana*) *sanguinea*, Dubois 1992

Rana (*Sanguirana*) *variens*, Dubois 1992

Hylarana sanguinea, Song, Jang, Zou, and Shi 2002

Sanguirana sanguinea, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Sanguirana varians Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Type locality and holotype specimen: Philippines, Calamianes Island Group, Culion Island (SMF 1062a, now SMF 6221).

Philippine distribution: Busuanga, Culion, Palawan (Endemic).

Figures 24 and 40.

***Sanguirana tipanan* (Brown, McGuire, and Diesmos 2000)**

Rana tipanan Brown, McGuire, and Diesmos 2000

Hydrophylax tipanan, Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, and Green 2006

Hylarana tipanan, Che, Pang, Zhao, Wu, Zhao, and Zhang 2007

Chalcorana tipanan, Fei, Ye, and Jiang 2010

Sanguirana tipanan, Fuiten, Welton, Diesmos, Barley, Oberheide, Duya, Rico, and Brown 2011

Type locality and holotype specimen: Philippines, Luzon, Aurora Province, Municipality of San Luis, Aurora National Park, 1.2 km S, 1.3 km E of Barangay Villa Aurora, east side of Mt. Ma-aling-aling in the Kabatangan river drainage (15.651667°N, 121.351944°E; 470 m elev.) (PNM 5727).

Philippine distribution: Luzon (Endemic).

Figures 25 and 40.

***Staurois natator* (Günther 1858)**

Ixalus natator Günther 1858

Ixalus guttatus Günther 1858
Staurois natator, Cope 1865; Inger 1954
Rana natatrix Boulenger 1882
Ixalus granulatus Boettger 1888
Staurois nubilus, Boulenger 1918
Rhacophorus granulatus Ahl 1927
Rana guttatus Smith 1931

Type locality and holotype specimen: Philippines (BMNH 1933.9.19.10.9–11, syntypes).

Philippine distribution: Basilan, Biliran, Bohol, Dinagat, Leyte, Mindanao, Samar (Endemic).

Figures 25 and 40.

***Staurois nubilus* (Mocquard 1890)**

Ixalus nubilus Mocquard 1890
Ixalus natator var. *nubilus*, Mocquard 1892; Guibé 1950
Staurois nubilus, Boulenger 1918; Decker 1938; Inger and Tan 1996

Type locality and holotype specimen: Philippines, Palawan (MNHNP 1889.344–46, syntypes).

Philippine distribution: Busuanga, Culion, Palawan (Endemic).

Figures 25 and 40.

Family Rhacophoridae

***Kurixalus appendiculatus* (Günther 1858)**

Polypedates appendiculatus Günther 1858
Rhacophorus appendiculatus, Boulenger 1882; Ahl 1931; Brown and Alcala 1994; Harvey, Pemberton, and Smith 2002
Rhacophorus phyllopygus Werner 1900
Rhacophorus chaseni Smith 1924
Rhacophorus appendiculatus chaseni, Smith 1930
Rhacophorus appendiculatus appendiculatus, Smith 1930; Inger 1954
Rhacophorus (Rhacophorus) chaseni, Ahl 1931
Rhacophorus (Rhacophorus) appendiculatus appendiculatus, Wolf 1936
Leptomantis appendiculatus, Iskandar and Colijn 2000
Kurixalus appendiculatus, Yu, Zhang, and Yang 2013

Type locality and holotype specimen: Philippines (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Basilan, Bohol, Camiguin Sur, Leyte, Luzon, Mindanao, Samar (Non-endemic).

Figures 25 and 40.

***Nyctixalus pictus* (Peters 1871)**

Ixalus pictus Peters 1871
Rhacophorus anodon Van Kampen 1907
Philautus pictus, Barbour 1912
Philautus anodon, Van Kampen 1923
Rhacophorus (Philautus) anodon, Ahl 1931
Rhacophorus (Philautus) pictus, Ahl 1931
Hazelia picta, Taylor 1962
Philautus pictus pictus, Inger 1966
Hazelia anodon, Liem 1970

Nyctixalus anodon, Dubois 1981

Edwardtayloria picta, Dring 1982

Edwardtayloria picta, Alcalá 1986

Nyctixalus pictus, Brown and Alcalá 1994; Matsui 1996

Type locality and holotype specimen: Malaysia (Borneo), Sarawak (MSNG 10062).

Philippine distribution: Palawan (Endemic).

Figure 26.

***Nyctixalus spinosus* (Taylor 1920)**

Hazelia spinosa Taylor 1920

Rhacophorus (Philautus) spinosus, Ahl 1931

Rhacophorus leprosus spinosus, Wolf 1936

Philautus spinosus, Inger 1954

Hazelia spinosa, Liem 1970

Edwardtayloria spinosa, Marx 1975

Nyctixalus spinosus, Dubois 1981; Brown and Alcalá 1994

Edwardtayloria spinosa, Alcalá 1986

Type locality and holotype specimen: Philippines, Mindanao, Agusan Province, Bunawan (CM 3420).

Philippine distribution: Basilan, Bohol, Leyte, Mindanao, Samar (Endemic).

Figures 26, 40, and 41.

***Philautus acutirostris* (Peters 1867)**

Ixalus acutirostris Peters 1867

Philautus acutirostris, Stejneger 1905; Inger 1954

Philautus woodi Stejneger 1905

Philautus basilanensis Taylor 1922

Rhacophorus (Philautus) woodi Ahl 1931

Rhacophorus (Philautus) basilanensis Ahl 1931

Rhacophorus (Philautus) acutirostris, Ahl 1931

Philautus (Philautus) acutirostris, Dubois 1987 “1986”

Type locality and holotype specimen: Philippines, eastern Mindanao (NMW 22885, ZMB 5690, syntypes).

Philippine distribution: Basilan, Bohol, Mindanao (Endemic).

Figures 26 and 41.

***Philautus everetti* (Boulenger 1894)**

Rhacophorus everetti Boulenger 1894

Polypedates everetti, Taylor 1920

Rhacophorus (Rhacophorus) buergeri everetti, Wolf 1936

Rhacophorus everetti everetti, Inger 1954

Philautus everetti, Hertwig, Das, Schweizer, Brown, and Haas 2012

Type locality and holotype specimen: Philippines, Palawan (BMNH 94.6.3.126–127, syntypes).

Philippine distribution: Palawan (Endemic).

Figures 26 and 41.

***Philautus leitensis* (Boulenger 1897)**

Ixalus leitensis Boulenger 1897

Philautus leitensis, Stejneger 1905; Inger 1954; Bossuyt and Dubois 2001

Rhacophorus (Philautus) leitensis, Ahl 1931

Type locality and holotype specimen: Philippines, Leyte (BMNH 96.12.11.92).

Philippine distribution: Bohol, Leyte, Mindanao, Samar (Endemic).

Figures 27 and 41.

***Philautus longicrus* (Boulenger 1894)**

Ixalus longicrus Boulenger 1894

Philautus longicrus, Stejneger 1905; Inger 1954

Rhacophorus (Philautus) longicrus, Ahl 1931

Philautus (Philautus) longicrus, Bossuyt and Dubois 2001

Type locality and holotype specimen: Philippines, Palawan (BMMH 94.6.30.129–131, now BMMH 1947.2.6.28–30, syntypes).

Philippine distribution: Palawan (Non-endemic).

Figures 27 and 41.

***Philautus poecilus* Brown and Alcala 1994**

Philautus poecilus Brown and Alcala 1994

Philautus (Philautus) poecilus, Bossuyt and Dubois 2001

Type locality and holotype specimen: Philippines, Mindanao, Agusan del Norte Province, south side of Mt. Hilong-hilong (CAS 133526).

Philippine distribution: Mindanao (Endemic).

Figures 27 and 41.

***Philautus schmackeri* (Boettger 1892)**

Ixalus schmackeri Boettger 1892

Ixalus mindorensis Boulenger 1897

Philautus schmackeri, Stejneger 1905; Taylor 1920; Inger 1954; Dubois 1987 “1986”

Philautus mindorensis Taylor 1920; Stejneger 1905

Rhacophorus (Philautus) schmackeri, Ahl 1931

Rhacophorus (Philautus) mindorensis Ahl 1931

Type locality and holotype specimen: Philippines, Mindoro, Mt. Halcone (SMF 1099a, now SMF 7035).

Philippine distribution: Mindoro (Endemic).

Figure 27.

***Philautus surdus* (Peters 1863)**

Polypedates surdus Peters 1863

Rhacophorus surdus, Boulenger 1882

Philautus williamsi Taylor 1922

Rhacophorus (Philautus) williamsi, Ahl 1931

Rhacophorus (Rhacophorus) surdus, Ahl 1931

Rhacophorus (Rhacophorus) buergeri surdus, Wolf 1936

Rhacophorus lissobrachius Inger 1954

Rhacophorus surdus, Inger 1954

Philautus surdus, Liem 1970; Brown and Alcala 1994

Philautus lissobrachius, Liem 1970

Philautus (Philautus) lissobrachius, Dubois 1987 “1986”

Philautus (Philautus) surdus, Dubois 1987 “1986”

Type locality and holotype specimen: Philippines, Luzon (ZMB 4920).

Philippine distribution: Bohol, Luzon, Mindanao (Endemic).

Figures 28 and 41.

***Philautus surrufus* Brown and Alcala 1994**

Rhacophorus surdus Rabor and Alcala 1959 (partim)

Philautus surrufus, Brown and Alcala 1994

Philautus (Philautus) surrufus, Bossuyt and Dubois 2001

Type locality and holotype specimen: Philippines, Mindanao, Misamis Occidental Province, about 10 km SE of Masawan, on the west side of Dapitan Peak (1,800–1,900 m elev.) (CAS-SU 21013).

Philippine distribution: Mindanao (Endemic).

Figure 28.

***Philautus worcesteri* (Stejneger 1905)**

Cornufer worcesteri Stejneger 1905

Rhacophorus emembranatus Inger 1954

Philautus emembranatus Liem 1970

Philautus (Philautus) emembranatus, Dubois 1987 “1986”

Philautus worcesteri, Brown, Alcala, and Brown 1998

Type locality and holotype specimen: Philippines, Mindanao, Mount Apo (6,000 ft. elev.) (USNM 34784).

Philippine distribution: Mindanao (Endemic).

Figures 28 and 41.

***Polypedates leucomystax* (Gravenhorst 1829)**

Hyla leucomystax Gravenhorst 1829

Hyla sexvirgata Gravenhorst 1829

Hyla quadrilineata Wiegmann 1834

Polypedates leucomystax, von Tschudi 1838

Hyla leucopogon von Tschudi 1838

Hyla quadrivirgata von Tschudi 1838

Polypedates rugosus Duméril and Bibron 1841

Polypedates quadrilineatus, Günther 1859 “1858”

Limnodytes celebensis Fitzinger 1861 “1860”

Polypedates hecticus Peters 1863; Taylor 1920

Rhacophorus hecticus, Boulenger 1882

Rhacophorus maculatus var. *quadrilineata*, Boulenger 1882

Hylorana longipes Fischer 1885

Polypedates maculatus quadrilineatus, Fischer 1885

Rhacophorus maculatus Boettger 1886

Rhacophorus leucomystax, Boulenger 1889; Van Kampen 1923; Ahl 1931

Rhacophorus leucomystax leucomystax, Mocquard 1890

Rhacophorus leucomystax quadrilineatus, Mocquard 1890; Inger 1954

Rhacophorus leucomystax var. *sexvirgata*, Boettger 1894

Rhacophorus leucomystax quadrilineata, Werner 1903
Rhacophorus maculatus leucomystax, Annandale 1912
Rhacophorus maculatus himalayensis Annandale 1912
Hyla wirzi Roux 1927
Polypedates leucomystax, Taylor 1920
Rhacophorus (Polypedates) leucomystax, Bourret 1927
Rhacophorus (Polypedates) quadrilineatus, Bourret 1927
Rhacophorus kampeni Ahl 1927
Rhacophorus (Rhacophorus) hecticus Ahl 1931
Rhacophorus (Rhacophorus) himalayanus, Ahl 1931
Rhacophorus (Rhacophorus) kampeni, Ahl 1931
Rhacophorus (Rhacophorus) leucomystax leucomystax, Wolf 1936
Rhacophorus (Rhacophorus) wirzi Forcart 1946
Polypedates leucomystax, Alcalá 1986
Polypedates leucomystax, Dutta 1997

Type locality and holotype specimen: Indonesia, Java (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Batan, Bohol, Cagayan, Cagraray, Calagna-an, Caluya, Camiguin Norte, Camiguin Sur, Catanduanes, Cebu, Dinagat, Fuga, Gigantes Norte, Gigantes Sur, Guimaras, Inampulugan, Jolo, Leyte, Lubang, Luzon, Mactan, Marinduque, Masbate, Mindanao, Mindoro, Negros, Pacijan, Palaui, Palawan, Pan de Azucar, Panay, Polillo, Romblon Island Group, Samar, Semirara, Sibay, Sicogan, Verde (Non-endemic).

Figures 28 and 42.

***Polypedates macrotis* (Boulenger 1891)**

Rhacophorus macrotis Boulenger 1891
Polypedates macrotis, Günther 1895; Liem 1970; Alcalá 1986
Philautus montanus Taylor 1920
Polypedates linki Taylor 1922
Rhacophorus (Philautus) alticola Ahl 1931
Rhacophorus (Rhacophorus) macrotis, Ahl 1931
Rhacophorus (Rhacophorus) lincki Ahl 1931
Rhacophorus leucomystax linki, Wolf 1936; Inger 1954
Rhacophorus (Polypedates) macrotis, Bossuyt and Dubois 2001

Type locality and holotype specimen: Borneo, Sarawak, Baram district (BMNH 91.1.27.8, now BMNH 1947.2.8.18).

Philippine distribution: Busuanga, Calauit, Dumarán, Palawan, Sulu Archipelago (Non-endemic).

Figures 29 and 42.

***Rhacophorus bimaculatus* (Peters 1867)**

Leptomantis bimaculata Peters 1867
Ixalus bimaculatus, Boulenger 1882
Philautus bimaculatus, Stejneger 1905; Inger 1954
Philautus zamboangensis Taylor 1922
Rhacophorus (Philautus) bimaculatus, Ahl 1931
Rhacophorus bimaculatus, Liem 1970
Rhacophorus (Leptomantis) bimaculatus, Dubois 1987 “1986”
Leptomantis bimaculatus, Iskandar and Colijn 2000

Rhacophorus bimaculatus, Brown and Alcala 1994; Harvey, Pemberton, and Smith 2002
Type locality and holotype specimen: Philippines, Mindanao, Upper Valley of the Agusan (ZMB 5681, NHMW 16091, syntypes).

Philippine distribution: Bohol, Catanduanes, Dinagat, Leyte, Luzon, Mindanao, Polillo, Samar (Endemic).

Figures 29 and 42.

***Rhacophorus pardalis* Günther 1858**

Rhacophorus pardalis Günther 1858

Rhacophorus rizali Boettger 1897, 1899

Rhacophorus pulchellus Werner 1900

Polypedates pardalis, Taylor 1920

Rhacophorus (*Rhacophorus*) *pardalis*, Ahl 1931

Rhacophorus (*Rhacophorus*) *pulchellus*, Ahl 1931

Rhacophorus pardalis pardalis, Wolf 1936; Inger 1954

Rhacophorus pardalis pulchellus, Wolf 1936

Rhacophorus pardalis rhysocephalus, Wolf 1936

Rhacophorus rhysocephalus, Inger and Voris 2001

Type locality and holotype specimen: Philippines (Status and whereabouts of holotype unknown; not traced).

Philippine distribution: Basilan, Bohol, Camiguin Sur, Catanduanes, Dinagat, Leyte, Luzon, Mindanao, Mindoro, Negros, Romblon Island Group, Samar, Siquijor (Non-endemic).

Figures 29 and 42.

Class Amphibia, Order Gymnophiona

Family Ichthyophiidae

***Ichthyophis glandulosus* (Taylor 1923)**

Ichthyophis glandulosus Taylor 1923

Ichthyophis monochrous Inger 1954; Alcala 1986

Type locality and holotype specimen: Philippines, Basilan, Abungabung (= Abung Abung) (CAS 60073).

Philippine distribution: Basilan, Mindanao (Endemic).

Figures 29 and 42.

***Ichthyophis mindanaoensis* (Taylor 1960)**

Ichthyophis monochrous Inger 1954; Alcala 1986

Ichthyophis mindanaoensis Taylor 1960

Type locality and holotype specimen: Philippines, Mindanao, Davao Province, Mt. Apo, Todaya (2,800 ft. elev.) (FMNH 50958).

Philippine distribution: Mindanao (Endemic).

Figure 30.

***Ichthyophis weberi* Taylor 1920**

Ichthyophis weberi Taylor 1920

Caudacaecilia weberi, Taylor 1923, 1968

Ichthyophis monochrous Inger 1954; Alcala 1986

Ichthyophis weberi, Nishikawa, Matsui, Yong, Ahmad, Yambun, Belabut, Sudin,

Hamidy, Orlov, Ota, Yoshikawa, Tominaga, and Shimada 2012

Type locality and holotype specimen: Philippines, Palawan, Malatgan River (CAS-SU 21758, neotype).

Philippine distribution: Palawan (Endemic).

Figure 30.

CONCLUSIONS

Our understanding of biodiversity of amphibians in the Philippines has increased substantially over the last century as a result of continued faunal surveys over a greater proportion of the archipelago and, more recently, with the increased availability of genetic data guiding identification and discovery of unique evolutionary lineages (Brown et al. 2013). Vouchered global collections now exceed 43,000 specimen records, housed among more than 30 museums in seven countries. The amphibian fauna in the Philippines includes members of nine anuran families (Bombinatoridae, Bufonidae, Ceratobatrachidae, Dicroglossidae, Eleutherodactylidae, Megophryidae, Microhylidae, Ranidae, Rhacophoridae) and one gymnophionan family (Ichthyophiidae). Four of these families are represented by endemic species only in the archipelago (Bombinatoridae, Ceratobatrachidae, Ichthyophiidae, Megophryidae).

What once was considered a depauperate amphibian fauna composed of a number of widespread species distributed across larger regions of Southeast Asia (Inger 1954; Brown and Alcala 1970a, b), we take note of the fact that the diversity of endemic amphibian species in the Philippines has risen precipitously (Figure 1) in recent years. Currently, there are 112 species recorded in the archipelago, 94 of which are endemic (83.9% amphibian endemicity). In contrast, truly widespread (non-endemic) species account for only 16.1% (18 species; Figure 1). Furthermore, nearly one-third of the country's non-endemic species are the result of introductions (*Eleutherodactylus planirostris*, *Hoplobatrachus rugulosus*, *Hylarana erythraea*, *Kaloula pulchra*, *Lithobates catesbeianus*, and *Rhinella marina*; Figure 1). Although the rate of discovery of non-endemic species of amphibians has slowed considerably over the last hundred years, the number of endemic species continues to grow with little indication of slowing. Within the last 20 years alone, 27 new amphibian species have been described (nearly one-quarter of the country's recognized diversity), all endemic to the Philippines (Figure 1). These data suggest that considerable cryptic diversity and underestimated regional diversity exist throughout the archipelago. Continued efforts to describe and study the archipelago's amphibian fauna are necessary for successful conservation of threatened taxa and clarification of the broader evolutionary mechanisms that drive such diversity.

