Taxonomic Checklist of CITES listed Amphibians

Species information extracted from

FROST, D. R. (2011)
"Amphibian Species of the World, an online Reference"
V. 5.5 (as of December 2011)

Combined with changes according to
BROWN, J. L., TWOMEY, E., AMÉZQUITA, A., BARBOSA DE SOUZA, M., CALDWELL, L. P., LÖTTERS, S., VON MAY, R., MELO-SAMPAIO, P. R., MEJÍA-VARGAS, D., PEREZ-PEÑA, P., PEPPER, M., POELMAN, E. H., SANCHEZ-RODRIGUEZ, M. & SUMMERS, K. (2011): A taxonomic revision of the Neotropical poison frog genus *Ranitomeya* (Amphibia: Dendrobatidae). – Zootaxa, 3083: 1-120.
added by the Nomenclature Specialist of the CITES Animals Committee.
These changes have been marked by grey underlaying.

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Anura

AROMOBATIDAE

Genus : *Allobates* Zimmermann and Zimmermann, 1988

***Allobates femoralis* (Boulenger, 1884)**

- *Prostherapis femoralis* Boulenger, 1884 "1883", Proc. Zool. Soc. London, 1883: 635. Syntypes: BMNH 1947.2.14.21–22; UMMZ 48070 considred a "cotype" (presumably exchanged from BMNH) by Peters, 1952, Occas. Pap. Mus. Zool. Univ. Michigan, 539: 21. BMNH 1947.2.14.21 designated lectotype by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 31. Type locality: "Yurimaguas, Huallaga River, [Loreto,] Northern Peru".
- *Phyllobates femoralis* — Barbour and Noble, 1920, Bull. Mus. Comp. Zool., 63: 401. Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 5.
- *Dendrobates femoralis* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates femoralis* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Allobates femoralis* — Zimmermann and Zimmermann, 1988, Salamandra, 24: 137. Clough and Summers, 2000, Biol. J. Linn. Soc., 70: 515–540.
- *Allobates femoralis* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 162.

Distribution: Lowland forests of eastern Venezuela, Guyana, Surinam, and French Guiana, and of the Amazon drainage of Colombia, Ecuador, Peru, Bolivia, and Brazil; dense forests of the Napo and Pastaza drainages of Ecuador, east of the Andes; southern Cordillera Oriental of Peru.

***Allobates hodli* Simões, Lima, and Farias, 2010**

- *Allobates hodli* Simões, Lima, and Farias, 2010, Zootaxa, 2406: 5. Holotype: NPA–H 16555, by original designation. Type locality: "Cachoeira do Jirau, on the left bank of the upper Madeira River (09.3347° S, 64.7375° W), approximately 125 km upstream from the city of Porto Velho, Estado de Rondônia, Brazil".

Distribution: Southwestern Brazilian Amazonia from Cachoeira do Jirau (Municipality of Porto Velho) to the eastern reaches of the Municipality of Rio Branco in the state of Acre.

Comment: In the *Allobates femoralis* complex according to the original publication.

Allobates myersi (Pyburn, 1981)

- *Dendrobates myersi* Pyburn, 1981, Proc. Biol. Soc. Washington, 94: 67. Holotype: UTA A-3989, by original designation. Type locality: "near Wacará (elev. 216 m, long. 69° 53′ W, lat. 1° 08′ N), Comisaria de Vaupés, Colombia".
- *Epipedobates myersi* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Ameerega myersi* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication.
- *Allobates myersi* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 162.

Distribution: Rainforests of Amazonian Colombia (departments of Amazonas, Caquetá, and Vaupés), ca. 200 m elevation; likely to be found in adjacent Brazil and northeastern Peru.

Comment: See account by Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 311.

***Allobates rufulus* (Gorzula, 1990)**

- *Dendrobates rufulus* Gorzula, 1990 "1988", Mem. Soc. Cienc. Nat. La Salle, 48: 144. Holotype: MHNLS 10361, by original designation. Type locality: "borde nor-oeste del Amuri-tepui en el Macizo del Chimantá (CHIMANTA XVIII), 05° 22′ —62° 05′ W. 2.600 m, Estado Bolívar, Venezuela".
- *Epipedobates rufulus* — Walls, 1994, Jewels of the Rainforest: 26, 241. Myers, 1997, Acta Terramaris, Caracas, 10: 3.
- *Allobates rufulus* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 162.

Distribution: Likely endemic to the summit of the Chimantá Massif, Bolívar, Venezuela.

Comment: Gorzula and Señaris, 1999 "1998", Scient. Guaianae, 8: 26, placed this species in the *Dendrobates femoralis* group of Silverstone, which is currently distributed among *Ameerega* and *Allobates*. See distributional comments by Gorzula and Señaris, 1999 "1998", Scient. Guaianae, 8: 26 (as *Dendrobates rufulus*). See account by Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 312–313. Barrio-Amorós and Santos, 2009, Phyllomedusa, 8: 92, suggested that this species is not a member of Allobates, but did not suggest an alternative generic assignment.

***Allobates zaparo* (Silverstone, 1976)**

- *Phyllobates zaparo* Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 33. Holotype: KU 120669, by original designation. Type locality: "2 km west of Canelos, Provincia de Pastaza, Ecuador, 580 m."
- *Dendrobates zaparo* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates zaparo* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Allobates zaparo* — Vences, Kosuch, Boistel, Haddad, La Marca, and Lötters, 2003, Organisms Divers. Evol., 3: 215. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 162.

Distribution: Dense forests of the Napo and Pastaza drainages of Ecuador, east of the Andes, extending to adjacent Peru; southern Cordillera Oriental of Peru.

Comment: In the former *Epipedobates femoralis* group prior to its transfer to *Allobates* by Vences, Kosuch, Boistel, Haddad, La Marca, and Lötters, 2003, Organisms Divers. Evol., 3: 215). See Schulte, 1987, Sauria, Berlin, 9: 17–18, for southern Peruvian record. Schulte, 1999, Pfeilgiftfrösche, : 214–216, and Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 314–315, provided accounts.

BUFONIDAE

Genus: *Altiphrynoides* Dubois, 1987

***Altiphrynoides osgoodi* (Loveridge, 1932)**

Bufo osgoodi Loveridge, 1932, Occas. Pap. Boston Soc. Nat. Hist., 8: 47. Holotype: FMNH 12529, by original designation. Type locality: "Ethiopia . . . . If it is a mountain form it probably came from the Gedeb Mountains of Bali, just south of the western branch of the Webi Shebili River, ... in deep forest and . . . from eight to ten thousand feet".

- *Nectophrynoides osgoodi* — Grandison, 1978, Monit. Zool. Ital., N.S., Suppl., 11: 136.
- *Spinophrynoides osgoodi* — Dubois, 1987 "1986", Alytes, 5: 26.
- *Altiphrynoides osgoodi* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 363.

Distribution: Mountains of south-central Ethiopia (Arussi, Balé, Sidamo, and Gamo Gofa, provinces), 1950–3520 m elevation.

Comment: See Largen, 2001, Tropical Zool., 14: 326–327, for comments on distribution. Tandy and Keith, 1972, *in* Blair (ed.), Evol. Genus *Bufo*, : 156, considered *Bufo osgoodi* to be a member of the *Bufo taitanus* complex (now part of *Mertensophryne*). See photograph, map, description of geographic range and habitat, and conservation status (as *Spinophrynoides osgoodi*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 204. See account (as *Spinophrynoides osgoodi*), photograph, and map for Ethiopia by Largen and Spawls, 2010, Amph. Rept. Ethiopia Eritrea, : 98–99.

Genus : *Amietophrynus* Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006

***Amietophrynus superciliaris* (Boulenger, 1888)**

- *Bufo superciliaris* Boulenger, 1888 "1887", Proc. Zool. Soc. London, 1887: 565. Syntypes: BMNH 1947.2.21.41–49 (formerly 87.12.21.10–18), according to A.G.C. Grandison *in* Frost, 1985, Amph. Species World, : 61. Type locality: "Rio del Rey, Cameroons", Africa.
- *Bufo laevissimus* Werner, 1897, Sitzungsber. Akad. Wiss. München, 27: 212. Syntypes: Not designated; ZSM 148/1989/1–2 (2 juveniles) and ZSM 1113.0 (lost) by museum records according to Glaw and Franzen, 2006, Spixiana, 29: 161. Type locality: "Kamerun". Synonymy by Andersson, 1905, Ark. Zool., 2(20): 26.
- *Bufo superciliosus* — Werner, 1897, Sitzungsber. Akad. Wiss. München, 27: 214. Incorrect subsequent spelling.
- *Bufo Chevalieri* Mocquard, 1908, Bull. Mus. Natl. Hist. Nat. Paris, 14: 262. Holotype: MNHNP 1908.33, according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 12. Type locality: "Côte-d'Ivoire". Synonymy; without discussion, by Tandy and Keith, 1972, *in* Blair (ed.), Evol. Genus *Bufo*, : 160.
- *Amietophrynus superciliaris* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 363.

Distribution: Liberia and Ivory Coast eastward in isolated populations to northern Rep. Congo, and northern Dem. Rep. Congo, Equatorial Guinea, southern Central African Republic, and Gabon; possibly to be found in Liberia, and Benin.

Comment: See account in Perret, 1966, Zool. Jahrb., Jena, Abt. Syst., 93: 312–313. In the *Bufo superciliaris* group of Martin, 1972, *in* Blair (ed.), Evol. Genus *Bufo*, : 62, and Tandy and Keith, 1972, *in* Blair (ed.), Evol. Genus *Bufo*, : 160. Gabon records by Lötters, Gossmann, Obame, and Böhme, 2001,

Herpetofauna, Weinstadt, 23: 22, and Frétey and Blanc, 2001, Bull. Soc. Zool. France, 126: 380, reported this species from Gabon. See brief comments by Rödel, Bangoura, and Böhme, 2004, Herpetozoa, 17: 108, regarding range and natural history. Schiøtz, 1963, Vidensk. Medd. Dansk Naturhist. Foren., 125: 22, provided records for Nigeria. Hillers and Rödel, 2007, Salamandra, 43: 1–10, reported the species for Liberia.

Genus: *Atelopus* Duméril and Bibron, 1841

Atelopus zeteki Dunn, 1933

- *Atelopus varius zeteki* Dunn, 1933, Occas. Pap. Boston Soc. Nat. Hist., 8: 71. Holotype: MCZ 16018, by original designation. Type locality: "El Valle [del Antón]", Panama.
- *Atelopus zeteki* — Kim, Brown, Mosher, and Fuhrman, 1975, Science, 189: 152. Lynch, 1993, Alytes, 11: 77–87.

Distribution: Cerro Campana-Valle de Antón region of western Panama in lowland rainforest.

Comment: In the *Atelopus ignescens* group of Lynch, 1993, Alytes, 11: 77–87. Skin alkoloid evidence provided by Kim, Brown, Mosher, and Fuhrman, 1975, Science, 189: 151–152, suggested that *Atelopus varius zeteki* Dunn, 1933, is a distinct species. See comments by Savage, 2002, Amph. Rept. Costa Rica, : 191, on the distinctiveness of this taxon from *Atelopus varius*. Richards and Knowles, 2007, Mol. Ecol., 16: 3119–3133, reported on the molecular and ecological distinctiveness of the two species. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 178. Ibáñez, Kahn, and Rueda-Martínez, 2005, *in* Rueda-Almonacid et al. (eds.), Ranas Arlequines, : 117, provided a brief account, photograph, and map.

Genus : *Incilius* Cope, 1863

Incilius periglenes (Savage, 1967)

- *Bufo periglenes* Savage, 1967 "1966", Rev. Biol. Tropical, 14: 153. Holotype: LACM 1893, by original designation. Type locality: "Costa Rica: Provincia de Alajuela: Cantón de San Carlos: Cordillera de Tilarán, 2 miles ENE of Monteverde, Provincia de Puntarenas; 1590 meters". Savage, 1974, Rev. Biol. Tropical, 22: 98, commented on the type locality.
- *Cranopsis periglenes* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 364.
- *Ollotis periglenes* — Frost, Grant, and Mendelson, 2006, Copeia, 2006: 558, by implication.
- *Incilius periglenes* — Frost, Mendelson, and Pramuk, 2009, Copeia, 2009: 418&ndash. 419. By implication.

Distribution: Restricted (formerly; see comment) to the lower montane zone on both slopes along the continental divide between Puntarenas and Alajuela Provinces, Costa Rica, generally north and east of Monteverde, 1500–1620 m elevation.

Comment: In the former *Bufo periglenes* group of Martin, 1972, *in* Blair (ed.), Evol. Genus *Bufo*, : 53. See account by Savage, 2002, Amph. Rept. Costa Rica, : 202–203. Extinct according to Pounds, Fogden, Savage, and Gorman, 1997, Conserv. Biol., 11: 1307–1322. See map, description of geographic range and habitat, and conservation status (as *Bufo periglenes*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 137.

Genus: *Nectophrynoides* Noble, 1926

***Nectophrynoides asperginis* Poynton, Howell, Clarke, and Lovett, 1999**

- *Nectophrynoides asperginis* Poynton, Howell, Clarke, and Lovett, 1999 "1998", Afr. J. Herpetol., 47: 61. Holotype: BMNH 1998.136, by original designation. Type locality: "Kihansi River Gorge upper falls spray wetland, Udzungwa Mountains, Tanzania, ± 8° 35′ S 35° 51′ E, 940 m elevation".

Distribution: Known only from the type locality in the Kihansi Gorge in the Udzungwa Mountains, Tanzania.

Comment: See Channing and Howell, 2006, Amph. E. Afr., : 106–108, for account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 196.

***Nectophrynoides cryptus* Perret, 1971**

- Nectophrynoides cryptus Perret, 1971, Ann. Fac. Sci. Cameroun, 6: 104. Holotype: MCZ 12480, by original designation. Type locality: "Nyingwa, Monts Uluguru, 7 10′ S: 37 40′ E, Tanzanie, 2,200 m".

Distribution: Uluguru Mountains above 2000 m, Tanzania.

Comment: Discussed by Perret, 1972, Ann. Fac. Sci. Cameroun, 11: 93–119. See Channing and Howell, 2006, Amph. E. Afr., : 108–109, for account. See map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 197.

***Nectophrynoides frontierei* Menegon, Salvidio, and Loader, 2004**

- *Nectophrynoides frontierei* Menegon, Salvidio, and Loader, 2004, Tropical Zool., 17: 105. Holotype: BMNH 2000.231, by original designation. Type locality: "at 920 m . . . . Amani-Sigi Forest, Amani Nature Reserve, East Usambara Mountains, north eastern Tanzania (05° 07′ S, 38° 39′ E)".

Distribution: Known only from the type locality (Amani-Sigi Forest, Amani Nature Reserve, East Usambara Mountains, northeastern Tanzania, 920 m elevation).

Comment: See Channing and Howell, 2006, Amph. E. Afr., : 109, for account.

***Nectophrynoides laevis* Menegon, Salvidio, and Loader, 2004**

- *Nectophrynoides laevis* Menegon, Salvidio, and Loader, 2004, Tropical Zool., 17: 107. Holotype: BMNH 2000.233, by original designation. Type locality: "Uluguru South Forest Reserve, Uluguru Mountains, Morogoro Region, eastern Tanzania (7° 01′–7° 12′ S, 37° 36′—37° 45′ E)".

Distribution: Known only from the type locality (Uluguru South Forest Reserve, 2000 m elevation, Uluguru Mountains, Morogoro Region, eastern Tanzania).

Comment: Channing and Howell, 2006, Amph. E. Afr., : 110, provided an account.

***Nectophrynoides laticeps* Channing, Menegon, Salvidio, and Akker, 2005**

- *Nectophrynoides laticeps* Channing, Menegon, Salvidio, and Akker, 2005, Afr. J. Herpetol., 54: 150. Holotype: MTSN 5640, by original designation. Type locality: "Mamiwa-Kisara Forest Reserve, 1850 m, 06° 22′ 48″ S, 36° 56′ 02″ E. This is situated in the Ukaguru Mountains, Kilosa District, Morogoro Region, Tanzania".

Distribution: Ukaguru Mountains, Tanzania, above 1800 m elevation.

***Nectophrynoides minutus* Perret, 1972**

- *Nectophrynoides minutus* Perret, 1972, Ann. Fac. Sci. Cameroun, 11: 106. Holotype: MCZ 12463, by original designation. Type locality: "Bagilo, Monts Uluguru, 2200 m d'altitude, 7–10 S, 37–40 E, Tanzanie".

Distribution: Forest and grassland at high altitudes, above 2000 m, on the Uluguru and Rebeho Mts., Tanzania.

Comment: Channing and Howell, 2006, Amph. E. Afr., : 110–111, provided an account. See map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 196.

***Nectophrynoides paulae* Menegon, Salvidio, Ngalason, and Loader, 2007**

- *Nectophrynoides paulae* Menegon, Salvidio, Ngalason, and Loader, 2007, Zootaxa, 1541: 32. Holotype: MTSN 5630, by original designation. Type locality: "Mamiwa-Kisara North Forest Reserve . . . , at 1800 m above sea level, Ukaguru Mountains, Kilosa District, Morogoro Region, Tanzania (UTM coordinates: 37M 0270973/ 9295414)".

Distribution: Known only from the type locality (Mamiwa-Kisara North Forest Reserve, 1800 m elevation) in the Ukaguru Mountains, Kilosa District, Morogoro Region, Tanzania.

***Nectophrynoides poyntoni* Menegon, Salvidio, and Loader, 2004**

- *Nectophrynoides poyntoni* Menegon, Salvidio, and Loader, 2004, Tropical Zool., 17: 107. Holotype: MTSN 5077, by original designation. Type locality: "Mkalazi Valley, at about 1200 m, Udzungwa Scarp Forest Reserve, Udzungwa Mountains, Iringa Region, south eastern Tanzania (08° 23′ 44.9″ S, 35° 58′ 55.4″ E)".

Distribution: Known only from the type locality (Mkalazi Valley, Udzungwa Scarp Forest Reserve, Udzungwa Mountains, Iringa Region, southeastern Tanzania).

Comment: Channing and Howell, 2006, Amph. E. Afr., : 111–112, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 197.

***Nectophrynoides pseudotornieri* Menegon, Salvidio, and Loader, 2004**

- *Nectophrynoides pseudotornieri* Menegon, Salvidio, and Loader, 2004, Tropical Zool., 17: 104. Holotype: BMNH 2000.229, by original designation. Type locality: "Uluguru North Forest Reserve, at 1080 m, Uluguru Mountains, Morogoro Region, eastern Tanzania (06° 52′ 40″ S, 37° 55′ 00″ E)".

Distribution: Submontane forest in the Uluguru Mountains, Morogoro Region, eastern Tanzania.

Comment: Channing and Howell, 2006, Amph. E. Afr., : 112, and Pickersgill, 2007, Frog Search, : 557, provided accounts. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 197.

***Nectophrynoides tornieri* (Roux, 1906)**

- *Nectophryne tornieri* Roux, 1906, Proc. Zool. Soc. London, 1906: 63. Syntypes: BMNH (1 specimen) and NHMB (1 specimen), by original designation. NHMB 2384, considered holotype, a lectotype designation by implication, by A.G.C. Grandison *in* Frost, 1985, Amph. Species World, : 70. Type locality: "Ukami, [Uluguru Mountains,] German East Africa [= Tanzania]".
- *Nectophrynoides tornieri* — Barbour and Loveridge, 1928, Mem. Mus. Comp. Zool., 50: 188. Perret, 1971, Ann. Fac. Sci. Cameroun, 6: 100.

Distribution: East Usambaras through to the Udzungwas between about 1500 m and 500 m in forest to forest margins, Tanzania.

Comment: Channing and Howell, 2006, Amph. E. Afr., : 113–114, provided an account. Loader, Poynton, and Mariaux, 2004, Afr. Zool., 39: 71–76, provided a record for Mahenga Mountain in Tanzania and detailed the range.

***Nectophrynoides vestergaardi* Menegon, Salvidio, and Loader, 2004**

- *Nectophrynoides vestergaardi* Menegon, Salvidio, and Loader, 2004, Tropical Zool., 17: 99. Holotype: BMNH 1982.509, by original designation. Type locality: "Shume Magamba Forest Reserve, at 1800 m above sea level, West Usambara Mountains, Tanga Region, north eastern Tanzania (4° 66′ S, 38° 25′ E)".

Distribution: Montane forest of the West Usambara Mts., 1230–1750 m elevation, Tanga Region, northeastern Tanzania.

Comment. Channing and Howell, 2006, Amph. E. Afr., : 114, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 198.

***Nectophrynoides viviparus* (Tornier, 1905)**

- *Pseudophryne vivipara* Tornier, 1905, Sitzungsber. Preuss. Akad. Wiss. Berlin, 39: 855. Syntypes: ZMB (lost?) and (according to museum records) BMNH 1935.2.8.4; MHNG 1221.55 designated neotype in error by Perret, 1972, Ann. Fac. Sci. Cameroun, 11: 112, who apparently did not realize that a syntype survived in the BMNH according to implication of Poynton, 1996, Bull. Zool. Nomencl., 53: 229. Loader, Poynton, Davenport, and Rödel, 2009, Zootaxa, 2304: 41–50, identified the original type series as ZMB 21775, 71524–25 (Kratersee des Nyisvulkans), 25419, 3400, 71531–34, 71187–95 (Rungwe), 25261, 71529–30, 25312, 25268, 71535–37 (südliches Deutsch Ost-Afrika), and BMNH 1947.2.1945 (südliches Deutsch Ost-Afrika). ZMB 21775 designated lectotype by Loader, Poynton, Davenport, and Rödel, 2009, Zootaxa, 2304: 42. Type localities: "Daressalam; . . . Rungwe und im Kingagebirge", Tanzania; invalid neotype not selected from original type locality but "Morogoro, Mt Uluguru, Tanzanie". Lectotype from "Kratersee des Nyisvulkans", Tanzania.
- *Nectophryne werthi* Nieden, 1911 "1910", Sitzungsber. Ges. Naturforsch. Freunde Berlin, 1910: 439. Syntypes: ZMB (7 specimens), by original designation. Given as ZMB 21784 and 71528 by Loader, Poynton, Davenport, and Rödel, 2009, Zootaxa, 2304: 42. Type locality: "Dar es Salaam", Tanzania. Synonymy by Perret, 1972, Ann. Fac. Sci. Cameroun, 11: 93–119.

- *Tornierobates vivipara* — Miranda-Ribeiro, 1926, Arq. Mus. Nac., Rio de Janeiro, 27: 19.
- *Nectophrynoides vivipara* — Noble, 1926, Am. Mus. Novit., 212: 15. Barbour and Loveridge, 1928, Mem. Mus. Comp. Zool., 50: 191.
- *Nectophrynoides viviparus* — Perret, 1971, Ann. Fac. Sci. Cameroun, 6: 99.

Distribution Mountains of central to southwestern Tanzania.

Comment Channing and Howell, 2006, Amph. E. Afr., : 115–116, and Pickersgill, 2007, Frog Search, : 556, provided accounts. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 198. Loader, Poynton, Davenport, and Rödel, 2009, Zootaxa, 2304: 41–50, discussed the type series and redescribed the lectotype.

***Nectophrynoides wendyae* Clarke, 1988**

- *Nectophrynoides wendyae* Clarke, 1988, Tropical Zool., 1: 171. Holotype: BMNH 1986.565, by original designation. Type locality: "Uzungwe Scarp Reserve, 1650 m, Iringa Region, Uzungwe Mountains, Tanzania".
- *Nectophrynoides wendyi* — Graybeal and Cannatella, 1995, Herpetologica, 51: 123. Incorrect subsequent spelling.

Distribution: Known only from the type locality (Udzungwa Mts., Tanzania).

Comment: Channing and Howell, 2006, Amph. E. Afr., : 116–117, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 198.

Genus: *Nimbaphrynoides* Dubois, 1987

***Nimbaphrynoides occidentalis* (Angel, 1943)**

- *Nectophrynoides occidentalis* Angel, 1943, Bull. Mus. Natl. Hist. Nat. Paris, Ser. 2, 15: 167. Holotype: MNHNP 44149, according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 16. Type locality: "Serengbara (forêt primaire) près du Mont Nimba", Guinea.
- *Nectophrynoides liberiensis* Xavier, 1979 "1978", Bull. Soc. Zool. France, 103: 432. Holotype: MNHNP 1978.3088, by original designation. Type locality: "au plateau de la mine à 1290 m d'altitude, Monts Nimba, Liberia"; type locality now destroyed by mining activities according to Sandberger, Hillers, Doumbia, Loua, Brede, and Rödel, 2010, Zootaxa, 2355: 56–68, who made the synonymy.
- *Nimbaphrynoides liberiensis* — Dubois, 1987 "1986", Alytes, 5: 27.
- *Nimbaphrynoides occidentalis* — Dubois, 1987 "1986", Alytes, 5: 27.
- *Nectophrynoides occidentalis occidentalis* — Sandberger, Hillers, Doumbia, Loua, Brede, and Rödel, 2010, Zootaxa, 2355: 56.
- *Nectophrynoides occidentalis liberiensis* — Sandberger, Hillers, Doumbia, Loua, Brede, and Rödel, 2010, Zootaxa, 2355: 56.

Distribution: Mount Nimba region of Liberia, Ivory Coast, and Guinea.

Comment: See brief comments by Rödel, Bangoura, and Böhme, 2004, Herpetozoa, 17: 103–105, regarding range and natural history. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 198–199 (as *Nimaphrynoides liberiensis* and *Nimbaphrynoides occidentalis*). Sandberger, Hillers, Doumbia, Loua, Brede, and Rödel, 2010, Zootaxa, 2355: 56–68, discussed geographic variation in the Mont Nimba region.

DENDROBATIDAE

Genus: *Adelphobates* Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006

***Adelphobates castaneoticus* (Caldwell and Myers, 1990)**

- *Dendrobates castaneoticus* Caldwell and Myers, 1990, Am. Mus. Novit., 2988: 1. Holotype: MZUSP 64775, by original designation. Type locality: "primary lowland forest near Cachoeira Juruá, Rio Zingu, State of Pará, Brazil....appoximately 03°22′S, 51°51′W ... within a loop of the Rio Xingu, about 220 km S of its junction with the Rio Amazonas".
- *Adelphobtes castaneoticus* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Known only from the type locality and from Taperinha, near 300 km to the northwest of the type locality (Pará, Brazil).

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 518–520, provided an account.

***Adelphobates galactonotus* (Steindachner, 1864)**

- *Dendrobates galactonotus* Steindachner, 1864, Verh. Zool. Bot. Ges. Wien, 14: 260. Holotype: NHMW 19189, according to Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 44. Type locality: "Rio do Muría bei Sitio do S'Pedro Gurção, nördlich von Vigia zur F. reguezia [= Freguenzia]", Pará, Brazil. Name attributed by Steindachner to Fitzinger, but clearly Steindachner is responsible for the description.
- *Dendrobates paraensis* Boulenger, 1913, Proc. Zool. Soc. London, 1913: 1028&ndash. 29. Syntypes: BMNH (8 specimens), by original designation. Type locality: "Para", Brazil. Bokermann, 1966, Lista Anot. Local. Tipo Anf. Brasil., : 34, suggested the the type locality as "provàlvelmente Belém". Synonymy by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11; Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 27.
- *Adelphobtes galactonotus* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Lowland forests of southern tributaries of the Amazon, from the Rio Tapajós east to the mouth of the Amazon, Brazil.

Comment: See account by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 44–45. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 521–526, provided an account.

***Adelphobates quinquevittatus* (Steindachner, 1864)**

- *Dendrobates quinquevittatus* Jan, 1857, Cenni Mus. Civ. Milano: 53. Type(s): MSNM. Type locality: Not stated. *Nomen nudum* attributed to Fitzinger and Tschudi, presumably on the basis of label names.
- *Dendrobates tinctorius var. quinquevittatus* Steindachner, 1864, Verh. Zool. Bot. Ges. Wien, 14: 260. Holotype: NHMW 16517, according to Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 1–55. Type locality: "Salto do Girao" (= Salto do Jirau), Rondônia, Brazil.
- *Dendrobates quinquevittatus* — Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Ranitomeya quinquevittata* — Anonymous, 1985, Ripa, Netherlands, April: 2. By implication.
- *Ranitomeya quinquevittata* — Bauer, 1988, Het Paludarium, Netherlands, November: 6.
- *Adelphobtes quinquevittatus* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Southern Amazonia, in the Rio Madeira drainage of western Brazil; known definitely only from Rondônia and in adjacent Amazonas; also found in neighboring Departamento Pando in Bolivia.

