

**TYPE SPECIMENS  
OF  
AMPHIBIANS AND REPTILES  
IN THE  
NATURAL HISTORY MUSEUM OF  
LOS ANGELES COUNTY**



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## **SMITHSONIAN HERPETOLOGICAL INFORMATION SERVICE**

The first number of the SMITHSONIAN HERPETOLOGICAL INFORMATION SERVICE series appeared in 1965. SHIS number 1 was a list of herpetological publications arising from within or through the Smithsonian Institution and its collections entity, the United States National Museum (USNM). The latter exists now as little more than the occasional title for the registration activities of the National Museum of Natural History. No. 1 was prepared and printed by J. A. Peters, then Curator-in-Charge of the Division of Amphibians & Reptiles. The availability of a NASA translation service and assorted indices encouraged him to continue the series and distribute these items on an irregular schedule.

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## INTRODUCTION

The Section of Herpetology of the Natural History Museum of Los Angeles County (LACM) began in July of 1965 when the first specimen, *Cynops pyrrhogaster*, was cataloged. A goal of the newly established Herpetology Section was to serve as the primary research and reference collection in the greater Los Angeles area. Researchers at several southern California universities wished to transfer their collections to a central depository in order to make these materials more accessible to other investigators and to ensure long-term curatorial care that could not be assured in an university environment. The core of the LACM herpetological collections was derived from materials then at the University of California at Los Angeles (UCLA), the University of Southern California (USC, AHF, CRE), and the California State universities at Long Beach (CSULB) and Fullerton (CSUF).

The first curator was James R. Dixon. During his two-year tenure, two collections from the University of Southern California (USC and AHF) were accessioned, and he began the transfer of the UCLA material. John W. Wright replaced James Dixon in 1967, and shortly thereafter, the remainder of the UCLA specimens arrived and were integrated into the growing collection. Other significant collections were also donated by several Research Associates (e.g., Eric Pianka, Dennis Paulson, and Richard Worthington). Robert L. Bezy joined the staff in 1970 as Associate Curator and in 1998, David A. Kizirian arrived as Assistant Curator.

Collections organization and integration received a critical boost in 1973 with an award from the National Science Foundation. These funds allowed the hiring of two curatorial assistants for five years. During this period the CSULB and several other large collections arrived and were accessioned. By 1978, all but one collection originally promised for transfer had been integrated into the LACM herpetological holdings. The exception was J. M. Savage's CRE [Costa Rican Expeditions] collection. Upon the completion of his research for his book on the Costa Rican herpetofauna in 1998, the CRE material was transferred to the museum. The consolidation of the individual research collections has produced a readily accessible database of 180,000 specimens, including a significant holding of type material.

Because many type specimens were initially cataloged in other collection, a major goal of this compilation is to provide data concerning their current location and the LACM catalog numbers now assigned to them. Our recognition of a type specimen relies solely on those categories formally recognized in the Code of Zoological Nomenclature (4th Edition, 1999, p. 121: "Type Specimen. A term used in previous editions of the Code for holotype, lectotype, or neotype; also used generally for any specimen of the type series [= paratype]" and as specified in Article 72 and Recommendations 72A: restricted to holotypes, lectotypes, neotypes, syntypes, paratypes, paralectotypes, and allotypes). Furthermore, we rigidly follow Article 72b(v) with regard to the automatic designation of all specimens in the type series as paratypes after a holotype is selected unless they were expressly excluded [Art. 72b(vi)]. The minor exceptions are the single hypoparatype (see *Sympholis lippiens rectilimbus* account, below) and topoparatypes. The term topoparatype (i.e., a paratype from the type locality) is used to reduce redundancies in collection data. In some cases only the number of specimens in a type series was provided by the descriptor;

such an action makes the subsequent association of specific specimens as paratypes difficult. This difficulty is most evident in the R. F. Laurent gift of African hyperoliid and ranid frogs. All Laurent specimens indicated as paratypes when deposited or in subsequent correspondence have been included in this list.

Using the above criteria, the LACM herpetological collection contains a total of 2,233 type specimens representing 249 taxa as follows:

	<u>Taxa</u>	<u>Holotypes</u>	<u>Paratypes</u>
<b>Gymnophiona</b>	1	1	0
<b>Caudata</b>	47	14	334
<b>Anura</b>	113	43	978
<b>Testudines</b>	4	2	18
<b>Amphisbaenia</b>	1	0	4
<b>Lizards</b>	60	9	744
<b>Serpentes</b>	23	6	80
<b>TOTAL</b>	<b>249</b>	<b>75</b>	<b>2158</b>

The basic collections data for the types derives the original description; however, for consistency of presentation and to match the standard LACM entry format, we have rearranged the locality information from largest to smallest geographic unit, whether or not that was order in the original publication. Our corrections, changes, and emendations of the catalog data are enclosed in brackets. Some bracketed items represent additional information, not given in the original description, but available from the files and other collection records (e.g., collector, date, additional locality details, current catalog number). We also included in brackets our assessment of the current species name, where the specimens identity differs from that provided in the original description. We have not evaluated the status of subspecific names.

The following abbreviations were used in the designation of types now deposited in the LACM collection.

AHF-USC	Allan Hancock Foundation, University of Southern California
AMNH	American Museum of Natural History
ASU	Arizona State University
CMF	Charles M. Fugler
CRE	Costa Rican Expeditions
CSULB	California State University, Long Beach
DRP	Dennis R. Paulson
EAL	Ernest A. Liner
ECNB	Escuela Nacional Ciencias
ENEPI	Escuela Nacional de Estudios Profesionales Iztacala
ERP	Eric R. Pianka
FML	Fundacion Miguel Lillo
FMNH	Field Museum of Natural History
GOV	G. Orces V. collection at USNM

JFC	Joseph F. Copp
IML	Instituto Miguel Lillo
KU	University of Kansas
LBSC	Long Beach State College (=CSULB)
MNCR	Museum Nacional de Costa Rica
RFL	Raymond F. Laurent
RH	Ross Hardy, CSCLB
RTM	R.T. Moore
RWA	Ralph W. Axtell
SM	S. Mulaik
TCWC	Texas Cooperative Wildlife Collection
UCLA	University of California, Los Angeles
USNM	National Museum of Natural History, Washington, D.C.
UIMNH	University of Illinois, Museum of Natural History
USC	University of Southern California
USC-AHF	University of Southern California, Allan Hancock Foundation
USC-CR	University of Southern California, Costa Rica (=USC-CRE)
USC-CRE	University of Southern California, Costa Rican Expeditions
UVMP	Universidad del Valle, Colombia
WCAB	Werner C. A. Bokermann

## TYPE SPECIMENS

### GYMNOPHIONA–CAECILIANS

Family: **Caeciliidae**

*Oscacaecilia osae* Lahanas and Savage, 1992, *Copeia* 1992(3):703, figs. 1 and 2, table 1.

HOLOTYPE. 138542, female [subadult of undeterminable sex]: Costa Rica: Provincia de Puntarenas: Canton de Osa: Península de Osa, from the airstrip at La Sirena (approx. 3 m elev. [9.8 ft]); P.N. Lahanas and N.S. Lahanas; 16 Sept. 1984.

### CAUDATA–SALAMANDERS

Family: **Dicamptodontidae**

*Dicamptodon copei* Nussbaum, 1970, *Copeia* 1970(3):506, figs. 1, 2, 5, 7, tables 1 and 2.

TOPOPARATYPES (3). 99480-82 [cited as USNM 166786, 166807, 166811, respectively]: Washington: Cowlitz Co.: in Mar(r)atta Creek 85 m [279 ft] upstream from bridge on state highway 504, 840 m [2756 ft] elevation, SW 1/4 Sec. 3, T.9 N., R.4 E., 46E 17' N, 122E 18' W; R.A. Nussbaum; 20 June 1969.

Family: **Plethodontidae**

*Batrachoseps aridus* Brame, 1970, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (200):2, figs. 1-5, table 1. [= *Batrachoseps major*].

HOLOTYPE. 56271, female: California: Riverside Co.: Hidden Palm Canyon, a tributary of Deep Canyon, elevation approximately 2500 ft [762 m], (10.5 mi [16.8 km] by road S of the intersection of state Highways 111 and 74, town of Palm Desert), NW end of Santa Rosa Mountains, from slopes on western side of Coachella Valley; R.W. Murphey, J.E. DeWeese and A.H. Brame, Jr.; February 27, 1970.

TOPOPARATYPES (18). 56272-78; 56570-80: A.L. Reinholtz, P.L. Brame and A.H. Brame, Jr.; March 22, 1970.

*Batrachoseps campi* Marlow, Brode and Wake, 1979, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (308):3, figs. 1, 6, 7, 8, and 11.

PARATYPES (8). 122004-11: California: Inyo Co.: French Spring, W slope of the Inyo Mountains, elevation 1829 m (6000 ft), 6.4 km (4 mi) N, 51.7 km [sic=5.7 km] (3.6 mi) E Lone Pine; [A. Brame, Jr. and M. Long; 6 October 1973].

*Batrachoseps diabolicus* Jockusch, Wake and Yanev, 1998, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (472):7, fig. 4, table 1.

TOPOPARATYPE (1). 144218: California: Mariposa Co.: from Hell Hollow, at the junction with the Merced River and Lake McClure on California Highway 49, 37E 36' 33" N, 120E 08' 10" W, ca. 300 m [984 ft] elevation; [D. Wake, K. Yanev and S. Sweet]; January 27, 1973.

*Batrachoseps gabrieli* Wake, 1996, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (463):1, figs. 1, 2, 3, and 5.

PARATYPES (2). 143239-40: [California: Los Angeles Co.: 0.7 mi (1.1 km) (air) ESE Crystal Lake, San Gabriel Mtns., elev. 5100 ft (1555 m); D. Wake et al.; 18 February 1989].

***Batrachoseps gregarius*** Jockusch, Wake and Yanev, 1998, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (472):2, fig. 1, table 1.

TOPOPARATYPE (1). 144219: California: Madera-Mariposa County line: Westfall Picnic Ground E of Highway 41, Sierra National Forest, 1400 m [4593 ft] elevation, 37E 26' 43" N, 119E 39' 01" W; [E. Jockusch and M. Garcia-Paris]; April 1, 1996.

***Batrachoseps kawia*** Jockusch, Wake and Yanev, 1998, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (472):11, table 1.

TOPOPARATYPE (1): 144217: California: Tulare Co.: from the W side of the S Fork, Kaweah River, ca 430 m [1411 ft] elevation, 36E 22' 57" N, 118E 52' 15" W; [D. Wake, J. Edwards, S. Sweet and R. Wassersug]; December 6, 1970.

***Batrachoseps regius*** Jockusch, Wake and Yanev, 1998, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (472):9, fig. 5, table 1.

TOPOPARATYPE (1): 144216: California: Fresno Co.: from the S bank of the N Fork, Kings River, 1.6 km [0.9 mi] N (by road) of the Kings River, ca. 335 m [1099 ft] elevation, 36E 52' 46" N, 119E 07' 30" W; [S. Sweet, J. Crim, J. Edwards and S. Ruth]; December 5, 1970.

***Batrachoseps relictus*** Brame and Murray, 1968, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (4):5, fig. 1.

HOLOTYPE. 34360, female: California: Kern Co.: from about 150 yards [137 m] above the junction of State Hwy. 178 and the road turnoff to Democrat Hot Springs Resort, above the upper dirt road, 2400 feet [732 m] elevation, in the Kern River Canyon (25.7 mi [41.3 km] by road NE of the intersection of Niles and Baker Streets, Bakersfield); [A. Brame, Jr.]; May 17, 1964.

TOPOPARATYPES (7). 34356-59, 34361-63.

PARATYPES (32). California: Kern Co.: 34364-65, 34951-60: from roadside natural water seepage and associated poolside by Cow Flat Creek, 1800 feet [549 m] elevation, 3.4 mi [5.4 km] SW of Democrat Hot Springs Resort turnoff (22.3 mi [35.7 km] by road NE of Bakersfield); A.H. Brame, Jr.; May 17, 1964; 39199: same locality; J.W. Wright and A.H. Brame, Jr.; January 25, 1968; 34533: 4.2 mi [6.7 km] SW of Democrat Hot Springs Resort turnoff (21.5 mi [34.4] NE of Bakersfield), along the edges of a small rushing creek (Lucas Creek?), at 1650 feet [503 m] elevation; D.B. Wake and A.H. Brame, Jr.; April 1, 1960; 34352-55: 6 mi [9.6 km] SW of Democrat Hot Springs Resort turnoff (at Stork Creek?; 19.7 mi [31.5 km] NE of Bakersfield), along edges of creek at 1600 feet [488 m] elevation; A.H. Brame, Jr.; May 17, 1964; Tulare Co.: 33082-90: 1.2 mi [1.9 km] S of White River Camp Grounds (Lower Camp); A.H. Brame, Jr.; March 31, 1957; 33091-93: 1 mi [1.6 km] above O'Quinn Meadow; L. Hughes and A.H. Brame, Jr.; March 31, 1957; 33080-81: at White River Camp Grounds (Lower Camp) 6 mi [10 km] NE of Jack Ranch Resort, Sequoia National Forest; A.H. Brame, Jr.; March 31, 1957.

***Batrachoseps robustus*** Wake, Yanev and Hansen, 2002, *Copeia* 2002(4):1017, figs. 1-3, table 1.  
 PARATYPES (2): 99469-70: California: Tulare Co. (Kern Plateau): 4 km [2.4 mi] E Beach Meadows Guard Station [Sequoia National Forest], 2530 m [8301 ft], (36E 8' 30" N, 118E 15' 30" W); Richman, 1973; 36.1417E N, 118E 25' 83" W; [A.H. Brame, C. Payne and J.D. Smith; 3 Sept 1972].

***Batrachoseps simatus*** Brame and Murray, 1968, *Sci. Bull. Nat. Hist. Mus. Los Angeles Co.* (4):15, fig. 6.

HOLOTYPE. 34527, male: California: Kern Co.: from 1 to 1.5 mi [1.6 to 2.4 km] SW of Democrat Hot Springs Resort turnoff, on the steep slopes to the S side of the Kern River Canyon above State Hwy. 178 (24.7 mi [39.5 km] NE of the intersection of Niles and Baker Streets, in Bakersfield, or about 2 mi [3.2 km] NE of Cow Flat Creek); A.H. Brame, Jr.; January 30, 1960.

TOPOPARATYPES (22). 34528-32; 36209-19: [A. Brame, Jr.; 21 December 1964]; 39193-98 [J. Wright and A. Brame, Jr.; 25 January 1968].

PARATYPES (2). 34525-26: California: Kern Co.: from the Stork Creek area, 6.2 mi [9.9 km] SW of Democrat Hot Springs Resort turnoff or about 5 mi [8 km] SW of the type locality; [A. Brame, Jr.; 11 April 1960].

***Batrachoseps stebbinsi*** Brame and Murray, 1968, *Sci. Bull. Nat. Hist. Mus. Los Angeles Co.* (4):18, fig. 7.

TOPOPARATYPES (34). 38487-89: California: Kern Co.: 3 mi [4.8 km] W of Paris Loraine (sometimes called Loraine), Piute Mountains, southern Sierra Nevada, 2500 ft [762 m] elevation; S.D. Brame and A.H. Brame, Jr.; November 25, 1967; 39162-92: J.W. Wright and A.H. Brame, Jr.; January 24, 1968.

***Bolitoglossa compacta*** Wake, Brame and Duellman, 1973, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (248):12, figs. 2 and 5.

TOPOPARATYPE (1). 78728: Panamá: Provincia de Bocas del Toro: from the N slope of Cerro Pando; 1920 m (6298 ft); [C. Myers; 7 May 1966].

***Bolitoglossa equatoriana*** Brame and Wake, 1972, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (219):23, figs. 5 and 7.

HOLOTYPE. 70550, female: Ecuador: Provincia [sic] de Napo: Limón Cocha, 0E 24' S, 76E 37' W, elevation 260 m (850 ft); W.R. Heyer; August 5, 1971.

TOPOPARATYPES (14). 70551-64: W.R. Heyer; between June 11 and August 5, 1971.

***Bolitoglossa gomezi*** Wake, Savage and Hanken, 2007, *Copeia* 2007(3):557, figs 1-4.

PARATYPE (1). 146323: Costa Rica: Provincia Puntarenas: 2 km SSW of Cañas Gordas at Finca Loma Linda, ca. 8E 43.3' N, 82E 54.3' W, 1170 m [3839 ft]; J.M. Savage and others; June 4, 1964.



***Bolitoglossa hartwegi*** Wake and Brame, 1969, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (175):10, figs. 4-13.

PARATYPES (8). Mexico: Chiapas: 40603-07 [40607 cited as JFC-65-130]: Municipio de San Cristóbal de Las Casas: SE slope near summit of Cerro Zontehuitz, 2865 m (9300 feet); [D. Breedlove; June 1965]; 40601: 2865 m (9400 feet); [D. Breedlove; 2 December 1964]; 40602: Municipio de Chamula; San Cristóbal de Las Casas to Chenalhó Rd., 15.1 mi. [24.2 km] N San Cristóbal de Las Casas, 2835 m (9300 feet); [D. Breedlove; 20 April 1965]; 44209: 12 mi. [19 km] E Teopisca, 2348 m (7700 feet); [L. Dennis and D. Paulson; 13 July 1968].

***Bolitoglossa medemi*** Brame and Wake, 1972, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (219):2, figs. 1 and 2.

HOLOTYPE. 42276, female: Colombia: Departamento de Antioquia: Finca Chibiguí, approximately 76E 30' W, 6E 15' N, on the Río Arquía, 300 m (980 ft); J.E. Ramos, N. Borja and P.A. Silverstone; April 23, 1968.

TOPOPARATYPES (2). 42277-78.

PARATYPES (7). Colombia: 72067: Dept. de Antioquia: Belén, downstream from Finca Chibiguí, and very near Vegaes on the Río Arquía, about 100 m (328 ft) elevation; [P. Silverstone; 14 April 1968]; Dept. Chocó: 42280: along trail between Río Opogodó [=Opogadó] and Río Napiquí, near the latter, approximately 77E 10' W, 6E 43' N, 30-80 m (100-260 ft); [P.A. Silverstone; 22 May 1968]; 42279: along Río Opogodó [=Opogadó] at base of eastern slope of the Serranía de Baudó, approximately 77E 18' W, 6E 50' N, about 60 m (200 ft); [P. Silverstone; 20 May 1968]; 70565: N slope Alto de Buey, 400 m (1312 ft); [P. Silverstone; 20 August 1971]; 70566: Camino de Yupe, 350 m (1148 ft); [P. Silverstone; 24 May 1971]; 70567: Camino de Yupe, 400-500 m (1312-1640 ft); [P. Silverstone; 26 May 1971]; 70568: Camino de Yupe, 605m (1984 ft); [P. Silverstone; 27 May 1971].

***Bolitoglossa minutula*** Wake, Brame and Duellman, 1973, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (248):7, figs. 2, 3 and 4.

TOPOPARATYPES (7). 78729-35: Panamá: Provincia de Bocas del Toro: from the N slope of Cerro Pando, 1920 m (6298 ft) elevation; [C. Myers and W. Duellman; 7-8 May, 1966].

***Bolitoglossa ramosi*** Brame and Wake, 1972, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (219):9, figs. 2 and 3.

HOLOTYPE. 64601, male: Colombia: Departamento de Antioquia: from near Represa de Santa Rita (=Santa Rita Dam Site); this site is between Guatapé and San Rafael at about 75E 7' W, 6E 17' N, ca. 16 km by road NE of Guatapé, elevation about 1930 m (6330 ft); A.H. Brame, Jr. and J.E. Ramos; April 3, 1971.

TOPOPARATYPES (7). 64600, 64602-03, 42287-90: P.A. Silverstone and J.E. Ramos; June 9, 1968.

***Bolitoglossa silverstonei*** Brame and Wake, 1972, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (219):15, figs. 4 and 5.

HOLOTYPE. 42283, male: Colombia: Departamento de Chocó: Quebrada Bochoramá, Loma de Encarnación, about 51 km (31.6 mi) SE Quibdo at approximately 76E 23' W, 5E 20' N,

collected in a rolled plantanillo leaf on a steep hillside near a stream at about 400 m (1312 ft) elevation; P.A. Silverstone and J.E. Ramos; May 31, 1968.

***Bolitoglossa sombra*** Hanken, Wake and Savage, 2005, *Copeia* 2005(2):234, figs 1, 4, and 7, tables 1-2.

PARATYPES (2). 146321: Costa Rica: Provincia Puntarenas: between Agua Caliente and Valle de Silencio, just S of Cerro Frantzius, ca. 9E 02.7' N, 82E 55.7' W, 1800-2000 m [5906-6562 ft]; C. Guyer and K.R. Lips; 15 July 1990; 146322: Las Tablas; ca. 1800 m 5906 ft]; C. Hartmann and K. Lips; 18 October 1992.

***Bolitoglossa sooyorum*** Vial, 1963, *Rev. Biol. Tropical* 11(1):89, fig. 1.

HOLOTYPE. 26768 [cited as USC-CR 2600], male: Costa Rica: Provincia de Cartago: Cordillera Talamanca, Cerro de la Muerte (=Cerro Buena Vista) at 9,000 feet (2,745 m), 12 mi (19.2 km.) southeast of El Empalme; J.M. Savage and J.L. Vial; August 22, 1962.

TOPOPARATYPES (4). 26769 [cited as USC-CR 1392]: L.W. and J.L. Vial; [10 September 1961]; 168345 [cited as USC-CR 1393]; 168346 [cited as USC-CR 2598]; 168347 [cited as USC-CR 2599]; [USC-CR 2612 deposited the University of Michigan: UM 124517].

***Bolitoglossa stuarti*** Wake and Brame, 1969, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (175):22, figs. 6, 7, 14, and 15.

PARATYPE (1). 44210: Mexico: Chiapas: from 1.4 mi [2.3 km] (by road) S of La Trinitaria, 1615 m (5300 ft) elevation; D.R. Paulson; July 14, 1965.

***Bradytriton silus*** Wake and Elias, 1983. *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (345):4, figs. 1-6.

PARATYPE (1). 134566: Guatemala: Depto. Huehuetenango: Finca Chiblac, 15 km NE Barillas, 1,310 m (4,300 ft) elevation; P. Elias; 6 September 1974.

***Chiropterotriton cuchumatanus*** Lynch and Wake, 1975, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (265):6, fig. 2. [= *Chiropterotriton cuchumatanus*].

TOPOPARATYPES (2). 105296-97: Guatemala: Huehuetenango: forest along highway 9N, 8.5 km [5.3 mi] (by road) SW San Juan Ixcoy, about 2860 m [9383 ft] elev; J.F. Lynch, D.B. Wake, L.D. Houck and A.B. Bennett; 14 July 1973.

***Chiropterotriton rabbi*** Lynch and Wake, 1975, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (265):2, fig. 2.

TOPOPARATYPES (3). 105298-300: Guatemala: Huehuetenango: 9.5 km [5.9 mi] W, 8.5 km [5.3 mi] S (airline) La Democracia, at elevations between 2100 and 2500 meters [6890 and 8202 ft]; J.F. Lynch and D. Bradford; 3 December 1971.

***Chiropterotriton veraepacis*** Lynch and Wake, 1978, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. Sci. (294):2, fig. 1.

TOPOPARATYPE (1). 123803: Guatemala: Baja Verapaz: 4.2 km [2.6 mi] (by road) S Purulhá, at elevations between 1760 and 1780 meters [5774 and 5840 ft]; J.F. Lynch, D.B. Wake and T J. Papenfuss; 14 November 1974.

***Ixalotriton niger*** Wake and Johnson, 1989, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (411):2, figs. 1-4. [= *Pseudoeurycea nigra*]

TOPOPARATYPE (1). 137512: Mexico: Chiapas: 12 km (7.5 mi) NW Berriozábal, ca. 1,068 m [3504 ft]; [J. Johnson; 1 January 1973].

***Lineatriton orchimelas*** Brodie, Mendelson and Campbell, 2002, Herpetologica 58(2):200.

[= *Pseudoeurycea orchimelas*]

PARATYPES (4). 30569-72: Mexico: Veracruz: slopes of Volcán San Martín [nr San Andres Tuxtla; J. Kezer; December 1963].

***Nototriton sanctibarbarus*** McCranie and Wilson, 1996, Southwest. Nat. 41(2):111, fig. 1A, B;

[= *Dendrotriton sanctibarbarus*]

HOLOTYPE. 47198, male: Honduras: Departamento de Santa Bárbara: from Montaña de Santa Bárbara; (14E 55' N, 88E 07' W); 2,100 m [6890 ft] elevation; J.R. Meyer and L.D. Wilson; 10 July 1968.

TOPOPARATYPES (2). 47197, 47200 [J.R. Meyer].

***Oedipina altura*** Brame, 1968, J. Herpetol. 2(1-2):28, figs 8, 21 and 25-29.

HOLOTYPE. 1739, male: Costa Rica: Provincia de Cartago: Canton de Dota: 200 yards [219 m] north of El Empalme, on the Pan American Highway south of Cartago in the northern end of the Cordillera [=Cordillera] de Talamanca; 2286 m (7500 ft) elevation; J.L. Vial; September 9, 1961.

TOPOPARATYPE (1). 1740: J.L. Vial and J. Villa; February 29, 1964.

***Oedipina carablanca*** Brame, 1968, J. Herpetol. 2(1-2):16, figs. 4, 21 and 25-29.

HOLOTYPE. 1727, male: Costa Rica: Provincia de Limón: Canton de Pococci: Los Diamantes, from along the west shore of the river on the eastern edge of the rubber tree finca, 0.5 km [0.3 mi] south of the railroad tracks (1 mile [1.6 km] east of Guápiles), 300 m (980 ft) elevation; A.H. Brame, Jr.; June 25, 1959.

TOPOPARATYPE (1). 1728.

***Oedipina grandis*** Brame and Duellman, 1970, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (201):1, figs. 1-3, tables 1 and 2.

TOPOPARATYPES (2). 57055-56: Panamá: Provincia de Bocas del Toro: from the northern slopes of Cerro Pando, extreme western Panamá near the border with Costa Rica, between 1810 and 1930 m (5937-6330 ft) elevation; [C. Myers; 14 May 1966].

*Oedipina poelzi* Brame, 1963, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (65):7, figs. 1B and 3. HOLOTYPE. 1722 [incorrectly cited as 1772], male: Costa Rica: Provincia de Heredia-Provincia de Alajuela boundary: from the area of the stone quarry in the vicinity of El Angel Waterfall (former American Cinchona Plantation and Isla Bonita of Taylor, 1952), 3.8 miles [6.1 km] by road south of Cariblanco (5 miles [8 km] north of Vara Blanca), along the Vara Blanca-Puerto Viejo Road, 5000 feet (1520 meters) elevation; A.G. Kluge, R.J. Lavenberg and A.H. Brame, Jr.; April 3, 1959. TOPOPARATYPES (17). 1723-26: J. Kezer; June 2, 1962; 147197-209: J.L. Mohr, T.R. Pray and J.M. Savage; February 1, 1960 [cited as CRE 74.1-7, 75.2-5 (75.3 not cataloged in LACM collection)], 76.1, and 304.1-2].

*Oedipina pseudouniformis* Brame, 1968, J. Herpetol. 2(1-2):25, figs. 7, 20, 21 and 25-29. HOLOTYPE. 1729, male: Costa Rica: Provincia de Cartago: Canton de Turrialba: from Cienega Colorado approximately three kilometers by road east of Juan Viñas and 6.3 km [3.9 mi] by road west of Turrialba; 1035 m (3400 ft) elevation; A.G. Kluge, R.J. Lavenberg and A.H. Brame, Jr.; June 11, 1959. TOPOPARATYPES (26). 1730-34; 160566, 160572, 160581, 160585 [cited as CRE 191-11-14 (4 specimens)], 160545-546, 160550, 160557, 160560, 160564, 160576 [cited as CRE 192-1-10 (10 specimens) [192-1, 192-2, 912-3 not catalogued in LACM collection], 160562, 160569, 160570, 160573, 160586 [cited as 193-6-10 (5 specimens)], 160548, 160554, 160561, 160578, 160584 [cited as CRE 788-2-6 (5 specimens)]. PARATYPES (42). Costa Rica: Provincia de Cartago: 1735: Birris, about the same altitude as Cervantes, along stream running through Finca Perez; [A. Brame, Jr.; 24 March 1959]; 8122-23: from Turrialba (mostly from the grounds of the Instituto Interamericano de Ciencias y Agrícolas, IICA), elevation 600 m (1970 ft); [B. Brattstrom; 11 July 1965]; 1736-38: the Finca of Don Juvenal Valerio R., La Suiza, Sitio de Mata, El Silencio, 1200 m (3940 ft) elevation; [A. Kluge and R. Lavenberg; 21 June 1959]; 161275, 161281, 161277 [cited as CRE 6240-6240A (3 specimens)]; Provincia de Guanacaste: 1.1 mi [1.8 km] from Tilarán on road to Silencio, 600 m (1968 ft); 161276, 161279, 161285 [cited as CRE 6274 (3 specimens)], 161282 [cited as CRE 6282]; Finca San Bosco, 640-650 m [2100-2133 ft]; 160603-609 [cited as CRE 7148-1-7 (7 specimens)]; Jabillos; 160547, 160553, 160588 [cited as 787-1-3 (3 specimens)]; Provincia de Cartago: Cervantes, 1220 m [4003 ft]; 160589 [cited as CRE 789-1], 160579 [cited as CRE 789-2]; 160551, 160558, 160567, 160574, 160583 [cited as CRE 231-1-6 (6 specimens) [231-4 not cataloged in LACM collection], 160552, 160559, 160563, 160575, 160577, 160580, 160582, 160587 [cited as CRE 232-1-10 (10 specimens)]; 148407, 168589-591 [cited as CRE 2779-1-4: Turrialba (mostly from the grounds of the Instituto Interamericano de Ciencias y Agrícolas (IICA), 600 m [1970 ft]; (CRE 232-9, 232-10, not cataloged in LACM collection)].

*Oedipina savagei* García-París and Wake, 2000, Copeia 2000(1):52, figs. 5A and 6A. HOLOTYPE. 109558, female: Costa Rica: Prov. Puntarenas: from Finca Las Cruces, 6 km [3.7 mi] S San Vito de Java; 8E 47' 35" N, 82E 57' 30" W, approximately 1200 m [3937 ft] elev.; R.W. McDiarmid and associates; 22 May 1971.

TOPOPARATYPES (6). 109556-57 [22 May 1971], 145447 [no date] 145448-49 [2-4 August 1968] 145450 [16 March 1969].

*Plethodon gordonii* Brodie, 1970, *Herpetologica* 26(4):497, figs. 13-15. [= *Plethodon dunnii*]  
PARATYPES (2). 30641-42: Oregon: Benton Co.: 10.3 mi [16.5 km] SW Alsea; [D. Wake; December 20, 1958].

*Plethodon stormi* Highton and Brame, 1965, *Pilot Register of Zool. Card* 20.  
PARATYPE (1). 1983: Oregon: Jackson Co.: 1/2 mi [0.8 km] S of Copper on Manzanita Creek; R.M. Storm; March 21, 1964.

*Pseudoeurycea belli sierraoccidentalis* Lowe, Jones and Wright, 1968, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (140):1, fig. 1.  
TOPOPARATYPES (2). 39200-01: Mexico: Sonora: ca. 11 mi [17.7 km] (rd) E Santa Ana, on old road to Yécora (ca. 0.5 mi [0.8 km] W Rancho El Puerto), 21 √1 km WSW Yécora, by old road to Nuri; [C. Jones, C. Lowe and J. Wright; September 7, 1964].

*Pseudoeurycea parva* Lynch and Wake, 1989, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (411):15, figs. 3C, D and 4.  
TOPOPARATYPE (1). 137513: Mexico: Chiapas [type-locality is just within the eastern border of the state of Oaxaca]: on a ridge SE Cerro Baul, 21 km [13 mi] W Rizo de Oro; (ca. 1,600 m [5249 ft]); [K. Lucas; January 8, 1973].

*Pseudoeurycea saltator* Lynch and Wake, 1989, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (411):11, figs. 2 and 3A,B.  
TOPOPARATYPE (1). 137514: Mexico: Oaxaca: 16 km [9.9 mi] (by road) S Vista Hermosa, just west of Hwy 175 (1,970 m [6463 ft]); D.B. Wake, J.F. Lynch, and T.J. Papenfuss; November 21, 1974.

*Thorius aureus* Hanken and Wake, 1994, *Copeia* 1994(3):574, fig. 1A, 2C, 3C, 4A, 5G.  
PARATYPE (1). 58663: México: Oaxaca: 31.2 mi [49.9 km] N Guelatao, elev. 9600 ft [2927 m]; D. Paulson; 5 Aug. 1965.

*Thorius boreas* Hanken and Wake, 1994, *Copeia* 1994(3):581, fig. 1B, 2D, 3D, 4B, 5C.  
PARATYPES (2). 58669-70: México: Oaxaca: 18.8 mi [30.1 km] N Guelatao, elev. 10000 ft [3049 m]; D. Paulson; 5 Aug. 1965.

*Thorius lunaris* Hanken and Wake, 1998, *Copeia* 1998(2):318, fig. 2B, C.  
PARATYPES (10). 117955: México: Veracruz: near Xometla; R.W. McDiarmid; 30 September 1969; 117996, 118003, 118008, 118010, 118046, 118055, 118060, 118065-66: near Xometla, 8 mi [12.8 km] by road NNW of Perla; R.W. McDiarmid, D.B. Wake, M. Ceron Sr., M. Ceron Jr., and C. Ceron; 2 April 1970.

*Thorius magnipes* Hanken and Wake, 1998, Copeia 1998(2):326, fig. 7A.

PARATYPES (3). 118719-21: México: Veracruz: 2 mi [3.2 km] by road S of Puerto del Aire; R.W. McDiarmid, D.B. Wake, and C. Ceron; 3 April 1970.

*Thorius papaloe* Hanken and Wake, 2001, Herpetologica 57(4):516, fig. 2A, B.

PARATYPES (6). 121728-29, 121731, 121733, 121737-38: México: Oaxaca: approximately 14 mi [22.5 km] E of Santos Reyes Pápalo (likely identified incorrectly, should instead be Concepción Pápalo—see Remarks), elevation 2500 m [8202 ft]; T.W. Taylor and A.D. Lau; 3 August 1975.

*Thorius spilogaster* Hanken and Wake, 1998, Copeia 1998(2):314, fig. 2A.

PARATYPES (8). 117700, 117714, 117735, 117795, 117814, 117833, 117851, 117916: México: Veracruz: near Xometla, 8 mi [13 km] by road NNW of Perla; R.W. McDiarmid, D.B. Wake, M. Ceron Sr., M. Ceron Jr., and C. Ceron; 2-4 April 1970.

## ANURA—FROGS

Family: **Bufonidae**

*Atelopus arthuri* Peters, 1973, Smithson. Contrib. Zool. 145:10, fig. 13.

TOPOPARATYPES (2). 99486-87 [cited as USNM 193465, 193467]: Ecuador: Chimborazo Province: 15 km [9.3 mi]N of Pallatanga, at an altitude between 2800 and 2860 m [9186 and 9383 ft]; [J. Peters; February 14, 1959].

*Atelopus chocoensis* Lötters, 1992, Sauria 14(2):27, figs. pp. 28-29.

HOLOTYPE. 135951, female: West-Kolumbien: Departamento Chocó: Municipio de San José del Palmar [western slope Cordillera Occidental, trail between Rio Blanco (Surama drainage) and La Pradera (on rd to El Cairo, Valle, on eastern slope) below Finca La Florida, ca. 1400 m (4593 ft)]; Sammler unbekannt [P. Silverstone-Sopkin]; Sammel-datum ungefähr Anfang der 1970er Jahre [19 January 1984].

TOPOPARATYPES (3). 135952 [11-14 January 1984], 135953-54 [January 7-10, 1984]; [P.A. Silverstone-Sopkin].

*Atelopus mindoensis* J. Peters, 1973, Smithson. Contrib. Zool. 145:30, fig. 22.

PARATYPES (2). Ecuador: Pichincha Province: 99484 [cited as USNM 193563]: Milpe, 900 m [2953 ft]; [J. Peters]; 99483 [cited as USNM 193560]: Río Toachi; [J.A. Peters].

*Atelopus nepiozomus* J. Peters, 1973, Smithson. Contrib. Zool. 145:32, fig. 23.

PARATYPE (1). 99485 [cited as USNM 193544]: Ecuador: Morona-Santiago Province: Cerro Negro, 3450 m [11319 ft]; [J. Peters; August 1962].

*Atelopus soriano* La Marca, 1983, Milwaukee Public Mus. Contrib. Biol. Geol. 54:1, figs. 1 and 5C.

TOPOPARATYPES (2). 134418-419 (skeletons): Venezuela: Estado Mérida: cloud forest 10 km [6.2 mi]. SSE Tovar, 2718 m [8917 ft]; E. La Marca, J. and M. Molinari; 26 July 1981.

***Atelopus vermiculatus*** McDiarmid, 1973, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (240):1, figs. 1 and 2. [= *Atelopus flavescens*]

HOLOTYPE. 42060, female: French Guiana: along a forest trail paralleling the lower Rivière Matarony, a tributary of the Fleuve Approuague, 35 m [115 ft] elevation; P.A. Silverstone; 29 July 1968.

TOPOPARATYPES. (24). 42049-59, 42061-63, 42070-79: P.A. Silverstone; 24-30 July and 17-18 August 1968.

PARATYPES (6). French Guiana: 42064-66: from forested hills near Crique Ipoucin; between 8-180 m [26-591 ft]; 5-6 August 1968; 42067, 42069: from forest near ORSTOM camp at Sant Tortue, on the Fleuve Approuague at its confluence with the Crique Tortue, 75 m [246 ft]; 8 and 11 August 1968; 42068: from along trail between Fleuve Approuague and summit of Montagnes Tortue, 100 m [328 ft]; 9 August 1968. P.A. Silverstone.

***Bufo aucoinae*** O'Neill and Mendelson III, 2004, J. Herpetol. 38(4):487, figs. 1-4, table 1.

[= *Incilius aucoinae*]

PARATYPES (6). Costa Rica: Puntarenas Province: 157979 [cited as LCAM-CRE (sic) 6538]: from 7 km [4.3 mi] SSW of Rincón Carretera al Pacífico; 157981 [cited as LACM-CRE 7083]: from Rio La Vieja, 18.7 mi [30.1 km] by road E of Palmar Norte, 110 m [361 ft]; 157982 [cited as 8031]: from 4.2 km [2.6 mi] NW by road from Villa Neily, 20 m [66 ft]; 157980 [cited as LACM-CRE 6550]: from Rincón Airport, 3 km [2 mi] W of Rincón, 25 m [82 ft]; 157984 [cited as LACM-CRE 9357]: from 6 km [3.7 mi] SW of Rincón de Osa; 157985 [cited as LACM-CRE 9647]: from 7.5 km [4.6 mi] SW of Rincón de Osa, Ouebrado Rayo, 20 m [66 ft].

***Bufo leucomyos*** McCranie and Wilson, 2000, J. Herpetol. 34(1):22, figs. 1-4, table 1. [= *Incilius leucomyos*]

PARATYPES (12). 47305 [7 August 1967], 47308 [10 August 1967] 47309-11 [11 August 1967], 47313-15 [25 July 1968], 47319-22 [29 July 1968]: Honduras: Atlantida: from mountains S of Corozal; 200-370 m; [J. Meyer].

***Bufo periglenes*** Savage, 1966, Rev. Biol. Tropical 14(2):153, figs. 1 and 2. [= *Incilius periglenes*]

HOLOTYPE. 1893 [cited as LA 1893], male: Costa Rica: Provincia de Alajuela: Cantón de San Carlos: Cordillera de Tilarán, 2 miles [3.2 km] ENE of Monteverde, Provincia de Puntarenas, 1590 meters [5217 ft]; J. James, N.J. Scott, Jr. and J.M. Savage; May 14, 1964.

TOPOPARATYPES (50). 1894-943 [not cited by numbers]: April and May 1964.

***Rhizophryne acrolopha*** Trueb, 1971, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (216):18, figs. 3-6. [= *Rhinella acrolopha*]

TOPOPARATYPES (2). 54337-38: Panamá: Darién Province: Cerro Malí, 1410 m [4626 ft] elevation; W.E. Duellman; July 11, 1963.

***Rhizophryne macrorhina*** Trueb, 1971, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (216):25, figs. 3-6. [= *Rhinella macrorhina*]

HOLOTYPE. 44394, female: Colombia: Departamento de Antioquia: Santa Rita, between elevations 1890 and 1910 m [6201 and 6266 ft]; P.A. Silverstone and J.E. Ramos; June 9, 1968. TOPOPARATYPE (1). 44394.

Family: **Centrolenidae**

***Centrolenella aureoguttata*** Barrera and Ruiz-C., 1989, *Trianea* 3:77, figs. 1 and 2.

[=*Hyalinobatrachium aureoguttatum*]

PARATYPE (1). 138894 [cited as ICN 17250]: Colombia: Departamento del Chocó: Municipio El Carmen de Atrato, Km. 53 carretera Carmen de Atrato - Quibdó, 420 m.s.n.m.; M.C. Ardila-R., P.M. Ruiz-C, R. Sanchez and G. Susatama; 26-27 August 1987.

***Centrolenella euknemos*** Savage and Starrett, 1967, *Copeia* 1967(3):604, figs. 1 and 2.

[=*Cochranella euknemos*].

HOLOTYPE. 26764, male: Costa Rica: Provincia de San José: Canton de Coronado: 1.5 km [0.9 mi] S Alto La Palma, 1500 m [4921 ft]; A. Starrett; 9 August 1961.

TOPOPARATYPES (5). 26765 [cited as USC 7048]; [J. Savage and N. Scott; 31 October 1963]; 168368 [cited as USC 502]; 168369 [cited as USC 510B-D].

PARATYPE (1). 168370 [cited as USC 7034]: near juncture of Río Claro and Río Honduras; 1150 m [3773 ft].

***Centrolenella ilex*** Savage, 1967, *Copeia* 1967(2):326, figs. 1 and 2. [= *Centrolene ilex*]

HOLOTYPE. 25205, female: Costa Rica: Provincia de Limón: Canton de Limón: Alta Talamanca, 16 km [9.9 mi] SW Amubri, on Río Lari, 300 m [984 ft]; J.M. Savage and N.J. Scott, Jr.; 21 March 1964.

PARATYPE (4). 25206 [not cited by number]: Costa Rica: Provincia de Alajuela: 8 km [4.9 mi] N Ciudad Quesada, 250 m [820 ft]; [N. Scott and J. Savage; February 19, 1964]; 168531 [CRE 6110]: 9.1 km [5.7 mi] E San Mateo, 547 m [1795 ft]; 168532 [CRE 7196]: Provincia de Limón: Río Chitaría and Turrialba-Perlata road, 775 m [2543 ft]. (additional specimen listed as CRE 7196).

***Centrolenella vireovittata*** Starrett and Savage, 1973, *Bull. S. California Acad. Sci.* 72(2):66, fig. 5.

[=*Hyalinobatrachium vireovittatum*]

HOLOTYPE. 75141, male: Costa Rica: Provincia de San Jose: Canton Perez Zeledon: 0.5 km [0.3 mi] NE Alfombra, a place 16 km [9.9 mi] SW San Isidro de El General on the road to Dominical, 880 m [2887 ft]; J.M. Savage and N.J. Scott; July 17-18, 1963.

TOPOPARATYPES (6). 149516-21 [cited as "five" adult male paratypes CRE 688, 2647, 6101-02, 7220A-B].

***Cochranella ramirezi*** Ruiz-Carranza and Lynch, 1991, *Lozania* 59:13, fig. 4.

PARATYPE (1). 47075: Colombia: Departamento Chocó: alto Río Opogadó, arriba boca del Río Merendó; [60-110 m (197-361 ft) elev.; J. Ramos, Sr. Borja, P. Silverstone]; 1971(?) [May 14, 1968].



Family: **Dendrobatidae**

***Calamita tinctorius*** Schneider, 1797; designated by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (21):45. [= *Dendrobates tinctorius*]

NEOTYPE. 43927, female: French Guiana: from the lower Rivière Matarony (Approuague drainage), Bruynzeel lumber camp, 35 m [115 ft]; P.A. Silverstone; 18 August 1968.

***Colostethus abditaurantius*** Silverstone, 1975, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (268):1, figs. 1 and 2. [= *Hyaloxalus abditaurantius*]

HOLOTYPE. 72000: Colombia: Departamento de Antioquia: Quebrada Altagracia, Bello, about 1450 m [4757 ft] elevation; P.A. Silverstone; 28 August 1971.

TOPOPATATYPE (1). 71999.

***Colostethus degranvillei*** Lescure, 1975, Bull. Mus. Natl. Hist. Nat., Paris (293) 3:413.

[= *Anomaloglossus degranvillei*]

PARATYPES (13). French Guiana: 44211-12: crique Ipoucin; P.A. Silverstone; [3 August 1968]; 44213-23: montagne Tortue; P.A. Silverstone; [August 9-10, 1968].

***Colostethus fraterdanieli*** Silverstone, 1971, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (215):4, fig. 3.

HOLOTYPE. 44164: Colombia: *Antioquia*: Santa Rita (near Río Nare), 1890-1910 m [6201-6226 ft]; P.A. Silverstone and J.E. Ramos; 9 June 1968.

TOPOPATYPES (5). 44165-69.

***Colostethus imbricolus*** Silverstone, 1975, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (268):6, fig. 4.

HOLOTYPE. 71998: Colombia: Departamento del Chocó: upper Quebrada Mutatá, Alto del Buey, about 200 to 300 m [656 to 984 ft] elevation; P.A. Silverstone; 22 August 1971.

TOPOPATYPES (15). 71983-97.

***Colostethus lacrimosus*** Myers, 1991, Am. Mus. Novit. 3010:8, figs 1B, 5 and 6. [= *Anomaloglossus lacrimosus*]

PARATYPE (1). 55815: Colombia: Chocó: upper Río Buey [trib. Río Atrato, 6E 05' N, 76E 45' W], above Tambos, 110-160 m [361-525 ft]; August 21, 1966; P.A. Silverstone.

***Colostethus lehmanni*** Silverstone, 1971, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (215):3, fig. 2. [= *Hyaloxalus lehmanni*]

HOLOTYPE. 44156: Colombia: *Antioquia*: Santa Rita (near Río Nare), 1890-1910 m [6201-6266 ft]; P.A. Silverstone and J.E. Ramos; June 9, 1968.

TOPOPATYPES (7). 44154-55, 44157-61.

***Colostethus ramosi*** Silverstone, 1971, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (215):1, fig. 1. [= *Hyaloxalus ramosi*]

HOLOTYPE. 44147: Colombia: *Antioquia*: Alto de la Honda (hill near San Rafael), 1240 m [4068 ft]; P.A. Silverstone, J.E. Ramos and C. Jimenez; 8 June 1968.

TOPOPATATYPE (1). 44148.

- Dendrobates altobueyensis*** Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (21):27, frontispiece I. [= *Ranitomeya altobueyensis*]  
 HOLOTYPE. 71972: Colombia: Departamento del Chocó: on summit marker of Alto del Buey, 1070 m [3511 ft]; P.A. Silverstone; 20 August 1971.  
 TOPOPARATYPES (5). 71973-74: 1070 m [3511 ft]; P.A. Silverstone; 19 August 1971; 71975: 1070 m [3511 ft]; 22 August 1971; 71976: 1065 m [3494 ft]; 22 August 1971; 71977: 985 m [3232 ft]; August 22, 1971.
- Dendrobates fulguritus*** Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (21):28, figs. 11A, 12P and 16. [= *Ranitomeya fulgurita*]  
 HOLOTYPE. 42319: Colombia: Departamento del Chocó: Playa de Oro, 160 m [525 ft]; P.A. Silverstone and J. E. Ramos; 1 June 1968.  
 TOPOPARATYPE (1). 42320.  
 PARATYPES (10). Colombia: Departamento del Choco: 71971: Alto del Buey, 300-420 m [984-1378 ft]; [P.A. Silverstone and J.E. Ramos; 20 August 1971]; 42312-18: Camino de Yupe, Serranía de Baudó between upper Opogadó and Domingodó drainages, 510-680 m; [1673-2231 ft]; P. Silverstone, J. Ramos and Sr. Borja; 16 May 1968]; 42310-11: Departamento Antioquia: near Finca Los Llanos, Río Arquia, below confluence Río Ocaidó; [P. Silverstone, J. Ramos and Sr. Borja; April 20 and 29, 1968].
- Dendrobates minutus ventrimaculatus*** Shreve, 1935, Occas. Pap. Boston Soc. Nat. Hist. 8:213. [= *Ranitomeya ventrimaculata*]  
 PARATYPES (2). 44397-98: Ecuador: Pastaza: Río Pastaza.
- Dendrobates paraensis*** Boulenger, 1913; Paralectotype designated by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (21):44. [= *Adelphobates galactonotus*]  
 PARALECTOTYPE (1). 60990 [formerly BM 1904.7.26.12]: Brasil: Pará: Igarapé-Açu.
- Dendrobates reticulatus*** Boulenger, 1883; Paralectotype designated by Silverstone, 1975, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (21):33. [= *Ranitomeya reticulata*]  
 PARALECTOTYPE (1). 64596 [formerly BM 1947.2.15.12]: Peru: Loreto: Yurimaguas.
- Epipedobates bilinguis*** Jungfer, 1989, Salamandra 25(2):86, figs. 2, 6 and 7. [= *Ameerega bilinguis*]  
 PARATYPES (8). Ecuador: Napo: Limoncocha [=Santa Cecilia]: 61012: [Saul, JDL; 340 m (1115 ft); 21, 25-26 June 1967]; 72654, 72656-57, 72662, 72665, 72669, 72671: [W. Heyer; 16 June to 2 August 1971].
- Phyllobates petersi*** Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (27):37, frontispiece II and figs. 6F and 9B. [= *Ameerega petersi*]  
 PARATYPE (1). 92414: Perú: Pasco: [Oxapampa] Nevati; D.B. Ekkens; [August 14, 1970].

*Phyllobates pulchripectus* Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (27):43, frontispiece II and fig. 6E. [=Ameerega pulchripectus]

HOLOTYPE. 42297: Brasil: Território do Amapá: Serra do Navio, about 120 m [394 ft]; P.A. Silverstone and Sr. Ferreira; 1 July 1968.

TOPOPARATYPES (8). 42296: about 120 m; 1 July 1968; 42298-301: about 120 m [394 ft]; 2 July 1968; 42302: about 160 to 180 m [525 to 591 ft]; 3 July 1968; 42303: about 100 m [328 ft]; 5 July 1968; 42304: Serra do Veado (one of the hills at Serra do Navio), about 290 to 310 m [951 to 1017 ft]; 6 July 1968. P.A. Silverstone and Sr. Ferreira.

*Phyllobates smaragdinus* Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (27):44, frontispiece II and fig. 8C. [=Ameerega smaragdinus]

HOLOTYPE. 64435, male: Perú: Departamento de Pasco: Pan de Azúcar, 39 km [24.2 mi] NNE Oxapampa, 10E 15' S, 75E 14' W, in the Iscozazin Valley (the Río Iscozazin is a tributary of the Río Palcazú, in the Pachitea drainage), 380 m [1247 ft]; R.E. Etheridge; 16 August 1961.

TOPOPARATYPE (1 lot). 64436: 7 tadpoles from the back of holotype.

PARATYPE (1). 64434: Perú: Pasco: Iscozazin airstrip, 47 km [29.2 mi] NNE Oxapampa, 10E 11' S, 75E 10' W, in the Iscozazin Valley, 360 m [1181 ft]; D.B. Wake and R.E. Etheridge; 19 July 1961.

*Phyllobates zaparo* Silverstone, 1976, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (27):33, frontispiece I and figs. 1C and 8D. [=Allobates zaparo]

PARATYPE (1). 126938 [cited as GOV 9007]: Ecuador: Provincia de Pastaza: at the confluence of the Ríos Shyona and Conambo; R. Olalla; [1960].

#### Family: Hemisotidae

*Hemismus guineensis katanganus* Laurent, 1972, Ann. Mus. R. Afr. Cent., Tervuren, Sér. Octavo, Sci. Zool. 194:52, fig. 26.

PARATYPES (4) [not cited by numbers]. [Zaire: Kivu]: 64555-56: Kabila, [900 m (2953 ft)]; R. Laurent; 12-14 Jan. 1951]; 64557: Tipoyo, [700 m (2297 ft)]; R. Laurent; 19-21 October 1950]; 64558: Kundelungu Highlands, Source of Lofoi river [1750 m (5741 ft)]; R. Laurent; April 1950].

*Hemismus guineensis macrodactylus* Laurent, 1972, Ann. Mus. R. Afr. Cent., Tervuren, Sér. Octavo, Sci. Zool. 194:50, fig. 25.

TOPOPARATYPES (10) [not cited by numbers]. 64559-68: Congo [Zaire]: Southern Kivu: Kilombwe valley, Lubondja; [1000 m (3281 ft)]; R. Laurent; [14-22 March 1956].

*Hemismus olivaceus* Laurent, 1963, Copeia 1963(2):398.

PARATYPES (5) [not cited by numbers]. 64550-52:[Zaire]: Kivu: Kalehe Territory: Bunyakiri, 1180 m [3871 ft]; [R. Laurent]; 5-7 June 1949; 64553-54: Mwenga Territory: Kamituga, 1000-1100 m [3281-3609 ft]; [R. Laurent]; 4-10 May 1950 and 9 August 1950.

*Hemisus perreti* Laurent, 1972, Ann. Mus. R. Afr. Cent., Tervuren, Sér. Octavo, Sci. Zool. 194:44, fig. 23.

PARATYPE (1) [not cited by number]. 64549: [Zaire]: Lower-Congo: Ganda-Sundi; [R. Laurent; 26-28 August 1958].

Family: **Hylidae**

*Hyla ariadne* Bokermann, 1967, Neotropica 13:61, figs. 1 and 2. [= *Scinax ariadne*]

TOPOPARATYPES (2). 51181-82 [cited as WCAB 29535-36 respectively]: Brasil: Estado de São Paulo: São Jose do Barreiro, Campo de Fruticultura da Serra de Bocaina, en el Río Ponte Alta, 1600 m alt. [5249 ft]; F.M. Oliveira, O. Oliveira and W.C.A. Bokermann; November 1965.

*Hyla bogertae* Straughan and Wright, 1969, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (169):1, figs 1-5. [= *Plectrohyla crassa*]

HOLOTYPE. 44400, female: Mexico: Oaxaca: District of Sola de Vega, from a tributary of the Rio Atoyac, below Vivero El Tapanal at 8,700 ft. (2652 m), one mile (1.6 km) south of La Cofradia; I.R. Straughan and J.W. Wright; September 28, 1968.

ALLOTYPE. 44401, male.

TOPOPARATYPES (21). 44402-14.

*Hyla calypsa* Lips, 1996, Copeia 1996(3):617, figs. 2, 3A, 5A and 6A, tables 1 and 2. [= *Isthmohyla calypsa*]

HOLOTYPE. 146078 [cited as CRE 5299], male: Costa Rica: Puntarenas Province: Coto Brus, from Finca Jaguar (1900 m [6234 ft]), approximately 18 km [11.2 mi] NNE La Lucha; 8E 55' N, 82E 44' W; K. Lips; Oct. 1991.

TOPOPARATYPES (7). 146200-06 [cited as CRE 5208, 5210-11, 5224, 5228, 5209, 5300 respectively]; adult females.

*Hyla grisea* Hallowell, 1861; Neotype designated by Savage, 1974, Herpetologica 30(3):298.

[= *Craugastor fitzingeri*]

NEOTYPE. 76859, female: Panama: Canal Zone: Barro Colorado Island, near laboratory; R. Dressler and J.M. Savage; 5-7 November 1963. Also neotype for *Eleutherodactylus fitzingeri*, *Craugastor pulchrigulus*, *Hylodes fitzingeri*, *Leiyla guntherii*.

*Hyla lythrodes* Savage, 1968, Bull. S. California Acad. Sci. 67(1):1, fig. 1. [= *Duellmanohyla lythrodes*]

HOLOTYPE. 26766, male: Costa Rica: Provincia de Limón: Cantón de Limón: Alta Talamanca, 21 km [13 mi] SW Amubri at confluence of Río Lari and Río Dipari, 800 m [2625 ft]; J.M. Savage and N.J. Scott, Jr.; March 20, 1964.

*Hyla tapichalaca* Kizirian, Coloma and Paredes-Recalde, 2003, Herpetologica 59(3):339-349.

[= *Hyloscirtus tapichalaca*]

TOPOPARATYPE (1). 148770: Ecuador: Provincia Zamora-Chinchipec: Reserva Tapichalaca:

from a small stream on the road between Yangana and Valladolid; 2667 m [8750 ft] (04E 28' S, 79E 08' W); David Kizirian; 30 October 2000.

***Hyla trux*** Adler and Dennis, 1972, Occas. Pap. Mus. Nat. Hist. Univ. Kansas 7:1, fig. 1, plate 1.  
[=*Charadrahyla trux*].

PARATYPE (1). 64882: México: Guerrero: 10.2 km [6.3 mi] (by road) SSW of Asoleadero, 2120 m [6955 ft]; [K. Adler, D. Dennis and D. Snyder]; December 17, 1969.

***Plectrohyla tecunumani*** Duellman and Campbell, 1984, Copeia 1984(2):391, fig. 1.

HOLOTYPE. 39956, male: Guatemala: Departamento Huehuetenango: from a cave 1 km east of Chemal, 3,395 m [11138 ft] (15E 27' N, 91E 31' W); J.W. Wright; 12 April 1968.

TOPOPARATYPES (27). 39934-55, 39957-61: [J. Wright]; May 5, 1968.

***Trachycephalus atlas*** Bokermann, 1966, Neotropica 12(39):120.

TOPOPARATYPE (1). 28720 [cited as WCAB 33925]: Brasil: Bahía: de la Fazenda Santo Onofre, 10 km [6.2 mi] E de Maracás; F.M. Oliveira and W.C.A. Bokermann; November 1965.

Family: **Hyperoliidae**

***Callixalus pictus*** Laurent, 1950, Rev. Zool. Bot. Afr. 44(1):6, 16.

PARATYPES (25). 39727-51 [not cited by numbers]: [Zaire]: South Kivu: Uvira Terr.: Upper Luiribu; 2600-2800 m [8530-9186 ft]; [R. Laurent]; 28-30 November 1950].

***Chrysobatrachus cupreonitens*** Laurent, 1951, Rev. Zool. Bot. Afr. 44(4):378.

PARATYPES (25). 39687-711 [not cited by numbers]: [Zaire]: Kivu: Terr. d'Uvira: bassin de l'Ulindi, Marais de la Haute Kilungutwe, 2650 m [8694 ft]; [R. Laurent]; 28 September 1950.

***Cryptothylax minutus*** Laurent, 1976, Ann. Mus. R. Afr. Cent., Tervuren, Sér. Octavo, Sci. Zool. 213:13, figs. 5 and 6.

PARATYPES (3). 64546-48: Zaire: Equateur: Zone de Bikoro [Terr.], esobe Mbolu, [nr. Mabali]; R.F. Laurent; 29 August 1955.

***Hyperolius castaneus constellatus*** Laurent, 1951, Rev. Zool. Bot. Afr. 44(4):369.

PARATYPES (25). 49779-803 [not cited by numbers]: [Zaire]: Kivu: Terr. d'Uvira.: Haute Luvubu, bassin de la Ruzizi, 2550 m [8366 ft]; [R. Laurent]; 23-30 September 1950.

***Hyperolius castaneus submarginatus*** Laurent, 1952, Rev. Zool. Bot. Afr. 46(1-2):31.

PARATYPES (11). 49763-73 [not cited by numbers]: Tanganika [Tanzania]: Terr. d'Albertville: région du Mont Kabobo, Riv. Kabumbe, alt. 2400 m [7874 ft]; [R. Laurent]; 2-7 Dec. 1950.

***Hyperolius chrysogaster*** Laurent, 1950, Rev. Zool. Bot. Afr. 44(1):13, 17.

PARATYPES (5). 49804-08 [not cited by numbers]: [Zaire]: Kivu: Territoire de Mwenga: Kamituga, 1050 m [3445 ft]; [R. Laurent]; 4-9 May 1950.

*Hyperolius frontalis* Laurent, 1950, Rev. Zool. Bot. Afr. 44(1):11, 17.

PARATYPES (5). 49758-62 [not cited by numbers]: [Zaire]: Kivu: Territoire de Mwenga: Kamituga, 1050 m [3445 ft]; [R. Laurent]; 4-9 May 1950 and 9 August 1950.

*Hyperolius karissimbiensis francoisi* Laurent, 1950, Rev. Zool. Bot. Afr. 44(1):10.

PARATYPES (5). 50015-19 [not cited by numbers]: Urundi [Burundi]: [Territoire de] Bururi (Alt. 1850-1950 m [6070-6398 ft]); [R. Laurent]; 21-27 December 1949.

*Hyperolius karissimbiensis intermedius* Laurent, 1950. Rev. Zool. Bot. Afr. 44(1):11.

PARATYPES (10). 49968-72 [not cited by numbers]: Urundi [Burundi]: Territoire de Kitega: Bitare (Alt. 1550 m [5085 ft]); [R. Laurent]; 16-19 February 1950; 50025-29: [Burundi: Muhinga Terr.; Nyamushwaga; R. Laurent; 10 April 1952].

*Hyperolius karissimbiensis intermedius* Laurent, 1950. Rev. Zool. Bot. Afr. 44(1):11.

PARATYPES (10). 49968-72 [not cited by numbers]: Urundi [Burundi]: Territoire de Kitega: Bitare (Alt. 1550 m [5085 ft]); [R. Laurent]; 16-19 February 1950; 50025-29: [Burundi: Muhinga Terr.; Nyamushwaga; R. Laurent; 10 April 1952].

*Hyperolius karissimbiensis xanthogrammus* Laurent, 1950, Rev. Zool. Bot. Afr. 44(1):9.

PARATYPES (5). 50140-44 [not cited by numbers]: Ruanda [Rwanda]: Terr. de Biumba: Cyumba, Marais de la Mulindi (Alt. 1950 m [5085 ft]); [R. Laurent]; 19-23 November 1949.

*Hyperolius lateralis bogerti* Laurent, 1952. Rev. Zool. Bot. Afr. 46(3-4):277.

PARATYPES (5). 50128-32 [not cited by numbers]: Ruanda [Rwanda]: Terr. de Ruhengeri: Remera, lac Luhondo, 1770 m [5807 ft]; [R. Laurent]; 23-25 January 1951.

*Hyperolius lateralis bururiensis* Laurent, 1950, Rev. Zool. Bot. Afr. 44(1):8.

PARATYPES (5). 49978-82 [not cited by numbers]: Urundi [Burundi]: Bururi (Alt. 1850-1950 m [6070-6398 ft]); [R. Laurent]; 21-27 December 1949.

*Hyperolius lateralis capnodogaster* Laurent, 1951, Rev. Zool. Bot. Afr. 44(4):374.

PARATYPES (5). 49973-77 [not cited by numbers]: Urundi [Burundi]: Terr. de Muhinga: Marais de la Tshizanie, Kinazi, 1350 m [4429 ft]; [R. Laurent]; 17-18 April 1950.

*Hyperolius lateralis cyaneops* Laurent, 1950, Rev. Zool. Bot. Afr. 44(1):8.

PARATYPES (5). 50020-24 [not cited by numbers]: Urundi [Burundi]: Terr. de Rutana: Kiharo (Alt. 1200 m [3937 ft]); [R. Laurent]; 15-19 December 1949.

*Hyperolius lateralis guibei* Laurent, 1951, Rev. Zool. Bot. Afr. 44(4):373.

PARATYPES (5). 50030-34 [not cited by number]: Ruanda [Rwanda]: Terr. de Biumba: Mushongi, 1850 m [6070 ft]; [R. Laurent]; 31 January - 2 February 1951.

*Hyperolius lateralis kochi* Laurent, 1951, Rev. Zool. Bot. Afr. 44(4):375.

PARATYPES (5). 49774-78 [not cited by numbers]: [Zaire]: Kivu: Terr. de Shabunda: Itula, 650 m [2133 ft]; [R. Laurent]; 14-19 May 1950.

*Hyperolius lateralis pulcherrimus* Laurent, 1952, Rev. Zool. Bot. Afr. 46(3-4):278.

PARATYPES (5). 49844-48 [not cited by numbers]: Ruanda [Rwanda]: Terr. de Ruhengeri: Marais de la Rusumu, 2100 m [6890 ft]; [R. Laurent]; 28-29 January 1951.

*Hyperolius lateralis subviolaceus* Laurent, 1952, Rev. Zool. Bot. Afr. 46(3-4):277.

PARATYPES (5). 49899-903 [not cited by numbers]: [Zaire]: Kivu: Terr. d'Uvira: Mulenge, 2000 m [6562 ft]; [R. Laurent]; 30 January - 2 February 1951.

*Hyperolius leucotaenius* Laurent, 1951, Rev. Zool. Bot. Afr. 44(1):14, 17.

PARATYPES (5). 49740-44 [not cited by numbers]: [Zaire]: Kivu: Terr. de Mwenga: Kiandjo (Alt. 1850-1950 m [6070-6398 ft]); [R. Laurent]; 20-22 July 1949.

*Hyperolius leucotaenius allogynus* Laurent, 1952, Rev. Zool. Bot. Afr. 44(1-2):34.

PARATYPES (5). 49884-88 [not cited by numbers]: [Zaire]: Kivu: Terr. de Fizi: Haute Lubitshako, 1900-2000 m [6234-6562 ft]; [R. Laurent]; 26-30 October 1950.

*Hyperolius platyceps olbrechtsi* Laurent, 1952, Rev. Zool. Bot. Afr. 44(3-4):275.

PARATYPES (5). 49874-78 [not cited by numbers]: Tanganika [Tanzania]: limite des Territoires d'Albretville et de Fizi: Makungu, alt. 950 m [3117 ft]; [R. Laurent]; 19-21 December 1950.

*Hyperolius viridiflavus hybridus* Laurent, 1951, Rev. Zool. Bot. Afr. 44(4):375.

PARATYPES (5). 50145-49 [not cited by number]: Ruanda [Rwanda]: [Butare, 1850 m (6070 ft); R. Laurent; January 1952].

*Kassina senegalensis ruandae* Laurent, 1976, Ann. Mus. R. Afr. Cent., Tervuren, Sér. Octavo, Sci. Zool. (213):47, figs. 39-41.

PARATYPES (15). 39607-11 [not cited by numbers]: Urundi [Burundi]: Terr. de Kitega: Bitare, [1650 m (5413 ft); R. Laurent; 16 February 1950]; 39612 [cited as 35612]: Ruanda [Ruanda]: Préfecture de Butare, [1750 m (5741 ft); R. Laurent; 30 July 1952]; 39613-17: Ruandi [Ruanda]: Terr. de Kitega: Kishubi, [1850 m (6070 ft); R. Laurent; 13-15 November 1952]; 39618-21: Ruanda [Rwanda]: Kitega, [1730 m (5676 ft); R. Laurent; 14 May 1952].

*Leptopelis modestus fiziensis* Laurent, 1972, Ann. Mus. R. Afr. Cent., Tervuren, Sér. Octavo, Sci. Zool. 202:39, fig. 26.

PARATYPES (4). 64536-9: [Zaire]: Kivu: Terr. de Fizi: Mokanga, alt. 1170 m [3839 ft]; [R. Laurent]; 22-27 March 1956.

*Leptopelis ocellatus schiotzi* Laurent, 1973, Ann. Mus. R. Afr. Cent., Tervuren, Sér. Octavo, Sci. Zool. 202:26, fig. 28.  
PARATYPES (4). 49587-90: Zaïre: Omaniundu, Sankuru; [R. Laurent; 4-8 August 1959].

Family: **Leptodactylidae**

*Adelophryne gutturosa* Hoogmoed and Lescure, 1984, Zool. Meded., Leiden 58(6):101, figs. 4, 8, 9, 10 and 11.

PARATYPES (2). 44277-78: Brazil: Territorio Amapá: Serra do Veado, Serra do Navio, hills E of mines (52E 5' W, 1E N), 300 m [984 ft]; P.A. Silverstone; [July 6 and 7, 1968 respectively].

*Craugastor pulchrigulus* Cope, 1862; Neotype designated by Savage, 1974, Herpetologica 30(3):298. [= *Craugastor fitzingeri*]

NEOTYPE. 76859, female: Panama: Canal Zone: Barro Colorado Island, near laboratory; R. Dressler and J.M. Savage; 5-7 November 1963. Also neotype for *Eleutherodactylus fitzingeri*, *Hyla grisea*, *Hylodes fitzingeri* and *Leiyla guntherii*.

*Eleutherodactylus andi* Savage, 1974, Herpetologica 30(3):295, fig. 2. [= *Craugastor andi*]

HOLOTYPE. 76858, male: Costa Rica: Provincia de San Jose: Canton de Coronado: 0.8 km [0.49 mi] N juncture Rio Claro and Rio La Hondura, 1150 m [3773 ft]; J.M. Savage and N.J. Scott; 30-31 October 1963.

PARATYPES (26). Costa Rica: Alajuela: 148470: 6 km S [of] [Rio] Cariblanco at Sarapiquí rd. [810 m (2657 ft)]; N. Scott, D. Robinson and E. Taylor; 2 September 1966]; 148471-72: 4.8 km [2.9 mi] S Ciudad Quesada; [1000 m (3281 ft)]; C. McLaughlin and F. Truxal; 16-17 April 1964]; 148475: Cinchona [=Isla Bonita; 1500 m (4921 ft)]; A. Brame, Jr., A. Kluge and R. Lavenberg; 3 April 1959]; Cartago: 148479: nr. Cachi, Tapani [along Rio Quiri; 1280-1320 m (4199-4331 ft)]; J. Savage and N. Scott; 27 September 1963]; San Jose: 148463, 148466, 148476: 0.8 km [0.49 mi] N junct. Rio Claro-Rio La Hondura; 560-1360 m [1837-4462 ft]; [J. DeWeese; 29-30 August 1972]; 148480: [I. Straughan; 28 October 1968]; 148447-62: [N. Scott and J. Savage; 30-31 October 1963]; 148473: [R.W. McDiarmid; 21 June 1964]. (Paratypes not cited in text; CRE 3181, 7048 and 8081 not cataloged in LACM collection).

*Eleutherodactylus angelicus* Savage, 1975, Copeia 1975(2):274, fig. 8. [= *Craugastor angelicus*]

HOLOTYPE. 76856, male: Costa Rica: Provincia de Alajuela: Canton de Alajuela: Salto El Angel, 1380 m [4528 ft]; [J. Kezer; 12 May 1962].

PARATYPES (107). 147283-302: Costa Rica: Alajuela: 8 km [4.9 mi] N Zarcero [14783-91: Rio Tapesco, 1 km [0.62 mi] E Zapote; 1680 m [5512 ft]; N. Scott and J. Savage; 20 February 1964; 147292: Puntarenas: 0.5 km [0.31 mi] ESE Monteverde; 1450 m [4757 ft]; F. Truxal, C. McLaughlin and N. Scott; 16 May 1964; 147293: Alajuela: 5 km [3.1 mi] S La Cinchona, N of El Angel; 4170 ft [1271 m]; 26 July 1962; D. Jenni, J. Savage and J. Vial; 174294-302: 1.6 km [0.99 mi] S Zapote on Zarcero-Quesada Rd.; 1280 m [4199 ft]; J. Savage, N. Scott and H. Evans; 20 February 1964]; 147303-308, 147313-319: [Puntarenas:] Monteverde 147303: 1372 m [4501 ft]; J. Savage and N. Scott; 17 October 1963; 147304: 1400 m [4593 ft]; J. Deweese and S. Limerick; 15 August 1976; 147305-307: 1.5 km SW Monteverde; 1350 m [4429 ft]; F. Truxal and C. McLaughlin; 15-16 May 1964; 147308: 1610 m [5282 ft]; M. Hayes; 16 June



1980; 147313: 1610 m [5282 ft]; W. Timmerman; 7 July 1980; 147314: 0.5 km [0.31 mi] ESE Monteverde; 1450 m [4757 ft]; N. Scott and J. Savage; 20 February 1964; 147315-16: 1.25 km [0.78 mi] ESE Monteverde; 1500 m [4921 ft]; F. Truxal and J. Savage; 17 May 1964; 147317: 2.6 km [1.6 mi] ESE Monteverde; 1550-1580 m [5085-5184 ft]; J.M. Savage, J. James and N.J. Scott; 14 May 1964; 147318-19: 2.25 km [1.4 mi] SE Monteverde; 1520 m [4987 ft]; J. James; 20 January 1964; 147328-406: Cinchona [147328-338: Alajuela: between La Cinchona and Angel Falls; 1370 m [4495 ft]; J. Mohr, R. Casebeer and J. Savage; 5 February 1963; 147228, 147339-40: 8.0 km [4.9 mi] NW Los Cartagos, nr. Poasito; 2000 m [6562 ft]; F. Thompson; 10 June 1963; 147343: Alajuela: Varablanca and Cariblanco Rd., Angel Falls and 0.6 km [0.37 mi] S; 1433 m [4701 ft]; J. Savage and N. Scott; 25 September 1963; 147344: Puntarenas: 0.5 km [0.31 mi] SE Monteverde; 1433-1494 m [4701-4902 ft]; J. Savage, N. Scott and J. James; 19 October 1963; 147347: Alajuela: El Angel; 1380 m [4528 ft]; W. Bussing, D. Wake and C. Walker; 8 August 1961; 147348-49: 30.6 mi [49.2 km] N San Jose, El Angel Falls; 1380 m [4528 ft]; J. Geest, B. Stephens and C. Hogue; 18 August 1964; 147350-55: 5 km S Cariblanco, 0.5 km [0.31 mi] S Cinchona; 1360 m [4462 ft]; A. Brame, Jr., A. Kluge and R. Lavenberg; 3 April 1959; 147356: Cinchona, 5 mi [8 km] above Cariblanco; 1360 m [4462 ft]; N. Scott, D. Robinson and E. Taylor; 3 September 1966; 147357: ca. 1.6 km [1.0 mi] SW Isla Bonita; 1210 m [3970 ft]; N. Scott, D. Robinson and E. Taylor; 3 September 1966; 147358: Puntarenas: 0.5 km [0.31 mi] SW Monteverde; 1350 m [4429 ft]; F. Truxal and C. McLaughlin; 13 May 1964; 147359-60: Alajuela: nr. El Angel Falls; 1380 m [4528 ft]; G. Gorman; 26 July 1963; 147361-62: Alajuela: La Cinchona; 1360 m [4462 ft]; J. Savage and N. Scott; 26 September 1963; 147363: Puntarenas: 0.5 km [0.31 mi] ESE Monteverde; 1450 m [4757 ft]; F. Truxal, C. McLaughlin and N. Scott; 16 May 1964; 147364-65: Alajuela: S of Angel Falls; 1380 m [4528 ft]; M. Brittan, J. Savage and J. Vial; 26 July 1962; 147366: La Cinchona; 1360 m [4462 ft]; D. Jenni, J. Savage and J. Vial; 26 July 1962; 147367-69: 6 km [3.7 mi] S Cariblanco; 1500 m [4921 ft]; A. Brame, Jr., A. Kluge and R. Lavenberg; 3 April 1959; 147370-73: 5 km [3.1 mi] S La Cinchona, N of El Angel; 4170 ft [1271 m]; D. Jenni, J. Savage and J. Vial; 26 July 1962; 147374-76: between La Cinchona and Angel Falls; 1370 m [4495 ft]; J. Mohr and R. Casebeer; 5 February 1963; 147377-383: 8 km [5 mi] SE Cariblanco, Rio La Paz Grande; 1380 m [4528 ft]; A. Brame, Jr., A. Kluge and R. Lavenberg; 3 April 1959; 147384-406: 5 km [3.1 mi] S Cariblanco, 0.5 km [0.31 mi] S Cinchona; 1360 m [4462 ft]; A. Brame, Jr., A. Kluge and R. Lavenberg; 3 April 1959]. (Paratypes not cited in text).

*Eleutherodactylus aurilegulus* Savage, McCranie and Wilson, 1988, Bull. S. California Acad. Sci. 87(2):50. [= *Craugastor aurilegulus*]  
 TOPOPARATYPES (10). 137286-95: Honduras: Departamento de Atlántida: Quebrada de Oro (15E 38' N, 86E 47' W), 780-840 m [2559-2756 ft], tributary of Río Viejo, south slope of Cerro Búfalo, Cordillera de Nombre de Dios; J.R. McCranie, K.L. Williams, and L.D. Wilson; 14 August 1982.

*Eleutherodactylus azueroensis* Savage, 1975, Copeia 1975(2):277, fig. 10 left. [= *Craugastor azueroensis*]  
 PARATYPE (1). 147212 [formerly KU 114827]: Panama: Los Santos: N slope Cerro Cambutal; [480 m (1575 ft)]; C. Myers and T. Quintero; 21-22 March 1966].

***Eleutherodactylus catalinae*** Campbell and Savage, 2000, Herpetol. Monogr. 14:276, fig. 37.

[=*Craugastor catalinae*]

HOLOTYPE. 146116, male: Costa Rica: Provincia de Puntarenas: Cantón de Coto Brus: approximately 0.5 km [0.31 mi] N of bridge, Las Alturas, Río Bellavista; 1400 m [4593 ft]; about 8E 75' N, 82E 52' W; K.R. Lips and S.D. Werman; 24 June 1990.

PARATYPES (9). Costa Rica: Provincia de Puntarenas: Cantón de Coto Brus: Las Alturas: 146190-91: upstream from bridge on road to quarry; 1400 m [4593 ft]; [K. Lips and S. Werman; 7 June 1990]; 146183: on hill slope N Rio Coton; ∇ 1350 m [4429 ft]; [K. Lips and S. Werman; 12 June 1990]; 146184-85: near main plaza and nearby streams and forest; ∇ 1300 m [4265 ft]; [19 June 1990]; 146186: ∇ 5 km [3.1 mi] W Las Alturas; 1200-1300 m [3937-4265 ft]; [K. Lips et al.; 24 June 1990; 146187-89: Las Tablas, Río Cotón; 1600 m [5249 ft]; 146187-88: [K. Lips and S. Werman; 14 June 1990; 146189: K. Lips and C. Guyer; 20 July 1990]; referenced on p. 277 as “female paratypes” but not cited with other paratypes: 146181 [CRE 5104]; 146182: (specimen missing from LACM collection).

***Eleutherodactylus chiastonotus*** Lynch and Hoogmoed, 1977, Proc. Biol. Soc. Washington

90(2):425, fig. 1. [= *Pristimantis chiastonotus*]

PARATYPES (4). French Guiana: 44647, 44652: lower Matarony River, upstream from l'Approuague, [ca. 35 m (115 ft); P. Silverstone; 29 and 31 July 1968]; 44655, 44657: Saut Tortue, ORSTOM Camp, [confluence of Fleuve Approuague and Crique Tortue, 70-75 m (230-246 ft); P. Silverstone; 8 and 11 August 1968].

***Eleutherodactylus cristinae*** Lynch and Ruiz-Carranza, 1985, Occas. Pap. Mus. Zool. Univ.

Michigan (711):10, figs. 3A, 5C, D. [= *Pristimantis cristinae*]

PARATYPES (2). 114499-500: San Lorenzo [Colombia: Depto. de Magdalena: Municipio Santa Marta].

***Eleutherodactylus cuaquero*** Savage, 1980, Bull. S. California Acad. Sci. 79(1):14, fig. 1.

[=*Craugastor cuaquero*]

HOLOTYPE. 128460, female: Costa Rica: Provincia Puntarenas: Canton de Puntarenas: from 1.75 km [1.1 mi] east southeast of Monteverde, 1520 m [4987 ft]; J.M. Savage and F.S. Truxal; May 17, 1964.

TOPOPARATYPE (1). 147211 [cited as CRE 7213B].

***Eleutherodactylus escoces*** Savage, 1975, Copeia 1975(2):280, fig. 8 lower left. [= *Craugastor*

*escoces*]

HOLOTYPE. 76857, male; Costa Rica: Provincia de Heredia: Canton de San Rafael: south slope Volcan Barba, E margin Alto del Roble, 0.5 km [0.31 mi] N Cerro Chompipe, nr. Rio Las Vueltas, 2030 m [6660 ft]; [J. Savage and N. Scott; 17 December 1963].

PARATYPES (88). 147213-250, 147309-312, 147320-27, 147341-42, 147345-46, 147359-60: Costa Rica: San Jose: jct. Rio Claro and Rio La Hondura [147213-226, 147236-44, 147320-24: 0.6 km [0.37 mi] above (SW) and 0.8 km [0.49] below jct. Rio Claro and Rio La Hondura; 1128-1189 m [3701-3901 ft]; N. Scott and J. Savage; 30-31 October 1963; 147227: San Pedro

de Montes de Oca; 1200 m [3937 ft]; 17 December 1963; purchased; 147229: San Jose: Rio Claro on La Palma and Carrillo Rd.; 1188 m [3898 ft]; D. Paulson, M. Paulson and R. Paulson; 8 May 1967; 147230-31, 147310-11: jct. Rio Claro and Rio La Hondura; 1150 m [3773 ft]; C. Hogue, J. Geest and B. Stephens; 30 June 1964; 147232-35, 147325-27: nr. jct. Rio Claro and Rio La Hondura; 1120-1180 m [3675-3871 ft]; R.W. McDiarmid; 21 June 1964; 147245-250: slopes above La Hondura; 1350 m [4429 ft]; R. Casebeer and C. Walker; 6 September 1962; 147309: Cascajal de Coronado; 1600 m [5249]; A. Jimenez; 10 April 1963; 147312: 200 m [656 ft] W bridge over Rio La Hondura; 1100 m [3609 ft]; I. Straughan; 28 October 1968; 147251-282: Cartago: slopes of Volcan Turrialba [147251, 147253-54, 147256, 147258, 147261, 147263, 147265-69, 147275-282: 8 km [4.9 mi] SE Lecheria Central, 2 km [1.2 mi] NW Pastora, W Rio Jesus Maria; 2012 m [6601 ft]; A. Brame, Jr., A. Kluge and R. Lavenberg; 15 March 1959; 147255, 147264: Lecheria Palmira, 8.4 km [5.2 mi] SE Lecheria Central, 1.5 km [0.9 mi] NW Pastora, W Rio Jesus Maria; 1950 m [6398 ft]; A. Brame, Jr., A. Kluge and R. Lavenberg; 17 March 1959; 147257: NW Santa Cruz, 10.4 km [6.5 mi] SE Lecheria Central, 1 km [0.62 mi] NW Pastora, W Rio Jesus Maria; 1828 m [5997 ft]; A. Brame, Jr., A. Kluge and R. Lavenberg; 16 March 1959; 147259-60: NW Santa Crua, 7.8 km [4.8 mi] SE Lecheria Central, 2.2 km [1.4 mi] NW Pastora, W Rio Jesus Maria; 2042 m [6699 ft]; A. Brame, Jr., A. Kluge and R. Lavenberg; 16 March 1959; 147262: Alajuela: 1.6 km [0.99 mi] S Zapote on Zarcero and Quesada Rd.; 1280 m [4199 ft]; J. Savage, N. Scott and H. Evans; 20 February 1964; 147270, 147274: San Jose: Rancho Redondo, 6.4 km [3.9 mi] NE Tres Rios; 1767 m [5797 ft]; D.R. Robinson; 5 February 1967; 147271-73: Cartago: NW Santa Cruz, 8 km [4.9 mi] SE Lecheria Central, 2 km [1.2 mi] NW Pastora, W Rio Jesus Maria; 2012 m [6601 ft]; A. Brame, Jr., A. Kluge and R. Lavenberg; 16 March 1959; 147341-42: Heredia: 8 km [4.9 mi] N Varablanca; 1432 m [4698 ft]; M.L. Paulson; 17 February 1967; 147345-46: 1432 m [4698 ft]; R.T. Paulson and M.L. Paulson; 30 April 1967. (Paratypes not cited in text).

***Eleutherodactylus fitzingeri*** Schmidt, 1857; Neotype designated by Savage, 1974, *Herpetologica* 30:298. [= *Craugastor fitzingeri*]  
 NEOTYPE. 76859 [holotype KM 1012/1343 lost], female: Mountains of New Grenada [western Panama]; 4000 ft. [1220 m.]; J. Warszewicz; (Panama: Canal Zone: Barro Colorado Island, near the laboratory; R. Dressler and J.M. Savage; 5-7 Nov. 1963).

***Eleutherodactylus gutturalis*** Hoogmoed, Lynch and Lescure, 1977, *Zool. Meded., Leiden* 51(3):34, figs. 1, 2 and plate I. [= *Pristimantis gutturalis*]  
 HOLOTYPE. 44651, female: French Guiana: Lower Matarony River; P.A. Silverstone; 31 July 1968.  
 TOPOPARATYPE (1). 44649: P.A. Silverstone; 30 July 1968.  
 PARATYPES (2). 44881: Brazil: Territorio Amapá: Serra del Navio; P.A. Silverstone and Sr. Ferreira; 1 July 1968; 44884: Serra do Veado; P.A. Silverstone and Sr. Ferreira; 7 July 1968.

***Eleutherodactylus jasperi*** Drewry and Jones, 1976, *J. Herpetol.* 10(3):161.  
 PARATYPES (4). 114386: Puerto Rico: [S of Caguas, Hwy 15, Km 15 near Cerro de la Tabla; K.L. Jones; May 22, 1963]. [The following series of specimens were intended as paratypes but were unintentionally omitted from the manuscript by the author: 114387: near (6-10 km [3.7-

6.2 mi]) Caguas, Km 6.4 P.R. Hwy; B. Beck; 12 April 1974; 114388: near (6-10 km [3.7-6.2 mi]) Caguas, Monte El Gato; G. Drewry; 12 April 1974; 114389: three young of LACM 114388].

***Eleutherodactylus lauraster*** Savage, McCranie and Espinal, 1996, Proc. Biol. Soc. Washington 109(2):366, figs. 1 and 2. [= *Craugastor lauraster*]

PARATYPE (1). 45200, female: Honduras: Departamento de Olancho: from ca. 0.5 km [0.31 mi] SE San José del Río Tinto [26 km (16.1 mi) NE Catacamas], 330 m [1083 ft]; [H. Mejia and A. Brame, Jr.; 20 February 1969].

***Eleutherodactylus moro*** Savage, 1965, Bull. S. California Acad. Sci. 64(2):106, fig. 1.

[= *Pristimantis moro*]

HOLOTYPE. 147195 [cited as Costa Rican series number 765]: Costa Rica: Provincia de San José: Canton de Coronado: La Hondura, 1245 meters (4085 feet); [J. Mohr and J. Savage; 4 February 1963].

***Eleutherodactylus phasma*** Lips and Savage, 1996, Proc. Biol. Soc. Washington 109(4):744, fig 1 and 2A, B. [= *Craugastor phasma*]

HOLOTYPE. 146211 [cited as CRE 5331], female: Costa Rica: Puntarenas Province: Canton Coto Brus: Zona Protectora Las Tablas, Finca Jaguar, on the Río Coton, ca. 20 km [12.4 mi] NNE of La Lucha, 8E 55' N, 82E 44' W, 1850 m [6070] elevation; Karen R. Lips; 1 March 1992.

***Eleutherodactylus pinchoni*** Schwartz, 1967, Stud. Fauna Curaçao and other Caribb. Is. 24(91):45, fig. 5.

PARATYPE (1). 64100 [cited as DRP 2617]: French West Indies: Guadeloupe: Bois Malher, 3 km [1.9 mi] E Pigeon, 600 feet (183 m); A. Schwartz and R. Thomas; 7 Feb. 1963.

***Eleutherodactylus quidditus*** Lynch, 2001, Rev. Acad. Colomb. Cienc. 25(95):294, fig. 8.

[= *Pristimantis quidditus*].

PARATYPES (22). 46903, 46947-48, 46951-52, 46958-60, 46964-74, 46987, 73238, 73240: Colombia: Antioquia: Vigia del Fuerte, Rio Arquia: 46951-52: Finca Chiribiqui [300 m (984 ft); Ramos, Borja and Silverstone; 22 April 1958]; 46947-48: Finca Los Llanos [100-200 m (328-656 ft); Ramos, Borja and Silverstone; 19 April 1968]; Choco: 73238, 73240: Bahia Solano, Alto del Buey, N slope, 420-1070 m [1378-3511 ft; P.A. Silverstone; 18 and 22 August 1971 respectively]; 46964-74: Bovaya, hills near left bank of Rio Napipi below mouth of Rio Merendo [Ramos, Borja and Silverstone; 9 May 1968]; 46958-60: upper Rio Napipi below mouth of Rio Merendo [Ramos, Borja and Silverstone; 5 May 1968]; 46903: Serrania de Baudo, ridges (inland) paralleling Rio Yupe [Ramos, Borja and Silverstone; 18-20 May 1968]; 46987: Tado, Qda. Bocharona [Ramos, Borja and Silverstone; 28 May 1968].

***Eleutherodactylus rayo*** Savage and DeWeese, 1979, Bull. S. California Acad. Sci. 78(2):107, fig. 1. [= *Craugastor rayo*]

HOLOTYPE. [cited as LA (=LACM)] 127669, male: Costa Rica: Provincia Puntarenas: Canton de Buenos Aires: 5 km [3.1 mi], airline, east of Finca El Helechales; from the second sabana on the trail from Finca El Helechales to Sabanas Esperanza, 1640 m [5381 ft]; Roy W. McDiarmid; October 6, 1964.

PARATYPES (14). 148707-21 [cited as CRE 3184, 3232-33, 3236-39, 3979-80, 8710-12, 9769 respectively]: Costa Rica: San Jose Province: Quebrada Fortuna at Carreterra Interamericana, 1750-1840 m [5742-6037 ft]; 148707-08, 148716: [J. Savage, N. Savage, C. Lieb and J. Talbot; 24 July 1974]; 148709, 148720: [C. Lieb and J. Talbot; 21 July 1973]; 148710, 148717, 148719: [J. DeWeese, R. DeWeese and J. Talbot; 7 July 1973]; 148711, 149721: [S. Limerick; 9 August 1976]; 148712-15: [J. DeWeese, R. DeWeese and J. Talbot; 7 July 1973]; 148718: [J. DeWeese and R. Harris; 12 September 1972]; 148723 [cited as CRE 9770]: Rio Payner at Carreterra Interamericana, 1480 m [6856 ft].

***Eleutherodactylus rhyacobatrachus*** Campbell and Savage, 2000, Herpetol. Monogr. 14:274.

[= *Craugastor rhyacobatrachus*]

PARATYPES (5). 166466, 166467-68, 166480-81 [cited as CRE 2743, 6597-98, 7255, 8713 respectively]: Costa Rica: San Jose: 12-14 km [7.5-8.7 mi] by road N San Isidro de El General; 1400-1500 m [4593-4921 ft; C.A. McLaughlin; 27 March 1964; C. Lieb and J.J. Talbot; 21 July 1973; J. Geest, C. Hogue and R. Stephens; 22 June 1964; J. Savage, N. Savage, C. Lieb and J. Talbot; 24 July 1974 respectively].

***Eleutherodactylus spatulatus*** Smith, 1939, Proc. Biol. Soc. Washington 52:187, figs. 4 and 5 and plate II. [= *Craugastor spatulatus*]

TOPOPARATYPE (1). 28704 [formerly USNM 116032; cited as 4470]: Mexico: Veracruz: Cuatlapan; [H. Smith]; January 16, 1939.

***Eleutherodactylus thectopternus*** Lynch, 1975, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (272):14, figs. 2 and 3. [= *Pristimantis thectopternus*]

HOLOTYPE. 73087, female: Colombia: Departamento Antioquia: 10 km [6.2 mi] W Andes, 2090 m [6857 ft]; P.A. Silverstone; 2 August 1971.

PARATYPES (11). Colombia: Departamento Antioquia: 10 km [6.2 mi] W Andes: 73086: 1840 m [6037 ft; 1 August 1971]; 73088-93: 2030-2130 m [6660-6988 ft; 2 August 1971]; 73082-85: 2100-2330 m [6890-7644 ft; 31 July 1971]; P.A. Silverstone.

***Eleutherodactylus tigrillo*** Savage, 1997, Amphibia-Reptilia 18(3):241, figs. 1 and 2. [= *Pristimantis tigrillo*].

HOLOTYPE. 146212 [cited as CRE 7177A], male: Costa Rica: Provincia de Limón: Cantón de Talamaca: Distrito Brasti, from Alto Lari at the confluence of the Río Lari and Río Dipari, about 21 km [13 mi] SW Amubri; (440 m [1444 ft]); March 19, 1964; J.M. Savage and Norman J. Scott.

PARATYPE (1). 146241 [cited as CRE 7176]: Costa Rica: Provincia de Limon: Cantón de Talamaca: Distrito Brasti, from Surayo, about 16 km [9.9 mi] SW Anubri [sic=Amubri]; (400 m [1444 ft]); March 18, 1964; J.M. Savage and Norman J. Scott.

*Eleutherodactylus urichi shrevei* Schwartz, 1967, Stud. Fauna Curaçao and other Caribb. Is. 24(91):13, fig. 2. [=Pristimantis shrevei]

TOPOPARATYPES (2). 64063-64 [cited as DRP 2078-79]: St. Vincent: St. Andrew Parish: from Lowrt, 1000 ft (305 m); D.R. Paulson; 26 Dec. 1961.

*Eleutherodactylus viridicans* Lynch, 1977, Occas. Pap. Mus. Zool. Univ. Michigan 678:1, fig. 2. [=Pristimantis viridicans]

PARATYPES (2). 64858, 64868: Colombia: Depto. Cauca: Cerro Munchique, near TV tower, [2683-3012 m (8803-9882 ft) elevation; A. Brame, Jr. and R. Newcomer; 29 March 1971].

*Hylodes fitzingeri* Schmidt, 1857; Neotype designated by Savage, 1974, Herpetologica 30(3):298. [=Batrachyla leptopus]

NEOTYPE. 76859, female: Panama: Canal Zone: Barro Colorado Island, near laboratory; R. Dressler and J.M. Savage; November 5-7 1963. Also neotype for *Eleutherodactylus fitzingeri*, *Craugastor pulchrigulus*, *Hyla grisea* and *Leiyla güntherii*.

*Leiyla güntherii* Keferstein, 1868; Neotype designated by Savage, 1974, Herpetologica 30(3):298. [=Ischnocnema guentheri]

NEOTYPE. 76859, female: Panama: Canal Zone: Barro Colorado Island, near laboratory; R. Dressler and J.M. Savage; November 5-7 1963. Also neotype for *Eleutherodactylus fitzingeri*, *Craugastor pulchrigulus*, *Hyla grisea* and *Hylodes fitzingeri*.

*Leptodactylus amazonicus* Heyer, 1978, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (29):38, fig. 35. [=Leptodactylus mystaceus]

HOLOTYPE. 92111, male: Ecuador: Napo Province: Limoncocha, 0E 24' S, 76E 37' W, elevation 260 m [853 ft]; K.A. Berven and W.R. Heyer; 15 July 1971.

TOPOPARATYPES (41). 92067-70, 92072-75, 92077-85, 92087, 92090-92, 92094-95, 92098, 92102-05, 92108, 92112-15 [92112-13 exch. to USNM] 92117-20, 92122-25: [K. Berven and W. Heyer; 5 June through 4 August 1971]; 92090: [R. Borman and R. Borman and M. Allen; 23-24 July 1971; LACM 92067, 92072, 92090 and 92105 were karyotyped].

*Leptodactylus elenae* Heyer, 1978, Sci. Bull. Nat. Hist. Mus. Los Angeles Co. (29):45, fig. 41.

HOLOTYPE. 92096, female: Argentina: Salta: Embarcación; K.A. Berven, L.M. Heyer, M.H. Heyer and W.R. Heyer; 4 January 1972.

TOPOPARATYPES (3). 92097 [inadvertently omitted from list of paratypes]; 92126-27 [incorrectly cited as 92026-27; 31 December 1971 and 6 January 1972].

*Leptodactylus knudseni* Heyer, 1972, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (231):3, fig. 2.

HOLOTYPE. 72117, female: Ecuador: Provincia de Napo: Limoncocha, 0E 24' S, 76E 37' W; elevation 260 m [853 ft]; K.A. Berven and W.R. Heyer; 3 August 1970.

TOPOPARATYPES (32). 72118-149: K.A. Berven and W.R. Heyer; between 7 June and 4 August 1971.

*Leptodactylus pascoensis* Heyer, 1994, *Smithson. Contrib. Sci.* (546):94, fig. 41.

HOLOTYPE. 40665, male: Peru: Pasco: Iscozazin Valley, Chontilla, 780 m [2559 ft], ~10E 17' S, 75E 13' W; R. Etheridge and D.B. Wake; 13 Aug 1961.

TOPOPARATYPES (4). 40660 (9 July 1961); 40661-63 (11 August 1961).

*Syrhophus nivicolimae* Dixon and Webb, 1966, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (102):1, fig. 1. [= *Eleutherodactylus nivicolimae*]

HOLOTYPE. 3200, male: Mexico: Jalisco: Nevado de Colima, six miles (airline) west of Atenquique, 7,800 feet [2378 m]; R.G. Webb; July 20, 1964.

TOPOPARATYPES (9). 3201-09.

PARATYPES (5). 3210-14: Mexico: Jalisco: five miles [8 km] west of Atenquique, 6,500 feet [1982 m]; R.G. Webb; July 24, 1963.

*Telmatobius barrioi* Laurent, 1970. *Acta Zool. Lilloana* 25(19):210, Pl. I figs. 2-4; Pl. II figs. 2-4. [= *Telmatobius oxycephalus*]. PARATYPES (4). 73464-67 [cited as IML 01371]: [Argentina: Prov. de Salta: Sierra de Calilegua, cerca del monumento de la ruta de Calilegua a Valle Grande]; R.F. Laurent y C. Halloy; [3-13 October 1968].

*Tomodactylus dilatus* Davis and Dixon, 1955, *Herpetologica* 11(2):155. [= *Eleutherodactylus dilatus*]

TOPOPARATYPE (1). 35015 [cited as TCWC 11246]: [Mexico: Guerrero: from 4 mi [6.4 km] W of Mazatlán, 7400 ft [2256 m]; J.R. Dixon; 21 June 1954].

PARATYPES (4). 35013-14; [cited as TCWC 10213, 10215, respectively]: [Mexico: Guerrero]: 4 mi [6.4 km] W Mazatlán, 8200 ft [2499 m]; V. Hicks; 19 June 1953]; 35011-12 [cited as TCWC 10203-04 respectively]: 2 mi [3 km] SW Omiltemi, 7900 ft [2409 m]; [G. Wilkinson and D. Richards; 7 June 1953].

*Tomodactylus fuscus* Davis and Dixon, 1955, *Herpetologica* 11(2):157. [= *Eleutherodactylus maurus*]

PARATYPE (1). 35016 [cited as TCWC 11259]: Mexico: from 4 mi. [6.4 km] N Tenancingo, 8200 ft [2500 m]; [J. Dixon; 11 June 1954].

Family: **Ranidae**

*Rana bwana* Hillis and de Sa, 1988, *Herpetol. Monogr.* 2:1-26, figs. 1 and 2.

[= *Lithobates bwana*].

HOLOTYPE. 49205, female: Perú: Piura Department: 1.5 km [0.93 mi] S Las Lomas, Río Chipillico; J.R. Dixon and J.W. Wright; 7 December 1968.

TOPOPARATYPES (25). 49190-204, 49206-12, 49213 (41 tadpoles), 49214, 49282.

***Rana desaegeri*** Laurent, 1972, Explor. Parc Natl. Virunga (2)22:91, PLbis: Fig. 3, PL II: Fig. 2 and 3, PL IV: Fig 2. [= *Amietia desaegeri*]

PARATYPES (12). [not cited by number]: 38395-98 [G. DeWitte; 2094]: [Zaire: Ruwenzori Sector: Albert Natl. Park], riv. Ngokoi; [1100-1500 m (3609-4921 ft) elev.; 14 February 1953]; 38399-400 [G. DeWitte; 2100 m (6890 ft)]: [Ruwenzori Sector: Albert Natl. Park]; riv. Modidi; [1300 m (4265 ft); 14 April 1955]; 38401 [G. DeWitte; 2204]: [Ruwenzori Sector: Albert Natl. Park], riv. Talya; [1200 m (3937 ft); 25 February 1953]. 38402-06 [G. DeWitte]; 23323: [Ruwenzori Sector: Albert Natl. Park], riv. Migeri; [1760 m (5774 ft); 13 April 1953; (38405-06 = tadpoles)].

***Rana magnaocularis*** Frost and Bagnara, 1976, Copeia 1976 (2):332, figs. 1, 2 and table 1.

[= *Lithobates magnaocularis*]

TOPOPARATYPE (1). 126939 [cited as USNM 197548]: Mexico: Sinaloa: Rio de Choix, 2 km [1.2 mi] N Choix; [J. Frost; 20 October 1974].

***Rana ruwenzorica*** Laurent, 1972. Explor. Parc Natl. Virunga 2(22):93, PLbis: Fig. 4, PL III: Figs. 1-3, PL IV: Fig. 3, PL X: Fig. 2. [= *Amietia ruwenzorica*].

PARATYPES (50). 38345-94 [G. DeWitt 2220 and 2223 m (7284 and 7293 ft): [Zaire]: [Ruwenzori Sector: Albert Natl. Park], riv. Nyamwamba; [near Kalonge; elev. 2010-4200 m (6595-13780 ft); 27 January 1953 and 9 February 1953].

## TESTUDINES—TURTLES

Family: **Chelidae**

***Platemys platycephala melanonota*** Ernst, 1983, J. Herpetol. 17(4):352.

PARATYPES (9). Perú: Amazonas: 134414: Río Santiago drainage [5 February 1980]; 134406-13: Río Cenepa drainage; [15 July-7 September 1977]; R.W. McDiarmid.

***Rheodytes leukops*** Legler and Cann, 1980, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (324):2, figs. 1-7.

TOPOPARATYPES (2). 127778-79: Australia: Queensland: Fitzroy River, 63 km [39.1 mi] N and 25 km [15.5 mi] E of Duaringa, elevation 40 m [131 ft] (23E 09' S, 149E 55' E); J.M. Legler and J. Cann; 7-8 October 1976.

PARATYPE (1). 127780: Australia: Queensland: Fitzroy River, Glenroy Crossing, 60 km [37.3 mi] N and 23.5 km [14.6 mi] E of Duaringa (23E 11' S, 149E 56' E); J.M. Legler and J. Cann; 9 October 1976.

Family: **Cheloniidae**

***Chelonia mydas carrinegra*** Caldwell, 1962, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (61):4, figs. 1-5.

HOLOTYPE. 1696, female: Mexico: Baja California Norte: Bahia de Los Angeles; original place of capture about 25 miles [40 km] east of Bahia de Los Angeles in the vicinity of Isla Angel de la Guarda in the central Gulf of California; D.K. Caldwell and M.C. Caldwell; in early June, 1961.

TOPOPARATYPES (2). 1697, 1700: latter from the type locality; obtained in Ensenada, Baja



California; D.K. Caldwell and M.C. Caldwell; in the fall of 1962.

PARATYPE (1). Mexico: Baja California: 1690 (formerly USC-AHF 1241): Santa Maria Bay, Baja California (24E 47' N, 112E W); J.S. Garth; April 4, 1949.

Family: **Kinosternidae**

***Kinosternon alamosae*** Berry and Legler, 1980, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (325):2, figs. 1-3.

HOLOTYPE. 127639, formerly ASU 6383, female: Mexico: Sonora: Rancho Carrizal, 7.2 km [4.5 mi] north and 11.5 km [7.2 mi] west Alamos, (27E 05' N, 109 03' W); 9 July 1966; Harold L. Heringhi.

ALLOTYPE. 127640 [formerly ASU 6390].

PARATYPES (2). 105403-404: Mexico: Sonora: La Esmeralda Ranch, 1.2 mi [1.9 mi] N Alamos [13 August 1966; C.B. Robbins].

## SQUAMATA—LIZARDS

Family: **Anguidae**

***Barisia juarezi*** Karges and Wright, 1987, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (381):1, figs. 1-5. [= *Mesaspis juarezi*]

PARATYPES (19). Mexico: Oaxaca: Ixtlan District: 15158: 51 km [31.7 mi] (by rd) N Ixtlan de Juarez; [P. Regal and G. Elliott; 31 July 1963]; 122496: 54 km [33.5 mi] N Guelatao on Mex. Hwy. 175; [8 February 1976]; 2510 m [8235 ft]; 125365: 60.3 km (34.7 mi by rd) NE Guelatao, Mex. Hwy. 175; [J. Hanken and D. Eakin; 21 July 1976]; 2316.5 m (7600 ft); 129614-15: 52.2 km (32.4 mi by Hwy 175) N Guelatao, 2525 m; [B. Shaffer and J. Hanken; 8 July 1978]; 130271: 55.6 km (34.5 m by Hwy 175) N Guelatao, 12.6 km (7.8 mi by rd) NE jct. of rd. to Comaltepec; [C. Leib, R. Bezy, and M. Ruggles; 11 July 1979]; 130272-84: 17.9 km (11.1 mi by rd) S Vista Hermosa; [C. Leib, R. Bezy, and M. Ruggles; 12 July 1979].

***Celestus hylaius*** Savage and Lips, 1993, Rev. Biol. Tropical 41(3b):827, figs. 2B, 6 (upper), tables 2 and 3.

HOLOTYPE. 138541 [cited as CRE 8380 with paratypes]: Costa Rica: Provincia de Heredia: Canton Sarapiquí: La Selva Biological Station (40 m [131 ft]); J.J. Talbot; December 3, 1973.

TOPOPARATYPES (4). 146207-209 [cited as CRE 8381, 6707, 6711].

PARATYPE (1). 59202: Costa Rica: Provincia de Heredia: Río Frío; [M. Corn; 13 May 1950].

***Celestus orobius*** Savage and Lips, 1993, Rev. Biol. Tropical 41(3b):823, fig. 2A, tables 2 and 3.

HOLOTYPE. 138540 [LACM-PC 1447: color slide]: Costa Rica: Provincia de San José: Canton Pérez-Zeledón: from the area near Hortensia, Palma and Fortuna on the Carretera Interamericana, southern slope the Cordillera de Talamanca, (1500-2000 m [4921-6562 ft]); R.J. Lavenberg and P.H. Starrett; August 15, 1959.

***Gerrhonotus fuscolabialis*** Tihen, 1944, Copeia 1944(2):112. [= *Abronia fuscolabialis*]

TOPOPARATYPE (1). 15132 [cited as 402 in the collection of R.T. Moore, California Institute of Technology]: Mexico: Oaxaca: at Mt. Zempoaltepec; R.T. Moore; between November, 1941 and June, 1942.

Family: **Bipedidae**

*Bipes caniculatus multiannulatus* Alvarez, 1964, An. Esc. Nac. Cien. Biol., Mex. 13:147.

TOPOPARATYPES (4). 36766-69 [not cited by numbers]: Mexico: Michoacán: Pizandarán, 14 km [8.7 mi] N of El Infiernillo; [T. Alvarez]; May 1964.

Family: **Gekkonidae**

*Phyllodactylus angustidigitus* Dixon and Huey, 1970, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (192):16, figs. 2, 8A and 8b.

TOPOPARATYPES (35). 48593-627: Peru: Department of Ica: 1 km S Puerto Pisco (new), northeast side of Paracas Peninsula, 19 km [11.8 mi] by road S and W of Paracas, sea level; J.R. Dixon and J.W. Wright; 11 November 1968.

PARATYPES (79). Peru: Department of Ica: 48705: 7.2 km [4.5 mi] SW Paracas; December, 1968; 48632-704, 48706: 3 km [1.9 mi] S Puerto Pisco (new); 13 December 1968; 48628-31: 7 km [4.3 mi] S Puerto Pisco (new); 13 December 1968. J.R. Dixon and J.W. Wright. (Paratypes and Topoparatypes cited in publication under specimens examined).

*Phyllodactylus interandinus* Dixon and Huey, 1970, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (192):34, figs. 3 and 10a.

TOPOPARATYPES (20). 48519-37, 48539: Peru: Department of Cajamarca: 4.8 km [2.9 mi] S Bellavista, 520 m [1706 ft]; J.W. Wright and J.R. Dixon; 26 November 1968.

PARATYPE (1). 48538: Peru: Department of Amazonas: 17 km [10.5 mi] S Bágua Chica; J.W. Wright and J.R. Dixon; 28 November 1968. (Paratypes and Topoparatypes cited in publication under specimens examined).

*Phyllodactylus johnwrighti* Dixon and Huey, 1970, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (192):56, figs. 4 and 10b.

TOPOPARATYPES (17). 48479-94: Peru: Department of Cajamarca: 13 km [8.1 mi] SSE [Hacienda] Molino Viejo, [1190 m (3904 ft)]; 28 November 1968; 48746: 22 November 1968. J.W. Wright and J.R. Dixon.

PARATYPES (2). 48477-78: Peru: Department of Cajamarca: 11 km [6.8 mi] WNW Las Juntas; [23 November 1968]; J.W. Wright and J.R. Dixon. (Paratypes and Topoparatypes cited in publication under specimens examined).

*Phyllodactylus kofordi* Dixon and Huey, 1970, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (192):39, figs. 3 and 11a.

TOPOPARATYPES (9). 48540: Peru: Department of Lambayeque: 7 km [4.3 mi] S Motupe, Cerro de la Vieja; 19-20 November 1968; 48559-66: [9 December 1968]; J.R. Dixon and J.W. Wright.

PARATYPES (18). Peru: 48543-46: Department of Lambayeque: 7.2 km [4.5 mi] W Naupe; [30 November 1968]; 48541-42: 22 km [13.7 mi] E Olmos; [29 November 1968]; 48547: Department of Piura: 8 km [5 mi] S, 8.4 km [5.2 mi] SSE Chulucanas; [1 December 1968]; 48556-58: 3 km [1.9 mi] ENE Las Lomas; [6-7 December 1968]; 48548: 40 km [25 mi] WNW Sullana; [3 December 1968]; 48549-50: Department of Tumbes: 1.2 km [0.8 mi] S Cancas; [4 December 1968]; 48551-55: 1.2 km [0.8 mi] S, 1 km [0.62 mi] E Puerto Pizaro; [5 December

1968]. J.W. Wright and J.R. Dixon. (Paratypes and Topoparatypes cited in publication under specimens examined).

*Phyllodactylus muralis isthmus* Dixon, 1964, Sci. Bull. New Mexico State Univ. 64-1:74.  
PARATYPES (5). 35852-56 [cited as CMF 607-11]: Mexico: Oaxaca: 8 mi. [13 km] S Tehuantepec; [C. Fugler; August 25 1957].

*Phyllodactylus palmeus* Dixon, 1968, Proc. Biol. Soc. Washington 81:419, fig. 1.  
PARATYPES (9). 38512-13: Honduras: Bay Islands, 1 km. N. Roatan, Isla de Roatan, ca. 10 m [33 ft; 15-16 July 1967]; 38514-15: SE shore, opposite Guanaja, Isla de Guanaja; [17 July 1967]; 38516-20: La Playa Hotel, Isla de Guanaja; [18-19 July 1967]. J.R. Meyer and L.D. Wilson.

*Phyllodactylus partitus* Dixon, 1966, Proc. California Acad. Sci. 33(13):445.  
PARATYPE (1). 3256 [cited as AHF-USC 50]: [Mexico: Baja California]: [Isla] Partida (N.); [C. Tower; 9 March 1936].

*Phyllodactylus xanti estebanensis* Dixon, 1966, Proc. California Acad. Sci. 33(13):437.  
PARATYPES (3). 13968-70 [cited as UCLA 15000-02]: [Mexico: Baja California: Isla] San Esteban; [K. Norris; 7 April 1963].

*Sphaerodactylus vincenti josephinae* Schwartz, 1964, Caribb. J. Sci. 4(2 and 3):395, figs. 3 and 4.  
TOPOPARATYPE (1). 61353 [cited as DRP 2653]: Martinique: Habitation Dizac, 1.5 km [0.93 mi] W Le Diamant; A. Schwartz; [27 March 1963].

*Sphaerodactylus vincenti psammius* Schwartz, 1964, Caribb. J. Sci. 4(2 and 3):398, figs. 7 and 8.  
PARATYPES (2). 61351-52 [cited as DRP 2647-48]: [Martinique]: 2 km [1.2 mi] NE Ste.-Anne; R. Thomas; 21 March 1963.

*Sphaerodactylus vincenti ronaldi* Schwartz, 1964, Caribb. J. Sci. 4(2 and 3):399, figs. 9 and 10.  
TOPOPARATYPE (1). 61350 [cited as DRP 2201]: Martinique: Château Dubuc, 3 km [1.9 mi] NE Tartane; R.F. Klinikowski; 8 February 1962.

#### Family: **Iguanidae**

*Anolis antioquiae* Williams, 1985, Breviora 482:3, figs. 1-4.  
PARATYPE (1). 72763: Colombia: Western Antioquia: along a road paralleling Quebrada Chaparral, Río San Juan drainage, 10 km [6.2 mi] E of Andes (town), 2200-2300 m [7218-7546 ft]; P.A. Silverstone, C.A. Escobar and L.C.A. Cuartas; July 1971.

*Anolis maculigula* Williams, 1984, Breviora 478:2, figs. 1-3.  
HOLOTYPE. 42150, male: Colombia: western Antioquia: Quebrada San Lorenzo, tributary of the Río Arquía near the small town of Belén (6E 15' N, 76E 39' W), about 10 to 15 km [6.2 to 9.3 mi] upstream from the junction of the Río Arquía with the Río Atrato; N. J. Scott; 17 April 1968.  
TOPOPARATYPES (11). 42142, 42144-49, 42151-54.

*Anolis rivalis* Williams, 1984, Breviora 478:7, figs. 4-7, 12 and 14. [= *Norops rivalis*]

HOLOTYPE. 42124, male: Colombia: Antioquia: Belén, Río Arquía (6E 15' N, 76E 39' W); N.J. Scott; 17 April 1968.

TOPOPARATYPES (10). 42128-33, 42135, 42137-39; N. J. Scott; [18-19 April 1968].

PARATYPES (11). Colombia: 42125-27, 42141, 45002-07, 51540: Antioquia: Finca Los Llanos, Río Arquía; P.A. Silverstone; 1968; 72766, 72772: Chocó: Alto de Buey; P.A. Silverstone; 1968.

*Crotaphytus collaris bicinctores* Smith and Tanner, 1972, Great Basin Nat. 32(1):27, figs. 1-3.

[= *Crotaphytus bicinctores*]

PARATYPES (4). 63187: California: 63187: Los Angeles Co.: Big Rock Creek at Dorr Creek; [K. Norris; 16 August 1947]; 63182: San Bernardino Co.: Sweetwater Spring, Ord Mts.; [K. Norris and R. Zweifel; 24 April 1950]; 94639 [cited as CSCLB 2736]: 4 mi [6.4 km] N Yermo; [R. Loomis; 14 April 1957]; 94640 [cited as CSCLB 2735]: Mule Canyon, Calico Mts.; [D. Mangum; 13 April 1957].

*Crotaphytus collaris nebrius* Axtell and Montanucci, 1977, Nat. Hist. Misc., Chicago 201:1, fig. 1.

[= *Crotaphytus nebrius*]

HOLOTYPE. 126617, male: Mexico: Sonora: obtained at 28E 30' 30" N, 111E 02' 30" W (14 km [8.7 mi] by road N. Rancho Cieneguita), El. 200 m [656 ft]; R.W. Axtell; 3 July 1970.

PARATYPES (10). Mexico: Sonora: 52885: Guaymas area; [W. Wrenn; 26 June 1967], 52886: [6 July 1965], 94698: [R. Loomis and R. Stephens; 23 April 1969]; 94691: Hermosillo area: [D. Marqua and P. Sullivan; 3 June 1963]; 121433: [J. Wright; 17 July 1975]; 109951, 121434-37: Huasabas area; [J. Wright; 15 July 1975].

*Crotaphytus insularis vestigium* Smith and Tanner, 1972, Great Basin Nat. 32(1):29, figs. 1-3.

[= *Crotaphytus vestigium*]

PARATYPES (4). Mexico: Baja California: 16997-98: Los Angeles Bay; [K.S. Norris; 10 August 1961]; 94679-80 [cited as CSCLB LWR 670619-1 and -2]: 11 m [18 km] W Santa Rosalia; [L. Robbins; 19 June 1970].

*Liolaemus poecilochromus* Laurent, 1986, Acta Zool. Lilloana 38(2):100, figs. 11, 12 and 13

(A,B,C). [= *Liolaemus andinus poecilochromus*]

PARATYPES (2). 136711-12 [cited as FML 01172]: [Argentina: Catamarca: Dep. Antofagasta de la Sierra: Los Nacimientos]; E. Terán-O. Pagaburo; 28 November 1981.

*Liolaemus williamsi* Laurent, 1992, Breviora (494):22, Plate IV, Table 5.

TOPOPARATYPES (9). 9319-22, 9324-28: Peru: Depto. Ayacucho: between Nazca and Puquio, Pampas Galeras; October 1965.

PARATYPES (11). 9329-38: Peru: Depto. Ayacucho: 96 km [59.7 mi] from Nazca, Pampas Galeras, Lucanas; April-July 1963; 35867: Peru: Depto. Ayacucho: 300 mi [480 km] south of Lima, Pampas Galeras; March 1966; S.W. Taft.

*Norops pandoensis* Savage and Guyer, 1998, Rev. Biol. Tropical 46(3):805, fig. 1, table 1. [=Anolis kemptoni]

HOLOTYPE. 146242 [cited as CRE 5290], male: Costa Rica: Puntarenas Province: Cantón Coto Brus: Zona Protectora Las Tablas, La Changuinolita; 1950 m; September 21, 1991; Karen R. Lips.

PARATYPES (8). 146243-49 [cited as CRE 5180, 5181, 5291, 5321, 5295, 5318, 5329 respectively]: Costa Rica: Puntarenas Province: Cantón Coto Brus: Finca Las Tablas: 146243 [∇ 1350 m (4429 ft); 20 July 1990; C. Guyer and K. Lips]; 146244: [Río Cotón; 1600 m (1969 ft); 20 July 1990; K. Lips and C. Guyer]; 146245: [Zona Protectora Las Tablas; 1950 m; 21 September 1991; K. Lips]; 146246: [Zona Protectora Las Tablas, La Changuinolita; 1950 m (6398 ft); 27 January 1992; K. Lips]; 146247: [Zona Protectora Las Tablas; 1850-1950 m (6070-6398 ft); Sept. 1991; K. Lips]; 146248: [Zona Protectora Las Tablas; Finca Las Tablas; 1850-1950 m (6070-6398 ft); Dec. 1991-Jan. 1992; K. Lips]; 146249: [Zona Protectora Las Tablas, La Changuinolita area; 1950 m (6398 ft); 22-24 February 1992; K. Lips]; 146250 [CRE 5312; not cited in publication; Zona Protectora Las Tablas; ∇1800 m (5906 ft); 6 December 1991; K. Lips].

*Phrynosoma wigginsi* Montanucci, 2004, Herpetologica 60(1):132, fig. 7, fig. 8 B, fig. 9.

PARATYPES (2). 138363-64: México: Baja California Sur: 138363, male: between Loreto and Mulege; via R.R. Montanucci [rec from B. Bauer; died 23 July 1983]; 138364, female: town limits of Loreto; via R.R. Montanucci [rec from T. Porter; March 1988; probably collected previous summer].

*Sceloporus chaneyi* Liner and Dixon, 1992, Texas J. Sci. 44(4):421, fig. 2 top, table 1.

PARATYPE (1). 140240 [EAL 4754.1]: México: Nuevo León: 12.7 mi. (20.3 km) NE San Antonio de Peña Nevada on the La Joya road, Puerto Peña Nevada, 9000 ft (2800 m); [E. Liner and R. Johnson]; 17 July 1980.

*Sceloporus magister bimaculosus* Phelan and Brattstrom, 1955, Herpetologica 11(1):9, fig. 1.

PARATYPES (11). New Mexico: Socorro Co.: 17311 [cited as UCLA 3815]: 7 mi [11 km] W. Socorro; [R. Zweifel and K. Norris; 18 August 1948]; 17302-10 [UCLA 3807-14, 3817]: Socorro; [R. Zweifel and K. Norris; 29-30 July and 8 and 23 August 1948]; 17312 [=UCLA 3726, incorrectly cited as 3736]: 12 mi [19 km] N. Valverde, E. Bank Rio Grande; [C. Lowe; 17 August 1947].

*Sceloporus magister transversus* Phelan and Brattstrom, 1955, Herpetologica 11(1):10, fig. 1.

TOPOPARATYPE (1). 17284 [cited as UCLA 6255]: California: Inyo Co.: Keough's Hot Springs, 7 mi [11 km] S. Bishop; R.L. Phelan; 23 July 1953.

PARATYPES (2). California: Inyo Co.: 17285 [cited as UCLA 2649]: Little Lake; [C. Lowe; 20 September 1941]; 17286 [UCLA 3083]: 21.5 mi [34.4 km] N. Independence; [C. Lowe; 24 June 1947].

*Sceloporus magister uniformis* Phelan and Brattstrom, 1955, *Herpetologica* 11(1):7, fig. 1.

TOPOPARATYPE (1). 74179 [cited as UCLA 1813]: California: Los Angeles Co.: Valyermo; [R. Cowles; June 14, 1943].

PARATYPES (27). Arizona: 17289 [cited as 139]: Coconino Co.: Grand Falls, Little Colorado River; [C.M. Bogert; 2 August 1931]; 17292 [cited as USCLA (sic) 2852]: Mohave Co.: Alamo Crossing; [Mr. Miller; 25 September 1945]; California: 17282 [UCLA 3258]: Imperial Co.: Cargo Mts.; [C. Lowe; 15 March 1947]; Los Angeles Co.: 17256 [UCLA 136]; Lovejoy Springs; [C. Bogert; 3 September 1931]; 17240-41; 17246 [UCLA 4073-74; 4076]: Lovejoy Buttes; [R. Zweifel, 6 April 1949]; 17258 [UCLA 600]: Vasquez Rocks; [G. Miles; May 1936]; 17259-62 [UCLA 5900-03]: 5 mi [8 km] N. Llano; [J. Warren; 27 March 1953]; 17250 [UCLA 3008, incorrectly cited as UCLA 3006]: 3 mi [5 km] E. Palmdale; [C. Lowe; 29 September 1946]; Riverside Co.: 17279 [UCLA 2404]: Indian Wells; [R. Cowles; 1 May 1945]; 17278 [UCLA 5609]: Thousand Palms; [25 April 1926]; 17270 [UCLA 2905]: 7 mi [11 km] N.W. Adelanto; [C. Lowe; 29 September 1946]; 17272-73 [UCLA 5198-99]: Cottonwood Springs, Granite Mts.; [R. Zweifel; 26 April 1950]; 17269 [UCLA 4175]: 2.5 mi [4 km] N. Victorville [R. Zweifel; 14 May 1949]; 17287 [UCLA 2648]: San Diego County-Borrego Valley [C.H. Lowe; 20 April 1941]; 17294-96 [UCLA 1184-86]: Charleston Mts. [C. Bogert; 7 August 1935 (17294); 13 August 1935 (17295-96)]; 17297 [UCLA 5651]: 7 mi [11 km] W. Searchlight [B. Brattstrom; 19 September 1952]; 17299-301 [UCLA 3430-32]: Pyramid Lake; [C. Lowe; 23 June 1947].

*Stenocercus bolivarensis* Castro and Ayala, 1982, *Caldasia* 13(63):474.

TOPOPARATYPES (2). 131140-141 [cited as UVMP 3774, 3757]: Colombia: Departamento del Cauca: Alrededores inmediatos del Municipio de Bolívar, 1650-1750 m [5413-5742 ft] elevation, (1E 50' N; 76E 58' W); S. Ayerbe; January 4, 1979.

*Stenocercus huancabambae* Cadle, 1991, *Proc. Acad. Nat. Sci. Philadelphia* 143:30, figs 3, 8 and 9, tables 1 and 3.

PARATYPES (10). 49419-20, 49423, 49421-22, 49424-28: Perú: Cajamarca: 0.5 km [0.31 mi] E Bellavista, 1 km [0.62 mi] W Río Marañon, 1725 ft (526 m); J.W. Wright and J.R. Dixon; 24 November 1968.

*Tropidurus thoracicus icae* Dixon and Wright, 1975, *Contrib. Sci. Nat. Hist. Mus. Los Angeles Co.* (271):22, figs. 6, 8, 9 and 12, table 1. [= *Microlophus thoracicus thoracicus*]

HOLOTYPE. 48987: Peru: Ica Dept.: 16 km [9.9 mi] NNW Pozo Santo [incorrectly cited in paper as "12 km (7.5 mi) NE (rd), Ica"]; J.W. Wright and J.R. Dixon; 15 December 1968.

TOPOPARATYPES (10) [cited under specimens examined]. 48986, 48988-94, 49014-15: J.W. Wright and J.R. Dixon; [14 and 16 December 1968].

PARATYPES (19) [cited under specimens examined]. Peru: Ica Dept.: 48995-49005: 12 km [7.5 mi] NE Ica; [15 December 1968]; 49006-13: 6.3 km [3.9 mi] ESE Pozo Santo; [16 December 1968; J. Wright and J. Dixon].

*Tropidurus thoracicus talarae* Dixon and Wright, 1975, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (271):23, figs. 6, 8, 9 and 12, table 1. [=Microlophus thoracicus talarae]  
 TOPOPARATYPES (21) [cited under specimens examined]. Peru: Piura Dept.: 48925-45: 2 km [1.2 mi] N Talara; J.W. Wright and J.R. Dixon; 3 December 1968.  
 PARATYPES (5) [cited under specimens examined]. Peru: Piura Dept.: 48946-50: 3 km [1.9 mi] S Talara; [J. Wright and J. Dixon; 3 December 1968].

*Uma exsul* Schmidt and Bogert, 1947, Am. Mus. Novit. 1339:1, fig. 1.  
 TOPOPARATYPE (1). 19392 [cited in footnote as AMNH 67410]: Mexico: Coahuila: in dunes located 12 mi [19 km] N San Pedro de Las Colonias; K.P. Schmidt and C.M. Bogert; August 20, 1946.

*Uma paraphygas* Williams, Chrapliwy, and Smith, 1959, Trans. Kansas Acad. Sci. 62(2):166, plates 1 and 2.  
 TOPOPARATYPE (1). 8678 [cited as UIMNH 42892]: Mexico: Chihuahua: sand dunes 0.7 mi [1.1 km] E Carrillo; K.L. Williams and P.S. Chrapliwy; Aug. 1, 1958.

*Urosaurus lahtelai* Rau and Loomis, 1977, J. Herpetol. 11(1):25, figs. 1 and 2.  
 HOLOTYPE. 116541, male: Mexico: State of Baja California: from 4 km [2.5 mi] N parador Cataviña (also known as Santa Ines) (114E 50' W, 29E 45' N), near Mexico Highway 1, elevation 564 m [1850 ft]; C.S. Rau; 26 June 1974.  
 TOPOPARATYPES (2). 109493, 116542 [incorrectly cited as 116541].  
 PARATYPES (7). Mexico: Baja California: 97822, 98154-55: 5 km [3.1 mi] N Las Arrastras de Arriola; [E.L. Sleeper; 17 April 1962]; 19249-52: Cataviña; [G. Marten and J. Warren; 31 March 1959].

Family: **Scincidae**

*Ctenotus ariadnae* Storr, 1968, J. Roy. Soc. W. Aust. 51(4):104.  
 PARATYPES (4). Australia: Western Australia: 55458 [ERP, 10429]: 60 mi [96 km] E Dunges Table; [19 Jan. 1967]; 55459-61 [ERP, 10765, 10796, 10802]: 24 mi [38.4 km] ENE Laverton; [25 and 26 February 1967]. E.R. Pianka.

*Ctenotus atlas* Storr, 1968, J. Roy. Soc. W. Aust. 51(4):105.  
 PARATYPES (20). Australia: Western Australia: 55462-80 [ERP, 23]: 17 mi [27 km] S of Atley; [E. R. Pianka; December 1966-April 1967]; 55481 [ERP, 1]: 10 mi [16 km] NW of Agnew; E.R. Pianka; November 21, 1967.

*Ctenotus calurus* Storr, 1968, J. Roy. Soc. W. Aust. 51(4):107.  
 PARATYPES (31). Australia: Western Australia: 55500-03, 55510, 55514-18 [ERP, 10]: 21 mi [34 km] W of Lorna Glen; [20,24,28 August and 27 October 1967, 4-5 January 1968]; 55513 [ERP, 1]: 9 mi [14.4 km] NNE of Millrose; [3 January 1968]; 55492-97 [ERP, 7]: 24 mi [38.4 km] ENE of Laverton; [22-26 March 1967]; 55499, 55504, 55511-12 [ERP, 4]: 5 mi [8 km] NE of Dunges Table; [12 May, 23 September, 24 November, 2 December, 1967]; 55505 [ERP, 1]: 16 mi [26 km] ENE of Dunges Table; [27 September 1967]; 55498, 55506-08 [ERP, 4]: 8 mi

[13 km] W of Neale Junction; [26 March, 28 September 1967]; 55509 [ERP, 3]: 18 mi [29 km] S of Neale Junction; [1 October 1967]; E.R. Pianka.

*Ctenotus colletti nasutus* Storr, 1968, J. Roy. Soc. W. Aust. 51(4):107. [= *Ctenotus nasutus*]

PARATYPES (4). Australia: Western Australia: 55588-89 [ERP, 12294, 13135]: Western Australia: 5 mi [8 km] NE of Dunges Table; [26 September and 2 December 1967]; 55587 [ERP, 13097]: 65 mi [104 km] W of Neale Junction; [30 November 1967]; Northern Territory: 55586: [ERP, 11551]: 21 mi [34 km] E of Sandy Blight Junction; [5 June 1967]; E.R. Pianka.

*Ctenotus dux* Storr, 1968, J. Roy. Soc. W. Aust. 51(4):104.

PARATYPES (46). Australia: Western Australia: 55635 [ERP, 1]: 56 mi [90 km] SW of Warburton Range; [30 May 1967]; 55638 [ERP, 1]: Lake Throssell; [29 May 1967]; 55591-626 [ERP, 36]: 5 mi [8 km] NE of Dunges Table; [4-13 May, 21-26 September, 2 December 1967]; 55627-34 [ERP, 8]: 21 mi [34 km] W of Lorna Glen; [20-28 August 1967]; E.R. Pianka.

*Ctenotus grandis* Storr, 1968, J. Roy. Soc. W. Aust. 51(4):100.

PARATYPES (56). Australia: Western Australia: 55640-41 [ERP, 2]: 18 mi [29 km] S of Neale Junction; [15 January and 28 March 1967]; 55689-93 [ERP, 5]: 8 mi [13 km] W of Neale Junction; [26 March 1 October 1967]; 55697, 55642 [ERP, 2]: 70 mi [112 km] W of Neale Junction; [2 October 1967]; 67 mi [107 km] W Neale Junction [19 January 1966]; 55646-88 [ERP, 44]: 24 mi [38.4 km] ENE Laverton; [22-26 February and 1-23 March 1967]; 55698 [ERP, 1]: 10 mi [16 km] NW of Agnew; 2 May 1967; 55643-45 [ERP, 3]: 17 mi [27 km] S of Atley; [30 January 2-3 February 1967]; E.R. Pianka.

*Ctenotus helenae* Storr, 1968, J. Roy. Soc. W. Aust. 51(4):100.

PARATYPES (65). Australia: Western Australia: 55753-54 [ERP, 2]: 9 m. [14.4 km] NNE Millrose; [13 December 1966]; 55768 [ERP, 1]: 21 mi [34 km] W of Lorna Glen; [27 October 1967]; 55764-65 [ERP, 2]: 10 mi [16 km] NW of Agnew; [20 March 2 May 1967]; 55701-52 [ERP, 53]: 24 mi [38.4 km] ENE of Laverton; [22-28 February, 1-23 March, 3 May, 19 September, 1967]; 55770 [ERP, 1]: 5 mi [8 km] NE of Dunges Table; [23 November 1967]; 55767 [ERP, 1]: 8 mi [13 km] W of Neale Junction; [26 March 1967]; 55758-63 [ERP, 6]: 18 mi [29 km] S of Neale Junction; [17 January, 28 March, 30 September and 28 November 1967]; E.R. Pianka.

*Ctenotus mimetes* Storr, 1968, J. Roy. Soc. W. Aust. 51(4):103.

PARATYPE (1). Australia: Western Australia: 56062 [ERP, 1]: 44 mi [70.4 km] NE Paynes Find; [E.R. Pianka; 26 November 1966].

*Ctenotus piankai* Storr, 1968, J. Roy. Soc. W. Aust. 51(4):106.

PARATYPES (9). Australia: Western Australia: 56067 [ERP, 1]: 24 mi [38.4 km] ENE of Laverton; [31 August 1967]; 56066 [ERP, 1]: 5 mi [8 km] NE of Dunges Table; [7 May 1967]; 56068-72 [ERP, 5]: 8 mi [13 km] W of Neale Junction; [26 March, 28 September, 25 November 1967]; 56064-65 [ERP, 2]: 18 mi [29 km] S of Neale Junction; [17-18 January 1967]; E.R. Pianka.



*Ctenotus tanamiensis* Storr, 1969, J. Roy. Soc. W. Aust. 52(4):103.

PARATYPES (3). Australia: Northern Territory: 56073 [ERP, 11612]: 10 mi [16 km] SE Renahaus Well [11 June 1967]; 56074-75 [ERP, 11639, 11671]: 7 mi [11 km] SE The Granites; [15 June 1967]; E.R. Pianka.

*Davewakeum miriamae* Heyer, 1972, Fieldiana: Zool. 58(10):124 fig. 7.

TOPOPARATYPE (1). 64430 [cited as FMNH 182543; formerly CNHM 182543]: Thailand: Changwat Nakhon Ratchasima: Amphoe Pak Thong Chai: Khao Saton, 300 m. above the Kasetsart University Forestry Station, 60 km [37.3 mi] S of Nakhon Ratchasima on Highway 304; [W. Heyer]; August 27, 1969.

Family: **Teiidae**

*Ameiva corax* Censky and Paulson, 1992, Ann. Carnegie Mus. 61(3):187, tables 1-3.

PARATYPES (2). 61993-94: [Anguilla]: Little Scrub Island: R.F. Klinikowski; 23 May 1962.

*Bachia huallagana* Dixon, 1973, Univ. Kansas Misc. Publ. Mus. Nat. Hist. 57:25, fig. 8.

TOPOPARATYPES (2). 99488-89 [cited as USNM 192998, 193003]: Perú: Departamento San Martín: Provincia Mariscal Caceres: San José de Tocache (=Tocache Nuevo) on Río Huallaga, 80E12' S, 76E 27' W, 450 m [1476 ft]; W.C. Sherbrooke; 2 February 1967.

*Cnemidophorus dixonii* Scudday, 1973, J. Herpetol. 7(4):364, figs. 1-5.

TOPOPARATYPES (6). 76704-09: [Texas: Presidio Co.]: 24.5 mi [39.2 km] NW Presidio (16.9 mi [27 km] from Jct US 67 and FM 170, then 7.6 mi [12.2 km] NE) on Ireneo Gonzales Ranch; [J. Wright; 21 June 1969].

*Cnemidophorus inornatus cienegae* Wright and Lowe, 1993, J. Arizona-Nevada Acad. Sci. 27:139, fig. 4.

TOPOPARATYPES (2). 44415-16: Mexico: Coahuilla: 13.9 km [8.6 mi] SW of Cuatro Cienegas de Carranza, point of San Marcos Mtn.; C.J. McCoy; 15 June 1966.

*Cnemidophorus laredoensis* McKinney, Kay and Anderson, 1973, Herpetologica 29:361, fig. 1.

TOPOPARATYPES (13). 75515-24, 99490-92 [latter series cited as USNM 194534-36]: Texas: Webb Co.: from Chacon Creek at highway U.S. 83 in Laredo; F.R. Kay and R.A. Anderson; [12 and 14 July 1971].

Family: **Xantusiidae**

*Lepidophyma flavimaculatum lineri* Smith, 1973, J. Herpetol. 7(2):118, plates 1 and 2.

TOPOPARATYPE (1). 134844 [cited as EAL 1406]: Mexico: Oaxaca: at Cafetal Pacifico, 2.1 mi [3.4 km] N and 0.4 mi [0.64 km] E Cadelaria Loxicha, on the trail to Cafetal Hedweges (about 17 km [10.6 mi] N Pochutla); E.A. Liner and M.J. Landy; 14 July 1965.

*Lepidophyma lowei* Bezy and Camarillo, 1997, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (465):1, figs. 1-4, table 1.

TOPOPARATYPES (2). 143367-68 (formerly ENEPI 3734-35): México: Oaxaca: former

Distrito Villa Alta: Municipio Zoogocho, 4.0 km (by rd [2.5 mi]) SE San Bartolomé Zoogocho; (17E 14' N, 96E 15' W; ca. 2200 m [7218 ft] elev.); J.L. Camarillo R.; 28 Sept. 1991.

*Lepidophyma mayae* Bezy, 1973, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (239):1, figs. 1-3. TOPOPARATYPES (2). 75194-95 [formerly KU 59553, 59557]: Guatemala: Depto. Alta Verapaz: near Chinajá, 140 m [459 ft]; W.E. Duellman and J. Wellman; [24 and 28 June 1960].

*Lepidophyma tarascae* Bezy, Webb and Alvarez, 1982, Herpetologica 38(3):361, figs. 1-3. TOPOPARATYPE (1). 134226 [formerly ECNB 9223]: México: Michoacán: Aquila District: near Mexiquillo, a small town on the coast of Michoacán, ca. 77 km (air [47.9 mi]) WNW of Lázaro Cárdenas and the mouth of the Río Balsas (18E 08' N, 103E 56' W); A. Ocana; 10 July 1976.

*Xantusia extorris* Webb, 1965, Am. Mus. Novit. 2231:2, figs. 1-5. [= *Xantusia vigilis extorris*] PARATYPES (30). 2014-43: México: Durango: 6 mi [9.7 km] S Pedriceña; R.G. Webb and A.L. Metcalf; 28 May 1964.

*Xantusia henshawi bolsonae* Webb, 1970, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (194):1, figs. 1 and 2. [= *Xantusia bolsonae*] HOLOTYPE. 55956: México: Durango: 6-6.5 road mi [9.7-10.5 km] NE Pedriceña on Mexican Highway 40, at an elevation of 4400 ft [1341 m]; R.G. Webb and R.M. Kinniburgh; August 24-25, 1969. TOPOPARATYPES (8). 55957-64.

*Xantusia henshawi gracilis* Grismer and Galvan, 1986, Trans. San Diego Soc. Nat. Hist. 21(10):155, fig. 1A. [= *Xantusia gracilis*] TOPOPARATYPE (1). 132488: California: San Diego County: from the Truckhaven Rocks in the Anza-Borrego Desert State Park, 24.5 km [15.2 mi] E and 6.3 km [3.9 mi] N of Borrego Springs; L. Grismer [and J. Sherman]; 4 April 1978.

*Xantusia sanchezi* Bezy and Flores Villela, 1999, Herpetologica 55(2):176, figs. 2, 3, 4, table 1. TOPOPARATYPES (2). 144220-21: México: Zacatecas: Municipio de Mayahua: 5 km (via Hwy 54 [3.1 mi]) N Moyahua de Estrada; (21E 19' N, 103E 10' W; approximately 1200 m [3937 ft] elev.); O. Flores Villela and R.L. Bezy; 23 September 1990.

## SQUAMATA—SNAKES

Family: **Colubridae**

*Bogertophis subocularis amplinotus* Webb, 1990, Texas J. Sci. 42(3):228, figs. 1-4. PARATYPE (1). 138877 (cited in Appendix I as UMML [=USC 5525]). México: Durango: 8.6 road mi (Hwy 47 [13.8 km]) NW Pedriceña toward Emiliano Carranza; [G. Adest; no date listed in catalog].

*Geophis betaniensis* Restrepo and Wright, 1987, J. Herpetol. 21(3):191, figs. 1-3.

TOPOPARATYPE (1). 136189: Colombia: Departamento del Valle: Municipio de Bolivar: eastern slope of Cordillera Occidental at Corregimiento de Betania, 76E 21' W and 4E 23' N, 1680 m [5512 ft] elev.; J.H. Restrepo; 18 Jan. 1984.

*Geophis downsi* Savage, 1981, Copeia 1981(3):549, fig. 1.

HOLOTYPE. 130254, male: Costa Rica: Provincia de Puntarenas: Canton Corredores: Las Cruces Field Station and Botanical Garden, 4 km [2.5 mi] S San Vito de Jaba, 1,200 m [3937 ft]; N.J. Scott, Jr., and members of an Organization for Tropical Studies (OTS) field class; 14-16 July 1972.

PARATYPE (1). 147210 [cited as CRE 8428]: Costa Rica: Provincia de Puntarenas: Canton Corredores: Las Cruces Field Station and Botanical Garden, on trail to Rio Jaba, 1100 m [3609 ft]; July 2-3, 1972; C.S. Lieb and S. Limerick.

*Geophis talamancae* Lips and Savage, 1994, Proc. Biol. Soc. Washington 107(2):410, fig. 1A, B.

HOLOTYPE. 147196 [cited as CRE 5343], female: Costa Rica: Puntarenas Province: Cantón Coto Brus: Zona Protectora Las Tablas, Finca Jaguar, 1800 m [5906 ft] elevation; Karen R. Lips; 1 Sep 1992.

*Hypsiglena ochrorhynchus deserticola* W. Tanner, 1944, Great Basin Nat. 5(3/4):59, plate I, fig. 1, plate III, fig. 3.

TOPOPARATYPE (1). 147538 [cited as BYU 2197]: Utah: Utah Co.: on the W side of Cedar Valley, between 3 [5 km] and 4 mi [6.4 km] NW of Chimney Rock Pass; W.W. Tanner; 11 August 1939.

*Hypsiglena ochrorhynchus lorealus* W. Tanner, 1944, Great Basin Nat. 5(3/4):63, plate II, figs. 1 and 8.

PARATYPES (3). 101916-17 [cited as AH 1075-76], 101918 [cited as AH 1143]: Utah: Carbon Co.: in and near Price; [R. Hardy; 25, 29 May 1937 and 12 May 1938].

*Hypsiglena tanzeri* Dixon and Lieb, 1972, Contrib. Sci. Nat. Hist. Mus. Los Angeles Co. (222):2, figs. 1A and 1B.

PARATYPE (1). 72068: Mexico: Querétaro: 0.8 km [0.5 mi] W Landa de Matamoros, 1067 m [3501 ft]; C. Lieb and D. Albaugh; 20 May 1971.

*Lampropeltis triangulum andesiana* Williams, 1978, Milwaukee Public Mus. Publ. Biol. Geol. (2):231, figs. 69-70.

PARATYPE (1). 36771: Colombia: Cauca [Valle]: 18 mi [29 km] N Cali, [2000 m (6562 ft)]; P. Silverstone and Sr. Diaz; 17 July 1966].

*Lampropeltis triangulum dixonii* Quinn, 1983, Trans. Kansas Acad. Sci. 86(4):127, fig. 5.

PARATYPE (1). 119191: Mexico: San Luis Potosí: 16.1 km [10 mi] S Río Verde; [L. Landry; June 1975].

*Lampropeltis triangulum hondurensis* Williams, 1978, Milwaukee Public Mus. Publ. Biol. Geol. (2):212, figs. 61-62.  
PARATYPE (1). 2531: Nicaragua: Departamento Zelaya: El Recife; [1951].

*Lampropeltis triangulum sinaloae* Williams, 1978, Milwaukee Public Mus. Publ. Biol. Geol. (2):167, figs. 43-44.

HOLOTYPE. 38529, female: Mexico: Sinaloa: 32.4 mi. N Mazatlán; R.M. Davis; 9 July 1962.  
PARATYPES (34). All from Mexico: Nayarit: 2467: Isabel Island; G. Willet; 7 February 1938; 38521: [16 mi (26 km) E] San Blas; R.B. Loomis; 16 July 1960; 38522: 1 mi [1.6 km] E San Blas; Bateman; 30 June 1964; Sinaloa: 6889: 9 mi [14.4 km] N Mazatlán; R.W. McDiarmid; 15 June 1962; 6890: 16.9 mi. [27 km] N Mazatlán; R.W. McDiarmid; 29 June 1962; 6891: 14 mi [22.4 km] N Mazatlán; R.W. McDiarmid; 29 June 1962; 6892: 1.6 mi [2.6 km] E La Cruz; R.W. McDiarmid; 3 July 1962; 6893: San Ignacio; R.W. McDiarmid; 19 July 1962; 6894: Hwy 15, 15.1 mi [24.2 km] S San Ignacio turnoff; R.W. McDiarmid; 16 July 1962; 6895: 47.7 mi [76.3 km] S Río Elota; R.W. McDiarmid; 20 July 1962; 6896: 22.4 mi [35.8 km] N Mazatlán; R.W. McDiarmid; 22 July 1962; 6897: 18.4 mi [29.4 km] SE Villa Unión; R.W. McDiarmid; 23 July 1962; 6898: 22.1 mi [35.4 km] N Mazatlán; R.W. McDiarmid; 30 July 1962; 6899: 34.6 mi [55.4 km] N Terreros; R.W. McDiarmid; 20 August 1962; 6900: 12 mi [19 km] S Terreros; R.W. McDiarmid; 23 August 1962; 6901: 47 mi [75 km] S Culiacán; N.J. Scott, Jr.; 30 July 1962; 6902: 60.6 mi [97 km] S Culiacán; N.J. Scott, Jr.; 30 July 1962; 6903: 4.8 mi [7.7 km] N Huanacastle (Rancho); N. J. Scott, Jr.; 2 August 1962; 6904 [incorrectly cited as 9604]: 44 mi [70 km] N Culiacán; N.J. Scott, Jr.; 24 August 1962; 6905: 21.3 mi [34.1 km] S Terreros; N.J. Scott; 24 August 1962; 6906: 13.7 mi [22 km] S Guamuchil; N.J. Scott, Jr.; 26 August 1962; 6907: 9 mi [14.4 km] S Culiacán; N.J. Scott, Jr.; 31 August 1962; 6908: 50 mi [80 km] S Culiacán; R. Etheridge; 20 October 1960; 6909: Teacapán; N. J. Scott, Jr.; 2 July 1960; 6910: 2 mi [3 km] SE Teacapán; N.J. Scott, Jr.; 10 July 1960; 6911: 1 mi [1.6 km] N Teacapán; N.J. Scott, Jr.; 29 May 1960; 7241: 2 mi [3 km] N Teacapán; N.J. Scott, Jr.; 23 June 1960; 25913: 5 mi [8 km] N Mazatlán; J.R. Dixon and R.H. Heyer; 21 July 1966; 38193: 2.8 mi [4.5 km] NW Rosario; R.W. McDiarmid; 7 June 1967; 38525: "Sinaloa" (no other data); J. Mavis; 5 September 1958; 38526: 8.5 mi [13.6 km] N Villa Unión, Hwy 15; W. J. Wrenn; 7 July 1962; 38527: 2.3 mi [3.7 km] E Villa Unión, Hwy 40; W.J. Wrenn; 26 July 1963; 38528: 93 km S Culiacán; J. Mavis; June 1959; 38530: 52 mi [83 km] N Mazatlán; W.J. Wrenn; 8 July 1962.

*Lampropeltis triangulum stuarti* Williams, 1978, Milwaukee Public Mus. Publ. Biol. Geol. (2):217, figs. 63-64.

PARATYPES (3). 38194: El Salvador: La Libertad: 4.2 mi [6.7 km] W Ateos; R.W. McDiarmid; 14 June 1965; 2533: Nicaragua: Madriz: near Honduran border on Pan American Hwy; [July 1965]; 2532: Managua: Finca El Tizate (km. 17, Route 2); [July 1965].

*Macroprotodon cucullatus ibericus* Busack and McCoy, 1990, Ann. Carnegie Mus. 59(4):271, figs. 1, 3 and 4, tables 4 and 5.

PARATYPE (1). 113885: Spain: Cádiz Province: Rota; (36E 37' N, 6E 21' W); [2 April 1973; via R.W. McDiarmid].

*Masticophis flagellum ruddocki* Brattstrom and Warren, 1953, *Herpetologica* 9:177.

TOPOPARATYPE (1). 19267 [cited as UCLA 6107]: California: Kern Co.: Wheeler Ridge; [J. Warren; 28 March 1953].

PARATYPE (1). 19256 [cited as UCLA 6032]: California: San Luis Obispo Co.: Cuyama River bed at State Highway 166; [B. Brattstrom; 25 April 1953].

*Sonora semiannulata blanchardi* Stickle, 1938, *Copeia* 1938 (4):185.

PARATYPE (1). 136415 [cited as SM, unbanded specimen]: Texas: Brewster Co.: Hot Springs; [S. Mulaik; 28 July 1933].

*Sonora semiannulata gloydi* Stickel 1938, *Copeia* 1938(4):186.

PARATYPE (1). 21580 [cited as UCLA 32]: Arizona: Coconino Co.: Grand Canyon National Park, mouth of Garden Creek; [C. Bogert; 15 August 1931].

*Sympholis lippiens rectilimbus* Hensley, 1966, *Herpetologica* 22(1):51, figs. 1 and 2.

PARATYPES (3). 6502: México: Sinaloa: 45 mi [72 km] N Culiacán (near Terrero); [R. McDiarmid; 28 August 1962]; 103695 [cited as LBSC 1387]: 39.2 mi [62.7 km] N Mazatlan; [W. Warren; 8 July 1962]; 103696 [cited as LBSC 1388]: 5 mi [8 km] S Culiacán; [R. Loomis; 8 July 1960].

HYPOPARATYPE (1). 6501: México: Sinaloa: 9 mi N Mazatlán, [Hwy 15; 33 mi (53 km) S San Ignacio turnoff; R.W. McDiarmid; 13 July 1962. This specimen was discussed in the description of this taxon and was designated as a hypoparatype with the citation for Smith (1946, *Science* 104[2701]:331) given for the use of the term. As defined by Smith it was to be used as "a category for specimens upon which an author originally bases his concept of the species newly named, but which are neither the single, select specimen (holotype) nor the other specially designated specimens (paratypes) serving as his chosen representatives of the presumed species."].

*Tretanorhinus nigroluteus dichromaticus* Villa, 1969, *J. Herpetol.* 3(3-4):145, fig. 1.

HOLOTYPE. 44426, female: Honduras: Islas de la Bahía: Roatán Island, between 2 and 5 kms [1.2 and 3.1 mi] N of Coxen Hole; J.R. Meyer and L.D. Wilson; 14 July 1967.

TOPOPARATYPES (19). 44417-25, 44427-36.

*Urotheca myersi* Savage and Lahanas, 1989, *Copeia* 1989(4):892, fig. 1.

HOLOTYPE. 137604, juvenile male: Costa Rica: Provincia de San Jose: Canton Perez-Zeledon: from the Cordillera de Talamanca, near Finca de Jardin (2255 m [7398 ft]), approx. 9.6 km [6 mi] south by road of Villa Mills, just south of Division, on the Carretera Interamericana (Ruta 2); J. Hernandez Camacho; 11 June 1961.

PARATYPE (1). 146213 [cited as CRE 10095]: Costa Rica: Provincia de San Jose: Canton Perez-Zeledon: from the west slope of Cerro Chirripo Grande, on the trail leading from San Gerardo to the peak, 5 km [3.1 mi] E of San Gerardo (2000 m [6562 ft]); P.N. Lahanas; 26 Feb. 1986.

Family: **Viperidae**

***Bothrops tzotzilorum*** Campbell, 1985, J. Herpetol. 19(1):48, figs. 1-3. [= *Cerrophidion tzotzilorum*] PARATYPE (1). 58141: Mexico: Chiapas: 11.0 km [6.8 mi] SE San Cristobal de Las Casas, [8000 ft (2439 m); J. Wright and J. Dixon; 1 October 1969].

***Crotalus lepidus maculosus*** Tanner, Dixon and Harris, 1972, Great Basin Nat. 32(1):16, fig. 1. PARATYPE (1). 50960: Mexico: Sinaloa: 4.8 mi [7.7 km] E Santa Rita (Hwy 40); [S.E. Emerson, J. Wright and R.W. McDiarmid; 20 August 1968].

***Crotalus willardi obscurus*** Harris and Simmons, 1976, Bull. Maryland Herpetol. Soc. 12(1):5. TOPOPARATYPE (1). 67265: New Mexico: Hidalgo Co.: upper end Indian Creek Canyon, Animas Mountains; [R. Johnson and R. Harris; 23 May 1965].

Family: **Typhlopidae**

***Typhlops costaricensis*** Jimenez and Savage, 1962, Rev. Biol. Tropical 10(2):199.

HOLOTYPE. 26767 [cited as Museo Nacional de Costa Rica. Reptile No. 1960]: Costa Rica: Provincia de Puntarenas: Sierra de Tilarán, Monteverde, elevation 1500 m [4921 ft]; J. Walter; between March 6-13, 1960.

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