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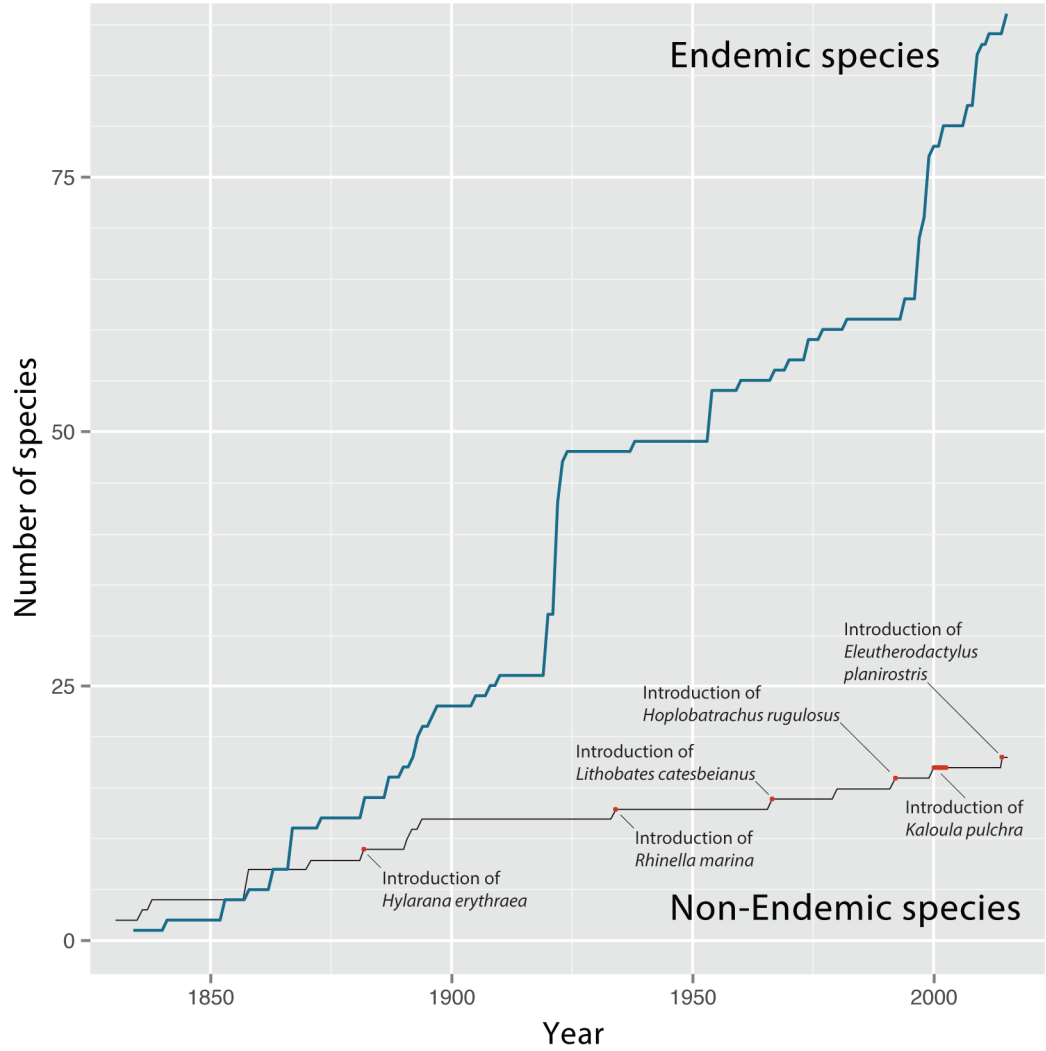


FIGURE 1.—Species accumulation curve for new amphibian species described in the Philippines, from 1758–2015.

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AUTHOR CONTRIBUTIONS

CDS, RMB, ACD, and JLW conceived the ideas; ACD, NAH, ACA, RIC, LEA, GGD, RVS, MBS, MLD, EYS, LJW, RMB, and CDS participated in fieldwork; JLW, MBS, MLP, MJL, CSD, EAL, and CDS compiled and analyzed the dataset; NAH created the maps; DRD created the photo plates; JLW, NAH, DRD, RMB, and CDS revised analyzed the data; ACD and JLW led the writing; JLW, NAH, and CDS wrote the introduction and discussion; and JLW, CDS, NAH, DRD, and RMB edited drafts of the manuscript.

Distribution Maps and Photographs

Figures 2–44

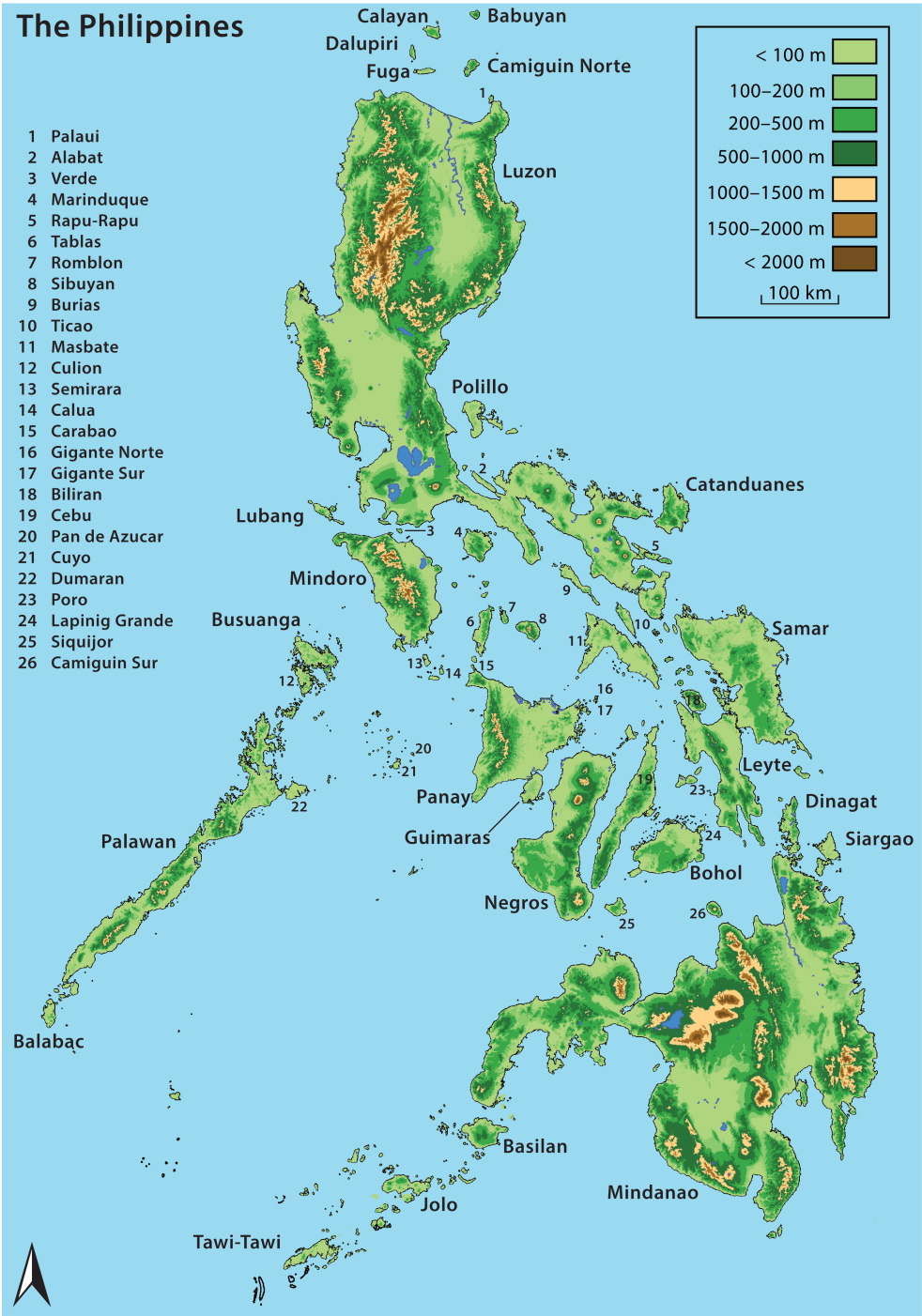


FIGURE 2. Topographic map of the Philippine archipelago, with island names provided for larger islands. Numeric labels for smaller islands correspond to inset key.

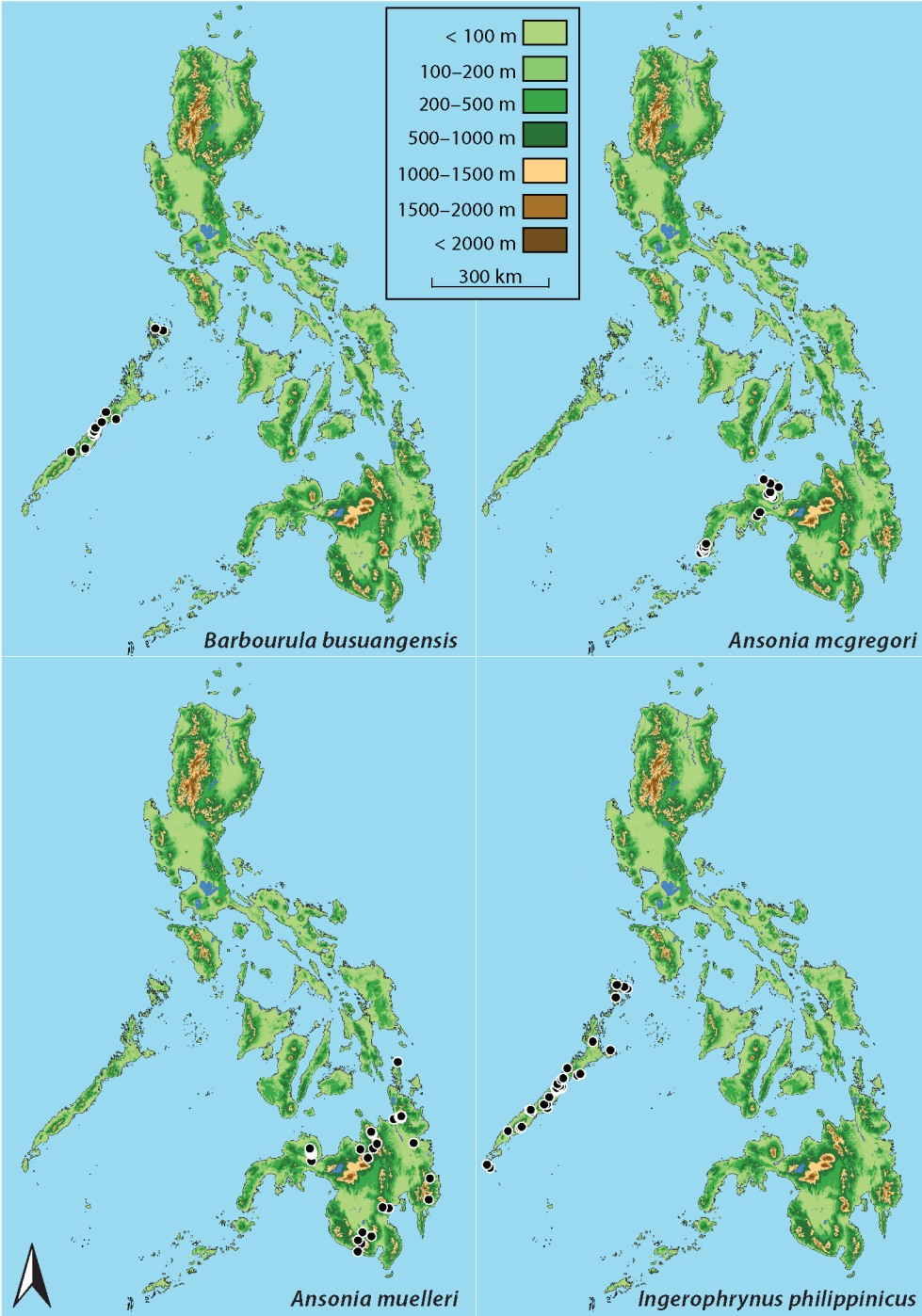


FIGURE 3. Geographic range maps for members of the families Bombinatoridae (*Barbourula busuangensis*), and Bufonidae (*Ansonia mcgregori*, *A. muelleri*, and *Ingerophrynus philippinicus*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

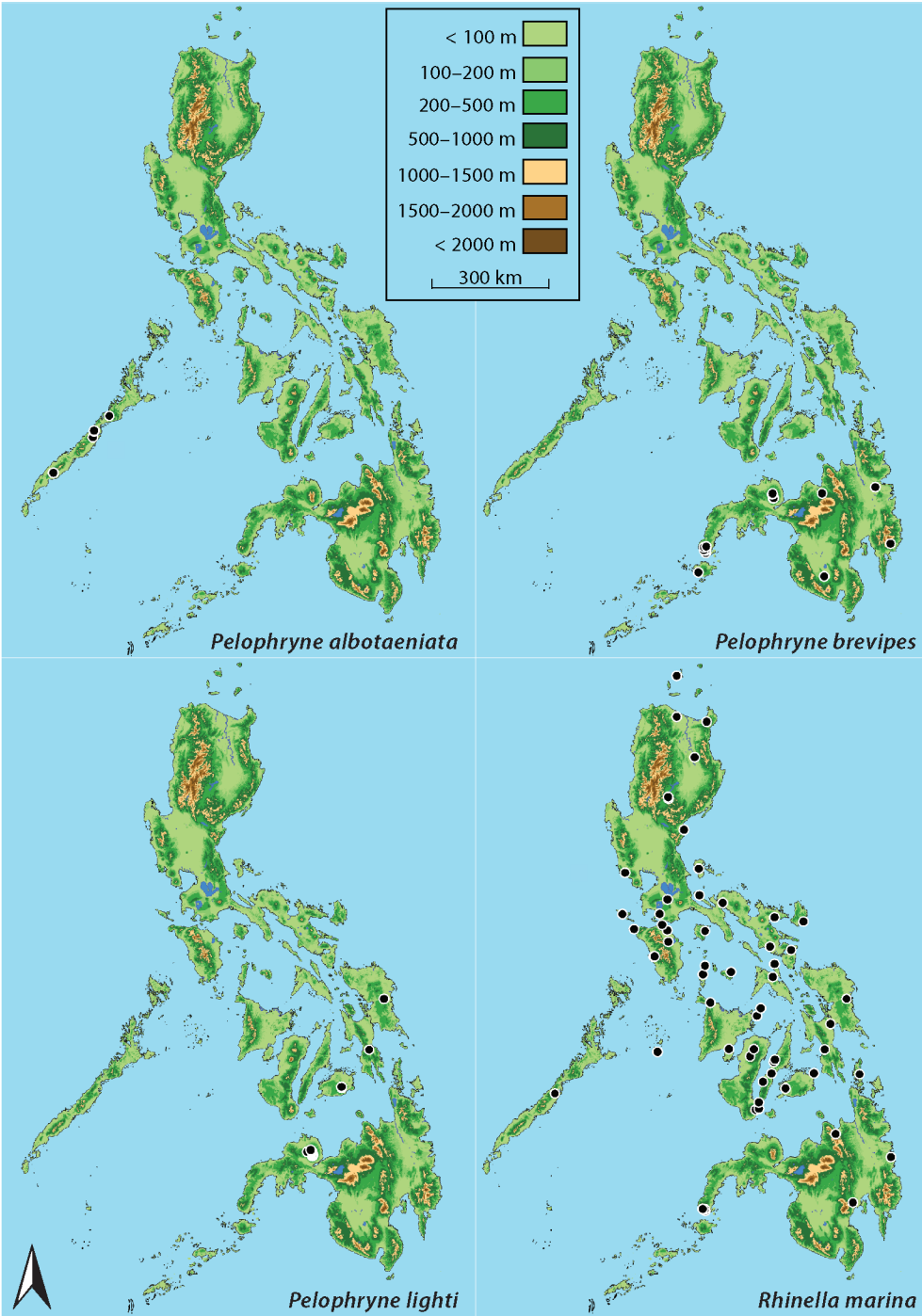


FIGURE 4. Geographic range maps for members of the family Bufonidae (*Pelophryne albotaeniata*, *P. brevipes*, *P. lighti*, and *Rhinella marina*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

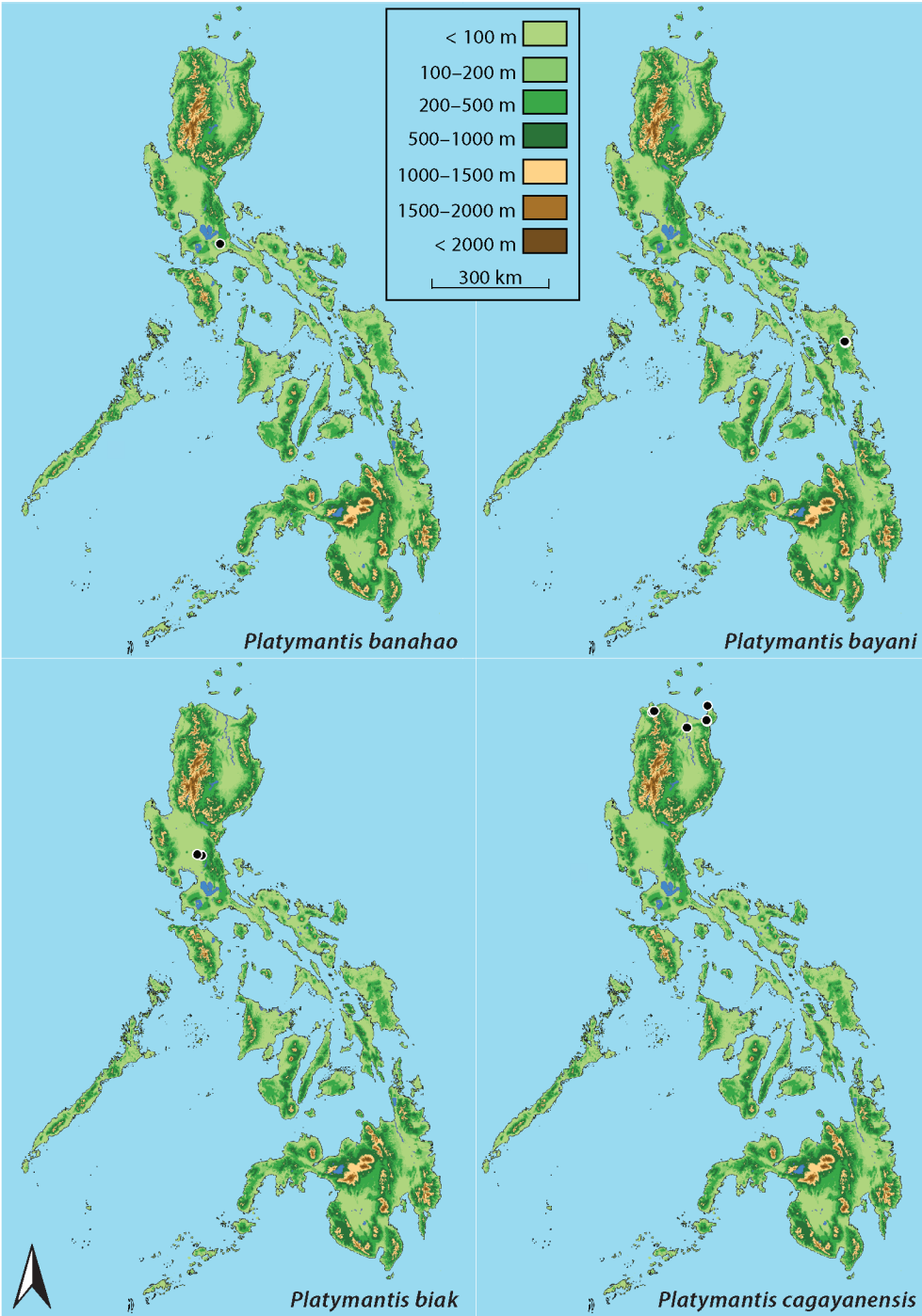


FIGURE 5. Geographic range maps for members of the family Ceratobatrachidae (*Platymantis banahao*, *P. bayani*, *P. biak*, and *P. cagayanensis*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

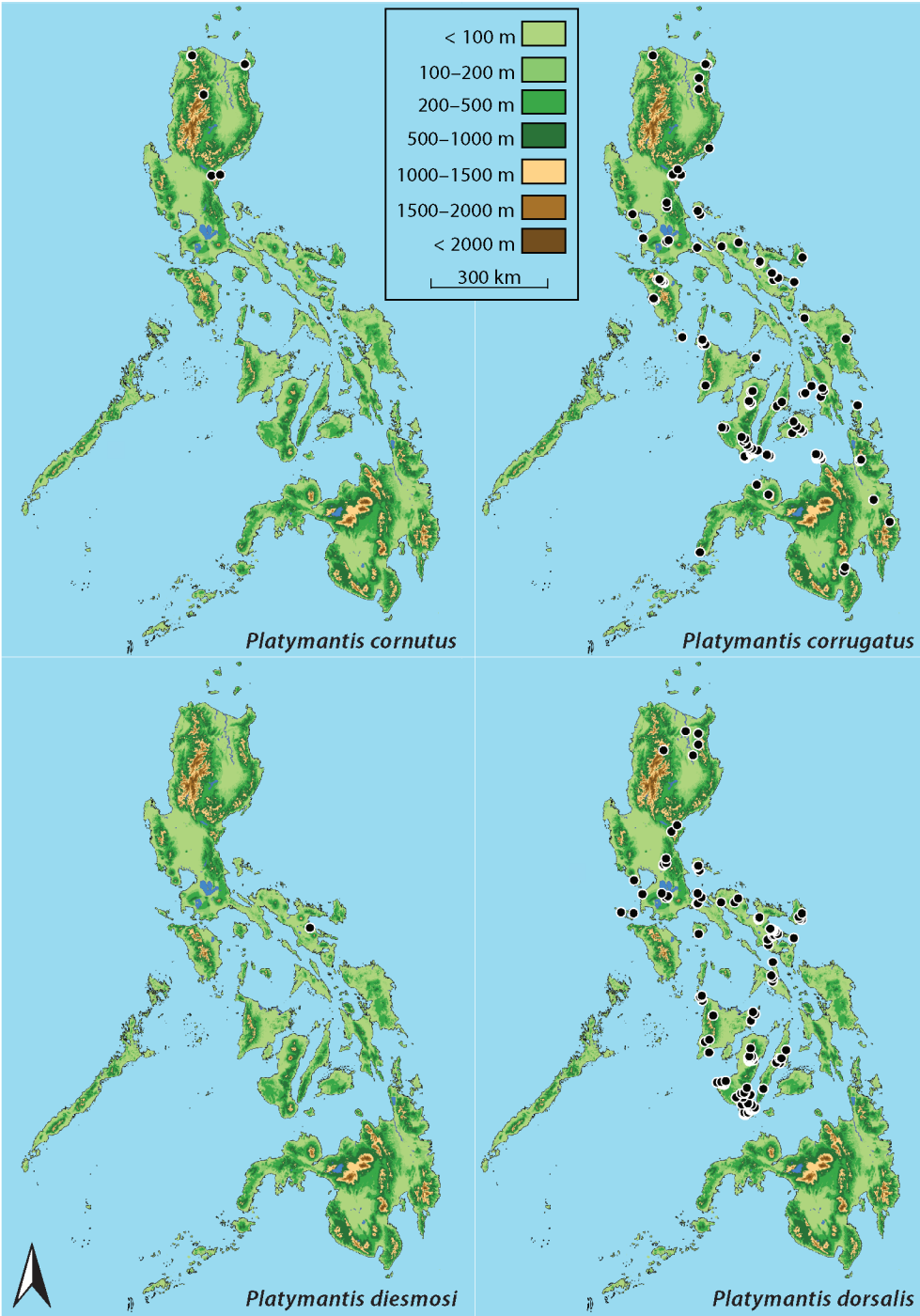


FIGURE 6. Geographic range maps for members of the family Ceratobatrachidae (*Platymantis cornutus*, *P. corrugatus*, *P. diesmosi*, and *P. dorsalis*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

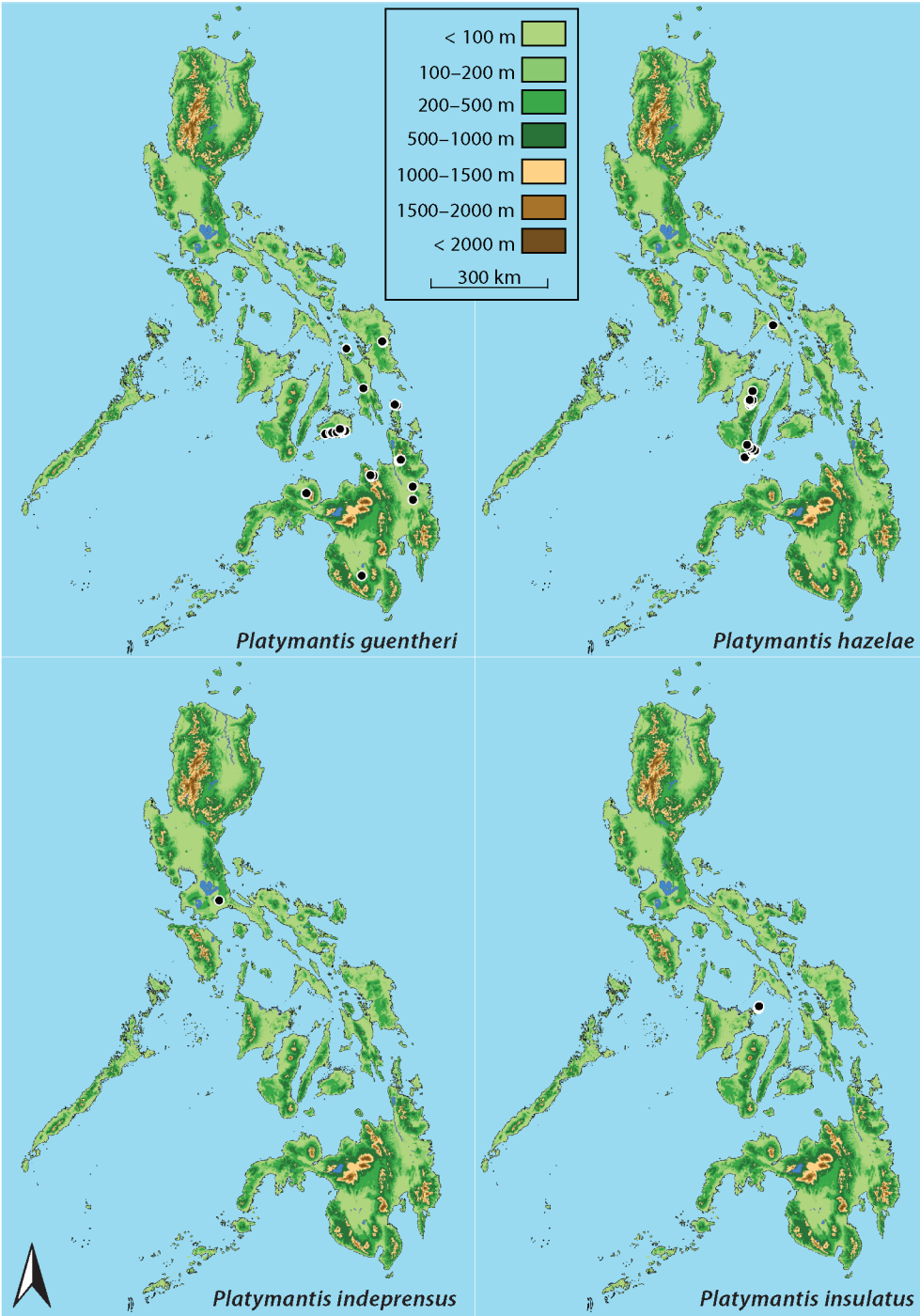


FIGURE 7. Geographic range maps for members of the family Ceratobatrachidae (*Platymantis guentheri*, *P. hazelae*, *P. indepressus*, and *P. insulatus*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

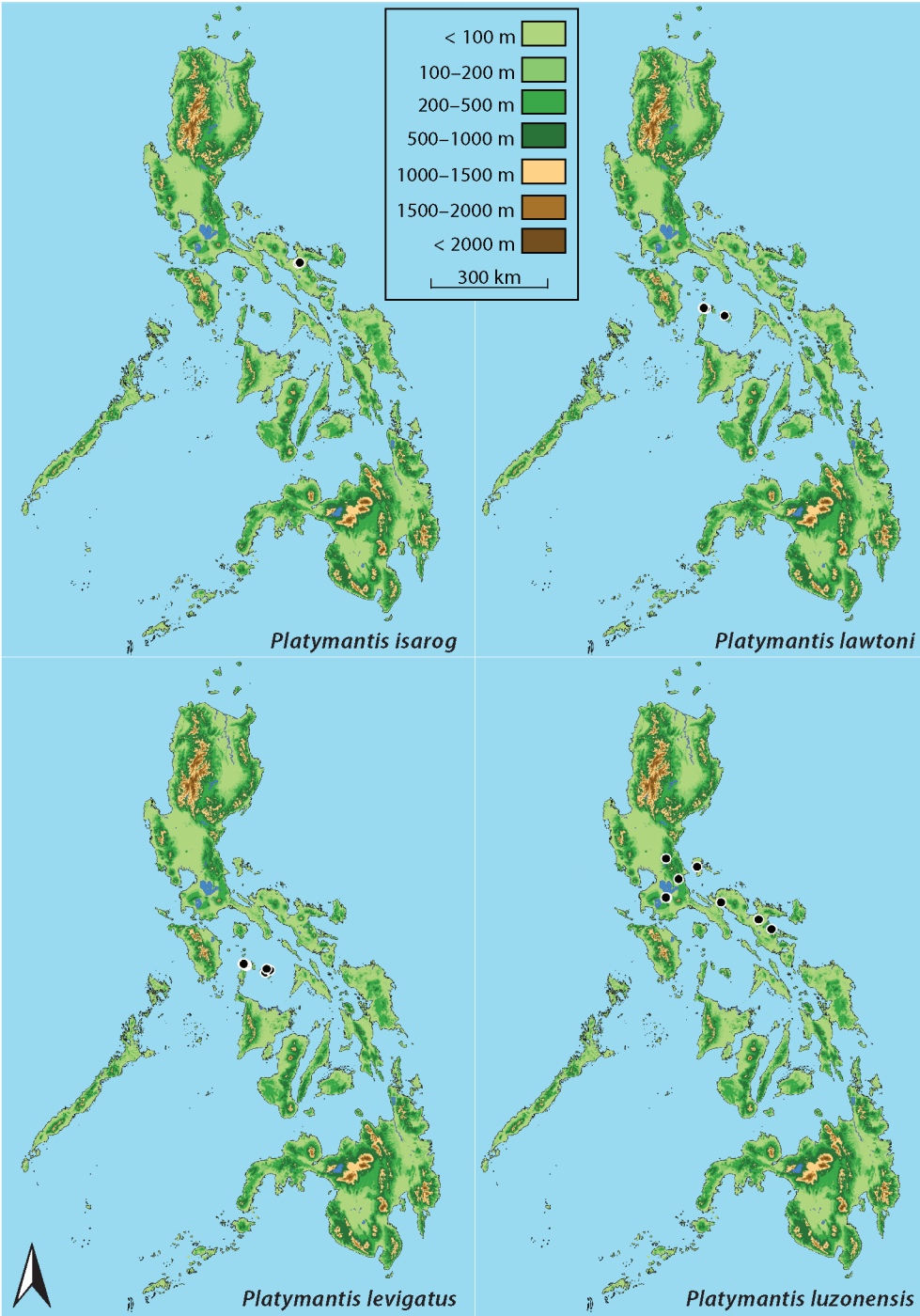


FIGURE 8. Geographic range maps for members of the family Ceratobatrachidae (*Platymantis isarog*, *P. lawtoni*, *P. levigatus*, and *P. luzonensis*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

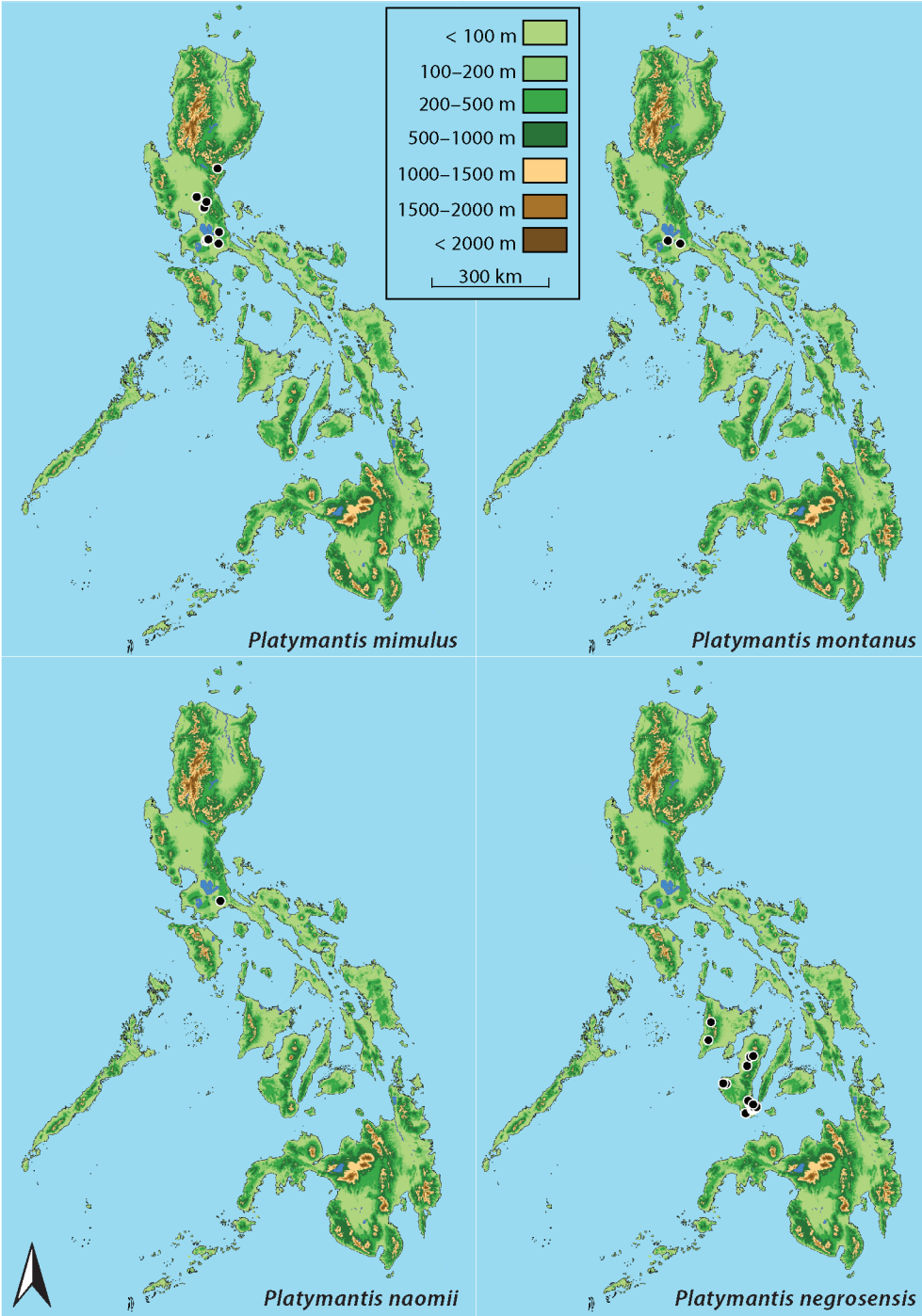


FIGURE 9. Geographic range maps for members of the family Ceratobatrachidae (*Platymantis mimulus*, *P. montanus*, *P. naomii*, and *P. negrosensis*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

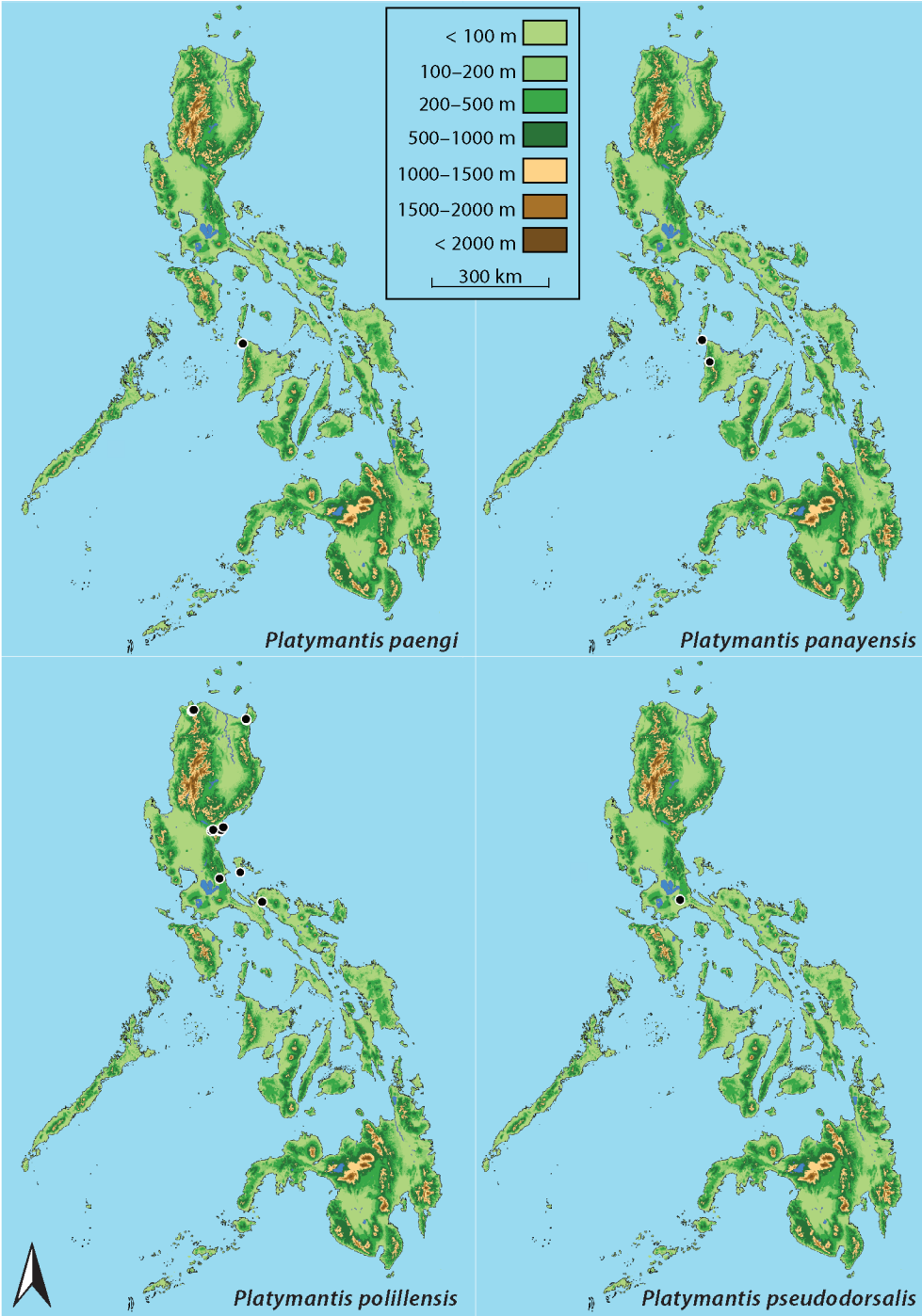


FIGURE 10. Geographic range maps for members of the family Ceratobatrachidae (*Platymantis paengi*, *P. panayensis*, *P. polillensis*, and *P. pseudodorsalis*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

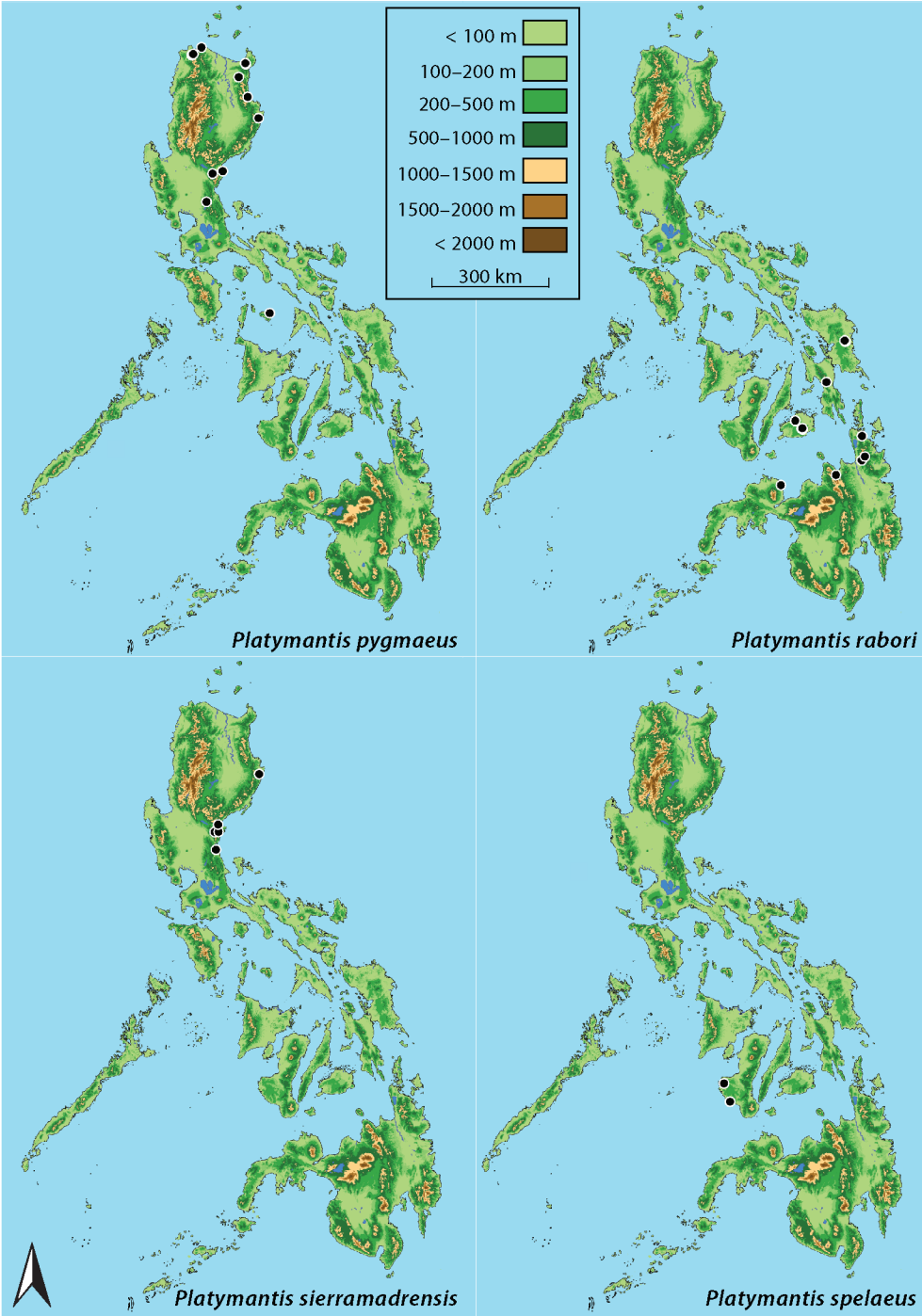


FIGURE 11. Geographic range maps for members of the family Ceratobatrachidae (*Platymantis pygmaeus*, *P. rabori*, *P. sierramadrensis*, and *P. spelaeus*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

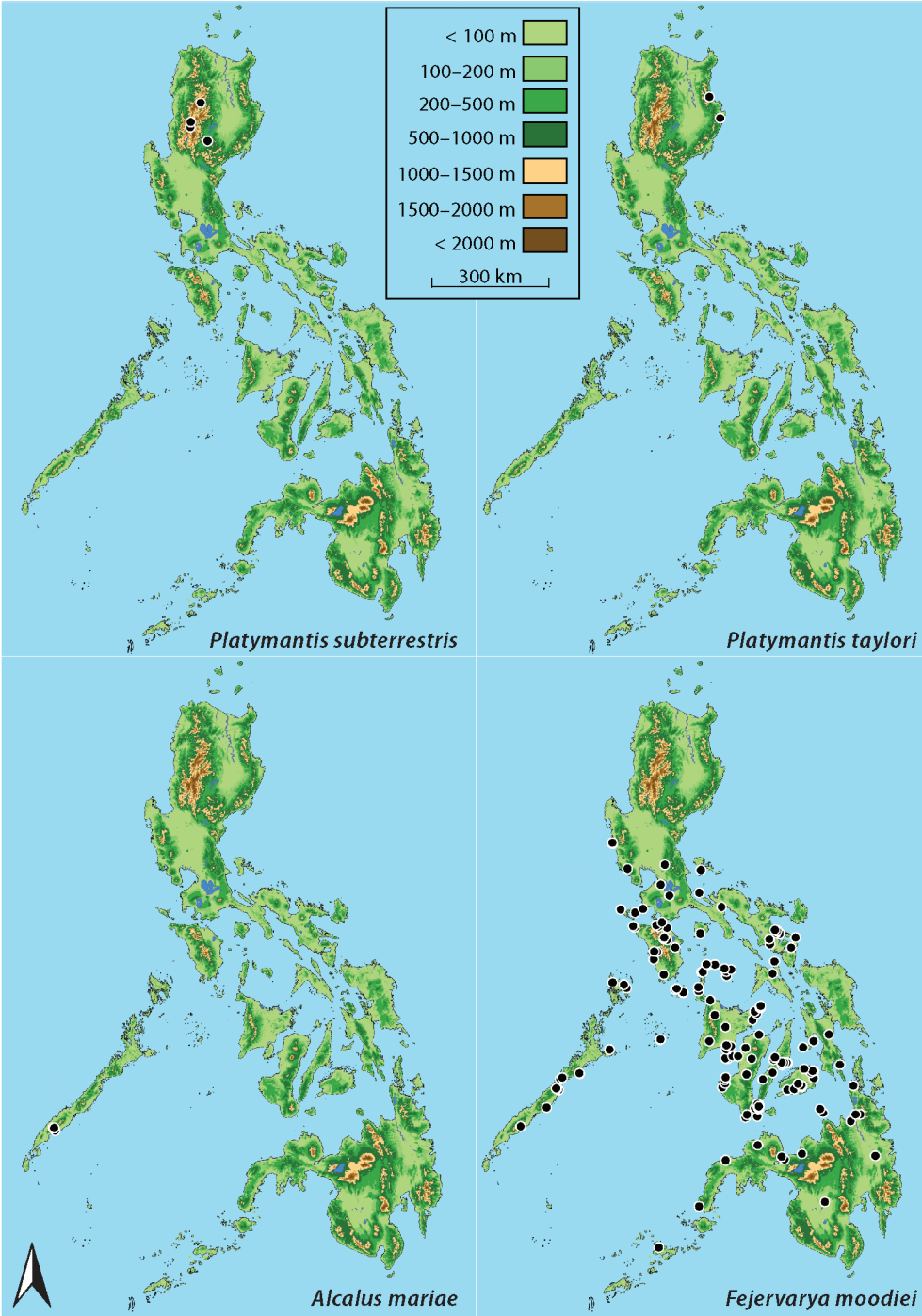


FIGURE 12. Geographic range maps for members of the families Ceratobatrachidae (*Platymantis subterrestris*, *P. taylori*, and *Alcalus mariae*) and Dicroglossidae (*Fejervarya moodiei*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

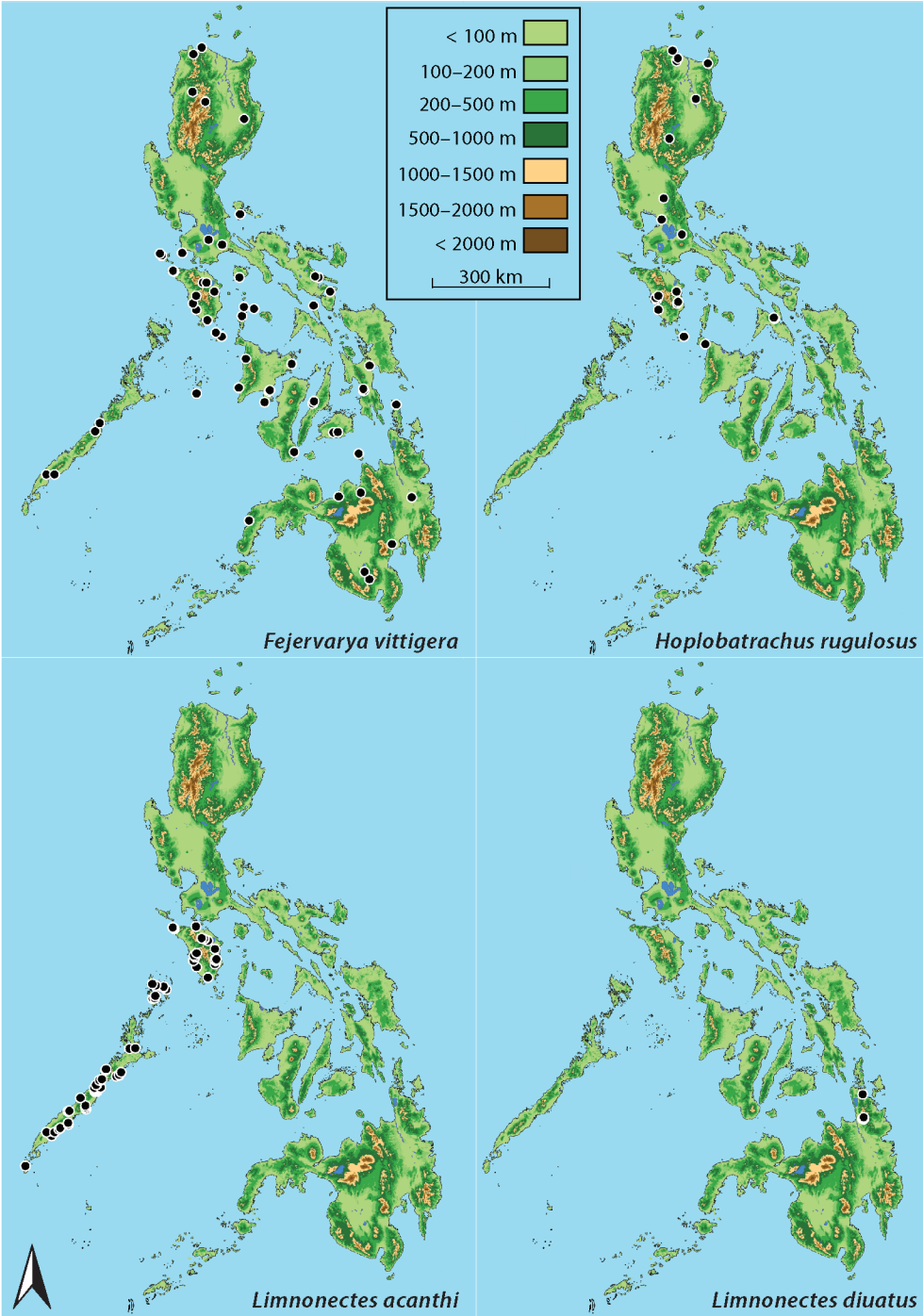


FIGURE 13. Geographic range maps for members of the family Dicroglossidae (*Fejervarya vittigera*, *Hoplobatrachus rugulosus*, *Limnonectes acanthi*, and *L. diuatus*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

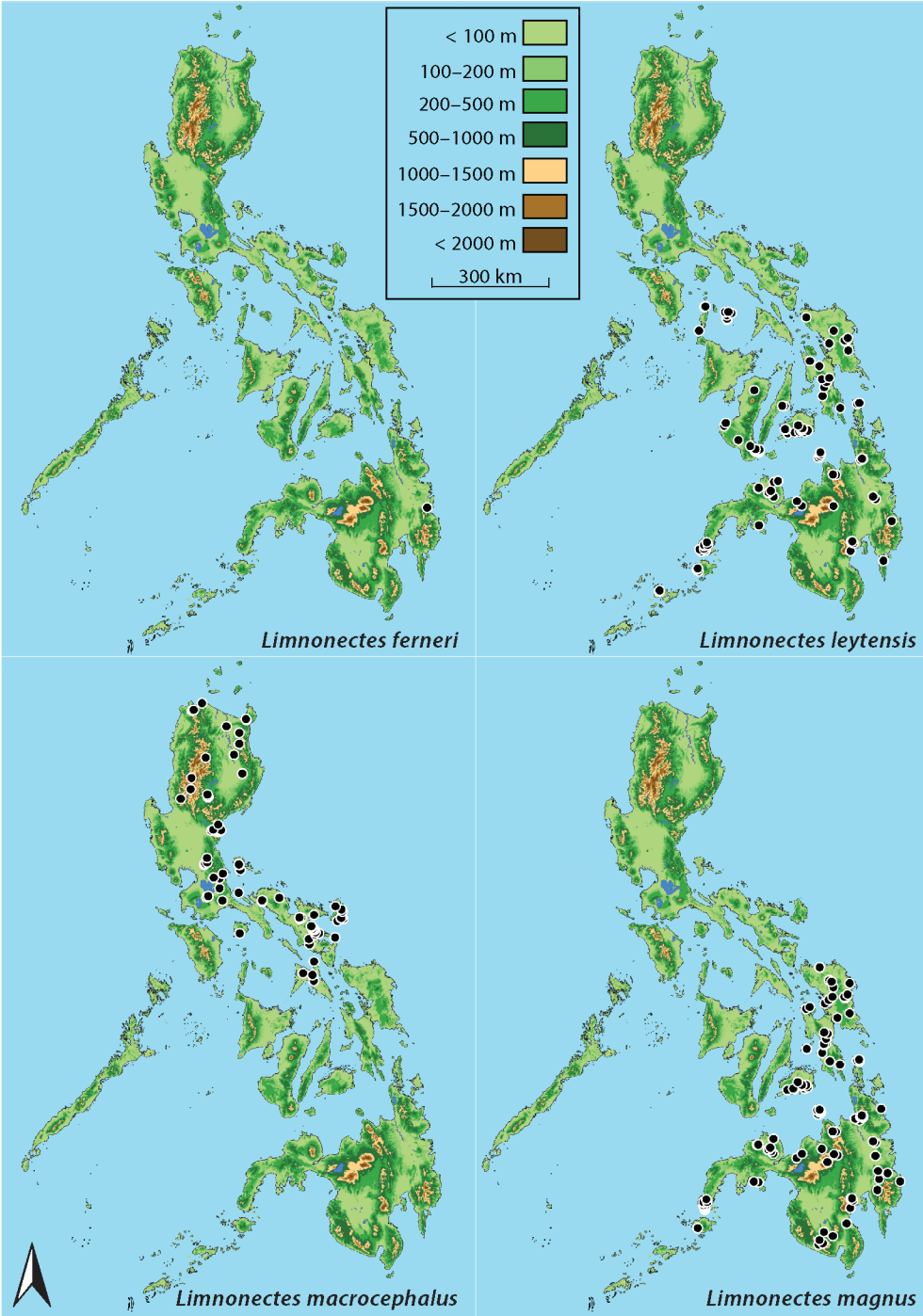


FIGURE 14. Geographic range maps for members of the family Dicoglossidae (*Limnonectes feneri*, *L. leytensis*, *L. macrocephalus*, and *L. magnus*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

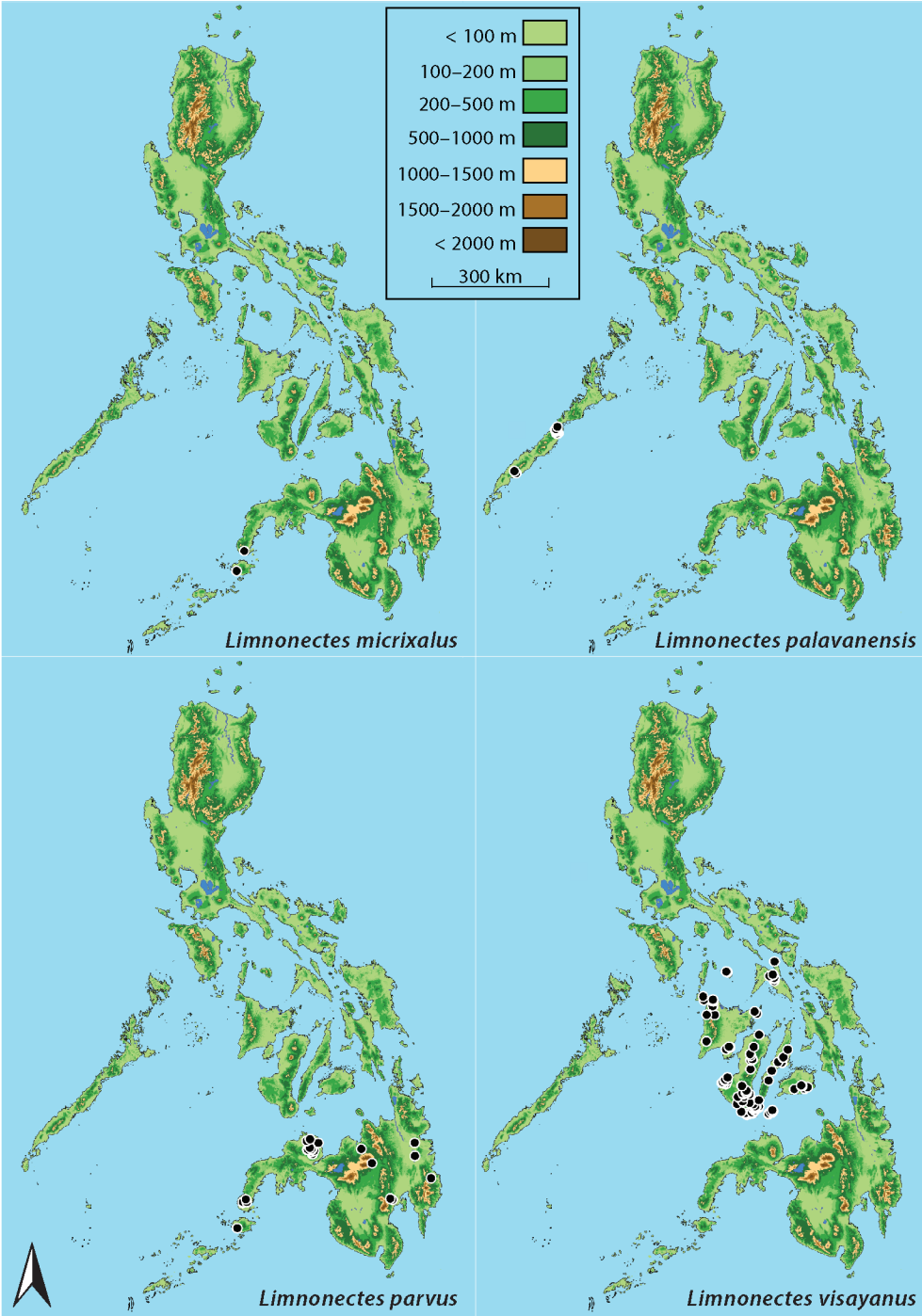


FIGURE 15. Geographic range maps for members of the family Dicroglossidae (*Limnonectes micrixalus*, *L. palavanensis*, *L. parvus*, and *L. visayanus*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