Comment: Account available in Caldwell and Myers, 1990, Am. Mus. Novit., 2988: 1–21. Most records of this species before 1990 refer to *Adelphobates ventrimaculatus*; see Caldwell and Myers, 1990, Am. Mus. Novit., 2988: 1–21. See also Martins and Haddad, 1990, Mem. Inst. Butantan, São Paulo, 52: 53–56, for discussion of identity. De la Riva, Köhler, Lötters, and Reichle, 2000, Rev. Esp. Herpetol., 14: 57, and Köhler, 2000, Bonn. Zool. Monogr., 48: 69, considered this species possibly to occur in Bolivia. Schulte, 1999, Pfeilgiftfrösche, : 76–80, provided an account and a record for Peru, which was doubted by Lötters and Vences, 2001 "2000", Salamandra, 36: 247–260. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 527–529, provided an account.

Genus: *Ameerega* Bauer, 1986

Ameerega altamazonica Twomey and Brown, 2008

- *Ameerega altamazonica* Twomey and Brown, 2008, Zootaxa, 1757: 52. Holotype: MUSM 26937, by original designation. Type locality: Departamento San Martín, Perú, 3.5 km N of Tarapoto, Río Shilcayo drainage, 401 m elevation, 6° 27′ 44″ S, 76° 21′ 6″ W".

Distribution: Throughout the east-Andean versant and surrounding lowlands of central Peru at elevations of 150–865 m

Comment: The sister taxon of *Ameerega rubriventris* according to the original publication. See comment under *Ameerega hahneli*.

Ameerega andina (Myers and Burrowes, 1987)

- *Epipedobates andinus* Myers and Burrowes, 1987, Am. Mus. Novit., 2899: 2. Holotype: IND-AN 1556, by original designation. Type locality: "in montane forest at 1780 m elev., in the Reserva Natural La Planada (approx. 1° 10′ N, 78° 00′ W), Municipio de Ricuarte, Departament of Nariño, Colombia." See comment.
- *Dendrobates andinus* — Myers and Burrowes, 1987, Am. Mus. Novit., 2899: 2. Alternative combination.
- *Paruwrobates andinus* — Bauer, 1994, Ripa, Netherlands, Fall: 3.
- *Ameerega andina* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Western slope of the Western Andes, Nariño, Colombia, 1700–2020 m elevation.

Comment: Most closely related to *Ameerega erythromos* (as *Epipedobates*) according to the original publication. Although named as *Dendrobates andinus* in the description, in a note added in proof, the name was changed to *Epipedobates andinus*. Inasmuch as page priority does not exist, the first use of the name must be taken as *Epipedobates andinus*. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 388–389, provided an account.

Ameerega bassleri (Melin, 1941)

Dendrobates bassleri Melin, 1941, Göteborgs K. Vetensk. Vitterh. Samh. Handl., Ser. B, 1: 65. Holotype: NHMG 511, according to XXX. Type locality: "Roque, [San Martín,] Peru [1097 m]".

- *Phyllobates bassleri* — Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Dendrobates bassleri* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Ameerega bassleri* — Bauer, 1986, Ripa, Netherlands, November: 7.
- *Epipedobates bassleri* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Phobobates bassleri* — Zimmermann and Zimmermann, 1988, Salamandra, 24: 125&ndash. 160.
- *Ameerega bassleri* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Amazon drainage of Peru in the departments of Huánuco and San Martín, from the eastern foothills of the Andes east to the Río Huallaga, 274–1097 m elevation.

Comment: Schulte, 1999, Pfeilgiftfrösche, : 180–186, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 372–376, provided an account and placed this species in their *Ameerega trivittata* group. See statement of geographic range, habitat, and conservation status (as *Epipedobates bassleri*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 614.

***Ameerega bilinguis* (Jungfer, 1989)**

- *Epipedobates bilinguis* Jungfer, 1989, Salamandra, 25: 86. Holotype: ZFMK 49073, by original designation. Type locality: "Ecuador: Napo: 10 km N Puerto Francisco de Orellana (= Coca)".
- *Ameerega bilinguis* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: River systems of the Río Napo and Río Aguarico in northeastern Ecuador (provinces of Napo, Orellana, and Sucumbíos) and adjacent Colombia (departments of Putumayo and Caquetá).

Comment: The species had previously been confused with *Ameerega parvula* (as *Epipedobates*) according to the original publication. See comment under *Ameerega ingeri*. See account by Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 323–325, who placed this in their *Ameerega picta* group. Poelman, Verkade, and van Wijngaarden, 2010, J. Herpetol., 44: 409–417, reported on larval morphology.

***Ameerega boehmei* Lötters, Schmitz, Reichle, Rödder, and Quennet, 2009**

- *Ameerega boehmei* Lötters, Schmitz, Reichle, Rödder, and Quennet, 2009, Zootaxa, 2028: 22. Holotype: NKA 8469, by original designaiton. Type locality: "Serranía de Santiago, roughly 6 km east of Santiago de Chiquitos (1819′S, 5934′ W, ca. 800 m above sea level), Chiquitanía region, Provincia San Jos de Chiquitos, Departamento Santa Cruz, Bolivia".

Distribution: Serranías de Santiago and Chochis, isolated Precambrian sandstone massifs in the Chiquitanía region of Departamento Santa Cruz, Bolivia, 720–800 m elevation.

Comment: Most closely related to *Ameerega flavopicta* according to the original publication.

***Ameerega boliviana* (Boulenger, 1902)**

- *Prostherapis bolivianus* Boulenger, 1902, Ann. Mag. Nat. Hist., Ser. 7, 10: 397. Syntypes: BMNH 1947.2.13.89–90 (San Carlos), 1947.2.13.91 (San Ernesto); BM 1947.2.13.89 designated lectotype by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 35. Type locality: "San Carlos, [La Paz,] Bolivia, 1200 m. and . . . S. Ernesto, [La Paz,] Bolivia, 800 m."; restricted to San Carlos, La Paz, Bolivia, by lectotype designation.
- *Phyllobates bolivianus* — Barbour and Noble, 1920, Bull. Mus. Comp. Zool., 63: 401. Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 5.
- *Colostethus bolivianus* — Edwards, 1971, Proc. Biol. Soc. Washington, 84: 148. Rivero, 1990 "1988", Mem. Soc. Cienc. Nat. La Salle, 48: 3–32.
- *Dendrobates bolivianus* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates bolivianus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Ameerega boliviana* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Yungas region in the Departamento La Paz, Bolivia, 800–1200 m elevation.

Comment: See accounts by Gonzales-Álvarez, Lötters, and Reichle, 2000 "1999", Herpetozoa, 12: 179–186; and Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 326–328, who placed this in their *Ameerega picta* group.

***Ameerega braccata* (Steindachner, 1864)**

- *Dendrobates braccatus* Steindachner, 1864, Verh. Zool. Bot. Ges. Wien, 14: 259. Syntypes: NHMW 3818.1–2; NHMW 3818.1 designated lectotype by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 42. Type locality: São Vicente, Mato Grosso, Brazil. Given as "Chapada dos Guimarães (= Chapada), Mato Grosso", Brazil, by Bokermann, 1966, Lista Anot. Local. Tipo Anf. Brasil., : 33. Name attributed by Steindachner to Fitzinger, but clearly Steindachner is responsible for the description.
- *Dendrobates braccatus* Cope, 1887, Proc. Am. Philos. Soc., 24: 53&ndash. 54. Holotype: ANSP 13414, according to XXX. Type locality: "at or near . . . . Chupada [= Chapada dos Guimarães], thirty miles north-east of Cuyabá, and near the headwaters of the Xingu, an important tributary of the Amazon", Mato Grosso, Brazil. Synonymy by Haddad and Martins, 1994, Herpetologica, 50: 282–295. Junior synonym and homonym of *Dendrobates braccatus* Steindachner, 1864.
- *Dendrobates pictus braccatus* — Lutz, 1952, Mem. Oswaldo Cruz, Rio de Janeiro, 50: 601.
- *Epipedobates braccatus* — Martins and Sazima, 1989, Ciencia Hoje, 9: 34.
- *Ameerega braccata* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Known only from the type locality (Chapada dos Guimarães, Mato Grosso), from two nearby localities (Barra do Bugres and Cáceres, Mato Grosso), from Aquidauana, Mato Gross do Sul, and from Santa Rita do Araguaia, Goias, Brazil, possibly into adjacent Paraguay and Bolivia (see comment).

Comment: See accounts by Haddad and Martins, 1994, Herpetologica, 50: 282–295; and Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 329–330 (who placed this in their *Ameerega picta* group). De la Riva, Köhler, Lötters, and Reichle, 2000, Rev. Esp. Herpetol., 14: 58, and Köhler, 2000, Bonn. Zool. Monogr., 48: 69, considered this species possibly to occur in Bolivia. Brusquetti and Lavilla, 2006, Cuad. Herpetol., 20: 28, suggested that this species likely occurs in Paraguay. Lötters, Schmitz, Reichle, Rödder, and Quennet, 2009, Zootaxa, 2028: 22, provided a distribution map.

***Ameerega cainarachi* (Schulte, 1989)**

- *Epipedobates cainarachi* Schulte, 1989, Bol. Lima, 11: 41. Holotype: R. Schulte Collection 10550, now AMNH 136282, according to DRF. Type locality: "el valle del Alto Río Cainarachi del centro de la Cordillera Oriental a la altura del km 33 de la carretera Tarapoto-Yurimaguas", Departamento San Martín, Peru.
- *Epipedobates ardens* Jungfer, 1989, Salamandra, 25: 89. Holotype: ZFMK 490843, by original designation. Type locality: "Peru: Departamento San Martín: Carratera [sic] Tarapoto-Yurimaguas, km 28, ca. 600 m Meershöhe". Synonymy by Duellman, 1993, Univ. Kansas Mus. Nat. Hist. Spec. Publ., 21: 63.
- *Ameerega cainarachi* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Lowlands adjacent to the northern end of the Eastern Andes in Amazonian Peru.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 331–332, provided an account, and placed this in their *Ameerega picta* group. See photograph, map, description of geographic range and habitat, and conservation status (as *Epipedobates cainarachi*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 231.

***Ameerega erythromos* (Vigle and Miyata, 1980)**

- *Dendrobates erythromos* Vigle and Miyata, 1980, Breviora, 459: 2. Holotype: MCZ 96384, by original designation. Type locality: "Centro Científico, Río Palenque, 47 km S of Santo Domingo de los Colorados, Provincia Pichincha, Ecuador, 170 m".
- *Epipedobates erythromos* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Phyllobates (Pseudendrobates) erythromos* — Bauer, 1988, Het Paludarium, Netherlands, November: 6.
- *Ameerega erythromos* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Known from three localities in Pichincha Province, Ecuador (Centro Científico, Río Palenque, 47 km south of Santo Domingo de los Colorados; Bilsa; and 2 km east of El Esfuerzo).

Comment: Possibly conspecific with the type of *Colostethus whymperi* (now *Hyloxalus whymperi*) according to Coloma, 1995, Misc. Publ. Mus. Nat. Hist. Univ. Kansas, 87: 55. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 390–391, provided an account. See Vigle, 1987, Herpetol. Rev., 18: 39, for second locality.

***Ameerega flavopicta* (Lutz, 1925)**

- *Hylaplesia flavopicta* Lutz, 1925, C. R. Mém. Hebd. Séances Soc. Biol. Filial., Paris, 93 (1925, vol. 2): 139. Syntypes: Not stated; by museum records AL-MNRJ 853–854 and USNM 96986, according to XXX; implied lectotype designation by Lutz, 1952, Mem. Oswaldo Cruz, Rio de Janeiro, 50: 597. Type locality: "Bello Horizonte", Minas Gerais, Brazil.
- *Dendrobates pictus flavopictus* — Lutz, 1952, Mem. Oswaldo Cruz, Rio de Janeiro, 50: 597.
- *Dendrobates flavopictus* — Cochran, 1955 "1954", Bull. U.S. Natl. Mus., 206: 8.
- *Epipedobates flavopictus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Ameerega flavopicta* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Southeastern (Minas Gerais, Goiás, and Tocantíns), northern (Pará), and northeastern (Maranhão), Brazil.

Comment: See account (as *Epipedobates flavopictus*) by Haddad and Martins, 1994, Herpetologica, 50: 282–295, and (as Ameerega flavopicta) by Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 333–335, who placed this in their *Ameerega picta* group, and who noted a population of this species, or a closely related one, in Bolivia (now *Ameerega boehmei*). Eterovick and Sazima, 2004, Anf. Serra do Cipó, : 37–38, provided a photograph and brief account (as *Epipedobates flavopictus*). Lötters, Schmitz, Reichle, Rödder, and Quennet, 2009, Zootaxa, 2028: 22, provided a distribution map.

***Ameerega hahneli* (Boulenger, 1884)**

- *Dendrobates hahneli* Boulenger, 1884 "1883", Proc. Zool. Soc. London, 1883: 636. Syntypes: BMNH ("several specimens"); BMNH 1947.2.15.17 designated lectotype by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 42. Type locality: "Yurimaguas, Huallaga River, [Loreto,] Northern Peru".
- *Dendrobates pictus hahneli* — Lutz, 1952, Mem. Oswaldo Cruz, Rio de Janeiro, 50: 601.
- *Epipedobates hahneli* — Martins and Sazima, 1989, Ciencia Hoje, 9: 34. Haddad and Martins, 1994, Herpetologica, 50: 282–295.

- *Epipedobates hahneli hahneli* — Schulte, 1999, Pfeilgiftfrösche: 233.
- *Ameerega hahneli* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Amazonian lowlands of Amazonian Peru, Ecuador, Colombia, Bolivia, Brazil, the extreme south of Venezuela, French Guiana, and likely adjacent Surinam, and southern Guyana.

Comment: See account by Haddad and Martins, 1994, Herpetologica, 50: 282–295, who noted that a similar, apparently unnamed, species occurs in the Amazonian lowlands of Peru, and that the review of *Phyllobates pictus* by Lescure, 1976, Bull. Mus. Natl. Hist. Nat. Paris, Ser. 3, Zool., 377: 487–488, is likely based on this species. See Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 42, who regarded this species as a pattern class of *Ameerega picta* (as *Phyllobates*). See De la Riva, Márquez, and Bosch, 1996, J. Nat. Hist., 30: 1413–1420, for Bolivian record and discussion of taxonomic uncertainty regarding this and related species. Köhler and Lötters, 1999, Bonn. Zool. Beitr., 48: 259–273, also note a Bolivian record. Lescure and Marty, 2000, Collect. Patrimoines Nat., Paris, 45: 96–97, provided a brief account and photo. Schulte, 1999, Pfeilgiftfrösche, : 227–235, provided an account. Roberts, Brown, von May, Arizabal, Schulte, and Summers, 2006, Mol. Phylogenet. Evol., 41: 149–164, provided DNA sequence data that suggest that nominal *Ameerega hahneli* is polyphyletic. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 336–342, provided an account and placed this species in their *Ameerega picta* group. Twomey and Brown, 2008, Zootaxa, 1757: 1–17, discussed the *Ameerega hahneli* complex and noted that populations on the eastern versant of Peru represented a distinct species, *Ameerega altamazonica*; they also noted other unnamed, but likely distinct species in the complex.

***Ameerega ignipedis* Brown and Twomey, 2009**

- *Ameerega ignipedis* Brown and Twomey, 2009, Zootaxa, 2049: 5. Holotype: MUSM 24948, by original designation. Type locality: "Departamento Loreto, Peru, 17.5 km NE Contamana at the western foot of the Serranía de Contamana, 240 m elevation, 7° 11′ 55.46″ S, 74° 57′ 35.28″ W. Type locality near “El Unión”, a campsite located at the confluence of a hot-water and cold-water stream."

Distribution: Known only from two localities in the Serranía de Contamana, but probably occurs more widely throughout the foothills of the Serranía de Contamana as well as other parts of the Sierra del Divisor, Departamento Loreto, Peru.

***Ameerega ingeri* (Cochran and Goin, 1970)**

- *Dendrobates ingeri* Cochran and Goin, 1970, Bull. U.S. Natl. Mus., 288: 16. Holotype: USNM 146846, by original designation. Type locality: "Aserrío, near Río Pescado, Caquetá, Colombia".
- *Phyllobates ingeri* — Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Dendrobates ingeri* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates ingeri* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Phyllobates (Pseudendrobates) ingeri* — Bauer, 1988, Het Paludarium, Netherlands, November: 6.
- *Ameerega ingeri* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution Tropical forest on the eastern slope of the Eastern Andes, in southwestern Caquetá and northern Putumayo, southeastern Colombia, at elevations of 100–400 m.

Comment: Amézquita, Rueda-Almonacid, and Rueda-Martínez, 2004, *in* Rueda-Almonacid et al. (eds.), Libro Rojo Anf. Colombia, : 346–349, provided an account and map (as *Epipedobates pictus*), and who considered *Ameerega bilinguis* (as *Epipedobates*) to be a synonym, without discussion. Lötters, Jungfer,

Henkel, and Schmidt, 2007, Poison Frogs, : 343, provided an accountand placed this species in their *Ameerega picta* group. See map, description of geographic range and habitat, and conservation status (as *Epipedobates ingeri*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 231.

***Ameerega labialis* (Cope, 1874)**

- *Dendrobates labialis* Cope, 1874, Proc. Acad. Nat. Sci. Philadelphia, 26: 129. Holotype: Presumably originally in ANSP, not located. Type locality: "Nauta", Loreto, Peru.
- *Hylaplesia labialis* — Knauer, 1883, Naturgesch. Lurche: 112.
- *Epipedobates labialis* — Schulte, 1999, Pfeilgiftfrösche: 219.
- *Ameerega labialis* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Known only from the type locality (Nauta, Loreto, Peru).

Comment: Schulte, 1999, Pfeilgiftfrösche, : 219–220, provided an account (as *Epipedobates labialis*). Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 391, provided a brief accountand suggested this to be a *nomen dubium*, possibly assignable to either *Allobates* or *Ameerega*.

***Ameerega macero* (Rodriguez and Myers, 1993)**

- *Epipedobates macero* Rodriguez and Myers, 1993, Am. Mus. Novit., 3068: 2. Holotype: MUSM 0726 (formerly MHNJP 2001), by original designation. Type locality: "west side Río Manu across from Cocha Cashu Biological Station, Parque Nacional del Manu, about 380 m elev., Department of Madre de Dios, Peru".
- *Ameerega macero* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Known from the departments of Junín, Cuzco, Ucayali, and Madre de Dios, southern Peru, 300–450 m elevation.

Comment: See Myers, Rodriguez, and Icochea, 1998, Am. Mus. Novit., 3238: 1–20, for comments on identification and distribution. De la Riva, Köhler, Lötters, and Reichle, 2000, Rev. Esp. Herpetol., 14: 57, and Köhler, 2000, Bonn. Zool. Monogr., 48: 69, consider this species possibly to occur in Bolivia. Schulte, 1999, Pfeilgiftfrösche, : 216–219, provided an account. Medina-Müller, 2007, Herpetol. Rev., 38: 214, reported a range extension to Junín and discussed the range. See account by Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 344–345, who placed this species in their *Ameerega picta* group.

***Ameerega maculata* (Peters, 1873)**

- *Dendrobates trivittatus var. maculata* Peters, 1873, Monatsber. Preuss. Akad. Wiss. Berlin, 1873: 617. Type(s): Not designated. ZMB 7815 is considered holotype by museum records (Bauer, Günther, and Klipfel, 1995, *in* Bauer et al. (eds.), Herpetol. Contr. W.C.H. Peters, : 41). Type locality: "Chiriqui", Panama; at the time of the description "Chiriqui" included both Atlantic and Pacific versants of extreme western Panama, according to Myers, 1982, Am. Mus. Novit., 2721: 5.
- *Dendrobates maculatus* — Myers, 1982, Am. Mus. Novit., 2721: 5.
- *Epipedobates maculatus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Ameerega maculata* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164. Provisional placement.

Distribution: Known only from the holotype (Panama).

Comment: See Myers, 1982, Am. Mus. Novit., 2721: 5–9, for discussion, who removed this taxon from the synonymy of *Dendrobates auratus*, where it had been placed by Dunn, 1931, Occas. Pap. Boston Soc. Nat. Hist., 5: 393. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 392–393, provided an account and discussed the problematic nature of this taxon.

***Ameerega parvula* (Boulenger, 1882)**

- *Dendrobates parvulus* Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2: 145, pl. 12, fig. 6. Syntypes: BMNH 1947.2.30.89–90; BMNH 1947.2.30.89 designated lectotype by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 36. Type locality: "Sarayacu", Pastaza, Ecuador and "Canelos", Pastaza, Ecuador; restricted to Sarayacu, Pastaza, Ecuador, by lectotype designation.
- *Prostherapis festae* Peracca, 1904, Boll. Mus. Zool. Anat. Comp. Univ. Torino, 19 (465): 16. Syntypes: MZUT (3 specimens) according to original description; MZUT An87 (2 specimens) according to Gavetti and Andreone, 1993, Cat. Mus. Reg. Sci. Nat., Torino, 10: 84; location of third syntype unknown. Type locality: "Valle Santiago", eastern Ecuador. See comment regarding type locality by Rivero and Almendáriz, 1992 "1991", Politecnica, Quito, 16: 116–117. Synonymy by Coloma, 1995, Misc. Publ. Mus. Nat. Hist. Univ. Kansas, 87: 57.
- *Phyllobates festae* — Barbour and Noble, 1920, Bull. Mus. Comp. Zool., 63: 401.
- *Colostethus festae* — Edwards, 1971, Proc. Biol. Soc. Washington, 84: 148.
- *Phyllobates parvulus* — Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Dendrobates parvulus* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates parvulus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Phyllobates (Pseudendrobates) parvulus* — Bauer, 1988, Het Paludarium, Netherlands, November: 6.
- *Ameerega parvula* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Upper Amazon Basin in southern Ecuador and northern Peru; southern part of the Eastern Andes on the lower eastern slopes in Amazonia, Colombia, 150–1000 m elevation.

Comment: See account by Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 346–348, who placed this species in their *Ameerega picta* group. Poelman, Verkade, and van Wijngaarden, 2010, J. Herpetol., 44: 409–417, reported on larval morphology.

***Ameerega pepperi* Brown and Twomey, 2009**

- *Ameerega pepperi* Brown and Twomey, 2009, Zootaxa, 2049: 16. Holotype: MUSM 26940, by original designation. Type locality: "Provincia Tocache, Departamento San Martín, Peru, 2 km NE of San Francisco, 980 m elevation, 8° 18′ 30.3″ S, 76° 40′ 37.6″ W. Found on the ground near a small waterfall."

Distribution: Throughout the upper Huallaga Valley, south of Río Huayabama (near Huicungo) to the southern border of San Martín at elevations from 380 m to approximately 1000 m elevation, Peru.

***Ameerega peruviridis* Bauer, 1986**

- *Ameerega peruviridis* Bauer, 1986, Ripa, Netherlands, November: 7. Holotype: Not stated or known to exist. Type locality: "in the Ucayali drainage of East Andean Peru".

Distribution: Ucayali drainage of eastern Peru.

Comment: The name was coined for one of the color variants in *"Epipedobates trivittatus"* (which is likely a composite of several species) which is of uncertain taxonomic status. See Walls, 1994, Jewels of the Rainforest, : 283, for a photograph.

***Ameerega petersi* (Silverstone, 1976)**

- *Phyllobates petersi* Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 37. Holotype: USNM 166763, by original designation. Type locality: "Santa Isabel (a village on the Río Nevati, a tributary of the Río Pichis, Pachitea drainage, 35 km SE Puerto Bermúdez, 80 km ENE Oxapampa...slightly upriver from the village...), Departamento de Pasco, Perú, 458 m".
- *Dendrobates petersi* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates petersi* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Phyllobates (Pseudendrobates) petersi* — Bauer, 1988, Het Paludarium, Netherlands, November: 6.
- *Ameerega petersi* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Rio Jurua basin of Acre, Brazil, and Río Ucayali and Río Huallaga basins of eastern Peru, west to the eastern foothills of the Andes, 274–800 m.

Comment: See comment under *Ameerega simulans*. See account by Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 349–352, who placed this species in their *Ameerega picta* group, and who noted that the taxonomic status of the Huallaga Basin population is uncertain and may be a distinct species. Gascon, 1994, Herpetol. Rev., 25: 160, provided the record for Acre, Brazil.

***Ameerega picta* (Bibron, 1838)**

- *Hylaplesia picta* Bibron *In* Tschudi, 1838, Classif. Batr.: 28. Syntypes: MNHNP 4910 (2 specimens, according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 32); male (MNHNP 4910?) designated lectotype by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 42; MNHNP 4910 designated lectotype by Lescure, 1976, Bull. Mus. Natl. Hist. Nat. Paris, Ser. 3, Zool., 377: 487. Type locality: "Santa Cruz", Santa Cruz, Bolivia.
- *Dendrobates pictus* — Duméril and Bibron, 1841, Erp. Gen., 8: 656.
- *Dendrobates eucnemis* Steindachner, 1864, Verh. Zool. Bot. Ges. Wien, 14: 258. Syntypes: NHMW 19190.1–4; NHMW 19190.3 designated lectotype by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 42. Type locality: Rio Mamoré, Rondônia, Brazil. Name attributed by Steindachner to Fitzinger, but clearly Steindachner is responsible for the description. Synonymy by Lutz, 1952, Mem. Oswaldo Cruz, Rio de Janeiro, 50: 597–607.
- *Dendrobates pictus pictus* — Lutz, 1952, Mem. Oswaldo Cruz, Rio de Janeiro, 50: 601.
- *Dendrobates pictus eucnemis* — Lutz, 1952, Mem. Oswaldo Cruz, Rio de Janeiro, 50: 607.
- *Dendrobates pictus guayanensis* Heatwole, Solano, and Heatwole, 1965, Acta Biol. Venezuelica, 4: 350. Holotype: MBUCV 3112, by original designation. Type locality: "forest between Rancho Alegre and base of Altiplanicie, on trail to Quebrada Cabeza de Burro, 5 km east of Las Chicharras, 47 km north of Tumeremo. Altiplanicie de Nuria, 100–250 m.", Bolivar, Venezuela.
- *Phyllobates pictus* — Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Dendrobates pictus* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates pictus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.

- *Ameerega picta* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Widely distributed in the lowlands of the Departamentos Santa Cruz, Cochabamba, Beni, and La Paz, in eastern Bolivia, and Corumbá and Xavantina, Mato Grosso do Sul, in southwestern Brazil; possibly into adjacent Paraguay (see comment); Departmento Ucayali, Peru, also eastern slope of the Cordillera Oriental (south of Macarena), Amazonia, Colombia, 200–2500 m elevation. Apparently isolated population in Bolivar, Venezuela.

Comment: Noted to be composed of two or more distinct species, according to Caldwell and Myers, 1990, Am. Mus. Novit., 2988: 19, and Henle, 1992, Bonn. Zool. Beitr., 43: 79–129, although these may correspond to those subsequently resurrected by Haddad and Martins, 1994, Herpetologica, 50: 282–295 (who also provided accounts). De la Riva, Köhler, Lötters, and Reichle, 2000, Rev. Esp. Herpetol., 14: 30, also note the composite nature of this binominal. See brief account by Köhler, 2000, Bonn. Zool. Monogr., 48: 91–93. See distributional comments by Gorzula and Señaris, 1999 "1998", Scient. Guaianae, 8: 26. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 354–358, provided an account and placed this species in their *Ameerega picta* group. Brusquetti and Lavilla, 2006, Cuad. Herpetol., 20: 28, suggested that this species likely occurs in Paraguay.

***Ameerega planipaleae* (Morales and Velazco, 1998)**

- *Epipedobates planipaleae* Morales and Velazco, 1998, Amphibia-Reptilia, 19: 370. Holotype: MUSM 16542, by original designation. Type locality: "quebrada Llamaquizú; a 6 km del pueblo de Oxapampa; 10° 39′ S, 75° 27′ W aprox.; 2,010 m de altitud; ladera occidental del Parque Nacional Yanachaga-Chemillen; provincia de Oxapampa; Pasco, Perú".
- *Ameerega planipaleae* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Region of the town of Oxapampa, Pasco, Peru, ca. 2010 m elevation.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 359, provided an account and placed this species in their *Ameerega picta* group. See map, description of geographic range and habitat, and conservation status (as *Epipedobates planipaleae*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 231. Medina-Muller and Chávez, 2008 "2007", Herpetotropicos, Mérida, 4: 64, reported on geographic variation at the type locality.

