

SOUTH AMERICAN SNAKES IN THE COLLECTION OF THE UNITED STATES NATIONAL MUSEUM

By AFRANIO DO AMARAL

Of the Instituto do Butantan and Museu Paulista, Sao Paulo, Brazil

During the course of a study which I have undertaken on the collection of South American snakes contained in the United States National Museum, I found several new forms that I have already described elsewhere¹ and a great many other species which are so interesting as to deserve a detailed description of their characteristics.

The examination of that collection has led me also to review a few important and complicated questions in systematics such as that concerning the real status of the two species of Elapidae, *Micrurus coralinus* (Wied, 1820) and *M. lemniscatus* (Linnaeus, 1758), as well as that of the species of Colubridae Dipsadinae *Sibynomorphus mikani* (Schlegel, 1837).

In discussing the different specimens I shall confine myself to those characteristics which I have found to be different either from those of the type or from those ascribed to them by Boulenger in his "Catalogue of the Snakes in the British Museum."

I wish to express my gratitude to Dr. L. Stejneger for having permitted me to study the collection and also to Miss D. Cochran for placing every available facility at my disposal, as well as to Dr. Thomas Barbour for providing the opportunity of examining comparatively the collection of South American snakes in the Museum of Comparative Zoölogy.

1. HELMINTHOPHIS BONDENSIS Griffin

Helminthophis bondensis GRIFFIN, Mem. Carnegie Mus., vol. 7, 1915, p. 165.

Colombia.—1 specimen, No. 61,675.

Panama.—3 specimens, Nos. 37009, 60517, and 61989.

2. EPICRATES CRASSUS Cope

Epicrates crassus COPE, Proc. Acad. Nat. Sci. Philadelphia, 1862, p. 349.—

BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 593.

Brazil.—1 specimen, type, No. 12413, from Paraná River.

¹ Journ. Washington Acad. Sci., vol. 14, no. 9, 1924, pp. 200-202.

3. **HELICOPS ANGULATA** (Linnaeus)

Coluber angulatus LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 217.

Helicops angulatus DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 746.—
BOULENGER, Cat. Snakes Brit. Mus., vol. 1, 1893, p. 278.

Dutch Guiana.—5 specimens: Nos. 11126 collected by Dr. Wyman and Nos. 11148, 11159, 12552, and 12553 collected by C. J. Hering.

Brazil.—1 specimen, No. 28946, collected in the Lower Amazon by Mr. Steere.

4. **HELICOPS POLYLEPIS** Guenther

Helicops polylepis GUENTHER, Ann. Mag. Nat. Hist., ser. 3, vol. 7, 1861, p. 426.—BOULENGER, Cat. Snakes Brit. Mus., vol. 1, 1893, p. 280.

Colombia.—1 specimen, No. 11274, collected at Madina (?) River by Dr. Ruth.

5. **TETRANORHINUS NIGROLUTEUS** Cope

Tetranorhinus nigroluteus COPE, Proc. Acad. Nat. Sci., Philadelphia, 1861, p. 298.—BOULENGER, Cat. Snakes Brit. Mus., vol. 1, 1893, p. 282.

Panama.—1 specimen, No. 65874.

6. **TETRANORHINUS MOCQUARDI** Bocourt

Tetranorhinus mocquardi BOCOURT, Le Naturaliste, 1891, p. 122.

Panama.—1 specimen, No. 54203.

7. **NINIA** ²**ATRATA** (Hallowell)

Coluber atratus HALLOWELL, Proc. Acad. Nat. Sci. Philadelphia, 1845, p. 245.

Ninia atrata COPE, Proc. Acad. Nat. Sci., Philadelphia, 1860, p. 340.

Streptophorus atratus BOULENGER, Cat. Snakes Brit. Mus., vol. 1, 1893, p. 293.

Panama.—1 specimen, No. 64987.

8. **DRYMOBIUS BIFOSSATUS** (Raddi)

Coluber bifossatus RADDI, Mem. Soc. Ital. Modena, vol. 18, 1820, p. 333.

Drymobius bifossatus BOULENGER, Ann. Mag. Nat. Hist., ser. 6, vol. 12, 1894, p. 346; Cat. Snakes Brit. Mus., vol. 2, 1894, p. 10.

Paraguay.—1 specimen, No. 12401, collected by the Paraguay Expedition.