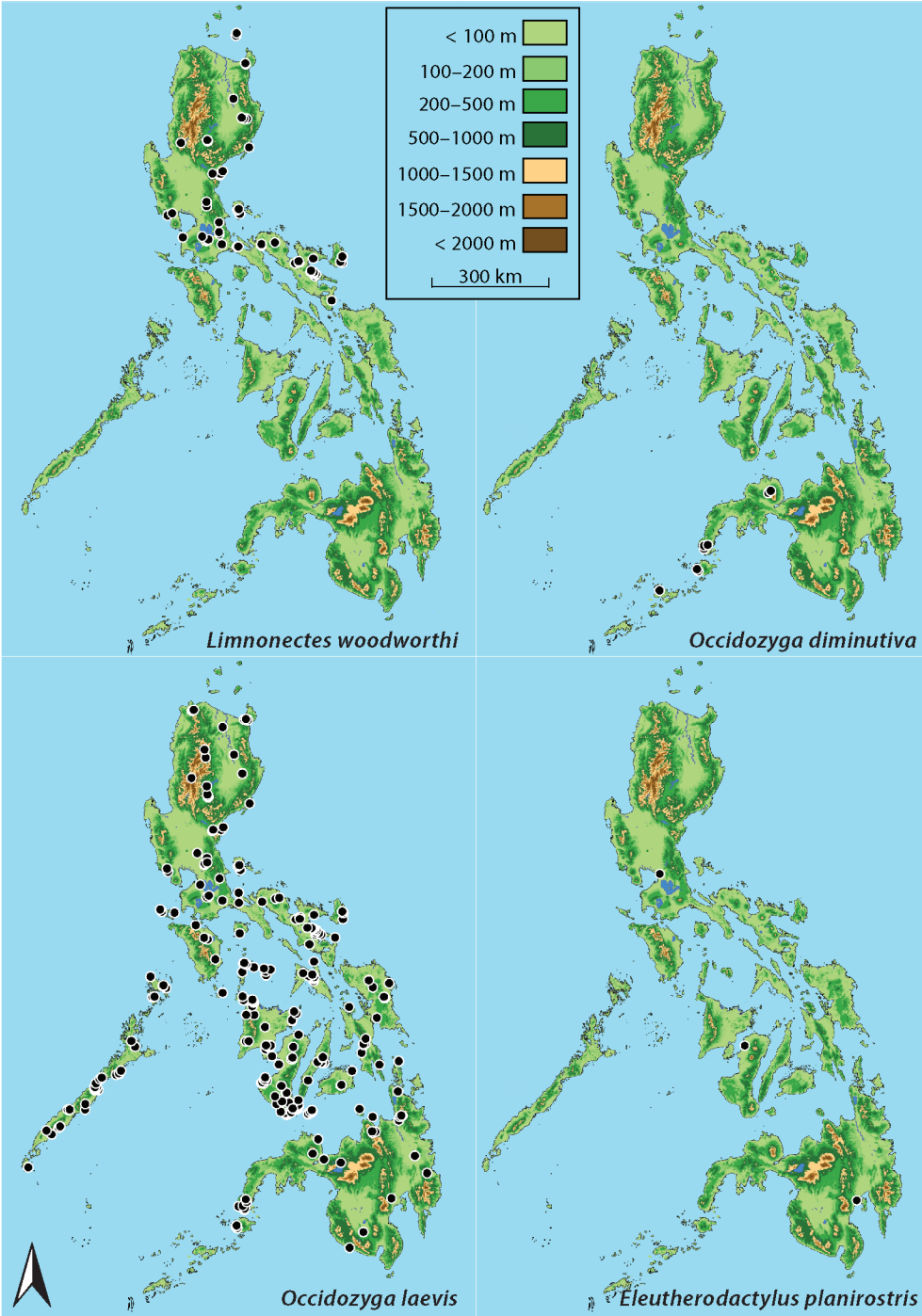


FIGURE 16. Geographic range maps for members of the families Dicroglossidae (*Limnonectes woodworthi*, *Occidozyga diminutiva*, and *O. laevis*), and Eleutherodactylidae (*Eleutherodactylus planirostris*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

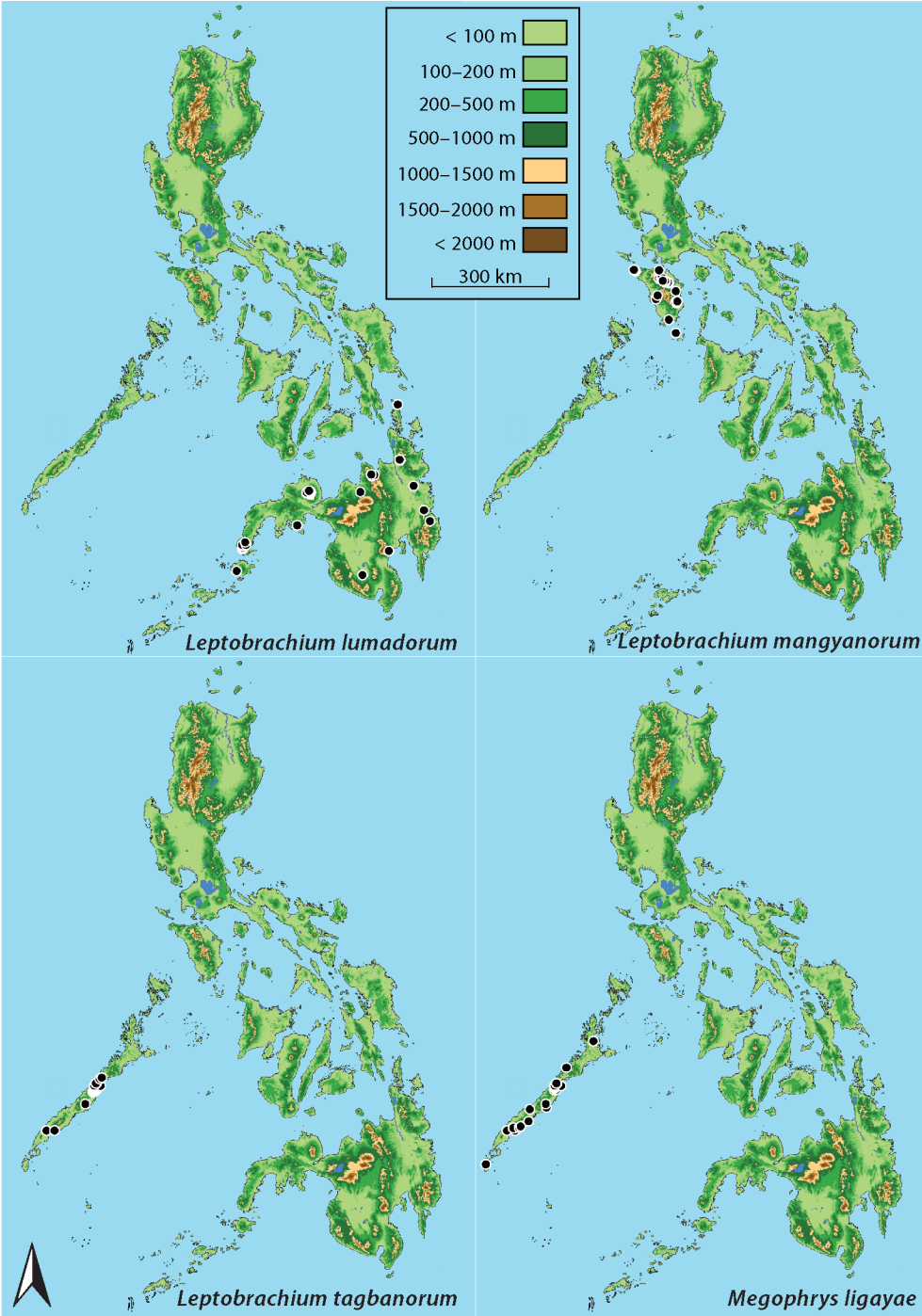


FIGURE 17. Geographic range maps for members of the family Megophryidae (*Leptobrachium lumadum*, *L. mangyanorum*, *L. tagbanorum*, and *Megophrys ligayae*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

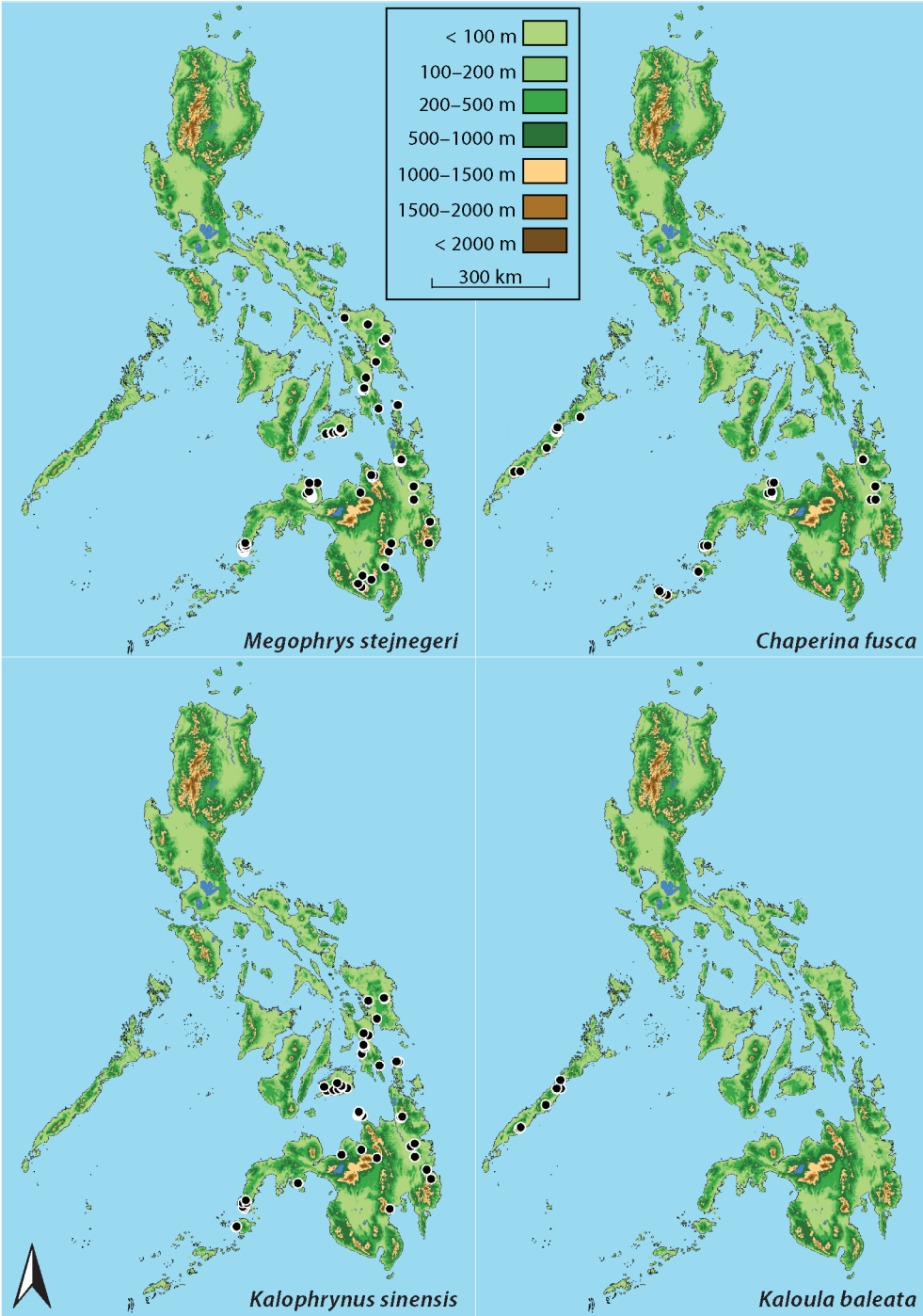


FIGURE 18. Geographic range maps for members of the families Megophryidae (*Megophrys stejnegeri*), and Microhylidae (*Chaperina fusca*, *Kalophrynus sinensis*, and *Kaloula baleata*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

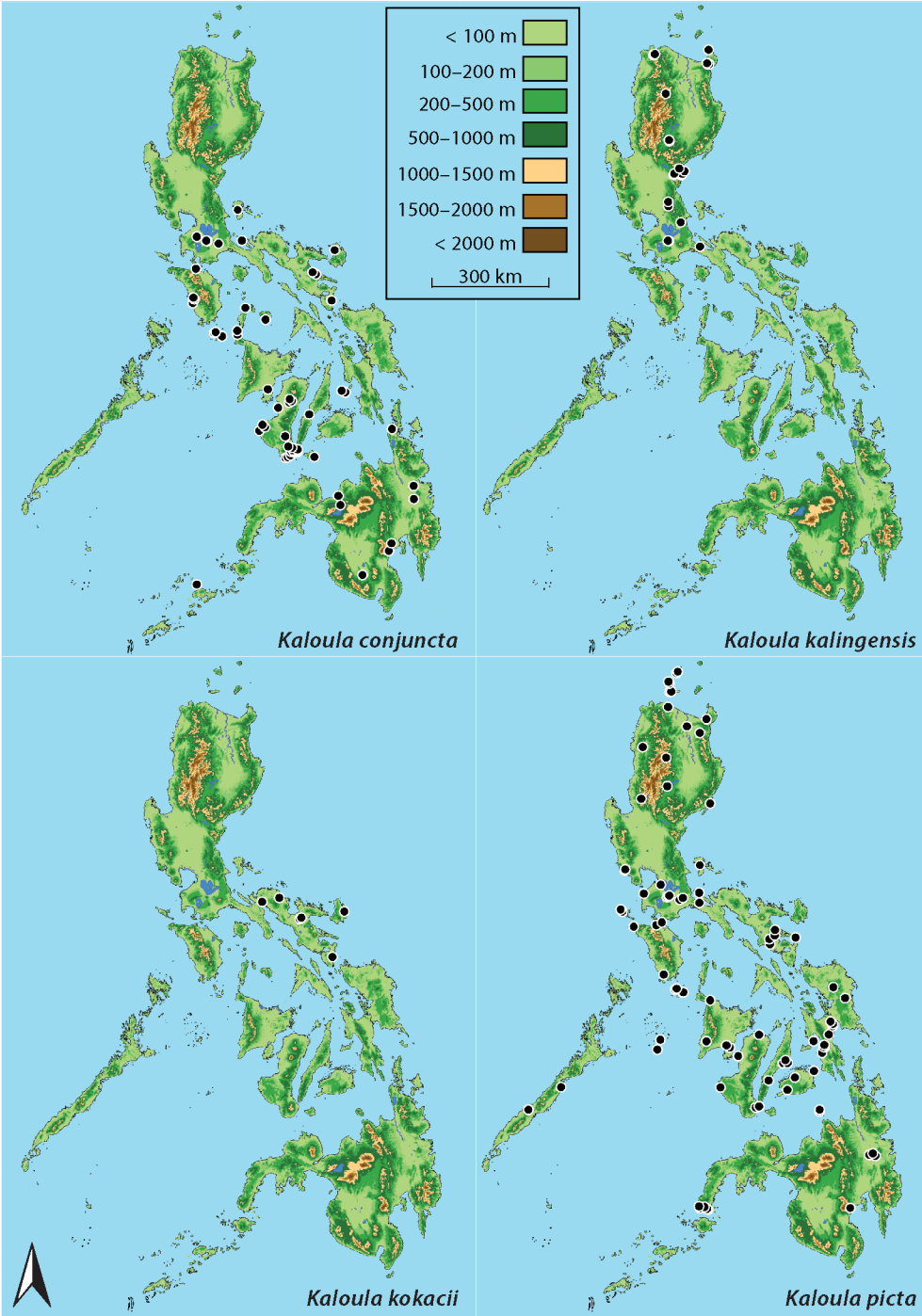


FIGURE 19. Geographic range maps for members of the family Microhylidae (*Kaloula conjuncta*, *K. kalingensis*, *K. kokacii*, and *K. picta*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

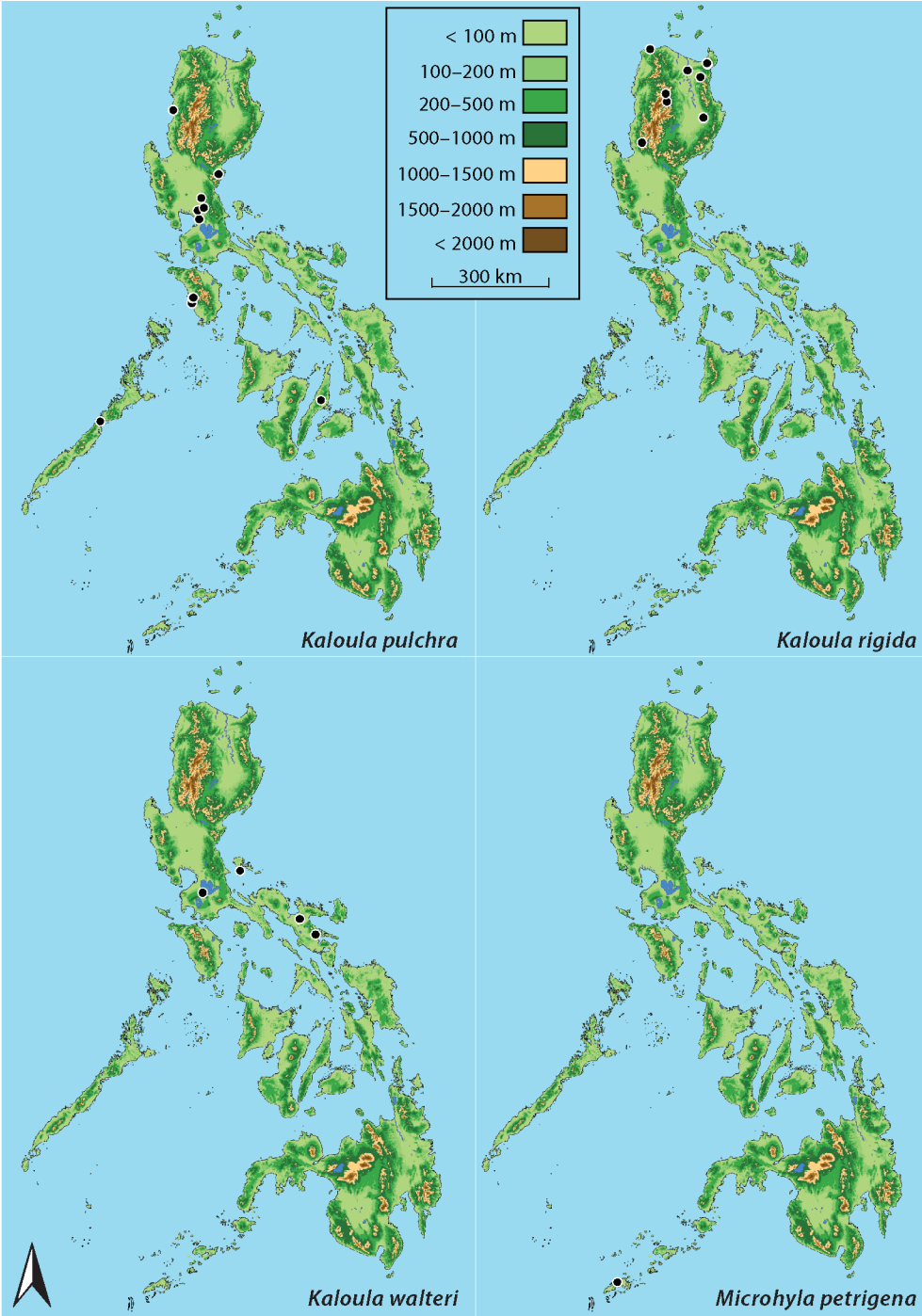


FIGURE 20. Geographic range maps for members of the family Microhylidae (*Kaloula pulchra*, *K. rigida*, *K. waltheri*, and *Microhyla petrigena*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

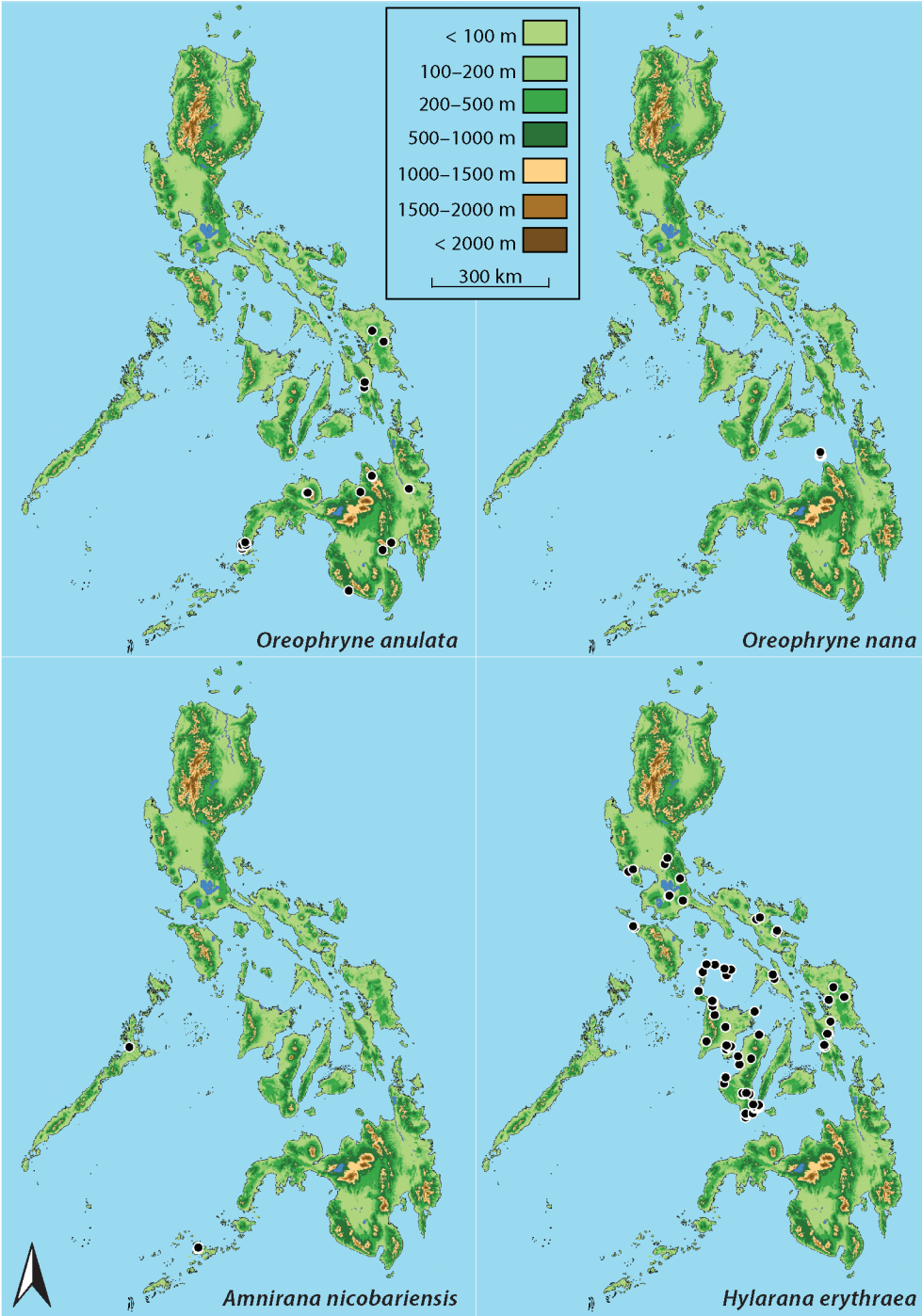


FIGURE 21. Geographic range maps for members of the families Microhylidae (*Oreophryne anulata* and *O. nana*), and Ranidae (*Amnirana nicobariensis* and *Hylarana erythraea*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

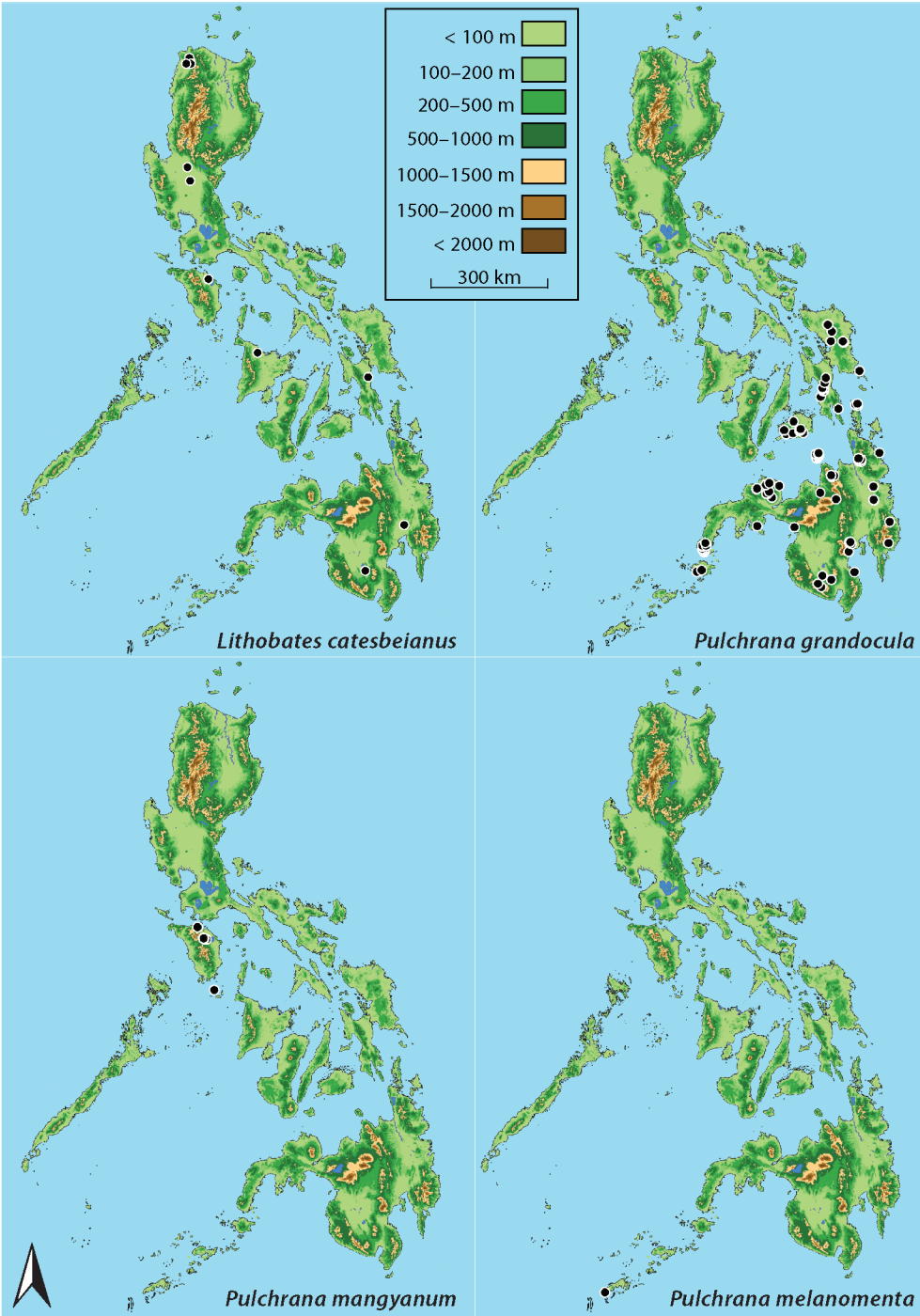


FIGURE 22. Geographic range maps for members of the family Ranidae (*Lithobates catesbeianus*, *Pulchrana grandocula*, *P. mangyanum*, and *P. melanomenta*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

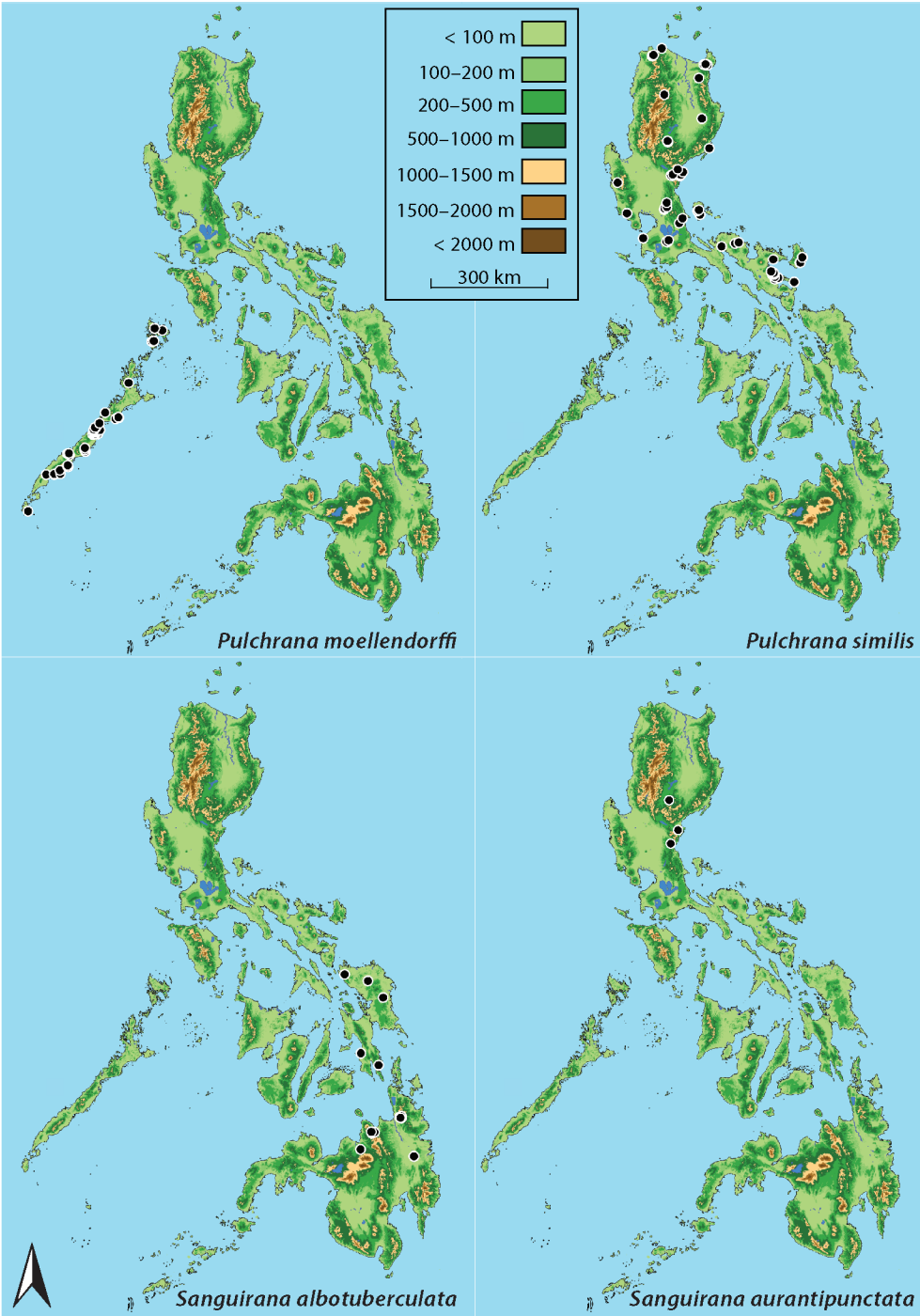


FIGURE 23. Geographic range maps for members of the family Ranidae (*Pulchrana moellendorffi*, *P. similis*, *Sanguirana albotuberculata*, and *S. aurantipunctata*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

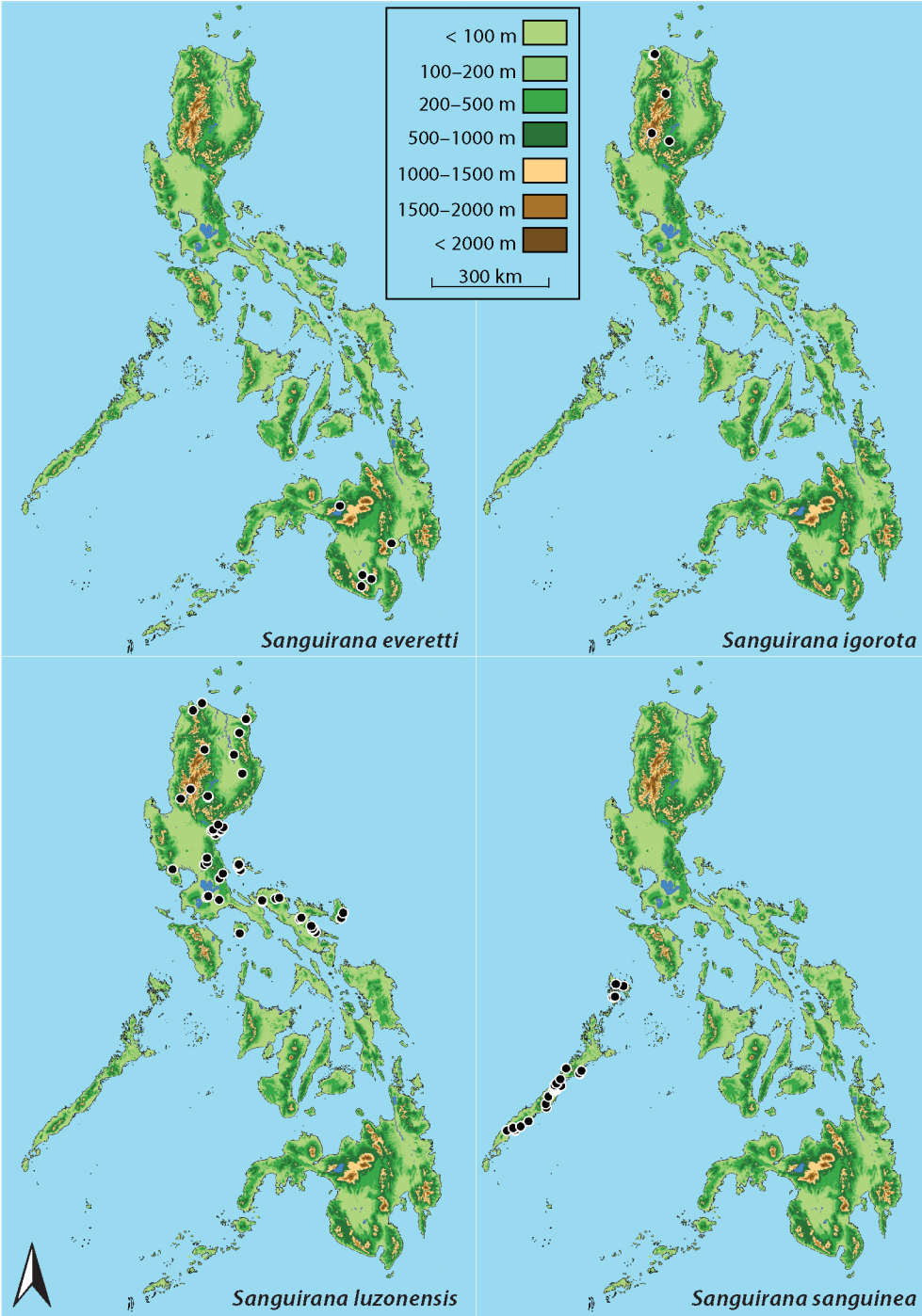


FIGURE 24. Geographic range maps for members of the family Ranidae (*Sanguirana everetti*, *S. igorota*, *S. luzonensis*, and *S. sanguinea*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

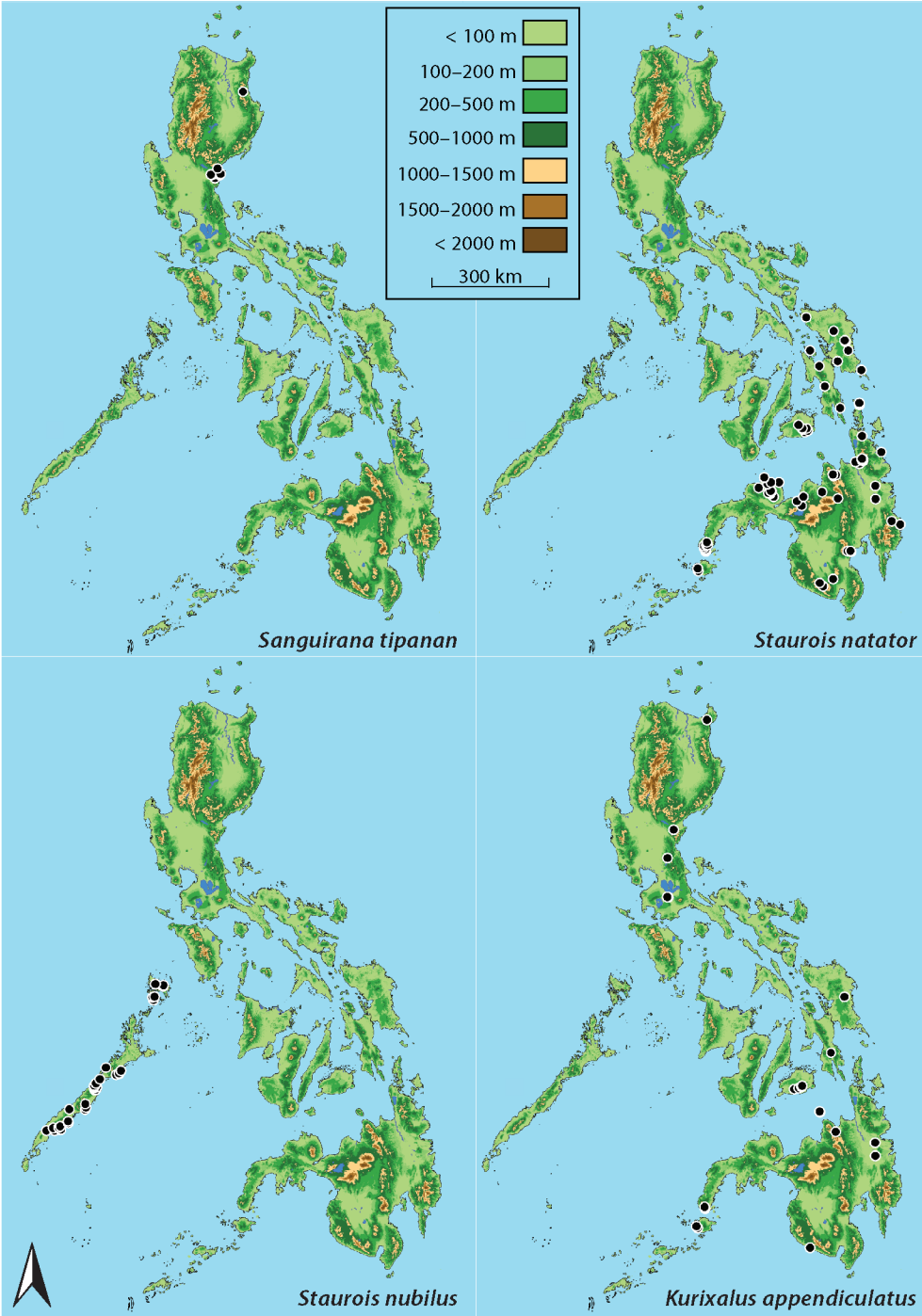


FIGURE 25. Geographic range maps for members of the families Ranidae (*Sanguirana tipanan*, *Staurois natator*, and *S. nubilus*), and Rhacophoridae (*Kurixalus appendiculatus*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

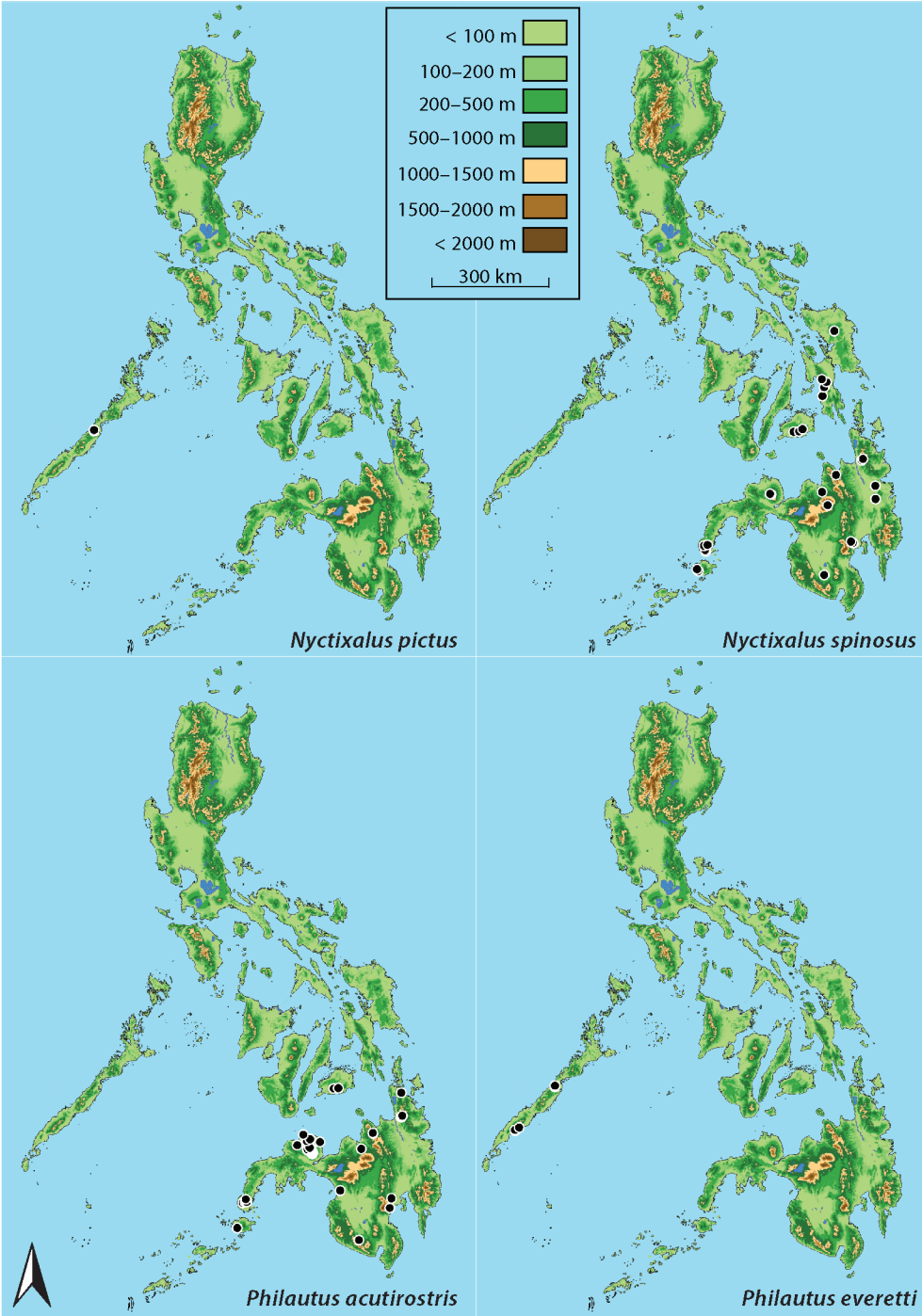


FIGURE 26. Geographic range maps for members of the family Rhacophoridae (*Nyctixalus pictus*, *N. spinosus*, *Philautus acutirostris*, and *P. everetti*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

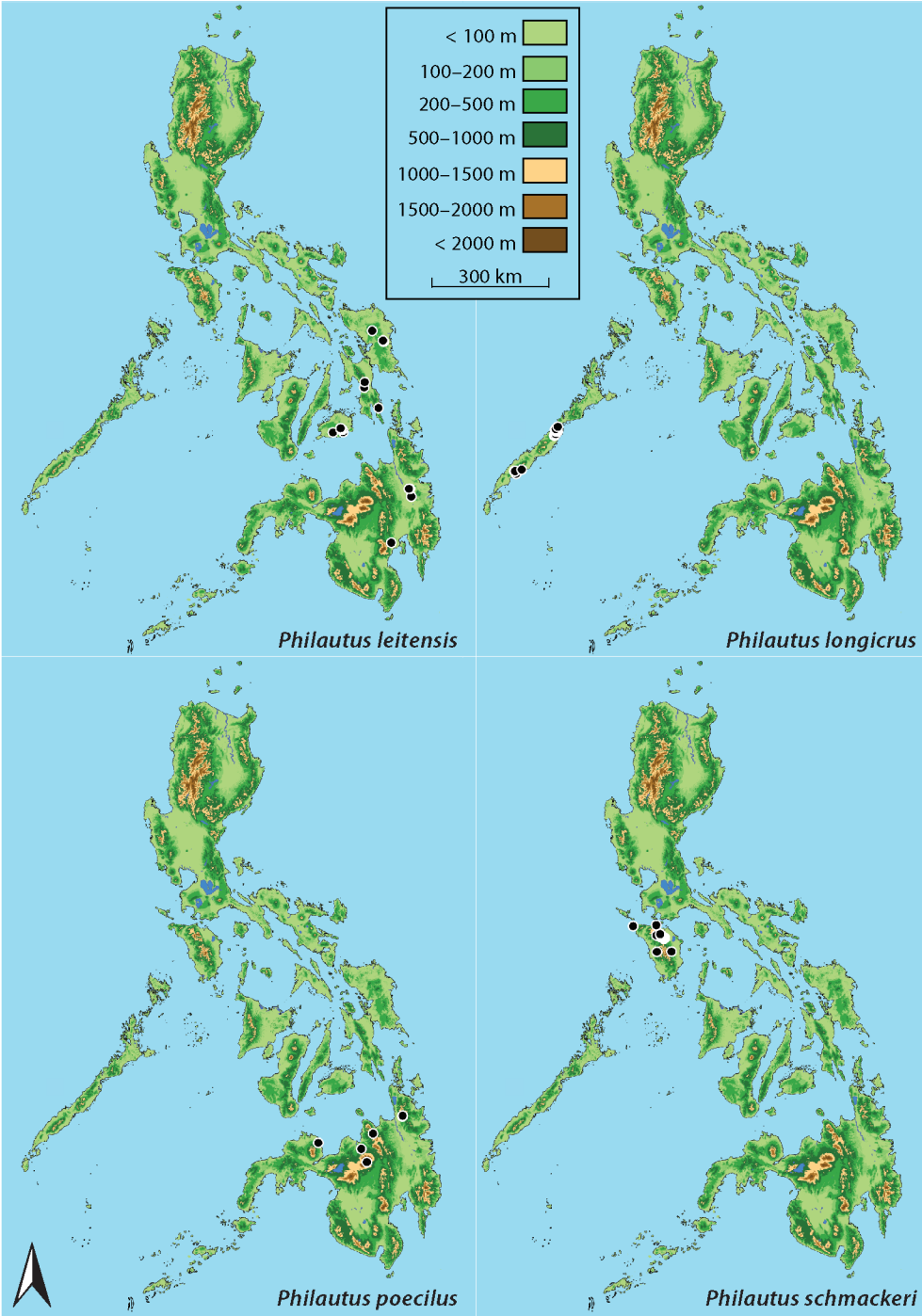


FIGURE 27. Geographic range maps for members of the family Rhacophoridae (*Philautus leitensis*, *P. longicrus*, *P. poecilus*, and *P. schmackeri*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

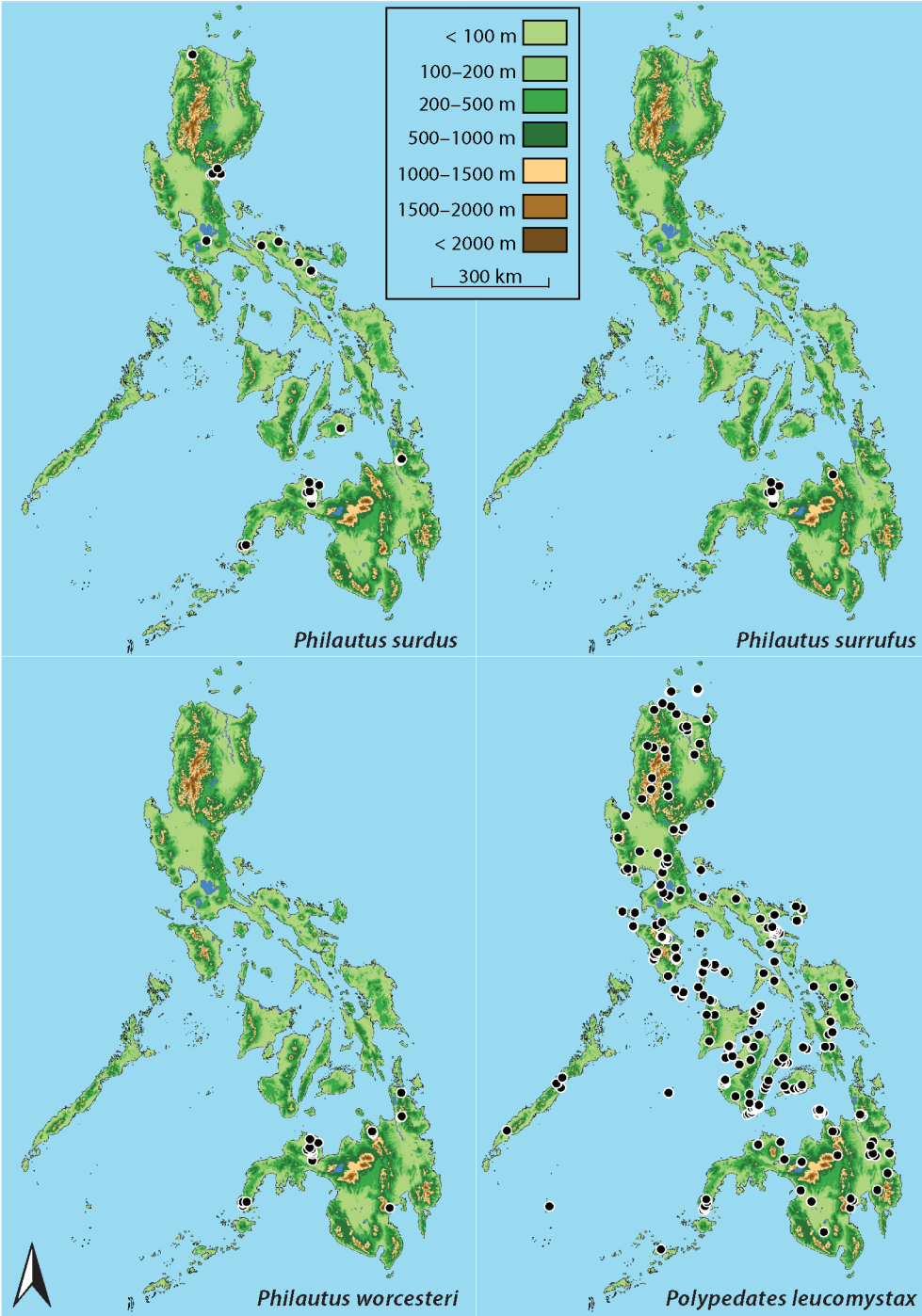


FIGURE 28. Geographic range maps for members of the family Rhacophoridae (*Philautus surdus*, *P. surrufus*, *P. worcesteri*, and *Polypedates leucomystax*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

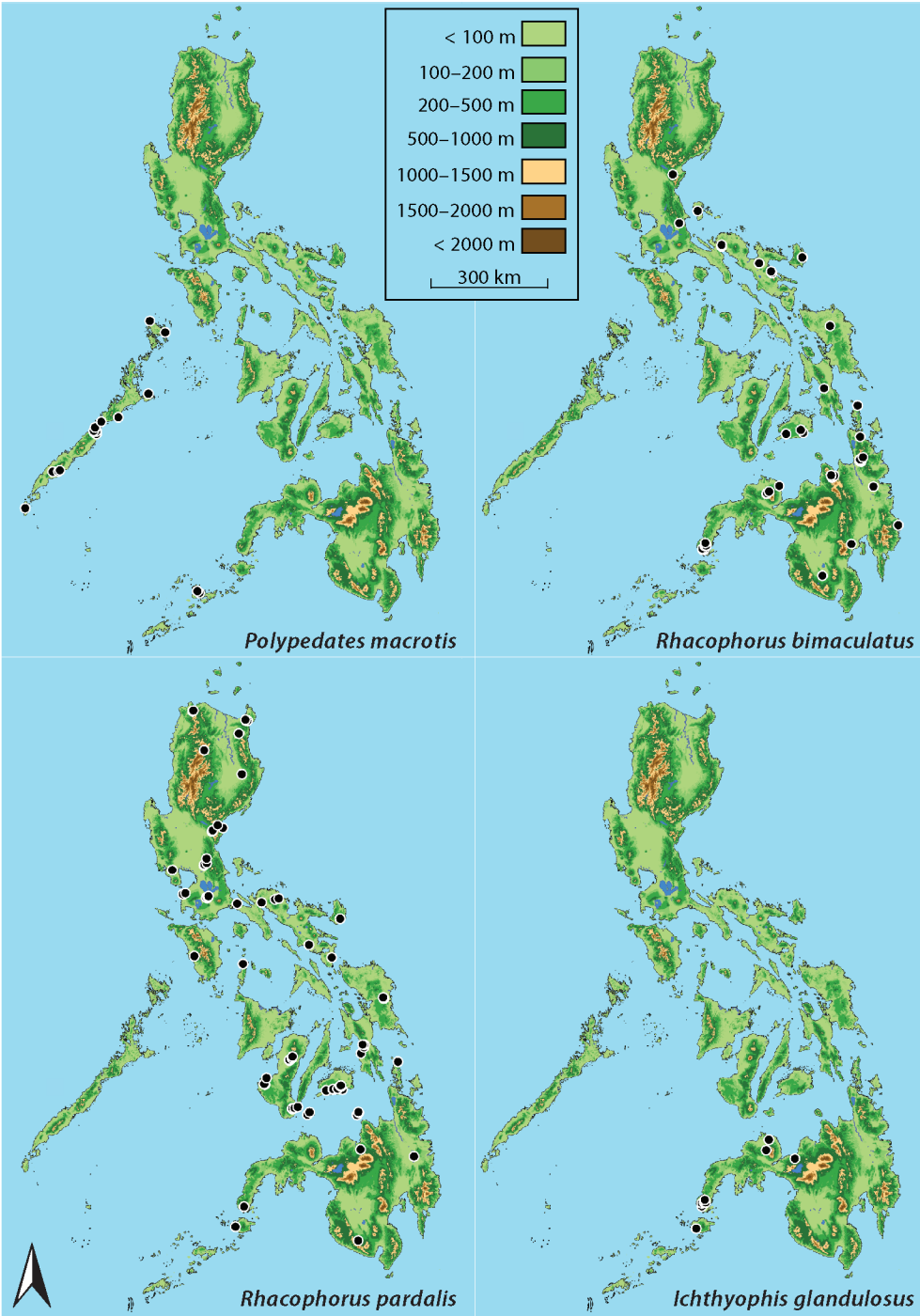


FIGURE 29. Geographic range maps for members of the families Rhacophoridae (*Polypedates macrotis*, *Rhacophorus bimaculatus*, and *R. pardalis*), and Ichthyophiidae (*Ichthyophis glandulosus*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.

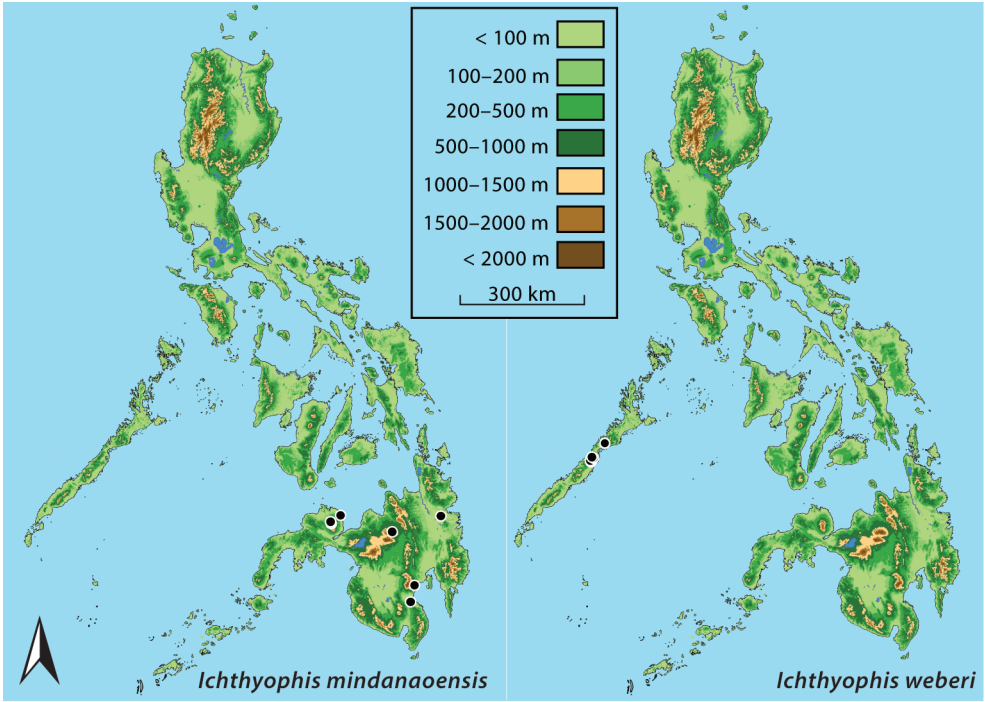


FIGURE 30. Geographic range maps for members of the family Ichthyophiidae (*Ichthyophis mindanaoensis* and *I. weberi*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.



FIGURE 31. Photographs in life of A) *Barbourula busuangensis* (Bombinatoridae), B) *Ansonia mcgregori* (Bufonidae), C) *Ansonia muelleri* (Bufonidae), D) *Ingerophrynus philippinus* (Bufonidae), E) *Pelophryne brevipes* (Bufonidae), F) *Pelophryne lighti* (Bufonidae), G) *Rhinella marina* (Bufonidae), and H) *Rhinella marina* (Bufonidae). Photographs copyright Rafe M. Brown (A), Janalee P. Caldwell (H), and Cameron D. Siler (B, C, D, E, F, G).



FIGURE 32. Photographs in life of A) *Platymantis banahao* (Ceratobatrachidae), B) *Platymantis bayani* (Ceratobatrachidae), C) *Platymantis biak* (Ceratobatrachidae), D) *Platymantis cagayanensis* (Ceratobatrachidae), E) *Platymantis cornutus* (Ceratobatrachidae), F) *Platymantis corrugatus* (Ceratobatrachidae), G) *Platymantis diesmosi* (Ceratobatrachidae), H) *Platymantis dorsalis* (Ceratobatrachidae). Photographs copyright Rafe M. Brown (A, D, E, G), Arvin C. Diesmos (C), and Cameron D. Siler (B, F, H).



FIGURE 33. Photographs in life of A) *Platymantis guentheri* (Ceratobatrachidae), B) *Platymantis hazelae* (Ceratobatrachidae), C) *Platymantis insulatus* (Ceratobatrachidae), D) *Platymantis isarog* (Ceratobatrachidae), E) *Platymantis lawtoni* (Ceratobatrachidae), F) *Platymantis levigatus* (Ceratobatrachidae), G) *Platymantis luzonensis* (Ceratobatrachidae), and H) *Platymantis montanus* (Ceratobatrachidae). Photographs copyright Rafe M. Brown (C, D, G, H), Jason Fernandez (E), and Cameron D. Siler (A, B, F).



FIGURE 34. Photographs in life of A) *Platymantis negrosensis* (Ceratobatrachidae), B) *Platymantis paengi* (Ceratobatrachidae), C) *Platymantis polillensis* (Ceratobatrachidae), D) *Platymantis pygmaeus* (Ceratobatrachidae), E) *Platymantis rabori* (Ceratobatrachidae), F) *Platymantis sierramadrensis* (Ceratobatrachidae), G) *Platymantis spelaeus* (Ceratobatrachidae), and H) *Platymantis subterrestris* (Ceratobatrachidae). Photographs copyright Rafe M. Brown (D, F, H) Cameron D. Siler (A, B, E, G), and Luke Welton (C).



FIGURE 35. Photographs in life of A) *Platymantis taylora* (Ceratobatrachidae), B) *Alcalus mariae* (Ceratobatrachidae), C) *Fejervarya moodiei* (Dicroglossidae), D) *Fejervarya vittigera* (Dicroglossidae), E) *Hoplobatrachus rugulosus* (Dicroglossidae), F) *Limnonectes acanthi* (Dicroglossidae), G) *Limnonectes leytenis* (Dicroglossidae), and H) *Limnonectes macrocephalus* (Dicroglossidae). Photographs copyright Rafe M. Brown (B, H), Arvin C. Diesmos (A, E), Cameron D. Siler (C, D, G), and Scott Travers (F).



FIGURE 36. Photographs in life of A) *Limnonectes magnus* (Dicroglossidae), B) *Limnonectes palavanensis* (Dicroglossidae), C) *Limnonectes parvus* (Dicroglossidae), D) *Limnonectes visayanus* (Dicroglossidae), E) *Limnonectes woodworthi* (Dicroglossidae), F) *Occidozyga diminutiva* (Dicroglossidae), G) *Occidozyga laevis* (Dicroglossidae), and H) *Leptobrachium lumadum* (Megophryidae). Photographs copyright Rafe M. Brown (A, B, C, D, F) and Cameron D. Siler (E, G).

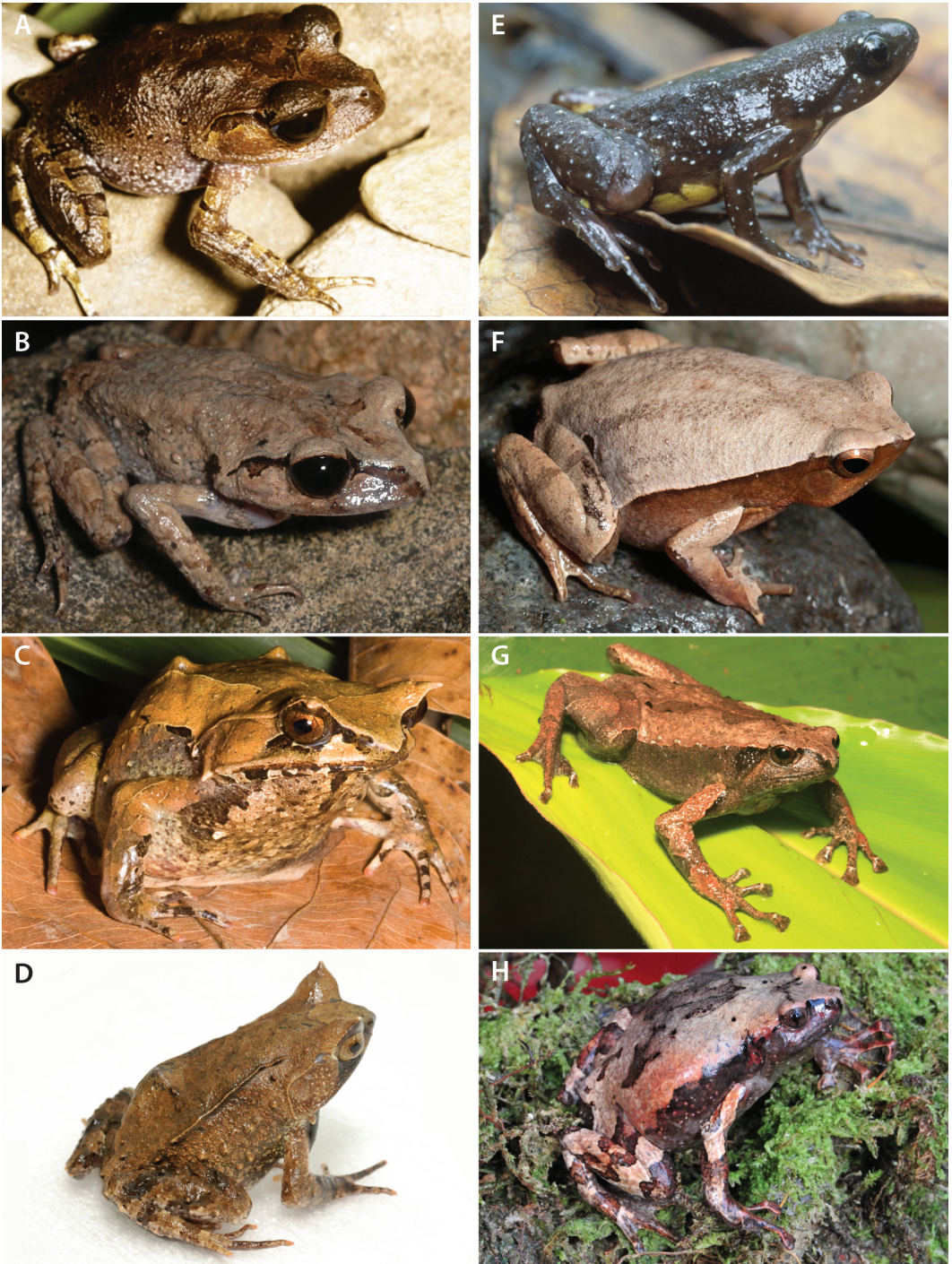


FIGURE 37. Photographs in life of A) *Leptobrachium mangyanorum* (Megophryidae), B) *Leptobrachium tagbanorum* (Megophryidae), C) *Megophrys ligayae* (Megophryidae), D) *Megophrys stejneri* (Megophryidae), E) *Chaperina fusca* (Microhylidae), F) *Kalophrynus sinensis* (Microhylidae), G) *Kaloula conjuncta* (Microhylidae), and H) *Kaloula kalingensis* (Microhylidae). Photographs copyright Rafe M. Brown (A, B, C, E, F), Arvin C. Diesmos (D), Cameron D. Siler (H), and Scott Travers (G).



FIGURE 38. Photographs in life of A) *Kaloula picta* (Microhylidae), B) *Kaloula pulchra* (Microhylidae), C) *Kaloula rigida* (Microhylidae), D) *Kaloula walteri* (Microhylidae), E) *Microhyla petrigena* (Microhylidae), F) *Oreophryne anulata* (Microhylidae), G) *Oreophryne nana* (Microhylidae), and H) *Hylarana erythraea* (Ranidae). Photographs copyright Rafe M. Brown (C, D, F), Arvin C. Diesmos (E), Cameron D. Siler (A, G, H), and Scott Travers (B).



FIGURE 39. Photographs in life of A) *Lithobates catesbeianus* (Ranidae), B) *Pulchrana granocula* (Ranidae), C) *Pulchrana mangyanum* (Ranidae), D) *Pulchrana moellendorffi* (Ranidae), E) *Pulchrana similis* (Ranidae), F) *Sanguirana albotuberculata* (Ranidae), G) *Sanguirana aurantipunctata* (Ranidae), and H) *Sanguirana everetti* (Ranidae). Photographs copyright Rafe M. Brown (D, G), Janalee P. Caldwell (A), and Cameron D. Siler (B, C, E, F, H).

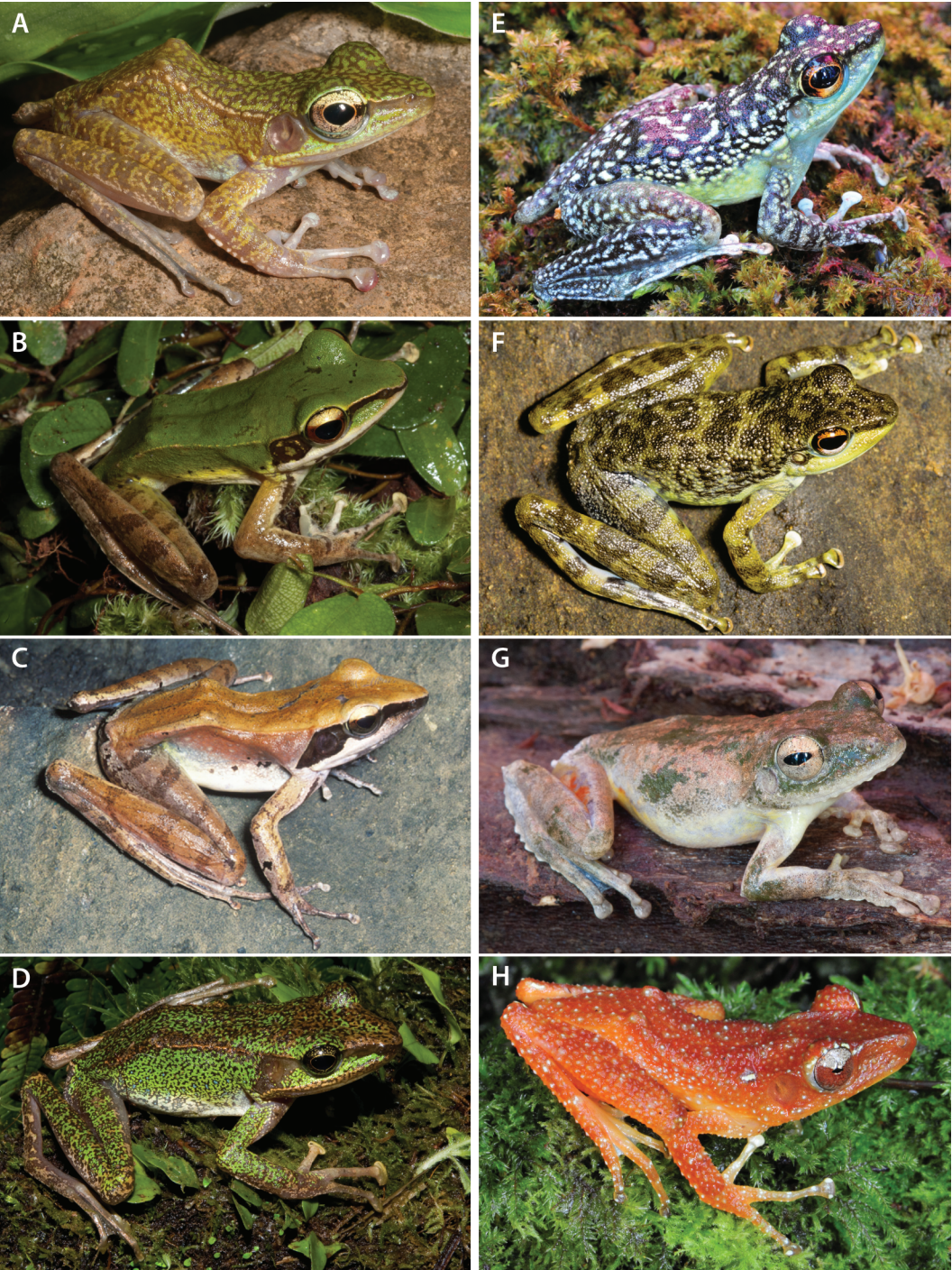


FIGURE 40. Photographs in life of A) *Sanguirana igorota* (Ranidae), B) *Sanguirana luzonensis* (Ranidae), C) *Sanguirana sanguinea* (Ranidae), D) *Sanguirana tipanan* (Ranidae), E) *Staurois natator* (Ranidae), F) *Staurois nubilus* (Ranidae), G) *Kurixalus appendiculatus* (Rhacophoridae), and H) *Nyctixalus spinosus* (Rhacophoridae). Photographs copyright Rafe M. Brown (A, C, D, F) and Cameron D. Siler (B, E, G, H).



FIGURE 41. Photographs in life of A) *Nyctixalus spinosus* (Rhacophoridae), B) *Philautus acutirostris* (Rhacophoridae), C) *Philautus everetti* (Rhacophoridae), D) *Philautus leitensis* (Rhacophoridae), E) *Philautus longicrus* (Rhacophoridae), F) *Philautus poecilus* (Rhacophoridae), G) *Philautus surdus* (Rhacophoridae), and H) *Philautus worcesteri* (Rhacophoridae). Photographs copyright Rafe M. Brown (B, C, E, F, H) and Cameron D. Siler (A, D, G).



FIGURE 42. Photographs in life of A) *Polypedates leucomystax* (Rhacophoridae), B) *Polypedates macrotis* (Rhacophoridae), C) *Rhacophorus bimaculatus* (Rhacophoridae), D) *Rhacophorus pardalis* (Rhacophoridae), E) *Ichthyophis glandulosus* (Ichthyophiidae), and F) *Ichthyophis glandulosus* (Ichthyophiidae). Photographs copyright Rafe M. Brown (B, E, F) and Cameron D. Siler (A, C, D).

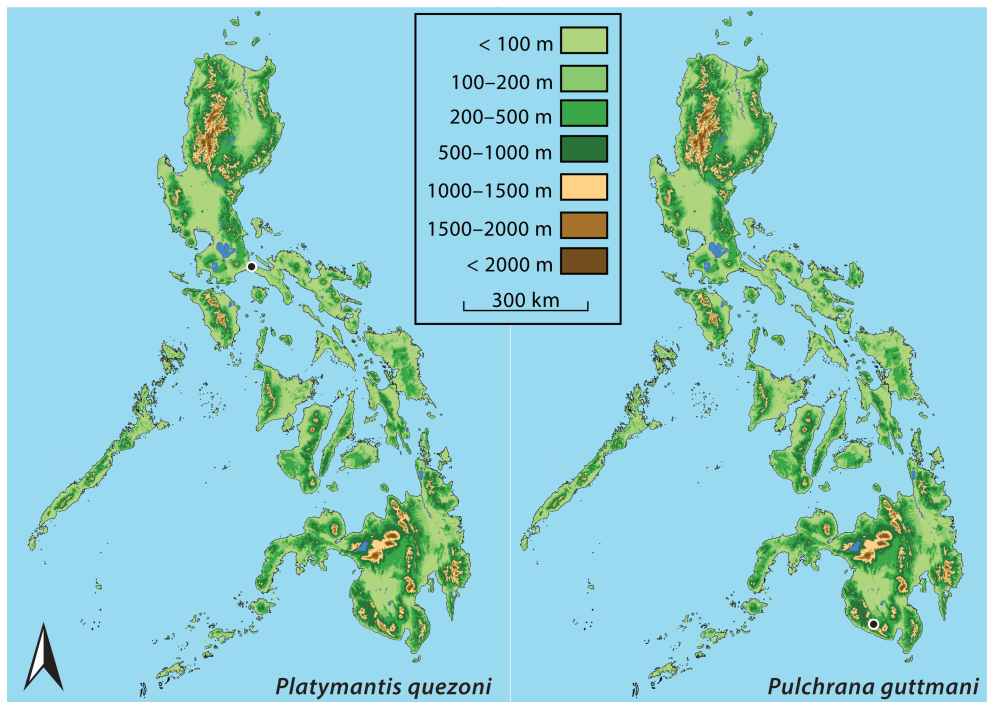


FIGURE 43. Geographic range maps for members of the families Ceratobatrachidae (*Platymantis quezoni*) and Ranidae (*Pulchrana guttmani*). Points represent museum vouchered specimens with georeferenced locality information overlaid on a topographic map of the Philippines.



FIGURE 44. Photograph in life of (A) *Platymantis quezoni* (Ceratobatrachidae). Photograph copyright Rafe M. Brown.

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