***Ameerega pongoensis* (Schulte, 1999)**

- *Epipedobates pongoensis* Schulte, 1999, Pfeilgiftfrösche: 202. Holotype: R. Schulte Collection BE 24 H, to be deposited in the MUSM, according to the original publication. Type locality: "Pongo de Aguirre, Rio Huallaga-Canyon zwischen Chazuta und Leticia, Region San Martin, Nord-Ost-Peru. Ca. 220 m N.N.".

- *Ameerega pongoensis* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Known only from the type locality (Pongo de Aguirre, between Chazuta and Leticia, Amazonas, Peru, 220 m elevation.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 360–361, provided an account and placed this species in their *Ameerega picta* group.

***Ameerega pulchripecta* (Silverstone, 1976)**

- *Phyllobates pulchripectus* Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 43. Holotype: LACM 42297, by original designation. Type locality: "Serra do Navio, Territorio do Amapá, Brasil, about 120 m".
- *Dendrobates pulchripectus* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates pulchripectus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Ameerega pulchripecta* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Known only from the type locality in the Guiana region of northern Brazil, near the Rio Amapari (tributary of the Rio Araguari), 100–310 m elevation.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 362–363, provided an account and placed this species in their *Ameerega picta* group.

***Ameerega rubriventris* (Lötters, Debold, Henle, Glaw, and Kneller, 1997)**

- *Epipedobates rubriventris* Lötters, Debold, Henle, Glaw, and Kneller, 1997, Herpetofauna, Weinstadt, 19: 26. Holotype: ZFMK 64838, by original designation. Type locality: "Strassenrand der Carretera Central F. Basadre von Tingo María nach Pucallpa, ca. 3 km oberhalb des Ortes Prebisto, Tal des Río Prebisto, Am Osthang der Cordillera Azul, etwa 550 m NN, Departamento Ucayali, Perú".
- *Epipedobates hahneli rubriventris* — Schulte, 1999, Pfeilgiftfrösche: 235. this rejected by Lötters and Vences, 2001 "2000", Salamandra, 36: 247.
- *Ameerega rubriventris* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Eastern versant of the Cordillera Azul, Departamento Ucayali, Peru.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 374–365, provided an account and placed this species in their *Ameerega picta* group.

***Ameerega silverstonei* (Myers and Daly, 1979)**

- *Dendrobates silverstonei* Myers and Daly, 1979, Am. Mus. Novit., 2674: 2. Holotype: AMNH 91844, by original designation. Type locality: "montane forest of Cordillera Azul, 1330 meters elevation, approximately 30 km airline northeast of Tingo María, Department of Huánuco, Peru. This locality lies alongside the gravel road from Tingo María to Pucallpa, about 5 km by road southwest of the road's crest at 1640 m elevation."
- *Epipedobates silverstonei* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Phobobates silverstonei* — Zimmermann and Zimmermann, 1988, Salamandra, 24: 125&ndash. 160.
- *Phyllobates (Pseudendrobates) silverstonei* — Bauer, 1988, Het Paludarium, Netherlands, November: 2.
- *Ameerega silverstonei* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler,

2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Cordillera Azul, Huánuco, Peru.

Comment: Schulte, 1999, Pfeilgiftfrösche, : 186–193, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 377–379, provided an account and placed this species in their *Ameerega trivittata* group.

***Ameerega simulans* (Myers, Rodriguez, and Icochea, 1998)**

- *Epipedobates simulans* Myers, Rodriguez, and Icochea, 1998, Am. Mus. Novit., 3238: 2. Holotype: MUSM 16996, by original designation. Type locality: "on ridge along Río Távara (trib. Río Tambopata) just below confluence of Río Candamo and Río Huacamayo, about 450 m elev. (13° 31′ S, 69° 41′ W), Depto. Puno, Peru. The type locality is in the Zona Reservada Tambopata-Candamo".
- *Ameerega simulans* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Lower montane Andean forest in the upper Río Madre de Dios watershed, Departamento Puno, Peru.

Comment: Confused with *Ameerega petersi* prior to description. De la Riva, Köhler, Lötters, and Reichle, 2000, Rev. Esp. Herpetol., 14: 57, and Köhler, 2000, Bonn. Zool. Monogr., 48: 69, considered this species possibly to occur in Bolivia. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 366–367, provided an account and placed this species in their *Ameerega picta* group.

***Ameerega smaragdina* (Silverstone, 1976)**

- *Phyllobates smaragdinus* Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 44. Holotype: LACM 64435, by original designation. Type locality: "Pan de Azúcar, 39 km NNE Oxapampa, 10° 15′ S, 75° 14′ W, in the Iscozazin Valley (the Río Iscozazin is a tributary of the Río Palcazú, in the Pachitea drainage), Departamento de Pasco, Perú, 380 m".
- *Dendrobates smaragdinus* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates smaragdinus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Phyllobates (Pseudendrobates) smaragdina* — Bauer, 1988, Het Paludarium, Netherlands, November: 6.
- *Ameerega smaragdina* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Region of the type locality (Department of Pasco, Peru).

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 368–369, provided an account and placed this species in their *Ameerega picta* group.

***Ameerega trivittata* (Spix, 1824)**

- *Hyla trivittata* Spix, 1824, Animal. Nova Spec. Nov. Test. Ran. Brasil.: 35. Syntypes: Not specifically designated, but including animal figured in pl. 9, fig. 1 of the original publication; 6 specimens including ZSM 43/0 (reported found by Hoogmoed, 1986, Zool. Meded., Leiden, 60: 300) and RMNH 1836 according to Hoogmoed and Gruber, 1983, Spixiana, Suppl., 9: 367; RMNH 1836 designated lectotype by Hoogmoed and Gruber, 1983, Spixiana, Suppl., 9: 367. Type locality: "juxta flumen Teffé" (= Rio Tefé, Brazil).
- *Hyla nigerrima* Spix, 1824, Animal. Nova Spec. Nov. Test. Ran. Brasil.: 36. Syntypes: 5 specimens presumably originally in the ZSM and including animal figured on pl. 9, fig. 2 of the original publication; syntypes in ZSM (now lost) and RMNH (exchanged from ZSM), of which RMNH 1799 designated lectotype by Hoogmoed and Gruber, 1983, Spixiana, Suppl., 9: 367. Type locality: "juxta pagum Ecgá" = Ega, Teffe, Brazil. Synonymy by Peters, 1872, Monatsber. Preuss. Akad. Wiss. Berlin, 1872: 213; Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2, : 144; Hoogmoed and Gruber, 1983, Spixiana, Suppl., 9: 367.
- *Hysaplesia trivittata* — Schlegel, 1826, Bull. Sci. Nat. Geol., Paris, Ser. 2, 9: 239.
- *Hysaplesia nigerrima* — Schlegel, 1826, Bull. Sci. Nat. Geol., Paris, Ser. 2, 9: 239.
- *Dendrobates nigerrima* — Wagler, 1830, Nat. Syst. Amph.: 202.
- *Dendrobates trivittatus* — Wagler, 1830, Nat. Syst. Amph.: 202. Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11; Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Dendrobates nigerrimus* — Wagler, 1830, Nat. Syst. Amph.: 202.
- *Dendrobates obscurus* Duméril and Bibron, 1841, Erp. Gen., 8: 655. Holotype: MNHNP 4906, according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 32. Type locality: unknown. Synonymy by Peters, 1872, Monatsber. Preuss. Akad. Wiss. Berlin, 1872: 212–213; Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2, : 144; Cochran and Goin, 1970, Bull. U.S. Natl. Mus., 288: 14; and Hoogmoed and Gruber, 1983, Spixiana, Suppl., 9: 367.
- *Hylaplesia trivittatus* — Knauer, 1883, Naturgesch. Lurche: 112.
- *Dendrobates tetravittatus* Miranda-Ribeiro, 1926, Arq. Mus. Nac., Rio de Janeiro, 27: 180. Holotype: MZUSP. Type locality: "Obidos", Pará, Brazil. Synonymy by Bokermann, 1966, Lista Anot. Local. Tipo Anf. Brasil., : 34; Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Phyllobates trivittatus* — Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 6.
- *Ameerega trivittata* — Bauer, 1986, Ripa, Netherlands, November: 7.
- *Epipedobates trivittatus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Phobobates trivittatus* — Zimmermann and Zimmermann, 1988, Salamandra, 24: 125&ndash. 160.
- *Ameerega trivittata* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 164.

Distribution: Guianas and the Amazon drainage of Brazil, Peru, Bolivia (Pando), Colombia (Putumayo and Amazonia), and Venezuela; presumably in Amazonian Ecuador.

Comment: See De la Riva, Köhler, Lötters, and Reichle, 2000, Rev. Esp. Herpetol., 14: 30, for Bolivian record. See distributional comments regarding Venezuela by Gorzula and Señaris, 1999 "1998", Scient. Guaianae, 8: 26–27 (as *Phobobates trivittatus*). Schulte, 1999, Pfeilgiftfrösche, : 169–180, provided an account. Barrio-Amorós and Fuentes-Ramos, 1999, Acta Biol. Venezuelica, 19: 2, reported the species for Venezuela but did not report a precise locality or location of voucher specimen. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 380–386, provided an account and placed this species in their *Ameerega trivittata* group.

***Ameerega yoshina* Brown and Twomey, 2009**

- *Ameerega yoshina* Brown and Twomey, 2009, Zootaxa, 2049: 10. Holotype: MUSM 24945, by original designation. Type locality: "Departamento Loreto, Peru, 17.5 km NE Contamana at the western foot of the Serranía de Contamana, 310 m elevation, 7° 11′ 7.43″ S, 74° 57′ 13.12″ W. Found near El Unión, on the ground near a small creek flowing into the coldwater stream."

Distribution: Currently known only from a locality in the Serranía de Contamana and the other 130 km away in the Huallaga Canyon in the northern Cordillera Azul , Departamento Loreto, Peru.

***Ameerega yungicola* (Lötters, Schmitz, and Reichle, 2005)**

- *Epipedobates yungicola* Lötters, Schmitz, and Reichle, 2005, Herpetozoa, 18: : 117. Holotype: CBF 3900, by original designation. Type locality: "km 10 on road from Caranavi to Yolosa (15° 53′ 17″ S, 67° 33′ 09″ W, ca. 600 m above sea level), Yungas de La Paz, Provincia Caranavi, Departamento La Paz, Bolivia".
- *Ameerega yungicola* — Frost, 2006, Amph. Spec. World Online, vers. 4.0: 1&ndash. 268.

Distribution: Known only from the type locality (km 10 on road from Caranavi to Yolosa, 15° 53′ 17″ S, 67° 33′ 09″ W, ca. 600 m above sea level, Yungas de La Paz, Provincia Caranavi, Departamento La Paz, Bolivia).

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 370, provided an account and placed this species in their *Ameerega picta* group.

Genus: *Andinobates* Twomey, Brown, Amézquita & Mejía-Vargas, 2011

Andinobates abditus (Myers and Daly, 1976)

- *Dendrobates abditus* Myers and Daly, 1976, Occas. Pap. Mus. Nat. Hist. Univ. Kansas, 59: 1. Holotype: AMNH 89603, by original designation. Type locality: "lower montane rain forest at 1700 meters elevation, south-west of the Río Azuela bridge on the Quito--Lago Agrio road, eastern base of Volcán Reventador, Napo Province, Ecuador (latitude 0° 05′ S, longitude 77° 37′ W)".
- *Minyobates abditus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 304.
- *Dendrobates abditus* — Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 11. by implication.
- *Ranitomeya abdita* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Andinobates abditus* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30

Distribution: Known only from the type locality at the base of the Volcán Reventardor, southwest of the Río Azuela bridge on the Quito to Lago Agrio road, Napo, Ecuador, 1700 m elevation.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 442–444, provided an account and placed this species in their *Ranitomeya minuta* group. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates abditus*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 227.

***Andinobates altobueyensis* (Silverstone, 1975)**

- *Dendrobates altobueyensis* Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 27. Holotype: LACM 71972, by original designation. Type locality: "summit marker of Alto del Buey, Departamento del Chocó, Colombia, 1070 m."
- *Minyobates altobueyensis* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 304.
- *Dendrobates altobueyensis* — Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 11. by implication.
- *Ranitomeya altobueyensis* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Andinobates altobueyensis* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: 985–1070 m elevation on the Alto del Buey, a mountain in the Serranía de Baudó, Chocó, Colombia.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 444, provided an account and placed this species in their *Ranitomeya minuta* group. See map, description of geographic range and habitat, and conservation status (as *Dendrobates altobueyensis*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 228.

***Andinobates bombetes* (Myers and Daly, 1980)**

- *Dendrobates bombetes* Myers and Daly, 1980, Am. Mus. Novit., 2692: 2. Holotype: AMNH 102601, by original designation. Type locality: "mountains above south side of Lago de Calima, 1580–1600 meters elevation, about 2 km airline southwest of Puente Tierra (village), Department of Valle del Cauca, Colombia. The locality is roughly 50 km north of Cali, on the mountain above kilometer post 23 on the present Loboguerrero--Buga road (about 3° 52′ N, 76° 25′ W)".
- *Minyobates bombetes* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 304.

- *Dendrobates bombetes* — Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 11. by implication.
- *Ranitomeya bombetes* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Andinobates bombetes* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: Both slopes of the Cordillera Occidental (Valle del Cauca) and western slope of the Cordillera Central (Quindío and Risaralda), Colombia, 1580–2100 m elevation.

Comment: Suárez-Mayorga, 2004, *in* Rueda-Almonacid et al. (eds.), Libro Rojo Anf. Colombia, : 302–307, provided an account and map. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 445–446, provided an account and placed this species in their *Ranitomeya minuta* group. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates bombetes*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 228.

***Andinobates claudiae* (Jungfer, Lötters, and Jörgens, 2000)**

- *Dendrobates mimulus* Burton, 1998, Am. Mus. Novit., 3229: 10. *Nomen nudum*. Synonymy by T. Grant (personal commun.)
- *Dendrobates claudiae* Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 12. Holotype: ZFMK 73561, by original designation. Type locality: "Panamá: Pronvincia Bocas del Toro: Festland westlich der Island Loma partida (82° 11′ W/09° 09′ N".
- *Ranitomeya claudiae* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Andinobates claudiae* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: Known only from the region of the type locality in the province of Bocas del Toro, Panama.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 447–448, provided an account and placed this species in their *Ranitomeya minuta* group.

***Andinobates daleswansoni* (Rueda-Almonacid, Rada, Sánchez-Pacheco, Velásquez-Álvarez, and Quevedo-Gil, 2006)**

- *Dendrobates daleswansoni* Rueda-Almonacid, Rada, Sánchez-Pacheco, Velásquez-Álvarez, and Quevedo-Gil, 2006, Zootaxa, 1259: 41. Holotype: ICN 42308, by original designation. Type locality: "Colombia, Departamento de Caldas, Municipio de Samaná, Coregimiento de Florencia, Parque Nacional Natural Selva de Florencia, sitio 'El Estadero', 1950 m, on the eastern lfank of the cordillera Central, *ca* 5° 30′ North, 75° 5′ West.
- *Ranitomeya daleswansoni* — Frost, 2007, Amph. Spec. World Online, vers. 5.0: . new combination by implication of results of Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299:.
- *Andinobates daleswansoni* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: Cloud forests in the northern Cordillera Central of Colombia, 1800–2000 m elevation, in the Municipio Samaná, Departamento de Caldas.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 627, provided an account (as *"Dendrobates" daleswansoni*).

***Andinobates dorisswansonae* (Rueda-Almonacid, Rada, Sánchez-Pacheco, Velásquez-Álvarez, and Quevedo-Gil, 2006)**

- *Dendrobates dorisswansoni* Rueda-Almonacid, Rada, Sánchez-Pacheco, Velásquez-Álvarez, and Quevedo-Gil, 2006, Zootaxa, 1259: 48. Holotype: ICN 53279, by original designation. Type locality: "Colombia, Departamento de Tolima, Municipio de Falan, unpaved road between vereda El Llano and the 'Fina la Lulera,' eastern flank of the Cordillera Central, 1780 m, *ca* 5° 08′ North, 74° 56′ West".
- *Ranitomeya dorisswansoni* — Frost, 2007, Amph. Spec. World Online, vers. 5.0: . new combination by implication of revision of Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299 (Mandatory change in ending (International Code of Zoological Nomenclature, 1999, Art. 32.5.1.); Bernal-Bautista, Luna-Mora, Gallego, and Quevedo-Gil, 2007, Zootaxa, 1638: 59.
- *Andinobates dorisswansonae* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: Cloud forests in the northern Cordillera Central of Departamento Tolima, Colombia.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 627, provided an account (as *"Dendrobates" dorisswansoni*).

***Andinobates fulguritus* (Silverstone, 1975)**

- *Dendrobates fulguritus* Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 28. Holotype: LACM 42319, by original designation. Type locality: "Playa de Oro, Departamento del Chocó, Colombia, 160 m."
- *Minyobates fulguritus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 304.
- *Dendrobates fulguritus* — Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 11.
- *Ranitomeya fulgurita* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Andinobates fulguritus* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: East-central Panama to northerwestern Colombia (Chocó, Risaralda), 160–800 m elevation.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 449–451, provided an account and placed this species in their *Ranitomeya minuta* group.

***Andinobates minutus* (Shreve, 1935)**

- *Dendrobates minutus minutus* Shreve, 1935, Occas. Pap. Boston Soc. Nat. Hist., 8: 212&ndash. 213. Holotype: MCZ 15288, by original designation. Type locality: "Barro Colorado Island, Panama Canal Zone".
- *Dendrobates shrevei* Dunn, 1940, Proc. Acad. Nat. Sci. Philadelphia, 92: 109. Holotype: ANSP 21791, by original designation. Type locality: "Cerro Campaña, Prov. Panama (east of the Canal Zone), 3000 feet elevation". Synonymy by Savage, 1968, Copeia, 1968: 760; Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 30.
- *Ranitomeya minuta* — Anonymous, 1985, Ripa, Netherlands, April: 2. By implication.
- *Minyobates minutus* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 304.
- *Dendrobates minutus* — Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 11.
- *Ranitomeya minuta* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

- *Andinobates minutus* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: Central Panama to midway down the Pacific coast of Colombia, below 1000 m elevation.

Comment: See accounts by Savage, 1968, Copeia, 1968: 760–761; and Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 30–31, as *Dendrobates minutus*. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 452–453, provided an account and placed this species in their *Ranitomeya minuta* group.

***Andinobates opisthomelas* (Boulenger, 1899)**

- *Dendrobates opisthomelas* Boulenger, 1899, Ann. Mag. Nat. Hist., Ser. 7, 3: 275. Syntypes: BMNH 1947.2.15.21–34; BMNH 1947.2.15.29 designated lectotype by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 32. Type locality: "Santa Inés, N. of Medellin, [Departamento Antioquia,] Republic of Colombia, altitude 3800 feet [1160 m]".
- *Ranitomeya opisthomelas* — Anonymous, 1985, Ripa, Netherlands, April: 2. By implication.
- *Minyobates opisthomelas* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 304.
- *Dendrobates opisthomelas* — Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 11. by implication.
- *Ranitomeya opisthomelas* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Andinobates opisthomelas* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: Northern Cordillera Occidental and Central of Colombia (Antioquia) to the eastern slope of the Cordillera Central in Caldas, Colombia, 1160–2200 m elevation.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 454–457, provided an account and placed this species in their *Ranitomeya minuta* group. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates opithomelas*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 229.

***Andinobates tolimensis* (Bernal-Bautista, Luna-Mora, Gallego, and Quevedo-Gil, 2007)**

- *Ranitomeya tolimense* Bernal-Bautista, Luna-Mora, Gallego, and Quevedo-Gil, 2007, Zootaxa, 1638: 60. Holotype: ICN 53372, by original designation. Type locality: "'near Finca La Lulera', vereda el Llano, Departamento del Tolima, Municipio de Falan, Cordillera Central of Colombia, elevation 1852 m above sea level (5° 01′ 08″ N, 75° 02′ 31″ W)". Incorrect original spelling of species name.
- *Ranitomeya tolimensis* — Frost, 2008, Amph. Spec. World Online, vers. 5.2: . Correction of gender of species name.
- *Andinobates tolimensis* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: Known only from the type locality on the eastern slope of the Cordillera Oriental in the Municipio de Falan, Departamento de Tolima, Colombia, 1852 m elevation.

Comment: Related to *Ranitomeya abdita*, *Ranitomeya bombetes*, *Ranitomeya opisthomelas*, and *Ranitomeya virolinensis* according to the original publication.

***Andinobates viridis* (Myers and Daly, 1976)**

- *Dendrobates viridis* Myers and Daly, 1976, Bull. Am. Mus. Nat. Hist., 157: 247. Holotype: AMNH 88133, by original designation. Type locality: "in montane forest approximately 13 km west of Dagua (town), 850–1200 meters elevation on south-facing versant of upper Río Anchicayá drainage, Department of Valle, Colombia".
- *Minyobates viridis* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 304.
- *Dendrobates viridis* — Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 11. by implication.
- *Ranitomeya viridis* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Andinobates viridis* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: Western slope of the Cordillera Occidental of Colombia (Cauca and Valle del Cauca), 100–1200 m elevation.

Comment: See Myers and Daly, 1976, Bull. Am. Mus. Nat. Hist., 157: 249, for speculation on distribution. Restrepo-Toro and Bolívar-García, 2004, *in* Rueda-Almonacid et al. (eds.), Libro Rojo Anf. Colombia, : 215–218, provided an account and map. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 458, provided an account and placed this species in their *Ranitomeya minuta* group. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates speciosus*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 230.

***Andinobates virolinensis* (Ruiz-Carranza and Ramírez-Pinilla, 1992)**

- *Minyobates virolinensis* Ruiz-Carranza and Ramírez-Pinilla, 1992, Lozania, 61: 2. Holotype: ICN 16145, by original designation. Type locality: "Colombia, Departamento de Santander, vertiente occidental de la Cordillera Oriental, Municipio de Charalá, Virolín (= Inspección de Policía de Cañaverales), Vereda "El Reloj", 6°13′ latitud N, 73°05′ W de Greenwich, 1750 m de altitud."
- *Dendrobates virolinensis* — Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 11. by implication.
- *Ranitomeya virolinensis* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Andinobates virolinensis* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 30.

Distribution: Western slope of the Eastern Andes (Cundinamarca and Santander), Colombia, 1300–1850 m elevation.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 459–460, provided an account and placed this species in their *Ranitomeya minuta* group. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates virolinensis*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 231.

Genus: *Dendrobates* Wagler, 1831

***Dendrobates auratus* (Girard, 1855)**

- *Phyllobates auratus* Girard, 1855 "1854", Proc. Acad. Nat. Sci. Philadelphia, 7: 226. Holotype: Not stated; probably USNM 10307 according to Dunn, 1941, Copeia, 1941: 88; stated to be USNM 10307 by Cochran, 1961, Bull. U.S. Natl. Mus., 220: 69. Type locality: "Island of Taboga, in the Bay of Panama".

- *Dendrobates latimaculatus* Günther, 1859 "1858", Cat. Batr. Sal. Coll. Brit. Mus.: 125. Holotype: BMNH 52.12.11.8, according to Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 40. Type locality: "Isthmus of Darien [Panama]". Tentative synonymy by Taylor, 1952, Univ. Kansas Sci. Bull., 35: 635. Synonymy by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11, 40.
- *Hylaplesia aurata* — Cope, 1863, Proc. Acad. Nat. Sci. Philadelphia, 15: 49.
- *Dendrobates tinctorius var. auratus* — Steindachner, 1864, Verh. Zool. Bot. Ges. Wien, 14: 261.
- *Dendrobates trivittatus var. aurata* — Peters, 1873, Monatsber. Preuss. Akad. Wiss. Berlin, 1873: 618.
- *Dendrobates amoenus* Werner, 1901, Verh. Zool. Bot. Ges. Wien, 51: 627. Holotype: NHMW 16514 (formerly 1904.111.95) according to Dunn, 1941, Copeia, 1941: 88, and Häupl and Tiedemann, 1978, Kat. Wiss. Samml. Naturhist. Mus. Wien, 2: 16 (formerly in Zoologisches Museum Königsberg, Germany). Type locality: "Costa Rica". Synonymy by Dunn, 1941, Copeia, 1941: 88; Savage, 1968, Copeia, 1968: 759–760.
- *Dendrobates auratus* — Dunn, 1931, Occas. Pap. Boston Soc. Nat. Hist., 5: 393. Cochran, 1961, Living Amph. World, : 107.
- *Hylaplesia tinctoria latimaculata* — Dunn, 1941, Copeia, 1941: 88. Attributed incorrectly to Günther, 1859 "1858", Cat. Batr. Sal. Coll. Brit. Mus., : 125.
- *Dendrobates tinctorius auratus* — Laurent, 1942, Bull. Mus. R. Hist. Nat. Belg., 18: 12.

Distribution: Humid lowlands from southern Nicaragua to the Golfo de Urabá in Colombia on the Caribbean and on the Pacific versant from southwestern Costa Rica through Panama to the lower Atrato River drainage of western Colombia, 0–800 m elevation; introduced in Oahu, Hawaii, USA.

Comment: See account by Savage, 1968, Copeia, 1968: 759–760, and Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 40. See account by Savage, 2002, Amph. Rept. Costa Rica, : 383–384. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 531–538, provided an account. See comments by Sunyer, Páiz, Dehling, and Köhler, 2009, Herpetol. Notes, 2: 189–202, regarding Nicaraguan populations.

***Dendrobates leucomelas* Steindachner, 1864**

- *Dendrobates leucomelas* Steindachner, 1864, Verh. Zool. Bot. Ges. Wien, 14: 260&ndash. 261. Holotype: NHMW 19188, according to Häupl and Tiedemann, 1978, Kat. Wiss. Samml. Naturhist. Mus. Wien, 2: 16, and Häupl, Tiedemann, and Grillitsch, 1994, Kat. Wiss. Samml. Naturhist. Mus. Wien, 9: 20. Type locality: "Columbien" (= Colombia).

Distribution: Guianan Orinoco drainage of Venezuela north to the Río Orinoco, east into Guyana to the Essequibo River, south into extreme northern Brazil, and west into eastern Amazonian Colombia.

Comment: See accounts by Rivero, 1961, Bull. Mus. Comp. Zool., 126: 168–169, Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 26; and Hoogmoed and Gorzula, 1979, Zool. Meded., Leiden, 54: 188–189. See distributional comments by Gorzula and Señaris, 1999 "1998", Scient. Guaianae, 8: 24–25. Barrio-Amorós, 1999 "1998", Acta Biol. Venezuelica, 18: 35–41, discussed the Venezuelan distribution. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 539–544, provided an account.

***Dendrobates nubeculosus* Jungfer and Böhme, 2004**

- *Dendrobates nubeculosus* Jungfer and Böhme, 2004, Salamandra, 40: 100. Holotype: ZFMK 45354, by original designation. Type locality: "Rockstone, Essequibo River, Mazaruni Potaro District, Guyana . . . Rockstone (4° 58′ N, 58° 32′ W), a town on the Essequibo River at 7 m above sea level. The vegetation in the area is lowland tall evergreen flooded riparian forest ....".

Distribution: Known only from the type locality (Rockstone, 4° 58′ N, 58° 32′ W, Essequibo River, Mazruni Potaro District, Guyana).

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 545, provided an account.