9. **DRYMOBIUS BODDAERTII** (Sentzen)

Coluber boddaertii SENTZEN, Meyer's Zool. Arch., vol. 2, 1796, p. 59.

Drymobius boddaertii COPE, Proc. Acad. Nat. Sci., Philadelphia, 1860, p. 561.—BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 11.

Ecuador.—7 specimens: No. 14028, collected by W. J. Jones; No. 32040, collected by Mr. Stuart; and Nos. 62803-7, collected by F. W. Goding.

Venezuela.—2 specimens, No. 16831 collected in Caracas, by R. M. Bartheman, and No. 55335, collected by Mr. Musée.

² The generic name *Ninia* Baird and Girard takes precedence, as it was published earlier (January) in the same year (1853) as *Streptophorus* Duméril and Bibron.

Dutch Guiana.—1 specimen, No. 11155, collected by Mr. C. J. Hering.

10. *DRYMOBIUS RHOMBIFER* (Guenther)

Coryphodon rhombifer GUENTHER, Proc. Zool. Soc. London, 1860, p. 236.

Drymobius rhombifer BOCOURT, Miss. Sci. Mexique, Rept., 1888, pl. 43, fig.

1.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1894, p. 14.

Ecuador.—3 specimens, No. 12214 (2 specimens; larger—c. 103, anal entire; smaller—c. 94, anal divided), collected in Guayaquil, and No. 14022 collected by W. H. Jones.

11. *DRYMOBIUS DENDROPHIS* (Schlegel)

Herpetodryas dendrophis SCHLEGEL, Phys. Serp., vol. 2, 1837, p. 196; Abbild., 1844, p. 132, pl. 44, figs. 25–28.

Drymobius dendrophis COPE, Proc. Acad. Nat. Sci. Philadelphia, 1860, p. 561.—BOULENGER, Cat. Snakes, Brit. Mus., vol. 2, 1894, p. 15.

Ecuador.—3 specimens, No. 12268 (2 specimens) collected in Guayaquil and No. 14026 collected by W. H. Jones.

12. *SPILOTES PULLATUS* (Linnaeus)

Coluber pullatus LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 225.

Spilotes pullatus WAGLER, Syst. Amph., 1830, p. 179.—BOULENGER, Cat. Snakes, Brit. Mus., vol. 2, 1894, p. 23.—STERNFELD, Senckenbergiana, 1920, p. 182.

Spilotes megalolepis GUENTHER, Ann. Mag. Nat. Hist., ser. 3, vol. 15, 1865, p. 93.

Spilotes microlepis WERNER, Abh. Bayer. Akad. Wiss., II Kl., vol. 22, pt. 2, 1903, p. 346.

Panama.—1 specimen, No. 65857, collected at Fort Randolph, Canal Zone in August, 1921.

Brazil.—1 specimen, No. 39064, sent as *Phrynonax sulfureus* by Dr. V. Brazil, from Butantan, in Oct., 1909, and collected in Pirapitinguy, Sao Paulo.

13. *DRYMARCHON CORAIS CORAIS* (Boie)

Coluber corais BOIE, Isis, 1827, p. 537.

Drymarchon corais FITZINGER, Syst. Rept., 1843, p. 26.

Coluber corais BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 31.

14. *DRYMARCHON CORAIS COLLARIS* (Steindachner)

Geophyas collaris STEINDACHNER, Sitz. Ber. Akad. Wiss. Wien, vol. 55, 1867, p. 271, pl. 3, figs. 4–7.

Coluber corais, var. *collaris* BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 32.

Ecuador.—1 specimen, No. 14025, collected by W. H. Jones.

15. *DRYMARCHON CORAIS FLAVIVENTRIS* (Steindachner)

Geophyas flaviventris STEINDACHNER, Sitz. Ber. Akad. Wiss. Wien, vol. 55, 1867, p. 269, pl. 4, figs. 4–7.

Coluber corais, var. *flaviventris* BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 32.

Dutch Guiana.—1 specimen, in bad condition, No. 11147, collected by C. J. Hering.

16. *CHIRONIUS CARINATUS* (Linnaeus)

Coluber carinatus LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 223.

Chironius carinatus FITZINGER, Neue Classif. Rept., 1826, pp. 29, 31, and 60.

Erpetodryas carinatus BOIE, Isis, 1827, p. 548.

Herpetodryas carinatus BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 73.

Chironius carinatus RUTHVEN, Misc. Publ., