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1887.

CATALOGUE

OF

BATRACHIANS AND REPTILES

OF

CENTRAL AMERICA AND MEXICO

BY

E. D. COPE.



WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1887.

## LETTER OF TRANSMITTAL.

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PHILADELPHIA, *January 16, 1886.*

DEAR SIR: In the following pages you will find a systematic and synonymic catalogue of the species of Batrachia and Reptilia described up to this date as inhabiting Central America and Mexico. It is very largely based on the specimens contained in the Museum of the Smithsonian Institution. To each species is added a list of the localities at which it has been discovered, together with the name of the discoverer, or, in the absence of that, with the name of the author who is responsible for the correctness of the locality.

In the great majority of cases I have seen the species, and am responsible for their validity, but I have admitted a number on the authority of other authors. For aid in the identification and in other respects, I am indebted to the magnificent report on reptiles and amphibians by Duméril and Bocourt in the series published by the Mission Scientifique au Mexique et dans l'Amérique Centrale, and to the work of Günther in the *Biologia Centrali-Americana*, of which four numbers have appeared up to this date. The receipt, at the last moment, of the Catalogue of the Lizards in the British Museum, by Boulenger, has enabled me to make a number of additions, but not to quote it as fully as I should like.

No attempt has been made to arrange the species in accordance with their geographical distribution, as the facts collected to this end are not yet sufficiently numerous.

The total number of genera represented in this catalogue is 197, and of species 705. These are divided between 135 Batrachia and 570 Reptilia. For further details, see end of catalogue.

I am your obedient servant,

E. D. COPE.

Professor S. F. BAIRD,

*Secretary of the Smithsonian Institution.*

# CATALOGUE

OF

## BATRACHIA AND REPTILIA OF CENTRAL AMERICA AND MEXICO.

### BATRACHIA.

#### URODELA.

##### AMBLYSTOMIDÆ.

###### *Amblystoma* Tschudi.

Baird, Journ. Acad. Nat. Sci. Phila., 1847, p. 283; Cope, Proc. Phila. Acad., 1867, p. 167; *Siredon* Wagler, Nat.-System der Amphibien, 1830, p. 209.

AMBLYSTOMA MEXICANUM Shaw; Cope, Proc. Phila. Acad., 1867, p. 184; *Gyrinus mexicanus* Shaw, Nat. Misc. 1800, p. 343; *Siren pisciformis* Shaw; *Siredon axolotl* Wagler, Cuvier, Humboldt; *Hypochthon pisciformis* Gravenhorst; *Acholotes guttatus* Owen; *Siredon mexicanus* Baird.

Valley of Mexico, *Potts*, *Sumichrast*, *Flohr*.\*

AMBLYSTOMA TIGRINUM (Green) Baird, Journ. Acad. Nat. Sci. Phila., 1847, p. 292; Cope, Proceeds. Acad. Phila. 1867; Boulenger Cat. Bat. Grad. B. M., p. 43; *A. marortium* and *A. proserpine* Baird, l. c.; *A. maculatum* Hallowell; *Amblystoma* Duméril, Nouv. Archives de Museum, ii; Comptes Rendus de l'Académie des Sciences, 1865, pp. 765-795; *Siredon tigrinus* Velasco, Naturaleza México, Dec., 1878.

"Mexico," Duméril; between Chihuahua and the city of Mexico, *Potts*; Valley of Mexico, *Velasco*; Guanajuato (mountains), *Dugés*; Huasca, *Comision Geográfica*.

AMBLYSTOMA DUMERILI Dugés; *Siredon dumerili* Dugés, Naturaleza México, 1870, p. 241, pl. v.

Lake Patzenaro, Guanajuato, *Dugés*.

##### PLETHODONTIDÆ.

###### *Ædipina* Keferstein.

Archiv für Naturgeschichte, 1865, p. 299; *Opheobatrachus* Gray, Ann. Magaz. Nat. Hist., 1868, p. 297; Cope, Proc. Acad. Phila., 1868, p. 299.

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\*The axolotls whose metamorphosis has been observed in confinement by Duméril and others, are not the spotted axolotl of the Valley of Mexico, whose metamorphosis has not yet been recorded, as I pointed out in the Am. Journal Sci. Arts, Feb. 1871, and as Boulenger observes in the Catalogue Batrachia Gradientia British Museum, 1882, p. 51. It is, however, probable that it takes place in the latter species, so that I have referred it to *Amblystoma*.

**ÆDIPINA UNIFORMIS** Keferst., Arch. f. Naturgeschichte, 1863, p. 299; *Opheobatrachus vcrmicularis* Gray, Annals and Magaz. Nat. Hist., 1868, p. 297; *Spelerpes uniformis* Boulenger, Catal. Batr. Grad. Brit. Museum 75.

*Hab.*—Costa Rica, *Salvin*; E. Costa Rica, *Gabb*; Costa Rica, *Seebach*.

**ÆDIPINA LINEOLUS** Cope; *Spelerpes lineolus* Cope, Proc. Acad. Nat. Sci. Phila., 1865, p. 196; *Opheobatrachus lineolus* Cope, l. c., 1869, p. 101.

Orizaba, *Sumichrast*.

#### Ædipus Tschudi.

1838, Gray; Cope, Proc. Acad. Nat. Sci. Phila., 1869, p. 102; *Geotriton pars* Cope, Proc. Acad. Phila., 1860, p. 373.

**ÆDIPUS JUCATANICUS** Boulenger; *Spelerpes yucatanicus* Boulenger, Catal. Batr. Grad. Brit. Mus., p. 72, 1883.

Yucatan, *Boulenger*.

**ÆDIPUS VARIEGATUS** Gray; Catal. Batr. Grad. Brit. Mus., 1850, p. 48; *Salamandra variegata* Gray, Griffith's Animal Kingdom, ix, p. 107; *Bolitoglossa mexicana* part Dum., Bibr. Erpétologie Générale, ix, 1854, p. 93; *Ædipus carbonarius* Cope, Proc. Acad. Phila., 1869, 103; *Geotriton carbonarius* Cope, loc. cit., 1860, p. 373. *Spelerpes atitlanensis* et *mulleri* Brocchi, Miss. Sci. Mexique, p. 118, pl. xix, xx; *S. variegatus* Boul., Cat. Bat. Grad. B. M., 73.

Vera Cruz, *Sartorius*; Orizaba, *Sumichrast*; Jalapa, *Montes de Oca*; Tehuantepec, *Sumichrast*.

Subspecies **SALVINI** Gray, Annals and Mag. Nat. Hist., 1868, p. 297.

Guatemala, *Salvin*, *Hague*; Tehuantepec, *Sumichrast*.

**ÆDIPUS RUFESCENS** Cope, Proc. Acad. Phila., 1869, p. 104; Boulenger, Catal. Batr. Grad. Brit. Mus., p. 71; *Spelerpes (Ædipus) lignicolor* Peters Monatsb. Ak. Berl. 1873, p. 16.

Orizaba and Cordova, Vera Cruz, *Sumichrast*.

**ÆDIPUS MORIO** Cope, Proc. Acad. Phila., 1860, p. 103; *Geotriton carbonarius* black variety, Cope, l. c., 1868, p. 313. *Spelerpes morio* Boulenger, Catal. Bat. Grad. Brit. Mus. 1883, p. 70.

Guatemala, *van Patten*; ? E. Costa Rica, *Gabb*; Plateau of Costa Rica, *Zeledon*

#### Spelerpes Raf.

Baird emend., Journ. Acad. Phila., 1847; Cope, Proc. Acad. Phila., 1869, p. 104; *Pseudotriton* Tsch., Baird, Hallow.

**SPELERPES CHIROPATERUS** Cope, Proc. Acad. Phila., 1863, p. 54; *S. orculus* Cope, loc. cit., 1865, p. 196.

*Hab.*—Mirador, near Vera Cruz, *Sartorius*; Orizaba, alpine zone, *Sumichrast*.

**SPELERPES CEPHALICUS** Cope, loc. cit., 1865, p. 196; Boulenger, Catal. Batr. Grad. Brit. Mus., p. 67.

**SPELERPES LEPROSUS** Cope, loc. cit., 1869, p. 105; Boulenger, Catal. Batr. Grad. Brit. Mus., p. 68; Brocchi, Mission Scientif. Mex., plate xix, f. 1-2.

Vera Cruz, alpine zone, *Sumichrast*.

**SPELERPES BELLII** Gray, Catal. Brit. Mus., 1846; Cope, Proc. Acad. Phila., 1860, p. 372; l. c., 1869, 104; *Ædipus platydactylus* "Tsch." Baird, Journ. Acad. Phila., 1847, 282-6; *Bolitoglossa mexicana* Duméril et Bibron, Erp. Gén., ix, p. 93, 1854, pl. civ, fig. 2 (exclus. synonym.).

Vera Cruz, *Sumichrast*; Jalapa, *De Oca*; between Chihuahua and the city of Mexico. *Potts*; Guanajuato, *Dugés*; Zacualtipan *Bernad*.

**Plethodon** Tsch.

PLETHODON CROCEATER Cope, *Proceeds. Acad. Phila.*, 1857, p. 210.  
Lower California, *Xantus, Fisher*.

DESMOGNATHIDÆ.

**Thorius** Cope.

*Proc. Acad. Phila.*, 1869, p. 111.

THORIUS PENNATULUS Cope, l. c., 111; *American Naturalist*, 1869, p. 222; *Boulenger, Catal. Batr. Grad. Brit. Mus.*, p. 79.

Orizaba, Mexico, *F. Sumichrast, E. D. Cope*.

CÆCILIIDÆ.

**Gymnopsis** Peters.

*Monatsberichte Akad. Wiss. Berlin*, 1879, 930, 938.

GYMNOPIUS OLIGOZONA Cope, *Proc. Amer. Philos. Soc.*, 1885, p. 171; *Siphonops oligozonus* Cope, *Proc. Amer. Philos. Soc.*, 1877, p. 91.

Habitat uncertain.

GYMNOPIUS SIMA Cope; *Siphonops simus*, Cope, *Proc. Amer. Philos. Soc.*, 1877, p. 91.

Costa Rica, exact locality uncertain, *Von Franzius*.

GYMNOPIUS MULTIPLICATA Peters, *Monatsber.*, l. c., p. 939; *Syphonops multiplicatus* Peters, l. c., 1874, 616.

Veragua, *Peters*.

GYMNOPIUS PROXIMA Cope, *Proc. Amer. Philos. Soc.*, 1885, p. 171; *Siphonops proximus* Cope, *Proc. Amer. Philos. Soc.*, 1877, p. 90; *S. mexicanus* Cope, *Journ. Acad. Nat. Sci. Phila.*, 1875, p. 96.

Coast of Eastern Costa Rica, *Gabb*.

**Dermophis** Peters.

*Monatsberichte Akad. Wiss. Berlin*, 1879, p. 937.

DERMOPHIS MEXICANUS Dum. Bibr., *Peters Monatsber*, loc. cit.; *Siphonops mexicanus* Dum. Bibr. *Erp. Gen.*, viii, 284.

Tehuantepec, *Sumichrast*; Tobasco, *Laszlo*.

? DERMOPHIS SYNTREMUS Cope, *Proc. Amer. Philos. Soc.*, 1885, p. 171; *Siphonops syntremus* Cope, *Proc. Acad. Phila.*, 1866, p. 129.

Honduras, *Parsons*.

**Herpele** Peters.

*Monatsber. Akad.*, Berlin, 1879, p. 939.

HERPELE OCHROCEPHALA Cope, *Proc. Amer. Philos. Soc.*, 1885, p. 171. *Cæcilia ochrocephala* Cope, *Proc. Acad. Phila.*, 1866, p. 132; *Journ. Acad. Phil.*, 1875, p. 155. *Brocchi*, *Mission Scientif. Mex.*, plate xxi.

Panama, *Gallar, Nelson*; Panama, Atlantic side, *Bransford*.

**Cæcilia** Linn.

*Wagler, System d. Amphibien*, 1830.

CÆCILIA ISTHMICA Cope, *Proc. Amer. Philos. Soc.*, 1877, p. 91; *Boulenger, Catal. Batr. Grad. Brit. Mus.*, p. 94.

East side of the Isthmus of Darien, *Selfridge*.



## ANURA.

## ARCIFERA.

## BUFONIDÆ.

## Engystomops Espada.

Ann. Soc. Espan., i, 1872, p. 86; *Paludicola* "Wagl." Cope nec Wagleri, Proc. Acad. Phila., 1884, 180; *Microphryne* Peters, Monatsber. Berlin Akad., 1873, p. 616; *Peralaimos* Espada, Viaj. Pac. Vert., p. 163, teste Boulenger.

ENGYSTOMOPS PUSTULOSUS Cope; Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 275; *Paludicola pustulosa* Cope, Proc. Acad. Phila., 1864, p. 180; *Microphryne pustulosa* Peters; Cope, Journ. Acad. Phila., 1875, p. 155.

Buchio Soldado, Panama, *Bransford*; Tehuantepec, *Sumichrast*.

## Bufo Laurenti.

*Rhabo*, *Bufo*, *Incilius*, *Chilophryne*, Cope.

BUFO PLEUROPTERUS Schmidt, Denkschriften Wiener Akad. Wiss., 1858, p. 252, pl. ii, figs. 17-19; Cope, Journ. Acad. Phila., 1825, p. 155.

Buchio Soldado, Panama, *Bransford*; Veragua, *Warczewicz*.

BUFO HEMATITICUS Cope, Proc. Acad. Phila., 1862, p. 157; Journ. Acad. Phila., 1875, p. 155; et var. *lachrymans*, l. c.; *Rhabo hematiticus*, l. c., 1863, p. 49.

Talamanca, Costa Rica, *Gabb*; Mary Caretta, Panama, *Bransford*; Coban, Vera Paz, *Salvin*; West coast of Central America; Nicaragua, *Bransford*.

BUFO POLITUS Cope, Proc. Acad. Phila., 1862, p. 158; Boulenger, Catal. Batr. Grad. Brit. Mus., 1882, p. 292.

Graytown, Nicaragua, *Caldwell*.

BUFO COMPACTILIS Weigmann, Isis, 1833, p. 661; *Bufo speciosus* Girard, Proc. Acad. Phila., 1854, p. 86; Baird, U. S. & Mexican Boundary Survey, 2C, pl. xl, figs. 5-10;

*Bufo anomalus* Günther, Catal. Batr. Sal. Brit. Mus., p. 57, 1858; *Bufo levifrons* Brocchi, Bull. Soc. Philomathique, Paris, 1877, p. 187; *Dromoplectrus anomalus* Camerano.

Valley of Mexico (*J. Potts*) to Rio Grande; Guanajuato, *Dugés*; Pueblo, *Comision Geográfica*.

BUFO MONKSLE Cope, Proc. Amer. Philos. Soc., 1879, p. 263; Boulenger, Catal. Batr. Grad. Brit. Mus., 1882, p. 292.

Guanajuato, *Dugés*.

BUFO DEBILIS Girard, Proc. Acad. Phila., 1854, p. 87.

Chihuahua and Sonora, *Baird*; Mazatlan, *Bischoff*; Tamaulipas, *Baird*.

BUFO PUNCTATUS Bd. and Girard, Proc. Acad. Phila., 1852, p. 172.

Chihuahua River and tributaries, *J. Potts*; Guanajuato, *Dugés*; Lower California, *Xantus*.

BUFO INTERMEDIUS Günther, Catal. Batr. Sal. Brit. Mus., 1858, p. 140, pl. 18, fig. A. Orizaba, *Sumichrast*; Guanajuato, *Dugés*; Matamoros, Pueblo, *Comision Geográfica*.

BUFO ARGILLACEUS Cope, Proc. Phila. Acad., 1868, p. 138.

Colima, *J. Xantus*.

BUFO MARINUS Linn.; Boulenger, Cat. Bat. Sal. Brit. Mus., 1882, p. 315; *Rana marina* Linn.; *Bufo aqua* Latreille et auctorum; *Bufo horribilis* Wiegmann, 1833, p. 654.

Panama, *Bransford*; Costa Rica, *Gabb*; Nicaragua, *Bransford*; Tehuantepec, *Sumichrast*; Yucatan, *Schott*; Peten, *Brendt*; Cordova and Orizaba, *Sumichrast*; Colima, *Xantus*; Coatzacoaleos R. *Streets*; Belize, *Brocchi*; Cozumel Id., *Ridgway*.

- BUFO STERNOSIGNATUS Günther, Catal. Batr. Sal. Brit. Mus., 1858, p. 68; Cope, Journ. Acad. Phila., 1875, p. 101.  
 Tehuantepec, *Sumichrast*; Costa Rica, *Keferstein*; Coatzacoalcos R., *Streets*.
- BUFO CANALIFERUS Cope, Proc. Amer. Phil. Soc., 1877, p. 85.  
 Tuchia, Tehuantepec, *Sumichrast*.
- BUFO VERAGUENSIS Schmidt, Deuksh. Weinen. Akad. Wiss, 1858, 253, pl. xx, f. 20; iii, f. 21; Günther, Catal. Brit. Mus., p. 142.  
 Veragua, *Warczewicz*.
- BUFO COCCIFER Cope, Proc. Acad. Phila., 1866, p. 130; Journ. Acad. Phila., 1875, p. 100, pl. xxiii, fig. 5.  
 Costa Rica, *Riotte*; Tuchia, Tehuantepec, *Sumichrast*; City of Guatemala, *Van Patten*.
- BUFO VALLICEPS Weigman, Isis, 1833, p. 657; *Bufo granulatus* Baird & Girard, Proc. Acad. Phila., 1852, p. 173; *B. nebulifer* Girard, loc. cit., 1854, p. 87; U. S. & Mex. Boundary Survey, ii, p. 25, pl. xi, figs. 1-4.  
 Costa Rica, *Gabb*; Nicaragua, *Bransford*; Tehuantepec, *Sumichrast*; Tamaulipas, *Baird*; Vera Paz, *Brocchi*; Puebla, *Comision Geográfica*.
- BUFO MELANOCILORUS Cope, Proc. Amer. Phil. Soc., 1877, p. 85; *B. vallycepos* var. Cope, Journ. Acad. Phila., 1865, p. 100.  
 E. Costa Rica, *Gabb*.
- BUFO AURITUS Cope, Journ. Acad. Phila., 1875, p. 99.  
 Talamanca, Costa Rica, *Gabb*; West coast Central America.
- BUFO CRISTATUS Weigman, Isis, 1833, p. 660.  
 Xalapa, *Montes de Oca*; Orizaba and Vera Cruz, *Sumichrast*.
- BUFO BOCOURTI Brocchi, Bulletin de la Société Philomathique de Paris, 7 (1), p. 186.  
 Totonicapam *Bocourt*.

Ollotis Cope.

- Journ. Acad. Phila., 1875, p. 98.
- OLLOTIS CERULESCENS Cope, l. c., 1875, p. 98.  
 From 3,000 to 5,000 feet elevation on Pico Blanco, Talamanca, Costa Rica, *Gabb*.

Crepidius Cope.

- Journ. Acad. Phila., 1875, p. 97.
- CREPIDIUS EPIOTICUS Cope, l. c., pl. xxiii, fig. 2.  
 From 5,000 feet elevation on Pico Blanco; Salamanca, Costa Rica, *Gabb*.

Cranopsis Cope.

- Journ. Acad. Phila., 1875, p. 96.
- CRANOPSIS FASTIDIOSUS Cope., l. c., 96, pl. xxiii, fig. 1.  
 From 2,500 feet elevation on the slope of Pico Blanco, in the district of Talamanca, Costa Rica, *Gabb*.

RHINOPHRYNIDÆ.

Rhinophrynus Dum. Bibr.

- Erpétologie Générale, viii, p. 757; Günther, Catal. Batr. Sal. Brit. Mus., p. 127.
- RHINOPHRYNUS DORSALIS Dum. Bibr., l. c., p. 758, pl. xci, figs. 2-2a; *R. rostratus* Brocchi, Bull. Soc. Philomath. Paris, i, p. 196; Miss. Sci. Mexique, Batr., pl. ix, fig. 1.  
 Tehuantepec, *Sumichrast*; Peten, *Berendt*; Tobasco, *Laszlo*; Tuxpan, *Linneccum*.



## SCAPHIOPIDÆ.

**Scaphiopus** Holbr.

SCAPHIOPUS COUCHII Baird; subspecies VARIUS Cope, Proc. Acad. Phila., 1863, p. 52.  
Cape St. Lucas, Lower California, *Xantus*.

SCAPHIOPUS MULTIPLICATUS, Proc. Acad. Phila., 1863, p. 51; *Spea multiplicata* Cope, Journ. Acad. Phila., 1866, p. 81.

*Hab.*—Valley of Mexico, *Potts*.

SCAPHIOPUS HAMMONDII Baird, U. S. Pacific R. R. Surv.; Williamson's Report, 12; Cope, Proc. Acad. Phila., 1863, p. 53; *Spea hammondii* Cope, Journ. Acad. Phila., 1866, p. 81; *Spea stagnalis* Cope (Young), Report of G. G. Exped. and Survs. west of 100th Mer., G. M. Wheeler, v, p. 525, pl. xxv, figs. 6, 7, 8; *Scaphiopus dugési* Brocchi, Bull. Soc. Philomath. Paris, 1879, p. 3; Mission Sci. au Mexique, p. 94, pl. ix, fig. 4.

Chihuahua, *Potts*; Guanajuato, *Dugés*.

## HYLIDÆ.

**Tripriion** Cope.

Journ. Acad. Phila., 1866, p. 85. *Pharyngodon* Cope, Proc. Acad. Nat. Sci. Phila., 1865, p. 193 (preoccupied).

TRIPRIION PETASATUS Cope, Proc. Acad. Phila., 1866, p. 127; *Pharyngodon petasatus*, loc. cit., 1865, p. 193.

Yucatan, *Schott*.

**Diaglena** Cope gen. nov.

Agrees with *Tripriion* in most respects (teste Günther), but differs in having a transverse instead of a vertical pupil.

DIAGLENA SPATULATA Günther; *Tripriion spatulatus* Günther, Ann. Mag. Nat. Hist., 1882, p. 279.

Presidio, West Mexico.

**Pternohyla** Boulenger.

Annals Mag. Nat. Hist., 1882, p. 326.

PTERNOHYLA FODIENS Boul., l. c.

Presidio, West Mexico.

**Scytopsis** Cope.

Proc. Acad. Phila., 1862, p. 354; Journ. Acad. Phila., 1866, p. 85.

SCYTOPSIS VENULOSUS Laurenti; *Rana venulosa* Laur.; *S. hebes* Cope, l. c., 1862, 354; *Acrodytes venulosus* Cope, Nat. Hist. Review, 1855, p. 109; *Rana venulosa* Laurenti, Synopsis Report, 1798, 31; *Hyla venulosa* Daudin, Hist. Rept., viii, 74, Rainettes, p. 35, pl. xiii; Dum. Bibr., viii, 560; Günther, Catal. B. M., 104; *Hypiboas venulosa* Wagler; *Calamita boans* Schneid., Hist. Amphib., 164; *Hyla sonalis et bufonia* Spix, t. 12, figs. 1-2.

Guatemala, *H. Berendt*, Nicaragua, *MacNeil*.

SCYTOPSIS BOULENGERI Cope sp. nov.

Fingers free; heel extending beyond end of muzzle; skin slightly tubercular above.

Head oval, with subacuminato muzzle, and nostrils pierced in the side of the elevated extremity; canthus rostralis and lores concave. Eye prominent, size moderate; its diameter twice that of tympanic membrane, and equal interorbital width,

and the length from its anterior border to the nostril. Internal nares longitudinal; vomerine teeth between them in two transverse fasciculi, which together form a series which is convex backwards. *Ostia pharyngea* half the size of choanæ. Tongue oval. Heel reaching a little beyond end of muzzle. Web short, extending to middle of antepenultimate phalange of fourth digit; none between first and second digits. Fingers free; the first opposing the second, which is longer and equal to the fourth (fifth). Palettes on all digits transversely oval. Skin nearly smooth, but with numerous small warts on the top of the head and the scapular and interscapular regions. Abdomen and sides finely areolate; throat and limbs smooth.

The color above is light gray, with dark gray markings as follows: A wide band descending downwards and forwards from eye; a wide band from eye above tympanum to behind the scapula; a cross-band on the sacrum, and one across the middles of the ilia. These marks are all quite indistinct. Similar cross-bands on exposed surfaces of limbs; six on femur, four on tibia, and five on digit of posterior foot. Concealed surfaces of femur and tibia light (? red or yellow) with purplish black cross-bands; three on front and back of femur, and four on under side of tibia. Several small spots of the same in the groin. Fore legs, throat, and belly immaculate.

Length head and body, 37<sup>mm</sup>; length to tympanum, inclusive, 14<sup>mm</sup>; the hind leg, 63<sup>mm</sup>; the hind foot, 25<sup>mm</sup>.

Nicaragua, *MacNeil*; No. 13974 Nat. Museum. Dedicated to the distinguished zoologist, Dr. G. A. Boulenger.

#### *Smilisca* Cope.

Proc. Acad. Phila., 1865, 194; Journ. Acad. Phila., 1866, p. 85.

SMILISCA BAUDINII Dum. Bibr., *Hyla baudinii* Duméril et Bibron, *Erp. Gén.*, viii, 564; Günther, *Catal. Brit. Mus.*, 105; Cope, *Proc. Acad. Phila.*, 1863; *Hyla vaurilietii* Baird, *Proc. Acad. Nat. Sci. Phila.*, 1854, p. 60; U. S. & Mex. Bound. Surv., t. xxxviii, figs. 1-3; *Hyla vociferans* Baird, U. S. & Mex. Bound. Surv., t. xxxviii, 11, 12, 13 (no description); *Hyla muricolor* Cope, l. c., 1862, p. 359; *Smilisca daulinia* Cope, l. c., 1865, p. 194 (skeleton).

High Valley of San José, Costa Rica, *Van Patten*; Guatemala, *Hague*; Peten, *Berendt*; Tehuantepec, *Sumichrast*; Guadalaxara, *Major*; Cordova and Orizaba, Vera Cruz, *Sumichrast*; Mirador, *Sartorius*; Rio Grande del Norte, *Van Vliet*.

#### *Hypsiboas* Wagler.

Cope emend. *Journ. Acad. Phila.*, 1867, p. 200; *Plectrohyla* Brocchi, *Bull. Soc. Philomath. Paris*, 7 (i), p. 92; *Cauphias* Brocchi, l. c., p. 129.

HYPYSIBOAS MILIARIUS Cope, *Proc. Amer. Philos. Soc.*, 1886, p. 272.

Nicaragua, *Bransford*.

HYPYSIBOAS XEROPHYLLUM Dum. Bibr. *Erp. Gén.*, viii, 549. (*Hyla*) var.

Nicaragua, *Bransford*.

HYPYSIBOAS ALBOMARGINATUS Spix, Cope, *Proc. Amer. Philos. Soc.*, 1886.

Nicaragua, *Bransford*.

HYPYSIBOAS CREPITANS Wied, Wagler, *Syst. Amphib.*, 1830, p. 200; *Hyla crepitans* Wied. *Beiträge zur Naturgeschichte*, Brag, 525; Boulenger, *Catal. Batr. Grad. Brit. Mus.* 1882, 352; *Hyla palmata, doumercei et lecaillanti* Dum. Bibr., *Erp. Générale*, viii, p. 545-550; *Hyla pugnax* Schmidt, *Denkschr. Wiewer Akademie*, 1858, 243, pl. ii, figs. 5-6.

Chiriqui River, *Warczewicz*.

HYPYSIBOAS GUATEMALENSIS Brocchi; *Plectrohyla guatemalensis* Brocchi, *Bull. Soc. Philomathique Paris*, 7 (1), p. 92; *Cauphias guatemalensis* Brocchi, l. c., p. 129. Guatemala, *Brocchi*.

<sup>2</sup> *HYPSIBOAS CRASSUS* Brocchi; *Cauphias guatemalensis* Brocchi, Bull. Soc. Philomathique Paris, 7 (1), p. 130.

"Mexico," Brocchi.

#### Hyla Laurenti.

Dum. Bibr., viii, 542, etc.; Cope, emend., Journ. Acad. Phila., 1865, p. 103.

*HYLA GABBII* Cope, Journ. Phila. Acad., 1875, p. 103.

E. Costa Rica, *Gabb*.

*HYLA NIGRIPES* Cope, Journ. Acad. Phila., 1875, p. 104, pl. xxiii, fig. 7.

E. Costa Rica, *Gabb*.

*HYLA URANOCHROA* Cope, Journ. Acad. Phila., 1875, p. 103, pl. xxvii, fig. 4.

E. Costa Rica, *Gabb*.

*HYLA MIOTYMPANUM* Cope, Proc. Acad. Phila., 1863, p. 47; *H. microtis* Peters, Monatsberichte k. k. Akad. Berlin, 1869, p. 880.

Mirador, Vera Cruz, *Sartorius*; Vera Cruz, *Sumichrast*; Jalapa, *Montes de Oca*; Puebla, *Berkenbusch*; Tehuantepec, *Sumichrast*; Zacualtipan, *Cope*.

*HYLA EBRACCATA* Cope, Proc. Acad. Phila., 1874, p. 69.

Nicaragua, *Bransford*.

*HYLA ARENICOLOR* Cope, Journ. Acad. Phila., 1866, p. 84; *H. affinis* Baird (not Spix); Proc. Acad. Phila., 1854, p. 61; U. S. & Mex. Bound. Survey, ii, p. 29, pl. xxxxiii, figs. 4-7.

Guanajuato, *Dugés*. Between city of Mexico and Chihuahua, *Potts*; valleys of Mexico or Toluca, *Hoegé*.

According to *Dugés*, the voice of this species is like that of a goat. It is, therefore, very different from that of its relative, the *H. versicolor* of the United States.

*HYLA BISTINCTA* Cope, Proc. Amer. Philos. Soc., 1877.

Vera Cruz, ? *Sumichrast*; Zacualtipan, *Bernad*.

*HYLA NIGROPUNCTATA* Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 366.

"Jalapa, *Hoegé*; Cordova, *Sallé*"; Puebla, *Comision Geográfica*.

*HYLA ELÆOCHROA* Cope, Journ. Acad. Phila., 1875, p. 105, pl. xxvi, fig. 3.

E. Costa Rica, *Gabb*; Panama, Pacific side, *Bransford*.

*HYLA QUINQUEVITTATA* Cope, Proc. Amer. Philos. Soc., 1886, p. 273.

Nicaragua, *Bransford*.

*HYLA EXIMIA* Baird, Proc. Acad. Phila., vii, 1854, 61; U. S. & Mex. Bound. Survey, ii, 29, pl. xxxviii, figs. 8-10; *Hyla euphorbiacea* Günther, Catal. Batr. Sal. Brit. Mus., 1858, p. 109, pl. x, fig. 6.

Plateau of Mexico, *Rich*, *Sumichrast*; between Mexico and Chihuahua, *Potts*; Guanajuato, *Dugés*.

Subspecies *STAUFFERII* Cope, Proc. Acad. Phila., 1865, p. 195.

Orizaba, *Sumichrast*; Peters, *Berend*; Guatemala, *Ilague*; Guanajuato, *Dugés*.

This form somewhat resembles the *Chorophilus triseriatus clarkii*.

*HYLA GRACILIPES* Cope, Proc. Acad. Nat. Sci. Phila., 1865, p. 174.

Table-land of Mexico, *Sumichrast*; Puebla, *Comision Geográfica*.

*HYLA SPLENDENS* Schmidt, Denkschriften der Wiener Akademie, 1858, p. 244, pl. i, fig. 7.

"Central America," *Schmidt*.

*HYLA PUMA* Cope, Proc. Amer. Philos. Soc., 1884, p. 183.

Nicaragua, *Mosser*.

*HYLA MOLITOR* Schmidt, Denkschriften der k. k. Wiener Akademie, 1858, p. 245, pl. i, figs. 8-9.

"Central America," *Schmidt*.

*HYLA MICROCEPHALA* Cope, Proc. Amer. Philos. Soc., 1866, p. 281.

Chiriqui, *National Museum Label*; (? *MacNeil*.)

HYLA PUNCTARIOLA Peters, Monatsberichte k. preuss. Acad. Wiss., 1863, p. 462; Cope, Journ. Acad. Phila., 1875, p. 106 (from Bogota).

Subspecies PICTIPES Cope, Journ. Acad. Phila., 1875, p. 106.

E. Costa Rica, *Gabb.*

Subspecies MONTICOLA Cope, l. c.

E. Costa Rica, *Gabb.*

Subspecies MOESTA Cope, l. c.

E. Costa Rica, *Gabb.*

HYLA SPILOMMA Cope, Proc. Amer. Philos. Soc., 1877, p. 86.

Cosamaloapam, Vera Cruz, *Sumichrast.*

HYLA CURTA Cope, Proc. Acad. Phila., 1866, p. 313.

Cape St. Lucas, *Xantus.*

#### Hylella Reinh. & Lützk.

Vidensk. Meddel. Kjöbenhavn, 1861, p. 199.

HYLELLA PLATYCEPHALA Cope, Proc. Amer. Philos. Soc., 1879, p. 267, *H. sumichrasti*

Boulenger, Cat. Batr. Sal. Brit. Mus., 1882, p. 420; *Exerodonta sumichrasti*, Brocchi, Bull. Soc. Philom., Paris, 7 (iii), p. 20.

W. Tehuantepec, *Sumichrast*, 2,500 feet.

#### Agalychnis Cope.

Natural History Review, London, 1865, p. 110; Proc. Acad. Phila., 1865, p. 194; Journ. Acad. Phila., 1866, p. 86.

AGALYCHNIS MORELETII Dum., *Hyla moreletii* A. Dum., Ann. des Sci. Nat., 1854, p. 169;

*Hyla holochlora* Salvin, Proc. Zool. Soc. London, 18; *Agalychnis moreletii* Cope, Nat. Hist. Rev., l. c.; Journ. Acad. Phila., 1875, p. 107.

Vera Paz, Guatemala, *Morelet, Salvin, Hague*; Costa Rica, *Riötte, Van Patten.*

AGALYCHNIS CALLIDRYAS Cope, Nat. Hist. Rev., l. c.; *Hyla callidryas* Cope, Proc. Acad. Phila., 1862, p. 359.

Near Cordova, Vera Cruz, *Sumichrast*; Panama, *Field, Dr. Thonberg*; (Mus. Comp. Zoology, Cambridge).

AGALYCHNIS HELENÆ Cope, Proc. Amer. Philos. Soc., 1884, p. 182; 1886, p. 274.

Nicaragua, *Moser, Bransford.*

AGALYCHNIS LEMUR Boulenger; *Phyllomedusa lemur* Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 425.

Costa Rica, *Boulenger.*

AGALYCHNIS DACNICOLOR Cope, Journ. Acad. Phila., 1866, p. 86; *Phyllomedusa dacti-*

*color* Cope, Proc. Acad. Phila., 1864, p. 181; Boulenger, Ann. Mag. Nat. Hist., 1862, 328.

Colima *Xantus*; Mazatlan, *Bischoff*; San Blas, *Boulenger.*

#### CYSTIGNATHIDÆ.

#### Hylodes Fitzinger.

Cope emend., Proc. Acad. Phila., 1861, p. 153; Journ. Acad. Phila., 1866, p. 96.

HYLODES POLYPTYCHUS Cope, Proc. Amer. Philos. Soc., 1866, p. 276.

Nicaragua, *Bransford.*

HYLODES CERASINUS Cope, Journ. Acad. Phila., 1875, p. 112, pl. xxvi, fig. 4.

Eastern slope of Pico Blanco, Costa Rica, *Gabb.*



## Lithodytes Cope.

Nat. Hist. Review, London, 1865; Journ. Acad. Phila., 1866, p. 96; *Lithodytes, Euhyas*, and *Batrachyla* (Bell) Cope, Proc. Acad. Phila., 1862, p. 165; *Craugastor* Cope, loc. cit., 1861, p. 153; *Lihyla* Keferstein, K. Gesellsch. Wiss. Goettingen, 1867; Archiv f. Naturgesch., 1868, p. 926.

LITHODYTES DIASTEMA Cope, Journ. Acad. Phila., 1875, p. 155.

Mary Caretta, Panama, *Bransford*; Nicaragua, *Bransford*.

LITHODYTES BRANSFORDII Cope, Proc. Amer. Philos. Soc., 1886, p. 274.

Nicaragua, *Bransford*.

LITHODYTES RANOIDES Cope, Proc. Amer. Phil. Soc., 1886, p. 275.

Nicaragua, *Bransford*.

LITHODYTES PODICIFERUS Cope, Journ. Acad. Phila., 1875, p. 107, pl. xxiii, fig. 9.

E. Costa Rica, *Gabb*.

LITHODYTES MURICINUS Cope, loc. cit., 1875, p. 103.

Subspecies MURICINUS.

Costa Rica, *Gabb*.

Subspecies HABENATUS Cope; *Lithodytes habenatus* Cope, loc. cit., p. 110.

Pico Blanco, Costa Rica, *Gabb*.

LITHODYTES RHODOPIS Cope, Proc. Acad. Phila., 1866, p. 323; *Hylodes sallaci* Günther,

Proc. Zool. Soc. Lond., 1868, p. 487, pl. xxxviii, f. 3.

Orizaba and Cordova, Vera Cruz, and Tehuantepec, *Sumichrast*; Guatemala, *Hague*; Pueblo and Jalapa, *Comision Geográfica*.

LITHODYTES AUGUSTI Dugés, Brocchi, Bull. Soc. Philomathique, Paris, 7 (iii), p. 21;

Mission Sci. au Mexique, *Batr.*, p. 52, pl. xvi, f. 1.

Guanajuato, *Dugés*.

LITHODYTES LANCIFORMIS Cope, Proc. Amer. Philos. Soc., 1877, p. 88.

From the west coast of Central America, without more specific locality.

LITHODYTES MELANOSTICTUS Cope, Journ. Acad. Phila., 1875, p. 109, pl. xxiii, fig. 10;

*Batr. & Rept.*, Costa Rica, 1875, p. 109, pl. xxiii, fig. 10.

E. Costa Rica, from 7,000 feet elevation on the Pico Blanco, *Gabb*.

LITHODYTES PELVICULUS Cope, Proc. Amer. Philos. Soc., 1877, p. 89.

West coast of Central America, without more special designation of locality.

LITHODYTES MEGACEPHALUS Cope, Journ. Acad. Phila., 1875, p. 109, pl. xxiii, fig. 11.

Six thousand feet elevation on Pico Blanco, *Gabb*.

LITHODYTES GULOSUS Cope, Journ. Acad. Phila., 1875, p. 112.

Six thousand feet elevation on Pico Blanco, E. Costa Rica, *Gabb*.

LITHODYTES GRISEUS Hallowell, Cope, Proc. Acad. Phila., 1863, p. 48; *Hyla grisea*

Hallow., Proc. Acad. Phila., 1860, p. 485. *Hylodes griseus* Steindachner, K. K.

Bot.-Zool. Ges. Wien, 1864, p. 245; *H. fenestratus* Steind., l. c., 249, tab. xvii, xvii?

Nicaragua, *Stimpson*; ? Orizaba, *Cope*.

LITHODYTES BERKENBUSCHII Peters, (*Hylodes*) Monatsber. Berl. Acad., 1869, p. 879.

Middle Mexico, *Berkenbusch*.

LITHODYTES GUENTHERII Keferstein, *Liyla guentherii* Keferst., Archiv f. Naturgesch.,

1886, p. 926; *Liyla rugulosa* Cope, Proc. Amer. Philos. Soc., 1869, p. 160, teste

Boulenger; *Hylodes rugosus* Brocchi, Miss. Sci. Mex.; *H. palmatus* Boul., Catal.

*Bat. Sal. Brit. Mus.*

Costa Rica, *Seebach*; West Tehuantepec, *Sumichrast*.

## Epirhexis Cope.

Journ. Acad. Phila., 1866, p. 96.

EPIRHEXIS LONGIPES Baird, *Batrachyla longipes* Baird, U. S. & Mex. Bound. Surv.,

T. 37 f., 1-3; no description.

Mexico, Sp. 3207 from 40 leagues north of City of Mexico.

EPIRHEXIS LATICEPS Dum., *Hylodes laticeps*, A. Duméril, Catal. Méth. Rept. du Muséum, p. 178; Erpétologie Générale, pl. xcix.  
Yucatan, *Morelet*.

**Hypodictyon** Cope.

Proc. Amer. Philos. Soc., 1885, p. 383.

HYPODICTYON RIDENS Cope, loc. cit.; *Phyllobates ridens* Cope, Proc. Acad. Phila., 1866, p. 131; Journ. Acad. Phila., 1875, p. 155.  
San Juan R. Nicaragua, *Kennicott*; Panama, *Bransford*.

**Phyllobates** Bibron.

De la Sagra's Hist. Cuba, Reptiles; Dum. Bibr., Erp. Gén., viii, 637.

PHYLLOBATES HYLAEFORMIS Cope, Journ. Acad. Phila., 1875, p. 107; pl. xxiii, fig. 8.  
Pico Blanco, at 7,000 feet elevation, Talamanca E. Costa Rica, *Gabb*.

**Syrrhophus** Cope.

American Naturalist, 1878, 253.

SYRRHOPHUS VERRUCIPES Cope, Proc. Amer. Philos. Soc., 1885, p. 383.  
Near Zacualtipan, Hidalgo, *Cope*.

SYRRHOPHUS LEPRUS Cope, Proc. Amer. Philos. Soc., 1879, p. 268.  
West Tehuantepec, *Sumichrast*.

SYRRHOPHUS CYSTIGNATHOIDES Cope, Proc. Amer. Phil. Soc., 1879, p. 268; *Phyllobates cystignathoides* Cope, l. c., 1877, p. 59.  
Potrero, near Cordova, Vera Cruz, *Sumichrast*.

**Malachyloides** Cope.

Proc. Amer. Philos. Soc., 1879, p. 264.

MALACHYLODES GUTTILATUS Cope, loc. cit.  
?Guanajuato *Dugés*.

**Liuperus** Dum. Bibr.

Erp. Générale, viii, p. 420.

LIUPERUS NITIDUS Peters, Monatsber. Berlin. Akad., 1869, p. 878.  
Puebla, *Berkenbusch*.

**Leptodactylus** Fitz.

Class. Rept., p. 38; Girard, U. S. Wilkes Exploring Exped., Herpetology; Boulenger, Catal. Batr. Sal. B. M., 1882, p. 237; *Cystignathus* Wagler, System der Amphibien, 1830, p. 203; Dum. Bibr., Erp. Gén., viii, p. 392; Günther, Catal. Batr. Sal. Brit. 58, p. 26.

LEPTODACTYLUS GRACILIS Dum. Bibr., viii, p. 406; D'Orbigny, Voy. Amér. Mérid., pl. xiii, figs. 5-7; Cope, Proc. Amer. Philos. Soc., 1869, p. 162; *Cystignathus fragilis* Brocchi, Bull. Soc. Philom. Paris (7), p. 182; *Leptodactylus fragilis* Brocchi, Miss. Sci. Mexique., Batr., p. 19, pl. 5, fig. 2.  
Tehuantepec and Vera Cruz, *Sumichrast*.

LEPTODACTYLUS LABIALIS Cope, Proc. Amer. Philos. Soc., 1877, p. 90.  
*Habitat* uncertain; probably a part of *Sumichrast's* collection.

LEPTODACTYLUS MICROTIS Cope; Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 244;  
*Cystignathus microtis* Cope, Proc. Amer. Philos. Soc., 1879, p. 265.  
?Guanajuato, *Dugés*.



LEPTODACTYLUS PERLAEVIS Cope; Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 245; *Cystignathus perlaevis* Cope, Proc. Amer. Philos. Soc., 1879, p. 269.  
West Tehuantepec, *Sumichrast*.

LEPTODACTYLUS MELANONOTUS Hallowell, Proc. Acad. Phila., 1860, p. 485; *Cystignathus melanonotus* Hallowell, Proc. Acad. Phila., 1860, p. 485; Cope, Proc. Amer. Philos. Soc., 1879, 269.

Costa Rica, *Riotti*; Nicaragua, *Stimpson*; Tehuantepec, *Sumichrast*; Mazatlan, *Bischoff*.

#### Cystignathus Wagler.

Natürl. Syst. der Amphibien, 1830, p. 202; *Gnathophysa* (Fitz.) Cope, Nat. Hist. Review, Lond., 1865, 112; Journ. Acad. Phila., 1866, p. 96.

CYSTIGNATHUS PENTADACTYLUS Laur.; Peters, Monatsber. Ak. Wiss. Berlin, 1872, p. 198; Linné; *Rana ocellata* Schneider, Merrem; Gravenhorst Deliciae 42; *Rana pentadactyla* Laurenti, Specimen, 32; *Rana gigas et labyrinthica* Spix, Test. Ran. T.; *Cystignathus labyrinthicus* Dum. Bibr., viii, 407; Guichenot Castelnau, Voyage en Amérique Mérid., *Pleurodema labyrinthicum* Günther, Catal. Brit. Mus., p. 31; *Gnathophysa labyrinthica* Cope, Nat. Hist. Rev., 112.

E. Costa Rica, *Gabb*.

### FIRMISTERNIA.

#### ENGYSTOMIDÆ.

#### Engystoma Fitzinger.

Dum., Bibron, Erp. Gén., viii, p. 738.

ENGYSTOMA USTUM Cope, Proc. Phila. Acad., 1866, p. 131; *Systoma ustum* Cope, Journ. Acad. Phila., 1867, 194; *Engystoma mexicanum* Peters, Monatsber. Berlin. Akademie, 1869, p. 881.

Guadalajara, West Mexico, *I. I. Major*; Vera Cruz, *Sumichrast*; Coatzacoalcos, *R. Streets*; Guanajuato, *Dugés*.

ENGYSTOMA PICTIVENTRE Cope, Proc. Amer. Philos. Soc., 1886, p. 272.

Nicaragua, *Bransford*.

#### PHRYNISCIDÆ.

#### Hypopachus Keferstein.

Nachrichten Akad. Göttingen, 1867, 352; Cope, Journ. Acad. Phila., 1875, p. 101.

HYPOPACHUS VARIOLOSUS Cope, Proc. Amer. Philos. Soc., 1869, p. 166; *Engystoma vario- losum* Cope, Proc. Acad. Phila., 1867, 194, 1866, 131; *Hypopachus Seebachii* Keferst., loc. cit., 352; Archiv für Naturgesch., 1868, p. 203, pl. ix, figs. 1-2.

Subspecies VARIOLOSUS, Cope.

Costa Rica, *Seebach*, *Riotte*; Guadalajara, *Dugés*.

Subspecies INGUINALIS Cope; *Hypopachus inguinalis*, Proc. Amer. Philos. Soc., 1869, p. 165.

Habitat.—Vera Paz, near the ruins of Coban, *H. Hague*, *O. Salvin*.

#### Atelopus Dum. Bibr.

Erp. Gén., viii, p. 660; *Phrymidium* Martens; Cope, Journ. Acad. Phila., 1867, p. 196.

ATELOPUS VARIUS Stannius, Handbuch der Zoötomie, 2 Aufl., Amphib., p. 16; *Phrymidium varium* Martens Nomenclat., Report Mus. Beral., 1856, p. 40; *Phryiscus varius* Günther, Catal. Brit. Mus., 1858, p. 45; *Atelopus varius* Cope, Journ. Acad. Phila., 1875, p. 102.

Costa Rica, *Gabb*.

DENDROBATIDÆ.

*Dendrobates* Wagler.

- Natürl. Syst. Amphib., 1830, p. 202; *Hylaplesia* "Boie"; Günther, Catal. Batr. Sal. Brit. Mus., 1858, p. 124 (not of Boie).
- DENDROBATES TINCTORIUS Wagler; Steindachner, Verhandl. K. K. Zoolog.-Botan. Ges. Wien, 1864, p. 260.  
 Subspecies *AURATUS* Girard; *Dendrobates auratus* Girard; U. S. Astron. Exped., ii, p. 209; Steindachner, l. c., pl. xiii, figs. 7-7d; *Phyllobates auratus* Grd., Proc. Acad. Nat. Sci. Phila., vii, 1854, p. 226.  
 Panama; Costa Rica, *Gabb*; "West coast Central America;" Nicaragua, *Moser*, *Bransford*.
- DENDROBATES TRUNCATUS Cope; *Phyllobates truncatus* Cope, Proc. Acad. Phila., 1860, 372; *Hylaplesia truncata* Cope, l. c., 1863, p. 49.  
 Panama.
- DENDROBATES TALAMANCÆ Cope, Journ. Acad. Phila., 1875, p. 102, pl. xxiii, fig. 6.  
 Cold Harbor, eastern coast of Costa Rica, *Gabb*.
- DENDROBATES LUGUBRIS Schmidt, Denkschriften Wien Akad., 1858, p. 250; Günther, Catal. Batr. Sal. Brit. Mus., p. 125.  
 Veragua, *Warezewicz*.
- DENDROBATES TYPOGRAPHIUS Keferst., Archiv f. Naturgeschichte, 1868, p. 298, pl. ix, fig. 7; Cope, Journ. Acad. Phila., 1875, p. 102; *Dendrobates ignitus* Cope, Proc. Acad. Phila., 1874, p. 68.  
 Nicaragua, *Bransford*, *Moser*; E. Costa Rica, *Gabb*; "West coast Central America."

RANIDÆ.

*Ranula* Peters.

- Cope emend., Proc. Acad. Phila., 1866, p. 129; *Pohlia* Steindachner, Reise der Oest. Frig. Novara, Amphib., p. 15, 1867; *Trypheropsis* Cope, Proc. Acad. Phila., 1875, p. 114.
- RANULA CHRYSOPRASINA Cope, Proc. Acad. Phila., 1866, p. 130; *Trypheropsis chryso-prasinus* Cope, loc. cit., p. 117; Journ. Acad. Phila., 1875, pl. xxiii, fig. 12.  
 E. Costa Rica, *Gabb*; Costa Rica, *Riotte*; Ibid, Valley of San José, *Van Patten*; Nicaragua, *Bransford*.
- RANULA PALMIPES Cope; *Rana palmipes* Spix; *Pohlia palmipes* Steindachner, Novara Exped. Amphib., p. 15; *Ranula gölmeri* et *Rana affinis* Peters, Monatsberichte Berlin. Akad., 1859, p. 402; *Ranula affinis* Cope, Proc. Acad. Phila., 1866, p. 129; *Rana vaillantii* Brocchi, Bull. Soc. Philomath. Paris (7), i, p. 175; Mis. Sci. Mex., Batr., p. 11, pl. ii, fig. 1.  
 Guatemala, *van Patten*, *H. Hague*; Cobau, *Salvin*; Tehuantepec, *Sumichrast*.

*Rana* Linn.

- Laurenti et Dum. Bibr. emend.
- RANA HALECINA "Kalm.," Dum. Bibr., Erp. Gén., viii, p. 351; Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 41; *Rana berlandieri* Baird, U. S. & Mex. Bound. Survey, 1859, ii, Reptiles, p. 27, pl. xxvi, figs. 7-10; Cope, Check-list Batr. Rept. N. Amer.  
 Subspecies AUSTRICOLA Cope; *Rana lecontei* "B. & G.," Günth. Catal. Batr. Sal. Brit. Mus., p. 15; Brocchi, Bull. Soc. Philom. Paris (7), i, p. 179, et Miss. Sci. Mex. Batr., p. 14, pl. iv, f. 1; Boulenger, Catal. B. Sal. B. M. 2 ed., p. 42; nec Bairdii et Girardii = *R. draytoni* B. et G.; *Rana halecina* Kalm. var. Cope, Proc. Amer. Philos. Soc., 1879, p. 270.
- E. Costa Rica, *Gabb*; Guatemala, *Hague*; West coast Central America; Tobasco, *Berendi*; Jalapa, *Montesdeoca*; Guanajuato, *Dugés*.  
 Subspecies HALECINA Kalm. Cope; *Rana berlandieri* Baird.  
 Monterey Tamaulipas, *Cope*; Tehuantepec, *Sumichrast*.

*RANA MONTEZUMÆ* Baird, Proc. Acad. Phila., 1854, p. 61; U. S. & Mex. Bound. Survey, ii Report, p. 27, pl. xxxvi, figs. 1-6.

Tobasco, *Bercudt*; Tehuantepec, *Sumichrast*; Guatemala, *Hague*; City of Mexico, *Rich*, *Cope*.

Subspecies *CONCOLOR* Cope.

Similar to the typical form, but of a uniform fawn-brown color without the spots of the typical form.

Guanajuato, *Dugés*.

## REPTILIA.

### CROCODILIA.

#### *Crocodylus Laurenti*.

Specimen exhib. Synopsin Reptilium, 1768, p. 53.

*CROCODYLUS AMERICANUS* (Plumier), Schneider, Hist. Amph. fasc. 2, 1801, p. 167; Le Crocodile St. Domingæ, Geoffroy, Ann. Mus. Nat. Hist., 1803, ii, p. 53, pl. xxxvii, fig. 1; Cope, Proc. Amer. Philos. Soc., 1869, p. 161; *Crocodylus acutus* Cuv., Ann. Mus. Nat. Hist., 1807, x, p. 55, pl. i, figs. 3, 14, pl. ii, fig. 2; Geoffroy, Ann. Mus. Nat. Hist., 1807, t. x, p. 67; Cuv. Oss. Foss, 1824, t. v, part 2, p. 55, pl. i, figs. 3, 14, pl. ii, fig. 5; Gray, Synopsis, 1831, p. 60, spec. 8; Dum. et Bibr., Erp. Gén., 1836, t. iii, p. 119; *Crocodylus americanus*, Gray Catal. Tort. Crocod., 1844, p. 60; *Molinia americana* Gray, Synops. Spec. Rec. Crocod., 1862, Trans. Zool. Soc., Lond., 1867, t. vi, p. 151; *C. americanus* Bocourt, Miss. Sci. au Mex., iii, p. 30, pl. viii, figs. 7-7a, pl. ix, fig. 1.

Subspecies *PACIFICUS* Bocourt, Miss. Sci. au Mex., iii, p. 31, pl. ix, figs. 5-5a, 5b. Nagualate, Western Guatemala, *Bocourt*; Tehuantepec, *Sumichrast*.

Subspecies *MEXICANUS*, *Crocodylus americanus*, var., Gray, Cat. Tort. Croc. B. M., 1844, p. 60; *Molinia americana*, var., Gray, Synops. Spec. Rec. Croc., 1862, and Trans. Zool. Soc., 1867, t. vi, p. 151; *C. mexicanus* Bocourt, Miss. Sci. au Mex., iii, p. 34, pl. viii, figs. 3-3a.

Tampico, *Montluc*.

*CROCODYLUS MORELETI* A. Dum., Cat. Meth. Coll. Rept. M. P., 1851, p. 28, and Arch. de Mus., 1852, t. vi, p. 146; *Alligator lacordairei* Prud. du Borre, Acad. Roy. Belgique (extr. bull., 2d ser., 1869, t. xxviii, No. 7, p. 111); *C. moreletii* Bocourt, Miss. Sci. au Mex., p. 37, iii part, pl. viii, figs. 1-1a, and ix, figs. 2-2a, 2b and 3.

Peten, Flores, Belize, Polochic, Guatemala, *Morelet*.

#### Jacare Gray.

*Cuman* Gray.

*JACARE PUNCTULATA* Spix; *Jacaretinga punctulatus* Spix, Anim. Nov., p. 2, t. 2; *Alligator punctulatus*, Dum. Bibr., i, 91; Günther, Biol. Centr. Amer. Rept., p. 21; *Jacare chiapanus* Bocourt, Journ. Zool., 1876, p. 400.

Chiapas, *Bocourt*.

NOTE.—The *Alligator mississippiensis* ranges to the mouth of the Rio Grande River, but has not been found beyond it to the southward.

## TESTUDINATA.

## LYSOSTERNA.

## CISTUDINIDÆ.

*Cistudo* Fleming.

Dum. et Bibr., Erp. Gén., ii, p. 207.

CISTUDO MEXICANA Gray; *Onychotria mexicana* Gray, Proc. Zool. Soc., 1849, p. 17, and *Cistudo mexicana*, Catal. Shield, Rept. Brit. Mus., 1855, p. 40; *Cistudo triunguis* Agassiz, Contrib. Nat. Hist. U. S. America, 1857, p. 445.

Tampico, *Bocourt*.

## CLIDOSTERNA.

## EMYDIDÆ.

*Chelopus* Rafinesque.

*Nanemys*, *Calemys*, and *Actinemys* Agassiz.

CHELOPUS AREOLATUS A. Dum.; Cope, Proc. Acad. Phila., 1866, p. 123; *Emys areolata* A. Dum., Catal. Meth. Coll. Mus., 1851, p. 10, and Des. Rep. Nov. Imp. Conn. (Arch. Mus., 1852, t. vi, p. 223, pl. xiv).

Peten, *Morelet*; Belize, *Parsons*.

CHELOPUS PUNCTULARIUS Daudin; Cope, Proc. Acad. Phila., 1865, 185; *Testudo punctularia* Daud.; *Emys scabra* Bell, Gray, Linn. (fide Agassiz); *Geoclemmys callocephalus* Gray, Proc. Zool. Soc. Lond., 1863, 254; *Rhinoclemmys scabra* Gray, Proc. Zool. Soc. Lond., 722.

Yucatan, *Schott*; Tobasco, *Berendt*.

CHELOPUS GABBII Cope, Journ. Acad. Phila., 1875, p. 153.

Costa Rica, *Gabb*.

CHELOPUS FUNERUS Cope, Journ. Acad. Phila., 1875, p. 154.

Costa Rica, *Gabb*.

CHELOPUS PULCHERRIMUS Gray; *Emys pulcherrima* Gray, Catal. Shield Rept. B. M., p. 25, t. 25; *Callichelys pulcherrima* Gray, Am. Mag. N. H., 1863, p. 181; *Rhinoclemmys pulcherrima* Gray, Am. Mag. N. H., 1873, p. 145.

W. Mexico Presidio, *Forrer*.

CHELOPUS INCISUS Bocourt, Journ. Zool., 1876, p. 357; *Emys incisa*, Boc. Ann. Sci. Nat., 1868, 121; Miss. Sci. Mexique, iii, p. 11, pls. i and ii; *Rhinoclemmys frontalis* Gray, Ann. Mag. Nat. Hist., 1873, xi, p. 144.

Pacific coast of San Salvador; Mount of Conchavona, *Bocourt*.

CHELOPUS RUBIDUS Cope, Proc. Am. Philos. Soc., 1869, p. 148; Proc. Acad. Phila., 1869, p. 161; *Rhinoclemmys mexicana* Gray, Proc. Zool. Soc. Lond., 1870, 659-723; Supp. Catal. Shield Rept., p. 30; *Chelopus mexicanus* Boc., Journ. Zool., 1876, 357.

Nicaragua, *MaeNiel*; Tehnantepec, *Sumichrast*.

*Pseudemys* Gray.

*Ptychemys* and *Trachemys* Agassiz, Contr. Nat. Hist. U. S.

PSEUDEMYIS ORNATA Bell; *Callichelys ornata* Gray, Supp. Catal. Shield Rept., p. 48; *Emys venusta* Gray, Catal. Shield Rept., Brit. Mus., 1855, p. 24, tab. xii, a; *Emys venusta* Bocourt, Miss. Sci. Mex., iii, p. 131.

Mazatlan, *Colley*, *Forrer*; Presidio, *Forrer*; Houduras, *Dyson*; Costa Rica, *Gabb*; Panama, *Druce*; Yucatan *Morelet*; Belize, Rio Pioche, *Miss. Scientificque*.



- PSEUDEMYS CATASPILA Günther, Biol. Centr. Amer. Zool., Reptiles, p. 4, tab. vi, fig. B; *Emys ornata* Gray, pt., Catal. Zool. R. M., 1884, p. 22; Catal. Shield Rept., 1855, p. 24, fig. 12; *Callichelys ornata*, pt., Gray, Ann. Mag. Nat. Hist., 1863, p. 176. Mexico, ? —.
- PSEUDEMYS UMBRA Bocourt, O'Shaughnessy, Zool. Record, xiii, Rept., p. 6; *Emys grayi* Bocourt, Miss. Sci. Mex., iii, p. 13, pl. iii, figs 2, 2a, nec Guntheri; *Emys callirostris* Boc., Journ. Zool., 1876, 387, nec Grayi; *Emys concinna* Gray, nec Holbrookii, Am. Mag. Nat. Hist., 1873, 110. Coast of Guatemala, *Bocourt*; Tehuantepec, *Sumichrast*.
- PSEUDEMYS SALVINI Günther; *Emys salvini* Günther, Biol. Amer. Centr., Reptiles, p. 4, tab. ii and iii. Guatemala, *Salvin*.
- PSEUDEMYS CALLIROSTRIS; *Emys callirostris* Gray, Catal. Shield Rept., Brit. Mus., 1855, p. 25, pl. xii B; *Callichelys callirostris* Gray, Am. Mag. Nat. Hist., 1863, p. 181. W. Central America, *Gray*.
- PSEUDEMYS MOBILIENSIS Holbrook; *Emys mobiliensis* Holbrook, N. Amer. Herp., i, p. 71, t. 9; *Ptychemys mobiliensis* Agassiz. Cadereita, Nuevo Leon, *Agassiz*.

#### Dermatemys Gray.

- Ann. and Mag. Nat. Hist., 1847, p. 60; Proc. Zool. Soc. Lond., 1847, p. 55; Catal. Shield Rept., Brit. Mus., 1855, p. 49; Proc. Zool. Soc., 1864, p. 125; *Chloremys* Gray, Supplement to Catal. Shield Reptiles Brit. Mus., p. 49.
- DERMATEMYS MAVEI Gray, loc. cit.; Catal., Shield Rept. Brit. Mus., 1855, p. 49, pl. xxi; Preudhomme de Borre, Acad. Roy. Belgique (extr. bull., 2 ser., t. xxviii, 1869, p. 116); Bocourt, Mission Sci. au Mex., iii, Rept., p. 17, pl. vii, figs. 2, 2a; *Emys berardii* A. Dum., Catal. Rept., 1851, p. 11, and Archiv. de Mus., 1832, t. vi, p. 231, pl. xv; *Ptychemys berardii* Agassiz, Cont. Nat. Hist. U. S., 1857, p. 434. Belize, *Bocourt*; Tobasco, *Berendt*.
- DERMATEMYS ABNORMIS Cope, Proc. Acad. Phila., 1868, 120; *Chloremys abnormis* Gray, Supplement to Catal. Shield Reptiles Brit. Mus., p. 50. Belize, *Parsons*.

#### CINOSTERNIDÆ.

##### Cinosternum Wagler.

- CINOSTERNUM CRUENTATUM A. Dum., Cat. meth. des Rept. Mus., 1851, p. 16, and Description des Reptiles nov. and imp. connus, arch. du Mus., 1852, t. vi, p. 238, pl. xvi; *C. mexicanum* Leconte, Proc. Acad. Phila., 1854, p. 182; *C. shavianum* (Agass.) Bocourt, Journ. Zoöl., 1876, 397, nec Bellii. Mexico and Central America, *Duméril*; Chiapas, *Sumichrast*.
- CINOSTERNUM TRILIRATUM Lec., Proc. Acad. Phila., 1859, 6. Vera Cruz, *Pease*.
- CINOSTERNUM ALBOGULARE Bocourt, Miss. Sci. au Mex., iii, p. 24. San José, Costa Rica, *Bocourt*.
- CINOSTERNUM LEUCOSTOMUM A. Dum., Catal. Meth. Coll. Rept. Mus., 1851, p. 17, and Deser. Rept. nov. (Arch. de Mus., 1852, t. vi, p. 239, pl. xvii); Bocourt, Miss. Sci. au Mex., iii, 1870, p. 25; Günther, Biol. Amer. Centr. Zoöl. Rept., p. 17, tab. xvi, xvii. Mexico and Guatemala; Vera Paz, *Morelet*; Old Harbor and Sipurio, Costa Rica, *Gabb*; Nicaragua, *Braunsford*; Tobasco, *Berendt*; Cozumel, Id., *Ridgway*.

- CINOSTERNUM HIRTIPES Wagler, Deser. and Icones Amphib., 17, 1833, pl. xxx; Dum. et Bibr., Erp. Gén., t. ii, p. 370; Bocourt, Miss. Sci. au Mex., iii, p. 25; *C. henrici* Leconte, Proc. Acad. Phila., 1853, 4; Cope and Yarrow in Report U. S. G. G. Survey W. of 100th Mer., v. Zoöl., p. 583, t. 16.  
City of Chihuahua, *Wilkinson*; Guanajuato, *Dugés*; Colima, *Xantus*; Mazatlan and Tres Marias Id., *Forrer*.
- CINOSTERNUM INTEGRUM Leconte, Proc. Acad. Phila., 1854, p. 183; Günther, Biologia Centr. Amer. Zoöl., Reptiles, p. 16.  
"Mexico,"? Vera Cruz, *Pease*.
- CINOSTERNUM EFFELDII Peters, Mon. Ber. Akad. Berlin, 1873, p. 603; Günther, Biol. Centr. Amer. Rept., p. 16. ? *C. berendtianum* Cope, Proceeds. Acad. Phila., 1865, 189.  
Vera Cruz, *Peters*.
- CINOSTERNUM BREVIGULARE Günther, Biol. Centr. Amer., Reptiles, p. 17, pl. xviii, f. A., May, 1885.  
Playa Vicenté, *Sallé*.
- CINOSTERNUM POSTINGUINALE Cope, *Cinosternum leucostomum* "Dum.," Cope Journ. Acad. Phila., 1875, 153, nec Dumerilii. *Cinosternum brevigulare*, Cope, Proc. Amer. Philos. Soc., 1885, June, p. 389, nec Güntheri, *supra*.  
E. coast Costa Rica, *Gabb*.
- CINOSTERNUM COBANUM Günther, Biol. Centr. Amer. Zoöl., Rept., p. 18, tab. xviii B.; Guatemala, *Salvin*; Cababon, *Sarg*.

#### Staurotypus Wagler.

Nat. Syst. Amphib., 187, 1830.

STAUROTYPUS TRIPORCATUS Wagler, Dum. et Bibr. Erp. Gén., t. ii, p. 356.  
East coast of Mexico; Tobasco, *Berendt*.

STAUROTYPUS SALVINI\* Gray, Bocourt, Miss. Sci. Mexique, iii, Reptiles, p. 22, pl. v, f. 3, 1870; Günther, Biologia Centrali Americana, 1885, Rept., p. 11; *Stauremys salvini* Gray, Proc. Zool. Soc. Lond., 1864, p. 27; Suppl. Cat. Shield Rept., 1870, 65; *Claudius severus* Cope, Proc. Acad., Phila., 1872, p. 24, teste Günther; *Claudius pictus* Cope, l. c., p. 26.

Guatemala, *Salvin*; Vera Paz, *Bocourt*; Tehuantepec, *Sumichrast*.

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\* Dr. Günther, after examination of several specimens of this species, comes to the conclusion that the *Claudius severus* is not different, and that the genus *Stauremys* of Gray must be united with *Staurotypus*. As Dr. Günther finds Gray's definitions of both his species and genus to be only applicable to certain individuals, or to be unreliable, his conclusions are accepted in this catalogue, and the supposed forms united.

Another observation of Günther in the same work (Biologia Centrali-Americana), requires notice. He remarks that he does not find the characters of the genus *Claudius* sufficiently distinct from *Staurotypus*. As I at one time, without full investigation, placed the *Staurotypus salvini* in *Claudius*, I have given some support to such a view. On examination of the plastron of the two species, I now find that they not only belong to different genera, but to different families and different suborders. *Staurotypus* is elidostern, with the plastron and carapace firmly united by close suture. In this division it enters the *Cinosternidae*, having no mesosternal bone. On the other hand, *Claudius* is one of the *Chelydridæ*, the plastron having only contact with the carapace by free digitations (*Dactylosterna*), and there is a large mesosternal bone. Its near ally is *Chelydra*.



## DACTYLOSTERNA.

## CHELYDRIDÆ.

## Claudius Cope.

Proc. Acad. Phila., 1865, p. 187, 1872, p. 24, pars; Bocourt, Miss. Sci. Mexique, Rept., p. 19.

CLAUDIUS MEGALOCEPHALUS Bocourt, Ann. Sci. Nat. Zool., 1868, x, p. 122; Proc. Acad. Phila., 1872, p. 27; *C. angustatus*, "Cope," Bocourt, Miss. Sci. au Mex., Zool. Rept., p. 20, pl. iv, figs. 1, 2, 3, 4.  
Mexico, *Bocourt*.

CLAUDIUS ANGUSTATUS Cope, Acad. Phila., 1865, p. 187; Proc. Amer. Phil. Soc., 1869, pl. ix.  
Tobasco, *Berendt*.

## Chelydra Schw.

*Chelonura* Flem.; *Emysaurus*, Dum. et Bibr.

CHELYDRA SERPENTINA Linn., Bocourt, Miss. Sci. au Mex., iii, pl. v, fig. 1.  
Tehuantepec, *Sumichrast*; Guatemala, *Bocourt*.

CHELYDRA ROSSIGNONII Bocourt, Miss. Sci. au Mex., iii, p. 18, pl. v, fig. 2.  
Pansos, Guatemala, *Bocourt*.

## CHELONIIDÆ.

## Chelonia Brongniart.

CHELONIA IMBRICATA Linn., Dum. Bibr., Erp. Gen., ii, p. 547.  
Lower California, *Comision Geographica*.

CHELONIA AGASSIZI Dum. et Boc., Mission Scientif. au Mexique, iii, p. 26, pl. vi.  
Nagualate, *Guatemala*; Lower California.

## ATHECÆ.

## SPHARGIDIDÆ.

## Sphargis Merrem.

SPHARGIS CORIACEA Rondelet; Holbrook, N. Am. Herp., ii, p. 45.

E. Costa Rica, *Gabb*; Guaymas, Sonora (description in letter to Prof. Baird.—*E. D. Cope*.)

## LACERTILIA.

The arrangement adopted in this catalogue is in general that of my system published in 1864,\* but I have subordinated the divisions somewhat differently. This consists chiefly in distributing the divisions of the group I then proposed under the name of Plenrodonta, and regarding them as of equal rank with the other three primary suborders—Acrodonta, Nyctisanra, and Opheosauri. This distribution establishes five additional suborders, and two new ones are added, the Geccovarani and the Anguisauri. The former of these is based on characters brought out by Mr. Boulenger in his essay on the classification of the Lacertilia;† the latter is made necessary by a different estimation of the characters I described in the memoir above men-

\* Proc. Acad. Phila., 1864, p. 224.

† Ann. Mag. Nat. Hist., 1884, p. 117.

tioned. The number of suborders is thus eleven, and the families they embrace number twenty-two. For the characters of five of these families I am indebted largely to Mr. Boulenger.

As elsewhere, the orders and families of Lacertilia cannot be arranged in a linear series. There are three lines whose terminal groups are the Chamæleontidæ, the Geconidæ, and the Scincidæ, respectively, and between these most of the families can be arranged. The suborders and families are as follows:

I.—Proötic not produced beyond arched body; dentition acrodont; olfactory lobes not underarched; two suspensoria;

No clavicle nor mesosternum; no columella; tongue papillose, extremity sheathed.

I. *Rhipoglossa*.

A clavicle proximally simple; an anchor-shaped mesosternum; a columella; tongue papillose, not sheathed ..... II. *Acrodonta*.

II.—Proötic bone not produced beyond arched body; dentition pleurodont; olfactory lobes not underarched; two suspensoria;

A clavicle proximally simple; an anchor-shaped mesosternum; a columella; tongue papillose, not sheathed..... III. *Iguania*.

III.—Proötic bone produced beyond arched body; dentition pleurodont, or nearly so; two suspensoria.

α Clavicle simple proximally; olfactory lobes not underarched by frontal.

Mesosternum cruciform; tongue papillose ..... IV. *Diploglossa*.

αα Clavicle proximally simple; olfactory lobes underarched by frontal.

Vertebræ procoelous; tongue smooth ..... V. *Thecaglossa*.

Vertebræ amphicoelous; tongue papillose..... VI. *Geccovarani*.

ααα Clavicle proximally expanded; olfactory lobes underarched by os frontale.

Tongue papillose or smooth..... VII. *Nyctisaura*.

αααα Clavicles, when present, expanded proximally; olfactory lobes not underarched.

Clavicles, mesosternum, and sternum present; surangular distinct; tongue scaly.

VIII. *Leptoglossa*.

Clavicles, mesosternum, and sternum absent; tongue scaly..... IX. *Typhlophthalmi*.

IV.—Proötic bone produced beyond arched body; one suspensorium (=opisthotic wanting); pelvic arch rudimentary or wanting.

Frontal bone underarching olfactory lobes; supraoccipital gomphosis internal; no orbitosphenoid..... X. *Anguisauri*.

Frontal bone underarching olfactory lobes; supraoccipital gomphosis external; an orbitosphenoid ..... XI. *Ophcosauri*.

The families of these suborders are the following:

#### I.—RHIPTOGLOSSA.

There is but one family of this suborder, the Chamæleontidæ, with the following characters:

Parietal arch elevated, consisting of the squamosal and parietal bones; splenial bone none; toes short, presenting in opposition to each other..... 1. *Chamæleontidæ*.

This family is confined to Africa and Madagascar.

#### II.—ACRODONTA.

But one family represents this suborder.

Parietal arch not elevated, consisting of parietal and opisthotic; toes not opposable, directed forwards..... 2. *Agamidæ*.

#### III.—IGUANIA.

Surangular bone absent ..... 3. *Anolidæ*.

Surangular bone present..... 4. *Iguanidæ*.

## IV.—DIPLOGLOSSA.

- Cranial arches present; mesosternum cruciform; teeth pleurodont; temporal fossa roofed; tongue not sheathed at tip.....5. *Zonuridæ*.  
 Cranial arches absent; pre and postfrontal bones uniting above orbit; surangular, articular, and angular bones not distinct; tip of tongue not retractile.  
 6. *Pygopodidæ*.  
 Cranial arches present; mesosternum cruciform; teeth pleurodont; temporal fossa roofed; osteodermal plates; tip of tongue sheathed.....7. *Anguidæ*.  
 Cranial arches present; mesosternum cruciform; teeth pleurodont; temporal fossa not roofed; no osteodermal plates; tip of tongue sheathed .....8. *Xenosauridæ*.  
 Postfrontosquamosal arch wanting; mesosternum without transverse elements; teeth half pleurodont.....9. *Helodermidæ*.

## V.—THECAGLOSSA.

- Postorbital arch incomplete; Meckel's groove open; nasal bones united; temporal fossa not roofed.....10. *Varanidæ*.

## VI.—GECCOVARANI.

- Postorbital and postfrontosquamosal arches wanting; interclavicle minute; nasal bones united; tip of tongue not retractile; occipital condyle divided.  
 11. *Uroplatidæ*.

## VII.—NYCTISAURA.

- Vertebrae procœlous; parietal bones united .....10. *Eublepharidæ*.  
 Vertebrae amphicœlous; parietal bones separate .....11. *Geconidæ*.

## VIII.—LEPTOGLOSSA.

- $\alpha$ . One premaxillary bone:  
 Parietal bones distinct; temporal fossa roofed; no osteodermal plates.....12. *Xantusiidæ*.  
 Parietals united; temporal fossa not roofed; no osteodermal plates .....13. *Teiidæ*.  
 Parietals united; temporal fossa roofed; no osteodermal plates .....14. *Lacertidæ*.  
 Parietals united; temporal fossa roofed; osteodermal plates.....15. *Gerrhosauridæ*.  
 $\alpha\alpha$ . Premaxillary bones two:  
 Parietals united; temporal fossa roofed; osteodermal plates .....16. *Scincidæ*.

## IX.—TYPHLOPHTHALMI.

- Two premaxillaries; arches present; occipital segment closely articulated; eye distinct .....17. *Acontiidæ*.  
 One premaxillary; arches wanting; occipital loosely attached; eye concealed by epidermis .....18. *Anelytropsidæ*.

## X.—ANGUISAURI.

- Tongue papillose; one premaxillary; no columella; no arches; occipital closely articulated; eye distinct .....19. *Aniellidæ*.

## XI.—OPHEOSAURI.

- Teeth half pleurodont; anterior limbs present.....20. *Chirotidæ*.  
 Teeth half pleurodont; no fore limbs.....21. *Amphisbaniidæ*.  
 Teeth acrodon; no fore limbs.....22. *Trogonophidæ*.

NYCTISAURA.

GECCONIDÆ.

**Gonatodes** Fitz.

Systema Reptilium, p. 91, 1843; Cope, Proceeds. Acad. Phila., 1863, p. 102; Boulenger, Catal. Liz. Brit. Mus., i, 1885, p. 56; *Gymnodactylus* Dum. Bibr., Erp. Gen., iii, p. 408, pars, nec Spixii.

GONATODES ALBIGULARIS Dum., Bibr. de la Sagra, Cuba, Erp. Générale, iii, p. 415. Nicaragua, *MacNiel*.

Subspecies FUSCUS Hallow., *Stenodactylus fuscus* Hallow., Journ. Acad. Phila., 1855, p. 33; *Gymnodactylus fuscus* A. Dum., Arch. Mus., 1856, t. viii, p. 477; Bocourt, Miss. Sci. au Mex., part iii, p. 48, pl. x, fig. 5. Nicaragua, *MacNeill*.

**Sphærodactylus** Cuvier.

Gray, Catal. Liz. Brit. Mus., 1845, p. 168; Cope, Proc. Acad. Phila., 1861, p. 497.

SPHÆRODACTYLUS GLAUCUS Cope, Proc. Acad. Phila., 1865, p. 192; Journ. Acad. Phila., 1875, p. 118; Bocourt, Miss. Sci. au Mex., iii, p. 46.

E. Costa Rica, *Gabb*; Vera Paz, *Godman*; Peten, *Berendt*; Tobasco, *Berendt*; Tehuantepec, *Sumichrast*; Belize, *Meehling*; Yucatan, *Schott*; Coatzacoalcos R., *Streets*.

SPHÆRODACTYLUS ANTHRACINUS Cope, Proc. Acad. Phila., 1861, p. 500; Bocourt, Miss. Sci. au Mex., iii, p. 46,

Jalapa, *Pease*; "Mexico," *Berkenbusch*.

SPHÆRODACTYLUS LINEOLATUS Lichtenstein, Nomencl. Rept. Amphib., 1826, p. 6; Bocourt, Miss. Sci. au Mexique, part iii, p. 46; Boulenger, Catal. Lac. Brit. Mus., 1885, i, p. 221; *S. millepunctatus* Hallow., Proc. Acad. Phila., 1860, p. 488; Cope, l. c., 1861, p. 499; Bocourt, Miss. Sci. au Mex., iii, p. 45.

Nicaragua, *Stimpson*; Veragua, Central America, *Peters*.

SPHÆRODACTYLUS HOMOLEPIS Cope, Proc. Amer. Philos. Soc., 1885, Nov., 1886, p. 277. Nicaragua, *Bransford*.

**Aristelliger** Cope.

Proc. Acad. Phila., 1861, p. 496; Boulenger, Catal. Liz. B. M., 1885, i, 146; *Idiodactylus* Bocourt, Mission Scientifique au Mexique, 1870, p. 41.

ARISTELLIGER IRREGULARIS Cope, Proc. Amer. Philos. Soc., 1885, p. 387. Cozumel Id., Yucatan, *Ridgway*.

ARISTELLIGER PRÆSIGNIS Hallowell, Cope, Proc. Acad. Phila., 1861, p. 496; *Hemidactylus præsignis* Hallow., loc. cit., 1856, p. 222.

? Nicaragua, *Stimpson*.

ARISTELLIGER GEORGEËN. Bocourt; *Idiodactylus georgeensis* Bocourt, Mission Scientifique au Mexique, 1870, p. 41, pl. x, fig. 1 et a b c d.

St. George's Island, Belize, *Mission Scientifique*.

**Hemidactylus** Cuvier.

Dum. Bibr., Erp. Gen., iii, 344.

HEMIDACTYLUS NAVARREI Dugés, Naturaleza Mexico, 1883, p. 309, pl. 7a. West coast, *Dugés*.

## Phyllodactylus Gray.

Dum. Bibr., Erp. Générale, iii, p. 388; *Diplodactylus* Gray, Catal. Brit. Mus.

PHYLLODACTYLUS TUBERCULOSUS Weigm. Acta, Acad. Caes. Leop. Carol. Nat. Cuv., xvii, pt. 1, p. 241, pl. xviii, fig. 2; Dum. Bibr., iii, p. 396; Bocourt, Miss. Sci. au Mex., iii, p. 43, pl. x, fig. 3-3a; *P. xanti* Cope, Proc. Acad. Phila., 1863, p. 102.

Nicaragua, *MacNiel*; Tehuantepec, *Sumichrast*; Coban, *Hague*; Guadalajara, *J. J. Major*; Durango, *Webb*; Lower California, *Xantus*.

PHYLLODACTYLUS UNCTUS Cope; *Diplodactylus unctus* Cope, Proc. Acad. Phila., 1863, p. 103; Bocourt, Miss. Sci. au Mex., iii, p. 43.

Cape San Lucas, Lower California, *Xantus*.

## Thecadactylus Cuvier.

Gray, Catal. Liz. Brit. Mus., 1845, 146.

THECADACTYLUS RAPICAUDUS Houtt; Gray, Catal. Liz. Brit. Mus., 1845, p. 146; *Gecko rapicauda* Houtt, Act. Acad. Haarl., ix, 322, pl. iii, fig. 1; *Platydictylus theconyx* Dum. Bibr. Erp. Gén., iii, p. 306.

E. Costa Rica, *Gabb*; Coban, *Hague*; Yucatan, *Schott*; Guadalajara, *Major*.

## EUBLEPHARIDÆ.\*

Boulenger, Catal. Lit. Brit. Mus., 1885, i, p. 229.

## Coleonyx Gray.

Annals and Magaz. Nat. Hist., 1845, xvi, p. 162; *Brachydactylus* Peters, Monatsber. Berl. Acad. Wiss., 1863, 41.

COLEONYX ELEGANS Gray, Annals and Magaz. Nat. Hist., 1845, p. 162; Duméril, Arch. der Museum, viii, p. 483, pl. xvii, fig. 6; Cope, Journ. Acad. Phila., 1875, p. 118; Bocourt, Miss. Sci. au Mex., iii, p. 49, pl. x, fig. 7; *Gymnodactylus scapulatus* A. Dum., Catal. Rept. du Museum de Paris, p. 45; *Brachydactylus mitratus* Peters, l. c., p. 42.

Costa Rica, *Zeledon*, *Peters*; Peten, Guatemala, *Berendt*, *Morelet*; Yucatan, *Schott*; Presidio Tierra Caliente of Vera Cruz, *Sumichrast*.

## IGUANIA.

## ANOLIDÆ.

Cope, Proc. Acad. Phila., 1864, p. 228.

## Anolis Merr.

ANOLIS BOUVIERI Bocourt, Miss. Sci. au Mex. et dans l'Amérique Centrale, 1874, p. 58, pl. xiv, figs. 8, 8a.

Esquintla Guatemala, *Bouvier*.

ANOLIS BACCATUS Bocourt, Miss. Sci. au Mex., 1874, p. 59, pl. xiv, fig. 14. Mexico, *Sallé*.

ANOLIS GUENTHERI Bocourt, Miss. Sci. au Mex., 1874, p. 61, pl. xix, fig. 15. ? Hab.

ANOLIS LAVIVENTRIS Weigmann, Herp. Mex., 1834, p. 47; *Dactyloa laviventris* Weigmann; *A. laviventris* Bocourt, Miss. Sci. au Mex., iii, p. 87, pl. xvi, figs. 18, 18a. Mexico, *Peters*.

\* For a second species of this family see addenda.



- ANOLIS INSIGNIS Cope, Proc. Acad. Phila., 1871, p. 213; Journ. Acad. Phila., 1875, p. 120.  
Costa Rica, *Van Patten, O'Shaughnessy*.
- ANOLIS MICROTUS Cope, Proc. Acad. Phila., 1871, p. 214; Journ. Acad. Phila., 1875, p. 119.  
Costa Rica, *Van Patten*.
- ANOLIS PACHYPUS Cope, Journ. Acad. Phila., 1875, p. 122; Batr. and Report of Costa Rica, p. 122.  
Pico Blanco, Costa Rica, *Gabb*.
- ANOLIS RODRIGUEZII Bocourt, Miss. Sci. au Mex., iii, p. 62, pl. xiii, fig. 1a.  
San Juan River, Nicaragua, *Kennicott, Bransford*; Pansos sur le Polochic, Guatemala, *Bocourt*.
- ANOLIS TROCHILUS Cope, Proc. Acad. Phila., 1871, p. 215; Journ. Acad. Phila., 1875, p. 121.  
San Jose, Costa Rica, *Van Patten*; Nicaragua, *Bransford*; Buhio Soldado, Panama, *Bransford*; Costa Rica, *Gabb*.
- ANOLIS BRANSFORDII Cope, Proc. Acad. Phila., 1874, p. 67.  
Nicaragua, *Bransford, Moser*.
- ANOLIS AUREOLUS Cope, Proc. Amer. Philos. Soc., 1884, p. 390.  
Yucatan, *Schott*. Guatemala, *Hague*.
- ANOLIS SALLEI Günther, Proc. Zool. Soc. London, 1859, p. 421; 1860, p. 453; Bocourt, Miss. Sci. au Mex., iii, p. 90, pl. xiii, fig. 3, et pl. xvi, figs. 21, 21a, 21b.  
Dueñas, Guatemala, *Günther*. St. Augustin, Guatemala, *Bocourt*.
- ANOLIS BINOTATUS Peters, Monats. Akad. Wiss. Berlin, 1863, p. 40; Bocourt, Miss. Sci. au Mex., iii, p. 92, pl. xvi, figs. 22, 23.  
Rep. Salvador, *Bocourt*.
- ANOLIS CUPREUS Hallow., Proc. Acad. Phila., 1860, p. 480; Bocourt, Miss. Sci. au Mex., iii, p. 94.  
Nicaragua, *Stimpson, Bransford, MacNiel*.
- ANOLIS LONGICAUDA Hallow., Proc. Acad. Phila., 1860, p. 481.  
Nicaragua, *Stimpson, MacNiel*.
- ANOLIS CYMBOPS Cope, Proc. Acad. Phila., 1864, p. 173; Bocourt, Miss. Sci. au Mex., iii, p. 95.  
Vera Cruz, *Brit. Mus*.
- ANOLIS USTUS Cope, Proc. Acad. Phila., 1864, p. 172; Bocourt, Miss. Sci. au Mex., iii, p. 96.  
Belize, *Brit. Mus*.
- ANOLIS CONCOLOR Cope, Proc. Acad. Phila., 1862, p. 180; Bocourt, Miss. Sci. au Mex., iii, p. 96; *Anolis refulgens* Schleg. Hallowell, Proc. Acad. Phila., 1860, p. 480; *Gastrotropis concolor* Cope, Proc. Acad. Phila., 1862, p. 180.  
Nicaragua, *Stimpson*.
- ANOLIS BIPORCATUS Weigmann, Herp. Mex., 1834, p. 47; Cope, Proceedings Acad. Phila., 1865, p. 197; 1871, p. 215; 1874, p. 68. *Anolis petersii* Bocourt, Miss. Sci. Mex., iii, p. 79, pl. viii, f. 2, et pl. xv, figs. 11, 11a; Boulenger, Catal. Liz. Brit. Mus., 1885, ii, p. 66.  
Nicaragua, *Bransford*; Vera Cruz, *Sartorius, Sumichrast*.
- ANOLIS CHRYSOLEPIS Dum. et Bibr., Erp. Gén., 1837, t. iv, p. 94; Gray, Catal. Liz. Col. Brit. Mus., 1845, p. 207; Dum., Catal. Meth. Col. Report Mus. Paris, 1851, p. 56; Guichenot, Explorat. de l'Amerique Merid., 1855, t. ii, p. 15, pl. iv, fig. 1; Bocourt, Miss. Sci. au Mex., iii, p. 99, pl. xvi, fig. 26.  
Mexico, *Bocourt*; Honduras, *Catal. Brit. Mus.*, ed. ii, 1885, p. 90.



- ANOLIS CAPITO Peters, *A. Draconura capito* Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 142; *A. capito* Bocourt, Miss. Sci. au Mex., iii, p. 101, pl. xvi, figs. 27, 27a; Cope, Journ. Acad. Phila., 1875, p. 124; *Anolis carneus* Cope, Proc. Acad. Phila., 1864, p. 169.
- Costa Rica, *Gabb*; Vera Paz, Guatemala, *Bocourt*; Rio Frijole, Panama, *Bransford*; Nicaragua, *Bransford*.
- ANOLIS TROPIDONOTUS Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 135; *Anolis tropidonotus* Peters, Ann. and Mag. Nat. Hist., 1869, p. 273; *Norops auratus* O'Shaughnessy, Ann. and Mag. Nat. Hist., 1869, p. 183; 1869, p. 274; Bocourt, Miss. Sci. au Mex., iii, p. 103, pl. xiii, figs. 6, 6a, et pl. xvi, fig. 30.
- Orizaba, *Peters*, *Sumichrast*, et *Bourquet*; Tehuantepec, *Sumichrast*.
- ANOLIS UNIFORMIS Cope, Proc. Amer. Philos. Soc., 1885, p. 392.
- Guatemala, *Hague*; Yucatan, *Schott*.
- ANOLIS METALLICUS Bocourt, Ann. Sci. Nat., 1872; Miss. Sci. Mex. Report, pl. xvii, bis fig. 1.
- Mexico, *Bocourt*.
- ANOLIS HUMILIS Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 138; Bocourt, Miss. Sci. au Mex., iii, p. 105, pl. xiii, figs. 7, 7a, et pl. xvi, fig. 31.
- Veragua, *Peters*.
- ANOLIS QUAGGULUS Cope, Proc. Amer. Philos. Soc., 1885, p. 391; 1886, 276.
- Rio San Juan Nicaragua, *Kennicott*, *Bransford*.
- ANOLIS HELLACTIN Cope, Proc. Acad. Phila., 1864, p. 172; Bocourt, Miss. Sci. au Mex., iii, p. 106, pl. xiii, figs. 4, 4a, 4b, 4c, et pl. xvi, fig. 32.
- Oaxaca, *Sallé*.
- ANOLIS CRASSULUS Cope, Proc. Acad. Phila., 1864, p. 173; Bocourt, Miss. Sci. au Mex., iii, p. 82, pl. xvi, fig. 17.
- Vera Paz, *Brit. Mus.*; Nicaragua, *Bransford*; Guatemala, *Bocourt*.
- ANOLIS LIMIFRONS Cope, Proc. Acad. Phila., p. 178; Bocourt, Miss. Sci. au Mexique, iii, p. 65, pl. xiv, fig. 20.
- Veragua, *Mitchill*.
- ANOLIS PALPEBROSUS Peters, Monatsber. Berlin Acad. 1873, p. 740.
- Chiriquí, *Peters*.
- ANOLIS NEBULOSUS Weigmann, Herp. Mex., 1834, p. 47; Zoologie du Mexique, iii, p. 68, pl. xv, fig. 3.
- Batopilas Chihuahua, *Wilkinson*; Cuernavaca, *Méhédin*; Oaxaca, *Sallé* and *Boucard*; Yucatan, *Schott*; Colima, *Dugés*; Mazatlan, *Bischoff*; Guadalajara, *Major*; Tehuantepec, *Sumichrast*; Tepexi Puebla, *Comiston Geográfica*.
- ANOLIS INTERMEDIUS Peters, Monatsber. Akad. Wiss., Berlin, 1863, p. 143; Bocourt, Miss. Sci. au Mex., iii, p. 69, pl. xv, fig. 4; Cope, Journ. Acad. Phila., 1875, p. 124.
- Veragua, *Peters*; Costa Rica, *Gabb*.
- ANOLIS NANNODES Cope, Proc. Acad. Phila., 1864, p. 173; Bocourt, Miss. Scien. au Mexique, iii, p. 71, pl. xv, fig. 5.
- Tehuantepec, *Sumichrast*; Yucatan, *Schott*; Coban, Guatemala, *Godman*, *Salvin* and *Bocourt*; Costa Rica, *Riotte*; Xalapa, *Montes de Oca*; Orizaba, *Sumichrast*; Mirador, *Sartorius*; Actopan and Jicaltepec, Vera Cruz, *Comiston Geográfica*.
- ANOLIS JACOBI Bocourt, Miss. Scien. au Mex., iii, p. 73, pl. xiii, fig. 8.
- Vera Cruz, *Bocourt*; San Juan River, Nicaragua, *Kennicott*.
- ANOLIS NEBULOIDES Bocourt, Miss. Scien. au Mex., iii, p. 74, pl. xiii, fig. 10.
- Putla, Oaxaca, *Bocourt*.
- ANOLIS SALVINI Boulenger, Catal. Lizards Brit. Mus., ii, p. 75.
- Guatemala, *Godman*.

- ANOLIS BOURGUEI Bocourt, Miss. Scien. au Mex., iii, p. 76, pl. xv, fig. 9.  
Huatusco, Vera Cruz, *Peters*; Orizaba, *Bourget*.
- ANOLIS COPEI Bocourt, Miss. Scien. au Mex., iii, p. 77, pl. xv, figs. 10-10a; Cope, Journ. Acad. Phila., p. 121, 1875.  
Vera Paz, *Salvin*, *Sarg*; Santa Rosa de Pausos, Guatemala, *Bocourt*; Old Harbor, Costa Rica, *Gabb*; Nicaragua, *Bransford*.
- ANOLIS DOLLFUSIANUS Bocourt, Miss. Scien. au Mexique, iii, p. 84, pl. xvi, figs. 19-19a.  
St. Augustin, Guatemala, *Bocourt*.
- ANOLIS PULCHRIPES Peters, Monatsber. Berlin Acad., 1873, p. 739; Boulenger, Catal. Liz. Brit. Mus., ii, p. 53.  
Chiriqui, *Peters*.
- ANOLIS HOFFMANII Peters, Monatsber. Akad. Wiss., Berlin, 1863, p. 142; Bocourt, Miss. Scien. au Mex., iii, p. 86, pl. xv, figs. 15-16.  
Costa Rica, *Hoffmann*; Guatemala, *Hague*.
- ANOLIS TROPIDOLEPIS Boulenger, Catal. Liz. Brit. Mus., ii, p. 58.  
Costa Rica, *Godman*.
- ANOLIS SCHIEDII Wiegmann, *Dactyloa schiedii* Wiegmann; Herpét. Mex., 1834, p. 48; Mission Scien. au Mex., 1874, p. 61, pl. xiv, fig. 19; *Anolis sericeus* Hallowell, Proc. Acad. Phila., 1856, p. 227.  
Coban, Vera Paz, *Bocourt*; Xalapa, *Pease*.
- ANOLIS POLYLEPIS Peters, Monatsber. Berlin Acad., 1873, 738; Boulenger, Catal. Lizards, Brit. Mus., ii, p. 52.  
Chiriqui, *Peters*.
- ANOLIS CUMMINGII Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 140; Bocourt, Miss. Scien. au Mex., iii, p. 89, pl. xvi, fig. 20.  
"Mexico," *Peters*.
- ANOLIS GODMANI Boulenger, Catal. Liz. Brit. Mus., ii, 1886, p. 85.  
Guatemala, Costa Rica, *Godman*.
- ANOLIS OXYLOPIUS Cope, Batr. and Rept. Costa Rica, Journ. Akad. Phila., 1875, p. 123.  
Nicaragua, *Bransford*; Costa Rica, *Gabb*.
- ANOLIS TESSELLATUS O'Shaughnessy, Ann. and Mag. Nat. Hist., 1875, p. 279; Cope, Journ. Acad. Phila., 1875, p. 124.  
Costa Rica *O'Shaughnessy*.
- ANOLIS VITTIGERUS Cope, Proceeds. Acad. Phila., 1862, p. 179; *Anolis biporcatus* "Wiegmann," Bocourt, Miss. Sci. Mex. Rept., iii, p. 98, pl. xv, figs. 8-8a, nec Wiegmannii.\*  
Guatemala, *Bocourt*, *Salvin*.
- ANOLIS DAMULUS Cope, Proc. Acad. Phila., 1864, p. 169.  
? Hab.
- ANOLIS BECKERI Boulenger, Proc. Zool. Soc. London, 1881, p. 921; Catl. Brit. Mus., Lizards, ii, p. 46.  
Yucatan, *Catal. Brit. Mus.*

\* There is apparently some confusion in European works as to the determination of this species and the *A. biporcatus* of Wiegmann. The former is supposed by Bocourt, O'Shaughnessy, and Boulenger to be the species named *A. biporcatus* by Wiegmann in the Herpetologia Mexicana many years previously. I have on the other hand regarded the large common species of Eastern Mexico as the true *A. biporcatus*; but M. Bocourt regards it as undescribed, and names it *A. petersii*. Now Wiegmann's collections were, so far as I am aware, made in Mexico, and it is scarcely likely that this large species escaped him. On the other hand the *A. vittigerus* is a Central and South American species, much less conspicuous, and does not occur in Mexico. It is highly probable that Prof. Wiegmann had not seen it at the time of the writing of the Herpetologia Mexicana (1834). There is nothing in Wiegmann's description which disagrees with the Mexican species, or especially indicates the *A. vittigerus*. It looks as though some exchange of labels had taken place in the transmission of the specimens from Berlin to Paris.

ANOLIS PENTAPRION Cope, Proc. Acad. Nat. Sci., Phila., 1862, p. 178.  
Nicaragua, *Bransford*.

ANOLIS SAGRÆI Cocteau, Hist. de l'isle de Cuba, par Ramon de la Sagra, 1843, p. 131, tab. 13, fig. 1; Dum. et Bibr., Erpét. Générale, t. iv, 1837, p. 149; Gray, Cat. Liz. Coll., Brit. Mus., 1845, p. 203; Bocourt, Miss. Scien. au Mexique, iii, p. 80, pl. xv, fig. 14.

St. George's, Belize, *Bocourt*; Yucatan, *Schott*; Cozumel Id., *Ridgway*; Guatemala and Honduras, *Catal. Brit. Mus.*

#### IGUANIDÆ.

##### Polychrus Cuvier.

Regne Animal, 1817, p. 4.

POLYCHRUS GUTTUROSUS Berthold, Abh. Gess. Göttingen, iii, 1847, p. 5, pl. i, fig. 1; *P. multica rinatus* Peters, Monatsber. k. Preuss. Akad., 1869, p. 786; Bocourt Miss. Sci. au Mex., pl. xvii, fig. 8; Cope, Journ. Acad. Phila., 1875, p. 124.  
Costa Rica, *Peters*.

##### Basiliscus Laurenti.

Specimen Syn. Reptil., 1708, p. 50.

BASILISCUS PLUMIFRONS Cope, Journ. Acad. Phila., 1875, p. 125, pl. xxv, fig. 1; Boulenger, Catal. Liz. B. M., ii, p. 108.  
E. Costa Rica, *Gabb*.

BASILISCUS AMERICANUS Laurenti, specimen, p. 50; Bocourt, Miss. Sci. Mex., 127; Boulenger, Catal. Liz. B. M., ii, 1886, p. 108; *Basiliscus mitratus* Daud., Duméril et Bibr., Erp. Gen. iv, p. 181, 1837; Cope, Journ. Acad. Nat. Sci., 1875, p. 125, pl. xxv, fig. 2; "*Ophrygoessa bilineata* Gray, Zoöl. Brechey's Voyage, p. 94"; *Lophosaura goodridgei* Gray, Ann. Mag. Nat. Hist., London, 1852, p. 438; Richardson, Zoölogy Herald, p. 143, pl. xxvi; *Basiliscus goodridgei* Cope, l. c.  
Costa Rica, *Peters, Godman*.

BASILISCUS GUTTULATUS Cope, Journ. Acad. Phila., 1875, p. 156.  
Buhio Soldado, Panama, *Bransford*.

BASILISCUS VITTATUS Wiegmann, Isis, 1828, p. 373; Wagler., Syst. Amph., 1830, p. 148; *Edicoryphus vittatus*, l. c., p. 148; Gray, Synops. Report in Griffith's Anim. Kingd., 1831, t. ix, p. 45; *Corythæolus vittatus* Kaup, 1829, Isis, p. 1147; Wiegmann, Herp. Mex., pt. 1, 1834, p. 15 et 40, pl. v; *Basiliscus (Cristasaura) nuchalis* Cope, Proc. Acad. Phila., 1862, p. 181; *Draconura bivittata* Hallow., Proc. Acad. Phila., 1860, p. 482; *Paraloma bivittata* Cope, loc. cit., 1862, p. 181; *Anolis bivittatus* Bocourt, Miss. Sci. au Mex., p. 97.

Vera Cruz, *Sumichrast*; Costa Rica, *Gabb*; Belize, *Mechling*; Yucatan, *Schott*; Nicaragua, *Caldwell, Kennicott*; Tehuantepec, *Sumichrast*; Guatemala, *Haague*; Cozumel Id., *Ridgway*; Colima, *Xantus*.

##### Corythophanes Boie.

Gray in Griffith's Anim. Kingd., ix, Syn., p. 55; Wiegmann, Herpet. Mexicana, p. 15; *Chamæleopsis* Wiegmann, Gray.

CORYTHOPHANES PERCARINATUS Duméril, Arch. Mus. Hist. Nat., t. viii, 1856, p. 518, pl. xx, fig. 3-3a.; Bocourt, Miss. Sci. au Mexique, iii, p. 120, pl. xvii, fig. 2.  
Escuintla and San José, Guatemala, *Van Patten*; Guatemala, *Morelet*; Coban, Vera Paz, *Bocourt*.

CORYTHOPHANES MEXICANUS Bocourt, Miss. Sci. au Mex., iii, p. 121, pl. xvii, fig. 1; *C. chameleopsis* Dum. et Bibr.; *Chameleopsis hernaundesii* Gray, Catal. Brit. Mus., 1845, 194.  
Vera Cruz, *Boucard, Comision Geográfica*; Jalapa, *Montes-de-Oca, Sumichrast*; Chiapas, Tehuantepec, *Sumichrast*.

CORYTHOPHANES CRISTATUS Boie, Isis, 1827; Gray, Synops. in Griffith's Anim. Kingd., 1831, t. ix, p. 55; Gravenhorst, Aet. Acad. Caesar Leop. Carol. Nat. Curios., t. xvi, pars. ii, 1833, p. 838, tab. 65, fig. 6x10; Wiegmann, Herp. Mex., pars. i, 1834, p. 15; Duméril et Bibron, Erpétologie Génér., t. iv, 1847, p. 174; Fitzinger, Syst. Report 1843, p. 52; Gray, Catal. Spec. Liz. Coll. Brit. Mus., 1845, p. 194; Aug. Duméril Cat. Meth. Coll. Report, Paris, 1851, p. 60; Arch. Mus. Hist. Nat., t. viii, 1856, p. 517, pl. xx, fig. 1; Cope, Journ. Acad. Phila., 1875, p. 124; Merrem, Bocourt, Miss. Sci. au Mexique, iii, p. 118; *Lacerta ceylonica cristata et pectinata* Seba, 1734, t. i, p. 147, tab. 94, fig. 4; *Agama cristata* Merrem., Syst. Amph., 1821, p. 50; *C. mexicanus* Cope, Proc. Amer. Philos. Soc., 1884, p. 183.

Guatemala, *Hague*; Darien, *Selfridge*; E. Costa Rica, *Salvin*; Peten, *Morelet*; Panama, Pacific side, *Bransford*; Vera Paz, *Gabb*.; Nicaragua, *Bransford*, *Moser*.

#### Læmanctus Wiegmann.

Herpet. Mexicana, 1835, pp. 16, 45; Dum. Bibr., Erp. Gén., iv, 70 pars; *Lamantcus* Fitzinger, Syst. Rept., 1843, 63; Cope; Boulenger.

LÆMANCTUS SERRATUS Cope, Proc. Acad. Phila., 1864, p. 176; *Lamantcus longipes* Aug. Duméril, Arch. Mus., t. viii, 1856, pl. xxi, figs. 4-4a; Bocourt, Miss. Scien. au Mex., iii, p. 116.

Oaxaca, *Ghiesbrecht*; Vera Cruz, *Comision Geográfica*.

LÆMANCTUS ALTICORONATUS Cope, Proc. Acad. Phila., 1865, p. 192; Proc. Amer. Philos. Soc., 1869, pl. xi.

Yucatan, *Schott*.

LÆMANCTUS DEBORREI Boulenger, Bull. Soc. Zool. France, 1877, 465, pl. vii, f. 1. Vera Paz, *Salvin*; Tobasco, *Boulenger*.

LÆMANCTUS LONGIPES Wiegmann, Herp. Mex., 1834, p. 46, tab. 4; Dum. et Bibr., Erpét. Gén., 1837, t. iv, p. 172; Gray, Catal. Liz. Coll. Brit. Mus., 1845, p. 185; Aug. Duméril, Catal. Rept. Mus. Paris, p. 55; Bocourt, Miss. Sci. au Mexique, iii, p. 114, pl. xvii, fig. 4.

Vera Cruz, *Sumichrast*, *Sartorius*, *Mehedin et Boucard*; Coban, Guatemala, *Salvin*; Actopam, *Comision Geográfica*.

#### Iguana Laurenti.

Spec. Synopsis Rept., 1765, p. 47; Duméril et Bibron, Erp. Gén.

IGUANA TUBERCULATA Laur., Syn., 49; *Lacerta iguana* Shaw, Zool., iii, 199; *I. delicatissima* Latr., R. 155; Daud., Rept., iii, 263 to 40, 277 and 280; *I. carnea* Daud., Rept., iii, 266; Spix., Braz., 7, t. vii; *I. sapidissima* Merrem, Tent., 49; *I. squamosa* Spix., Braz., 5, t. 5; *I. viridis* Spix., Braz., 6, t. 6; *I. emarginata* Spix., Braz., 7, t. 8; *I. lophyroides* Spix., Braz., 8, t. 9.

Subspecies RHINOLOPHIA Wiegmann; Cope, Proceeds. Amer. Philos. Soc., 1869, p. 161; Boulenger, Catal. Liz. Brit. Mus., 1885, p. 190; *Iguana rhinolopha* Weigmann, Herp. Mex., pars 1, 1834, p. 44; Bocourt, Miss. Sci. au Mexique, iii, 134; Cope, Journ. Acad. Phila., 1875, p. 124.

Nicaragua, *MacNiel*; Tehuantepec, *Sumichrast*; Costa Rica, *Gabb*; Colima, *Xantus*; Cozumel Id., *Ridgway*; Tobasco, *Laszlo*; Southern Puebla, and Alatorre, Vera Cruz, *Comision Geográfica*; Swan Ids., coast of Honduras, *Cope*.

#### Ctenosaura Wiegmann.

Isis von Oken, 1828, p. 371; Cope, Transac. Amer. Philos. Soc., 1885; *Euyaliosaurus* Gray, Cat. Liz. Br. Mus., 1845, p. 192.

CTENOSAURA HEMIPLOHA Cope, Proc. Acad. Phila., 1863, p. 105; Proc. Amer. Philos. Soc., 1885, 266; Boulenger, Catal. Liz. Brit. Mus., ii, 1885, p. 197; *Ctenosaura acanthura* Bocourt, Miss. Sci. Mexique, Rept., p. 138; *Cyclura acanthura* Dum. Bibr., pars, Erp. Gén., iv, p. 224.

Lower California, *Xantus*, *Botta*.



CTENOSAURA MULTISPINIS Cope, Transac. Amer. Philos. Soc., 1885, p. 267.

Oaxaca, *Sumichrast*; Batopilas, Chihuahua, *Wilkinson*.

CTENOSAURA BREVIROSTRIS Cope, loc. cit., p. 268.

Colima, *Xantus*.

CTENOSAURA TERES Harlan; *Cyclura teres* Harlan, Journ. Acad. Phila., t. iv, 18-25, p. 246, tab. 16; *Ctenosaura pectinata* Wiegmann, Herpetologia Mexicana, 1834, p. 42, tab. 2; Duméril et Bibr., Erp. Gén., t. iv, 1837, p. 221; Fitzinger, Syst. Rept., 1843, p. 56; Gray, Catal. Brit. Mus., 1845, p. 49; Cope, Proc. Acad. Phila., 1866, p. 124; Bocourt, Miss. Sci. au Mex., iii, p. 140; Wiegmann, Herpet. Mex., 1834, p. 42; Bocourt, Miss. Sci. au Mex., iii, p. 142; *Ctenosaura armata* Gray, Synopsis in Griffith's Anim. Kingd., t. ix, 1831; *Cyclura acanthura* Sumichrast, Biblioth. Univer. et Rev. Suisse (Arch. des Sciences Phys. Nat., 1864, p. 49).

Nicaragua, *MacNeil*; Tehuantepec, *Sumichrast*; Tampico, *Dallas*; Alatorre, Vera Cruz, *Comision Geográfica*; Vera Cruz, *Méhédin*; Coatzacoalcos, *R. Streets*; Mexico, *Ghiesbrecht*; Colima, *Xantus*, *Dugés*.

Subspecies BRACHYLOPHA Cope, Proc. Amer. Philos. Soc., 1886, p. 269.  
Mazatlan, *Bischoff*.

CTENOSAURA COMPLETA Bocourt, Miss. Sci. du Mexique, iii, Rept., p. 145; Cope, Proceeds. Amer. Philos. Soc., 1885, p. 269; *Cyclura pectinata* Cope, Proc. Acad. Phila., 1866, p. 124; Proc. Amer. Philos. Soc., 1885, p. 388.

Guatemala, *Bocourt*; Yucatan, *Schott*; Cozumel Id., *Ridgway*; San Salvador, *Miss. Scientif.*

CTENOSAURA QUINQUECARINATA Gray, Cope, Pr. Amer. Philos. Soc., 1885, p. 269; Boulenger, Catal. Liz. B. M., 1885, p. 198; *Emyliosaurus quinquecarinatus* Gray, Catal. Sauria Brit. Mus., 1845, 192; *Cyclura (Ctenosaura) quinquecarinata* Cope, Proc. Acad. Nat. Sci. Phila., 1869, p. 161.

Tehuantepec, *Sumichrast*.

#### Cachryx Cope.

Proceeds. Acad. Phila., 1866, p. 124; Boulenger, Catal. Lizards Brit. Mus., 1885, p. 193.

CACHRYX ERYTHROMELAS Boulenger; *Ctenosaura erythromelas* Boulenger, Proceeds. Zool. Soc. London, 1886, p. 241, pl. xxiii.

Habitat ?

CACHRYX DEFENSOR Cope, Proceeds. Acad. Phila., 1866, p. 124; Proceeds. Amer. Philos. Soc., 1869, pl. x; Bocourt, Miss. Sci. Mex., p. 148.

Yucatan, *Schott*.

#### Enyalioides Boulenger.

Catal. Liz. Brit. Mus., ii, 1885, p. 112.

ENYALIOIDES HETEROLEPIS Bocourt; Boulenger, l. c., p. 114; *Enyalis heterolepis* Boc., Mission Scientif. Mex., Rept., pl. xx, c. f. 14; Ann. Sci. Nat., 1874, art. 4.

Veragua, *Bocourt*.

#### Dipsosaurus Hallowell.

Proc. Acad. Phila., 1854, p. 92.

DIPSOSAURUS DORSALIS Bd. & Gird.; *Crotaphytus dorsalis* Bd. & Girard, Proc. Acad. Phila., 1852, p. 126; U. S. & Mex. Bound. Surv., 1859, p. 8, pl. xxxii, figs. 7-13.

Lower California, *Xantus*.

#### Crotaphytus Holbr.

N. Amer. Herpetology, vol. ii, p. 72, 1842.

CROTAPHYTUS COPEI Yarrow, Proc. U. S. Nat. Mus., 1882, p. 441.

Lower California, *Belding*.

CROTAPHYTUS COLLARIS Say; Holbrook, l. c.; *Agama collaris* Say.

City of Chihuahua, *Wilkinson*.

## Sauromalus Duméril.

Archives du Muséum, viii, 1856, 536; *Euphryne* Baird, Proc. Acad. Phila., 1858, 253.

SAUROMALUS ATER A. Duméril, Arch. Mus., t. viii, 1856, p. 536, pl. xxiii, fig. 3-3a; *Euphryne obesa* Baird, Proc. Acad. Phila., 1858, p. 253; U. S. & Mex. Bound. Surv., 1859, p. 6, pl. xxvii; *Sauromalus ater* Bocourt, Miss. Sci. au Mex., iii, Rept., p. 149, pl. xviii bis, fig. 11-11a, 11b.

Lower California, Duméril.

## Uta Bd. Gird.\*

Proc. Acad. Phila., 1852, p. 69; *Urosaurus* Hallowell, Proc. Acad. Phila., 1854, 92; *Phymatolepis* Dum., Arch. du Musée, viii, 548; Bocourt, Miss. Sci. Mexique, Rept., p. 165; *Petrosaurus* Boulenger, Catal. Liz. Brit. Mus., ii, 1885, p. 205.

UTA IRREGULARIS Fischer, Abhandl. Nat.-Wiss. Verein, Bremen, vii, 1881, p. 232.  
"Mexican Plateau," Fischer.

UTA BICARINATA Duméril; Cope, Proc. Acad. Phil., 1864, p. 117; *Phymatolepis* Duméril, Archiv. du Mus., 1856, p. 549, pl. xxiii, figs. 2, 2a, 2b; Bocourt, Miss. Sci. Mex., 165.

Batopilas, Chihuahua, *Wilkinson*; City of Chihuahua, *Wilkinson*; Guanajuato, *Dugés*; Puebla, *Boucard*; Tehuantepec, *Sumichrast*; Matamoros Puebla, *Mision Geográfica*.

UTA AURICULATA Cope, Proc. Boston Soc. Nat. Hist., 1871, 303.  
Socorro, Revillagigedo Ids., *Grayson*.

UTA LATERALIS Boulenger, Am. Mag. Nat. Hist., London, 1883, p. 342; Catal. Liz. Brit. Mus., ii, 1885, p. 214.

Presidio W. Mexico; Tres Marias Is., *Forrer*.

UTA NIGRICAUDA Cope, Proc. Acad. Phila., 1864, p. 176.  
Cape St. Lucas, Lower California, *Xantus*.

UTA STANSBURIANA Bd. Gird., Proc. Acad. Phila., vi, 1852, p. 69; Stansbury's Great Salt Lake, 1852, 345, Reptiles, pl. v.  
Cape St. Lucas, Lower California, *Xantus*.

UTA THALASSINA Cope, Proc. Acad. Phila., 1863, p. 104; *Petrosaurus thalassinus* Boulenger, Catal. Liz. Brit. Mus., ii, 1885, p. 205.  
Cape St. Lucas, Lower California, *Xantus*.

## Sceloporus Wiegmann.

Isis, 1828, p. 369; *Tropidolepis* Cuvier, Règne Anim., 2d ed., 1829, t. 2, p. 38.

SCELOPORUS HORRIDUS Wiegmann, Herpetologia Mexicana, pt. i, 1834, p. 50; *Tropidolepidus horridus* Dum. Bibr., Erp. Gén., iv, 1837, 306; Bocourt, Miss. Sci. Mex., p. 178, pl. xviii, 8, 8a, 8b; *Sceloporus oligoporus* Cope, Proc. Acad. Phila., 1864, p. 177.

Colima, *J. Xantus*, *A. Dugés*; Guadalajara, *Major*; Vera Cruz, *Mission Scientifique*.

SCELOPORUS SINIFERUS Cope, Proc. Amer. Philos. Soc., 1869, p. 159; *Sceloporus humeralis* Bocourt, Miss. Sci. Mex., 1875, p. 206, pl. xviii, bis, figs. 3, 3a, 3b.  
Tehuantepec, *Sumichrast*; Oaxaca, *Sallé*.

SCELOPORUS SQUAMOSTS Bocourt, Miss. Sci. Mex., 1875, 212, pl. xviii, bis, 7, 7a, 7b, 7c, xix, fig. 3.  
Costa Rica, *Van Patten*; Guatemala, *Miss. Scientif.*

SCELOPORUS UTIFORMIS Cope, Proc. Acad. Phila., 1864, p. 177; Bocourt, Miss. Sci. Mex., 187, p. 208, pl. xviii, bis, 6, 6a, 6b.  
Colima, *J. Xantus*, *Dugés*.

SCELOPORUS CHRYSOSTICTUS Cope, Proc. Acad. Phila., 1866, p. 125; *Sceloporus cupreus* Bocourt, Miss. Sci. Mex., 1875, p. 210, pl. xviii, bis, 2, 2a, 2b.  
Yucatan, *Schott*; Guatemala, *Van Patten*; Oaxaca, *Boucard*.

\*The sole character which distinguishes *Sauromalus* from *Uta* is the short and obtuse tail. At present the value of this definition appears doubtful, and the genera may have to be united.



- SCOLOPORUS SCALARIS Wiegmann, *Herp. Mex.*, 1834, p. 52, tab. 8, fig. 2; *Tropidolepis scalaris* Dum. Bibr., *Erp. Gén.*, iv, 1837, p. 310; *Sceloporus scalaris* Baird, *U. S. & Mex. Bound. Surv.*, *Reptiles*, p. 6; Bocourt, *Miss. Sci. Mex.*, p. 202, 1875, pl. xviii, bis, 9, 9a, 9b.
- Colima, *Dugés*; Cuernavaca, *Mchédin*; City of Mexico, *Cope*; Zacualtipan Hidalgo, *Cope*; Orizaba, *Sumichrast*; Monterey, *Cope*; S. W. Texas, *Marnoch*; Sonora, *Kennerly*; Puebla, *Comision Geográfica*.
- SCOLOPORUS AENEUS Wiegmann, *Herp. Mex.*, 1834, p. 52; Bocourt, *Miss. Sci. au Mex.*, iii, Report, p. 204, pl. xviii, bis, figs. 4, 4a, 4b; *Tropidolepis aeneus* Dum. et Bibr., *Erp. Gén.*, t. iv, 1837, p. 309; *Sceloporus aenus* Fitzinger, *Syst. Rept.*, 1843, p. 75; *Tropidolepis aeneus* Gray, *Catal. Brit. Mus.*, 1845, p. 210; *Id. Ang. Duméril*, *Catal. Mus. Paris*, 1851, p. 78.
- "Mexico," *Boucard*; Jalapa, *Flohr*; Guanajuato, *Dugés*; Puebla, *Comision Geográfica*.
- SCOLOPORUS VARIABILIS Wiegmann, *Herp. Mex.*, 1834, p. 51; Bocourt, *Miss. Sci. Mex.*, 187-, p. 200, pl. xviii, bis, 1, 1a, 1b, xix, fig. 2; *Tropidolepis variabilis* Dum. et Bibr., *Erp. Gén.*, iv, 1837, p. 308.
- Guatemala, both slopes, *Mission Scientifique*; La Union, San Salvador, *Comision Scientifique*; Guatemala, *Hague*; Tehuantepec, *Sumichrast*; Puebla, *Comision Geográfica*; Orizaba, *Sumichrast*; Mirador, Vera Cruz, *Sartorius*; Xalapa, *Montes de Oca*; Monterey, *Cope*.
- SCOLOPORUS PYRRIOCEPHALUS Cope, *Proc. Acad. Phila.*, 1864, p. 177.
- Colima, *Xantus*; Guadalajara, *Major*.
- SCOLOPORUS MALACHITICUS Cope, *Proc. Acad. Phila.*, 1864, p. 178; *Sceloporus smaragdinus* Bocourt, *Miss. Sci. Mex.*, 1875, p. 186, pl. xviii, figs. 6, 6a, 6b, xix, figs. 11a, 11b.
- Costa Rica, *Riotte*, *Gabb*; Guatemala, *Hague*, *Salvin*, *Van Patten*; Yucatan, *Schott*.
- SCOLOPORUS GRACIOSUS Bd. Gird., *Proc. Acad. Phila.*, 1852, p. 69; Stansbury's Report Great Salt Lake, 1852, 346, pl. v, fig. 1; Bocourt, *Miss. Sci. Mex.*; *Sceloporus gracilis* Bd. Gird., *Proc. Acad. Phila.*, 1852, 175; Girard, *Herpetol. U. S. Ex. Exped.*, 1858, pl. xx, figs. 1-9.
- Salt Lake City, Utah, Pitt River, California, *Newberry*; Owen's valley, Cal., *Horn*; Southern Oregon, *Cope*; VAR. Jalapa, Matamoros, *Comision Geográfica*.
- SCOLOPORUS GRAMMICUS Wiegmann, *Herp. Mex.*, pt. i, 1834, p. 51; etiam *Isis* von Oken, p. 369, exclus. var. *microlepidota*; Bocourt, *Miss. Sci. Mex.*, 187-, p. 192, pl. xviii, bis 12, 12a, 12b; *Sceloporus heterurus* Cope, *Proc. Acad. Phila.*, 1866, p. 332.
- Tehuantepec, *Sumichrast*; Mirador, Vera Cruz, *Sartorius*; Chihuahua, *Wilkinson*; Matamoros Puebla, *Comision Geográfica*.
- SCOLOPORUS MICROLEPIDOTUS Wiegmann, *Herp. Mex.*, 1834, p. 51; Bocourt, *Miss. Sci. Mex.*, p. 194, pl. xviii, bis figs. 13, 13a, 13b, 13c, 13d; *Tropidolepis microlepidotus* Dum. Bibr., *Erp. Gén.*, iv, 1837, p. 307.
- Colima, *Ghiesbrecht*; Puebla, *Dugés*, *Ferrari-Perez*; Oaxaca, *Boucard*; Toluca, *Vil-lada*; Zacualtipan, *Bernad*, *Cope*; Mirador, Vera Cruz, *Sartorius*; Orizaba, *Sumichrast*; Guanajuato, *Dugés*; Jalapa, *Flohr*.
- SCOLOPORUS VIVIPARUS Cope, *Proc. Amer. Philos. Soc.*, 1885, p. 398.
- Orizaba, *Sumichrast*; Mirador, Vera Cruz, *Sartorius*; Tehuantepec, *Sumichrast*.
- SCOLOPORUS UNDULATUS Latr. Wiegmann, *Isis*, 1828, 369, Bd. Gird., *U. S. Pac. R. R. Surveys*, Whipple's Report, p. 37; Bocourt, *Miss. Sci. Mex.*, 195, pl. xviii, bis figs. 11, 11a, 11b; *Stellio undulatus* Latreille, *Hist. Nat. Rept.*, ii, 1802, p. 40; *Agama undulata* Daudin, *Hist. Nat. Rept.*, iii, 1805, p. 384; *Uromastix undulatus* Green Merrem., *Tropidolepis undulatus* Cuv., *Regne Animal*, Ed. ii, ii, 1829, p. 38; Gray, *Catal. Brit. Mus.*, 1845, 208; Dum. et Bibr., *Erp. Gén.*, iv, 1837, p. 298; Holbrook, *N. Amer. Herpetol.*, iii, 1838, p. 58, pl. viii; *Sceloporus occidentalis* Bd. Gird., *Proc. Acad. Phila.*, 1852, p. 175; *S. frontalis* Bd. Gird., loc. cit.; *Sceloporus longipes* Baird, l. c., 1858, p. 254; *S. dispar* Bd. Gird., l. c., 1852-'53, p. 127; *S. floridanus* Baird, l. c., 1858, p. 254.
- North America, from ocean to ocean. City of Chihuahua, *Wilkinson*.

SCOLOPORUS SPINOSUS Wiegmann, *Isis*, 1828, p. 369; *Herp. Mex.*, pars. i, 1834, p. 50, tab. vii, fig. 3; Fitzinger, *Syst. Rept.*, 1843, p. 75; Bocourt, *Miss. Sci. au Mex.*, iii, Rept., p. 174, pl. xviii, figs. 2, 2a, 2b; *Tropidurus spinosus* Wagler, *Syst. Amph.*, 1830, p. 146; *Tropidolepis spinosus* Gray, *Synops. Rept. in Griffith's Anim. Kingd.*, t. ix, 1831, p. 43; Duméril et Bibron, *Erp. Gén.*, t. iv, 1837, p. 304; Gray, *Catal. Liz. Brit. Mus.*, 1845, p. 209; *Ang. Duméril, Catal. Meth. Col. Rept.*, 1851, p. 77.

Guajuato, *Dugés*; Puebla, *Comision Geográfica*; Tehuacan, *Comision Geográfica*.

The *S. spinosus* approaches the *S. undulatus* very closely, differing principally in size and in color, and the smaller number of femoral pores. A Texan form appears to connect the two.

SCOLOPORUS ZOSTEROMUS Cope, *Proc. Acad. Phila.*, 1863, p. 105; *S. clarki* subsp. *zosteromus* Cope, *Check-list*, 1875, p. 49.

Lower California, *Xantus*, *Belding*; Southern Arizona.

SCOLOPORUS MELANORHINUS Bocourt, *Ann. des Sciences Naturelles*, iii, 1876, p. 85. Tehuantepec, *Sumichrast*; Colima, *Xantus*.

SCOLOPORUS TENIOCNEMIS Cope, *Proc. Amer. Philos. Soc.*, 1885, p. 399.

Guatemala, *Hague*.

SCOLOPORUS LUNÆI Bocourt, *Miss. Sci. au Mex.*, iii, Rept., p. 184, pl. xviii, bis figs. 5, 5a, 5b.

Guatemala, *Bocourt*.

SCOLOPORUS FERRARIPEZEI Cope, *Proc. Amer. Philos. Soc.*, 1885, p. 400.

? Guajuato, *Dugés*.

SCOLOPORUS MELANOGASTER Cope, *Proc. Amer. Philos. Soc.*, 1885, p. 400.

Guajuato, *Dugés*.

SCOLOPORUS SERRIFER Cope, *Proc. Acad. Phila.*, 1866, p. 124; *Proc. Amer. Philos. Soc.*, 1885, pp. 395-401.

Yucatan, *Schott*.

SCOLOPORUS ACANTHINUS Bocourt, *Mission Scientifique Mexique*, iii, Reptiles, 180, pl. xviii, figs. 10, 10a, 10b; xix, figs. 4, 4a.

St. Augustino, West Guatemala, *Mission Scientifique*.

SCOLOPORUS TORQUATUS Greene and Peale; Wiegmann, *Isis*, 1828, p. 369; *Herp. Mex.*, pars. i, 1834, p. 49, tab. vii, fig. 1; Fitzinger, *Syst. Rept.*, 1843, p. 75; Gray, *Catal. spec. Liz.*, 1845, p. 208; *Ang. Duméril, Catal. méth. coll. Rept.*, 1851, p. 77; *Sceloporus formosus* Wieg., *Herp. Mex.*, pl. i, 1834, p. 50, tab. vii, fig. 2; Fitzinger, *Syst. Rept.*, 1843, p. 75; Bocourt, *Miss. Sci. au Mexique*, iii, Rept., p. 182, pl. xviii, figs. 3, 3a, 3b, 3c; Gray, *Catal. Liz.*, 1854, p. 209; *Ang. Duméril, Catal. méth. coll. Rept.*, 1851, p. 77; *Agama torquata* Greene and Peale, *Journ. Acad. Phila.*, t. vi, 1827-1828, p. 231; *Tropidurus torquatus* Wieg., *Wagler, Syst. Amph.*, 1830, p. 146; *Tropidolepis torquatus* Gray, *Synops. in Griffith's Anim. King.*, t. ix, 1831, p. 43; *Dum. et Bibr.*, *Erp. Gén.*, t. iv, 1837, p. 301; *Tropidolepis formosus* *Dum. et Bibr.*, *Erp. Génér.*, t. iv, 1837, p. 303; *Sceloporus poinsettii* Baird and Girard, *Proc. Acad. Phila.*, 1852, p. 126; *U. S. & Mex. Bound. Surv.*, 1859, p. 5, pl. xxix, figs. 1-3; Bocourt, *Miss. Sci. au Mex.*, iii, Rept., p. 171, pl. xviii, figs. 9, 9a, 9b, 9c.

Colima, *Dugés*; Oaxaca, *Boucard*; Xalapa, *Keating*, *Montesdeoca*; Vera Cruz, *Sartorius*; Monterey and Laredo, *Cope*; Texas, *Clark*.

Subspecies TORQUATUS P. & G.; Cope, *Proc. Amer. Philos. Soc.*, 1885, p. 402.

Jalapa, *Keating*.

Subspecies POINSETTI B. & G.; Cope, l. c., p. 402.

S. W. Texas, *Clark*, *Cope*; Mexico, Chihuahua, *Wilkinson*.

Subspecies CYANOGENYS Cope, l. c., p. 402.

Monterey, Nuevo Leon, *Cope*.

Subspecies MUCRONATUS Cope, l. c., p. 402.

Vera Cruz, *Sartorius*.

Subspecies FORMOSUS Wiegman; Cope, l. c., p. 402.

Jalapa, *Montesdeoca, Comision Geográfica*.

Subspecies MINOR Cope, l. c., p. 402.

Guanajuato, *Dugés*.

SCELOPORUS JARROVII Cope, Report U. S. Geol. Expl. Surv. W. of 100th Mer., p. 569, pl. xxiii, figs. 2, 2b, 2c, 2d.

Southern Arizona; Ciudad, *Forrer*.

SCELOPORUS ORNATUS Baird, Proc. Acad. Phila., 1858, p. 254; Rept. U. S. & Mex. Bound. Surv., Zool. Reptiles, p. 5.

Patos Coahuila, *Couch*.

SCELOPORUS DUGESI Becourt, Miss. Sci. Mexique, iii, p. 188, pl. xviii, figs. 7, 7a, 7b; *Tropidolepis intermedius* Dugés, La Natureza, Mexico, vol. iv, p. 29, pl. i, figs. 21-32.

Guanajuato, *Dugés*.

#### Callisaurus Blainv.

Nouv. Ann. Mus. Hist. Nat., iv, 1835, p. 233; *Homalosaurus* Hallow.; Sitgreaves Exped., 1853, p. 116.

CALLISAURUS DRACONTOIDES Blainv., loc. cit., pl. xxiv, 2 sta.; *Homalosaurus ventralis* Hallow., loc. cit., pl. vi.

Lower California, *Xantus, Botta, Fisher*.

#### Holbrookia Girard.

Proc. Amer. Ass. Adv. Sci., 1850-'51, p. 201; *Cophosaurus* Trosch.; Wiegman Archiv, 1850-'52, p. 389.

HOLBROOKIA ELEGANS Becourt, Miss. Sci. au Mex., 1874, iii, Rept., p. 164, pl. xvii, bis, figs. 8, 8a; *H. Bischoffi* Cope, Proc. Acad. Phila., 1868, p. 310 (no description). Mazatlan, *Peters, Bischoff*; S. of Chihuahua, *Potts*.

HOLBROOKIA MACULATA Gird., Proc. Amer. Ass. Adv. Sci., 1850-'51, p. 201.

Subspecies APPROXIMANS Baird; Cope, Proc. Amer. Philos. Soc., 1879, p. 265;

*Holbrookia approximans* Baird, Proc. Phila. Acad., 1858, Dec. U. S. & Mex. Bound. Surv. Rept., p. 8.

Guanajuato, *Dugés*; Chihuahua, *Wilkinson*.

HOLBROOKIA TEXANA Troschel; Bd. & Gird., Proc. Acad. Phila., vi, 1852, p. 125; *Cophosaurus texanus* Troschel, Wiegmann's Archiv, 1850-'52, p. 389.

Monterey, Tamaulipas, *E. D. Cope*; S. of Chihuahua, *Potts*; Chihuahua, *Wilkinson*.

HOLBROOKIA PROPINQUA Baird; Gird., Proc. Acad. Phila., 1852, p. 126; Cope, Bull. U. S. Nat. Mus., No. 17, 1880, p. 15; Boulenger, Catal. Liz. Brit. Mus., ii, 1885, p. 208.

Presidio, W. Mexico, *Forrer*.

#### Phrynosoma Wiegmann.

Isis von Oken, 1828, p. 367; Wagler, Nat. Syst. Amphib., 1830, p. 323.

PHRYNOSOMA MODESTUM Girard, Stansbury's Salt Lake, 1852, 361, pl. vi; U. S. & Mexican Boundary Survey, Reptiles, p. 10.

City of Chihuahua, *Wilkinson*.

PHRYNOSOMA ORBICULARE Hernandez; *Tapaya axiu, Lacertus orbicularis*, Hernandez, Nov. Plant. Anim. Miss. Mex., 1651, c. xvi, p. 327, fig. sine numero; *Id.*, Linnæus, Syst. Nat., 1759, p. 1062; *Phrynosoma orbiculare*, Wagler, Deser. et Icon., Amphib., 1833, pl. 23, fig. 1-2; *Id.*, Schinz, Naturg. and Abild. der Rept., 1833, pl. 27, fig. 2; *Id.*, Gravenhorst, Act. Acad. Cæs. Leop. Carol. Nat. Cur., t. xvi, pt. 2, 1833, p. 912, pl. 63; Wiegmann, Herp. Mex., 1834, p. 53; Dum. et Bilbr., Erp. Gén., t. iv,

1837, p. 321; Gray, Catal. Liz. Brit. Mus., 1845, p. 228; Aug. Duméril, Cat. Méth. Coll. Rept., Paris, 185, p. 78; Ch. Girard, Stansbury's Explor. Vall. Gr. Salt Lake of Utah, 1852, p. 359; *Tapaya orbicularis*, Cuv., Reg. Anim., t. ii, 1817, p. 35; *Id.* sec. edit., t. ii, 1819, p. 37; Ch. Girard, U. S. Exped. under command of Wilkes, 1858, p. 394; *Id.*, Aug. Duméril et Bocourt, Miss. Sci. au Mex., iii 1870, p. 221, pl. xi, figs. 1-1a, 1b, 1c, 1d, 1e, 1f.

Puebla, *Comision Geográfica*; Puebla, *Sallé*; Vera Cruz, *Arago*, *Mehedin*, *Dugés*; City of Mexico, *Cope*; Guanajuato, *Dugés*; S. of Chihuahua, *Potts*.

PHRYNOSOMA BOUCARDI Bocourt, Miss. Sci. au Mex., iii, 1870, p. 225, pl. xl, figs. 4-4a, 4b, 4c, 4d, 4e, 4f.

Plateau of Mexico, *Boucarrd*.

PHRYNOSOMA BRACONNIERI Bocourt, Miss. Sci. au Mex., 1870, pl. xii, figs. 7-7a.

Oaxaca, *Jacob*.

PHRYNOSOMA TAURUS Dugés, La Natureza Mexico, 1868; Dum. et Bocourt, Miss. Sci. au Mexique, 1870, pl. xii, fig. 8.

Coscatlan, Puebla, *Dugés*.

PHRYNOSOMA CORNUTUM Harlan, Gray, Synops. Rept. in Griffith's Anim. Kingd., t. ix, 1831, p. 45; Holbrook, N. Amer. Herpet., t. ii, 1842, p. 87, pl. xi; *Id.*, Gray, Catal. Liz. Coll. Brit. Mus., 1845, p. 229; Aug. Duméril, Cat. Méth. Coll. Rept., Mus. Paris, 1851, p. 28; Girard, Stansbury's Explor. Vall. Great Salt Lake, 1852, p. 360, pl. viii, figs. 1-6; *Id.*, E. Blanchard, (syst. osseux), Organ. Reg. Anim., 1852, 5th livr., pl. xii; *Id.*, Hallowell, Sitgreaves, Rept. Exped. Zuni and Color. Rivers, 1853, p. 119; *Id.*, Girard, U. S. Explor. Exped. under the command of Wilkes, 1858, pl. xxi, figs. 6-9, p. 403; *Id.*, U. S. & Mex. Bound. Survey, 1859, p. 9; Bocourt, Miss. Sci. au Mex. Rept, iii, p. 236, pl. xii, figs. 9-9a, 9b, 9c, 9d, 9e, 9f; *Agama cornuta* Harlan, Journ. Acad. Phila., iv, 1825, p. 299; *Tapaya cornuta* Cuvier, Règne Animal, 2d ed., t. ii, 1829, p. 37; *Phrynosoma harlanii* Wiegmann, Herp. Mex., t. i, 1834, p. 54; *Id.*, Dum. et Bibr., Erp. Génér., t. iv, 1837, p. 314; *Id.*, Spring et Lacordaire, Anat., 1842, 2d pt., p. 192, fig. 5 (Bull. Acad. Roy. Bruxelles); *Tropidogaster cornutus* Fitzinger, Synops. Rept., t. i, 1843, p. 79.

Monterey, Nuevo Leon, *E. D. Cope*; City of Chihuahua, *Wilkinson*.

PHRYNOSOMA ASIO Cope, Proc. Acad. Phila., 1864, p. 178; *Id.* Sumichrast, Bibl. Univers. et Rev. Suisse (Arch. Sc. Phys. et Nat., 1873, p. 258); *Batrachosoma asio* Bocourt, Miss. Sci. au Mex., iii, Rept., p. 241, pl. xvii, figs. 9-9a, 9b, 9c; *Phrynosoma spinimentum* Peters, Monatsber. Berlin Akad. Wiss., 1873, p. 742.

Colima, *Xantus*; Chiapas, *Montes de Oca*; Tehuantepec, *Sumichrast*.

PHRYNOSOMA CORONATUM De Blainville, Nouv. Ann. Hist. Nat., iv, 1835, 284, pl. xxv, figs. 1a, 6c, Dum. Bibr., Erp. Gén., iv, 1837, 318; Ang. Dum., Catal. Méth. Coll. Rept., M. P., 1851, 78; Cope, Proc. Acad. Phila., 1866, p. 302; Dum. et Bocourt, Miss. Sci. Mexique, 1870, pl. x, fig. 10; *Batrachosoma coronatum* Fitz., Girard, Bocourt, l. c., p. 239.

Lower California, *Botta*, *Xantus*, *Fisher*.

#### XENOSAURIDÆ.

Cope, Proc. Phila. Acad., 1866, p. 322.

#### Xenosaurus Peters.

Monatsb. Akad. Wiss. Berlin, 1861, 453.

XENOSAURUS GRANDIS Gray; Cope, Proc. Acad. Phila., 1866, p. 322; *Cubina grandis* Gray, Ann. and Mag. Nat. Hist., 2d series, t. xviii, 1856, p. 270; *Xenosaurus fasciatus* Peters, Monatsbericht Akad. Berlin, 1861, p. 453.

Orizaba, *Sumichrast*; Huanasco, *Peters*; Tehuantepec, *Sumichrast*; Oaxaca, *Sallé*.



## HELODERMIDÆ.

Gray; Cope, Proc. Acad. Nat. Sci. Phila., 1864, 228; 1866, 322.

*Heloderma* Wiegmann.

HELODERMA HORRIDUM Wiegmann, Isis, 1829, p. 627; *Herpetologia Mexicana* 1834, pl. i, Gray, Catal. Liz. Brit. Mus., 1845.  
Tehuantepec, *Sumichrast*; Presidio, West Mexico, *Forrer*.

## ANGUIDÆ.

Boulenger, Ann. Mag. Nat. Hist., 1884, 121, Do. + *Gerrhonotidæ*, Cope, Proc. Acad. Nat. Sci. Phila., 1864, 228.

*Gerrhonotus* Wiegmann.

Herp. Mex., 1834, p. 31, Isis, 1828, p. 370; *Pterogasterus* Peale and Green, Journ. Acad. Phila., 1830, p. 233.

GERRHONOTUS LIOCEPHALUS Wiegmann, Beitr. zur Amphib., Isis, 1828, p. 379; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 342, pl. xxi A, figs. 1-2-2a; *Gerrhonotus tessellatus* Wiegmann, Herp. Mex., 1834, pars. i, p. 32, pl. x, fig. 3; *Id.*, Dum. et Bibr., Erp. Gén., Hist. Rept., t. v, 1839, p. 405; *Id.*, Gray, Catal. spec. Liz. Brit. Mus., 1845, p. 53; *Id.*, Ang. Duméril, Catal. Rept. Mus. Paris, 1851, p. 143; ? *Gerrhonotus infernalis* Baird, Proc. Acad. Phila., 1858, p. 255; *Id.*, Emory's U. S. & Mex. Bound. Surv., 1859, p. 11; Cope, Proc. Acad. Phila., 1866, p. 322; *Gerrhonotus lemniscatus* Bocourt, Arch. Mus. Bull., t. vii, 1872, p. 105; *Id.*, O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45.

Vera Cruz, *Sartorius*; Puebla, *Comision Geográfica*; Oaxaca, Guanajuato, *Dugés*.

GERRHONOTUS OPHIURUS Cope, Proc. Acad. Phila., 1866, 322.

Orizaba, Vera Cruz, *Sumichrast*.

GERRHONOTUS VENTRALIS Peale et Green, Cope, Proc. Acad. Phila., 1866, p. 321; *Pterogasterus ventralis* Peale et Green, Journ. Acad. Phila., 1830, vi, p. 233.\*

Probably valley of Mexico, *E. D. Cope*.

GERRHONOTUS MODESTUS Cope: *Pterogasterus modestus* Cope, Proc. Acad. Phila., 1877, p. 97.

? Guatemala.

GERRHONOTUS DEPPEI Wiegmann, Herp. Mex., 1834, p. 32, pl. ix, fig. 3; O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; Cope, Proc. Amer. Philos. Soc., 1877, p. 96; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 325, pl. xxi A, figs. 3-3a; *Abronia deppei* Gray, Ann. and Mag. Nat. Hist., ii, p. 389; Catal. spec. Liz., 1845, p. 53.

Mexico, *Deppe*.

GERRHONOTUS TAENIATUS Wiegmann, Isis, 1828, p. 379; *Id.*, Herp. Mex., 1834, p. 32, pl. ix, fig. 1; *Id.*, Dum. et Bibr., Erp. Gén., t. v, 1839, p. 399; O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; *Id.*, Cope, Proc. Amer. Philos. Soc., 1877, p. 96 (10th C. H. T. A.); Bocourt, Miss. Sci. au Mex., iii, Rept., p. 327, pl. xxi A, figs. 4-4a-5; *Abronia taeniata* Gray, Catal. spec. Liz. Brit. Mus., 1845, p. 53.

Orizaba, *Sumichrast*.

\*Additional specimens of this species confirm the validity of the character I assigned to this species as above, as distinct from the *G. liocephalus*. These are the longer body and shorter limbs, the presence of a large single preocular plate instead of two, and the uniform coloration. I add that the interparietal plate is longer and narrower, and in one specimen now before me the anterior two internasals are both in front of the nasal plate instead of one being above it. In this specimen there is no anterior interfrontonasal.



GERRHONOTUS RHOMBIFER Peters, Monatsber. Akad. Wiss. Berlin, 1876, p. 298; Cope, Proc. Amer. Philos. Soc., 1877, p. 96; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 332, pl. xxi B, figs. 4-4a.

Chiriqui, Veragua, *Peters*.

GERRHONOTUS VASCONCELOSI Bocourt, Nouv. Arch. Mus., 1872, p. 107; *Id.*, O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; *Id.*, Cope, Proc. Amer. Philos. Soc. (10th C. H. T. A.); Bocourt, Miss. Sci. au Mexique, iii, Rept., p. 334, pl. xxi, fig 3, et pl. xxi A, fig. 8-8a.

Arguetta, Western Guatemala, *Vasconcelos*.

GERRHONOTUS GRAMINEUS Cope, Proc. Acad. Phila., 1864, p. 179; *Id.*, O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; *Id.*, Cope, Proc. Amer. Philos. Soc., 1877, p. 96 (10th C. H. T. A.); Günther, Biolog. Centrali-Amer. Rept., p. 36, pl. xxiv, fig. B.

Orizaba, 3,000 meters altitude, and Oaxaca, *Sumichrast*.

GERRHONOTUS OAXACÆ Günther, Biologia Centr. Amer., p. 36, pl. xxiv, f. A; Boulenger, Catal. Liz. Brit. Mus., ii, 1885, p. 268; *G. gramineus* "Cope", Bocourt, Miss. Sci. Mex., Rept., 330, pl. xxvi A, fig. 6.

Oaxaca, *Günther*.

GERRHONOTUS AURITUS Cope, Proc. Acad. Phila., 1868, p. 306; *Id.*, O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; *Id.*, Cope, Proc. Amer. Phil. Soc. (10th C. H. T. A.). Vera Paz (Guatemala), *Hague*.

GERRHONOTUS KINGII Bell, Ann. Nat. Hist., 1838, vol. i, p. 390; O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; Cope, Proc. Amer. Philos. Soc., 1877, t. xvii, p. 96; Bocourt, Miss. Sci. au Mex., p. 339, pl. xxi C, fig. 2-2a; *Gerrhonotus multifasciatus*, Dum. et Bibr., Erp. Gén., Hist. Nat. Rept., 1839, t. v, p. 401; A. Duméril, Cat. Méth. Coll. Rept. Mus. Paris, 1851, p. 143; *Elgaria kingii*, Gray, Catal. Spec. Liz. Brit. Mus., 1845, p. 53; *Gerrhonotus nobilis* Baird and Girard, Proc. Acad. Phila., 1852, p. 129; *Id.*, U. S. & Mex. Bound. Survey, 1859, p. 11, pl. xxv, figs. 1-8 (teste Bocourt.)

Mexico, *Bell*.

GERRHONOTUS CÆRULEUS Wiegmann, Isis, 1828, p. 330; Herp. Mex., p. 31; Bocourt, Miss. Sci. Mex., 353; Boulenger, Cat. Liz. Brit. Mus., 273.

Mexico, *Deppe*.

GERRHONOTUS MULTICARINATUS De Blv., Nouv. Ann. Mus. Hist. Nat., 1835, 289, pl. xxv, fig. 2; Dum. Bibr., Erp. Gén., 1839, v, p. 404; Bocourt, Miss. Sci. au Mexique, 357, pl. xxi C, fig. 5-5a; *G. Burnetti* Gray, Griffith's Anim. King., ix, Syn., p. 64; Beecher's Voyage Rept., p. 96, pl. xxi, f. 2; *G. Wiegmanni* Gray, Catal. Liz. Brit. Mus., 1845, 54; *Tropidolepis scienciauda*, Amer. Journ. Sci. Arts, vii, 1849, 202; *Elgaria scienciauda* Baird and Girard, Stansbury's Salt Lake, 1852, 348, pl. iv, figs. 1-3; Girard, Wilkes Explor. Exped., 1858, pl. xxiii, figs. 1-9; *Elgaria grandis* Baird and Girard, Proc. Acad. Phila., 1852, p. 176; Girard, Wilkes Explor. Exped., 1852, xxii, figs. 1-9; *E. marginata* Hallow., Proc. Acad. Phila., 1852, 179; *Gerrhonotus webbi* Baird, Proc. Acad. Phila., 1858, p. 255; U. S. Mex. Bound. Surv., ii, 1859, p. 11, pl. xxiv, figs. 1-10.

Lower California, *Botta*, *Xantus*; S. of Chihuahua, *Potts*.

GERRHONOTUS OBSCURUS Günther, Biologia Centr. Amer. Rept., p. 40, pl. xxv, fig. E. Mexico, *Günther*.

GERRHONOTUS MONTICOLUS Cope, Proc. Amer. Philos. Soc., 1877, p. 97; *G. fulvus* "Bocourt", Cope, Journ. Acad. Phila., 1875, p. 118, nec Bocourtii.

Pico Blanco, Costa Rica, *Gabb*.

## Barissia Gray.

Catal. Liz. Brit. Mus., 1845, p. 46; Cope, Proc. Amer. Philos. Soc., 1879, 97.

\* With two pairs of internasal scuta.

BARISSIA IMBRICATA Wiegmann; Gray, Catal. Brit. Mus., 1845, p. 55; *Id.*, Cope, Proc. Amer. Philos. Soc., t. xvii, 1857, p. 97; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 363, pl. xxi B, figs. 1-1a, 2-2a; *Gerrhonotus imbricatus* Wiegmann, Isis, 1828, t. xxi, p. 379; Wiegmann, Herpet. Mex., 1834, p. 34, pl. x, figs. 2 et 5; *Id.*, Dum. et Bibr., Erp. Gén., t. v, 1839, p. 407; *Gerrhonotus lichenigerus* Wagler, Descrip. et Icon. Amphib., 1834, pl. xxxiv, fig. 2; *Id.*, Wiegmann, Herp. Mex., 1834, pars I, p. 35, pl. x, fig. 6.

Cuernavaca, *Méchalín*; Guanajuato, *Dugés*, *Ghiesbrecht*; S. of Chihuahua, *Potts*; Zaenaltipan Hidalgo, *Bernad*; Puebla, *Comision Geográfica*.

BARISSIA RUDICOLLIS Wiegmann, Isis, 1828; Gray, Cat. Liz. Brit. Mus., 1845, p. 55; *Id.*, Cope, Proc. Amer. Philos. Soc., t. xvii, p. 96; *Gerrhonotus rudicollis* Wiegmann, loc. cit., t. xxi, p. 379; *Id.*, Wagler, Natur. Amphib., 1830, p. 158; *Id.*, Wiegmann, Herpet. Mex., pars I, 1834, p. 31, pl. x, fig. 1; *Id.*, Dum. et Bibr., Erp. Gén., t. v, 1839, p. 410; *Gerrhonotus (Barissia) rudicollis*, Bocourt, Miss. Sci. au Mex., iii, Rept., p. 367, pl. xxi B, figs. 3-3a.

Mexico. *Deppe*.

BARISSIA PLANIFRONS Bocourt, Miss. Sci. au Mex., iii, Rept., p. 361, pl. xxi, C, figs. 1-1a.

Oaxaca, *Boucard*.

\*\* With three pairs of internasal scuta.

BARISSIA ANTAUGES Cope, Proc. Acad. Phila., 1866, p. 132; *Gerrhonotus viridiflavus* Bocourt, Ann. Sci. Nat., 1873; *G. bocourti* Peters, Monatsber. Akad. Wiss. Berl., 1876, p. 297 (Bocourt).

Orizaba, Vera Cruz, *Sumichrast*.

BARISSIA FIMBRIATA Cope, Proc. Amer. Philos. Soc., 1834, p. 171; *Gerrhonotus auritus* Bocourt, Mission Scientifique au Mexique, Reptiles, p. 337, pl. xxi, figs. 2, xxi A, 7-7a, nec Copei.

Vera Paz, *Bocourt*, *Peters*.

## Mesaspis Cope.

Proc. Acad. Phila., 1877, p. 96.

MESASPIS MORELETI Bocourt, Cope, Proc. Am. Philos. Soc., 1877, xvii, p. 96; *Gerrhonotus moreletii* Bocourt, Nouv. Arch. du Mus. Bull., 1872, p. 102; Miss. Sci. au Mex., iii, Rept., p. 349, pl. xxi, fig. 1, pl. xxi B, figs. 5-5a; *Gerrhonotus Wiegmannii* Salvin, Proc. Zool. Soc., 1860, p. 455.

Vera Paz, Guatemala; Peten, *Morelet*.

MESASPIS FULVUS Bocourt, *Gerrhonotus fulvus* Boe., Miss. Sci. au Mexique, iii, Rept., p. 352; pl. xxi B, figs. 6-6a; Nouv. Arch. Mus. Bull., 1872, p. 104; *Id.*, O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; *Mesaspis fulvus* Cope, Proc. Amer. Philos. Soc., 1877, t. xvii, p. 96.

Totonicapan, Guatemala, west of the Cordillera, at an elevation of 2,460 meters, *Mission Scientifique*.

## Diploglossus Wiegmann.

Herp. Mex., 1834, p. 36; *Camilia*, Gray, Cat. Liz. Brit. Mus., 1845, p. 118.

DIPLOGLOSSUS MILLEPUNCTATUS O'Shaughnessy, Ann. and Mag. Nat. Hist., 1874, t. xiii, p. 301; *Id.*, Am. Nat., 1884, May, p. 514; *Id.*, Bocourt, Miss. Sci. au Mex., iii, Rept., p. 388, pl. xxii A, figs. 5-5a, 5b.

? Hab.

DIPLOGLOSSUS MONOTROPIS Kuhl, Wiegmann, *Herp. Mex.*, 1834, p. 36; Wiegmann, *Arch.*, 1837, p. 130; Cope, *Jour. Acad. Phila.*, 1875, p. 118; Bocourt, *Miss. Sci. au Mexique*, iii, *Rept.*, p. 391, pl. xxii, figs. 6-6a, 6b, 6c; *Scincus monotropis* Kuhl, *Beitr.*, 1820, p. 18; *Tiliqua jamaicensis* Gray, *Ann. and Mag. Nat. Sci. Hist.*, t. ii, p. 293; *Camilia jamaicensis* Gray, *Cat. Liz. Brit. Mus.*, 1845, p. 119.  
Costa Rica, summit of Pico Blanco, *Gabb*.

**Celestus Gray.**

*Cat. Liz. Brit. Mus.*, 1845, p. 117; *Siderolamprus* Cope, *Proc. Acad. Phila.*, 1860, p. 368.

CELESTUS STEINDACHNERI Cope, *Proc. Acad. Phila.*, 1864, p. 179; Bocourt, *Miss. Sci. au Mex.*, iii, *Rept.*, p. 383, pl. xxii, figs. 3-3a, 3b; Günther, *Biol. Centr. Amer. Rept.*, p. 34, pl. xxii, fig. A.

Orizaba, *Sumichrast*; West Guatemala, *Bocourt*; Vera Paz (Brit. Mus.), *Bocourt* (thirty-two rows of scales); Jalapa, *Comision Geográfica*.

CELESTUS CHALYBEUS Cope, *Proc. Amer. Philos. Soc.*, 1879, p. 270; *Proc. Acad. Phila.*, 1868, p. 124; *Proc. Amer. Philos. Soc.*, 1884, p. 170; *Diploglossus chalybeus* Cope, *loc. cit.*, 1866, p. 321 (thirty-four rows of scales).

Tehuantepec, mountains of Orizaba, Vera Cruz, at an elevation of 4,000 to 6,000 feet, *Sumichrast*; Jalapa, *Kohr*.

CELESTUS ENNEAGRAMMUS Cope; *Siderolamprus enneagrammus* Cope, *Proc. Acad. Phila.*, 1860, p. 368 (thirty-eight rows of scales).

Jalapa, *De Oca, Flohr*.

CELESTUS BILOBATUS O'Shaughnessy, *Bocourt, Miss. Sci. au Mex.*, p. 332, pl. xxii A, fig. 1.

Costa Rica, *O'Shaughnessy* ("forty rows of scales").

**XANTUSIDÆ.**

Cope, *Proc. Acad. Phila.*, 1883, p. 29.

**Lepidophyma Duméril.**

*Catal. Méth. Batr. Rept. Mus. Paris*, 1851, p. 137; *Poroidogaster* Smith, *Gray, Proc. Zool. Soc. London*, 1863, p. 152.

LEPIDOPHYMA FLAVIMACULATUM A. Duméril, *Cat. Méth. Coll. Rept. Mus. Paris*, 1851, p. 137; *Id.*, *Rev. et Mag. Zool.*, 1852, p. 409, pl. xvii; *Poroidogaster grayii* Andrew Smith, MSS. published by Gray in *Proc. Zool. Soc. London*, p. 152, pl. xxi; Bocourt, *Miss. Sci. au Mex.*, iii, *Rept.*, p. 306, pl. xx F, figs. 2-2a, 2b, 2c, 2d, 2e, 2f, 2g. Vera Paz, *Morelet*.

LEPIDOPHYMA SMITHI Bocourt, *Miss. Sci. au Mex.*, 309, pls. xx F 3, xx G 2; *Journal Zoologic*, 1876, v, p. 403.

Tehuantepec, *Sumichrast*; W. Guatemala, *Miss. Sci.*

**TEIIDÆ.**

**Amiva Cuvier.**

AMEIVA GABBIANA Cope, *Batr. and Rept. of Costa Rica*, 1875, p. 117.  
East Costa Rica, *Gabb*.

AMEIVA PULCHRA Hallowell, *Proc. Acad. Nat. Sci. Phila.*, 1860, p. 483; Bocourt, *Miss. Sci. au Mex.*, iii, *Rept.*, p. 251.  
Nicaragua, *Stimpson, MacNiel*.

AMEIVA UNDELATA Gray, *Catal. Liz. Brit. Mus.*: Cope, *Proc. Acad. Phila.*, 1862, Feb.; *Cnemidophorus undulatus* Wiegmann, *Herp. Mex.*, p. 27.

Guatemala, *Van Patten*: Coban, *Hague*; Peten, *Berendt*; Tehuantepec, *Sumichrast*; Colima, *Xantus*; Mirador Vera Cruz, *Sartorius*; Orizaba, Vera Cruz, *Sumichrast*.

AMIVA QUADRILINEATA Hallowell; *Cnemidophorus quadrilineatus* Hallowell, Proc. Acad. Phila., 1860, p. 483; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 251.

Nicaragua, *Stimpson*.

AMIVA FESTIVA Mus. Berol.; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 260, pl. xx A, figs. 10, 10a, 10b, 10c, 10d, pl. xx D, fig. 3; Cope, Journ. Acad. Phila., 1875, p. 117; *Cnemidophorus festivus* Lichtenstein, Nom. Rept. Amph., 1856, p. 13 (diagnosis incorrect); *Amiva cutropia* Cope, Proc. Acad. Phila., 1862, p. 62; *Ameiva Edwardsii* Bocourt, Ann. Sci. Nat., 1863, t. xxii, art. 16.

Central America; Veragua, *Mus. Ber.*; Rio de la Pasion Rio Polochic, *Bocourt*; Costa Rica, *Gabb*; Nicaragua *Brausford*.

AMIVA SURINAMENSIS Gray; Catal. Liz. Brit. Mus., p. 18; *Lacerta ameiva*, *L. lateristriga*, *L. tristriata*, Spix, Anim. Braz., tab. xxiii and xxiv, 182; *Teius ameiva* Merr. Nieuw Zool. Braz. Rept., p. 170; *Ameiva vulgaris* Licht., Dnn. et Bibr. Erp. Gén.

Surinam, Venezuela.

Subspecies PRÆSIGNIS Cope, Proc. Acad. Phila., 1862, p. 7; *Amira prasignis* Bd. et Gd.

Panama, *Brausford*.

### Cnemidophorus Wagler.

Natur. Syst. Amph., 1830, p. 154.

CNEMIDOPHORUS GUTTATUS Wiegmann, Herp. Mex., 1834, p. 29; Gray, Catal. Liz. Brit. Mus., 22; *Amira guttata* Cope, Proc. Acad. Phila., 1862, Feb.; *Cnemidophorus microlepidopus* Cope, Proc. Amer. Philos. Soc., 1877, p. 93; *Cnemidophorus unicolor* Cope, Proc. Amer. Philos. Soc., 1877, p. 93.

Vera Cruz, *Burroughs*; Orizaba, *Sumichrast*; Jalapa, *Comision Geográfica*; West Tehuantepec, *Sumichrast*.

CNEMIDOPHORUS IMMUTABILIS Cope, Proc. Amer. Philos. Soc., 1877, p. 93.

West Tehuantepec, *Sumichrast*.

CNEMIDOPHORUS DEPHI Wiegmann, Herp. Mex., p. 28; Bocourt, Miss. Sci. Mex., Rept., 281, pl. xx, fig. 3; *C. lativittis* Cope, Proc. Amer. Philos. Soc., 1877, p. 94.

Honduras, *Leconte*; Tehuantepec, west side, *Sumichrast*.

CNEMIDOPHORUS LINEATISSIMUS Cope, Proc. Amer. Philos. Soc., 1877, p. 94; Günther, Biol. Cent. Amer., Rept., p. 27.

Colima, *Xantus*; Guadalajara, *Major*.

CNEMIDOPHORUS SEXLINEATUS Linn.

Subspecies SEXLINEATUS Linn.

City of Chihuahua, *Wilkinson*; Monterey, *Cope*; Puebla, *Mision Geográfica*.

Subspecies COMMUNIS Cope, Proc. Amer. Philos. Soc., 1877, p. 95.

VAR. I, Colima *Xantus*; Coban, Guatemala, *Hayue*. VAR. II, Guadalajara, *Major*; Cordova, Vera Cruz, *Sumichrast*; Guatemala, *Hayue*.

Subspecies GULARIS Bd. Gird. *C. guttatus* Hallow.

City of Chihuahua, *Wilkinson*.

Subspecies TIGRIS Bd. Gird.; *Cnemidophorus tigris* Bd. Gird., U. S. & Mex. Bound. Surv., Reptiles, p. 10, pl. xxxiii.

City of Chihuahua, *Wilkinson*.

CNEMIDOPHORUS MARIARUM Günther, Biol. Cent. Amer., Rept., p. 28, pl. xx.

Tres Marias Islands, *Forrer*.

CNEMIDOPHORUS ANGUSTICEPS Cope, Proc. Amer. Philos. Soc., 1877, p. 95.

Yucatan, *Schott*.

CNEMIDOPHORUS COSTATUS Cope, Proc. Amer. Philos. Soc., 1877, p. 95.

The locality uncertain.

CNEMIDOPHORUS MEXICANUS Peters.

Between City of Mexico and Chihuahua, *Potts*.

- CNEMIDOPHORUS GRAHAMII Bd. Gird., Proc. Acad. Phila., 1852, vi, 128, U. S. & Mex. Bound. Surv., Rept., p. 10, pl. xxii, figs. 1-6.  
Between City of Mexico and Chihuahua, *Potts*.
- CNEMIDOPHORUS MAXIMUS Cope, Proc. Acad. Phila., 1863, p. 104.  
Lower California, *Xantus*.
- CNEMIDOPHORUS INORNATUS Baird, Proc. Acad. Phila., 1858, Dec., U. S. & Mex. Bound. Surv., ii, Rept., p. 10.  
Nuevo Leon, *Couch*.
- CNEMIDOPHORUS OCTOLINEATUS Bd., Proc. Amer. Phila., 1858, Dec., U. S. & Mex. Bound. Surv., ii, p. 10.  
Nuevo Leon, *Couch*.
- CNEMIDOPHORUS GRACILIS Bd. and Gd., Proc. Acad. Phila., vi, 1852, p. 128; U. S. & Mex. Bound. Surv., ii, p. 10, pl. xxxiv, figs. 9-14.  
Castanuelas Coahuila, *Couch*.

#### Verticaria Cope.

- Proc. Acad. Phila., 1863, p. 103.
- VERTICARIA HYPERYTHRA Cope, Proc. Acad. Phila., 1863, p. 103.  
Lower California, Cape St. Lucas, *Xantus*, *Fisher*; San Diego, Cal., *Lippincott*
- VERTICARIA HEDRACANTHA Bocourt, Cope, Jour. Acad. Phila., 1875, 165; *Amira hedracantha* Bocourt, Miss. Sci. Mex., p. 263, pl. xxii A, fig. 6; Boulenger, Ann. Mag. Nat. Hist., 1884, p. 120-22.  
"Mexico," *Dubois*, teste Bocourt.

#### Leposoma Spix.

- Cope, Proc. Amer. Philos. Soc., 1866, p. 97; *Chalcidolepis* Cope, Journ. Acad. Phila., 1875, p. 116.
- LEPOSOMA METALLICUM Cope; *Chalcidolepis metallicus* Cope, Batr. and Rept. Costa Rica, 1875, p. 116, pl. xxviii, fig. 2.  
Agnacate Mountains, W. Costa Rica, *Gabb*.
- LEPOSOMA MARMORATUM Gray; *Argalia marmorata* et *oliracea* Gray, Ann. Mag. Nat. Hist., 1846, 67, et Proc. Zool. Soc. London, 1847, p. 97; *Gerrhonotus paecilochilus* Licht. Nomen. Rept. Mus. Berl., 16.  
Veragua, *Günther* (Biol. Centr. Amer.).

#### SCINCIDÆ.

- Cope, Proc. Acad. Phila., 1864, p. 228.

#### Mocoa Gray.

- Catal. Brit. Mus., 1845, p. 80.
- MOCOA ASSATA Cope, Batr. and Rept. Costa Rica, 1875, p. 115; *Lampropholis assatus* Cope, Proc. Acad. Phila., 1861, p. 179; *Lygosoma assatum* Bocourt, Miss. Sci. Mex., p. 450, pl. xxii F, fig. 7.  
Talamanca, E. Costa Rica, *Gabb*; Guatemala, *Van Patten*; San Salvador, *Dow*; Tehnantepec, *Sumichrast*.

#### Oligosoma Girard.

- Proc. Acad. Phila., and Wilkes' U. S. Exploring Expedition, Herpetology; *Lygosomida* et *Leptosoma* Girard, loc. cit.; *Mocoa* \*\* Gray, Catal. Liz. Brit. Mus., 1845, p. 82.
- OLIGOSOMA GEMMINGERI Cope, Proc. Acad. Phila., 1864, p. 180; *Lygosoma gemmingeri* Bocourt, Miss. Sci. Mex., p. 449.  
Orizaba, Vera Cruz, *Sumichrast*; Rio Verde, *Sumichrast*; Jalapa, *Comision Geográfica*; Zacualtipan, *Cope*.



## Mabuia Fitzinger.

Gray, Catal. Liz. Brit. Mus., 1845, p. 93.

MABUIA AGILIS Raddi, Fitzinger, Nouv. Class. Rept., 1826, 23; Girard, U. S. Expl. Exped., Wilkes, 1858, 261; Cope, Proc. Acad. Phila., 1862, 185; Bocourt, Miss. Sci. Mex., 395, pl. xxii B, fig. 2; *Mabuia unimarginata* Cope, Proc. Acad. Phila. 1862, p. 187; *Mabuia cepedei* Gray, Cope, Journ. Acad. Phila., 1875, p. 116, et operibus omnibus herp. Mex. et Amer. Cent., *Scincus agilis* Raddi; *S. bistratus* et *nigropunctatus* Spix; *Mabuia aenea* Gray.

Panama, Veragua, *Peters*; Guatemala, *Mission Scientifique*; Mexico, *Sumichrast*; E. Costa Rica, *Gabb*; Peten, Guatemala, *Berend*; Belize, *Mechling*; Tehuantepec, *Sumichrast*; Colima, *Xantus*.

## Eumeces Wiegmann.

Herp. Mex., 1834, p. 36; *Eumeces* et *Plestiodon* Dum. et Bibr., Erp. Gén., v, pp. 629-697; Gray, Catal. Liz. Brit. Mus., 1845, p. 90, 92.

EUMECES DUGÉSI Thomiot; Bull. Société Philomathique, Paris, 18. Michoacan *Dugés*; Zacualtipan, *Bernad*.

EUMECES BREVIROSTRIS Günther, Bocourt, Miss. Sci. au Mex., p. 439, pl. xxii A, fig. 7, xxii E, fig. 1; *Mabuia brevirostris* Günther, Proc. Zool. Soc. Lond., 1860, p. 316; *Plestiodon lynxe* Cope, Proc. Acad. Phila., 1865, 197.

Vera Cruz and Tehuantepec, *Sumichrast*; Oaxaca, *Sallé*; valleys of Mexico or Toluca, *Hoega*.

EUMECES LYNXE Wiegmann, Herp. Mex., 1834, p. 36. Guanajuato, *Dugés*.

EUMECES FURCIROSTRIS Cope, Proc. Amer. Philos. Soc., 1884, p. 169. Jalapa, *Flohr*, *Comision Geográfica*.

EUMECES SUMICHRASTII Cope, Proc. Acad. Phila., 1866, p. 321.

Orizaba, Vera Cruz, *Sumichrast*; Potrero, Tierra Caliente of Vera Cruz, *Sumichrast*.

EUMECES OBSOLETUS Baird Girard; Cope, Check-list Batr. Rept. N. Amer.; *Plestiodon obsoletus* Baird and Girard, Proc. Acad. Phila., 1852, 159.

City of Chihuahua, *Wilkinson*.

EUMECES SCHWARTZEI Fischer, Herpetologische Bemerkungen, p. 1; Abhandlung. Naturwissenschaftlich. Vereins Hauburg-Altona, B., viii, Abth. i, Hamburg, 1884.

Island in Laguna Términos, Campeche Bay, *Fischer*.

EUMECES CALLICEPHALUS Bocourt, Miss. Sci. Mex., p. 431, pl. xxii D 2, xxii E 2. Guanajuato, *Dugés*; San Blas, *Dugés*.

## Gymnophthalmus Merr.

Tent. Syst. Amph., p. 74; *Epaphelus* Cope, Journ. Acad. Phila., 1875, p. 115.\*

GYMNOPHTHALMUS LÆVICAUDUS Cope; *Tretioscincus lævicaudus* Cope, Report Peabody Acad. Sci., 1869, p. 80; Proc. Amer. Philos. Soc., 1870, p. 557. *Epaphelus sumichrasti* Cope, Journ. Acad. Phila., II, viii, 1876, p. 115. *Gymnophthalmus sumichrasti* Bocourt, Miss. Sci. Mex., Rept., p. 471, pl. xx II, fig. 2.

West Coast of Tehuantepec, *Sumichrast*; W. Nicaragua, *MacNeil*.

\* This name was proposed on the supposition that the *G. maximiliani* R. and L. (= *G. quadrilineatus* Wied.) really belongs to *Gymnophthalmus*. This has been subsequently shown not to be the case, and it has been accordingly referred to a new genus under the name *Microblepharus* Boett., and the *G. lævicaudus* remains in *Gymnophthalmus*.

**Blepharactisis** Hallow.

Proc. Acad. Phila., 1860, p. 484.

BLEPHARACTISIS SPECIOSA Hallow., loc. cit., p. 484.  
Nicaragua, *Stimpson* (teste Hallowell).

ANELYTROPIDÆ.

**Anelytropsis** Cope.

Proc. Amer. Philos. Soc., 1885, p. 380.

ANELYTROPSIS PAPILLOSUS Cope, loc. cit., fig. 9.  
Jalapa, *Comision Geográfica Exploradora*.

AMPHISBÆNIA.

CHIROTIDÆ.

**Chirotes** Duméril.

CHIROTES CANALICULATUS Lacép.

Cape Saint Lucas, Lower California, *Xantus*.

OPHIDIA.

The families of snakes are distinguished by the following osteological characters:<sup>1</sup>

A. Opisthotic intercalated in the cranial walls (*Angiostomata*).

\* No ectopterygoid; palatines bounding choanæ posteriorly; ethmoturbinal forming part of roof of mouth; rudiments of pelvis (*Scolecophidia*).<sup>2</sup>

I. Maxillary bone fixed to prefrontal and premaxillary; a pubis.....CATODONTA.<sup>3</sup>

II. Maxillary bone vertical and free from all others; no pubis.....EPANODONTA.<sup>4</sup>

\*\* An ectopterygoid; palatines not bounding choanæ posteriorly.

III. Maxillary bone free, horizontal .....TORTRICINA.

† A coronoid bone.

α. Rudimentary posterior extremities .....*Tortricidæ* Müller.

αα. No rudiments of posterior extremities .....*Uropeltidæ* Müller.

B. Opisthotic attached scale-like to cranial walls, and produced freely. Ectopterygoid present (*Eurystomata*).

IV. Maxillary bone horizontal, in contact with the premaxillary, and furnished with solid teeth. No rudiments of pelvis.....ASINEA.

α. Rudiments of posterior extremities (*Peropoda*).

β. Coronoid bone present.

Supraorbital and postorbital bones and premaxillary teeth present...*Pythonidæ* Cope.

No supraorbitals or premaxillary teeth; postorbitals present.....*Boiidæ* Cope.

ββ. No coronoid bone.

No supraorbitals nor postorbitals nor premaxillary teeth.....*Charinidæ* Cope.

αα. No rudiments of posterior extremities (*Colubroidea*).

β. Coronoid bone present.

<sup>1</sup> This arrangement was first published by the writer in the Proceedings of the Philadelphia Academy for 1864, p. 230. The definitions of the lower primary divisions were derived from J. Müller.

<sup>2</sup> The characters of this division as I originally gave them (Proceedings Academy Philadelphia, 1864, p. 230) were derived from J. Müller, which have been shown to be partially erroneous by Duméril and Bibron, and Peters.

<sup>3</sup> Includes only the family *Stenostomidæ*.

<sup>4</sup> One family, the *Typhlopidae*.

- No postorbital or supraorbital bones; premaxillary teeth present... *Xenopeltidae* Cope.  
 $\beta\beta$ . No coronoid bone.  
 $\beta$ . Postorbital bone produced over the superciliary region.  
 No gastrosteges..... *Acrochordidae* Cope.  
 Gastrosteges present..... *Nothopidae* Cope.  
 $\beta\beta$ . Postorbital bone not extending over the superciliary region.  
 $\delta$ . Nostril in or between nasal plates..... *Colubridae* Auct.  
 $\varepsilon$ . Vertebral hypapophyses confined to the anterior part of the column,  
*Natricinae*.  
 $\varepsilon\varepsilon$ . Vertebral hypapophyses extending throughout the column,  
*Colubrinae* Cope.  
 $\delta\delta$ . Nostril in the rostral plate..... *Acontiphidae* Gthr.  
 V. Os maxillare horizontal, thickened in front, and not reaching the premaxillare anteriorly, and bearing a perforate tooth. PROTEROGLYPHA.  
 $\alpha$ . Caudal hypapophyses bifid; caudal neural spines and pleurapophyses short.  
 Postfrontal bones wanting; fang grooved..... *Elapidae* Cope.  
 Postfrontals present; fang grooved..... *Najidae* Cope.  
 Postfrontals present; fang not grooved..... *Dendraspididae* Gthr.  
 $\alpha\alpha$ . Caudal hypapophyses simple; caudal neural spines and pleurapophyses elongate.  
 A postfrontal bone..... *Hydrophidae* Gthr.  
 VI. Maxillary bone vertical, not reaching premaxillary, articulating with the prefrontal by a ginglymus, and to the ectopterygoid without imbrication, and bearing a perforated tooth..... SOLENOGLYPHA.  
 Maxillary bone not excavated; fang not grooved in front; no postfrontal bone,  
*Atractaspididae* Gthr.  
 Maxillary bone not excavated; fang grooved in front; a postfrontal... *Causidae* Cope.  
 Maxillary bone not excavated; fang not grooved; a postfrontal..... *Viperidae* Grey.  
 Maxillary bone excavated by a large chamber; fang not grooved in front; a postfrontal..... *Crotalidae* Gray.

In the following pages I present synoptical diagnoses of the genera of the Ophidia arranged in key form. These are placed under subfamily heads which are not, with the exception of the Homalopsinae, defined. It is not certain, therefore, that their contents are in all cases properly limited or distributed. It remains a desideratum to discover the characters of the natural divisions of the Colubridae, if any there be. The characters presented by Duméril and Bibron, and by Günther, are important but insufficient. For the definition of the genera distinct characters exist, although the subject is one of much difficulty. The object of definition being, as I imagine, precision and the consequent increased facility of determination, I have employed all structural characters whatever, and only neglected them where it is evident that they are inconstant within the limits of a species. I find of the greatest importance the grooved or non-grooved characters of the posterior teeth, and the absence or number of the scale-pits. The division or non-division of the anal scutum is also of much importance, although in a very few genera (*e. g.*, *Xenodon*) it is not constant. Relying, as the system always must, on exact characters, I have not allowed considerations of "physiognomy" to change a result where it conflicts with structure, which is, however, rarely the case. The tendency of some authors to neglect characters and to depend on "physiognomy" destroys precision and explains nothing, besides rendering identification of species most laborious, resting as it must in that case on purely empirical methods. I also do not use as generic characters the number of rows of scales, or of labial scuta, or the size of the eye, believing that these are only available in the distinction of species.

In a few instances I have not been able to examine the skeletons of genera of doubtful position, so that their reference to a family division may yet have to be altered. I have, however, studied the fine series in the museums of Paris and Washing-

ton, besides a considerable number in my own collection. For the characters of many genera which I have not seen I have had to rely on the descriptions of others, especially of Drs. Peters and Günther.

EPANODONTA.

TYPHLOPIDÆ.

- I. Muzzle covered above by rostral and internasal scuta.  
 α. Two ocular plates and a preocular.  
 One nasal plate ..... *Lethcobia* Cope.  
 αα. One ocular and a preocular.  
 One nasal plate ..... *Typhlops* Schn.  
 Two nasal plates ..... *Helminthophis*<sup>1</sup> Pet.  
 ααα. One ocular and no preocular.  
 One nasal plate ..... *Typhlina*<sup>2</sup> Wagl.  
 Two nasal plates ..... *Liotyphlops*<sup>3</sup> Pet.
- II. Muzzle and front with five symmetrical scuta.  
 Two nasals and a preocular ..... *Anomalepis* Jan.

CATODONTA.

STENOSTOMIDÆ.

- Superciliary scales present ..... *Stenostoma* Wagl.  
 No superciliary scales ..... *Rena* B. & G.<sup>4</sup>

TORTRICINA.

TORTRICIDÆ.

- Intermaxillary bone dentate; eye covered by a single scute ..... *Tortrix* Oppel.  
 Intermaxillary edentulous; eye surrounded by distinct scales ..... *Cylindrophis* Wagl.

UROPELTIDÆ.

- I. Tail terminating in a large shield.  
 Rostral plate produced posteriorly, separating the nasals ..... *Rhinophis* Hemp.  
 Rostral not produced; nasals in contact ..... *Uropeltis* Cuv.
- II. Tail scaly to end.  
 Tail terminating in a disk of keeled scales; supraorbitals and postocular confluent.  
*Silybura* Gr.
 Tail compressed, truncated, terminating in a bienspid scale, the points superposed;  
 postocular distinct ..... *Plectrurus* D. & B.  
 Tail tapering, terminal scute ending in a horizontal ridge; no chin-groove.  
*Platyplectrurus* Günth.
 Tail tapering, ending in a single point; no chin-groove ..... *Tereturus* Bedd.  
 Tail with smooth scales, terminating in one or two points; postocular united with  
 superciliary; a median chin-groove ..... *Melanophidium* Gthr.

ASINEA.

XENOPELTIDÆ.

- Eyes not covered with a plate; head with normal shields, with an interparietal  
 added; scales smooth; anal and subcaudals divided; teeth  
 equal ..... *Xenopeltis* Remw.

<sup>1</sup>*Idiotyphlops* Jan.

<sup>2</sup>*Pitidion* Dum. Bibr. *Typhlinalis* Gray.

<sup>3</sup>*Rhinotyphlops* Pet.

<sup>4</sup>*Catodon* D. & B., not of Lacep. *Siagonodon* Peters.

## PYTHONIDÆ.

## I. Premaxillary teeth present.

α. Fossæ in labial plates of both jaws.

Scuta on end of muzzle only ..... *Morelia* Gray.

Scuta extending to between orbits ..... *Python* Daudin.

Scuta covering vertex and muzzle ..... *Liasis*<sup>1</sup> Gray.

αα. Fossæ in inferior labials only.

Muzzle shielded to frontal region ..... *Nardoa* Gray.

ααα. No labial fossæ.

Head shielded; tail prehensile ..... *Aspidiotes* Krefft.

Head with nine regular shields above; rostral plate protuberant; tail not prehensile ..... *Loroceumus* Cope.

II. No premaxillary teeth.<sup>2</sup>

Labial plates with fossæ; vertex and front squamous; nostril in one nasal; scales smooth ..... *Chondropython* Meyer.

Head covered with large scuta ..... *Aspidopython* Meyer.

## BOIDÆ.

## I. Tail prehensile.

α. Scales smooth.

β. Labial fossæ present.

Plates on muzzle only ..... *Xiphosoma*<sup>3</sup> Wagl.

Plates extending over muzzle and front ..... *Epicrates*<sup>4</sup> Wagl.

ββ. No labial fossæ.

Muzzle and front scaled; nasal plates meeting ..... *Lichanura* Cope.

Muzzle and front scaled; nasal plates widely separated ..... *Boa*<sup>5</sup> Linn.

Muzzle and front scutate; nares vertical ..... *Eunectes* Wagl.

Muzzle and front with scuta divided on the median line; nares lateral.

*Chilabothrus*<sup>6</sup> D. & B.

Muzzle and front with median scuta; nares lateral ..... *Ungualiphis* Meyer.

αα. Scales earinate.

Top of head with symmetrical plates; nares between two ..... *Ungualia*<sup>7</sup> Gray.

Top of head with symmetrical plates; nares in a single plate ..... *Bolieria*<sup>8</sup> Gray.

Plates on muzzle only ..... *Casarea*<sup>9</sup> Gray.

Top of head scaly; rostral plate forming border of mouth ..... *Enygrus* Wagl.

Top of head scaly; labial plates meeting below rostral plate ..... *Trachyboa* Pet.

## II. Tail not prehensile.

α. Palatine teeth well developed.

β. Rudiments of hind limbs visible.

A mental groove ..... *Gonglyophis* Wagl.

No mental groove ..... *Eryx*<sup>10</sup> Daud.

ββ. No visible rudiments of hind limbs.

Scales keeled; head very distinct ..... *Erebophis* Gthr.

αα. Palatine teeth none (Peters).

Scales smooth; top of head with symmetrical plates to between orbits; one nasal.

*Calabaria*<sup>11</sup> Gray.

<sup>1</sup> *Liopython* Hubrecht

<sup>2</sup> Teste Boulenger.

<sup>3</sup> *Corallus* and *Chrysenis* Gray.

<sup>4</sup> *Epicarsius* Fisch.

<sup>5</sup> *Acrantophis* Jan.

<sup>6</sup> Includes *Homalochilus* Fisch.; *Pelophilus* D. & B. (= *Sanzinia* Gray); *Dendrophilus* Jan. and *Piegaster* Scaene.

<sup>7</sup> *Tropidophis* D. & B. *Notophis* Hallow.

<sup>8</sup> *Platygaster* D. & B.

<sup>9</sup> *Leptoboa* D. & B.

<sup>10</sup> *Cusoria* Gray.

<sup>11</sup> *Rhoptrura* Peters; may belong to the Chariniæ.



CHARINIDÆ.

Head scutate above; scales smooth; tail not prehensile; palatine teeth.

*Charina*<sup>1</sup> Gray.

ACROCHORDIDÆ.

Body compressed, acute below ..... *Chersydrus* Cuv.  
 Body round, flat below ..... *Acrochordus* Hornst.

NOTHOPSIDÆ.

Scales above granular, with rows of tubercular scales; urosteges simple; no frontal or parietal plates ..... *Xenodermus* Rhdt.  
 Scales squamous; urosteges double; head scaly, with frontal and parietal plates.  
*Nothopsis* Cope.

COLUBRIDÆ.

Head conic, not distinct from the body, which is cylindric and rigid... CALAMARINÆ.  
 Head slightly distinct, short; teeth entire, not enlarged in front.... CORONELLINÆ.  
 Head similar to last; posterior tooth grooved ..... SCYTALINÆ.  
 Head more distinct and elongate, body and tail longer; teeth entire, not longer in front ..... NATRICINÆ.  
 Like the last, but grooved teeth posteriorly ..... PHILODRYADINÆ.  
 Very slender; pupil horizontal; grooved teeth ..... DRYOPHIDINÆ.  
 Less slender; not compressed; middle teeth elongate, posterior teeth grooved.  
 PSAMMOPHIDINÆ.  
 Anterior maxillary and mandibular teeth enlarged ..... LYCODONTINÆ.  
 Anterior teeth not abruptly enlarged, posterior grooved; head wide, very distinct, body compressed ..... DIPSADINÆ.  
 Anterior teeth not abruptly enlarged, the posterior weak and not grooved; head very distinct from the body, which is compressed; no œsophageal teeth ..... LEPTOGNATHINÆ.  
 Maxillary teeth few and rudimental; body slender; hypapophyses piercing throat, and capped with enamel ..... DASYPELTINÆ.  
 Hypapophyses spinous to caudal region; anterior teeth not enlarged; body not slender; head distinct ..... *Colubrina*.

CALAMARINÆ.

I. Posterior maxillary tooth grooved.

\* Subcaudal scuta.

One nasal; anal undivided ..... *Tricchis*<sup>2</sup> Pet.  
 Two nasals; anal divided. .... *Cerocolamus* Gthr.

\*\* Subcaudal scutella.

† No internasals.

One nasal, no preocular ..... *Amblyodipsas* Pet.  
 One nasal, a preocular ..... *Apostolepis* Cope.  
 †† Two internasals; prefrontals united together.

One nasal; a preocular ..... *Phalotris* Cope.  
 ††† Internasals united with nasals.

Postnasal distinct, anal divided ..... *Stenorhina* D. & B.  
 †††† Two internasals and two prefrontals.

α. Nasal plate single.

No preocular; no loreal ..... *Calamelaps*<sup>3</sup> Gthr.  
 A preocular; rostral not prominent. .... *Elypomorphus*<sup>4</sup> Wieg.

<sup>1</sup> *Wenona* B. & G.  
<sup>2</sup> *Polemon* Jan.

<sup>3</sup> *Micrelaps* Bœtg.  
<sup>4</sup> *Urobelus* Rhdt.

- A preocular; rostral prominent..... *Ogmis* Cope.  
 $\alpha\alpha$ . Two nasal plates.  
 $\beta$ . Two anal scuta.
- No preocular; a loreal ..... *Enulius*<sup>1</sup> Cope.  
A preocular; no loreal ..... *Tantilla*<sup>2</sup> B. & G.  
A preocular and loreal, tail smooth ..... *Hydrocalamus* Cope.  
A preocular and loreal, tail short, rugose ..... *Procinura* Cope.  
 $\beta\beta$ . One anal scutum.
- A loreal and preocular; tail smooth ..... *Scolecophis* Cope.  
II. Posterior maxillary teeth smooth.  
\* Subcaudal scuta.  
† Internasals united.
- Scales smooth..... *Aspidura* Wagl.  
Scales keeled ..... *Haplocercus* Gthr.  
‡ Internasals and prefrontals distinct.  
 $\alpha$ . Rostral not produced.
- Postoculars not distinct from temporals; one nasal; loreal joined to preocular.  
*Achalinus* Pet.  
Postocular, preocular, and two nasals ..... *Elapops*<sup>3</sup> Gthr.  
 $\alpha\alpha$ . Rostral produced.
- Two nasals and a loreal and preocular ..... *Rhinochilis* B. & G.  
\*\* Subcaudal scutella.  
† Nasal scuta well developed.  
‡ No internasal scuta.  
‖ Rostral plate produced.
- Prefrontals separated by rostral; nasals and first labial confluent..... *Ficimia* Gray.  
Prefrontals in contact; nasal distinct; rostral little produced..... *Conopsis* Gthr.  
Rostral much produced ..... *Rhynchonyx*<sup>4</sup> Pet.  
‖‖‖ Rostral not produced.
- Nasal confluent with first labial; preocular and loreal distinct ..... *Sympholis*<sup>5</sup> Cope.  
Nasal distinct; loreal and preocular united..... *Geophidium*<sup>6</sup> Pet.  
‡‡ One internasal scutum.  
‖ Prefrontals united.
- Rostral much produced ..... *Ligonirostra*<sup>7</sup> Cope.  
‖‖‖ Two prefrontals (rostral not produced).
- Scales keeled; no preocular, two anals ..... *Haldca*<sup>8</sup> B. & G.  
Scales keeled; no loreal; a preocular; anal double..... *Falconeria* Theob.  
Scales smooth; no preocular; two anals..... *Favancia* Gray.  
Scales smooth; no loreal; a preocular..... *Pseudoeryx*<sup>9</sup> Fitz.  
Scales smooth; no loreal nor preocular; one anal; (? teeth)..... *Calamophis* Meyer.  
‡‡‡ Two internasals; one prefrontal.
- Rostral much produced ..... *Prosynna* Gray.  
Rostral not produced, teeth equal ..... *Trimetopon* Cope.  
Rostral not produced, teeth diacranterian ..... *Colorhogia* Cope.  
‡‡‡‡ Two internasals and two prefrontals.  
§ Rostral plate reaching frontal.
- Nasals and first labial confluent ..... *Gyalopium* Cope.  
§§ Rostral plate not reaching frontal.  
 $\alpha$ . Posterior maxillary teeth elongate.
- Two nasals well separated from preocular..... *Arrhyton* Gthr.

<sup>1</sup> Not of Bocourt Miss. Sci. Mex.<sup>2</sup> *Homalocranium* D. & B.<sup>3</sup> *Pariaspis* Cope.<sup>4</sup> *Xenocalamus* Gthr.<sup>5</sup> *Chilorhina* Jan.<sup>6</sup> *Xylophis* Bedd.<sup>7</sup> *Temnorhynchus* Smith.<sup>8</sup> *Conaccephalus* D. & B.<sup>9</sup> *Dimades* Gray. *Calopisma* D. & B. *Hydrops* Wagl.

Two nasals in contact with frenoöcular.....	<i>Leptocalamus</i> Gthr.
αα. Teeth equal.	
β. Superciliary plate absent.	
Two nasals and a frenoörbital .....	<i>Colophrys</i> Cope.
ββ. Superciliary present.	
γ. Rostral plate produced.	
δ. Nasal plates distinct.	
No loreal; anal divided; two nasals.....	<i>Geogras</i> <sup>1</sup> Cope.
A loreal; anal entire; two nasals.....	<i>Cemophora</i> Cope.
A loreal; anal divided: one nasal .....	<i>Chionactis</i> <sup>2</sup> Cope.
δδ. Nasal plates united with internasals.	
A preocular and a divided anal.....	<i>Chilomeniscus</i> <sup>3</sup> Cope.
γγ. Rostral plate not produced.	
ε. Palatine bones with teeth.	
η. One nasal plate; one anal plate.	
Scales smooth .....	<i>Homalosoma</i> <sup>4</sup> Wagl.
ηη. One nasal and two anal plates.	
Loreal and preocular present .....	<i>Contia</i> <sup>5</sup> B. & G.
Loreal present, no preocular.....	<i>Abastor</i> <sup>6</sup> Gray.
Neither loreal nor preocular.....	<i>Oxyrorrhos</i> <sup>7</sup> Fischer.
ηηη. Two nasal, one anal plate.	
Maxillary bone very slender; scales smooth; a frenoörbital plate,	<i>Stenognathus</i> . <sup>8</sup> D. & B.
Maxillary more robust; scales smooth; a frenoörbital plate.....	<i>Rhabdosoma</i> <sup>9</sup> D. & B.
Maxillary more robust; scales keeled; a frenoörbital plate .....	<i>Elapoides</i> <sup>10</sup> Boie.
ηηηη. Two nasal and two anal senta.	
A loreal; no preocular; two pairs genieals .....	<i>Virginia</i> B. & G.
A loreal; no preocular; one pair genieals.....	<i>Adelphicus</i> <sup>11</sup> Jan.
A loreal and a preocular; two pairs genieals.....	<i>Sonora</i> B. & G.
No loreal; a preocular; jaws weak.....	<i>Brachyrorrhos</i> Kuhn
εε. Palatine bones without teeth.	
Two anals and nasals; a loreal and a preocular.....	<i>Oligodon</i> Boie.
Two anals and nasals: a loreal and no preocular.....	<i>Colobognathus</i> Pet.
†† Nasal sentum minnte.	
No internasals; preoculars present.....	<i>Calamaria</i> Boie.
Two internasals; a preocular.....	<i>Pseudorhabdium</i> Jan.
Two internasals; no preocular.....	<i>Orycalamus</i> Cant.
††† No nasal sentum.	
No loreal, nor pre- nor postocular.....	<i>Typhlogophis</i> Günth.

CORONELLINÆ.

I. No palatine teeth.	
Anal two; one internasal; scales smooth .....	<i>Tripeltis</i> <sup>12</sup> Cope.
Anal plate divided; two internasals; scales smooth.....	<i>Oligodon</i> <sup>13</sup> Boie.

<sup>1</sup> *Enallius* Boc. *Sphenocalamus* Fisch. *Pseudofiscimia* Boc.

<sup>2</sup> *Lamprosoma* Hallow.

<sup>3</sup> *Bergenia* Steindachner.

<sup>4</sup> *Rhabdium* D. & B.

<sup>5</sup> *Cryptodacus* Peters. *Eirenis* Jan.

<sup>6</sup> *Carphophiops* Gerv. *Carphophis* D. & B. *Caluta* B. & G.

<sup>7</sup> 1879; *Atractocephalus* Sauv. ? 1880.

<sup>8</sup> *Platypteryx* D. & B.

<sup>9</sup> *Rhabdium* D. & B.

<sup>10</sup> *Geophis* Wagl. *Catastoma* Wagl.

<sup>11</sup> *Rhabdosoma* Boc. not D. & B. *Rhegnops* Cope

<sup>12</sup> Gen. nov. type *Oligodon brevicauda* Gthr

<sup>13</sup> *Rhynchocalamus* Gthr.

## II. Palatine teeth present.

α. Dentition isodont or syneranterian.

β. Anal plate divided.

γ. Angular bone enclosed by the dentary.

ε. Teeth equal.

Two scale-pits; scales smooth; rostral not produced..... *Proterodon* Hallow.

One scale-pit; rostral not produced..... *Diadophis* B. & G.

No scale-pits; rostral not produced..... *Rhadinea*<sup>1</sup> Cope.

Rostral large; produced, with acute edge in front; two nasals; loreal present,  
*Scaphiophis* Pet.

εε. Teeth longer posteriorly.

Tail short; rostral produced..... *Simotes* D. & B.

Tail short; rostral not prominent; one scale-pit..... *Coronella*<sup>2</sup> Laur.

Tail very long; rostral not prominent..... *Pliocercus*<sup>8</sup> Cope.

γγ. Dentary bone attached loosely to the apex of the angular.

Teeth equal; no scale-pits..... *Henicognathus* D. & B.

ββ. Anal plate undivided.

Rostral plate produced both anteriorly and posteriorly..... *Holarchus*<sup>4</sup> Cope.

No scale-pits; rostral plate not produced..... *Megablades* Gthr.

Two scale-pits..... *Ophibolus*<sup>5</sup> B. & G.

αα. Dentition Diacranterian.

β. Rostral plate normal.

γ. Anal plate entire.

Eye bounded by scales below; lores plane..... *Cyclugras*<sup>6</sup> Cope.

Eye resting on labial plates; lores plane..... *Xenodon*<sup>7</sup> Boie.

Eye on labials; lores grooved; two scale-pits..... *Telcolepis* Cope.

μ. Anal plate divided.<sup>8</sup>

δ. Scale-pits present (one).

Head very distinct; robust..... *Xenodon* Boie.

Head little distinct; slender..... *Liothis* Wagl.

δδ. No scale-pits.

ε. Rostral plate normal.

Tail short; pupil erect; lores flat..... *Hypsigena*<sup>9</sup> Cope.

Tail short; pupil round; body robust..... *Ophcomorphus* Cope.

Tail short; pupil round; body slender..... *Aporophis* Cope.

Tail very long; pupil round; slender..... *Dromicus* Bibr.

εε. Rostral plate produced backwards and laterally, not forwards.

Anal divided; loreal present..... *Lytorhynchus*<sup>10</sup> Pet.

ββ. Rostral trihedral and produced.

Anal divided; scales keeled..... *Heterodon* Beauv.

Anal divided; scales smooth..... *Lystrophis*<sup>11</sup> Cope.

Anal entire; scales smooth..... *Lioheterodon* Dum.

<sup>1</sup> *Ablabes* Günth. not D. & B. *Enicognathus* Jan. au differt *Styporhynchus* Pet.?

<sup>2</sup> *Mizodon* Fisch.

<sup>3</sup> *Elapochrus* Pet. *Cosmiosophis* Jan.

<sup>4</sup> Gen. nov., embracing all species with entire anal plate hitherto referred to *Simotes*.

<sup>5</sup> *Lampropeltis* Fitz., Cope; *Bellophis* Lockingt.

<sup>6</sup> *Lejosophis* Jan.

<sup>7</sup> *Xenodon suspectus* Cope; *X. colubrinus* Gthr.; *X. angustirostris* Pet.; and *X. lipræocularis* Cope; and double or single in *X. rhadæcephalus* Wied.

<sup>8</sup> *Pseudoxyrrhopus* Günth. (? *Homalocephalus* Jan), is probably identical with one of the genera of sect. γγ, but the character of the scale-pits is unknown.

<sup>9</sup> *Pseudodipsas* Pet.; *Comastes* Jan.

<sup>10</sup> *Catachlein* Jan; *Ophirhina* Bocago.

<sup>11</sup> Type *Heterodon dorbignyi* quid *Rhinaspis* Schl.?

SCYTALINÆ.

- α. Anterior teeth elongate.
- Scales smooth; rostral plate obtuse ..... *Macroprotodon* Guich.
- αα. Anterior teeth short.
- β. Rostral plate not protuberant.
- γ. Two rows of subcaudal scutella.
- δ. Anal plate entire.
- ε. Vertebrae with expanded neural spines.
- Prefrontals united; a loreal; scales smooth ..... *Gerrhosteus* Cope.
- εε. Vertebrae with narrow compressed neural spines.
- Scale-pits double; pupil erect; rostral plate normal; two prefrontals, *Oxyrrhopus*<sup>1</sup> Wagl.
- Rostral plate normal; one nasal plate; two prefrontals..... *Tomodon* D. & B.
- Rostral plate separating internasals; scale pores single; two prefrontals, *Trimerorhinus*<sup>2</sup> Smith.
- δδ. Anal plate double.
- ε. Scales smooth.
- No scale-pits; tail short; rostral obtuse; nasals two; pupil round, *Erythrolamprus*<sup>3</sup> Boie.
- One scale-pit; loreal not in orbit; rostral obtuse; nasals two; pupil round, *Tachymenis* Wiegem.
- Loreal entering orbit; pupil erect: rostral obtuse; nasals two..... *Tarbophis*<sup>4</sup> Fleisch.
- One nasal plate; no scale-pits; rostral truncate; pupil erect..... *Manolepis*<sup>5</sup> Cope.
- εε. Scales keeled.
- Pupil erect; anal double ..... *Dryophilax* Wagl.
- γγ. One row of subcaudal scuta.
- Two preoculars; head distinct: body compressed ..... *Ditypophis* Gthr.
- Two preoculars; body round; head not distinct..... *Hologerrhum* Günth.
- One preocular; body round..... *Scytale*<sup>6</sup> Boie.
- ββ. Rostral plate protuberant.
- γ. Rostral not recurved.
- Loreal not entering orbit; pupil round; two nasal plates; rostral moderate, *Conophis* Pet.
- Scales not grooved; rostral very prominent ..... *Rhaphiophis* Pet.
- Scales grooved; rostral prominent ..... *Rhagerhis* Pet.
- γγ. Rostral plate recurved.
- One row of subcaudal scuta..... *Phimophis*<sup>7</sup> Cope.
- Two rows of subcaudal scutella..... *Rhinostoma* Wagl.

NATRICINÆ.

- A. Posterior maxillary teeth not abruptly longer than those that precede them.
- 1. Rostral plate expanded transversely and with free lateral borders.
- Several preoculars; scales smooth; anal and subcaudals double... *Salvadora*<sup>8</sup> B. & G.
- 2. Rostral plate not expanded and free laterally.
- \* Two median dorsal rows of scales.
- One preocular plate..... *Herpetodryas*<sup>9</sup> Boie.
- Two preocular plates..... *Zaöcys* Cope.
- \*\* One median dorsal row of scales.
- † Body little or not compressed.
- ‡ Internasals not confluent with nasals.
- α. Several loreal plates.

<sup>1</sup> Includes *Brachyrhynchum* D. & B.

<sup>6</sup> *Olisthenes* Cope.

<sup>2</sup> *Psammothylax* (Fitz) Günther.

<sup>7</sup> *Rhinosimus* D. & B. preoccupied

<sup>3</sup> *Coniophanes* Hallow.

<sup>8</sup> Preoccupied in botany, hence *Phimothyra* Cope.

<sup>4</sup> Günther says (Catal. Brit. Mus., p. 33) "anal bifid."

<sup>9</sup> *Phyllosira* Cope.

<sup>5</sup> Type *Tomodon nasutus* Cope.



Two or more preoculars .....	<i>Ptyas</i> Cope.
$\alpha\alpha$ . One loreal (rarely two).	
$\beta$ . Four or more prefrontals.	
Anal entire; scales keeled .....	<i>Pityophis</i> Holbr.
$\beta\beta$ . Two prefrontals only.	
$\gamma$ . Two nasal plates.	
$\delta$ . Anal entire.	
Scales smooth; rostral produced .....	<i>Rhinechis</i> <sup>1</sup> Mich.
One preocular; rostral not produced .....	<i>Spilotes</i> <sup>2</sup> Wagl.
$\delta\delta$ . Anal double.	
$\varepsilon$ . One preocular.	
Form robust; scales without pits; tail moderate .....	<i>Grayia</i> <sup>3</sup> Gthr.
Form robust; tail moderate; two scale-pits .....	<i>Natrix</i> <sup>4</sup> Laur.
Like Coluber, but median dorsal row of scales much enlarged .....	<i>Xenelaphis</i> Gthr.
Form elongate; tail long; two scale-pits .....	<i>Drymobius</i> <sup>5</sup> Cope.
Form very slender; tail very long .....	<i>Dendrophis</i> Boie.
$\varepsilon\varepsilon$ . Two preoculars.	
Scales keeled .....	<i>Elaphis</i> Aldv.
Scales smooth .....	<i>Basanium</i> <sup>6</sup> B. & G.
$\gamma\gamma$ . One nasal plate.	
Scales keeled; a loreal plate .....	<i>Cyclophis</i> <sup>7</sup> Gthr.
Scales smooth; a loreal plate .....	<i>Liopeltis</i> Cope.
Scales smooth; no loreal .....	<i>Phragmitophis</i> Gthr.
$\ddagger\ddagger$ Internasals confluent with nasals. *	
Scales smooth with one pit; anal divided .....	<i>Symphimus</i> Cope.
$\ddagger$ Body much compressed.	
One nasal plate; a frenoörbital .....	<i>Dryocalamus</i> Gthr.
Two nasals; a frenoörbital; teeth equal .....	<i>Odontomus</i> <sup>8</sup> D. & B.
Two nasals; loreal and preocular distinct .....	<i>Gonyosoma</i> Wagl.
One nasal; a loreal; scales keeled; teeth equal .....	<i>Phyllophis</i> Gthr.
AA. Posterior maxillary tooth abruptly longer than those which precede it.	
$\alpha$ . Maxillary tooth series uninterrupted (one preocular).	
$\beta$ . Moderately elongate.	
Scales smooth; two nasals; a frenoörbital .....	<i>Nymphophidium</i> Gthr.
Scales keeled; one loreal; one preocular .....	<i>Herpetoreas</i> Gthr.
$\beta\beta$ . Very slender.	
$\gamma$ . Anal double.	
Scales keeled; no loreal .....	<i>Leptophis</i> <sup>9</sup> Bell.
Scales keeled; a loreal .....	<i>Hapsidophrys</i> Fisch.
Scales smooth; a loreal .....	<i>Philothamnus</i> <sup>10</sup> Smith.
$\gamma\gamma$ . Anal single.	
Scales smooth; a loreal .....	<i>Chlorophis</i> <sup>11</sup> Hallow.
$\alpha\alpha$ . A toothless space in front of the long maxillary tooth.	
$\beta$ . One preocular; anal double.	
$\gamma$ . Form very elongate.	

<sup>1</sup> Arizona Kenn.

<sup>2</sup> *Cynophis* Gray. *Compsosoma* D. & B. *Calognathus* Fitz. *Geopytas* Steind.

<sup>3</sup> *Heteronotus* Hallow., nom. præoc. hinc *Glaniolestes* Cope. *Lejonotus* Jan.

<sup>4</sup> Spec. Syn. Rept. 1768, p. 73; Cope; *Calopeltis* Bp., 1840; *Scotophis*, B. & G., 1853; *Coluber* Linn., Günther, 1858.

<sup>5</sup> *Dendrophidium* Cope; *Xenurophis* Gthr.

<sup>6</sup> *Coluber* Dum., Garm.; *Masticophis* B. & G.

<sup>7</sup> *Ophiodryas* Fitz. Cope. *Philophyllophis* Garm.

<sup>8</sup> *Hydrophobus* Gthr.

<sup>9</sup> *Ahaetulla* Gthr. *Thrasops* Hallow.

<sup>10</sup> *Rhamnophis* Gthr. *Gastropyxis* Cope.

<sup>11</sup> *Herpetathiops* Gthr.

A loreal; scales smooth.....	<i>Uromacer</i> D. & B.
$\gamma\gamma$ . Form moderately elongate.	
A loreal; scales smooth, with two pits.....	<i>Aisophis</i> Cope.
No loreal; scales smooth.....	<i>Ocyophis</i> <sup>1</sup> Cope.
$\beta\beta$ . Two or more preoculars.	
Orbit resting on labials; one loreal; two anals; two scale-pits.....	<i>Zamenis</i> Wagl.
Orbit surrounded by scales; anal single; two scale-pits; one loreal...	<i>Periops</i> Wagl.
Orbit surrounded by scales; two or more loreals; anal single; two scale-pits.	
	<i>Chilolepis</i> <sup>2</sup> Cope.
“Numerous small scales occupying the place of the frontals;” eye resting on scales.	
	<i>Spalerophis</i> Jan.
Orbit resting on labials; two anals; one scale-pit.....	<i>Tyria</i> <sup>3</sup> Cope.
One anal; no scale-pits.....	<i>Zamenophis</i> Gthr.

PHILODRYADINÆ.

A. Body rounded, not compressed.	
$\alpha$ . Scales grooved.	
Crown and lores grooved; one nasal; two loreals.....	<i>Malpolon</i> <sup>4</sup> Fitz.
$\alpha\alpha$ . Scales smooth.	
Two loreals; middle teeth equal.....	<i>Dirrhor</i> <sup>7</sup> Cope.
One loreal; median teeth equal.....	<i>Philodryas</i> Wagl.
One loreal; median maxillary teeth long.....	<i>Jaltvis</i> Cope.
$\alpha\alpha\alpha$ . Scales keeled.	
One loreal; median teeth equal.....	<i>Tropidodryas</i> Cope.
AA. Body slender; compressed.	
$\alpha$ . Subcaudal scutella.	
Nostril normal; two nasals; two anals.....	<i>Chrysoplea</i> Boie.
Nostril round in a single nasal; two anals.....	<i>Ichthyocyphus</i> Gthr.
Nostril semicircular, valvular.....	<i>Dromophis</i> Pet.
$\alpha\alpha$ . Subcaudal scuta.	
Anal divided.....	<i>Bucephalus</i> Sm.

DRYOPHIDINÆ.

I. Middle maxillaries not elongate, posteriors grooved.	
$\alpha$ . An elongate nasal appendage.	
Nasal and scuta undivided; scales keeled.....	<i>Langaha</i> Brug.
$\alpha\alpha$ . No nasal appendage.	
Scales keeled.....	<i>Dryophis</i> <sup>5</sup> Boie.
Scales smooth.....	<i>Dryinus</i> Wagl.
II. Middle maxillaries elongate; posteriors grooved.	
$\alpha$ . An elongate nasal appendage.	
Pupil horizontal.....	<i>Passerita</i> Gray.
$\alpha\alpha$ . No elongate nasal appendage.	
A loreal plate; prenasals joined on the middle line.....	<i>Gephyrinus</i> <sup>6</sup> Cope.
A loreal plate; nasals not joined.....	<i>Tragops</i> Wagl.
No loreal plate; nasals separate.....	<i>Tropidococeyr</i> Gthr.

PSAMMOPHIDINÆ.

Anal entire; a loreal.....	<i>Psammodynastes</i> Gthr.
Anal divided; a loreal.....	<i>Psammophis</i> Wagl.
Nostril in prenasal; no loreal.....	<i>Mimophis</i> Gthr.

<sup>1</sup>Type *Dromicus ater* Gosse.

<sup>2</sup>Type *Coluber cliffordii* Schl.

<sup>3</sup>Type *T. dahlui* Fitz.

<sup>4</sup>*Crotopeltis* Wagl. *Taphrometopon* Brandt.

<sup>5</sup>*Thelotornis* Smith. *Cladophis* Dum.

<sup>6</sup>Type *Dryophis fronticincta* Gthr.

<sup>7</sup>*Callichinus* Girard nec Cuvierii.

## LYCODONTINÆ.

## I. Anterior maxillaries not isolated.

α. Subcaudal scuta double.

β. Dorsal scales of equal size.

Two nasals; nostril in the anterior; a loreal; body much compressed. . . . *Lycodryas* Gthr.

Two nasals; nostril between; body not compressed; lores plane . . . . *Boödon*<sup>1</sup> D. & B.

Two nasals; body not compressed; lores longitudinally grooved.

*Bothrophthalmus*<sup>2</sup> Schl.

Two nasals; nostril in the anterior. . . . . *Lycophidium*<sup>3</sup> Fitz.

One nasal; a loreal . . . . . *Metoporphina* Gthr.

ββ. Dorsal scales of unequal size.

Vertebral series smooth; body compressed . . . . . *Hormonotus* Hallow.

Vertebral series smooth; body round . . . . . *Lamprophis* Fitz.

Vertebral series bicarinate; body round. . . . . *Simocephalus*<sup>4</sup> Gray

αα. Subcaudal scutella entire.

Two nasals; scales equal, smooth . . . . . *Holuropholis* Dum.

## II. Anterior maxillaries isolated.

α. Subcaudals in two rows.

β. Nareal region with a pit.

Scales smooth; anal entire. . . . . *Bothrolycus* Gthr.

β. No nareal pit.

γ. Longest teeth at middle and posterior end of maxillary bone.

Two nasals; body round . . . . . *Diiodon*<sup>5</sup> D. & B.

γγ. Longest teeth at front of maxillary.

Scales keeled; two nasals; a loreal . . . . . *Ophites* Wagl.

Scales smooth; two nasals; a loreal . . . . . *Lycodon* Boie.

Scales smooth; two nasals; no loreal . . . . . *Tetragonosoma* Gthr.

Scales smooth; one nasal; a loreal . . . . . *Leptorhytaon* Gthr.

αα. Subcaudal plates in one row.

Scales keeled . . . . . *Cercaspis* Wagl.

Scales smooth . . . . . *Cyclocorus* D. & B.

## LEPTOGNATHINÆ.

α. Subcaudal scuta entire.

Teeth of equal length . . . . . *Anoplodipsas* Pet.

Teeth elongate posteriorly . . . . . *Dipsadoboa* Gthr.

Teeth longer anteriorly . . . . . *Amblycephalus* Kuhl.

αα. Subcaudal scuta in two rows.

β. A median genieal plate.

Maxillary bone very short; one nasal plate . . . . . *Asthenodipsas* Pet.

Maxillary bone long; two nasal plates. . . . . *Mesopeltis*<sup>6</sup> Cope.

ββ. No median genieal plate.

Teeth equal; no internasals; two nasals . . . . . *Dipeltophis* Cope.

Teeth weak; equal; internasals; two nasals . . . . . *Leptognathus* D. & B.

Teeth longer in front; internasals; one nasal . . . . . *Parcas* Wagl.

## DIPSADINÆ.

## I. Subcaudal scuta.

Parietal plates replaced by scales; other plates normal . . . . . *Pythonodipsas* Gthr.

## II. Subcaudal scutella.

α. No teeth anterior to the grooved maxillary.

Scales smooth . . . . . *Opisthoplus* Pet.

αα. Median maxillary teeth not much shortened.

Nostril large, between two nasals and the internasal; vertebral scales larger,

*Rhinobothryum* Wagl.

<sup>1</sup> *Eugnathus* D. & B.

<sup>2</sup> Belongs perhaps to *Colubrina*.

<sup>3</sup> *Atopocium* D. & B.

<sup>4</sup> *Heterolepis* Sm. *Diaphorolepis* Jan.

<sup>5</sup> *Eumesodon* Cope.

<sup>6</sup> *Asthenognathus* Boc.

- Two nasals inclosing nostril; body elongate, compressed; anal entire; vertebrals generally larger ..... *Dipsas*<sup>1</sup> Laur.  
 Two nasals inclosing nostril; body less compressed; anal double; vertebral row not larger; one loreal ..... *Sibon*<sup>2</sup> Fitz.  
 No nasal; vertebrals equal ..... *Hemidipsas*<sup>3</sup> Gthr.  
      $\alpha\alpha$  Median maxillary teeth shortened.  
 Two nasals and two or more loreals; anal double; vertebrals equal,  
     *Trimorphoden* Cope.

DASYPELTINÆ.

- No grooved maxillary tooth; no loreal plate; scales keeled; head very distinct,  
     *Dasyzeltis*<sup>4</sup> Wagl.  
 A grooved maxillary tooth; a loreal plate; scales smooth; head little distinct,  
     *Elachistodon* Rhdt.

COLUBRINÆ.<sup>5</sup>

- I. A grooved posterior maxillary tooth.  
      $\alpha$  Scales keeled.  
          $\beta$  One internasal plate.  
 Parietal plates undivided ..... *Homalopsis* Kuhl.  
          $\beta\beta$ . Two internasal plates.  
 Parietal plates subdivided ..... *Cerberus* Cuv.  
      $\alpha\alpha$  Scales smooth.  
          $\beta$ . One internasal plate.  
              $\gamma$ . Gastrosteges with two keels.  
 Parietal plates subdivided ..... *Hipistes*<sup>6</sup> Gray.  
              $\gamma\gamma$ . Gastrosteges not keeled.  
 Nasal plates in contact behind rostral; eye resting on labial plates,  
     *Hypsirhina*<sup>7</sup> Wagl.  
 Nasal plates in contact; eye bounded below by scales ..... *Tachyplotus* Rhdt.  
 Nasal plates separate; eye on labials ..... *Fordonia*<sup>8</sup> Gray.  
 Nasal plates separate; eye bounded with scales below ..... *Cantoria*<sup>9</sup> Girtd.  
      $\beta\beta$ . Two internasal plates.  
 Supraorbital and posterior labial plates subdivided; two anals ..... *Homalophis* Pet.  
 Nasals in contact behind rostral; parietals entire ..... *Ferania*<sup>10</sup> Gray.  
 Two pairs of prefrontals; nasal plates separate, undivided; eye on labials; anal double ..... *Heliophis* Müller.

II. Posterior maxillary teeth not grooved.

- \* Scales keeled.  
     † Dentition diacranterian.  
 One internasal plate; no scale-pits ..... *Helicops* Wagl.  
 Two internasals; no scale-pits ..... *Coluber*<sup>11</sup> Linn.  
 Two internasals; two scale-pits ..... *Bothrodytes*<sup>12</sup> Cope.  
     †† Dentition syncranterian or longer behind.  
     \* Muzzle with a pair of tentacular processes.

<sup>1</sup> *Boiga* Fitz. *Triglyphodon* et *Himantodes* D. & B. *Eudipsas* Gthr. *Toxicodryas* Hallow.

<sup>2</sup> *Crotaphopeltis* Fitz.

<sup>3</sup> *Chamæstortus* Gthr.

<sup>4</sup> *Rhachiodon* Jour. *Diodon* Owen. *Anodon* Smith.

<sup>5</sup> *Homalopsinae* Cope, Proceedings Academy Philadelphia, 1864, p. 167.

<sup>6</sup> *Bitia* Gray.

<sup>7</sup> *Eurostus* D. & B. Pt. ? *Phytolopsis* Gray.

<sup>8</sup> *Gerarda* Gray. *Campylodon* D. & B.

<sup>9</sup> *Hydrodipsas* Peters.

<sup>10</sup> *Trigonurus* D. & B. *Feranoidea* Carlleyle.

<sup>11</sup> Laurenti Spec. Synops. 1768, p. 94. *Amphisma* D. & B.

<sup>12</sup> Gen. nov.; type *Amphisma subminiaturum* Reinwt.; second species *B. tigrinus*—*A. tigrinum* Bois.

One internasal plate; parietals undivided .....	<i>Herpeton</i> Lac.
** No tentacular processes.	
α. One internasal plate.	
No scale-pits .....	<i>Atridium</i> Cope.
αα. Two internasal plates.	
β. Two nasal plates.	
Anal plate divided; two scale-pits .....	<i>Tropidonotus</i> <sup>2</sup> Kuhl.
Anal plate single; no scale-pits .....	<i>Eutania</i> B. & G.
ββ. One nasal plate.	
Anal plate single; rostral produced laterally .....	<i>Stypocemus</i> <sup>3</sup> Cope.
Anal plate divided; rostral normal .....	<i>Amastridium</i> Cope.
†† Dentition isodont, or shorter behind.	
a. Anal plate divided.	
A loreal plate .....	<i>Regina</i> <sup>4</sup> B. & G.
No loreal plate .....	<i>Storeria</i> <sup>5</sup> B. & G.
αα. Anal plate entire.	
β. Two internasals, one prefrontal.	
ββ. Two internasals, two prefrontals.	
A loreal; two nasals; a preocular .....	<i>Chersodromus</i> Rhdt.
Head well distinguished; a loreal and preocular plates .....	<i>Atomarchus</i> Cope.
Head not distinct; a loreal and a preocular plate .....	<i>Tropidoclonium</i> Cope.
Head not distinct; a preocular; no loreal plate .....	<i>Adelophis</i> Dugés.
A loreal; no preocular plate .....	<i>Ninia</i> <sup>6</sup> B. & G.
A loreal and preoculars; teeth longer anteriorly .....	<i>Prymniodon</i> Cope.
βββ. One internasal plate; two prefrontals.	
Scales keeled; two nasals and a loreal .....	<i>Haldea</i> <sup>7</sup> B. & G.
** Scales smooth.	
α. Dentition diacranterian.	
One internasal .....	<i>Liodytes</i> <sup>8</sup> Cope.
αα. Dentition syncranterian.	
Two internasals; one prefrontal .....	<i>Hydromorphus</i> <sup>9</sup> Pet.
One internasal plate; two prefrontals; anals two .....	<i>Lymnophis</i> Gthr.
Two internasal plates; two prefrontals; anals two .....	<i>Hypsirhynchus</i> <sup>10</sup> Gthr.
ααα. Dentition isodont.	
Two internasals; anal entire .....	<i>Ablabes</i> <sup>11</sup> B. & D.

## ACONTIOPHIDÆ.

Rostral plate deeply grooved below; nasal single; cephalic plates normal; scales smooth; body round; teeth, the posterior longest, not grooved,  
*Acontiophis* Gthr.

## PROTEROGLYPHA.

HYDROPHIDÆ.<sup>12</sup>

I. *Gastrosteges* wide, flat.

Two pairs of frontal shields .....

*Platurus* Latr.

<sup>1</sup> *Tachymectes* Fitz. Cope, Proc. Acad. Phila., 1864, p. 167. *Hydrathlops* Günth. (nares superior).

<sup>2</sup> *Nerodia* B. & G.

<sup>3</sup> *Chilopoma* Cope, preoccupied.

<sup>4</sup> *Tretanorhinus* D. & B. ? *Xenochrophis* Gthr.

<sup>5</sup> *Ischnognathus* D. & B.

<sup>6</sup> *Streptophorus* D. & B.

<sup>7</sup> *Conocephalus* D. & B.

<sup>8</sup> Type *Helicops alleni* Garman.

<sup>9</sup> An *Trimetopon* Cope?

<sup>10</sup> An *Pseudaspis* Cope, type *Coronella cana* L.; D. & B.

<sup>11</sup> *Natrix* Gthr. *Neusterophis* Gthr. *Lycodonomorphus* Fitz. sine diagnosis; nec *Ablabes* Gthr. et auct., = *Rhadinea*, etc.

<sup>12</sup> This table is mostly from Günther, Reptiles Brit. India, 355.



- II. Gastrosteges wide, with two keels.  
 Scales imbricate; one nasal..... *Aepyurus* Lacep.  
 Top of head scaly; two nasals..... *Pelagophis* Pet. & Dor.  
 III. Gastrosteges narrow, rudimentary, or absent.  
 \* Nasals separated by frontals.  
 Gastrosteges distinct to vent..... *Distira* Lacep.  
 \*\* Nasals contiguous.  
 Head covered with scales behind..... *Acalyptus* D. & B.  
 Head short, entirely shielded; no symphyseal notch..... *Hydrophis* Daud.  
 Head moderate, entirely shielded; a deep symphyseal notch..... *Enhydrina* Gray.  
 Snout long, spatulate..... *Pelamis* Daud.

NAJID.E.

- I. Grooved teeth behind two perforated teeth on the os maxillare.  
 Head-shields normal; no loreal; scales smooth; form fusiform..... *Ogmodon*<sup>1</sup> Pet.  
 II. Solid teeth behind the fang on the os maxillare.  
 A. Loreal plate present.  
 Subcaudals entire; scales smooth..... *Denisonia* Krefft.  
 AA. Loreal plate absent.  
 α. The neck with few scales, not extensible.  
 β. Subcaudal scuta one-rowed.  
 γ. Scales of vertebral row equal to others.  
 Nasals two; scales smooth; anal bifid..... *Pseudechis* Wagl.  
 One nasal; scales smooth; anal single..... *Hoplocephalus*<sup>2</sup> Cuv.  
 One nasal; scales keeled; anal single..... *Tropedechis* Gthr.  
 αα. Scales of vertebral line enlarged.  
 Scales smooth; two nasals; anal entire..... *Bungarus* Daud.  
 ββ. Subcaudal scuta two-rowed.  
 γ. Scales of vertebral row equal.  
 Rostral plate normal; two nasals..... *Diemenia*<sup>3</sup> Gray.  
 Rostral plate narrow; produced backwards above; two nasals..... *Pseudonaja* Gthr.  
 Rostral wide, prominent, depressed; one nasal..... *Furina*<sup>4</sup> D. & B.  
 Rostral normal; one nasal; anal double..... *Cacophis*<sup>5</sup> Gthr.  
 γγ. Scales of vertebral line enlarged.  
 Scales smooth..... *Megarophis*<sup>6</sup> Gray.  
 αα. Neck extensible, covered with more numerous scales.  
 β. Anal entire; subcaudals two-rowed.  
 No postparietal plates..... *Naja*<sup>7</sup> Laur.  
 Postparietals present..... *Ophiophagus* Gthr.  
 III. No solid maxillary teeth.  
 α. Subcaudal scuta in two rows.  
 β. Rostral plate much developed.  
 Rostral free at the sides; scales keeled..... *Cyrtophis* Sund.  
 Rostral not free; scales smooth; anal entire..... *Aspidelaps* Fitz.  
 Rostral not free; anal entire; two nasals..... *Rhinelaps* Gthr.  
 ββ. Rostral not enlarged.  
 Scales keeled..... *Scpedon* Merr.  
 Scales smooth..... *Callophis* Gr.  
 αα. Subcaudal scutella in one row.  
 One nasal; a spine at end of tail..... *Acanthophis* Daud.

<sup>1</sup> *Labionaris* Brocchi.

<sup>2</sup> *Alecto* Wagl.

<sup>3</sup> *Pseudoelaps* D. & B. *Elapsoidea* Bocage. *Hemibungarus* Pet.; includes *Brachysoma triste* Gthr.

<sup>4</sup> *Brachyurophis* Gthr.

<sup>5</sup> *Brachysoma* Gthr. *Boulengerina* Dollo.

<sup>6</sup> *Xenurelans* Gthr.

<sup>7</sup> *Tomyris* Eichw.

ELAPIDÆ.

α. Internasal plate touching the nasal laterally.

- One nasal plate ..... *Vermicella*<sup>1</sup> Gray.
- Two nasal plates ..... *Elaps* Schu.
- αα. Internasal reaching first labial plate.
- One nasal; no loreal ..... *Microsoma* Jan.

DENDRASPIDIDÆ.

- No solid teeth behind fang; anal and subcaudal plates divided; scales smooth. *Dendraspis*<sup>2</sup> Schl.

SOLENOGLYPHA.

CAUSIDÆ.

- Subcaudals double, anal entire; scales keeled; rostral prominent, with recurved border ..... *Heterophis* Pet.
- Subcaudal and anal plates double; scales keeled; rostral normal ..... *Causus* Wagl.
- Subcaudals and anal entire; scales smooth; rostral normal; a loreal.. *Dinodipsas* Pet.

ATRACTASPIDIDÆ.

- Head not distinct; two nasals; a loreal; scales smooth; subcaudals entire. *Atractaspis* Smith.

VIPERIDÆ.

I. Urosteges two-rowed.

- Nostril between two plates ..... *Vipera*<sup>3</sup> Laur.
- “Nostril between three plates” (Gthr.) ..... *Daboia* Gray.
- Nostril surrounded by scales and a nasal; horn-like supraocular scales.. *Cerastes* Wagl.
- Nostril surrounded by scales and a supranasal; no supraocular nor nasal horns. *Bitis*<sup>4</sup> Gray.
- Nostril surrounded by scales and a supranasal; horn-like scales above latter; no supraocular horns ..... *Crotho* Gray.

II. Urosteges one-rowed.

- Body and tail cylindric ..... *Echis*<sup>5</sup> Merr.
- Body and tail compressed and prehensile..... *Atheris*<sup>6</sup> Cope.

CROTALIDÆ.

I. No rattle.

β. Urosteges two-rowed.

- Top of head scaled; urosteges four-rowed at end; a caudal spine..... *Lachesis* Wagl.
- Top of head with small scales; tail normal..... *Bothrops*<sup>7</sup> Wagl.
- Top of head with large imbricate shield-like scales ..... *Peltopeltor* Gthr.
- Top of muzzle scaled; rest of head shielded ..... *Hypnale* Cope.
- Top of head with nine shields; scales carinate ..... *Trigonocephalus* Oppel.
- Top of head with nine shields; scales smooth ..... *Calloselasma*<sup>8</sup> Cope.

ββ. Urosteges one-rowed.

- Body and tail cylindric, not prehensile; head scaly..... *Bothriopsis* Pet.
- Body and tail compressed, prehensile; head scaly, scales normal..... *Bothriechis* Pet.
- Body and tail compressed, prehensile; head scaly; a row of scales outside the superciliary shield ..... *Teleuraspis* Cope.

<sup>1</sup> *Homorelaps* Jan. *Poecilophis* Gthr.

<sup>2</sup> *Dinophis* Hallow.

<sup>3</sup> *Pelias* Wagl.

<sup>4</sup> *Echidna* Wagl., not Forster.

<sup>5</sup> *Toxicoa* Gray.

<sup>6</sup> *Poecilostolus* Gthr.

<sup>7</sup> *Trinesurus* Gray, Gthr., Peters *Tropidolemus* Wagler. *Megara* Gray. *Atropos* Wagl. *Rhinoceryphis* Gthr.

<sup>8</sup> *Leiolepis* D. & B. nec Cuv.

Body and tail not prehensile; nine normal head-shields ..... *Acistrodon*<sup>1</sup> Beauv.  
 II. A rattle.  
 Head with nine senta above ..... *Crotalophorus*<sup>2</sup> Gray.  
 Head with scales above ..... *Crotalus*<sup>3</sup> Linn.

*Synopsis of the genera.*

<i>Genera.</i>	<i>No.</i>	<i>Genera.</i>	<i>No.</i>
Typhlopidæ.....	6	Colubridæ ( <i>continued</i> )—	
Stenostomidæ.....	2	Lycodontinae.....	17
Tortricidæ.....	2	Leptognathinae.....	7
Uropeltidæ.....	7	Dipsadinae.....	7
Xenopeltidæ.....	1	Dasypeltinae.....	2
Pythonidæ.....	8	Homalopsinae.....	29
Boidæ.....	16	Acontiophidæ.....	1
Charinidæ.....	1	Hydrophidæ.....	8
Aerochordidæ.....	2	Najidæ.....	19
Nothopidæ.....	2	Elapidæ.....	3
Colubridæ—		Dendraspididæ.....	1
Calamarinæ.....	57	Causidæ.....	3
Coronellinæ.....	23	Atractaspididæ.....	1
Scytalinæ.....	18	Viperidæ.....	7
Colubrinæ.....	35	Crotalidæ.....	12
Philodryadinæ.....	9		
Dryophidinae.....	7	Total.....	316
Psammophidinæ.....	3		

A number of generic names have been given by authors with definitions which do not refer to the dentition. On this account I have been unable to include them in the above tables. I have credited generic names to authors who have published the first description, and not to those who have given them as *nomina nuda*.

**CATODONTA.**

**STENOSTOMIDÆ.**

**Stenostoma** Wagler.

Dum. et Bibr., vi, 32. *Rena* Baird and Girard.

STENOSTOMA MACROLEPIS Peters, Monatsber. Akad. Wiss. Berlin, 1857, p. 402; Jan. Iconogr. Gen. Ophid., Fasc. ii, tab. v, vi, fig. 10. ? *S. myopicum* Garman, Mem. Mus. Comp. Zool. Cambridge, 1883, p. 6.

Las Aguilillas, Michoacan, *Dugés*.

STENOSTOMA DULCE Baird, Girard, *Rena dulcis* Bd. Girard, Catal. Serpents, 142. Northern Mexico, *Jan, Peters*; Batopilas, Chihuahua, *Wilkinson*.

STENOSTOMA PHLENOPS Cope, Journ. Acad. Phila., 1875, p. 128.

Coban, Guatemala, *H. Hague*; Tehuantepec, *Sumichrast*; Jalapa, *Comision Geográfica-Exploradora*.

STENOSTOMA ALBIFRONS Wagler, Dum. et Bibr., vi, 327; Cope, Journ. Acad. Phila., 1875, p. 128.

Panama, *C. B. Adams*.

**Rena** Baird & Girard.

Catal. N. Amer. Rept. Serpents, 1853, p. 142; *Siagonodon* Peters, Gesellsch. d. Naturforsch. Freunde Berlin, 1881, p. 71; *Catodon* Dum. Bibr., Erp. Gén., 1844, vi, p. 318, not of Linn.

<sup>1</sup> *Cenchrus* Daud.

<sup>2</sup> *Caudisona* Fitz., Wagl. *Systrurus* Garman.

<sup>3</sup> *Caudisona* Laur. *Orotalophorus* Linn., pt., *Uropsophus* Wagl.

- RENA DUGESI Bocourt; *Siagonodon dugesi* Bocourt, Miss. Sci. au Mex., Reptiles, p. 507, pl. xxi, fig. 9; xxx, fig. 4.  
Guanajuato, *Dugés*.
- RENA HUMILIS Baird, Girard, Catal., loc. cit., p. 143; *Stenostoma humile* Cope, Check List Batr. Rept. N. Amer., p. 44.  
Lower California, *Belding*.

## EPANODONTA.

## TYPHLOPIDÆ.

**Typhlops** Schn.

Dum. et Bibr., vi, 279.

TYPHLOPS MICROSTOMUS Cope, Proc. Acad. Phila., 1866, 125.  
Yucatan, *Schott*.

TYPHLOPS BASIMACULATUS Cope, Proc. Acad. Phila., 1866, p. 320; *Typhlops perditus* Peters, Monatsber. Acad. Berlin, 1869, p. 435.  
Cordova and Orizaba, *Sumichrast*.

TYPHLOPS TENUIS Salvin, Proc. Zool. Soc. London, 1860, p. 454.  
Guatemala, *Salvin*.

**Helminthophis** Peters.

Monatsber. K., Akad. Wiss., 1860, p. 517. *Idiolyphlops* Jan, Arch. p. l. Zoölogia, i, 1861, p. 186.

HELMINTHOPHIS FRONTALIS Peters, loc. cit., fig. 1; Bocourt, Miss. Sci. Mex., 502, pl. xxx, fig. 2.  
Costa Rica, *Hoffman*.

**Liolyphlops** Peters.

Gesellsch. Nat. Freunde Berlin, 1881, 69.

LIOLYPHLOPS ALBIROSTRIS Peters, Monatsber. Berl. Akad. Wiss., 1881, p. 69; Bocourt, Miss. Sci. Mex., 501, pl. xxx, fig. 1; *Rhinolyphlops albirostris* Peters, Monatsber. Ak. Wis. Berlin, 1857, p. 402.  
Veragua, Central America, *Peters*.

**Anomalepis** Jan.

Jan et Sordelli Iconogr. des Ophidiens, 1864, p. 6.

ANOMALEPIS MEXICANUS Jan, loc. cit., pls. v, vi, fig. 1; Bocourt, Miss. Sci. Mex., 503, pl. xxix, figs. 4, 5.  
"Mexico," *Jan*.

## ASINEA.

## PYTHONIDÆ.

**Loxocemus** Cope.

Proc. Acad. Phila., 1861, pp. 76-304.

LOXOCEMUS BICOLOR Cope, loc. cit., Günther, Ann. and Mag. Nat. Hist., 1863; *Loxocemus sumichrastii* Bocourt, Journ. de Zoologie, 1876, p. 404; *Platoseryx bronni* Jan, Eleneo, 1863, p. 20; Iconographied. Ophidens 3d Liv. pl. 3.  
Guatemala, *Dow*; Tehuantepec, *Sumichrast*; Colima, *Xantus*.

## CHARINIDÆ.

**Charina** Gray.

Catal. Brit. Mus., 1849, p. 113; *Wenona* Baird, Girard, Catal. N. Am. Reptiles, Serpents, p. 139, 1853.

CHARINA BOTTÆ Blainv., Nouvelles Ann. Mus. Hist. Nat., iii, 1834, p. 57.  
Lower California, *Botta*.

## BOIDÆ.

## Lichanura Cope.

Proc. Acad. Phila., 1861, p. 304; Bocourt, Miss. Sci. Mex., p. 513.

LICHANURA TRIVIRGATA Cope, Proc. Acad. Phila., 1861, p. 304.

Lower California, *Xantus*, *Belding*.

LICHANURA MYRIOLEPIS Cope, Proc. Acad. Phila., 1868, p. 2.

Lower California, *Xantus*.

LICHANURA ROSEIFUSCA Cope, Proc. Acad. Phila., 1868, p. 2.

Lower California, *Xantus*.

## Boa Linn.

Dum. et Bibr. Erp. Gén., vii.

BOA IMPERATOR\* Daud., Dum. et Bibr., vi, p. 519; Cope, Journ. Acad. Nat. Sci. Phila., 1875, p. 130; *B. eques* "Eyd. Saul.", Cope, Proc. Acad. Phila., 1860, 243; 1866, 126; *B. ortonii* Cope, Proc. Amer. Philos. Soc., 1877, p. 19.

Costa Rica, *Gabb*; Greytown, Nicaragua, *Caldwell*; Nicaragua, *MacNiel*; Guatemala, *Dow*; Yucatan, *Schott*; Vera Cruz, *Sartorius*; Colima, *Xantus*; Jalapa and Jicaltepec, Vera Cruz, *Comision Geográfica*.

BOA ? MEXICANA Rapp, M. S., Bocourt, Mis. Sci. Mex., 521; *B. divinihoax* var. *mexicana* Jan et Sordelli, Iconogr. des Ophidiens, 1865, 82, pl. iv.

"Mexico," *Rapp*.

## Ungaliophis Müller.

Erster Nachtrag, z. Catal. Herp. Sauml. Mus. Basel, 1880, p. 26; Nomen. Katalog. Mus. Universitätskab. Verhandl. Naturforsch. Gesellsch., Basel, 1878, p. 652, description. *Peropodum* Bocourt, Miss. Sci. Mex., p. 523.

UNGALIOPHIS CONTINENTALIS Müller, loc. cit. et 1878, pl. i; *Peropodum guatemalensis* Bocourt, Miss. Sci. Mex., p. 523, pl. xxxi, fig. 5.

N. E. Guatemala, *Müller*.

## Epicrates Daudin.

Dum. et Bibr. Erp. Gén., vi, p. 552.

EPICRATES CUPREUS Fisch.; *E. concolor* Jan.

Costa Rica, *Jan*.

EPICRATES CENCHRIA Daud., Dum. et Bibr., vi, p. 555; Cope, Jour. Acad. Phila., 1875, p. 130.

Costa Rica, *Van Patten*.

\* As remarked by Bocourt, the orbital ring of scales in this species is sometimes separated from the superior labial plates by a row or two of scales, as in the *B. constrictor*. In four specimens from Colima it is so separated in three, and in two from Vera Cruz it is so separated on both sides in one, and in the other, on one side of the head and not on the other. In a specimen from Greytown, Nicaragua, referred in the Proceedings of the American Philosophical Society, 1877, p. 19, to the *B. ortonii* it is separated by two rows, and there are fifteen scales between the eyes instead of the usual number, eleven. I believe all these individuals to belong to one species, which is, as stated by Sumichrast, generally distributed in Mexico. The numbers of scuta and scales in several specimens is as follows: Greytown, scales, 69 rows; gasteosteges, 242; ? Tehuantepec, sc. 69; g. 249, mosteges, 58; Colima (four specimens), sc. 71-3-4; gasteosteges (one specimen), 242; mosteges, 58; Cordova, Vera Cruz, sc. 73; Mirador, Vera Cruz, sc. 65; g. 238; u. 53. There are then three well-defined species of Boa: the *B. constrictor*, *B. imperator*, and *B. divinihoax*. The *B. ortonii* must be referred to the *B. imperator*, and the *B. mexicana* has not yet been satisfactorily separated from the *B. divinihoax*. The *B. eques* continues to be represented by the type specimen only.



**Xiphosoma** Wagler.

Nat. Syst. Amphib., 1830, p. 167; Dum. et Bibr., vii.

XIPHOSOMA ANNULATUM Cope, Jour. Acad. Phila., 1875, p. 129, pl. xxviii, fig. 6.  
Costa Rica, *Gabb*.

XIPHOSOMA RUSCHENBERGERI Cope, loc. cit.  
Panama, *Ruschenberger*.

## NOTHOPIDÆ.

**Nothopsis** Cope.

Proc. Acad. Phila., 1871, p. 201.

NOTHOPSIS RUGOSUS Cope, loc. cit., p. 201; pl. xvii; figs. 1-7.  
Darren, *Selfridge*.

## COLUBRIDÆ.

**Leptognathus** Dum. Bibr.

Erp. Gén., vii, 456; Gthr. Catal., 1858, p. 177; Cope, Proc. Acad. Phila., 1868, 135; *Petalognathus*, *Dipsadomorus*, *Anholodon*, *Leptognathus* Dum. Bibr., vii, 1853.

LEPTOGNATHUS STRATISSIMA Cope, Proc. Amer. Philos. Soc., 1885 (nov.), p. 280 (1886).  
Panama, *Nelson*.

LEPTOGNATHUS NEBULATA Linn; *Petalognathus nebulatus* Dum. et Bibr., vii, 464; *Leptognathus* Gthr, Cope, loc. cit., 1868, p. 108; *L. nebulata* Cope, Journ. Acad. Phila., 1875, p. 131.

Nicaragua, *Caldwell*, *MacNiel*; Costa Rica, *Gabb*, *Van Patten*; Vera Cruz, Tierra caliente, *Sumichrast*; Jicaltepec, Vera Cruz, *Comision Geográfica*.

LEPTOGNATHUS ANNULATA Günther, Anu. and Mag. Nat. Hist., 1872, p. 33; Cope, Journ. Acad. Phila., 1875, p. 130.  
Costa Rica, *Günther*.

LEPTOGNATHUS ARGUS Cope, Journ. Acad. Phila., 1875, p. 130, pl. xxvii, f. 1; xxviii, f. 7.  
Sipurio, E. Costa Rica, *Gabb*.

LEPTOGNATHUS PICTIVENTRIS Cope, loc. cit., pl. xxvii, fig. 8.  
E. Costa Rica, *Gabb*.

LEPTOGNATHUS ARTICULATA Cope, Proc. Acad. Phila., 1868, 107; "*Dipsas brevis* D. & B," Cope, loc. cit., 1860, 266.  
Veragua, Costa Rica, *Mitchell*.

LEPTOGNATHUS VIGUIERI Bocourt, Bull. Soc. Philomath. Paris, 1884, March, sep., p. 4  
Darren, *Figuier*.

LEPTOGNATHUS BREVIFACIES Cope, loc. cit., 1866, 127; 1868, 108.  
Yucatan, *Schott*.

LEPTOGNATHUS SEMICINCTUS Bocourt, Bull. Soc. Philomath. Paris, March, 1884, sep., p. 7.  
Vera Paz, *Mission Scientifique*.

LEPTOGNATHUS ANTHRACOPS Cope, loc. cit., 1868, pp. 108, 136.  
Central America, *Bridges*, *Davidson*; W. Nicaragua, *MacNiel*, *Flint*.

LEPTOGNATHUS TORQUATA Cope, Proceeds. Amer. Philos. Soc., 1884, p. 72, *Dipsadomorus fasciatus* Bocourt, Bull. Soc. Philomath. Paris, 1884, March; nec *Leptognathus fasciatus* Günther, 1868.  
Yucatan, *Boucard*.

LEPTOGNATHUS BREVIS Dum. Bibr., Erp. Gén., vii, p. 476.  
"Mexico." Unknown to me.

LEPTOGNATHIUS FASCIATA Günther, Cope, loc. cit., 1868, p. 137; *Tropidodipsas fasciata* Günther, Catal. Brit. Mus., 1858; *Leptognathus dumerili* Jan, Elenco Sistemático, 1863.

Tierra caliente, Jicaltepec, Vera Cruz, *Comision Geográfica*.

LEPTOGNATHIUS SARTORII Cope, loc. cit., 1868, 137; *Tropidodipsas sartorii* Cope, loc. cit., 1863, p. 100; *Leptognathus sexacutatus* Bocourt, Bull. Soc. Philomath. Paris, March, 1884; ? *L. leucostomus* Bocourt, loc. cit.

Vera Cruz, *Sartorius*; W. Guatemala, *Bocourt*.

LEPTOGNATHIUS LEUCOSTOMUS Bocourt, Bull. de la Soc. Philomath. Paris, March, 1884, sep., p. 7.

Yucatan, *Bocourt*.

#### Mesopeltis Cope.

Proc. Acad. Phila., 1866, p. 318; *Asthenognathus* Bocourt, Bull. Soc. Philomath. Paris, March, 1884.

MESOPELTIS SANNIOLUS Cope, Proc. Acad. Phila., 1866, p. 318.

Yucatan, *Schott*.

MESOPELTIS MULTIFASCIATUS Jan, M. S.; Cope, Proc. Amer. Philos. Soc., 1884, p. 172; *Leptognathus* Bocourt, Bull. Soc. Philomath. Paris, 1884, March; *Asthenognathus* Bocourt, loc. cit.

Vera Paz, *Morelet*.

#### Sibon Fitzinger.

Neue Class. Rept., 1826, p. 60; *Leptodira* Günther, Catal. Brit. Mus., 1858, 165.

SIBON PACIFICUM Cope; *Leptodira pacifica* Cope, Proc. Acad. Phila., 1868, p. 310. Mazatlan, *Bischoff*.

SIBON MYSTACINUM Cope; *Leptodira mystacina* Cope, Proc. Amer. Philos. Soc., 1869, p. 151.

Nicaragua, *MacNiel*; West Tehuantepec, *Sumichrast*.

SIBON FRENATUM Cope, Proceeds. U. S. Nat. Museum, 1886, p. 184.

Jalapa, *Comision Geografica*.

SIBON RHOMBIFERUM Günther; *Leptodira rhombifera* Günther, Ann. and Mag. Nat. Hist., 1872, p. 32.

Guatemala, *Günther*.

SIBON NIGROFASCIATUM Günther; *Leptodira nigrofasciata* Günther, Ann. and Mag. Nat. Hist., 1868, p. 425.

Nicaragua, *Seeman*.

SIBON PERSONATUM Cope; *Leptodira personata* Cope, Proc. Acad. Phila., 1868, p. 310. Mazatlan, W. Mexico, *Bischoff*.

SIBON ANNULATUM Linn; *Dipsas* Schl.; *Leptodira* Günther.

Subspecies ANNULATUM Linn.; *Dipsas* et *Leptodira annulata* Auctorum, Cope Journ. Acad. Phila., 1875, p. 157.

Old Harbor, Costa Rica, *Gabb*.

Subspecies YUCATANENSIS Cope, Proc. Acad. Phila., 1866, p. 127.

Yucatan, *Schott*.

Subspecies SEPTENTRIONALE Kenn.; *Dipsas septentrionalis* Kennicott, U. S. Mex. Bound., Surv. Reptiles, Plate; vide Günther, Catal. Colubr. Snakes Brit. Mus., 1858, p. 166.

Panama, *Bransford*; Belize, *Parsons*; Yucatan, *Schott*; Guatemala, *Hague*; Tehuantepec, *Sumichrast*; Colima, *Xantus*; Zacualtipan Hidalgo *Cope*; Orizava, *Sumichrast*; Mirador, *Sartorius*; Tuxpan, *Lincecum*; Guadalajara, *Major*.

## Trimorphodon Cope.

Proc. Acad. Phila., 1861, p. 297.

TRIMORPHODON BISCATATUS Dum. et Bibr., Cope, Proc. Amer. Philos. Soc., 1869, p. 153; *Dipsas biscutatus* Dum. et Bibr., Erp. Gén., vii, p. 1153; *Dipsadomorphus* Günther: *Trimorphodon major*, Cope, Proc. Amer. Philos. Soc., 1869, p. 153.

Realejo, Nicaragua, *Dow*; Guadalaxara, *Major*; W. Tehuantepec, *Sumichrast*; Coban, *Hague*; Colima, *Xantus*.

TRIMORPHODON LYROPHANES Cope, Proc. Acad. Phila., 1860, p. 343.  
Cape St. Lucas, *Xantus*.

TRIMORPHODON WILKINSONII Cope, Proc. Amer. Philos. Soc., 1886, p. 285.  
City of Chihuahua, *Wilkinson*.

TRIMORPHODON LAMBDA Cope, Proc. Amer. Philos. Soc., 1886, p. 286 (November, 1885).  
Guaymas, *Emerich*.

TRIMORPHODON COLLARIS Cope, Journ. Acad. Phila., 1875, p. 131.  
Orizaba, Vera Cruz, *Sumichrast*.

TRIMORPHODON UPSILON Cope, Proc. Amer. Philos. Soc., 1869, p. 152.  
Guadalaxara, W. Mexico, *Major*; Batopilas, Chihuahua, *Wilkinson*; Guanajuato, *Dugés*; Zacualtipan, *Bernad*.

TRIMORPHODON TAU Cope, loc. cit., 1869, p. 152.  
Tehuantepec, *Sumichrast*.

## Dipsas Boie.

Isis, 1827, 549; Günther, Catal., 1858, 317; *Himantodes* Dum. et Bibr., Erp. Gén., vii, 1065.

DIPSAS LEUCOMELAS Cope; *Himantodes leucomelas* Cope, Proc. Acad. Phila., 1861, p. 296.  
Vera Cruz, *Sartorius*.

DIPSAS CENCHOA Linn., Günther, Catal., 174; Cope, Journ. Acad. Phila., 1875, p. 131; *Himantodes cenchoa* Dum. Bibr.  
Darien, *Selfridge*; Costa Rica, *Gabb*; Central Mexico, *Sartorius*; San José Acaten, Vera Cruz, *Comision Geográfica*.

DIPSAS GEMMISTRATA Cope, Jour. Acad. Phila., 1875, p. 131; *Himantodes gemmistrata* Cope, Proc. Acad. Phila., 1861, p. 296.  
San Salvador, *Dow*; Costa Rica, *Van Patten*; W. side of Tehuantepec, *Sumichrast*.  
Var. v. subspecies LATISTRATA Cope. The very numerous dorsal spots extend entirely across the back and sides.  
Valley of Toluca, *Vasquez*; Guadalajara, *Major*.

DIPSAS TENUISSIMA Cope; *Himantodes tenuissimus* Cope, loc. cit., 1866, 317.  
Yucatan, *Schott*.

## Dryophis Fitzinger.

Neue Class., 1826, p. 66; Günther, Catal., p. 158.

DRYOPHIS ACUMINATUS Wied.; Günther, Catal., p. 156; Dum. et Bibr., Erp. Gén., vii, p. 819; Cope, Journ. Acad. Phila., 1875, p. 132; *Oxybelis acuminatus* Dum. et Bibr.  
Panama, *Galler*; Veraguas, *Mitchell*; Costa Rica, *Van Patten*, *Gabb*; Nicaragua, *MacNiel*, *Braunford*; Tehuantepec (E.), *Streets*; (W.), *Sumichrast*; Tobasco, *Berendt*; Guaymas, *Stone*; San Salvador, *Dow*; Tuxpau, *Linneum*; Coatzacoalcas River, *Streets*.

DRYOPHIS BREVIROSTRIS Cope, Proc. Acad. Phila., 1860, p. 555; Journ. Acad. Nat. Sci. Phila., 1875, pl. xxvi, fig. 2.  
Veragua, *Mitchell*; Costa Rica, *Van Patten*, *Gabb*.

DRYOPHIS FULGIDUS Daudin; Günther, Catal., p. 158.  
Panama, *Lecote*; San Salvador, *Dow*; Tehuantepec, *Sumichrast*.

**Philothamnus** Smith.

*Rhanocephalus* Günther.

PHILOTHAMNUS ÆRUGINOSUS Cope; *Leptophis aruginosus* Cope, Journ. Acad. Phila., 1875, p. 132, pl. xxviii, fig. 9.

Costa Rica, *Gabb*.

PHILOTHAMNUS MODESTUS Günther; *Ahatulla modesta* Günther, Ann. and Mag. Nat. Hist., 1872, p. 26.

Guatemala, *Günther*.

PHILOTHAMNUS DEPRESSIROSTRIS Cope, Proc. Acad. Phila., 1860, p. 557.

Cocuyas de Veraguas, *Mitchell*.

**Hapsidophrys** Fischer.

HAPSIDOPHRYS MEXICANUS Dum. et Bibr., Cope, Proc. Amer. Philos. Soc., 1885, p. 382; *Leptophis mexicanus* Dum. et Bibr. Erp. Gén., vii, 536; *Ahatulla mexicana* Günther, Catal., 1858, p. 154; Cope, Journ. Acad. Phila., 1875, p. 133.

Costa Rica (valley), *Van Patten*; Nicaragua, *Bransford*, *MacNeil*; Honduras, *Leconte*; Yucatan, *Schott*; Belize, *Parsons*; Northern Mexico, Vera Cruz, *Sumichrast*, *Mision Geográfica*.

HAPSIDOPHRYS DIPLTROPIS Günther; *Ahatulla diplotropis* Günther, Ann. and Mag. Nat. Hist., 1872, p. 25.

Tehuantepec, *Sumichrast*.

HAPSIDOPHRYS SATURATUS Cope; *Leptophis saturatus* Cope, Journ. Acad. Phila., 1875, p. 133, pl. xxviii, fig. 10.

Costa Rica, *Gabb*; Nicaragua, *Bransford*.

**Leptophis** Bell.

Zool. Journ. 1825, pt., Dum. et Bibr., 1853; *Thrasops* Hallowell, Proc. Acad. Phila. 1857; *Ahatulla* Günther, Catal., 1858, p. 151; not of Gray, 1825.

LEPTOPHIS BILINEATUS Günther; *Diplotropis bilineatus* Günther, Ann. and Mag. Nat. Hist., 1872, p. 25.

Nicaragua, *Bransford*; Tehuantepec, *Sumichrast*.

LEPTOPHIS OCCIDENTALIS Günther; *Ahatulla occidentalis* Günther, Proc. Zool. Soc. London, 1859, p. 412.

Darien, *Selfridge*; Panama, *Leconte*.

LEPTOPHIS SARGII Fischer, Archiv. f. Naturgesch., xlvii, 1881 (separate, p. 7), pl. xi, figs. 7-9.

Coban, *Sarg*.

LEPTOPHIS PRÆSTANS Cope, Journ. Acad. Phila., 1875, p. 133; *Thrasops præstans* Cope, Journ. Acad. Phila., 1863, p. 309.

E. Costa Rica, *Gabb*; Guatemala, *Hague*.

**Drymobius** Cope.

Proc. Acad. Phila., 1860, p. 560; Proc. Amer. Philos. Soc., 1877, p. 19; *Dendrophidium* Cope, Proc. Acad. Phila., 1860, p. 561; *Coluber* Wagler, Nat. Syst. Amphib., 1830, p. 179; Duméril, Prodrome, 1853, 59 partim; nec Laurentii.

DRYMOBIUS CHLOROTICUS Cope; *Dendrophidium chloroticum* Cope, Proc. Amer. Philos. Soc., 1886, p. 278.

Coban, Guatemala, *Hague*.

- DRYMOBIUS DENDROPHIS Schleg.; *Herpetodryas dendrophis* Schlegel, Essai sur la Physiologie des serpents, ii, p. 197, Dum. et Bibr., vii, 208; *H. poitei* Dum. et Bibr.; *H. nuchalis* Peters, fide Günther; *Dendrophidium dendrophis* Cope, Proc. Acad. Phila., 1860, p. 561.  
Guiana, Auctorum citatorum; Nicaragua, *Bransford*.
- DRYMOBIUS ALTERNATUS Bocourt; *Coryphodon alternatus* Bocourt, Bull. Soc. Philomath. Paris, March, 1884.  
Darieu, *Viguier*.
- DRYMOBIUS BODDERTII Seetzen; Cope, loc. cit., 1860, 561, Journ. Acad. Phila., 1875, p. 135; *Herpetodryas boddartii* Dum. et Bibr., vii, p. 210, Günther.  
Panama, *Nelson*; Veragua, *Mitchell*; Costa Rica, *Van Patten, Gabb*; Nicaragua, *Moser, MacNiel*; Jalapa, *Montes-DeOca*; Tuxpan, *Linneecum*; Actopam, *Comision Geografica*.
- DRYMOBIUS MELANOLOMUS Cope, Proc. Acad. Phil., 1868, 134; *Masticophis bilineatus* Schlegel, Cope, loc. cit., 1866, p. 127, nec Schlegelii.  
Yucatan, *Schott*.
- DRYMOBIUS BILINEATUS Schlegel; *Herpetodryas bilineatus* Schlegel, Jan. Elenco Systematico, p. 81; Icono. Gén., tab.  
"Mexico," *Jan.*'
- DRYMOBIUS PULCHERRIMUS Cope, Proc. Acad. Phila., 1874, p. 65.  
Western Central America, *Davidson*; West Nicaragua, *Flint*.
- DRYMOBIUS LEVIS Fischer; *Herpetodryas levis* Fisch., Archiv f. Naturgeschichte, 1881, pl. xi, figs. 4-6.  
Coban, *Sarg*.
- DRYMOBIUS MARGARITIFERUS Schlegel, Cope, Proc. Amer. Philos. Soc., 1877, p. 19; *Herpetodryas margaritiferus* Schlegel, Essai s. Phys. Serpents, ii, p. 184; *Dromicus* Günther; *Masticophis* Cope.  
Panama, *Leconte*; Costa Rica, *Gabb*; Belize, *Parsons*; Guatemala, *Hague, Van Patten, Berendt*; Tehuantepec, *Sumichrast* (West) *Streets* (East); Tobasco, *Berendt*; Table land of Mexico, *Sartorius*; Colima, *Xantus*; Tuxpan, *Linneecum*; Misantla, San José, Vera Cruz, *Comision Geográfica*; Coatzacoalcas, R., *Streets*; Zacualtipan, *Bernad*.

#### Herpetodryas Boie.

- Isis, 1827; Cope, Proc. Acad. Phila., 1860, p. 563.
- HERPETODRYAS CARINATUS Linn., Dum. Bibr., vii, p. 207; Cope, Journ. Acad. Phila., 1875, p. 135.  
Low country of E. Costa Rica, *Gabb*; San José, *Van Patten, Zeledon*; Darieu, *Selfridge*.
- HERPETODRYAS FUSCUS Duméril et Bibron, Erp. Gén., vii, p. 209.  
Darieu, *Selfridge*.
- HERPETODRYAS MELAS Cope, Proc. Amer. Philos. Soc., 1885, November, 1885, p. 278.  
Nicaragua, *Bransford*.
- HERPETODRYAS GRANDISQUAMIS Peters; *Spilotes grandisquamis* Pet., Monatsber. k. Akad. Preuss., 1868, p. 451; *H. grandisquamis* Cope, Journ. Acad. Phila., 1875, p. 135.  
Costa Rica, *Gabb*.

#### Basanium Baird and Girard.

- Catal. Serp. N. A., 1853, p. 93; *Coryphodon* Dum. et Bibr., Erp. Gén., vii, p. 178, nec *Oweni*; *Coluber* Dum., Prodrome, 1853, p. 59, partim; Garman; nec, *Laurentii*; *Masticophis* Baird and Girard, Catal. Serp. N. A., 1853, p. 98.



- BASCANIUM MENTOVARIUM Dum. et Bibr.; *Coryphodon mentovarium* Dum. et Bibr., Erp. Gén., vii, p. 187; *B. suboculare* Cope, Proc. Acad. Phila., 1866, p. 319. Guatemala, *Hague*; Tehnantepec, *Sumichrast*; Colima, *Xantus*.
- BASCANIUM FLAGELLIFORME Catesb.  
Subspecies TESTACEUM Say; Baird and Girard, Catal., pp. 99, 159.  
Lower California, *Xantus*; Guadalupe, *Major*; City of Chihuahua, *Wilkinson*.
- BASCANIUM AURIGULUM Cope, Proc. Acad. Phila., 1861, p. 301.  
Cape St. Lucas, Lower California, *Xantus*.
- BASCANIUM TENIATUM Hallowell; Cope, Check-list Batr. Rept., N. Amer.; *Leptophis taniata* Hallowell, Proc. Acad. Phila., vi, 1862, p. 181.  
Subspecies LATERALE Hallowell; *Leptophis lateralis* Hallowell, Proc. Acad. Phila., 1853, U. S. Pac. R. R. Surv. and Williamson's Report, Rept., p. 13, pl. iv, fig. 3.  
Guajuato, *Dugés*; City of Chihuahua, *Wilkinson*.

**Elaphis** Aldrov.

- Günth. emend. Catal. Brit. Mus., 1858, p. 92.
- ELAPHIS MELANOTROPIS Cope; *Dendrophidium melanotropis* Cope, Journal Acad. Phila., 1875, p. 134, pl. xxxi, fig. 7.  
E. Costa Rica, *Gabb*.

**Natrix** Laurenti.

- Specimen Synopsis Reptilium 1768, p. 63; Cope emend., Proc. Acad. Phila., 1862, p. 338; *Calopeltis* Bonap. Mem. Real. Acad. Sci. Torin. (2) II, 431, 1840; *Coluber* Günther, Catal. Brit. Mus., 1858, 87; *Scotophis* Baird and Girard, Catal. Serp. N. Amer., 1853, p. 73.
- NATRIX EMORYI Bd. Gird.; *Coluber emoryi* Baird and Girard, Cope, Check-list Batr. Rept. N. Amer., 1875, p. 39; Proc. Amer. Philos. Soc., 1855, p. 284; *Scotophis emoryi* Baird and Girard, Catal. Rept. N. Amer., i, Serpents, p. 157.  
City of Chihuahua, *Wilkinson*.
- NATRIX FLAVIRUFUS Cope; *Coluber flavirufus*, Proc. Acad. Phila., 1866, p. 319.  
Yucatan, *Schott*; Tobasco, *Berendt*; Mirador, Vera Cruz, *Sartorius*; Chiapas, *Montes-de-Oca*.
- NATRIX MUTABILIS Cope; *Coluber mutabilis* Cope, Proc. Amer. Philos. Soc., 1854, p. 175.  
Costa Rica, *Zeledon*; Vera Paz, *Hague*; Central Tehuantepec, *Sumichrast*; Guajuato, *Dugés*.
- NATRIX TRIASPIS Cope; *Coluber triaspis*, Proc. Acad. Phila., 1866, p. 128.  
Belize, *Parsons*.

**Spilotes** Wagler.

- Nat. Syst. Amphib., 1830, p. 179. *Georgia* Baird and Gird., 1853.
- SPILOTES LUNULATUS Cope; *Tropidodipsas lunulatus* Cope, Proc. Acad. Phila., 1860, p. 517; *Phrynonax lunulatus* Cope, loc. cit., 1862, p. 348.  
Honduras, *Rüse*; Orizaba, *Sumichrast*.
- SPILOTES CHRYSOBRONCHUS Cope, Journ. Acad. Phila., 1875, p. 136, pl. xxviii, fig. 11, Costa Rica, *Gabb*.
- SPILOTES PECILONOTUS Günther, Catal., p. 100.  
"Honduras," *Günther*; Orizaba, *Sumichrast*.
- SPILOTES AURIBUNDUS Cope; *S. pullatus auribundus* Cope, Proc. Acad. Phila., 1861, p. 300; *S. salvinii* Gthr., Ann. and Mag. Nat. Hist., 1862, Jan.  
Nicaragua, *MacNiel*; Yucatan, *Schott*; Vera Cruz, *Sartorius*.
- SPILOTES PULLATUS Linn.; *S. variabilis* Wied., Dum. et Bibr., vii, p. 220; *S. pullatus* Cope, Journ. Acad. Phila., 1875, p. 135.  
Darlen, *Selfridge*; Nicaragua, *Bransford*; Costa Rica, *Gabb*.

- SPILOTES CORAIS** Cuvier; *Coluber corais* Cuvier; *Spilotes corais* Dum. Bibr., vii, p. 223; Günther, Catal., 1858, p. 98; Cope, Journ. Acad. Phila., 1875, p. 157.
- Subspecies **MELANURUS** Dum. et Bibr.; *Spilotes melanurus* Dum. et Bibr., vii, 224. Panama, *Bransford*; San José and Talamanca, Costa Rica, *Gabb*; W. Tehuantepec, *Sumichrast*; Yucatan, *Schott*; Tuxpan, *Lincecum*; Colima, *Xantus*; Vera Cruz (Mirador), *Sartorius*; Belize, ?
- Subspecies **EREBENNUS** Cope, Journ. Acad. Phila., 1875, p. 135; *Spilotes ercbennus* Cope, Proc. Acad. Phila., 1860, p. 564.
- Guanajuato, *Dugés*; Jalapa, *Comision Geográfica*.
- SPILOTES DEPPEI** Dum. Bibr.; *Elaphis deppei* Dum. et Bibr., vii, 268; *Arizona jani* Cope, Proc. Acad. Phila., 1860, p. 369; *Pityophis deppei* Jan.
- Buena Vista, *Couch*; Guanajuato, *Dugés*; San José Acateno, Vera Cruz, *Comision Geográfica*.
- SPILOTES LINEATICOLLIS** Cope; *Arizona lineaticollis* Cope, loc. cit., 1861, p. 300.
- Southern Mexican Plateau, *Sartorius*.
- Rhinechis** Micahelles.
- Dum. Bibr. Erp. Gén., vii, p. 227; Günther, Catal. Brit. Mus., 1868, p. 85; *Arizona* Kennicott, U. S. Mex. Bound. Surv., ii, Reptiles, p. 18, 1859.
- RHINECHIS ELEGANS** Kennicott; Cope, Proc. Amer. Philos. Soc., 1885, p. 284; *Arizona elegans* Kenn., loc. cit., p. 18, pl. 13; *Pityophis elegans* Cope, Check-list Batr. Rept. N. Amer., p. 39.
- City of Chihuahua, *Wilkinson*.
- Pityophis** Holbrook.
- N. Amer. Herp., 1842, iv, p. 7; Cope, Check-list Batr. Rept. N. Amer., 1859.
- PITYOPHIS VERTEBRALIS** Blainville, Cope, Check-list Batr. Rept. N. Amer., 1875, 39; *P. hamatois* Cope, Proc. Acad. Phila., 1860, p. 342.
- Cape St. Lucas, Lower California, *Xantus*.
- PITYOPHIS SAYI** Schleg.
- Subspecies **MEXICANUS**; *Pityophis mexicanus* Dum. et Bibr., vii, p. 236.
- Colima, *Xantus*; City of Chihuahua, *Wilkinson*.
- Salvadora** Baird and Girard.\*
- Catal. Serp. N. Amer., 1853, p. 104, nec. Linnæi; hinc *Phimothyra* Cope, Proc. Acad. Phila., 1860, 566.
- SALVADORA MEXICANA** Dum. et Bibr.; Günther, Am. Mag. Nat. Hist. 1863, xii, 349. *Zamenis mexicanus* Dum. et Bibr., Erp. Gén., vii, p. 695; *Lytorhynchus mexicanus* Cope, Proc. Amer. Philos. Soc., 1879, 266.
- Colima, *Xantus*.
- SALVADORA BAIRDII** Jan; *Salvadora bairdii* Jan, Iconografia degli Ofidi., tab. iii, fig. 2; *Phimothyra bairdi* Cope.
- Jalapa, *Pease*; Guanajuato, *Dugés*; Orizaba and W. Tehuantepec, *Sumichrast*; S. of Chihuahua, *Potts*.
- SALVADORA GRAHAMLE** Baird and Girard, Catal., p. 104; *Phimothyra grahamiæ* Cope. Lower California, *Xantus*; Guaymas, *Cragin*; Batopilas, and Chihuahua, *Wilkinson*.
- SALVADORA DECURTATA** Cope; *Phimothyra decurtata* Cope, Proc. Acad. Phila., 1868, p. 310.
- Lower California, *Xantus*, *Belding*.

\* The name *Salvadora* was given by Linnæus to a genus of plants, hence I gave the present genus another name, as above cited. However, I think that while duplication of names in zoology is inadmissible, it is not necessary to require that names used in the vegetable kingdom should always differ from those given to animals. I therefore now use the name of Baird and Girard.

**Symphimus** Cope.

Proc. Amer. Philos. Soc., 1869, p. 150.

SYMPHIMUS LEUCOSTOMUS Cope, loc. cit., 1869, p. 150.

Tehuantepec, *Sumichrast*.

**Helicops** Wagler.

Dum. Bibr., Erp. Gén.

HELICOPS BIFRENATUS Bocourt, Bullet. Soc. Philomath. Paris, 1884, March.

Darien, Aspinwall, *Tombe*.

**Tropidonotus** Kuhl.

Isis von Oken, 1826, 205; *Nerodia*, Baird and Girard, Catal.

TROPIDONOTUS RHOMBIFER Hallowell; Cope, Check-List Batr. Rept. N. Amer., p. 43;

*Nerodia holbrookii* Bd. Girard, Catal.

Misantla, Vera Cruz, *Comision Geográfica Exploradora*.

**Eutænia** Baird and Girard.

Catal., p. 24; *Thamnophis* Fitz. (nomen nudum), Cope.

EUTÆNIA MELANOGASTER Wiegmann, Cope, Proc. Amer. Philos. Soc., 1885, p. 386;

*Tropidonotus melanogaster* Peters, Monatsber. Preuss. Akad., 1864, p. 389.

Guanajuato, *Dugés*; City of Mexico, *Cope*.

EUTÆNIA MULTIMACULATA Cope, Proc. Amer. Philos. Soc., November, 1885, 1886,

p. 284; *Atomarchus multimaculatus* Cope, American Naturalist, 1883, p. 1300.

City of Chihuahua, *Wilkinson*.

EUTÆNIA PHENAX Cope, Proceed. Acad. Phila., 1868, p. 134.

Cordova, Vera Cruz, *Sumichrast*, *Dugés*.

EUTÆNIA SCALARIS Cope; *Thamnophis scalaris* Cope, loc. cit., 1860, 369.

Jalapa, *Montes de Oca*, *Flohr*; Orizaba, *Sumichrast*, *Dugés*; Teziutlan, Puebla, and San José Acateno, Vera Cruz, *Comision Geográfica Exploradora*.

EUTÆNIA SUMICHRASTI Cope, loc. cit., 1866, 306; Proceeds. Amer. Philos. Soc., 1884,

p. 174.

Orizaba, *Sumichrast*; Zacualtipan, Hidalgo, *Bernad*.

EUTÆNIA CHRYSOCEPHALA Cope, Proc. Amer. Philos. Soc., 1884, p. 173.

Orizaba, Vera Cruz, *Sumichrast*.

EUTÆNIA CYRTOPSIS Kenn., Proc. Acad. Phila., 1860, p. 333.

Rinconada, Coahuila, *Couch*; Durango, *Couch*; Gila River, *Webb*; Guaymas, *Crugin*; Lower California, *Xantus*; City of Chihuahua, *Wilkinson*.

EUTÆNIA COLLARIS Jan, Iconographie Générale des Ophidiens, livr. 25, pl. 5, fig. 2;

*Eutænia cyrtopsis* Kenn., Cope, Proc. Amer. Philos. Soc., 1879, p. 266.

Guanajuato, *Dugés*; Orizaba, *Sumichrast*; Toluca, *Vasquez*; Guatemala, *Van Patten*; Zacualtipan, *Bernad*.

Perhaps the same as *E. cyrtopsis*.

EUTÆNIA PULCHRILATUS Cope, Proc. Amer. Phil. Soc., 1884, p. 174.

? Guanajuato, *Dugés*; Mexico, *Hoege*; Zacualtipan, Hidalgo, *Bernad*; Puebla, *Comision Geográfica*.

EUTÆNIA INSIGNIARUM Cope, Proc. Amer. Philos. Soc., 1884, p. 172.

Valley of Mexico, *Cope*, *Herrera*; Guanajuato, *Dugés*.

EUTÆNIA FLAVILABRIS\* Cope, Proc. Acad. Phila., 1866, p. 306; Proc. Amer. Philos. Soc., 1884, p. 173.

Vera Cruz, *Sartorius*; Guanajuato, *Dugés*; Mexico or Toluca, *Hoege*; Acateno, Vera Cruz, *Comision Geográfica*.

\* This species is very near to the next, possibly identical.

- EUTENIA MACROSTEMMA Kennicott, Proc. Acad. Phila., 1860, p. 331, loc. cit., 1866, p. 307.  
City of Mexico, *Rich*.
- EUTENIA MEGALOPS Kennicott, Proc. Acad. Phila., 1860, p. 330; Cope, Proc. Amer. Philos. Soc., 1884, p. 173, 1886.  
City of Chihuahua, *Wilkinson*.
- EUTENIA RUTILORIS Cope, Proc. Amer. Philos. Soc., 1885, p. 388.  
Cozumel Island, *Ridgway*.
- EUTENIA PROXIMA Say, Baird and Girard, Catal., p. 25.  
Tuxpan, Vera Cruz, *Sartorius*; Orizaba, and Tehuantepec west side, *Sumichrast*.

**Regina Baird and Girard.**

- Catal. Serp. N. Am., 1853, p. 45; *Tretanorhinus* Dum. Bibr., Erp. Gén., vii, p. 348.
- REGINA NIGROLUTEA Cope; *Tretanorhinus nigroluteus* Cope, Proc. Acad. Phila., 1861, p. 298; *Helicops agassizi* Jan, Eleuco Sistematico, and Iconografía Gén., 1863, p. 76.  
Nicaragua, east coast, *Caldwell*, *Moser*.
- REGINA DIMIDIATA Boie; *Tropidonotus dimidatus* Boie, Isis, 1827, p. 535; Cope, Proc. Acad. Phila., 1861, p. 297.  
Jalapa, *Pease*.
- REGINA MESOMELANA Jan; *Tropidonotus mesomelanus* Jan, Eleuco Sistematico, 1863, p. 73; *T. grahami* Günther, Catal. Serp. Brit. Mus., p. 78, pars.  
Guanajuato, *Dugés*; Jicaltepec, Vera Cruz, *Comision Geográfica*.
- REGINA VALIDA Kennicott.  
Subspecies VALIDA Kennicott, Proc. Acad. Phila., 1860, p. 334.  
Durango, *Couch*; Lower California, *Xantus*; Colima, *Xantus*; San Blas, *Dugés*.  
Subspecies CELAENO Cope; *Tropidonotus celawno* Cope, Proc. Acad. Phila., 1860, p. 341.  
Cape St. Lucas, Lower California, *Xantus*.
- REGINA QUADRISERIALIS Fischer; *Tropidonotus quadriseriatis* Fischer, Verhandl. d. Naturwiss. ver. Hamburg, 1879, p. 82, pl. i, fig. 2.  
Mazatlan, *Burghard*.

**Ninia Baird and Girard.**

- Catal. Serp., 1853, Jan; *Streptophorus* Dum. et Bibr., 1853, vii, p. 514.
- NINIA DIADEMATA Baird and Girard, loc. cit., 1853, p. 468; *Streptophorus bifasciatus* Duméril, Prodr. Class. Rept. Ophid., t. xxiii, 1853, p. 468; *Id.*, Dum. Bibr., Erp. Gén., vii, 1854, p. 514; *Ninia diademata* Cope, Proc. Acad. Phila., 1860, p. 340; *S. bifasciatus* Jan, Arch. Zool., ii, fasc. i, 1862, p. 26; Bocourt, Miss. Sci. au Mexique, iii, p. 545, pl. xxxii, figs. 10-10a, 10b.  
Vera Cruz, *Sartorius*; Orizaba, *Sumichrast*; Jalapa, *Montes de Oca*, *Flohr*; Zacualtipan, *Bernad*.
- NINIA ATRATA Hallowell; *Coluber atratus* Hallowell, Proc. Acad. Phila., 1845, p. 245; *Streptophorus scbae* Dum. Bibr., Erp. Gén., vii, 1854, p. 515.  
Subspecies TESSELATA Cope, Journ. Acad. Phila., 1875, p. 145.  
E. Costa Rica, *Gabb*.  
Subspecies SEBÆ Dum. Bibr., loc. cit., vii, p. 515.  
Eastern Mexico, Tehuantepec, *Sumichrast*; Peten, *Berendt*; Coban, *Hague*.  
Subspecies COLLARIS Jan, Arch. Zool., vol. ii, fasc. i, 1862, p. 27.  
Mexico and Guatemala generally.  
Subspecies DORSALIS Bocourt, Miss. Sci. au Mex., iii, p. 547.  
Belize, *Bocourt*.  
Subspecies ATRATA Hallowell, Proc. Acad. Phila., 1845, p. 245.  
Darren, *Selfridge*; Vera Paz, *Bocourt*.  
Subspecies MACULATA Peters; *Streptophorus maculatus* Peters, Monats. Akad. Berl., 1861, p. 924.  
Costa Rica, *Gabb*.



NINIA LABIOSA Bocourt; *Streptophorus labiosus* Bocourt, Miss. Sci. au Mexique, 550 pl. xxxii, fig. 6.

Guatemala, *Bocourt*.

**Chersodromus Reinhardt.**

Vidensk. Medd. Naturhist. For. Kjobnhavn, 1860, p. 242; *Opisthodon* Peters, Monatsber. Berl. Akad. Wiss., 1861, p. 460.

CHERSODROMUS LIEBMANNI Reinhardt, loc. cit., p. 243; *Opisthodon torquatus* Peters, loc. cit.

Vera Cruz, *Sartorius*; Huanusco, *Peters*.

CHERSODROMUS NIGRICANS Kroyer, loc. cit., 245.

"Mexico."

**Tropidoclonium Cope.**

Proc. Acad. Phila., 1860, p. 76; *Microps* Hallowell, 1856, nec., p. 265, Megerlei.

TROPIDOCLONIUM STORERIOIDES Cope, loc. cit., 1865, p. 190.

Plateau, Southern Mountains, *Sartorius*.

**Adelophis Dugés.**

Proc. Amer. Philos. Soc., 1879; p. 265.

ADELOPHIS COPEI Dugés, Proc. Amer. Philos. Soc., 1879, p. 266; *Storeria copei* Garman, Serpents of N. America, in Memoirs Mus. Comp. Zoölogy, Cambridge, 1883.

Guadalaxara, *Dugés*.

**Storeria Baird and Girard.**

*Ischnognathus* Dum. Bibr., Erp. Gén.

STORERIA DEKAYI Holbrook; Baird and Girard, Catal., 135.

Guanaajuato, *Dugés*; Jicaltepec, Vera Cruz, *Comision Geográfica*.

STORERIA TROPICA Cope, Proc. Amer. Philos. Soc., 1884, p. 175.

Vera Paz, *Hague*.

STORERIA OCCIPITOMACULATA Storer; Baird and Girard, Catal., p. 137.

Zacualtipan, Hidalgo, *Bernad*.

**Amastridium Cope.**

Proc. Acad. Phila., 1860, p. 370.

AMASTRIDIDIUM VELIFERUM Cope, loc. cit.

Veraguas, *Mitchill*.

**Hydrocalamus Cope.**

Proc. Amer. Phil. Soc., 1884, p. 176.

HYDROCALAMUS QUINQUEVITTATUS Dum. Bibr.; Cope, Proc. Amer. Philos. Soc., 1884, p. 176; *Homalopsis quinquevittatus* Dum. Bibr., Erp. Gén., vii, p. 975; *Calopisma quinquevittatus* Jan, Elenco, p. 75; *Hydrops lubricus* Cope, Proc. Acad. Phila., 1871, p. 217.

E. Tehuantepec, *Streets*; Vera Paz, *Dum. Bibr*.

**Limnophis Günther.**

Ann. Mag. Nat. Hist., 1865, February.

LIMNOPHIS SEPTENVITTATUS Fischer; Cope, Proc. Amer. Philos. Soc., 1884, p. 177

*Calopisma septemvittata* Fischer, Verhand. Nat.-wiss. Verein, Hamburg, 1879, p. 84, pl. i, fig 3.

"Mexicc," *Fischer*.



**Hydromorphus** Peters.

Monatsber. K. Preuss. Akad., 1859, p. 276.

HYDROMORPHUS CONCOLOR Peters, loc. cit., 277.

Costa Rica, *Hoffmann*.

**Scytale** Boie.

Dum. Bibr., Günther.

SCYTALE CORONATUM Schneider, Dum. Bibr., vii, 999.

Subspecies CORONATUM Dum. Bibr.

Panama, *Sternberg*.

**Oxyrrhopus** Wagler.

Nat. Syst. Amphib., 1830, p. 185; *Idem et Brachyrhyton* Dum. Bibr. Erp. Gén., vii, p. 1002.

OXYRRHOPUS DOLIATUS Dum. Bibr., Erp. Gén., vii, p. 1020; *Oxyrrhopus petolaris* Linn, Cope, Journ. Acad. Phila., 1875, p. 132 (not of Dum. Bibr.).

Subspecies SEMICINCTUS Cope; the bands not extending on the belly.

East Costa Rica, *Gabb*.

OXYRRHOPUS OCCIPITOLUTEUS Dum. Bibr., vii, p. 1009.

Darien, *Selfridge*.

OXYRRHOPUS CLELIA Linn.; *Brachyrhyton clelia* Dum. Bibr.; *Scolecophis scytalinus* Cope, Proc. Acad. Phila., 1866, p. 320.

Panama, *Gallaer*; Veraguas, *Mitchell*; Tehuantepec, *Sumichrast*; Yucatan, *Schott*; Darien, *Selfridge*.

OXYRRHOPUS PLUMBEUS Wied; Günther, Catal. Col. Snakes in Brit. Mus., 1858, p. 189; Cope, Journ. Acad. Phila., 1875, p. 131; *Brachyrhyton plumbeum* Dum. Bibr., Erp. Gén., viii.

Costa Rica, *Gabb*; Tehuantepec, *Streets*.

**Xenodon** Boie.

Isis von Oken, 1827.

XENODON ANGUSTIROSTRIS Peters, Monatsber. Preuss. Akad., 1864, p. 390; Cope, Journ. Acad. Phila., 1875, pp. 107-141.

Panama, *Leconte*; Costa Rica, *Gabb*; Panama, *Bransford*; Guatemala, *Hague*.

**Tomodon** Dum. et Bibr.

Erp. Gén., vii, p. 932.

TOMODON STRIGATUS Günther, Catal. Col. Brit. Mus., 1858, p. 52.

Nicaragua, *Günther*.

**Manolepis** Cope.

Proc. Amer. Philos. Soc., 1884, p. 176.

MANOLEPIS NASUTUS Cope, Proc. Amer. Philos. Soc., 1884, p. 176; *Tomodon nasutus* Cope, Proc. Acad. Phila., 1864, p. 166; *Sumichrast*, Arch. del. Science Bibl. Univers. 1872, 262; *Bocourt*, Journal de Zoologie 1876, p. 24.

Pacific coast at Tehuantepec, *Sumichrast*; Colima *Xantus*.

**Conophis** Peters.

Monatsber. K. Akad. Berlin, 1860, p. 521.

CONOPHIS VITTATUS Peters, Monatsber. Akad. Preuss., 1860, p. 519.

Guatemala, *Dow*.

CONOPHIS SUMICHRASTI Cope, Journ. Acad. Phila., 1875, p. 137.

Subspecies SUMICHRASTII Cope, loc. cit.

Guadalaxara, *Major*; W. Tehuantepec, *Sumichrast*.

Subspecies VIDUUS Cope, loc. cit.

W. Tehuantepec, *Sumichrast*.

CONOPHIS CONCOLOR Cope, Proc. Acad. Phila., 1866, p. 318; Journ. Acad. Phila., 1875, p. 137.

Yucatan, *Schott*.

CONOPHIS PULCHER Cope, Proc. Acad. Phila., 1868, p. 308; Journ. Acad. Phila., 1875, p. 137.

Vera Paz, *Hague*; Chiapas, *Montes de Oca*.

CONOPHIS LINEATUS Dum. et Bibr.; *Tomodon lineatus* Dum. et Bibr., Erp. Gén., vii, 936; *Conophis lineatus* Cope, Proc. Acad. Phila., 1871, p. 204; Journ. Acad. Phila., 1875, p. 137.

San José, Costa Rica, *Fan Patten*; Nicaragua, *MacNiel*.

### Erythrolamprus Boie.

Isis von Oken, 1826, p. 981; *Coniophanes* Hallowell, Proc. Acad. Phila., 1860, p. 484; Cope, loc. cit., 1860, p. 248; *Glaphyrophis* Jan, 1863, Elenco Syst. Ophid., p. 54.

ERYTHROLAMPRUS PICEIVITTIS Cope; *Coniophanes piceivittis* Cope, Proc. Amer. Philos. Soc., 1869, p. 149; *Tachymenis teniata* Peters, Monats. Preuss. Akad., 1869, p. 876; *T. piceivittis* Günther, Ann. and Mag. Nat. Hist.

Chihuitan, Western Tehuantepec, *Sumichrast*.

ERYTHROLAMPRUS IMPERIALIS Baird, Girard; *Coniophanes imperialis* Cope, Proc. Acad. Phil., 1861, p. 74; *Toniophis imperialis* Baird and Girard, U. S. & Mex. Bound. Surv., ii, Rept., 23, tab. 19, fig. 1; *Rhadinea imperialis* Cope, *lapsu calami*, Proc. Amer. Philos. Soc., 1885, p. 382.

Tuxpau, *Linnecum*; Jicaltepec, Vera Cruz, *Mision Geográfica*.

ERYTHROLAMPRUS PROTEROPS Cope; *Coniophanes proterops* Cope, Proc. Acad. Phila., 1860, 249; *Glaphyrophis lateralis* Jan, Elenco Sist. degli. Ophid. and Archiva, p. 1. Zoologia, 1863, p. 94.

Coban, Guatemala, *Hague*; Tehuantepec, *Sumichrast*; Jalapa, *Montes de Oca*; Orizaba, *Sumichrast*.

ERYTHROLAMPRUS FISSIDENS Günther; *Coronella fissidens* Günther, Catal. Brit. Mus., 1858, p. 36; *Coniophanes fissidens* Cope, loc. cit., 1860, p. 248; Journ. Acad. Phila., 1875, p. 137.

Costa Rica, *Gabb*; Western Tehuantepec, *Spear*, *Sumichrast*; Mirador, Vera Cruz, *Sartorius*; Orizaba, *Sumichrast*; Coatzacoalcos, R., *Streets*; Arroyo del Potrero, Vera Cruz, *Comision Geográfica*.

ERYTHROLAMPRUS VIOLACEUS Hallowell; *Coniophanes violaceus* Hallowell, Proc. Acad. Phila., 1860, p. 484.

Nicaragua, *Stimpson*.

ERYTHROLAMPRUS BIPUNCTATUS Günther; *Coronella bipunctata* Günther, Catal., p. 36; *Coniophanes bipunctatus* Cope, Proc. Acad. Phila., 1866, p. 128; *Glaphyrophis pictus* Jan, Arch. p. Zoologia, 1863, p. 95.

Belize, *Parsons*; Orizaba, Vera Cruz, and W. Tehuantepec, *Sumichrast*; Guatemala, *Hague*.

ERYTHROLAMPRUS PUNCTIGULARIS Cope; *Coniophanes punctigularis* Cope, loc. cit.; 1860, p. 248; *Dromicus chitalonensis* Müller, Anmerkungen über Herp. Saml. Basel, p. 29.

Honduras, *Gallaër*; Guatemala, *Bernouilli*; Chiapas, *Montes de Oca*.

ERYTHROLAMPRUS MELANOCEPHALUS Peters, Monatsb. Preuss. Akad., 1869, p. 876.  
"Mexico," *Peters*.

ERYTHROLAMPRUS LATERITIUS Cope; *Coniophanes lateritius* Cope, Proc. Acad. Phila., 1861, p. 524.  
Guadalajara, *Major*.

ERYTHROLAMPRUS VENUSTISSIMUS Schlegel; *Coronella venustissima* Schlegel, Essai, ii, p. 53; *Erythrolamprus venustissimus* Dum. et Bibr., Erp. Gén., viii, p. 581, pl. 74; Cope, Journ. Acad. Phila., 1875, p. 141.  
Costa Rica, *Gabb*, *Van Patten*.

#### Hypsiglena Cope.

Proc. Acad. Phila., 1860 (June), p. 240; *Pseudodipsas* Peters, Monatsb. Preuss. Akad. 1860, p. 52 (October); *Comastes* Jan, Elenco Sistemático Ophidi, 1863, p. 102.

HYP SIGLENA ORNATA Bocourt; *Comastes ornatus* Bocourt, Bull. Soc. Philomath. Paris, 1884, March, sup., p. 9.  
Darien, *Figuier*.

HYP SIGLENA TORQUATA Günther: *Leptodira torquata* Günther, Ann. and Mag. Nat. Hist., v, 3d series, pl. x, fig. A.  
"Nicaragua and Laguna," Colima, *Xantus*.

HYP SIGLENA DISCOLOR Günther; *Leptodira discolor* Günther, Proc. Zool. Soc. London, 1860, p. 317, June.  
Oaxaca, *Sallé*.

HYP SIGLENA OCHROHYNCHA Cope, Proc. Acad. Phila., 1860, p. 246.  
Lower California, north to San Diego, *Xantus*; Guaymas, *Cragin*; Guanajuato, *Dugés*; Chihuahua, *Wilkinson*.

#### Liophis Wagler.

Nat. Syst. Amphib., 1830, p. 187.

LIOPHIS EPINEPHELUS Cope, Proc. Acad. Phila., 1862, p. 78; Journ. Acad. Phila., 1875, p. 136.  
Darien, *Michler*; Costa Rica, *Van Patten*, *Gabb*.

#### Ophibolus Baird and Girard.

Catal. N. Amer. Serp., 1853, p. 82; *Lampropeltis* Fitzinger, Cope, 1860.

OPHIBOLUS MULTISTRATUS Kennicott, Proc. Acad. Phila., 1830, p. 328 (*Lampropeltis*).  
Guanajuato, *Dugés*.

OPHIBOLUS DOLIATUS Linn.

Subspecies POLYZONUS Cope, Proc. Acad. Phila., 1860, p. 258; *Lampropeltis micropholis* Cope, loc. cit., 257; *Coronella formosa* Schlegel nom. nud.

Costa Rica, *Gabb*; Darien, *Selfridge*; Panama, *Lecoute*; Nicaragua, *Bransford*; Honduras, Guatemala, *Galler*; Tehuantepec, *Sumiehrast*; Tuxpan to Vera Cruz and Tehuantepec, *Sumiehrast*, *Sartorius*, *Linneecum*; Guanajuato, *Dugés*; City of Mexico, *Herrera*; Guadalajara, *Major*; Guatemala, *Hague*.

Subspecies COCCINEUS, *Coronella coccinea* Schlegel.

Table-land, *Sumiehrast*; Guatemala, *Hague*; Guadalajara, *Major*; Colima, *Xantus*; Zacualtipan, *Bernad*.

OPHIBOLUS GETULUS Linn.

Subspecies CONJUNCTUS Cope, Proc. Acad. Phila., 1861, p. 301.

Cape St. Lucas, Lower California, *Xantus*.

OPHIBOLUS CALIFORNIAE Blainville; Baird and Girard, Catal., p. 153.  
Cape St. Lucas, *Xantus*.

**Pliocercus** Cope.

Proc. Acad. Phila., 1860, p. 253; *Elapochrus* Peters, Monatsb. Preuss. Akad., 1860, p. 293; *Cosmiosophis* Jan, Archiv. per la Zoologia Modena, 1863, p. 379.

PLIOCERCUS EURYZONUS Cope, loc. cit., 1862, p. 72, and 1871, p. 200; *Cosmiosophis splendens* Jan, loc. cit., and Iconogr. Gén. des Ophiidiens.

Darien, *Michler*, *Selfridge*.

PLIOCERCUS DIMIDIATUS Cope, Proc. Acad. Phila., 1865, p. 190; Journ. Acad. Phila., 1875, p. 138.

Costa Rica, *Riotte*, *Van Patten*; Nicaragua, *Bransford*, *Moser*.

PLIOCERCUS SARGI Fischer, Archiv f. Naturgesch., xxxvii, 1881, pl. xi, figs. 1-3.  
Coban, *Sarg*.

PLIOCERCUS ÆQUALIS Salvin, Proc. Zool. Soc. London, 1861, p. 227; Müller, Verhandl. Naturforsch. Gesselsch., Basel, 1878, p. 662, pl. iv, fig. A.

Vera Paz, *Salvin*, *Müller*; Teziutlan, Puebla, *Mision Geográfica*; Tuxpan, *Linccum*.

PLIOCERCUS ELAPOIDES Cope, loc. cit., *Elapochrus deppi* Peters, loc. cit.; *Cosmiosophis triniactus* Jan, Iconograph. Gén. des Ophiidiens, liv., 18, pl. iv, figs. 4-6. *Liophis elapoides* Garman, Mem. Mus. Comp. Zool., Cambridge, 1883, pp. 69-157.

Puebla, *Comision Geográfica*; Vera Cruz, Orizaba, *Sumichrast*; Mirador, *Sartorius*; Guatemala, *Müller*.

**Dromicus** Bibron.\*

Erpétologie Générale, vii, p. 646.

DROMICUS PUTNAMI Jan, Elenco Sistemático, et Iconografía Générale.  
Jalisco, *Jan*.

DROMICUS CLAVATUS Günther.  
Guatemala, *Günther*.

DROMICUS CERULEUS Fischer, Jahrb. d. Wiss. Anstalt, Hamburg, 1885, 103, pl. iv, fig. 7. Coban, *Sarg*.

**Henicognathus** Dum. et Bibron.

Erpét. Générale, viii, p. 328; Cope, Journ. Acad. Phila., 1875, p. 138.

HENICOGNATHUS ANNULATA Dum. et Bibr., loc. cit., 335.

Tobasco, Coban, *Berendt*; Belize, "*Agric. Department*"; Arroyo del Potrero, Vera Cruz, *Comision Geográfica*.

**Rhadinæa** Cope.

Proc. Acad. Phila., 1863, p. 101; 1868, p. 132.

RHADINÆA QUINQUELINEATA Cope, Proc. Amer. Philos. Soc., 1886 (1885), pp. 277.  
Zacualtipan, *Bernad*; Teziutlan, Puebla, *Comision Geográfica*.

RHADINÆA FULVIVITTIS Cope, Journ. Acad. Phila., 1875, p. 139.  
Orizaba, Vera Cruz, *Sumichrast*.

RHADINÆA SUMICHRASTI Bocourt; *Henicognathus sumichrasti* Boc., Miss. Sci. Mexique Reptiles, p. 628, pl. xli, fig. 5; *Masticophis* sp., *Sumichrast*, Bull. de la Société Zool. de France, 1880, p. 183.

Cocoprieto, Tehuantepec, *Sumichrast*.

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\* It is not certain that the species here enumerated really belong to this genus.

- RHADINÆA VITTATA Jan, *Encognathus vittatus* Jan, Prodrôme Icon. Gén. Ophid. Archiv., p. 1. Zoologia Modena, ii, 1863, March; *Id.*, Iconogr. Gén. Ophid. livr., 16, pl. ii, fig. 3; Bocourt, Miss. Sci. Mex., Répt., p. 630, pl. xli, fig. 1; *Dromicus tenuatus* Peters, Monatsber. k. Preuss. Akad., 1863, p. 275, June; *Rhadinæa tenuata* Cope, Journ. Acad. Phila., 1875, p. 139.  
Mexico, *Peters*.
- RHADINÆA LOREATA Günth. Cope, Journ. Acad. Phila., 1863, p. 140; *Dromicus loreatus* Günther, Ann. and Mag. Nat. Hist., 1868, p. 419, pl. xix, fig. E.  
"City of Mexico," *Günther*.
- RHADINÆA FULVICEPS Cope, Proc. Amer. Philos. Soc., 1885, November, 1886, p. 279.  
Panama, *Nelson*.
- RHADINÆA LACHRYMANS Cope, Journ. Acad. Phila., 1875, p. 140; *Lygophis lachrymans* Cope, Proc. Amer. Phil. Soc., 1869, p. 154.  
Middle "Mexico," *Sumichrast*.
- RHADINÆA DECORATA Günther, Cope, Proc. Acad. Phila., 1863, p. 101; *Coronella decorata* Günther, Catal. Coll. Snakes, Brit. Mus., 1858, p. 35; *Diadophis decoratus* Cope, loc. cit., 1860.  
Veragua, *Mitchell*; E. Costa Rica, *Gabb*; Nicaragua, *Bransford*; Tierra Caliente *Sumichrast*; Jicaltepec, Vera Cruz, *Mision Geográfica*.
- RHADINÆA IGNITA Cope, Journ. Acad. Phila., 1875, p. 140; *Dromicus ignitus* Cope, Proc. Acad. Phila., 1871, p. 204.  
Daríen, *Selfridge*.
- RHADINÆA VERMICULATICEPS Cope, Journ. Acad. Phila., 1875, p. 139; *Toniophis vermiculatriceps* Cope, Proceeds. Acad. Phila., 1860, p. 249.  
Veragua, *Mitchell*; Costa Rica, *Van Patten*.
- RHADINÆA SERPERASTRA Cope, loc. cit., 1871, p. 212; Journ. Acad. Phila., 1875, p. 140.  
Costa Rica, *Gabb*.
- RHADINÆA GODMANI Günther; Cope, Journ. Acad. Phila., 1875, p. 139; *Dromicus godmani* Günther, Ann. and Mag. Nat. Hist., 1865, February.  
Guatemala, *Godman*.

#### *Diadophis* Baird and Girard.\*

Catal. Serp. N. Amer., 1853, p. 112.

DIADOPHIS PUNCTATUS Linn.,† Baird, Girard; *Ablabes punctatus* Dum., Bibr., vii, p. 310; Jan, Elenco.

Subspecies ARNYI Kennicott; *Diadophis arnyi* Kenn., Proc. Acad. Phila., 1859, p. 99.

Mirador, Vera Cruz, *Sartorius*; Guanajuato, *Dugés*; Zacualtipan, *Bernad*.

Subspecies REGALIS Baird, Girard.

"Sonora, *Graham*."

#### Trimetopon Cope.

Proc. Amer. Philos. Soc., 1884, p. 177; an *Hydromorphus* Peters?

TRIMETOPON GRACILE Günther, Cope, loc. cit.; *Ablabes gracilis* Günther, Ann. and Mag. Nat. Hist., 1872, p. 13.

Costa Rica, *Günther*.

\* I at one time placed the species of *Rhadinæa* known to me in this genus, as they are very nearly allied, and in this I have been followed by Garman. But they have no scale pores, while there is a single pore on the scales of *Diadophis*. I cannot therefore unite them. *Diadophis* is not characterized by the presence of two preoculars, as supposed by Jan.

† Of two specimens from Guanajuato one has seven, the other eight superior labials; one has two preoculars, while a specimen from the State of Vera Cruz has but one.



**Contia** Baird and Girard.

Catal. N. Amer. Serpents, 1853, p. 110; Cope, Proc. Acad. Phila., 1862, p. 339; *Eirenis* Jan, Elenco Sist., 42-48, 1863.

CONTIA CALLIGASTER Cope, Journ. Acad. Phila., 1875, p. 146.  
Cordilleras of Costa Rica, *Gabb*.

CONTIA PACHYURA Cope, loc. cit., p. 145.  
E. Costa Rica, *W. M. Gabb*.

CONTIA MICHOCANENSIS Dugés, Proc. Amer. Philos. Soc., 1884, p. 178.  
Michoacan, *Dugés*.

**Sympholis** Cope.

Proc. Acad. Phila., 1861, p. 524; *Chilorhina* De Filippi, Jan, Arch. per la Zoologia, Modena, ii, 57, 1862.

SYMPHOLIS LIPPIENS Cope, loc. cit., 1861, p. 524; *Chilorhina villarsii* De Filippi, Jan, loc. cit. et Iconogr. Gén. des Ophidiens, 48 Livr., pl. i, f. 5.  
Guadalajara, *Major*.

**Ficimia** Gray.

Catal. Snakes Brit. Mus., p. 80, 1849; *Amblymetopon* Günther, Catal. Colubrine Snakes in Brit. Mus., 1858, p. 7.

FICIMIA OLIVACEA Gray, loc. cit.; *F. elæochroma* Jan, Arch. Zool. Modena, 1862, p. 58; *Amblymetopon variegatum* Günther, Catal. Brit. Mus., 1858, p. 7.  
Zacualtipan, *Bernad*; Tuxpan, *Linccum*; Orizaba, *Sumichrast*; Tehuantepec, *Sumichrast*.

**Gyalopium** Cope.

Proc. Acad. Phila., 1860, p. 243.

GYALOPIUM PUBLIUM Cope, Amer. Naturalist, 1884, p. 163; *Ficimia publia* Cope, Proc. Acad. Phila., 1866, p. 126; *Ficimia ornata* Boconrt, Miss. Sci. Mex., 1883, p. 571, pl. xxv, fig. 10.  
Yucatan, *Schott*.

**Stenorhina** Dum. et Bibr.

Erp. Gén., vii, 865; *Microphis* Hallowell, Journ. Acad. Phila., 1855-58, p. 33.

STENORHINA DEGENHARDTII Berthold; *Calamaria degenhardtii* Berthold, Ueber N. Rept. New Grenada, 1846, p. 8, pl. i, f. 3-4.

Subspecies DEGENHARDTII Berth., loc. cit.; *Stenorhina ventralis* Dum. et Bibr.

Erp. Gén., vii, p. 867; *Stenorhina lactea* Cope, Proc. Acad. Phila., 1861, p. 303.

Guatemala, *Dow*; Costa Rica, *Gabb*; Coatzacoalcos R., *Streets*; W. Tehuantepec, *Sumichrast*; Cordova, *Sumichrast*; Mirador, *Sartorius*.

Subspecies APIATA Cope, Journ. Acad. Phila., 1875, p. 142.

Tehuantepec, *Sumichrast*.

Subspecies FREMINVILLEI Dum. et Bibr.; *Stenorhina freminvillei* Dum. et Bibr., vii, 868; *Microphis quinquelineatus* Hallow., loc. cit.

Costa Rica, *Van Patten*; Honduras, *Woodhouse*; Guatemala, *Hague*; Tehuantepec, *Sumichrast*.

**Chilomeniscus** Cope.

Proc. Acad. Phila., 1860, p. 339; *Bergenia* Steindachner, Reise der Navara, 1876, p. 92.

CHILOMENISCUS MEXICANUS Steindachner; *Bergenia mexicana* Stein., loc. cit., 92, fig. p. 93.

"Mexico," *Steindachner*.

CHILOMENISCUS STRAMINEUS Cope, Proc. Acad. Phila., 1860, p. 339.

Cape San Lucas, Lower California, *Xantus, Belding*.

CHILOMENISCUS CINCTUS Cope, Proc. Acad. Phila., 1861, p. 303.

Guaymas, Sonora, *Mus. Comp. Zoology*.

#### Geagras Cope.

Journ. Acad. Phila., 1875, p. 141; *Pseudoficimia* Bocourt, Miss. Sci. Mex., 572; *Enulius* Bocourt, loc. cit., 536, nec copei; *Sphenocalamus* Fischer, Oster Programm des Ak. Gymnas. Hamburg, 1863.

GEAGRAS REDIMITUS Cope, Journ. Acad. Phila., 1875, p. 141; *Sphenocalamus lineolatus* Fisch., loc. cit., separate p. 5, pl., figs. 3, 4, 5.  
Tehuantepec, *Sumichrast*; Mazatlan, *Fischer*.

GEAGRAS FRONTALIS Cope, Journ. Acad. Phila., 1875, p. 142; *Toluca frontalis* Cope, Proc. Acad. Phila., 1864, p. 147; *Pseudoficimia pulchra* Bocourt, Miss. Sci. Mex., 1883, 572, pl. xxxv, fig. 12.

Colima, *Xantus*; Guadalajara, *Major*.

GEAGRAS SUMICHRASTI Bocourt, Cope, Amer. Naturalist, 1884, p. 162; *Enulius sumichrasti* Bocourt, Mis. Sci. Mex., p. 538, pl. xxxi, fig. 6.

W. Tehuantepec, *Sumichrast*.

GEAGRAS LONGICAUDATUS Cope, Amer. Naturalist, 1884, p. 162; *Enulius murinus* Bocourt, Mis. Sci. Mex., p. 537, pl. xxxv, fig. 9, nec Copei.

W. Tehuantepec, *Sumichrast*.

#### Toluca Kennicott.

U. S. & Mex. Bound. Surv., ii, 1859, p. 23; *Achirina* Jan, op. cit., 1862, p. 61.

TOLUCA LINEATA Kenn., loc. cit.; *Achirina de filippii* Jan, op. cit., 1862, p. 61.

Valley of Mexico, *Potts*; Puebla, *Boucard*; Toluca (?), *Hoegé*.

#### Conopsis Günther.

Catal. Col. Serp. Brit. Mus., 1858, p. 47; *Erorhina* Jan, Arch. Zool., 1862, p. 62.

CONOPSIS NASUS Günther, loc. cit.; *Ezorhina maculata* Jan, loc. cit.; *Conopsis maculatus* Bocourt, l. c., p. 564, pl. xxxv, f. 3.

"Mexico," *Boucard*.

#### Chionactis Cope.

Proc. Acad. Phila., 1860, 241; Journ. Acad. Phila., 1875, p. 142.

CHIONACTIS DIASHI Cope, Proc. U. S. Nat. Mus., 1886, p. 188; *Conopsis lineatus* Boc. l. c., p. 565, pl. xxxv, fig. 4; nec *Toluca lineata* Kennicott.

Puebla, *Comision Geográfica*.

#### Rhinochilus Baird, Girard.

Catal. Rept. N. Amer., Serpents, 1853, p. 120.

RHINOCHILUS ANTONII Dugés, Proc. Amer. Philos. Soc., 1886, p. 290.

Mazatlan *Dugés*.

#### Ogmus Cope.

Proc. Amer. Philos. Soc., 1869, p. 162; *Oxyrhina* Jan, Arch. p. Zoologia, 1862, p. 59, nec *Agassizii*.

OGMIUS ACUTUS Cope, Proc. U. S. Nat. Mus., 1886, p. 189; *O. varians* Cope, Proc. Amer. Philos. Soc., 1869, p. 162, not of Jan.

W. Tehuantepec, *Sumichrast*.

OGMIUS VARIANS Jan; *Oxyrhina varians* Jan, loc. cit., p. 60.

Vera Cruz (?), *Sumichrast*.

**Elapomorphus** Wiegmann.

Dum. et Bibr., vii, p. 832.

ELAPOMORPHUS MEXICANUS Günther, Ann. and Mag. Nat. Hist., 1862, p. 57.  
"Mexico."

**Procinura** Cope.

Proc. Amer. Philos. Soc., 1879, p. 262.

PROCINURA EMULA Cope, loc. cit.

Batopilas, Chihuahua, *Wilkinson*.

**Scolecophis** Cope.

Proc. Acad. Phila., 1860, p. 259.

SCOLECOPHIS ATROCINCTUS Schlegel; Cope, Proc. Acad. Phila., loc. cit.; Bocourt, Miss. Sci. Mex., p. 577, pl. xxxvii, fig. 2; *Calamaria atrocincta* Schlegel, Essai sur la Phys. des Serpents, 1837, i, p. 184; *Homalocranium atrocinctum* Dum. et Bibr.; *Elaps zonatus* Hallow.; *Scolecophis zonatus* Cope, loc. cit.; *Tantilla atrocincta* Cope, Journ. Acad. Phila., 1875, p. 145.

Honduras, *Woodhouse*; Vera Paz, *Bocourt*; Toluca, *Vasquez*.

**Tantilla** Baird and Girard.

Catal. N. Amer. Serpents, 1853, p. 31; *Homalocranium* Dum. et Bibr., Erp. Gén., vii, p. 855; *Lioninia* Hallowell, Proc. Acad. Phila., 1860, p. 484.

TANTILLA MESTA Günther, Cope, loc. cit., 1866, p. 126; *Homalocranium mastum*; Günther, Ann. Mag. Nat. Hist., 1863.

Yucatan, *Schott*; Peten, *Morelet*.

TANTILLA SCHISTOSA Bocourt; *Homalocranium schistosum* Bocourt, Miss. Sci. Mexique, p. 584, pl. xxxvi, fig. 10.

Vera Paz, *Boucard*.

TANTILLA MELANOCEPHALA Schlegel, Dum. et Bibr., Erp. Gén., vii, p. 859; Cope, Journ. Acad. Phila., 1875, p. 142.

Central Costa Rica, *Van Patten*; Nicaragua, *MacNiel*; Guatemala, *Bouvier*.

TANTILLA CORONATA Baird and Girard, Catal. Serp., p. 131; Cope, Journ. Acad. Phila., 1875, p. 144; *Homalocranium coronatum* Bocourt, Miss. Sci. Mex., 589, pl. xxxvii, fig. 5.

Guadajuato, *Dugés*.

TANTILLA DEPPEI Bocourt; *Homalocranium deppei* Bocourt, Miss. Sci. Mexique, p. 584, pl. xxvi, fig. 11.

Mexico, *Ghiesbrecht*.

TANTILLA CANULA Cope, Journ. Acad. Phila., 1875, p. 144; *Tantilla vermiformis* "Hallowell," Cope, Proc. Acad. Phila., 1836, p. 126; nec Hallowelli.

Yucatan, *Schott*.

TANTILLA TENIATA Bocourt; *Homalocranium teniatum* Bocourt, Miss. Sci. Mex., p. 587, pl. xxxvii, fig. 3.

Guatemala, *Bouvier*.

TANTILLA RUBRA Cope, Proc. Acad. Phila., 1875; Journ. Acad. Phila., 1875, p. 144.

Tehuantepec, *Sumichrast*.

TANTILLA ARMILLATA Cope, Journ. Acad. Phila., 1875, p. 143; *T. melanocephala* var. Cope, Proc. Acad. Phila., 1871, p. 205.

Costa Rica, *Van Patten*.

TANTILLA SEXFASCIATA Fischer; *Homalocranium sexfasciatum* Fischer, Abhand. Natur.-Wiss. Ver. Bremen, 1881, p. 225.

Costa Rica, *Lohmann*.

TANTILLA RETICULATA Cope, loc. cit., 1860, p. 77.

Veragua, Panama, *Mitchell*.

TANTILLA VIRGATA Günther; *Microdromus virgatus* Günther, 1872, p. 17, pl. iv; *Homalocranium virgatum* Bocourt, Miss. Sci. Mex., p. 585, pl. xxxvi, fig. 4.

Costa Rica, *Salvin*.

TANTILLA VERMIFORMIS Hallowell; Cope, Proc. Acad. Phil., 1861, p. 74; *Lioninia vermiformis* Hallowell, loc. cit., 1860, p. 484.

Nicaragua, *Stimpson*.

TANTILLA MINIATA Cope, Proc. Acad. Phila., 1863, p. 100; ("miniator," errore typogr.) Mirador, Vera Cruz, *Sartorius*.

TANTILLA BIMACULATA Cope, Journ. Acad. Phila., 1875, p. 143.

Mazatlan, *Bischoff*.

TANTILLA PLANICEPS Blainville, Baird and Girard, Catal., p. 154.

Lower California, *Botta*.

TANTILLA CALAMARINA Cope, Proc. Acad. Phila., 1866, p. 320.

Guadalajara, *Major*; Puebla, *Comision Geográfica*; Valleys of Toluca or Mexico, *Höge*.

#### **Cercocalamus** Günther.

Ann. and Mag. Nat. Hist., 1863, January.

CERCOCALAMUS COLLARIS Günther, loc. cit., pl. iii, fig. A.

"Central America," *Günther*.

#### **Enulius** Cope.

Peabody Acad. Sciences, Salem, 1869, p. 80; Proc. Amer. Philos. Soc., 1870, p. 558.

ENULIUS MURINUS Cope, Proc. Amer. Philos. Soc., 1870, p. 558.

Nicaragua, *MacNiel*.

#### **Leptocalamus** Günther.

Ann. Mag. Nat. Hist., 1872, p. 16.

LEPTOCALAMUS UNICOLOR Fischer; *Geophis unicolor* Fischer, Abhandl. d. Natur.-Wiss. Vereins Bremen, 1881, p. 227.

"Mexico," *Fischer*.

As Fischer remarks, this species should be generically distinguished from *Rhabdosoma* on account of the presence of a long posterior maxillary tooth, the dentition being syncranterian. The other characters are, two nasal scuta; loreal reaching the eye; no preocular; one pair genaeals; anal double.

#### **Elapoidis** Boie.

Isis von Oken, 1827, p. 519; Dum. Bibr., Erp. Gén., vii, p. 123; Jan, Arch. p. Zoologia, 1862; *Catostoma* Wagler, Nat. Syst. d. Amphib., 1830, p. 194; *Geophis* Wagler, loc. cit., p. 342.

ELAPOIDIS CHALYBEUS Wagl.; *Catostoma chalybaeum* Wagler, Nat. Syst. Amphib., 1830, p. 194; *Elapoidis sieboldii* Jan, Arch. per la Zoologia, Modena, ii, 1862, p. 21; Iconographie d. Ophidiens, livr. 12, pl. i, fig. 4; *Geophis chalybaeus* "Wagler," Bocourt, Miss. Sci. Mex., p. 530.

Guatemala, *Bocourt*; mountains south of plateau, *Sartorius*.

ELAPOIDIS PSEPHOTUS Cope; *Catostoma psephotum* Cope, Journ. Acad. Phila., 1875, p. 146.

Costa Rica, *Gabb*.

ELAPOIDIS DOLICHOCEPHALUS Cope; *Colobognathus dolichocephala* Cope, Proc. Acad. Phila., 1871, p. 211; *Catostoma dolichocephalum* Cope, Journ. Acad. Phila., 1875, p. 147.

Costa Rica, *Van Patten*.

ELAPOIDIS BRACHYCEPHALUS Cope; *Colobognathus brachycephala* Cope, loc. cit., 1871, p. 211; *Catostoma brachycephalum* Cope, Journ. Acad. Phila., 1875, p. 147.

Costa Rica, *Van Patten*.

ELAPOIDIS DUGÉSI Bocourt; *Geophis Dugési* Bocourt, Miss. Sci. au Mexique, p. 573, pl. xxxvii, fig. 1.

Taugancieuario, *Dugés*.

ELAPOIDES FASCIATUS Fischer; *Virginia fasciata* Fischer, Jahrb. d. Wiss. Anst. Hamburg, ii, 1885, p. 95.

Guatemala, *Sarg*.

**Rhabdosoma Dum. Bibr.**

Erpétologie Générale, vii, p. 91; Cope, Proc. Amer. Phil. Soc., 1885, p. 385; *Catostoma* et *Geophis* pars anctorum.

RHABDOSOMA BICOLOR Günther; *Geophis bicolor* Günther, Ann. and Mag. Nat. Hist., 1808, p. 416; *R. hoffmanni* Jan, Iconographie Générale des Ophidiens, livr. 12, pl. ii, fig. 3, nec *Colobognathus hoffmanni* Peters.

Near city of Mexico, *Günther*.

RHABDOSOMA ZEBRINUM Jan, Arch. per la Zoologia Modena, 1862, p. 15; Bocourt, Miss. Sci. Mexique, pl. xxxi, fig. 1, p. 539.

Tehuantepec, *Bocourt*.

RHABDOSOMA ROISTRALE Jan; *Elapoidis rostralis* Jan, Iconogr. Gén. des Ophid., 12 livr., pl. ii, fig. 4; *Geophis rostralis* Bocourt, Miss. Sci. Mex., 533, pl. xxxi, fig. 10. ? Hab.

RHABDOSOMA NASALE Cope; *Catostoma nasale* Cope, Proc. Acad. Phila., 1868, p. 131; *Colobognathus nasalis* Cope, loc. cit., 1871, p. 212.

Central Costa Rica, *Van Patten*.

RHABDOSOMA GUTTULATUM Cope, Proc. Amer. Philos. Soc., 1885, p. 385.

State of Vera Cruz, *Sumichrast, Sartorius*.

RHABDOSOMA MUTITORQUES Cope, Proc. Amer. Philos. Soc., 1885, p. 384.

Zacualtipan, Northeast Hidalgo, *Bernad*.

RHABDOSOMA LONGICEPS Cope, Proceeds. U. S. National Mus., 1886, p. 189.

San José, Acateno. Vera Cruz, *Comision Geográfica*.

RHABDOSOMA SEMIDOLIATUM Dum. Bibr., Erp. Gén., vii, p. 93, 1854; *Elapoidis semidoliatus* Jan, Arch. p. la Zool. Modena., 1862, p. 22; Icon. Gén. des Ophidiens, livr. 12, pl. ii, fig. 1; *Geophis semidoliatus* Bocourt, Miss. Sci. Mex., p. 534, pl. xxxi, fig. 7.

State of Vera Cruz, *De Oca, Sumichrast, Sartorius*; Jalapa, *Flohr*; Misantla and Jalapa, Vera Cruz, *Comision Geográfica*; Zacualtipan, *Bernad*.

RHABDOSOMA MOESTUM Günther; *Geophis moestus* Günther, Ann. Mag. Nat. Hist., 1872, p. 15.

Costa Rica, *Günther*.

**Adelphicus Jan.**

Arch. p. la Zool., ii, fasc. i, p. 18, 1862; Bocourt, Miss. Sci. Mex., 553; *Rhegnops* Cope Proc. Acad. Phila., 1866, p. 128.

ADELPHICUS SARGI Fischer; Jahrbuch d. Wiss. Anstalt., Hamburg, ii, 1885, p. 92.

Guatemala, *Sarg*.

ADELPHICUS VISONINUS Cope; *Rhegnops visoninus* Cope, loc. cit., 1866, p. 128.

Honduras, *Parsons*.



ADELPHICUS QUADRIVIRGATUS Jan, Arch. p. la Zool., ii, 1862, p. 18; Icon. Gén. des Ophidiens, livr. 12, pl. iii, fig. 5; Bocourt, Miss. Sci. au Mex., 554. pl. xxxii, fig. 11. Vera Paz, *Bocourt*; Jicaltepec, Vera Cruz, *Mision Geográfica*.

#### Colophrys Cope.

Proc. Acad. Phila., 1868, p. 130.

COLOPHRYS RHODOGASTER Cope, loc. cit., 1868, p. 130.

Costa Rica, *Van Patten*; Yucatan, *Schott*; Guatemala, *Bocourt*.

#### Geophidium Peters.

Monats. K., Preuss. Akad. Wiss., 1861, p. 923.

GEOPHIDIUM DUBIUM Peters, loc. cit.

W. Guatemala, *Bocourt*; Tehuantepec, *Peters*.

#### Colobognathus Peters.

Monats. K., Preuss. Akad., 1859, p. 216; 1863, p. 214.

COLOBOGNATHUS HOFFMANNI Peters, loc. cit.; Cope, Journ. Acad. Phila., 1875, p. 148.

Costa Rica, *Hoffmann, Gabb*.

## PROTEROGLYPHA.

### ELAPIDÆ.

#### Elaps Schneider.

Dum. et Bibr., vii, p. 1191.

ELAPS DECORATUS Jan, Prodr., 1859, p. 14.

"Mexico," *Jan*.

ELAPS MARCGRAVII Wied.

Subspecies LATICOLLARIS Peters, Monats. K., Preuss. Akad., 1869, p. 877.

ELAPS ELEGANS Jan, Prodr., 1859, p. 13.

Vera Cruz and N. E. Mexico, *Sartorius*.

ELAPS AGLÆOPE Cope, Proc. Acad. Phila., 1859, p. 344.

Honduras, *Leconte*; Peten, *Berendt*.

ELAPS EPHIPPIFER Cope, Proc. Amer. Philos. Soc., 1885 (6) p. 281; *E. aglæope* Cope, loc. cit., 1869, p. 162.

W. coast Tehuantepec, *Sumichrast*.

ELAPS EURYXANTHUS Kennicott, Proc. Acad. Phila., 1860, p. 337.

Guyamas, *Cragin*; Batopilas, Chihuahua, *Wilkinson*.

ELAPS NIGROCINCTUS Girard, U. S. Astronom. Exped., p. 281; Cope, Journ. Acad. Phila., 1875, p. 148.

Panama, *Leconte, Nelson*; Nicaragua, *MacNiel, Braunsford*; Costa Rica, *Van Patten, Gabb, Zeldon*; Yucatan, *Schott*; San Salvador, *Dow*; Guatemala, *Hague*; Tehuantepec, *Sumichrast*.

ELAPS HIPPOCREPIS Peters, loc. cit., p. 21.

ELAPS FULVIUS Linn., Baird and Girard, Catal., p. 21.

Guanajuato, *Dugés*.

ELAPS CORALLINUS Linn.

Subspecies CREBRIPUNCTATUS Peters, Monats. K., Akad. Preuss., 1869, p. 877.

"Northern Mexico," *Peters*.

ELAPS MULTIFASCIATUS Jan, *Icono. Gén. Oph.*, p. 10; Cope, *Proc. Acad. Phila.*, 1871, p. 209; *Journ. Acad. Phila.*, 1875, p. 148.

W. Costa Rica, *Van Patten*; Nicaragua, *Bransford*.

ELAPS APIATUS Jan, *Prodr.*, 1859, p. 11.

"Mexico," *Jan*; Coatzacoalcos, R., *Streets*; Jicaltepec, Vera Cruz, *Comision Geográfica*; Orizaba, Vera Cruz, *Sumichrast*.

ELAPS HYPOSTEMA Jan, *Elenco Sist.*, 1863, p. 113.

"Mexico," *Jan*.

ELAPS BERNADI Cope, sp. nov.

This species is founded on a specimen from Zacualtipan, Hidalgo, sent me by Dr. Santiago Bernad. It is allied to the *E. epistema* D. & B., but has better claim to be regarded as a species than that form. The head and nape are black above and below, except a band of yellow from lip to lip crossing the middle of the occipital plates. The body is red, and is marked by forty-one broadly oval black spots placed transversely and separated by narrow interspaces of two and three scales length. The red spots are not light-bordered, and the red scales have no markings. The belly is unspotted. The tail is of lighter color than the body, and is marked by seven black rings.

Gastrosteges, 218; anal divided; urosteges, 37. Total length, 807<sup>mm</sup>; length of tail, 90<sup>mm</sup>.

Zacualtipan, *Bernad*.

ELAPS EPITEMA Dum. et Bibr., vii, p. 1222.

"Mexico," *Dum. et Bibr.*

ELAPS ORNATISSIMUS Jan, *Prod. d'une Icono., &c.*, 1859, p. 10; Cope, *Journ. Acad. Phila.*, 1875, p. 148.

"Mexico," *Jan*; W. Costa Rica, *Van Patten*; Belize, *Parsons*; Coatzacoalcos, R., *Streets*.

ELAPS CIRCINALIS Dum. et Bibr., Cope, *Journ. Acad. Phila.*, 1875, p. 148.

Talamanca, Costa Rica, *Gabb*.

## HYDROPHIDÆ.

### *Pelamis* Daud.

*Rept.*, vii, 366, 1802.

PELAMIS BICOLOR Daud., *loc. cit.*; Cope, *Journ. Acad. Phila.*, 1875, p. 148.

Pacific coast Panama, *Leconte, Dow*; Pacific coast Costa Rica, *Van Patten*; Pacific coast Guaymas. ?

## SOLENOGLYPHA.

### CROTALIDÆ.

### *Teleuraspis* Cope.

*Proc. Acad. Phila.*, 1859, p. 338.

TELEURASPIS SCHLEGELI Berth., Cope, *Journ. Acad. Phila.*, 1875, pp. 157, 149; *Proc. Acad. Phila.*, 1860, p. 345.

Var. SCHLEGELI Berth., Cope, *loc. cit.*

Veraguas, *Mitchell*; Costa Rica, *Gabb*; Panama, *Bransford*.

**Ophryacus** Cope, gen. nov.

This genus differs from *Bothrops* in the prolongation of one of the superciliary scales into a horn-like process.

**OPHRYACUS UNDULATUS** Jan, Cope, loc. cit.; *Atropus undulatus* Jan, Rev. et Mag. de Zool., 1859, p. 157; Prodr. Icon. des Oph., p. 157.

Central Mexico, *Sumichrast*; Actopam, Vera Cruz, *Comision Geográfica Exploradora*.

**Bothriechis** Peters.

*Thamnocenchris* Salvin, Proc. Z. S., London, 1860, 459.

**BOTHRIECHIS NIGROVIRIDIS** Peters, Monats. K., Preuss. Akad., 1859, p. 278; Cope, Proc. Acad. Phila., 1859, p. 345; Journ. Acad. Phila., 1875, p. 150.

Costa Rica, *Gabb*, *Van Patten*.

**BOTHRIECHIS AURIFER** Salvin, Cope, Proc. Acad. Phila., 1871, p. 205; *Thamnocenchris aurifer* Salvin, Proc. Zool. Soc. London, 1860, p. 459 tab.; Ann. Mag. Nat. Hist., 1861, p. 325.

Peten, Guatemala, *Salvin*.

**BOTHRIECHIS LATERALIS** Peters, Monats. K., Akad. Preuss., 1862, p. 674; *Bothrops bilineatus* Peters, loc. cit., 1859, p. 278; ? *Bothrops bicolor* Bocourt, Ann. des Sci. Nat., 1868, p. 201.

Western Guatemala, *Bocourt*.

**BOTHRIECHIS BERNOULLI** Müller, Mittheilungen a. d. Herpet. Sammlung Mus. Basel (sine origine et dato), p. 11, pl. iii, fig. A.

West coast of Guatemala, *Bernouilli*.

**Bothriopsis** Peters.

Monats. Akad. Berlin, 1851, p. 359; Cope, emend. Proc. Acad. Phila., 1871, p. 208.

**BOTHRIOPSIS SCUTIGERA** Fischer; *Bothriechis scutigera* Fischer, Archiv. f. Naturgeschichte, 1880, p. 208, pl. viii, figs. 8, 9.

Guatemala, *Fischer*.

**BOTHRIOPSIS GODMANI** Günther; *Bothriechis godmani* Günther, Ann. Mag. Nat. Hist., 1861, vii, p. 325; *Bothriopsis godmani* Cope, loc. cit.

Guatemala, *Hagac*.

**BOTHRIOPSIS TRIANGULIGERA** Fischer; *Bothriechis trianguligera* Fischer, Oster., Programm. des Akad. Gymnasiums, Hamburg, 1883, sep., p. 13.

Guatemala, *Peper*.

**BOTHRIOPSIS OPHRYOMEGAS** Bocourt, Cope, Proc. Acad. Phila., 1871, p. 208; *Bothrops ophryomegas* Bocourt, Ann. Sci. Nat., 1868, p. 201.

"Central America," *Bocourt*.

**BOTHRIOPSIS AFFINIS** Bocourt, Ann. Sci. Nat., 1868, p. 201; *B. affinis* Cope, Journ. Acad. Phila., 1875, p. 150; *Telcuraspis mexicanus* Cope, Proc. Acad. Phila., 1859, p. 339; *Bothriechis mexicanus* Cope, loc. cit., 1860, p. 345; nec *Atropus mexicanus* Dum. et Bibr.

Mexico, as far north as Tuxpan, and Central America to Costa Rica; *Sartorius*, *Sumichrast*; Zacualtipan, *Bernad*.

**BOTHRIOPSIS MEXICANUS** Dum., Bibr., Cope, loc. cit., 1871, p. 209; *Atropus mexicanus* Dum. et Bibr., Erp. Gén., viii, p. 1521, tab. 83, bis; ? *Atropus nummifer* Rüppel, Verzeichn. Senck. Mus. Frankf., p. 21; Fischer, Archiv f. Naturg., 1880, p. 22, viii, figs. 10-12; (var.) *Telcuraspis nummifer* Günther, Ann. Mag. Nat. Hist., 1867, March, tab. iii, f. e.; nec Copei, Proc. Acad. Phila., 1859, 339, et 1860, 345=*B. affinis* Bocourt.

Tierra Caliente of Mexico; Guatemala, *Hague*.

BROTHRIOPSIS BRACHYSTOMA Cope, Proc. Acad. Phila., 1871, p. 208; *Teleuraspis castelnaudi* var. *brachystoma* Cope, loc. cit., 1859, p. 339; *Bothriechis brachystoma* Cope, loc. cit., 1861, p. 295.

Nicaragua, Moser; Tehuantepec, *Sumichrast*; Peten, Guatemala, *Berendt*.

BOTHRIOOPSIS PROBOSCIDENS Cope, Journ. Acad. Phila., 1875, p. 150, pl. 27, fig. 3.  
Sipurio, E. Costa Rica, *Gabb*.

**Porthidium** Cope.

Proc. Acad. Phila., 1871, p. 207.

Perhaps to be united with *Bothriopsis*.

PORTHIDIUM NASUTUM Bocourt; Cope, loc. cit., et Proc. Amer. Philos. Soc., 1879, p. 271;  
*Bothrops nasutus* Bocourt, Ann. d. Sciences Nat., Paris, 1868, p. 202.  
Guatemala, *Bocourt*; E. Costa Rica, *Zeledon*.

**Ancistrodon** Beauvois.

ANCISTRODON BILINEATUS Günther, Ann. and Mag. Nat. Hist., 1863, November.

West slope Guatemala, *Hague*; Tehuantepec, *Sumichrast*; Nicaragua, *MacNiel*.

**Bothrops** Wagler.

BOTHRUPS ATROX Linn., Cope, Journ. Acad. Phila., 1875, p. 151.

Panama, *Nelson*; Costa Rica, *Gabb*; San Juan, Nicaragua, *Xantus*; Orizaba, *Sumichrast*; Mirador, Vera Cruz, *Sartorius*; Tuxpan, *Linneum*.

**Lachesis** Daudin.

LACHESIS STENOPHYRYS Cope, Journ. Acad. Phila., 1875, p. 152.

Sipurio, E. Costa Rica, *Gabb*.

**Crotalophorus** Gray.

*Caudisona* Fitzinger, Wagner, nec *Laurentii*; *Systrurus* Garman.

CROTALOPHORUS RAVUS Cope, Proc. Amer. Philos. Soc., 1885, 382; *Caudisona rava* Cope, Proc. Acad. Phila., 1865, p. 191.

South table land of Mexico, *Sartorius*; Puebla, *Comision Geográfica*.

**Crotalus** Linn.

*Caudisona* *Laurenti*; *Crotalophorus* Linn., pars; *Uropsophus* Wagler.

CROTALUS DURISSUS Linn., Dum. et Bibr., vii, p. 1465; *C. horridus* Dum. et Bibr. *Erp. Gén.*, vii, p. 1472.

Brazil to Vera Cruz; Yncatan, *Schott*; Tehuantepec, *Sumichrast*; Coban, *Hague*; San Salvador, *Dow*.

CROTALUS BASILISCUS Cope, Proc. Acad. Phila., 1864, p. 166; *Crotalus rhombifer* Latreille, Dugés, *Naturaleza Mexico*, 1877, p. 22; nec Latreillei.

Pacific coast, Colima (*Xantus*); Plateau, Guanajuato, *Dugés*; Valley of Mexico, Puebla, *Comision Geográfica*.

CROTALUS POLYSTICTUS Cope, Proc. Acad. Phila., 1865, p. 191; *Crotalus lugubris* Jan, *Icon. Gén. Ophidiens*, Livr. 46, pl. 3, fig. 3; *Crotalus ziminesii* Dugés, *Naturaleza Mexico*, 1877, pl. i, fig. 1, 1820; p. 23.

Table land, *Sartorius*; Guanajuato, *Dugés*; Valley of Mexico, *Herrera*.

*CROTALUS TRISERIATUS* "Wiegmi.", teste Wagler; *Uropsophus triseriatus* Wagler, Naturl. Syst. der Amphibien, 1830, p. 176; Cope, Proc. Amer. Philos. Soc., 1884, p. 179; *Crotalus lugubris* Jan, Prodrome d'un Iconogr. Deser. des Ophibiens, 1859, p. 31, pl. E.

Guanajuato, *Dugés*; Jalapa, *Flohr*; Toluca, *Vasquez*; Zacualtipan, Hidalgo, *Bernad*.

*CROTALUS INTERMEDIUS* Fischer, Abhandl. d. Natur.-Wiss. Ver. Bremen, vii, p. 230; 1881, pl. xiv, figs. 1-3; (very near *C. triseriatus*).

"Mexico."

*CROTALUS ADAMANTEUS* Pal., de Beauvois; Baird, Girard, Catal. Rept. N. Amer. Serpents, p. 3.

Subspecies *SCUTULATUS* Kenn., Cope, Check-list, 1875, p. 33; *Caudisona scutulata* Kenn., Proc. Acad. Phila., 1861, p. 207.

City of Chihuahua, *Wilkinson*.

Subspecies *ATROX* Baird and Girard, Cope, Check-list, 1875, p. 33; *Crotalus atrox*, Baird and Girard, Catal. Rept. N. Amer. Serpents, p. 5.

City of Chihuahua, *Wilkinson*.

*CROTALUS MITCHILLII* Cope, Proc. Acad. Phila., 1861, p. 293.

Lower California, *Xantus*.

*CROTALUS ENYO* Cope, Proc. Acad. Phila., 1861, p. 293.

Lower California, *Xantus*.

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## ADDENDA.

### *Hypopachus* Keferst.

*HYPOPACHUS OXYRRHINUS* Boulenger, Ann. Magaz. Nat. Hist., 1883, xi, p. 344.  
W. Mexico, Presidio, *Forrer*.

### *Rana* Linn.

*RANA FORRERI* Boulenger, Ann. Magaz. N. Hist., 1883, xi, p. 343.  
Presidio, W. Mexico, *Forrer*.

*RANA PUSTULOSA* Boulenger, l. c., p. 343.  
Ventanas, *Forrer*.

### *Eublepharis* Gray.

Boulenger, Catal. Liz. Brit. Mus., 1885, p. 230.

*EUBLEPHARIS FASCIATUS* Boulenger l. c., p. 234.  
Ventanas, *Forrer*.

### *Cophias* Fitzinger.

Boulenger, Catal. Liz. Brit. Mus. 1885, p. 417.

*COPHIAS HETEROPUS* Bættger; *Herpetochalcis heteropus* Bættg., ver. Offenb. für Naturk., 1883, p. 150.

? Central America, *Bættger*.

### *Eumeces* Wiegmi.

*EUMECES BOCOURTHI* Boulenger, Ann. Mag. Nat. Hist., 1883, xi, p. 342.  
Presidio, N. Mexico, *Forrer*.



Rena Bd. Gird.

RENA TENUCULA Garman; *Stenostoma tenuiculum* Garman, Mem. Mus. Comp. Zoölogy Cambridge, 1883, p. 5.  
San Luis Potosi, Garman.

Helminthophis Peters.

HELMINTHOPHIS EMUNCTUS Garman; *Typhlops (Idiotyphlops) emunctus* Garman, Mem. Mus. Compar. Zoölogy Cambridge, 1883, p. 3.  
Panama, Garman.

Rhabdosoma D & B.

RHABDOSOMA LATIFRONTALE Garman; *Geophis latifrontalis* Garm., Rept. Batrach. N. Amer., Mem. Mus. Comp. Zoölogy Cambridge, 1883, p. 103.  
Nearest *R. mutitorques*, but has the rostral plate prolonged on the top of the muzzle. Fifty miles so. St. Luis Potosi, Palmer.

Dipeltophis Cope.

Antea, p. 58.

DIPELTOPHIS ALBOCINCTUS Fischer; *Leptognathus albocinctus* Fischer, Jahrb. d. Wiss. Anst. Hamburg, ii, p. 109.  
? Lower California ("California" Fisch.) Behrens.

The family Scaphiopidæ, page 12, should be Pelobatidæ.

Genus *Herpeton*, page 60, is placed in the division of the Colubrinæ with ungrooved teeth. This was done in accordance with the statement of Dr. Günther to that effect, made in the Annals and Magazine of Natural History. Dr. Boulenger informs me by letter that the last maxillary tooth is grooved as stated by Jan, in which I have followed him in Proceeds. Amer. Philos. Soc., 1887, 494.

The species included in the above enumeration are distributed into families, as follows:

	Genera.	Species.
BATRACHIA.		
Urodela:		
Amblystomidae .....	1	3
Plethodontidae .....	4	11
Desmognathidae .....	1	1
Cacillidae .....	4	8
Anura:		
Bufonidae .....	5	23
Rhinophrynidae .....	1	1
Scaphiopidae .....	1	3
Hylidae .....	9	37
Cystignathidae .....	10	32
Engystomidae .....	1	2
Phrynoscidae .....	2	3
Dendrobatidae .....	1	5
Ranidae .....	2	6
REPTILIA.		
Crocodylia:		
Crocodylidae .....	2	3
Testudinata:		
Cistudinidae .....	1	1
Emydidae .....	3	15
Cinosternidae .....	2	12
Chelydridae .....	2	4
Cheloniidae .....	1	2
Sphargididae .....	1	1
Iacertilia:		
Gecconidae .....	6	14
Eublepharidae .....	2	2
Anolidae .....	1	53
Iguanidae .....	15	75
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