***Dendrobates tinctorius* (Cuvier, 1797)**

- *Rana tinctoria* Cuvier, 1797 (An. VI), Tabl. Element. Hist. Nat. Animaux: 295. Type(s): Not designated, although likely orginally in MNHNP. Type locality: "Amérique". Placed on the Official List of Specific Names in Zoology by Anonymous, 2009, Opin. 2223, Bull. Zool. Nomencl., 66: 103–105.
- *Calamita tinctorius* Schneider, 1799, Hist. Amph. Nat.: 175. Type(s): Not designated or known to exist; LACM 43927 designated neotype by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 47. Type locality: "Americae meridionalis"; neotype from "lower Rivière Matarony (Approuague drainage), Bruynzeel lumber camp, French Guiana, 35 m." (see comment).
- *Hyla tinctoria* — Daudin, 1800, Hist. Nat. Quad. Ovip., Livr. 1: 7. Latreille *in* Sonnini de Manoncourt and Latreille, 1801 "An. X", Hist. Nat. Rept., 2, : 170; Daudin, 1802 "An. XI", Hist. Nat. Rain. Gren. Crap., Quarto, : 25.
- *Rana tinctoria* — Shaw, 1802, Gen. Zool., 3(1): 135.
- *Calamita tinctorius* — Merrem, 1820, Tent. Syst. Amph.: 169.
- *Hylaplesia tinctoria* —Boie *In* Schlegel, 1826, Bull. Sci. Nat. Geol., Paris, Ser. 2, 9: 239.
- *Dendrobates tinctorius* — Wagler, 1830, Nat. Syst. Amph.: 202. Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2, : 143.
- *Dendrobates tinctorius var. daudini* Steindachner, 1864, Verh. Zool. Bot. Ges. Wien, 14: 262. Types: Based on animal figured by Daudin, 1802 "An. XI", Hist. Nat. Rain. Gren. Crap., Quarto, : pl. 8, fig. 1, by original designation. Type locality: Not designated. Synonymy by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Dendrobates machadoi* Bokermann, 1958, Neotropica, 4: 73. Holotype: WCAB 3083, by original designation; now in MZUSP. Type locality: "Serra do Navio, Territorio Federal de Amapa, Brasil". Synonymy by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Dendrobates azureus* Hoogmoed, 1969, Zool. Meded., Leiden, 44: 134. Holotype: RMNH 13837A, by original designation. Type locality: "Sipaliwini, forest island on western slope Vier Gebroeders Mountain, 2° N 55° 58′ W, Surinam". Synonymy by Wollenberg, Veith, Noonan, and Lötters, 2006, Copeia, 2006: 623–629.
- *Dendrobates tinctorum* — Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11. Typographic error.

Distribution: Lowland forests of the Guianas and adjacent Brazil.

Comment: The nomenclatural history of this species was reviewed by Lescure, 1976, Bull. Mus. Natl. Hist. Nat. Paris, Ser. 3, Zool., 377: 484–486. Hoogmoed, 1971, Aquar. Terrar. Z., 24: 1–7, discussed distribution in Surinam. Problems associated with the neotype designation were discussed by Lescure, 1982, Bull. Zool. Nomencl., 39: 267. See account by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 45–49. Lescure and Marty, 2000, Collect. Patrimoines Nat., Paris, 45: 88–91, provided a brief account and photo. Wollenberg, Veith, Noonan, and Lötters, 2006, Copeia, 2006: 623–629, discussed polymorphism and geographic genic variation. Noonan and Gaucher, 2006, Mol. Ecol., 15: 4425–4435, reported on geographic genic variation and the marks on this of vicariant biogeography. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 546–558, provided an account. Wollenberg, Lötters, Mora-Ferrer, and Veith, 2008, Biol. J. Linn. Soc., 93: 433–444, reported on color pattern variation and evolution. See photograph, map, description of geographic range and habitat, and conservation status (as nominal *Dendrobates azureus*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 228.

***Dendrobates truncatus* (Cope, 1861)**

- *Phyllobates truncatus* Cope, 1861 "1860", Proc. Acad. Nat. Sci. Philadelphia, 12: 372. Syntypes: ANSP 2251–52, according to Malnate, 1971, Proc. Acad. Nat. Sci. Philadelphia, 123: 353. Type locality: "New Grenada" (= Colombia).
- *Hylaplesia trunctata* — Cope, 1863, Proc. Acad. Nat. Sci. Philadelphia, 15: 49.
- *Dendrobates truncatus* — Cope, 1867, J. Acad. Nat. Sci. Philadelphia, Ser. 2, 6: 197.

Distribution: Río Magdalena drainage from Chaparral north to the Caribbean coast, and in the lowlands around the northern ends of the central and western Andes, west to the Golfo de Urabá, Colombia, 530–800 m elevation.

Comment: See account by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 49–50. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 559–560, provided an account.

Incertae Sedis:

***Dendrobates enigmaticus* Schulte, 1999**

***Dendrobates fantasticus-imitator* Schulte, 1999**

***Dendrobates riverimus* Schulte, 1999**

Genus : *Epipedobates* Myers, 1987

***Epipedobates anthonyi* (Noble, 1921)**

- *Phyllobates anthonyi* Noble, 1921, Am. Mus. Novit., 29: 5. Holotype: AMNH 13739, by original designation. Type locality: "small stream at Salvias, Prov. del Oro, Ecuador".
- *Colostethus anthonyi* — Edwards, 1971, Proc. Biol. Soc. Washington, 84: 148.
- *Phyllobates anthonyi* — Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 5.
- *Dendrobates anthonyi* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates anthonyi* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Ameerega anthonyi* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication.

Distribution

Southwestern Ecuador (Azuay, El Oro, and Loja provinces) and northwestern Peru (Ancash, Piura, and Tumbes departments), west of the Andes, 153–1387 m elevation.

Comment

Removed from the synonymy of *Epipedobates tricolor* by Schulte, 1999, Pfeilgiftfrösche, : 271, where it had been placed by Henle, 1992, Bonn. Zool. Beitr., 43: 79–129, and Duellman and Wild, 1993, Occas. Pap. Mus. Nat. Hist. Univ. Kansas, 157: 1–53. Graham, Ron, Santos, Schneider, and Moritz, 2004, Evolution, 58: 1781–1793, refined the distribution of this taxon and compared it with *Epipedobates tricolor*. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 395–403, provided an account. See statement of geographic range, habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 614.

***Epipedobates boulengeri* (Barbour, 1909)**

- *Prostherapis femoralis* Barbour, 1905, Bull. Mus. Comp. Zool., 46: 101. Syntypes: MCZ 2422, by original designation (originally 22 specimens, some of which sent to other museums), USNM 52406 and 118232–33 (according to Cochran, 1961, Bull. U.S. Natl. Mus., 220: 71), BMNH 1947.2.13.92–93, UMMZ 48070; BMNH 1947.2.13.93 designated lectotype by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 29. Type locality: "Gorgona Island", Departamento Nariño, Colombia. Junior homonym of *Prostherapis femoralis* Boulenger, 1884 "1883".

- *Prostherapis boulengeri* Barbour, 1909, Proc. Biol. Soc. Washington, 22: 87. Replacement name for *Prostherapis femoralis* Barbour, 1905.
- *Phyllobates boulengeri* — Barbour and Noble, 1920, Bull. Mus. Comp. Zool., 63: 402. Parker, 1926, Ann. Mag. Nat. Hist., Ser. 9, 17: 553; Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 5.
- *Colostethus boulengeri* — Savage, 1968, Copeia, 1968: 757.
- *Dendrobates boulengeri* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates boulengeri* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Ameerega boulengeri* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication.

Distribution: Dense, wet forests of Gorgona I. and the wet southern Chocoan region from the lower San Juan drainage of western Colombia south to northwestern Ecuador.

Comment: Lötters, Reichle, and Jungfer, 2003, J. Nat. Hist., 37: 1899–1911, suggested on the basis of call evidence that this name covers at least two species. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 404–408, provided an account and suggested that nominal *Epipedobates boulengeri* may be a complex of species.

***Epipedobates espinosai* (Funkhouser, 1956)**

- *Phyllobates espinosai* Funkhouser, 1956, Zoologica, New York, 41: 76. Holotype: CAS-SU 10577, by original designation. Type locality: "Hacienda Espinosa, elevation about 1,000 ft., 9 km. west of Santo Domingo de los Colorados, Province of Pichincha, northwestern Ecuador".
- *Dendrobates espinosai* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates espinosai* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Ameerega espinosai* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication.

Distribution: Wet Chocoan region of the Andes in northwestern Ecuador.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 409, provided an account and suggested that possibility that this taxon is a junior synonym of *Epipedobates boulengeri*.

***Epipedobates machalilla* (Coloma, 1995)[1]**

- *Colostethus machalilla* Coloma, 1995, Misc. Publ. Mus. Nat. Hist. Univ. Kansas, 87: 38. Holotype: QCAZ 1414, by original designation. Type locality: "Río Ayampe, 25 km N Montañita, 1° 40′ S, 80° 47′ W, 70 m, boundary of Provincia Manabí and Provincia Guayas, Ecuador".
- *Epipedobates machalilla* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 166.

Distribution: Pacific lowlands of southern and central Ecuador (provinces of El Oro, Los Ríos, Bolivar, Guayas, Azogues, and Manabí) at elevations of 10–515 m.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 410–412, provided an account. See statement of geographic range, habitat, and conservation status (as *Colostethus machalilla*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 614.

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[1] Species to be deleted if *E. machalilla* turns out not to be covered by CITES, see AC26 Doc20.

***Epipedobates narinensis* Mueses-Cisneros, Cepeda-Quilindo, and Moreno-Quintero, 2008**

- *Epipedobates narinensis* Mueses-Cisneros, Cepeda-Quilindo, and Moreno-Quintero, 2008, Pap. Avulsos Zool., São Paulo, 48: 2. Holotype: ICN 53344, by original designation. Type locality: "COLOMBIA, Nariño, Municipio de Barbacoas, corregimiento de El Diviso, vereda El Berlín, Reserva Natural Biotopo Selva Húmeda, alrededores de la Cabaña, 01°24′40.5″N, 78°17′06.4″W, 600 m."

Distribution: Southern state of Nariño. Colombia.

Comment: Confused with *Epipedobates boulengeri* prior to its naming, according to the original publication.

***Epipedobates tricolor* (Boulenger, 1899)**

- *Prostherapis tricolor* Boulenger, 1899, Ann. Mag. Nat. Hist., Ser. 7, 4: 455. Syntypes: BMNH 1947.2.14.16–19; BMNH 1947.2.14.18 designated lectotype by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 33. Type locality: "Porvenir, Bolivar, western slope, about 5800 feet [1769 m]", Ecuador.
- *Phyllobates tricolor* — Barbour and Noble, 1920, Bull. Mus. Comp. Zool., 63: 401. Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 6.
- *Dendrobates tricolor* — Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 332.
- *Epipedobates tricolor* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 303.
- *Colostethus paradoxus* Rivero, 1991, Breviora, 493: 20. Holotype: MCZ 103924, by original designation. Type locality: "Lamtac, Cuenca, 2,535 m, Provincia Azuay, Ecuador". Synonymy by Rivero and Almendáriz, 1992 "1991", Politecnica, Quito, 16: 106 (citing L. Coloma); Duellman and Wild, 1993, Occas. Pap. Mus. Nat. Hist. Univ. Kansas, 157: 1–53.
- *Epipedobates bicolor* — Rivero and Almendáriz, 1992 "1991", Politecnica, Quito, 16: 106. Error for *Epipedobates tricolor*.
- *Ameerega tricolor* — Frost, Grant, Faivovich, Bain, Haas, Haddad, de Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 297: 130. by implication.

Distribution: Andean slopes of Bolivar Province, central Ecuador, ca. 1000–1769 elevation.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 413–416, provided an account and noted that almost all literature under the name of *Epipedobates tricolor* is actually based on *Epipedobates anthonyi*. See photograph, map, description of geographic range and habitat, and conservation status (as *Epipedobates tricolor*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 231.

Genus: *Excidobates* Twomey and Brown, 2008

***Excidobates captivus* (Myers, 1982)**

- *Dendrobates captivus* Myers, 1982, Am. Mus. Novit., 2721: 14. Holotype: AMNH 42963, by original designation. Type locality: "mouth of the Río Santiago, 580 feet (177 m.) elevation, Department of Amazonas, Peru. The Río Santiago flows into the Río Marañón at about 4° 26′ S, 77° 38′ W".
- *Ranitomeya captiva* — Bauer, 1988, Het Paludarium, Netherlands, November: 6.
- *Adelphobtes captivus* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.
- *Excidobates captivus* — Twomey and Brown, 2008, Herpetologica, 64: 121&ndash. 137.

Distribution: Known only from the valley formed between the Cordillera del Condor and the Cerros de Campanquis, Amazonas, Peru.

Comment: Schulte, 1999, Pfeilgiftfrösche, : 143–146, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 516–517, provided a brief account (as *Adelphobates captivus*). See account by Twomey and Brown, 2008, Herpetologica, 64: 121–137.

***Excidobates mysteriosus* (Myers, 1982)**

- *Dendrobates mysteriosus* Myers, 1982, Am. Mus. Novit., 2721: 18. Holotype: AMNH 55349, by original designation. Type locality: "vicinity of Santa Rosa, 3000 feet (*ca.* 900 m.) elevation, upper Río Marañón drainage, Department of Cajamarca, Peru. The type locality lies in the hills northwest of the confluence of the Río Chinchipe with the Río Marañón, at about 5° 22′ S, 78° 41′ W".
- *Ranitomeya mysteriosa* — Bauer, 1988, Het Paludarium, Netherlands, November: 6.
- *"Dendrobates" mysteriosus* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 174. Excluded from *Colostethus* but not assigned to genus.
- *Excidobates mysteriosus* — Twomey and Brown, 2008, Herpetologica, 64: 125.

Distribution: Known only from two localities in Cajamarca Department, Peru (type locality and the Cordillera del Condor).

Comment: See Schulte, 1990, Bol. Lima, 12: 57–68, for second locality and discussion of relationships. Schulte, 1999, Pfeilgiftfrösche, : 148–157, provided an account. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 174, discussed the species, known only from the holotype, and could not allocate it beyond Dendrobatinae, merely retaining it in a non-taxon "*Dendrobates*". Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 625–626, provided an account. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates mysteriosus*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 229.

Genus: *Minyobates* Myers, 1987

***Minyobates steyermarki* (Rivero, 1971)**

- *Dendrobates steyermarki* Rivero, 1971, Kasmera, 3: 390. Holotype: UPRM 3399, by original designation. Type locality: "Cerro Yapacana, 1.200 m., Territorio Federal Amazonas, Venezuela".
- *Minyobates steyermarki* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 304.
- *Dendrobates steyermarki* — Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 11. by implication.

Distribution: Cerro Yapacana, 600–1200 m elevation, Amazonas, Venezuela.

Comment: See account (as *Dendrobates steyermarki*) by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 36. See comment on distribution by Gorzula and Señaris, 1999 "1998", Scient. Guaianae, 8: 27 (as *Minyobates steyermarki*). Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 439–440, provided an account. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates speciosus*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 230.

Genus: *Oophaga* Bauer, 1994

***Oophaga arborea* (Myers, Daly, and Martínez, 1984)**

- *Dendrobates arboreus* Myers, Daly, and Martínez, 1984, Am. Mus. Novit., 2783: 5. Holotype: AMNH 116724, by original designation. Type locality: "in cloud forest at 1120 m. elevation on the continental

divide above the upper Quebrada de Arena, at longitude 82° 12′ 31" W, on the border between the provinces of Chiriquí and Bocas del Toro, Panama".
- *Oophaga arborea* — Bauer, 1994, Ripa, Netherlands, Fall: 4. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Western cordilleras and Atlantic lowlands of Panama, below 1120 m elevation.

Comment: See comment under *Oophaga pumilio*. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 562–566, provided an account. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates arboreus*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 228.

***Oophaga granulifera* (Taylor, 1958)**

- *Dendrobates granuliferus* Taylor, 1958, Univ. Kansas Sci. Bull., 39: 10. Holotype: KU 43874, by original designation. Type locality: "on low mountains, north of the Río Diquis, about 3 miles north of Palmar [Norte], [Cantón de Osa,] Puntarenas Province, Costa Rica". Savage, 1974, Rev. Biol. Tropical, 22: 101, commented on the type locality.
- *Ranitomeya granuliferus* — Anonymous, 1985, Ripa, Netherlands, April: 2.
- *Dendrobates granulifer* — Duellman, 1993, Univ. Kansas Mus. Nat. Hist. Spec. Publ., 21: 60. Incorrect subsequent spelling of the species name (Art. 32.5.1, 1999 Code).
- *Oophaga granulifera* — Bauer, 1994, Ripa, Netherlands, Fall: 4. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Lowland forests of the Golfo Dulce region of the Pacific coast of Costa Rica; presumably in adjacent Panama.

Comment: See accounts by Savage, 1968, Copeia, 1968: 760; Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 36–37; and Savage, 2002, Amph. Rept. Costa Rica, : 384–386 (who discussed natural and introduced populations within Costa Rica). Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 567–575, provided an account. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates granuliferus*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 229, who reported the range to possibly include southeastern Costa Rica and adjacent northwestern Panama.

***Oophaga histrionica* (Berthold, 1845)**

- *Hylaplesia de Cocteau* Duméril and Bibron, 1841, Erp. Gen., 8: 653. Manuscript name coined as a synonym of *Dendrobates tinctorius*.
- *Dendrobates histrionicus* Berthold, 1845, Nachr. Ges. Wiss. Göttingen, 1845: 43. Syntypes: ZFMK 28119–21, 28123, AMNH 140863 (formerly ZFMK 28122); ZFMK 28123 designated lectotype by Myers and Böhme, 1996, Am. Mus. Novit., 3185: 8. Type locality: "Neu-Granada . . . . Provinz Popayan"; clarified by Myers and Böhme, 1996, Am. Mus. Novit., 3185: 17, to "Pacific versant northwestern Colombia, probably upper Río San Juan drainage in the present-day Department of Risaralda" western Colombia.
- *Dendrobates tinctorius var. cocteani* — Steindachner, 1864, Verh. Zool. Bot. Ges. Wien, 14: 261. Incorrect subsequent spelling of *cocteaui*.
- *Dendrobates tinctorius cocteaui* — Boulenger, 1913, Proc. Zool. Soc. London, 1913: 1027. Status distinct from *Dendrobates tinctorius tinctorius* rejected by Laurent, 1942, Bull. Mus. R. Hist. Nat. Belg., 18: 1–20.
- *Dendrobates tinctorius var. coctaei* — Boulenger, 1913, Proc. Zool. Soc. London, 1913: 1027. Incorrect subsequent spelling of *cocteaui*.
- *Dendrobates tinctorius wittei* Laurent, 1942, Bull. Mus. R. Hist. Nat. Belg., 18: 12. Holotype: IRSNB I.G. 1942, Reg. 62b; subsequently reported as IRSNB 1.038 by Lang, 1990, Doc. Trav., Inst. R. Sci. Nat. Belg., 59: 7. Type locality: "'Los Mangos' (Colombie)". Synonymy by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Dendrobates tinctorius histrionicus* — Laurent, 1942, Bull. Mus. R. Hist. Nat. Belg., 18: 12.

- *Dendrobates histrionica* — Dunn, 1944, Caldasia, 2: 520.
- *Dendrobates histrionicus confluens* Funkhouser, 1956, Zoologica, New York, 41: 75. Holotype: CAS-SU (formerly SU) 13151, by original designation. Type locality: "La Ciudad (de Madrigar), lying in the pass through the western Cordillera of the Río Patia, Department of Nariño, southwestern Colombia (approximately Long. 77° 30′ W. X Lat. 1° 46′ N.), at an elevation of ±600 mtr."
- *Dendrobates tinctorius confluens* — Cochran and Goin, 1970, Bull. U.S. Natl. Mus., 288: 32.
- *Oophaga histrionica* — Bauer, 1994, Ripa, Netherlands, Fall: 4. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Chocoan region of western Colombia, below 1000 m elevation.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 576–584, provided an account.

***Oophaga lehmanni* (Myers and Daly, 1976)**

- *Dendrobates lehmanni* Myers and Daly, 1976, Bull. Am. Mus. Nat. Hist., 157: 240. Holotype: AMNH 88153, by original designation. Type locality: "in montane forest approximately 13 km west of Dagua (town), 850–1200 meters elevation on south-facing versant of upper Río Anchicayá drainage, Department of Valle, Colombia".
- *Oophaga lehmanni* — Bauer, 1994, Ripa, Netherlands, Fall: 4. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Western slope of the Cordillera Occidental in Valle del Cauca, Colombia, 600–1200 m elevation; isolated record on the western slope of the Andes in Chocó, near the Risaralda border.

Comment: Lötters, 1992, Salamandra, 28: 138–144, doubted the distinctiveness of this species from *Oophaga histrionica*. Castro-Herrera and Amézquita, 2004, *in* Rueda-Almonacid et al. (eds.), Libro Rojo Anf. Colombia, : 162–167, provided an account and map. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 583–588, provided an account. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates lehmanni*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 229.

***Oophaga occultator* (Myers and Daly, 1976)**

- *Dendrobates occultator* Myers and Daly, 1976, Bull. Am. Mus. Nat. Hist., 157: 244. Holotype: AMNH 88143, by original designation. Type locality: "La Brea, 50 meters elevation, on the Río Patia (=upper tributary Río Saija), at an estimated 15 km by river below mouth of Quebrada Guanguí, Department of Cauca, Colombia".
- *Oophaga occultator* — Bauer, 1994, Ripa, Netherlands, Fall: 4. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Western slope of the Western Andes in Cauca, Colombia, 50–200 m elevation.

Comment: See account and map by Amézquita, 2004, *in* Rueda-Almonacid et al. (eds.), Libro Rojo Anf. Colombia, : 308–312. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 589–590, provided an account.

***Oophaga pumilio* (Schmidt, 1857)**

- *Dendrobates pumilio* Schmidt, 1857, Sitzungsber. Akad. Wiss. Wien, Phys. Math. Naturwiss. Kl., 24: 12. Holotype: KM 1018/1346; lost according to Savage, 1968, Copeia, 1968: 762; Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 37. Type locality: "Neu-Granada"; restricted to "der Weg zwischen Bocca del toro und dem Vulcan Chiriqui [Panama]...zwischen 5000′ und 7000′ Höhe"

[Polish feet, therefore = 1150–1160 m, according to Savage, 1970, Proc. California Acad. Sci., Ser. 4, 38: 273–288] by Schmidt, 1858, Denkschr. Akad. Wiss. Wien, Math. Naturwiss. Kl., 14: 249.
- *Hylaplesia pumilio* — Günther, 1859 "1858", Cat. Batr. Sal. Coll. Brit. Mus.: 126.
- *Dendrobates typographus* Keferstein, 1867, Nachr. Ges. Wiss. Göttingen, 18: 360. Holotype: ZFMK 28115 (by implication) according to Böhme and Bischoff, 1984, Bonn. Zool. Monogr., 19: 179. Type locality: "Costarica". Synonymy by Dunn, 1941, Copeia, 1941: 88; Savage, 1968, Copeia, 1968: 761; Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Dendrobates ignitus* Cope, 1874, Proc. Acad. Nat. Sci. Philadelphia, 26: 68. Syntypes: ANSP 2724–29, according to Dunn and Stuart, 1951, Copeia, 1951: 58, and Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 37. Only one specimen noted in description so the status of the "syntypes" is questionable. Type locality: "region of Nicaragua". Dunn and Stuart, 1951, Copeia, 1951: 58, noted that the data "Machuca", Nicaragua. Synonymy with *Dendrobates typographus* by Cope, 1875 "1876", J. Acad. Nat. Sci. Philadelphia, Ser. 2, 8: 102; Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2, : 148; and Werner, 1901, Verh. Zool. Bot. Ges. Wien, 51: 631. Synonymy by Savage, 1968, Copeia, 1968: 761; Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Hylaplesia typographa* — Brocchi, 1882, Miss. Scient. Mex. Amer. Centr., Rech. Zool., 3(2, livr. 2): 88. Günther, 1900, Biol. Centr. Amer., Rept. Batr., Part 153, : 207.
- *Hylaplesia ignita* — Knauer, 1883, Naturgesch. Lurche: 112.
- *Dendrobates typographicus* — Oertter, 1951, Aquar. Terrar. Z., 4: 48&ndash. 49. Incorrect subsequent spelling.
- *Dendrobates galindoi* Trapido, 1953, Fieldiana, Zool., 34: 182. Holotype: FMNH 71053, by original designation. Type locality: "altitude 20 feet . . . at the edge of the village of Bastimentos, island of Bastimento, Bocas del Toro Province, Republic of Panama". Synonymy by Savage, 1968, Copeia, 1968: 761; Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 27.
- *Oophaga pumilio* — Bauer, 1994, Ripa, Netherlands, Fall: 4. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Lowland forests of the Caribbean drainage of Central America, from eastern Nicaragua to western Panama.

Comment: See accounts by Savage, 1968, Copeia, 1968: 761–762, and Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 37–39. See account by Savage, 2002, Amph. Rept. Costa Rica, : 386–388. Hagemann and Pröhl, 2007, Mol. Phylogenet. Evol., 45: 740–747, noted that the mitochondrial tree of this species presented *Oophaga pumilio* as forming two groups, one of which is the sister taxon of *Oophaga arborea* and the other, which is paraphyletic with respect to *Oophaga speciosa*. These authors suggested that *Oophaga pumilio* (as *Dendrobates pumilio*) might represent three species for which the names *Dendrobates typhographus* Keferstein, 1867, and *Dendrobates ignitus* Cope, 1874, are available; *Dendrobates pumilio* Schmidt, 1857, is available for populations south of the northern populations, except for the Escudo de Veraguas population in Panama which does not have an available name. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 591–609, provided an account. Batista and Köhler, 2008, Salamandra, 44: 225–234, reported on variation in western Panama. See comments by Sunyer, Páiz, Dehling, and Köhler, 2009, Herpetol. Notes, 2: 189–202, regarding Nicaraguan populations.

***Oophaga speciosa* (Schmidt, 1857)**

- *Dendrobates speciosus* Schmidt, 1857, Sitzungsber. Akad. Wiss. Wien, Phys. Math. Naturwiss. Kl., 24: 12. Syntypes: KM 1017/1345 (9 specimens), lost according to Savage, 1970, Proc. California Acad. Sci., Ser. 4, 38: 273–288, who noted one additional syntype in the NHMW; Häupl and Tiedemann, 1978, Kat. Wiss. Samml. Naturhist. Mus. Wien, 2: 16, and Häupl and Tiedemann, 1978, Kat. Wiss. Samml. Naturhist. Mus. Wien, 2: 16, recorded two specimens, NHMW 16518 and 16513, as syntypes. Type locality: "Neu-Granada"; restricted to "der Weg zwischen Bocca del toro und dem Vulcan Chiriqui [Panama]. . . zwischen 5000′ und 7000′ [Polish feet, therefore = 1150–1160 m, according to Savage, 1970, Proc. California Acad. Sci., Ser. 4, 38: 273–288] Höhe" by Schmidt, 1858, Denkschr. Akad. Wiss. Wien, Math. Naturwiss. Kl., 14: 249.
- *Hylaplesia speciosa* — Günther, 1859 "1858", Cat. Batr. Sal. Coll. Brit. Mus.: 126.
- *Dendrobates speciosus* — Savage, 1968, Copeia, 1968: 763. Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.
- *Oophaga speciosa* — Bauer, 1994, Ripa, Netherlands, Fall: 4. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Cloud forest at 1140–1410 m at eastern end of Cordillera de Talamanca in western Panama.

Comment. See accounts by Savage, 1968, Copeia, 1968: 763, Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 39. See also Edwards, Daly, and Myers, 1988, Lloydia, J. Nat. Prod., 51: 1188–1189. See comment under *Oophaga pumilio*. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 610–613, provided an account. See photograph, map, description of geographic range and habitat, and conservation status (as *Dendrobates speciosus*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 230.

***Oophaga sylvatica* (Funkhouser, 1956)**

- *Dendrobates histrionicus sylvaticus* Funkhouser, 1956, Zoologica, New York, 41: 73. Holotype: CAS-SU (formerly SU) 10568, by original designation. Type locality: "Hacienda Espinosa, elevation about 1,000 ft., 9 km. west of Santo Domingo de los Colorados, Province of Pichincha, north-western Ecuador".
- *Oophaga sylvatica* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.
- *Dendrobates sylvaticus* — Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World: 614.

Distribution: Southwestern Colombia (Cauca and Nariño departments) and northwestern Ecuador (Pichincha, Esmeraldas, Imbabura, and Los Rios provinces), below 1000 m elevation

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 614–618, provided an account. See statement of geographic range, habitat, and conservation status (as *Dendrobates sylvaticus*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 614.

***Oophaga vicentei* (Jungfer, Weygoldt, and Juraske, 1996)**

- *Dendrobates vicentei* Jungfer, Weygoldt, and Juraske, 1996, Herpetofauna, Weinstadt, 18: 18. Holotype: ZFMK 61100, by original designation. Type locality: "Aus dem Fussweg von El Copé nach Río Blanco del Norte, Passhöhe der Kontinentlscheide etwa 1 km östlich des Cerro Blanco, etwa 8° 40′ N, 80° 36′ W, 912 m NN, Porvincia de Coclé, Panamá".
- *Oophaga vicentei* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 172.

Distribution: Caribbean versant of the provinces of Veraguas and Coclé and the upper reaches of Pacific versant in Coclé, central Panama.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 619–623, provided an account.

Genus: *Phyllobates* Duméril and Bibron, 1841

***Phyllobates aurotaenia* (Boulenger, 1913)**

- *Dendrobates aurotaenia* Boulenger, 1913, Proc. Zool. Soc. London, 1913: 1029. Holotype: BMNH 1947.2.15.13, according to XXX. Type locality: "Peña Lisa, Condoto, 300 feet", Departamento Chocó, Colombia.
- *Phyllobates aurotaenia* — Dunn, 1957, Copeia, 1957: 78.
- *Phyllobates (Phyllobates) aurotaenia* — Bauer, 1988, Het Paludarium, Netherlands, November: 6.

Distribution: Wet forests of the Chocoan region of western Colombia (Chocó and Valle del Cauca departments) in the Atrato and San Juan drainages, 90–1000 m elevation.

Comment: Removed from the synonymy of *Ameerega femoralis* (as *Phyllobates femoralis*) by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 21, where it had been placed by Cochran and Goin, 1970, Bull. U.S. Natl. Mus., 288: 40. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 418–420, provided an account. See statement of geographic range, habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 614.

***Phyllobates bicolor* Duméril and Bibron, 1841**

- *Phyllobates bicolor* Duméril and Bibron, 1841, Erp. Gen., 8: 638. Holotype: MNHNP 838 according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 34. Type locality: "l'île de Cuba"; corrected to Colombia by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 23. Placed on the Official List of Specific Names in Zoology by Anonymous, 2009, Opin. 2223, Bull. Zool. Nomencl., 66: 103–105.
- *Phyllobates melanorrhinus* Berthold, 1845, Nachr. Ges. Wiss. Göttingen, 1845: 43. Syntypes: Including ZFMK 28126–27, 28129–31, and AMNH 140864 (formerly ZFMK 28128); ZFMK 28130 designated lectotype by Myers and Böhme, 1996, Am. Mus. Novit., 3185: 5. Type locality: "Neu-Granada .... Provinz Popayan"; clarified by Myers and Böhme, 1996, Am. Mus. Novit., 3185: 17, to "Pacific versant northwestern Colombia, probably upper Río San Juan drainage in the present-day Department of Risaralda" western Colombia. Synonymy by Cochran and Goin, 1970, Bull. U.S. Natl. Mus., 288: 36. Myers and Böhme, 1996, Am. Mus. Novit., 3185: 1–20, discussed synonymy.
- *Phyllobates chocoensis* Posada Arango, 1869, Bull. Soc. Med. Allemande Paris, 1869: 206. Types: Not stated, although likely originally in MNHNP. Type locality: "forets de la Nouvelle-Grenade . . . . Chocó". Synonymy (with *Dendrobates histrionicus*) by Boulenger, 1913, Proc. Zool. Soc. London, 1913: 1028. Synonymy (with *Phyllobates pictus*) by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11. Synonymy with *Phyllobates bicolor* by Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 23–24.
- *Dendrobates tinctorius var. chocoensis* — Boulenger, 1913, Proc. Zool. Soc. London, 1913: 1028. Cochran and Goin, 1970, Bull. U.S. Natl. Mus., 288: 26–28.
- *Phyllobates nicefori* Noble, 1923, Am. Mus. Novit., 88: 1. Holotype: AMNH 14028, by original designation. Type locality: "town of Andes [Antioquia], Colombia, South America .... probably in the vicinity of Medellin". Synonymy by Cochran and Goin, 1970, Bull. U.S. Natl. Mus., 288: 36.
- *Phyllobates melanorhinus* — Gorham, 1963, Canad. Field Nat., 77: 25.

Distribution: Western flank of the northern part of the Cordillera Occidental, 400–1500m, northwestern Colombia (Chocó and Valle del Cauca).

Comment: See Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 328. See Lötters, Castro-Herrera, Köhler, and Richter, 1997, Rev. Fr. Aquar. Herpetol., 24: 55–58. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 421–425, provided an account. See statement of geographic range, habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 614.

***Phyllobates lugubris* (Schmidt, 1857)**

- *Dendrobates lugubris* Schmidt, 1857, Sitzungsber. Akad. Wiss. Wien, Phys. Math. Naturwiss. Kl., 24: 12. Holotype: KM 1016/1347, lost, according to Savage, 1970, Proc. California Acad. Sci., Ser. 4, 38: 279. Type locality: "Neu-Granada"; restricted to "der Weg zwischen Bocca del toro und dem Vulcan Chiriqui [Panama]. . . zwischen 5000′ und 7000′ Höhe" by Schmidt, 1858, Denkschr. Akad. Wiss. Wien, Math. Naturwiss. Kl., 14: 249.
- *Hylaplesia lugubris* — Brocchi, 1882, Miss. Scient. Mex. Amer. Centr., Rech. Zool., 3(2, livr. 2): 88.
- *Dendrobates lugubris* — Werner, 1901, Verh. Zool. Bot. Ges. Wien, 51: 631.
- *Phyllobates beatriciae* Barbour and Dunn, 1921, Proc. Biol. Soc. Washington, 34: 159. Holotype: MCZ 8022, by original designation. Type locality: "wooded hill back of Victoria farm near Zent not far from Puerto Limon, [Cantón de Matina, Provincia de Limón,] Costa Rica". Savage, 1974, Rev. Biol. Tropical, 22: 111, commented on the type locality. Synonymy by Dunn, 1924, Occas. Pap. Mus. Zool. Univ. Michigan, 151: 5; Taylor, 1952, Univ. Kansas Sci. Bull., 35: 640.
- *Phyllobates lugubris* — Dunn, 1924, Occas. Pap. Mus. Zool. Univ. Michigan, 151: 5. Taylor, 1952, Univ. Kansas Sci. Bull., 35: 640; Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 27: 5.
- *Dendrobates lugubris* — Dunn, 1940, Proc. Acad. Nat. Sci. Philadelphia, 92: 110.

Distribution: Humid lowlands of the Atlantic versant from extreme southeastern Nicaragua to northwestern Panama; one record just west of the Panama Canal.

Comment: See account by Savage, 1968, Copeia, 1968: 763–766; Pacific versant populations formerly associated with this species now regarded as a distinct species, *Phyllobates vittatus*. See accounts by

Savage, 2002, Amph. Rept. Costa Rica, : 389–390, and Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 426–430. See Ibáñez, Jaramillo, and Solis, 1994, Herpetol. Rev., 25: 161, for record in Panamá Province, Panama. See comments by Sunyer, Páiz, Dehling, and Köhler, 2009, Herpetol. Notes, 2: 189–202, regarding Nicaraguan populations.

***Phyllobates terribilis* Myers, Daly, and Malkin, 1978**

- *Phyllobates terribilis* Myers, Daly, and Malkin, 1978, Bull. Am. Mus. Nat. Hist., 161: 313. Holotype: AMNH 88876, by original designation. Type locality: "lowland rain forest at Quebrada Guanguí, about 0.5 km above its junction with Río Patia, 100–200 m elevation, in upper Río Saija drainage, Department of Cauca, Colombia".

Distribution: Region of the type locality (Cauca, Colombia), 100–200 m elevation.

Comment: See Lötters, Castro-Herrera, Köhler, and Richter, 1997, Rev. Fr. Aquar. Herpetol., 24: 55–58. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 431–433, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 236.

***Phyllobates vittatus* (Cope, 1893)**

- *Dendrobates tinctorius vittatus* Cope, 1893, Proc. Am. Philos. Soc., 31: 340. Type(s): Not stated; presumably originally in the ANSP, USNM, or Philadelphia Mus. Type locality: "Buenos Ayres", (= Buenos Aires, Cantón de Buenos Aires, Provincia de Puntarenas), Costa Rica. Savage, 1974, Rev. Biol. Tropical, 22: 81, commented on the type locality.
- *Phyllobates vittatus* — Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 6, 11.

Distribution: Humid forests of the Golfo Dulce region of the Pacific coast of Costa Rica; expected to occur in immediately adjacent southwestern Panama.

Comment: See comment under *Phyllobates lugubris*. Removed from the synonymy of *Phyllobates lugubris* by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 6, where it had been placed by Savage, 1968, Copeia, 1968: 745–776. See Ryan, 2002, Herpetol. Rev., 33: 318, for a range extension in Costa Rica and a comment on what this locality implies about the more general distribution. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 434–437, provided an account. See photograph, map, description of geographic range and habitat, and conservation status (as *Nephelobates haydeeae*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 236.

Genus: *Ranitomeya* Bauer, 1986

***Ranitomeya altobueyensis* (Silverstone, 1975)**

- *Dendrobates altobueyensis* Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 27. Holotype: LACM 71972, by original designation. Type locality: "summit marker of Alto del Buey, Departamento del Chocó, Colombia, 1070 m."
- *Minyobates altobueyensis* — Myers, 1987, Pap. Avulsos Zool., São Paulo, 36: 304.
- *Dendrobates altobueyensis* — Jungfer, Lötters, and Jörgens, 2000, Herpetofauna, Weinstadt, 22: 11. by implication.
- *Ranitomeya altobueyensis* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: 985–1070 m elevation on the Alto del Buey, a mountain in the Serranía de Baudó, Chocó, Colombia.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 444, provided an account and placed this species in their *Ranitomeya minuta* group. See map, description of geographic range and habitat, and conservation status (as *Dendrobates altobueyensis*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 228.

***Ranitomeya amazonica* (Schulte, 1999)**

- *Dendrobates amazonicus* Schulte, 1999, Pfeilgiftfrösche: 32. Holotype: MUSM (formerly R. Schulte Collection BD 3P), by original designation. Type locality: "Bosque UNAP, Iquitos (Peru), ca. 130 m NN".
- *Ranitomeya amazonica* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: Vicinity of the type locality (near Iquitos) in northeastern Amazonian Peru.

Comment: Lötters and Vences, 2001 "2000", Salamandra, 36: 247–260, questioned the status of this taxon with respect to *Ranitomeya ignea* and *Ranitomeya ventrimaculata* (all as *Dendrobates*). Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 463–465, provided an account and placed this species in their *Ranitomeya ventrimaculata* group.

***Ranitomeya benedicta* Brown, Twomey, Pepper, and Sanchez-Rodriguez, 2008**

- *Ranitomeya benedicta* Brown, Twomey, Pepper, and Sanchez-Rodriguez, 2008, Zootaxa, 1823: 3. Holotype: MUSM 26957, by original designation. Type locality: "near Shucushuyacu (alternative spellings: Shucushyacu and Shucush-yacu), a small town on the east bank of Rio Huallaga near Yurimaguas, Departamento Loreto, Peru; 196 m elevation".

Distribution: Throughout the lowland forest of the Pampas del Sacramento in southern Loreto and eastern San Martin, Peru.

Comment: In the *Ranitomeya fantastica* group according to the original publication.

***Ranitomeya biolat* (Morales, 1992)**

- *Dendrobates biolat* Morales, 1992, Caribb. J. Sci., 28: 195. Holotype: MUSM 7143, by original designation. Type locality: "Pakitza, 11°56′S, 71°18′W, 340 m de elevación, Reserva de la Biosfera del Manu, Provincia de Tahuamanu, Madre de Dios, Perú".
- *Ranitomeya biolat* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: Region of the type locality, Madre de Dios, Peru; reported for Provincia Nicolás Suárez, Departamento Pando, Bolivia, and in Acre, Amazonian Brazil.

Comment: De la Riva, Köhler, Lötters, and Reichle, 2000, Rev. Esp. Herpetol., 14: 57, and Köhler, 2000, Bonn. Zool. Monogr., 48: 69, consider this species possibly to occur in Bolivia. Maldonado-M. and Reichle, 2007, Kempffiana, 3: 13–17, provided the first record for Bolivia. Schulte, 1999, Pfeilgiftfrösche, : 121–126, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 466–469, provided an account and placed this species in their *Ranitomeya ventrimaculata* group. Sampaio and Souza, 2009, Herpetol. Rev., 40: 447, provided the first record for Acre, Brazil.

***Ranitomeya cyanovittata* Pérez-Peña, Chávez, Twomey, and Brown, 2010**

- *Ranitomeya cyanovittata* Pérez-Peña, Chávez, Twomey, and Brown, 2010, Zootaxa, 2439: 12. Holotype: CORBIDI 02266, by original. Type locality: "Rio Blanco Basin near the Zona Reservada Sierra del Divisor, Departamento Loreto, Peru; 6º55′12″S, 73º50′45″W, 206 m elevation".

Distribution: Currently known only in a small area in the vicinity of the Nueva Capanahua community, in the Río Blanco Basin near the Zona Reservada Sierra del Divisor, Departamento Loreto, Peru, 200–300 m elevation.

***Ranitomeya defleri* Twomey and Brown, 2009**

- *Ranitomeya defleri* Twomey and Brown, 2009, Zootaxa, 2302: 50. Holotype: MCZ 28061, by original designation. Type locality: "'Río Apaporis, Colombia'".

Distribution: Puerto Córdoba area in the Apaporis-Caquetá drainage of Amazonas, southeastern Colombia

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~~***Ranitomeya duellmani* (Schulte, 1999)~~
***Ranitomeya ventrimaculata* (Shreve, 1935)**

- *Dendrobates duellmani* Schulte, 1999, Pfeilgiftfrösche: 69. Holotype: KU 221832, by original designation. Type locality: "San Jacinto, 2 km, nahe der ekuadadorianischen Grenze, Loreto, Peru".
- *Ranitomeya duelllmani* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Ranitomeya ventrimaculata* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 59.

Distribution: Northeastern Amazonian Peru, possibly into eastern Ecuador and adjacent Colombia.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 470–471, provided an account and placed this species in their *Ranitomeya ventrimaculata* group.

***Ranitomeya fantastica* (Boulenger, 1884)**

- *Dendrobates fantasticus* Boulenger, 1884 "1883", Proc. Zool. Soc. London, 1883: 636. Syntypes: BMNH 1947.2.15.1–4; BMNH 1947.2.15.4 designated lectotype by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 35. Type locality: "Yurimaguas, Huallaga River, [Loreto,] Northern Peru".
- *Dendrobates phantasticus* — Werner, 1901, Verh. Zool. Bot. Ges. Wien, 51: 631. Incorrect subsequent spelling.
- *Ranitomeya fantasticus* — Anonymous, 1985, Ripa, Netherlands, April: 2.
- *Ranitomeya fantastica* — Bauer, 1988, Het Paludarium, Netherlands, November: 6. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: Cordillera Escalera and the lowlands to the north in Loreto, Peru.

Comment: Schulte, 1999, Pfeilgiftfrösche, : 56–69, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 472–475, provided an account and placed this species in their *Ranitomeya ventrimaculata* group. Brown, Twomey, Pepper, and Sanchez-Rodriguez, 2008, Zootaxa, 1823: 1–24, redelimited the species and its range.

***Ranitomeya flavovittata* (Schulte, 1999)**

- *Dendrobates flavovittatus* Schulte, 1999, Pfeilgiftfrösche: 80. Holotype: R. Schulte Collection BD 10H, by original designation, presumably destined for MUSM. Type locality: "INIBICO-Labor, Boca des Río Tahuayo, Nordufer, 120 m NN", Peru.
- *Ranitomeya flavovittata* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: Vicinity of the type locality in northeastern Amazonian Peru.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 476–477, provided an account and placed this species in their *Ranitomeya ventrimaculata* group.

~~***Ranitomeya ignea* (Melin, 1941)~~
***Ranitomeya reticulata* (Boulenger, 1884)**

- *Dendrobates tinctorius igneus* Melin, 1941, Göteborgs K. Vetensk. Vitterh. Samh. Handl., Ser. B, 1: 66. Syntypes: NHMG (2 specimens), according to XXX. Type locality: "Rio Itaya (near Iquitos), Perú".
- *Ranitomeya ignea* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Ranitomeya reticulata* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 52.

Distribution: Known only from the type locality, near Iquitos, Amazonian Peru.

Comment: Removed from the synonym of *Ranitomeya quinquevittata* (as *Dendrobates*) by Schulte, 1999, Pfeilgiftfrösche, : XXX, where it had been placed by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 11.

***Ranitomeya imitator* (Schulte, 1986)**[2]

- *Dendrobates imitator* Schulte, 1986, Sauria, Berlin, 8: 11. Holotype: MUSM (formerly MHNJP) 10501, by original designation. Type locality: "km 33, Carretera Tarapoto--Yurimaguas, Departamento San Martín, Peru. 550 m leg."
- *Ranitomeya imitator* — Bauer, 1988, Het Paludarium, Netherlands, November: 6.
- *Dendrobates imitator yurimaguensis-imitator* Schulte, 1999, Pfeilgiftfrösche: 94. *Nomen nudum*. See Lötters and Vences, 2001 "2000", Salamandra, 36: 247–260.
- *Dendrobates imitator imitator* — Schulte, 1999, Pfeilgiftfrösche: 94. by implication.
- *Dendrobates imitator yurimaguensis* Schulte, 1999, Pfeilgiftfrösche: 104. Holotype: R. Schulte Collection BD 40, by original designation; presumably destined for MUSM. Type locality: "Tieflandurwald des Río Shanusi-Paranapura Refugiums, Alto Amazonas (Peru). Ca. 180–300 m NN". Distinctiveness from *Dendrobates imitator imitator* rejected by Lötters and Vences, 2001 "2000", Salamandra, 36: 247–260, and Lötters, Reichle, and Jungfer, 2003, J. Nat. Hist., 37: 1899–1911.
- *Ranitomeya imitator* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: Eastern foothills of Andes (Huánuco, Peru).

Comment: Schulte, 1999, Pfeilgiftfrösche, : 88–110, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 478–483, provided an account and placed this species in their *Ranitomeya ventrimaculata* group.

~~***Ranitomeya intermedia* (Schulte, 1999)~~
***Ranitomeya imitator* (Schulte, 1986)**

- *Dendrobates imitator intermedius* Schulte, 1999, Pfeilgiftfrösche: 93. Holotype: R. Schulte Collection BD 27, by original designation; presumably destined for MUSM. Type locality: "Huallaga Canyon, Region San Martin, Peru, 200 m NN".
- *Ranitomeya intermedia* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Ranitomeya imitator* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 68-69.

Distribution: Known only from the type locality (Huallaga Canyon, Region San Martin, Peru, 200 m elevation).

~~***Ranitomeya lamasi* (Morales, 1992)~~
***Ranitomeya sirensis* (Aichinger, 1991)**

- *Dendrobates lamasi* Morales, 1992, Caribb. J. Sci., 28: 191. Holotype: MUSM 1461, by original designation. Type locality: "Bosque Castilla, NW de Iscozacín, 10° 10′ S, 75° 15′ W, 345 m de elevación, Provincia de Huancabamba, Pasco, Perú".
- *Ranitomeya lamasi* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.
- *Ranitomeya sirensis* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 72.

Distribution: Wet forest in the provinces of Pasco and Huánuco, Peru.

[2] Now also includes *Ranitomeya intermedia* (Schulte, 1999)

Comment: Schulte, 1999, Pfeilgiftfrösche, : 115–121, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 484–488, provided an account and placed this species in their *Ranitomeya ventrimaculata* group.

***Ranitomeya reticulata* (Boulenger, 1884)[3]**

- *Dendrobates reticulatus* Boulenger, 1884 "1883", Proc. Zool. Soc. London, 1883: 635. Syntypes: BMNH, by original designation; BMNH 1947.2.5.10 designated lectotype by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 35. Type locality: "Yurimaguas, Huallaga River, [Loreto,] Northern Peru".
- *Ranitomeya reticulata* — Bauer, 1986, Ripa, Netherlands, November: 11. Bauer, 1988, Het Paludarium, Netherlands, November: 2, 5; Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: Type locality and possibly a locality in northwestern Loreto, Peru (see comment); possibly into adjacent Colombia and Ecuador.

Comment: Myers and Daly, 1980, Am. Mus. Novit., 2692: 1, removed this species from the synonymy of *Ranitomeya quinquevittata*. See also Caldwell and Myers, 1990, Am. Mus. Novit., 2988: 1–21. Zimmermann and Zimmermann, 1984, Aquar. Mag., Stuttgart, 1984: 41, mapped an unstated locality other than the type locality. See Myers, 1982, Am. Mus. Novit., 2721: 3–4, who provided another locality with explicit data. Schulte, 1999, Pfeilgiftfrösche, : 49–56, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 489–493, provided an account and placed this species in their *Ranitomeya ventrimaculata* group.

***Ranitomeya rubrocephala* (Schulte, 1999)**

- *Dendrobates rubrocephalus* Schulte, 1999, Pfeilgiftfrösche: 138. Holotype: R. Schulte Collection BD 5H, to be deposited in the MUSM, by original designation. Type locality: "Ceja de Selva, Ostandenabhang und vielleicht vorgelagerte Ostkordilleren, Dep. Pasco und Junin, Höhe vermutlich zwischen 600 und 1500 m."
- *Ranitomeya rubrocephala* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: Vicinity of the type locality (Ceja de Selva), Pasco and Junin, Peru.

Comment: Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 513, provided an account.

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[3] Now also includes *Ranitomeya ignea* (Melin, 1941)

***Ranitomeya sirensis* (Aichinger, 1991)[4]**

- *Dendrobates sirensis* Aichinger, 1991, Herpetologica, 47: 1. Holotype: NHMW 31892, by original designation. Type locality: "on a horizontal tree 1.2 m above a stream in the Serranía de Sira, Río Llullapichis drainage, 750 m, Departamento Huánuco, Peru (9° 28′ S, 74° 47′ W)".
- *Ranitomeya sirensis* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: Serranía de Sira, Río Llullapichis drainage, 750 m elevation, departments of Huánuco, Pasco, and Ucayali, Peru.

Comment: Schulte, 1999, Pfeilgiftfrösche, : 88–110, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 514, also provided an account. See map, description of geographic range and habitat, and conservation status (as *Dendrobates sirensis*) in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 230.

***Ranitomeya summersi* Brown, Twomey, Pepper, and Sanchez-Rodriguez, 2008**

- *Ranitomeya summersi* Brown, Twomey, Pepper, and Sanchez-Rodriguez, 2008, Zootaxa, 1823: 9. Holotype: MUSM 26994, by original designation. Type locality: "near the town of Sauce, San Martin, Peru; 6°43′ S, 76°15′ W; 684 m elevation".

Distribution: Throughout the central Huallaga Canyon, extending into the southernmost tip of the Cordillera Escalera near Chazuta and to the northwestern edge of the Cordillera Azul; on both sides of the Rio Huallaga, extending from Curiyacu westward to Sauce, where they persist in humid recesses of the rocky stream valleys of this semiarid region.

Comment: In the *Ranitomeya fantastica* group according to the original publication.

***Ranitomeya toraro* Twomey, Melo-Sampaio & Souza, 2011**

- *Ranitomeya toraro* — Brown, Twomey, Amézquita, Barbosa de Souza, Caldwell, Lötters, von May, Melo-Sampaio, Mejía-Vargas, Perez-Peña, Pepper, Sanchez-Rodriguez, Summers, 2011, Zootaxa, 3083: 42-47.

Distribution: *Ranitomeya toraro* occurs in southwestern Brazil and the southeastern tip of Colombia, where it is known from 12 localities (Fig. 13; genetic data are from three localities). This species has been observed in the Brazilian states of Amazonas, Acre and Rondônia and the Colombian department of Amazonas. It likely occurs widely throughout the Madeira, upper Juruá and upper Purus river drainages, although further sampling is needed to determine the extent of its distribution.

Individuals from all localities have been found in undisturbed “terra firme” primary forest or old-growth secondary forest in Amazonia. These forests are not subject to flooding during the rainy season. At three localities (Boca do Acre, Autazes, Ituxi), undisturbed forests were characterized by large rainforest trees, such as Brazil nut trees (Bertholletia excelsa). Canopy height varied from 20 to 35 meters. The understory was open to relatively dense.

***Ranitomeya uakarii* (Brown, Schulte, and Summers, 2006)**

[4] Now also includes *Ranitomeya lamasi* (Morales, 1992).

- *Dendrobates uakarii* Brown, Schulte, and Summers, 2006, Zootaxa, 1152: 47. Holotype: MUSM 23246, by original designation. Type locality: "upstream Quebrada Blanco in Tamshiyacu-Tahuayo Reserve, Departamento Loreto, Peru (4° 11′ 21.88″ S, 73° 6′ 15.66″ W). Elevation 140 m".
- *Ranitomeya uakarii* — Frost, 2007, Amph. Spec. World Online, vers. 5.0: . new combination; by implication of results published by Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299.

Distribution: Known only from the type locality (Tamshiyacu-Tahuayo Reserve, Departamento Loreto, Peru).

Comment: Diagnosed from *Ranitomeya duellmani* in the original publication by call and molecular characters. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 494–496, provided an account and placed this species in their *Ranitomeya ventrimaculata* group.

***Ranitomeya vanzolinii* (Myers, 1982)**

- *Dendrobates vanzolinii* Myers, 1982, Am. Mus. Novit., 2721: 9. Holotype: MZUSP 51597, by original designation. Type locality: "at Pôrto Walter on the Rio Juruá, Territory [state] of Acre, Brazil (8° 16′ S, 72° 46′ W)".
- *Ranitomeya vanzolinii* — Bauer, 1988, Het Paludarium, Netherlands, November: 6. Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: East-central Peru and adjacent Brazil.

Comment: De la Riva, Köhler, Lötters, and Reichle, 2000, Rev. Esp. Herpetol., 14: 57, and Köhler, 2000, Bonn. Zool. Monogr., 48: 69, consider this species possibly to occur in Bolivia. Schulte, 1999, Pfeilgiftfrösche, : 110–115, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 497–499, provided an account and placed this species in their *Ranitomeya ventrimaculata* group.

***Ranitomeya variabilis* (Zimmermann and Zimmermann, 1988)**

- *Dendrobates variabilis* Zimmermann and Zimmermann, 1988, Salamandra, 24: 132. Holotype: SMNS 7054, by original designation. Type locality: "Departamento San Martin, Peru"; restricted to "Km 27 of the road from Tarapoto to Yurimaguas", Peru, by Henle, 1992, Bonn. Zool. Beitr., 43: 79–129.
- *Ranitomeya variabilis* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: San Martin, Peru.

Comment: Removed from the synonymy of *Ranitomeya ventrimaculata* (as *Dendrobates*) by Schulte, 1999, Pfeilgiftfrösche, : 39, and Symula, Schulte, and Summers, 2001, Proc. R. Soc. London, Ser. B, Biol. Sci., 268: 2415–2421, where it had been placed by Caldwell and Myers, 1990, Am. Mus. Novit., 2988: 1. Schulte, 1999, Pfeilgiftfrösche, : 39–49, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 500–503, provided an account and placed this species in their *Ranitomeya ventrimaculata* group.

***Ranitomeya ventrimaculata* (Shreve, 1935)[5]**

[5] Now also includes *Ranitomeya duellmani* (Schulte, 1999).

- *Dendrobates minutus ventrimaculatus* Shreve, 1935, Occas. Pap. Boston Soc. Nat. Hist., 8: 213. Holotype: MCZ 19734, by original designation. Type locality: "Sarayacu, Ecuador".
- *Dendrobates ventrimaculatus* — Daly, Myers, and Whittaker, 1987, Toxicon, 25: 1025. Caldwell and Myers, 1990, Am. Mus. Novit., 2988: 1.
- *Ranitomeya ventrimaculata* — Grant, Frost, Caldwell, Gagliardo, Haddad, Kok, Means, Noonan, Schargel, and Wheeler, 2006, Bull. Am. Mus. Nat. Hist., 299: 171.

Distribution: Amazon drainage of Colombia, Ecuador, Peru, and Brazil, from the foothills of the Andes east to the mouth of the Amazon and north into French Guiana.

Comment: Caldwell and Myers, 1990, Am. Mus. Novit., 2988: 1–21, removed this species from the synonym of *Ranitomeya quinquevittata* (as *Dendrobates*), where it had been placed by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co., 21: 33. Lescure and Marty, 2000, Collect. Patrimoines Nat., Paris, 45: 92–93, provided a brief account and photo. Symula, Schulte, and Summers, 2001, Proc. R. Soc. London, Ser. B, Biol. Sci., 268: 2415–2421, suggested that *Ranitomeya ventrimaculata* is composed of two cryptic species, one of which is more closely related to *Ranitomeya variabilis*. Schulte, 1999, Pfeilgiftfrösche, : 129–134, provided an account. Lötters, Jungfer, Henkel, and Schmidt, 2007, Poison Frogs, : 504–511, provided an account and placed this species in their *Ranitomeya ventrimaculata* group.

***Ranitomeya yavaricola* Pérez-Peña, Chávez, Twomey, and Brown, 2010**

- *Ranitomeya yavaricola* Pérez-Peña, Chávez, Twomey, and Brown, 2010, Zootaxa, 2439: 4. Holotype: MZUNAP 01–520, by original. Type locality: "nearby Lago Preto, 17 km W of Estiron de Ecuador, Provincia Ramon Castilla, Departamento Loreto, Peru; 4° 27′ 35.0″ S, 71° 45′ 3.5″ W, 120 m elevation; . . . . in leaf litter within *terra firme* forest".

Distribution: Currently known only in a small area in the vicinity of the type locality, but likely to occur in the area between tye Ucayali, Amazon, Yavai, and Blanco Rivers, in the Departamento de Loreto, Peru.

DICROGLOSSIDAE

Genus: *Euphlyctis* Fitzinger, 1843

***Euphlyctis hexadactylus* (Lesson, 1834)**

- *Rana hexadactyla* Lesson, 1834, *in* Bélanger (ed.), Voy. Indes-Orientales N. Eur. Caucase Georgie Perse, Zool.: 331. Type(s): Not stated; presumably originally in MNHNP. Type locality: "Pondichéry"; Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 37, gives data for a paratype (MNHNP 4363) as "Bengale" although this is not mentioned in the original publication.
- *Dactylethra bengalensis* Duméril and Bibron, 1841, Erp. Gen., 8: 339. Name attributed incorrectly to Lesson, 1834, *in* Bélanger (ed.), Voy. Indes-Orientales N. Eur. Caucase Georgie Perse, Zool., : 331 (who used *Bufo bengalensis* Daudin in a different sense). Synonymy by Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2, : 17.
- *Rana cutipora* Duméril and Bibron, 1841, Erp. Gen., 8: 338. Substitute name for *Rana hexadactyla* Lesson, 1834.
- *Rana saparoua* Duméril and Bibron, 1841, Erp. Gen., 8: 338. Substitute name for *Rana hexadactyla* Lesson, 1834.
- *Rana robusta* Blyth, 1855 "1854", J. Asiat. Soc. Bengal, 23: 298. Syntypes: Not stated; ZSIC 9123–24 according to Sclater, 1892, List Batr. Indian Mus., : 2. Type locality: "Ceylon". Synonymy with *Rana cutipora* by Blyth, 1856 "1855", J. Asiat. Soc. Bengal, 24: 720. Synonymy with *Rana hexadactyla* by Günther, 1864, Rept. Brit. India, : 405; Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2, : 17.
- *Phrynoderma cutiporum* — Fitzinger, 1861 "1860", Sitzungsber. Akad. Wiss. Wien, Phys. Math. Naturwiss. Kl., 42: 414.

- *Rana (Rana) hexadactyla* — Boulenger, 1920, Rec. Indian Mus., 20: 5. Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 37.
- *Rana (Dicroglossus) hexadactyla* — Dubois, 1974, Bull. Mus. Natl. Hist. Nat. Paris, Ser. 3, Zool., 213: 341&ndash. 411.
- *Rana (Euphlyctis) hexadactyla* — Dubois, 1981, Monit. Zool. Ital., N.S., Suppl., 15: 240.
- *Euphlyctis hexadactyla* — Poynton and Broadley, 1985, Ann. Natal Mus., 27: 124, by implication.
- *Occidozyga (Euphlyctis) hexadactyla* — Dubois, 1987 "1986", Alytes, 5: 59.
- *Euphlyctis hexadactylus* — Dubois, 1992, Bull. Mens. Soc. Linn. Lyon, 61: 315.

Distribution: Coast plain of India, from Tripura through Bangladesh to Tamil Nadu and Manipur, northeastern India; Sialkot, Punjab, Pakistan; Sri Lanka.

Comment: See accounts by Boulenger, 1920, Rec. Indian Mus., 20: 12; Mondal, 1970, Sci. Cult., Calcutta, 36: 138–143; Kirtisinghe, 1957, Amph. Ceylon, : 26–29, and Dutta and Manamendra-Arachchi, 1996, Amph. Fauna Sri Lanka, : 116–119. Chanda, 2002, Handb. Indian Amph., : 114, provided a brief account (as *Rana hexadactyla*). Schleich, Anders, and Kästle, 2002, *in* Schleich and Kästle (eds.), Amph. Rept. Nepal, : 79, rejected all records of *Euphlyctis hexadactylus* from Nepal as likely based on misidentified *Euphlyctis cyanophlyctis*. See brief accounts by Shrestha, 2001, Herpetol. Nepal, : 81–83, and Sarkar, Biswas, and Ray, 1992, State Fauna Ser., 3: 84–85. Dutta, 1997, Amph. India Sri Lanka, : 116–117, provided the distribution in India, a record for Pakistan, a partial bibliography, and a systematic comment. Daniels, 2005, Amph. Peninsular India, : 182–185, provided a brief account for peninsular India. Ningombam and Bordoloi, 2007, Zoos' Print J., 22: 2688–2690, provided a record for Manipur, northeastern India. Nair and Kumar K., 2005, Cobra, Chennai, 60: 18–25, reported on aspects of external variation in a population from Karnataka, India. Sen and Mathew, 2004, Cobra, Chennai, 55: 1–4, discussed the morphological distinctiveness of *Euphlyctis hexadactylus* from *Euphlyctis cyanophlyctis*. Alam, Igawa, Khan, Islam, Kuramoto, Matsui, Kurabayashi, and Sumida, 2008, Mol. Phylogenet. Evol., 48: 515–527, suggested that Sri Lankan and Bangladeshi *Euphlyctis hexadactylus* are not conspecific; and that several unnamed parapatric taxa exist in the Western Ghats of South India; the oldest name for the Sri Lankan population is *Rana robusta* Blyth (DRF). Mathew and Sen, 2010, Pict. Guide Amph. NE India, : 29, provided a brief characterization and photographs. Mahony, Hasan, Kabir, Ahmed, and Hossain, 2009, Hamadryad, 34: 80–94, provided the first vouchered records for the species in Bangladesh and discussed the range. De Silva, 2009, Amph. Rep. Sri Lanka Photograph. Guide, : 68, provided a brief account and color photograph for Sri Lanka.

Genus: *Hoplobatrachus* Peters, 1863

Hoplobatrachus tigerinus (Daudin, 1802)

- *Rana tigerina* Daudin, 1802 (An. XI), Hist. Nat. Rain. Gren. Crap., Quarto: 64. Holotype: Animal figured on pl. 20, of the original; originally in MNHNP, now lost. Type locality: "Bengale", India.
- *Rana tigrina* — Merrem, 1820, Tent. Syst. Amph.: 174. Kelaart, 1853, Prodr. Faunae Zeylan., 1, 1: 192; Günther, 1859 "1858", Cat. Batr. Sal. Coll. Brit. Mus., : 9. Incorrect subsequent spelling.
- *Rana picta* Gravenhorst, 1829, Delic. Mus. Zool. Vratislav., 1: 39. Type(s): "museo Lampeano", current status unknown. Type locality: Unknown. Synonymy by Duméril and Bibron, 1841, Erp. Gen., 8, : 376; Günther, 1859 "1858", Cat. Batr. Sal. Coll. Brit. Mus., : 10; provisional synonymy by Boulenger, 1920, Rec. Indian Mus., 20: 17. Primary homonym of *Rana picta* Gravenhorst, 1807, if not identical (see record in *incertae sedis* at level of Anura—DRF.)
- *Rana gracilis var. pulla* Stoliczka, 1870, J. Asiat. Soc. Bengal, 39: 139. Holotype: ZSIC 3529 according to Sclater, 1892, List Batr. Indian Mus., : 5; lost, according to Dubois, 1984, Alytes, 3: 155. Type locality: "small pool of water at a height of about 2,000 feet on the Penang hill". Preoccupied by *Rana pullus* Smith, 1921. Considered a synonym of *Rana limnocharis* by Boulenger, 1890, Fauna Brit. India, Rept. Batr., : 450, although Sclater, 1892, Proc. Zool. Soc. London, 1892: 344, considered it to be based on a juvenile *Rana tigerina*. Considered a *nomen dubium* by Dubois, 1984, Alytes, 3: 155. Considered *incertae sedis* within *Hoplobatrachus* or *Fejervarya* by Dubois, 1987 "1986", Alytes, 5: 60; without discussion.
- *Rana tigerina* — Barbour, 1912, Mem. Mus. Comp. Zool., 44: 63.
- *Rana (Fejervarya) tigrina* — Bolkay, 1915, Anat. Anz., 48: 175.
- *Rana (Rana) tigrina* — Boulenger, 1920, Rec. Indian Mus., 20: 6.
- *Dicroglossus tigrinus* — Deckert, 1938, Sitzungsber. Ges. Naturforsch. Freunde Berlin, 1938: 138.

- *Rana tigrina tigrina* — Smith, 1940, Rec. Indian Mus., 42: 465&ndash. 486.
- *Rana tigerina tigerina* — Mertens, 1969, Stuttgart. Beit. Naturkd., 197: 17.
- *Rana (Dicroglossus) tigerina tigerina* — Dubois, 1974, Bull. Mus. Natl. Hist. Nat. Paris, Ser. 3, Zool., 213: 341&ndash. 411.
- *Rana (Euphlyctis) tigerina* — Dubois, 1981, Monit. Zool. Ital., N.S., Suppl., 15: 239, by implication.
- *Euphlyctis tigerina* — Poynton and Broadley, 1985, Ann. Natal Mus., 27: 124, by implication.
- *Limnonectes (Hoplobatrachus) tigerinus* — Dubois, 1987 "1986", Alytes, 5: 59.
- *Tigrina tigrina* — Fei, Ye, and Huang, 1990, Key to Chinese Amph.: 144. Incorrect subsequent spelling of the species name.
- *Hoplobatrachus tigerinus* — Dubois, 1992, Bull. Mens. Soc. Linn. Lyon, 61: 315.

Distribution: Low to moderate elevations in Nepal, Bhutan, western and central Myanmar through Bangladesh and India to northern Pakistan and south to the Western Ghats; northeastern Afghanistan; introduced on Madagascar.

Comment: In the *Hoplobatrachus tigerinus* group of Dubois, 1992, Bull. Mens. Soc. Linn. Lyon, 61: 315 (following Dubois, 1987 "1986", Alytes, 5: 60). See also Dubois, 1974, Bull. Mus. Natl. Hist. Nat. Paris, Ser. 3, Zool., 213: 341–411. Zhao and Adler, 1993, Herpetol. China, : 148, noted that previous Chinese records of *Hoplobatrachus tigerinus* (as *Rana tigerina*) were based on specimens of *Hoplobatrachus rugulosus* (formerly known as *Rana tigerina rugulosa*). See account by Dutta and Manamendra-Arachchi, 1996, Amph. Fauna Sri Lanka, : 99–103. Choudhury, Hussain, Buruah, Saikia, and Sengupta, 2002, Hamadryad, 26: 278, commented on the range in Assam, India. Chanda, 2002, Handb. Indian Amph., : 136–141, provided a brief account (as *Rana tigerina*). Anders, 2002, *in* Schleich and Kästle (eds.), Amph. Rept. Nepal, : 234–243, provided an account for the Nepal population. See brief account by Shrestha, 2001, Herpetol. Nepal, : 78–79. Andreone, Glaw, Nussbaum, Raxworthy, Vences, and Randrianirina, 2003, J. Nat. Hist., 37: 2119–2149, discussed the occurrence of this species on Nosy Be. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 98, provided a brief account for Madagascar. Sarkar, Biswas, and Ray, 1992, State Fauna Ser., 3: 85–86, provided a brief account for West Bengal, India. Dutta, 1997, Amph. India Sri Lanka, : 119–120, provided range in India, comments on misidentifications in the literature, and a partial bibliography. Khan, 2006, Amph. Rept. Pakistan, : 60–62, provided an account for Pakistan. Ao, Bordoloi, and Ohler, 2003, Zoos' Print J., 18: 1117–1125, provided a specific locality for Nagaland, northeastern India. Daniels, 2005, Amph. Peninsular India, : 188–191, provided an account for peninsular India. Devi and Shamungou, 2006, J. Exp. Zool. India, 9: 317–324, provided a record (as *Limnonectes tigerinus*) for Manipur, northeastern India. Ahmed, Das, and Dutta, 2009, Amph. Rept. NE India, : 38, provided a brief account for northeastern India. Mathew and Sen, 2010, Pict. Guide Amph. NE India, : 35–36, provided a brief characterization and photographs. Mahony, Hasan, Kabir, Ahmed, and Hossain, 2009, Hamadryad, 34: 80–94

HYLIDAE

Genus: *Agalychnis* Cope, 1864[6]

Agalychnis annae (Duellman, 1963)

- *Phyllomedusa annae* Duellman, 1963, Rev. Biol. Tropical, 11: 1. Holotype: KU 64020, by original designation. Type locality: "Tapantí, [Cantón de Paraíso,] Cartago Province, Costa Rica, 1200 meters". Savage, 1974, Rev. Biol. Tropical, 22: 109, commented on the type locality.
- *Agalychnis annae* — Duellman, 1968, Univ. Kansas Publ. Mus. Nat. Hist., 18: 4.

Distribution: Northern Cordillera de Talamanca, Cordillera de Tilarán and Cordillera Central of Costa Rica, 780–1650 m elevation.

[6] Not covered by CITES are *Agalychnis aspera* (Peters, 1873), *Agalychnis buckleyi* (Boulenger, 1882), *Agalychnis dacnicolor* (Cope, 1864), *Agalychnis danieli* (Ruiz-Carranza, Hernández-Camacho & Rueda-Almonacid, 1988), *Agalychnis granulosa* (Cruz, 1989), *Agalychnis hulli* (Duellman & Mendelson, 1995), *Agalychnis lemur* (Boulenger, 1882), *Agalychnis medinae* (Funkhouser, 1962), and *Agalychnis psilopygion* (Cannatella, 1980).

Comment: See brief account by Savage and Heyer, 1969, Rev. Biol. Tropical, 16: 49–50, and account by Duellman, 1970, Monogr. Mus. Nat. Hist. Univ. Kansas, : 117–120, and note by Duellman, 2001, Hylid Frogs Middle Am., Ed. 2, : 840. See account by Savage, 2002, Amph. Rept. Costa Rica, : 278–279. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 238. In the *Agalychis callidryas* group of Faivovich, Haddad, Baêta, Jungfer, Álvares, Brandão, Sheil, Barrientos, Barrio-Amorós, Cruz, and Wheeler, 2010, Cladistics, 26: 259.

***Agalychnis callidryas* (Cope, 1862)**

- *Hyla callidryas* Cope, 1862, Proc. Acad. Nat. Sci. Philadelphia, 14: 359. Holotype: ANSP 2091, according to Malnate, 1971, Proc. Acad. Nat. Sci. Philadelphia, 123: 349. Type locality: "Darien", Panama; corrected to Córdoba, Veracruz, Mexico, by Smith and Taylor, 1950, Univ. Kansas Sci. Bull., 33: 347; this correction considered unjustified by Dunn and Stuart, 1951, Copeia, 1951: 57, and Duellman, 1970, Monogr. Mus. Nat. Hist. Univ. Kansas, : 102.
- *Agalychnis callidryas* — Cope, 1864, Proc. Acad. Nat. Sci. Philadelphia, 16: 181. Cope, 1865, Nat. Hist. Rev., N.S., 5: 110.
- *Agalychnis helenae* Cope, 1885 "1884", Proc. Am. Philos. Soc., 22: 182. Holotype: USNM 13737 according to Kellogg, 1932, Bull. U.S. Natl. Mus., 160: 145; Cochran, 1961, Bull. U.S. Natl. Mus., 220: 29. Type locality: "Nicaragua". Synonymy by Savage and Heyer, 1967, Beitr. Neotrop. Fauna, 5: 123.
- *Phyllomedusa helenae* — Kellogg, 1932, Bull. U.S. Natl. Mus., 160: 145. Nieden, 1923, Das Tierreich, 46: 334.
- *Phyllomedusa (Agalychnis) callidryas* — Lutz, 1950, Mem. Oswaldo Cruz, Rio de Janeiro, 48: 601, 619.
- *Phyllomedusa (Agalychnis) helenae* — Lutz, 1950, Mem. Oswaldo Cruz, Rio de Janeiro, 48: 601, 619.
- *Agalychnis callidryas callidryas* — Funkhouser, 1957, Occas. Pap. Nat. Hist. Mus. Stanford Univ., 5: 33.
- *Agalychnis callidryas taylori* Funkhouser, 1957, Occas. Pap. Nat. Hist. Mus. Stanford Univ., 5: 34. Holotype: EHT 1279; now FMNH 100166, by museum records. Type locality: "Tierra Colorada, Veracruz, Mexico". Status as subspecies rejected by Savage and Heyer, 1967, Beitr. Neotrop. Fauna, 5: 123.
- *Phyllomedusa callidryas* — Savage and Heyer, 1967, Beitr. Neotrop. Fauna, 5: 123.
- *Agalychnis callidryas* — Duellman, 1968, Univ. Kansas Publ. Mus. Nat. Hist., 18: 4.

Distribution. Atlantic lowlands of Veracruz and Oaxaca, Mexico, southeastward on the Caribbean lowlands to central Panama; Pacific lowlands of southern Costa Rica and eastern Panama to Turbaco, Bolívar, Colombia.

Comment. Savage and Heyer, 1967, Beitr. Neotrop. Fauna, 5: 111–131, analyzed intraspecific variation. See account by Duellman, 1970, Monogr. Mus. Nat. Hist. Univ. Kansas, : 102–112, and note by Duellman, 2001, Hylid Frogs Middle Am., Ed. 2, : 839–840. See also accounts by Lee, 1996, Amph. Rept. Yucatan Peninsula, : 84–86; Campbell, 1998, Amph. Rept. N. Guatemala Yucatan Belize, : 73–75, and Lee, 2000, Field Guide Amph. Rept. Maya World, : 89–92. See accounts by Savage, 2002, Amph. Rept. Costa Rica, : 281–283, and McCranie and Wilson, 2002, Amph. Honduras, : 231–236. McCranie, 2007, Herpetol. Rev., 38: 37, detailed the departmental distribution in Honduras. Robertson, Duryea, and Zamudio, 2009, Mol. Ecol., 18: 1375–1395, discussed phylogeographic patterns in Costa Rica. See comments by Sunyer, Páiz, Dehling, and Köhler, 2009, Herpetol. Notes, 2: 189–202, regarding Nicaraguan populations. In the *Agalychis callidryas* group of Faivovich, Haddad, Baêta, Jungfer, Álvares, Brandão, Sheil, Barrientos, Barrio-Amorós, Cruz, and Wheeler, 2010, Cladistics, 26: 259.

***Agalychnis moreletii* (Duméril, 1853)**

- *Hyla moreletii* Duméril, 1853, Ann. Sci. Nat., Paris, Ser. 3, 19: 169. Syntypes: MNHNP 428 (parchment labeled 767) (2 specimens), according to Kellogg, 1932, Bull. U.S. Natl. Mus., 160: 146; Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 25. Type locality: "Vera-Paz",

Guatemala; corrected to "Cobán in [Departamento Alta] Vera Paz, Guatemala" by Kellogg, 1932, Bull. U.S. Natl. Mus., 160: 146, and this followed by Smith and Taylor, 1950, Univ. Kansas Sci. Bull., 33: 317.
- o *Hyla holochlora* Salvin, 1860, Proc. Zool. Soc. London, 1860: 460. Syntypes: BMNH (3 specimens), including BMNH 1947.2.24.23 (formerly 64.1.26.142), considered holotype (a lectotype designation by implication) by Kellogg, 1932, Bull. U.S. Natl. Mus., 160: 147; Condit, 1964, J. Ohio Herpetol. Soc., 4: 91. Type locality: "Coban", Departamento de Alta Verapaz, Guatemala. Synonymy by Keferstein, 1867, Nachr. Ges. Wiss. Göttingen, 18: 356; Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2, : 442.
- o *Agalychnis holochlora* — Cope, 1865, Nat. Hist. Rev., N.S., 5: 110.
- o *Agalychnis moreletii* — Cope, 1865, Nat. Hist. Rev., N.S., 5: 110. Lutz, 1950, Mem. Oswaldo Cruz, Rio de Janeiro, 48: 619.
- o *Hyla Morelettii* — Keferstein, 1868, Arch. Naturgesch., 34: 297. Incorrect subsequent spelling.
- o *Phyllomedusa moreletii* — Kellogg, 1932, Bull. U.S. Natl. Mus., 160: 146.
- o *Phyllomedusa (Agalychnis) moreletii* — Lutz, 1950, Mem. Oswaldo Cruz, Rio de Janeiro, 48: 601, 619.
- o *Agalychnis moreletti* — Liner and Casas-Andreu, 2008, Herpetol. Circ., 38: 7. Incorrect subsequent spelling.

Distribution: In disjunct populations from on both Atlantic and Pacific slopes from Veracruz, adjacent Puebla, and Guerrero through Chiapas, Mexico, to the Maya Mountains of Belize, Guatemala, northwestern Honduras, and El Salvador.

Comment: See account by Duellman, 1970, Monogr. Mus. Nat. Hist. Univ. Kansas, : 112–116, and note by Duellman, 2001, Hylid Frogs Middle Am., Ed. 2, : 840. See also accounts by Lee, 1996, Amph. Rept. Yucatan Peninsula, : 86–87; Campbell, 1998, Amph. Rept. N. Guatemala Yucatan Belize, : 75–76, Lee, 2000, Field Guide Amph. Rept. Maya World, : 92–93; and McCranie and Wilson, 2002, Amph. Honduras, : 236–239. Canseco-Márquez, Gutiérrez-Mayén, and Salazar-Arenas, 2000, Herpetol. Rev., 31: 259, provided the first report for Puebla. Köhler, Vesely, and Greenbaum, 2005 "2006", Amph. Rept. El Salvador, : 35–37, provided an account (for El Salvador) and a color photograph. McCranie, 2007, Herpetol. Rev., 38: 37, detailed the departmental distribution in Honduras. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 239. In the *Agalychis callidryas* group of Faivovich, Haddad, Baêta, Jungfer, Álvares, Brandão, Sheil, Barrientos, Barrio-Amorós, Cruz, and Wheeler, 2010, Cladistics, 26: 259.

***Agalychnis saltator* Taylor, 1955**

- o *Agalychnis saltator* Taylor, 1955, Univ. Kansas Sci. Bull., 37: 527. Holotype: KU 35615, by original designation. Type locality: "4 km NNE of Tilarán [= Finca San Bosco, Cantón de Tilarán], [Provincia] Guanacaste, Costa Rica". Savage, 1974, Rev. Biol. Tropical, 22: 104, commented on the type locality.
- o *Phyllomedusa saltator* — Funkhouser, 1957, Occas. Pap. Nat. Hist. Mus. Stanford Univ., 5: 36.

Distribution: Caribbean lowlands of northeastern Honduras, Nicaragua, to east-central Costa Rica, 15–1300 m elevation.

Comment: See account by Duellman, 1970, Monogr. Mus. Nat. Hist. Univ. Kansas, : 99–102, and note by Duellman, 2001, Hylid Frogs Middle Am., Ed. 2, : 839. McCranie and Wilson, 2002, Amph. Honduras, : 239–241. McCranie, Wilson, and Townsend, 2002, Herpetol. Rev., 33: 316, provided an additional record for Honduras. McCranie, 2007, Herpetol. Rev., 38: 37, detailed the departmental distribution in Honduras. See statement of geographic range, habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 615. In the *Agalychis callidryas* group of Faivovich, Haddad, Baêta, Jungfer, Álvares, Brandão, Sheil, Barrientos, Barrio-Amorós, Cruz, and Wheeler, 2010, Cladistics, 26: 259.

***Agalychnis spurrelli* Boulenger, 1913**

- *Agalychnis spurrelli* Boulenger, 1913, Proc. Zool. Soc. London, 1913: 1024. Syntypes: including BMNH 1947.2.24.24–25 (formerly 1913.11.12.129–130) according to Condit, 1964, J. Ohio Herpetol. Soc., 4: 86, who also noted that 4 specimens were mentioned in the original publication). Type locality: "Peña Lisa, Condoto, altitude 300 feet", Provincia Chocó, Colombia.
- *Phyllomedusa spurrelli* — Funkhouser, 1957, Occas. Pap. Nat. Hist. Mus. Stanford Univ., 5: 39.
- *Phyllomedusa litodryas* Duellman and Trueb, 1967, Copeia, 1967: 125. Holotype: KU 96149, by original designation. Type locality: "1 km west-southwest of the junction of the Río Mono and the Río Tuira, Darién Province, Panamá, elevation 130 m". Synonymy by Ortega-Andrade, 2008, Pap. Avulsos Zool., São Paulo, 48: 105.
- *Agalychnis litodryas* — Duellman, 1968, Univ. Kansas Publ. Mus. Nat. Hist., 18: 4.

Distribution: Central western lowlands of Costa Rica to the Pacific lowlands of Colombia (Valle del Cauca and Chocó) and adjacent Ecuador, 70–1000 m elevation.

Comment: See account by Duellman, 1970, Monogr. Mus. Nat. Hist. Univ. Kansas, : 124–128, and note by Duellman, 2001, Hylid Frogs Middle Am., Ed. 2, : 842–843. See account by Savage, 2002, Amph. Rept. Costa Rica, : 285–286. See account (as *Agalychnis litodryas*) by Duellman, 1970, Monogr. Mus. Nat. Hist. Univ. Kansas, : 128, and note by Duellman, 2001, Hylid Frogs Middle Am., Ed. 2, : 840 (as *Agalychnis litodryas*). Ortega-Andrade, 2008, Pap. Avulsos Zool., São Paulo, 48: 103–117, reported on variation and distribution. See photograph, map, description of geographic range and habitat, and conservation status of nominal *Agalychnis litodryas* in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 239. Vega and Robertson, 2009, Herpetol. Rev., 40: 361, provided a record for west-central Costa Rica and commented on the range. In the *Agalychis callidryas* group of Faivovich, Haddad, Baêta, Jungfer, Álvares, Brandão, Sheil, Barrientos, Barrio-Amorós, Cruz, and Wheeler, 2010, Cladistics, 26: 259.

MANTELLIDAE

Genus: *Mantella* Boulenger, 1882

Mantella aurantiaca Mocquard, 1900

- *Mantella aurantiaca* Mocquard, 1900, Bull. Soc. Philomath., Paris, Ser. 9, 2: 110. also Mocquard, 1900, Bull. Mus. Natl. Hist. Nat. Paris, 6: 348. Syntypes: MNHNP 1899.412–413, according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 33. MNHNP 1899.412 designated lectotype by Vences, Glaw, and Böhme, 1999, Alytes, 17: 40. Type locality: "forêt entre Beforana et Moramanga", Madagascar.
- *Mantella aurantiaca aurantiaca* — Staniszewski, 1996, Reptilian, 4: 22.
- *Mantella aurantiaca rubra* Staniszewski, 1996, Reptilian, 4: 24. Type(s): Not formally designated although several specimens involved; ZFMK 68868 designated lectotype by Vences, Glaw, and Böhme, 1999, Alytes, 17: 40. Type locality: "forests of Anosibe An'Ala", Madagascar; considered to be unknown by Vences, Glaw, and Böhme, 1999, Alytes, 17: 40, who rejected the validity of the taxon.

Distribution: Eastern slopes of central Madagascar in upland wet swamp forests in the Torotorofotsy area and the Andromena Forest at the Samarirana River (920–960 m elevation).

Comment: See account by Blommers-Schlösser, 1979, Beaufortia, 29: 61. In the *Mantella aurantiaca* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72; and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. See account by Staniszewski, 2001, Mantellas, : 148–153. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 198–199, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 426, who noted that this taxon may represent more than one species. Bora, Dolch, Jenkins, Jovanovic, Rabemananjara, Randrianirina, Rafanomezantsoa, Raharivololoniaina, Ramilijaona, Raminosoa, Randrianavelona, Raselimanana, Razafimahatratra, Razafindraibe, and Vences, 2008, Herpetol. Notes, 1: 39–48, detailed the

range and provided a map. Randrianavelona, Rakotonoely, Ratsimbazafy, and Jenkins, 2010, Afr. J. Herpetol., 59: 65–78, discussed range and conservation biology.

***Mantella baroni* Boulenger, 1888**

- *Mantella baroni* Boulenger, 1888, Ann. Mag. Nat. Hist., Ser. 6, 1: 106. Holotype: BMNH 1947.2.7.19 (formerly 84.12.22.50) according to Vences, Glaw, and Böhme, 1999, Alytes, 17: 23. Type locality: "Madagascar".
- *Phrynomantis maculatus* Thominot, 1889, Bull. Soc. Philomath., Paris, Ser. 8, 1: 27. Syntypes: MNHNP (4 specimens) according to the original publication; MNHNP 6807a-d (4 specimens) according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 33. MNHNP 1991.2854 (formerly 6807a) designated lectotype by Glaw and Vences, 1994, Fieldguide Amph. Rept. Madagascar, Ed. 2, : 403. Type locality: "l'ile de la Réunion"; rendered as "Nosy Komba (dubious)" by Glaw and Vences, 1992, Fieldguide Amph. Rept. Madagascar, : 279. Synonymy (with *Mantella cowanii*) by Guibé, 1964, Senckenb. Biol., 45: 259–264; Guibé, 1978, Bonn. Zool. Monogr., 11: 83. Synonymy with *Mantella baroni* as by Boulenger, 1890, Zool. Rec., 26: 21; (with *Mantella baroni* as *Mantella madagascariensis*) Glaw and Vences, 1994, Fieldguide Amph. Rept. Madagascar, Ed. 2, : 403.

Distribution: East-central Madagascar.

Comment: See Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72, for discussion of confusion surrounding type allocation and nomenclature. Removed from the synonymy of *Mantella cowanii* by Glaw and Vences, 1994, Fieldguide Amph. Rept. Madagascar, Ed. 2, : 403 (as *Mantella madagascariensis*, a *nomen dubium*) where it had been placed by Methuen and Hewitt, 1913, Ann. Transvaal Mus., 4: 57. In the *Mantella cowani* group according to Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72, and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Staniszewski, 2001, Mantellas, : 154–158, provided an account. Rabemananjara, Chiari, Ramilijaona, and Vences, 2007, Frontiers Zool., 4: 1–10, suggested on the basis of molecular evidence that *Mantella baroni* is just a northern color morph of *Mantella cowanii*, but hesitated to formalize the taxonomic change. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 194–195, provided an account.

***Mantella bernhardi* Vences, Glaw, Peyrieras, Böhme, and Busse, 1994**

- *Mantella bernhardi* Vences, Glaw, Peyrieras, Böhme, and Busse, 1994, Aquar. Terrar. Z., 47: 391. Holotype: ZFMK 57164, by original designation. Type locality: "Regenwald nahe Tolongoina, Provinz Fianarantsoa", Madagascar.

Distribution: East-southeastern Madagascar from Ranomafana south to near Manambondro, 60–629 m elevation.

Comment: Similar to the *Mantella betsileo* according to the original publication. The sole member of the *Mantella bernhardi* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72, and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2.. See Staniszewski, 2001, Mantellas, : 159–163. Rabemananjara, Bora, Cadle, Andreone, Rajeriarison, Talata, Glaw, Vences, and Vieites, 2005, Oryx, 39: 339–342, provided new records and discussed the species' distribution. Vieites, Chiari, Vences, Andreone, Rabemananjara, Bora, Nieto-Roman, and Meyer, 2006, Mol. Ecol., 15: 1617–1625, noted two molecularly distinctive and allopatric populations. Rabemananjara, Bora, Cadle, Andreone, Rajeriarison, Talata, Glaw, Vences, and Vieites, 2005, Oryx, 39: 470–474, discussed status and provided records. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 192–193, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 427.

***Mantella betsileo* (Grandidier, 1872)**

- *Dendrobates betsileo* Grandidier, 1872, Ann. Sci. Nat., Paris, Ser. 5, 15: 11. Syntypes: MNHNP 1895.278–279, according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 33. MNHNP 1895.279 designated lectotype by Vences, Glaw, and Böhme, 1999, Alytes, 17: 11. Type locality: "Pays des Betsileos", Madagascar. See Vences, Glaw, and Böhme, 1999, Alytes, 17: 12, and Glaw and Vences, 2006, Organisms Divers. Evol., 6: 250, for discussion of type locality, which is apparently in error.
- *Mantella betsileo* — Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2: 141.

Distribution: Western and southwestern Madagascar.

Comment: See comment under *Mantella viridis*. In the *Mantella betsileo* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72, and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Andreone, Glaw, Nussbaum, Raxworthy, Vences, and Randrianirina, 2003, J. Nat. Hist., 37: 2119–2149, discussed the occurrence of this species (as *Mantella betsileo*) on Nosy Be. Glaw and Vences, 2006, Organisms Divers. Evol., 6: 236–253, discussed confusion in the literature and recognized *Mantella ebenaui* for populations formerly associated with the name *Mantella betsileo* from northern Madagascar. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 188–189, provided an account.

***Mantella cowanii* Boulenger, 1882**

- *Mantella cowanii* Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2: 471. Syntypes: BMNH 1947.2.7.4–5 according to Blommers-Schlösser and Blanc, 1991, Faune de Madagascar, 75: 270; BMNH 1947.2.7.4 (formerly 82.3.16.38) designated lectotype by Vences, Glaw, and Böhme, 1999, Alytes, 17: 27. Type locality: "East Betsileo", Madagascar.

Distribution: Forested areas of the highlands southeast of Ambatolampy and near Antoetra, Madagascar, 1000–2000 m elevation.

Comment: Removed from the synonymy of *Mantella madagascariensis* by Blommers-Schlösser and Blanc, 1991, Faune de Madagascar, 75: 270, where it had been placed by Guibé, 1948, Bull. Mus. Natl. Hist. Nat. Paris, Ser. 2, 20: 235–238, and Busse, 1981, Amphibia-Reptilia, 2: 29 (who also addressed confusion in application of the name *Mantella cowani*). Considered to be likely a color morph of *Mantella baroni* (as *Mantella madagascariensis*) by Glaw and Vences, 1992, Fieldguide Amph. Rept. Madagascar, : 165. See comment under *Mantella haraldmeieri*. See Vences, Glaw, Peyrieras, Böhme, and Busse, 1994, Aquar. Terrar. Z., 47: 391, who note that this nominal species covers a number of well differentiated geographic forms. In the *Mantella cowani* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72, who sorted out much of the nomenclatural confusion surrounding this name; and of Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Staniszewski, 2001, Mantellas: 170–172, provided an account. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 194–195, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 427. Andreone, Vences, Glaw, and Randrianirina, 2007, Tropical Zool., 20: 19–39, reported the species from the high plateau of central Madagascar.

***Mantella crocea* Pintak and Böhme, 1990**

- *Mantella crocea* Pintak and Böhme, 1990, Salamandra, 26: 58. Holotype: ZFMK 45007, by original designation. Type locality: "Andasibé (=Périnet), mittleres Ostmadagaskar".

Distribution: Known only from the vicinity of the type locality in east-central Madagascar: Ifoha west of Parc National de Mantadia; forest area east of Ambohimanarivo; forest bordering the north of Torotorofotsy marsh, and in and around the Reserve Naturelle Intégrale de Zahameno, 800–1057 m elevation.

Comment: Similar to the *Mantella betsileo* and *Mantella madagascariensis* species groups according to the original publication. In the *Mantella aurantiaca* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72; and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Staniszewski, 2001,

Mantellas: 173–175, provided an account. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 198–199, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 427, who provided a personal communication from M. Vences and F. Glaw that *Mantella crocea* and *Mantella milotympanum* may be color variants of the same species. Bora, Dolch, Jenkins, Jovanovic, Rabemananjara, Randrianirina, Rafanomezantsoa, Raharivololoniaina, Ramilijaona, Raminosoa, Randrianavelona, Raselimanana, Razafimahatratra, Razafindraibe, and Vences, 2008, Herpetol. Notes, 1: 39–48, detailed the range and provided a map. Edmonds, 2009, Herpetol. Notes, 2: 53–57, provided range extensions.

***Mantella ebenaui* (Boettger, 1880)**

- *Dendrobates ebenaui* Boettger, 1880, Zool. Anz., 3: 281. Syntypes: (2 specimens in original publication), these being SMF 1141.1a and MCZ 2165 (according to Barbour and Loveridge, 1929, Bull. Mus. Comp. Zool., 69: 303. SMF 7323 designated lectotype by Mertens, 1967, Senckenb. Biol., 48(A): 24. Type locality: "insula Nossi Bé", Madagascar.
- *Mantella ebenaui* — Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2: 141. Werner, 1901, Verh. Zool. Bot. Ges. Wien, 51: 633.
- *Mantella attemsi* Werner, 1901, Verh. Zool. Bot. Ges. Wien, 51: 627. Syntypes: including NHMW 20837, according to Häupl and Tiedemann, 1978, Kat. Wiss. Samml. Naturhist. Mus. Wien, 2: 24, and Häupl, Tiedemann, and Grillitsch, 1994, Kat. Wiss. Samml. Naturhist. Mus. Wien, 9: 28, and ZMB 16588 according to Vences, Glaw, and Böhme, 1999, Alytes, 17: 12. NHMW 20837 designated lectotype by Vences, Glaw, and Böhme, 1999, Alytes, 17: 11. Type locality: "Madagascar oder Nossi-Bé". Synonymy with *Mantella betsileo* by Guibé, 1964, Senckenb. Biol., 45: 263; Guibé, 1978, Bonn. Zool. Monogr., 11: 83. Synonymy with *Mantella ebenaui* by Glaw and Vences, 2006, Organisms Divers. Evol., 6: 250.

Distribution: Northern east coast and the Sambirano region in northwestern Madagascar.

Comment: Removed from the synonymy of *Mantella betsileo* by Glaw and Vences, 2006, Organisms Divers. Evol., 6: 250 (and who discussed the previous confusion), where it had been placed by Mocquard, 1909, Nouv. Arch. Mus. Natl. Hist. Nat. Paris, Ser. 5, 1: 66; Methuen and Hewitt, 1913, Ann. Transvaal Mus., 4: 57; Guibé, 1978, Bonn. Zool. Monogr., 11: 83. In the *Mantella betsileo* group of Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. In the *Mantella cowani* group of Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 188–189, provided an account.

***Mantella expectata* Busse and Böhme, 1992**

- *Mantella expectata* Busse and Böhme, 1992, Rev. Fr. Aquar. Herpetol., 19: 58. Holotype: ZFMK 53540 by original designation. Type locality: "20 km southeast of Toliara (= Tuléar), W-Madagascar".

Distribution: Southwestern Madagascar from a few localities around the Isalo Massif (700–1000 m elevation).

Comment: In the *Mantella betsileo* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72; and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Staniszewski, 2001, Mantellas: 178–181, provided an account. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 190–191, provided an account and noted a similar unnamed species in western Madagascar. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 427, who noted that the records from near Tuléar are likely erroneous.

***Mantella haraldmeieri* Busse, 1981**

- *Mantella madagascariensis haraldmeieri* Busse, 1981, Amphibia-Reptilia, 2: 34. Holotype: ZFMK 53540 by original designation. Type locality: "Fort Dauphin, Süd Madagaskar".
- *Mantella haraldmeieri* — Meier, 1986, Herpetofauna, Weinstadt, 8: 9. Pintak and Böhme, 1990, Salamandra, 26: 58–62; Glaw and Vences, 1992, Fieldguide Amph. Rept. Madagascar, : 166.

Distribution: Anosy Mountains, southeastern Madagascar, 300–950 m elevation.

Comment: Placed in the synonymy of *Mantella cowani* by Blommers-Schlösser and Blanc, 1991, Faune de Madagascar, 75: 270, but resurrected by Böhme, Busse, and Glaw, 1993, Amphibia-Reptilia, 14: 269–273. In the *Mantella cowani* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72; and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Staniszewski, 2001, Mantellas: 182–185, provided an account. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 194–195, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 428, who provided a personal communication from F. Glaw that this taxon may be a color variant of *Mantella baroni*.

***Mantella laevigata* Methuen and Hewitt, 1913**

- *Mantella laevigata* Methuen and Hewitt, 1913, Ann. Transvaal Mus., 4: 57. Holotype: TMP 10074 (formerly 1214), by original designation and according to Blommers-Schlösser and Blanc, 1991, Faune de Madagascar, 75: 269; the consideration of MCZ 10815 (on exchange from TMP) as a syntype, by Barbour and Loveridge, 1929, Bull. Mus. Comp. Zool., 69: 304, is in error. Type locality: Folohy, eastern Madagascar.

Distribution: Northeastern Madagascar from Marojejy south to Folohy, 0–600 m elevation.

Comment: Removed from the synonymy of *Mantella cowanii* by Busse, 1981, Amphibia-Reptilia, 2: 27, where it had been placed by Guibé, 1964, Senckenb. Biol., 45: 259–264. Sole member of the *Mantella laevigata* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72, and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Staniszewski, 2001, Mantellas: 186–189, provided an account. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 192–193, provided an account. See statement of geographic range, habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 624.

***Mantella madagascariensis* (Grandidier, 1872)**

- *Dendrobates madagascariensis* Grandidier, 1872, Ann. Sci. Nat., Paris, Ser. 5, 15: 10. Syntypes: MNHNP 1895.276–277, according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 33. MNHNP 1895.276 designated lectotype by Glaw and Vences, 1994, Fieldguide Amph. Rept. Madagascar, Ed. 2, : 403. Type locality: "Forêt d'Ambalavatou, entre Mananzarine et Fianarantsoua", Madagascar.
- *Mantella madagascariensis* — Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2: 141.
- *Mantella loppei* Roux, 1935, Bull. Soc. Zool. France, 60: 441. Holotype: NHMB 4849 according to Forcart, 1946, Verh. Naturforsch. Ges. Basel, 57: 130. Type locality: "Moroulambo, Prov. de Vatomandry, Est Madagascar". Glaw and Vences, 1994, Fieldguide Amph. Rept. Madagascar, Ed. 2, : 403, considered this name a *nomen dubium*, but used the name tentatively for another species in east-central Madagascar. Daly, Andriamaharavo, Andriantsiferana, and Myers, 1996, Am. Mus. Novit., 3177: 13, considered this application of the name to be dubious. Synonymy by Busse, 1981, Amphibia-Reptilia, 2: 32, and (answering previous critics) Vences, Glaw, and Böhme, 1999, Alytes, 17: 37.
- *Mantella madagascariensis madagascariensis* — Busse, 1981, Amphibia-Reptilia, 2: 32.

Distribution: East-central Madgascar in upland locations from near Niagarakely south to Ranomafana, 700–1050 m elevation.

Comment: Daly, Andriamaharavo, Andriantsiferana, and Myers, 1996, Am. Mus. Novit., 3177: 17–18, rejected the use of this name for reason of being unidentifiable. Vences, Glaw, and Böhme, 1999, Alytes, 17: 37, discussed the issue and suggested that the lectotype is identifiable. In the *Mantella madagascariensis* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72; and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Staniszewski, 2001, Mantellas: 190–193, provided an account. Chiari, Vences, Vieites, Rabemananjara, Bora, Ravoahangimalala, and Meyer, 2004, Mol. Ecol., 13: 3763–3774, suggested that nominal *Mantella madagascariensis* may be a composite of cryptic species, with at least one taxon more closely related to *Mantella pulchra* rather than to the remaining populations of *Mantella madagascariensis*. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 196–197, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 428.

***Mantella manery* Vences, Glaw, and Böhme, 1999**

- *Mantella manery* Vences, Glaw, and Böhme, 1999, Alytes, 17: 15. Holotype: ZIAU (Zoological Institute of Antananarivo University) unnumbered, by original designation. Noted as UADBA (Université d'Antananarivo, Département de Biologie Animale, Antananarivo, Madagascar) 7273, by Vences, Woodhead, Bora, and Glaw, 2004, Alytes, 22: 15. Type locality: "Réserve Naturelle Intégrale Marojezy, near Camp 1, ca. 300 m altitude", Madagascar.

Distribution: Known from the Marojezy Massif and to the south near Darain, northeastern Madagascar.

Comment: In the *Mantella betsileo* group according to the original publication and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Staniszewski, 2001, Mantellas: 194–195, provided an account. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 192–193, provided an account. Edmonds, 2009, Herpetol. Notes, 2: 53–57, provided a record from near Daraina in northeastern Madagascar, and suggested that hybridization was evident in this population with *Mantella ebenaui*.

***Mantella milotympanum* Staniszewski, 1996**

- *Mantella aurantiaca milotympanum* Staniszewski, 1996, Reptilian, 4: 24. Type(s): Not formally designated; specimen figured on p. 18 of original inadvertent description designated lectotype by Vences, Glaw, and Böhme, 1999, Alytes, 17: 44, although they noted that this specimen is presumed lost. Type locality: "in the Fiherenana Valley in central east Madagascar".

Distribution: Fiherenana Valley about 50 km west of Andasibe, Madagascar.

Comment: In the *Mantella aurantiaca* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72; and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Staniszewski, 2001, Mantellas: 196–199, provided an account. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 198–199, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 428. See comment under *Mantella crocea*. Bora, Dolch, Jenkins, Jovanovic, Rabemananjara, Randrianirina, Rafanomezantsoa, Raharivololoniaina, Ramilijaona, Raminosoa, Randrianavelona, Raselimanana, Razafimahatratra, Razafindraibe, and Vences, 2008, Herpetol. Notes, 1: 39–48, detailed the range and provided a map.

***Mantella nigricans* Guibé, 1978**

- *Mantella cowani nigricans* Guibé, 1978, Bonn. Zool. Monogr., 11: 84. Type(s): Not designated although several specimens of an assortment of species in MNHNP considered syntypes by museum records; MNHNP 1973.555 designated lectotype by Vences, Glaw, and Böhme, 1999, Alytes, 17: 30. Type locality: "Maroyezi", Madagascar.
- *Mantella madagascariensis nigricans* — Busse, 1981, Amphibia-Reptilia, 2: 32.
- *Mantella nigricans* — Vences, Glaw, and Böhme, 1999, Alytes, 17: 30.

Distribution Marojezy Massif, northeastern Madagascar.

Comment: In the *Mantella cowani* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72; and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Odierna, Vences, Aprea, Lötters, and Andreone, 2001, Zool. Sci., Tokyo, 18: 505–514, provided karyological data in support of the distinctiveness of this species. Staniszewski, 2001, Mantellas: 200–203, provided an account. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 194–195, provided an account.

***Mantella pulchra* Parker, 1925**

- *Mantella pulchra* Parker, 1925, Ann. Mag. Nat. Hist., Ser. 9, 16: 393. Holotype: BMNH 1947.2.7.20 (formerly 1925.7.2.58) according to Blommers-Schlösser and Blanc, 1991, Faune de Madagascar, 75: 272, and Vences, Glaw, and Böhme, 1999, Alytes, 17: 38. Type locality: "Antsihanaka", Madagascar.
- *Mantella cowani pulchra* — Andreone, 1992, Boll. Mus. Reg. Sci. Nat. Torino, 10: 437.

Distribution: Northeastern Madagascar from Mananarana-Nord south to An'Ala, 300–950 m elevation.

Comment: Considered a synonym of *Mantella madagascariensis* by Busse, 1981, Amphibia-Reptilia, 2: 29, and likely a color morph of *Mantella madagascariensis* by Glaw and Vences, 1992, Fieldguide Amph. Rept. Madagascar, : 165, and as a subspecies of *Mantella cowani* by Andreone, 1992, Boll. Mus. Reg. Sci. Nat. Torino, 10: 421–450; but recognized subsequently by Glaw and Vences, 1994, Fieldguide Amph. Rept. Madagascar, Ed. 2, : 403. In the *Mantella madagascariensis* group of Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72; and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. See comment under *Mantella cowani*. Staniszewski, 2001, Mantellas: 204–207, provided an account. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 196–197, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 428.

***Mantella viridis* Pintak and Böhme, 1988**

- *Mantella viridis* Pintak and Böhme, 1988, Salamandra, 24: 119. Holotype: ZFMK 47900, by original designation. Type locality: "südlich Antseranana (=Diego Suarez), Nord-Madagaskar".

Distribution: Known from the Montagne des Français and the Massif of Antogombato, south of Diego Suarez, in very northern Madagascar, 50–300 m elevation.

Comment: Most similar to *Mantella betsileo* according to the original publication. In the *Mantella betsileo* group according to Vences, Glaw, and Böhme, 1999, Alytes, 17: 3–72; and Glaw and Vences, 2006, Organisms Divers. Evol., Electron. Suppl., 11(1): 2. Staniszewski, 2001, Mantellas: 209–211, provided an account. Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 190–191, provided an account and noted a similar unnamed species in northern Madagascar. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 429, who noted similar populations to the southwest that may be of the same species. Mercurio and Andreone, 2008, Herpetol. Notes, 1: 3–7, discussed the range and provided a map.

MICROHYLIDAE

Genus : *Dyscophus* Grandidier, 1872

***Dyscophus antongilii* Grandidier, 1877**

- *Dyscophus insularis var. antongilii* Grandidier, 1877, Bull. Soc. Philomath., Paris, Ser. 7, 1: 41. Holotype: MNHNP 1883.2, according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 60. Type locality: "baie d'Antongil", Madagascar.
- *Dyscophus insularis var. pallidus* Grandidier, 1877, Bull. Soc. Philomath., Paris, Ser. 7, 1: 42. Holotype: MNHNP 1895.293, according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 60. Type locality: "Andovoranto", Madagascar. Synonymy by Mocquard, 1895, Bull. Soc. Philomath., Paris, Ser. 8, 7: 110.
- *Dyscophus sanguineus* Boettger, 1880, Zool. Anz., 3: 567. Syntypes: SMF (2 specimens); SMF 4280 designated lectotype by Mertens, 1967, Senckenb. Biol., 48(A): 49. Type locality: "Tohizona insulae Madagascar"; given as Foizana [Madagascar] by Parker, 1934, Monogr. Frogs Fam. Microhylidae, : 24. Synonymy by Boulenger, 1882, Zool. Rec., 18: 14; Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2, : 180.
- *Dyscophus antongilii* — Boulenger, 1882, Cat. Batr. Sal. Coll. Brit. Mus., Ed. 2: 180.
- *Dyscophus antongilii var. pallidus* — Mocquard, 1895, Bull. Soc. Philomath., Paris, Ser. 8, 7: 110.
- *Discophus antongilii* — Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat.: 60.
- *Discophus antongili* — Guibé, 1978, Bonn. Zool. Monogr., 11: 93.

Distribution: Northeastern Madagascar along the coast (Antongila Bay, Ambatovaky, Andivoranto, and near Andasibe), 0–600 m elevation.

Comment: See comment under *Dyscophus guineti*. See brief account by Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 116–117. See statement of geographic range, habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 626.

Genus: *Scaphiophryne* Boulenger, 1882

***Scaphiophryne gottlebei* Busse and Böhme, 1992**

- o *Scaphiophryne gottlebei* Busse and Böhme, 1992, Rev. Fr. Aquar. Herpetol., 19: 60. Holotype: ZFMK 53543, by original designation. Type locality: "Montagne de l'Isalo: Vallée des Singes, W-Madagascar".
- o *Scaphiophryne (Scaphiophryne) gottlebei* — Grosjean, Glos, Teschke, Glaw, and Vences, 2007, Zool. J. Linn. Soc., 151: 572.

Distribution: Isalo Massif region often in deep canyons, Fianarantso Province, southern Madagascar, 700–1000 m elevation.

Comment: Reported as a tetraploid species by Vences, Aprea, Capriglione, Andreone, and Odierna, 2002, Chromosome Res., 10: 127–136. See brief account by Glaw and Vences, 2007, Field Guide Amph. Rept. Madagascar, Ed. 3, : 112. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 461.

MYOBATRACHIDAE

Genus: *Rheobatrachus* Liem, 1973

Rheobatrachus silus Liem, 1973

- o *Rheobatrachus silus* Liem, 1973, Mem. Queensland Mus., 16: 467. Holotype: QM J22489, by original designation. Type locality: "Kondalilla, 3 km SW. Montville, SE. Queensland, Australia, 500 m above sea level".

Distribution: Rocky mountain streams in the Conondale and Blackall ranges in southeastern Queensland, Australia.

Comment: Reviewed by Tyler, 1983, Gastric-brooding Frog, . Thought to be extinct (see Couper, 1992, Wildl. Aust., 1992: 11–12. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 143, who regarded the species as extinct. See brief account by Tyler and Knight, 2009, Field Guide Frogs Aust., : 128–129.

Rheobatrachus vitellinus Mahony, Tyler, and Davies, 1984

- o *Rheobatrachus vitellinus* Mahony, Tyler, and Davies, 1984, Trans. R. Soc. S. Aust., 108: 155. Holotype: QM J42529, by original designation. Type locality: "Eungella National Park, 148° 38′ 00 E.; 21° 01′ 30 S., Queensland", Australia.

Distribution: Known only from the Clarke Range, near Eungella, Queensland, Australia.

Comment: Possibly extinct; no recent sightings (see Couper, 1992, Wildl. Aust., 1992: 10–11, and McDonald, 1990, Trans. R. Soc. S. Aust., 114: 187–194). See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 143, who regarded the species as extinct. See brief account by Tyler and Knight, 2009, Field Guide Frogs Aust., : 128–129.

Caudata

AMBYSTOMATIDAE

Genus: *Ambystoma* Tschudi, 1838

***Ambystoma dumerilii* (Dugès, 1870)**

- *Siredon dumerilii* Dugès, 1870, Naturaleza, 1: 241. Syntypes: Not stated, but presumably originally in MDUG; including USNM 16201–16202 (according to Cochran, 1961, Bull. U.S. Natl. Mus., 220: 24) and ANSP 13862, according to Smith and Necker, 1943, An. Esc. Nac. Cienc. Biol., México, 3: 214. Maldonado-Koerdell, 1948, Nat. Hist. Misc., 23: 1–3, noted a probable syntype in the MDUG. Type locality: "laguna de Pátzcuaro", Michoacán, Mexico, 2055 feet altitude.
- *Amblystoma dumerili* — Cope, 1889, Bull. U.S. Natl. Mus., 34: 7.
- *Ambystoma dumerili* — Lafrentz, 1930, Abh. Ber. Mus. Nat. Heimatkd. Magdeburg, 6: 95.
- *Bathysiredon dumerilii* — Dunn, 1939, Not. Nat., Philadelphia, 36: 1.
- *Siredon dumerilii* — Smith, 1939, Field Mus. Nat. Hist. Publ., Zool. Ser., 24: 16.
- *Bathysiredon dumerilii* — Smith and Necker, 1943, An. Esc. Nac. Cienc. Biol., México, 3: 214. Smith and Taylor, 1948, Bull. U.S. Natl. Mus., 194: 7.
- *Bathysiredon dumerilii dumerilii* — Maldonado-Koerdell, 1948, Mem. Rev. Acad. Nac. Cienc. Antonio Alzate, 56: 199. by implication.
- *Bathysiredon dumerilii queretarensis* Maldonado-Koerdell, 1948, Mem. Rev. Acad. Nac. Cienc. Antonio Alzate, 56: 199. Syntypes: MDUG (2 specimens), by original designation. Type locality: "San Juan del Río (Q[uereta]ro)", Mexico.
- *Ambystoma (Bathysiredon) dumerilii* — Tihen, 1958, Bull. Florida State Mus., Biol. Sci., 3: 3, 44.
- *Ambystoma queretarense* — Smith and Smith, 1976, Synops. Herpetofauna Mex., 4: C-A&ndash. 20. Status rejected by Brandon, 1992, Cat. Am. Amph. Rept., 532: 1–3.

Distribution: Lake Pátzcuaro (Michoacán), at 1920 m elevation, and very questionably from San Juan del Río (Queretaro), Mexico.

Comment: See account by Brandon, 1992, Cat. Am. Amph. Rept., 532: 1–3. See comment under *Ambystoma ordinarium*. Raffaëlli, 2007, Les Urodèles du Monde, : 88, provided a brief account, figure, and map. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 545.

***Ambystoma mexicanum* (Shaw and Nodder, 1798)**

- *Gyrinus mexicanus* Shaw and Nodder, 1798, Nat. Miscell., 9: pls. 342 and 343. Holotype: BMNH, according to the original and Shaw, 1802, Gen. Zool., 3(1), : 612, but now lost according to Smith and Taylor, 1948, Bull. U.S. Natl. Mus., 194: 8. Type locality: Given both as "Mexicanum" and "Mexico". Restricted to "Xochimilco", Distrito Federal, Mexico, by Smith and Taylor, 1950, Univ. Kansas Sci. Bull., 33: 329. Opinion 1025, Anonymous, 1974, Bull. Zool. Nomencl., 31: 133–134, gave precedence to *Salamandra tigrina* Green, 1825, over *Gyrinus mexicanus* Shaw and Nodder, 1789, when treated as synonyms.
- *Siren pisciformis* Shaw, 1802, Gen. Zool., 3(1): 612. Substitute name for *Gyrinus mexicanus* Shaw and Nodder, 1789. Synonymy with *Siredon axolotl* by Wagler, 1830, Descript. Icon. Amph., Livr. 2, : 8. Synonymy by Leunis, 1860, Synops. Drei Naturr., Zool., Ed. 2, : 148; Baird, 1850 "1849", J. Acad. Nat. Sci. Philadelphia, Ser. 2, 1: 291; Cope, 1868 "1867", Proc. Acad. Nat. Sci. Philadelphia, 19: 180.
- *Triton mexicanus* — Oppel, 1811, Ordn. Fam. Gatt. Rept.: 81.
- *Philhydrus pisciformis* — Brookes, 1828, Prodr. Synops. Animal.: 16.
- *Hypochton pisciformis* — Gravenhorst, 1829, Delic. Mus. Zool. Vratislav., 1: 90.
- *Siredon axolotl* Wagler, 1830, Nat. Syst. Amph.: 209. also named by Wagler, 1830, Descript. Icon. Amph., Livr. 2, : 8. Type(s): Not stated; given as "Museo Parisiensi, Berolinensi ac Monacensi"

(Paris Museum [= MNHNP], Berlin Museum [= ZMB], and Munich Museum [= ZSM]) by Wagler, 1830, Descript. Icon. Amph., Livr. 2, : 8, not located by recent authors. Type locality: Not stated; given as "Mexico" by Wagler, 1830, Descript. Icon. Amph., Livr. 2, : 8. Synonymy by Leunis, 1844, Synops. Drei Naturr., Zool., Ed. 1, : 148; Leunis, 1860, Synops. Drei Naturr., Zool., Ed. 2, : 148; Baird, 1850 "1849", J. Acad. Nat. Sci. Philadelphia, Ser. 2, 1: 292; Cope, 1868 "1867", Proc. Acad. Nat. Sci. Philadelphia, 19: 180.

- *Axolotus pisciformis* — Cuvier, 1831, Animal Kingdom (M'Murtrie), 2: 89.
- *Phyllhydrus pisciformis* —Gray *In* Cuvier, 1831, Animal Kingdom (Griffith), 9: 108.
- *Sirenodon pisciformis* — Wiegmann, 1832, *in* Wiegmann and Ruthe (eds.), Handbuch der Zool., Amph.: 204.
- *Stegoporus pisciformis* — Wiegmann, 1832, *in* Wiegmann and Ruthe (eds.), Handbuch der Zool., Amph.: 204.
- *Stegoporus mexicanum* — Wiegmann, 1832, *in* Wiegmann and Ruthe (eds.), Handbuch der Zool., Amph.: 205.
- *Hemitriton (Siredon) mexicanum* — Van der Hoeven, 1833, Handb. Dierkd., 2: 305. by implication.
- *Siredon mexicanus* — Schinz, 1833, Naturgesch. Abbild Rept.: 198. Gistel *in* Gistel and Bromme, 1850, Handb. Naturgesch., : 334.
- *Axolotl pisciformis* — Guérin-Méneville, 1838, Icon. Regne Animal, 3: 18.
- *Axolotes guttata* Owen, 1844, Ann. Mag. Nat. Hist., Ser. 1, 14: 23. Syntypes: Not stated, although likely originally in BMNH. Type locality: "In lacu juxta urbem Mexico" (= in the lake next to the City of Mexico). Synonymy by Baird, 1850 "1849", J. Acad. Nat. Sci. Philadelphia, Ser. 2, 1: 292.
- *Siredon mexicanum* — Baird, 1850 "1849", J. Acad. Nat. Sci. Philadelphia, Ser. 2, 1: 292. Smith, 1939, Field Mus. Nat. Hist. Publ., Zool. Ser., 24: 16; Smith and Taylor, 1948, Bull. U.S. Natl. Mus., 194: 7.
- *Siredon Humboldtii* Duméril, Bibron, and Duméril, 1854, Erp. Gen., 9: 177. Syntypes: MNHNP, by original designation. Type locality: "Mexique" and "dans le lac qui entoure la ville de Mexico à 1160 toises d'élévation et dans les eaux des ruisseaux des montagnes qui y affluent", Mexico. Unavailable name for reason of being coined in synonymy with *Gyrinus mexicanus* Shaw, *Siren pisciformis* Shaw, *Hypochthon pisciformis* Gravenhorst, *Axolotes guttatus* Owen, and *Axolotes maculata* Gray. Synonymy by Smith, 1877, Tailed Amph., : 55.
- *Siren axolotl* — Schlegel, 1858, Handl. Dierkd., 2: 61.
- *Stegoporus mexicanus* — Leunis, 1860, Synops. Drei Naturr., Zool., Ed. 2: 148.
- *Axoloteles guttatus* — Wood, 1863, Illust. Nat. Hist., 3: 183.
- *Siredon spec.? var. alba* Duméril, 1869, Nouv. Arch. Mus. Natl. Hist. Nat. Paris, 5: 48. Holotype: Presumably deposited in MNHNP, but not in recent type lists. Type locality: "Mexique". Synonymy by Smith, 1969, BioScience, 19: 108. See comments provided by Thireau, 1987, Bull. Liaison Mus. Hist. Nat., Suppl., 71: 1.
- *Siredon pisciformis* — Wiedersheim, 1877, Morphol. Jahrb., 3: 459.
- *Amblystoma weismanni* Wiedersheim, 1879, Z. Wiss. Zool., Leipzig, 32: 216. Type(s): Not stated or known to exist. Type locality: Not stated, but implied to be from Mexico. Synonymy (with *Ambystoma tigrinum*) by Cope, 1889, Bull. U.S. Natl. Mus., 34: 68; synonymy (with *Ambystoma mexicanum*) by Smith, 1969, BioScience, 19: 596.
- *Ambystoma mexicanum* — Garman, 1884, Bull. Essex Inst., 16: 36. by implication.
- *Siredon edule* Dugès, 1888, Naturaleza, Ser. 2, 1: 144. Types: Not stated or known to exist, according to Smith and Necker, 1943, An. Esc. Nac. Cienc. Biol., México, 3: 214, although likely originally MDUG. Type locality: Not stated; designated as "Lake Xochimilco, México" by Smith and Necker, 1943, An. Esc. Nac. Cienc. Biol., México, 3: 214, who made the synonymy.
- *Ambystoma edule* Dugès, 1888, Naturaleza, Ser. 2, 1: 144. Alternative name for *Siredon edule*.
- *Ambystoma mexicanum* — Lafrentz, 1930, Abh. Ber. Mus. Nat. Heimatkd. Magdeburg, 6: 95.
- *Ambystoma (Ambystoma) mexicanum* — Tihen, 1958, Bull. Florida State Mus., Biol. Sci., 3: 3, 37.
- *Siredon alba* — Smith, 1969, BioScience, 19: 596.

Distribution: Originally in Lakes Xochimilco and Chalco (and presumably in the connecting lakes Texcoco and Zumpango), Valley of Mexico; known currently only from the southern remnants of Lake Xochimilco.

Comment: See Smith and Smith, 1971, Synops. Herpetofauna Mex., 1, , and Smith and Smith, 1993, Synops. Herpetofauna Mex., 7, for access to all of the literature. Highton, 2000, *in* Bruce et al., Biol. Plethodontid Salamanders, : 221, suggested that populations of *Ambystoma mavortium*, *Ambystoma flavipiperatum*, *Ambystoma andersoni*, *Ambystoma amblycephalum*, and *Ambystoma taylori* (i.e., populations from the Rocky Mountains, Great Plains, Sierra Madre Oriental of Mexico, and the central and eastern Mexican Plateau) were likely one species for which the oldest name would be *Ambystoma mexicanum*. Raffaëlli, 2007, Les Urodèles du Monde, : 86–87, provided a brief account, figure, and map. See photograph,

map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 546. Contreras, Martínez-Meyer, Valiente, and Zambrano, 2009, Biol. Conserv., 142: 2881–2885, reported on the critical population decline and near extinction of this species.

CRYPTOBRANCHIDAE

Genus: *Andrias* Tschudi, 1837

***Andrias davidianus* (Blanchard, 1871)**

- *Sieboldia davidiana* Blanchard, 1871, C. R. Hebd. Séances Acad. Sci., Paris, 73: 79. Holotype: MNHNP 7613 (from 'Thibet oriental'), according to Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat., : 6. See also Thireau, 1986, Cat. Types Urodeles Mus. Natl. Hist. Nat., Rev. Crit., : 27, who discussed other specimens erroneously considered types. Type locality: "Thibet orientale"; given as "Tchong-pa" (= Zhongba, now Jiangyou County, Sichuan Province), China by David, 1875, J. Trois. Voy. Explor. Emp. Chinoise, 2, : 20, and Thireau, 1986, Cat. Types Urodeles Mus. Natl. Hist. Nat., Rev. Crit., : 27.
- *Sieboldia davidi* — David, 1875, J. Trois. Voy. Explor. Emp. Chinoise, 1: 326. Incorrect subsequent spelling.
- *Megalobatrachus sligoi* Boulenger, 1924, Proc. Zool. Soc. London, 1924: 173. Holotype: Deposition not stated; BMNH 1945.11.7.1. (formerly II.1.1.1.a) according to Brame, 1972, Checklist Living & Fossil Salamand. World (Unpubl. MS), : 25. Type locality: uncertain; presumed in the original to have come from the Chinese mainland near Hong Kong. Synonymy by Thorn, 1968, Salamand. Eur. Asie Afr. Nord, : 110.
- *Megalobatrachus japonicus davidi* — Chang, 1935, Bull. Soc. Zool. France, 60: 350. Chang, 1936, Contr. Etude Morphol. Biol. Syst. Amph. Urodeles Chine, : 82. Incorrect subsequent spelling.
- *Megalobatrachus japonicus davidianus* — Pope and Boring, 1940, Peking Nat. Hist. Bull., 15: 18.
- *Megalobatrachus davidianus* — Liu, 1950, Fieldiana, Zool. Mem., 2: 69.
- *Andrias scheuchzeri davidiana* — Westphal, 1958, Palaeontographica, Abt. A, 110: 36.
- *Andrias davidianus* — Brame, 1967, Herpeton, California, 2: 5. Estes, 1981, Handb. Palaeoherpetol., 2, : 14.
- *Cryptobranchus davidianus* — Naylor, 1981, Copeia, 1981: 76&ndash. 86.

Distribution: The mountain streams of China, from Qinghai to southern Shanxi and south to Sichuan, Yunnan, Guangxi, and Guangdong, 100–1500 m elevation; likely introduced into Taiwan.

Comment: Synonymy and review (as *Megalobatrachus davidianus*) in Liu, 1950, Fieldiana, Zool. Mem., 2: 69–77.See accounts by Yang, 1991, Amph. Fauna of Yunnan, : 28–30; Ye, Fei, and Hu, 1993, Rare and Economic Amph. China, : 65; Fei, 1999, Atlas Amph. China, : 38; Thorn and Raffaëlli, 2000, Salamand. Ancien Monde, : 147–149; Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1, : 244–253; and Raffaëlli, 2007, Les Urodèles du Monde, : 67–68. Huang, 1990, Fauna Zhejiang, Amph. Rept., : 17–18, provided an account for Zhejiang (as *Megalobatrachus davidianus*). Zhang and Wen, 2000, Amph. Guangxi, : 19, provided an account for population in Guangxi, China. Fan, Guo, and Liu, 1998, Amph. Rept. Shanxi Prov., : 43–44, provided an account and the records for Shanxi, China. See also brief account by Zhao and Yang, 1997, Amph. Rept. Hengduan Mountains Region, : 32. Zhao and Adler, 1993, Herpetol. China, : 110, discussed the Taiwanese specimens. Lever, 2003, Naturalized Rept. Amph. World, : 227, regarded the Taiwan population as introduced. Tao, Wang, Zheng, and Fang, 2005, Zool. Res., Kunming, 26: 162–167, reported on the genetic structure of four geographic populations of the species. Yang, 2008, *in* Yang and Rao (ed.), Amph. Rept. Yunnan, : 16–17, provided a brief account for Yunnan, China. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 547. Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph., : 71, provided a brief account including photographs of specimen.

***Andrias japonicus* (Temminck, 1836)**

- *Triton japonicus* Temminck, 1836, Coup d'oeil sur la Fauna des Îles de la Sonde et de l'Empire du Japon: xxvi. Syntypes: RMNH and (according to Thireau, 1986, Cat. Types Urodeles Mus. Natl. Hist. Nat., Rev. Crit., : 33) MNHNP 7614; including RMNH 2392, 2394, and 18562, and MNHNP 7614, according to Gassó Miracle, van den Hoek Ostende, and Arntzen, 2007, Zootaxa, 1482: 48; RMNH 2392 designated lectotype by Hoogmoed, 1978, Zool. Meded., Leiden, 53: 102. Type locality: "Japon"; restricted to "Iga, Honshû", Japan, by Okada, 1934, Copeia, 1934: 16.
- *Megalobatrachus sieboldi* Tschudi, 1837, Neues Jahrb. Mineral. Geogn. Geol. Petrefactenkunde, Stuttgart, 5: 547. Syntypes: RMNH 2392, 2394, and 18562, and MNHNP 7614according to Gassó Miracle, van den Hoek Ostende, and Arntzen, 2007, Zootaxa, 1482: 48; RMNH 2392 designated lectotype by Hoogmoed, 1978, Zool. Meded., Leiden, 53: 102. Type locality: Japan. Synonymy by Stejneger, 1907, Bull. U.S. Natl. Mus., 58: 6. Possibly a substitute name rather than a new name. Synonymy (with *Seiboldia maxima*) by Gray, 1850, Cat. Spec. Amph. Coll. Brit. Mus., Batr. Grad., : 52; (with *Megalobatrachus maximus*) by Boulenger, 1882, Cat. Batr. Grad. Batr. Apoda Coll. Brit. Mus., Ed. 2, : 77.
- *Salamandra maxima* Schlegel *In* Tschudi, 1837, Neues Jahrb. Mineral. Geogn. Geol. Petrefactenkunde, Stuttgart, 5: 546. Syntypes: MNHNP and RMNH, and presumably animal figured by Temminck and Schlegel, 1838, Fauna Japonica, 3, : Pl. 8; including RMNH 2392, 2394, and 18562, and MNHNP 7614, according to Gassó Miracle, van den Hoek Ostende, and Arntzen, 2007, Zootaxa, 1482: 56; RMNH 2392 designated lectotype by Hoogmoed, 1978, Zool. Meded., Leiden, 53: 102. See discussion by Bauer, Good, and Günther, 1993, Mitt. Zool. Mus. Berlin, 69: 291, of the types and type localities. Type localities: "Sakanosta", "monts Suzuga jama" (near Sakanosta), and "mont Okude" according to Temminck and Schlegel, 1838, Fauna Japonica, 3, : 134–135. Synonymy by Stejneger, 1907, Bull. U.S. Natl. Mus., 58: 6. Synonymy (with *Seiboldia maxima*) by Leuckart, 1840, Froriep's Neue Notizen, 13: 19–20; Gray, 1850, Cat. Spec. Amph. Coll. Brit. Mus., Batr. Grad., : 52. See discussion of types and publication dates by Thireau, 1986, Cat. Types Urodeles Mus. Natl. Hist. Nat., Rev. Crit., : 39.
- *Cryptobranchus japonicus* — Van der Hoeven, 1838, Tijdschr. Natuurl. Geschied., 4: 384. Naylor, 1981, Copeia, 1981: 76–86
- *Hydrosalamandra siboldi* — Leuckart, 1840, Froriep's Neue Notizen, 13: 20. Incorrect subsequent spelling.
- *Hydrosalamandra japonica* — Leuckart, 1840, Froriep's Neue Notizen, 13: 19&ndash. 20.
- *Sieboldia maxima* — Gray, 1850, Cat. Spec. Amph. Coll. Brit. Mus., Batr. Grad.: 52.
- *Salamandra gigas* Duméril, Bibron, and Duméril, 1854, Erp. Gen., 9: 164. *Lapsus calami* for *Salamandra maxima* Schlegel.
- *Tritomegas sieboldii* — Duméril, Bibron, and Duméril, 1854, Erp. Gen., 9: 164.
- *Tritomegas sieboldtii* — Duméril, Bibron, and Duméril, 1854, Erp. Gen., 9: 426. Incorrect subsequent spelling.
- *Salamandra (Megalobatrachus) maxima* — Schlegel, 1858, Handl. Dierkd., 2: 61.
- *Megalobatrachus maximus* — Boulenger, 1882, Cat. Batr. Grad. Batr. Apoda Coll. Brit. Mus., Ed. 2: 80.
- *Cryptobranchus maximus* — Chapman, 1893, Proc. Acad. Nat. Sci. Philadelphia, 45: 227.
- *Andrias japonicus* — Lapparent, 1900, Traite Geol., 3: 1532. Estes, 1981, Handb. Palaeoherpetol., 2, : 14.
- *Megalobatrachus japonicus* — Beddard, 1904 "1903", Proc. Zool. Soc. London, 1903: 298. Sato, 1943, Monogr. Tailed Batr. Japan, : 322–346; Thorn, 1968, Salamand. Eur. Asie Afr. Nord, : 106.
- *Sieboldiana maxima* — Ishikawa, 1904, Proc. Dept. Nat. Hist. Tokyo Imp. Mus., 1: 21. Incorrect subsequent spelling of generic name.
- *Cryptobranchus sieboldia* — Calmette, 1907, Les Venins: 330. Incorrect subsequent spelling.
- *Megalobatrachus japonicus japonicus* — Chang, 1936, Contr. Etude Morphol. Biol. Syst. Amph. Urodeles Chine: 82.
- *Andrias scheuchzeri japonicus* — Westphal, 1958, Palaeontographica, Abt. A, 110: 26.

Distribution: Southwestern portion of the Island of Honshu northeast to the Prefecture of Gifu, the island Shikoku, and on the Island of Kyushu only in the Prefecture of Oita, Japan; possibly in Far East Russia (see comment).

Comment: Reviewed (as *Megalobatrachus japonicus*) by Sato, 1943, Monogr. Tailed Batr. Japan, : 322–346. See Hoogmoed, 1978, Zool. Meded., Leiden, 53: 92, for discussion of the obscure description. Thorn and Raffaëlli, 2000, Salamand. Ancien Monde, : 142–147, and Goris and Maeda, 2004, Guide Amph. Rept. Japan, : 5–7, provided accounts. Kuzmin and Maslova, 2003, Adv. Amph. Res. Former Soviet Union, 8: 344–345, noted the possible occurrence of this taxon in the vicinity of Vladivostok, Far East Russia. Raffaëlli, 2007, Les Urodèles du Monde, : 67, provided a brief account.

Genus: *Cryptobranchus* Leuckart, 1821

***Cryptobranchus alleganiensis* (Daudin, 1803)**

- *Salamandra alleganiensis* Daudin, 1803 (An. XI), Hist. Nat. Gen. Part. Rept., 8: 231. Type(s): Originally in MNHNP although not reported by recent authors and likely lost. Type locality: "les monts Alléganis, en Virginie", USA; restricted to "vicinity of Davenport's Plantation", North Toe River, 1 mile south of the mouth of the Bushy Creek and 4 miles east-northeast of the Spruce Pine Creek, Mitchell County, North Carolina, USA, by Harper, 1940, Am. Midl. Nat., 23: 721. See Dundee, 1971, Cat. Am. Amph. Rept., 101: 3, for discussion of the type locality.
- *Salamandra horrida* Barton, 1808, Some Account of *Siren lacertina*: 8. Type(s): Not stated or known to exist. Type locality: "in the great lakes of our country, in the waters of the Ohio, and Susquehanna [rivers], and other parts of the United States", USA; restricted to the "Muskingum River, Ohio", USA, by Schmidt, 1953, Check List N. Am. Amph. Rept., Ed. 6, : 11. Synonymy by Harlan, 1827, J. Acad. Nat. Sci. Philadelphia, 5: 320.
- *Salamandra gigantea* Barton, 1808, Some Account of *Siren lacertina*: 8. Substitute name for *Salamandra horrida* Barton, 1808. Synonymy by Harlan, 1825, Ann. Lyc. Nat. Hist. New York, 1: 271; Harlan, 1827, J. Acad. Nat. Sci. Philadelphia, 5: 320; Harlan, 1835, Med. Phys. Res., : 87.
- *Salamandra maxima* Barton, 1808, Some Account of *Siren lacertina*: 8. Substitute name for *Salamandra horrida* Barton, 1808.
- *Triton alleganiensis* — Oppel, 1811, Ordn. Fam. Gatt. Rept.: 81.
- *Molge gigantea* — Merrem, 1820, Tent. Syst. Amph.: 187. Synonymy by Harlan, 1835, Med. Phys. Res., : 87.
- *Cryptobranchus salamandroides* Leuckart, 1821, Isis von Oken, 9: 260. Substitute name for *Salamandra gigantea* Barton, 1808.
- *Urotropis mucronata* Rafinesque, 1822, Kentucky Gazette, Lexington, N.S., 1: 3. Type(s): Not designated or known to exist. Type locality: "the Kentucky river", Kentucky, USA. Synonymy by Brame, 1972, Checklist Living & Fossil Salamand. World (Unpubl. MS), : 28.
- *Protonopsis horrida* —Barton *In* LeConte, 1824, Ann. Lyc. Nat. Hist. New York, 1: 57. Gray, 1850, Cat. Spec. Amph. Coll. Brit. Mus., Batr. Grad., : 53.
- *Abranchus alleghaniensis* — Harlan, 1825, Ann. Lyc. Nat. Hist. New York, 1: 233. Incorrect subsequent spelling of species name.
- *Menopoma alleghaniensis* — Harlan, 1825, Ann. Lyc. Nat. Hist. New York, 1: 271.
- *Salamandrops giganteus* — Wagler, 1830, Nat. Syst. Amph.: 209. Leunis, 1844, Synops. Drei Naturr., Zool., Ed. 1, : 148.
- *Abranchus horrida* — Gray, 1831, *in* Cuvier, Animal Kingdom (Griffith), 9—Appendix: 109.
- *Eurycea mucronata* — Rafinesque, 1832, Atlantic. J. and Friend of Knowledge, Philadelphia, 1: 121.
- *Amphiuma (Menopoma) gigantea* — Van der Hoeven, 1833, Handb. Dierkd., 2: 304. by implication.
- *Cryptobranchus alleghaniensis* — Van der Hoeven, 1838, Tijdschr. Natuurl. Geschied., 4: 384. Cope, 1889, Bull. U.S. Natl. Mus., 34: 38.
- *Menopoma gigantea* — Tschudi, 1838, Classif. Batr.: 96.
- *Cryptobranchus alleghaniensis* — Van der Hoeven, 1838, Tijdschr. Natuurl. Geschied., 4: 384.
- *Menopoma gigantea* — Tschudi, 1838, Classif. Batr.: 96.
- *Menopoma fusca* Holbrook, 1842, N. Am. Herpetol., Ed. 2, 5: 99. Types: Specimen figured on pl. 33 of the original publication. Type locality: "waters of French Broad . . . of Ashville, Buncomb county, North Carolina", USA. Synonymy by by Dundee, 1971, Cat. Am. Amph. Rept., 101: 1.
- *Triton alleghaniensis* — Gray, 1850, Cat. Spec. Amph. Coll. Brit. Mus., Batr. Grad.: 54. Error.
- *Protonopsis fusca* — Gray, 1850, Cat. Spec. Amph. Coll. Brit. Mus., Batr. Grad.: 54.
- *Salamandra alleghaniensis* — Gray, 1850, Cat. Spec. Amph. Coll. Brit. Mus., Batr. Grad.: 53. Incorrect subsequent spelling in synonymy of species name.
- *Salamandra (Menopoma) gigantea* — Schlegel, 1858, Handl. Dierkd., 2: 61.
- *Menopoma fuscum* — Yarrow, 1882, Bull. U.S. Natl. Mus., 24: 20.
- *Cryptobranchus alleganiensis* — Garman, 1884, Bull. Essex Inst., 16: 36. by implication; Fowler and Dunn, 1917, Proc. Acad. Nat. Sci. Philadelphia, 69: 8.
- *Cryptobranchus fuscus* — Garman, 1884, Bull. Essex Inst., 16: 36. by implication.
- *Cryptobranchus terassodactylos* Wellborn, 1936, Zool. Anz., 114: 63&ndash. 64. Holotype: ZMB 9639, according to Bauer, Good, and Günther, 1993, Mitt. Zool. Mus. Berlin, 69: 290. Type locality: "Nordamerika". Restricted to "Allegheny Mountain in Virginia", USA by Schmidt, 1953, Check List N. Am. Amph. Rept., Ed. 6, : 11. Synonymy by Grobman, 1943, Occas. Pap. Mus. Zool. Univ. Michigan, 470: 5.

- *Cryptobranchus bishopi* Grobman, 1943, Occas. Pap. Mus. Zool. Univ. Michigan, 470: 6. Holotype: UMMZ 68930, by original designation. Type locality: "Current River at Big Spring Park, Carter County, Missouri", USA. Synonymy by Schmidt, 1953, Check List N. Am. Amph. Rept., Ed. 6, : 12.
- *Cryptobranchus alleganiensis* — Bishop, 1943, Handb. Salamanders: 59.
- *Cryptobranchus alleganiensis alleganiensis* — Schmidt, 1953, Check List N. Am. Amph. Rept., Ed. 6: 11.
- *Cryptobranchus alleganiensis bishopi* — Schmidt, 1953, Check List N. Am. Amph. Rept., Ed. 6: 12. Dundee and Dundee, 1965, Copeia, 1965: 169–170.
- *Cryptobranchus bishopi* — Collins, 1991, Herpetol. Rev., 22: 43.

Distribution: Central and western New York south to northern Maryland and southwestn through Pennsylvania southern Ohio and western Virginia to westernmost South Carolina, northern Alabma, northeastern Mississippi, Tennessee, and Ohio River drainage of southeastern Illinois, southern Indiana; isolated population in the Ozarks of Missouri and adjacent northernmost Arkansas, USA.

Comment: See accounts by Dundee, 1971, Cat. Am. Amph. Rept., 101: 1–4; Petranka, 1998, Salamand. U.S. Canada, : 140; and Nickerson and Mays, 1972, Publ. Biol. Geol. Milwaukee Public Mus., 1: 1–106.

SALAMANDRIDAE

Genus: *Neurergus* Cope, 1862

Neurergus kaiseri Schmidt, 1952

- *Neurergus crocatus kaiseri* Schmidt, 1952, Nat. Hist. Misc., 93: 1. Holotype: ZMUC 03184, by original designation. Type locality: "Shah Bazan, Luristan, Iran", Zagros Mountains, 1200 meters, from 10 to 15 km south of the junction of the Ab-I-Cesar and Ab-I-Diz rivers. Museum records give locality as "Locality 70: 'Good Springs' 11km N of Shah Bazan, 8 km SW of junction with Ab-i-Diz and Ab-i-Cezar river" (personal commun., H. Kristensen, 24 Nov. 2010).
- *Neurergus crocatus kaiseri* — Thorn, 1968, Salamand. Eur. Asie Afr. Nord: 273.
- *Neurergus kaiseri* — Schmidtler and Schmidtler, 1970, Senckenb. Biol., 51: 49. Schmidtler and Schmidtler, 1975, Salamandra, 11: 93.
- *Neurergus (Neurergus) kaiseri* — Dubois and Raffaëlli, 2009, Alytes, 26: 54, 66.

Distribution: Southern Zagros Mountains of western Iran, possibly to be found in adjacent Iraq or Turkey.

Comment: Schmidt, 1955, Vidensk. Medd. Dansk Naturhist. Foren., 117: 193–197, provided an augmented description. Schmidtler and Schmidtler, 1970, Senckenb. Biol., 51: 49, and Schmidtler and Schmidtler, 1975, Salamandra, 11: 93, showed *Neurergus kaiseri* to be a distinct species. Thorn and Raffaëlli, 2000, Salamand. Ancien Monde, : 347, and Baloutch and Kami, 1995, Amph. Iran, : 96–98, provided accounts. Raffaëlli, 2007, Les Urodèles du Monde, : 119, provided a brief account, map, and photograph. See photograph, map, description of geographic range and habitat, and conservation status in Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World, : 604. Sharifi, Rastegar-Pouyani, Akmali, and Narenji, 2008, Russ. J. Herpetol., 15: 169–172, detailed the range and habitat. Özdemir, Üzüm, Avci, and Olgun, 2009, Herpetologica, 65: 280–291, suggested that *Neurergus kaiseri* is the sister taxon of *Neurergus microspilotus*.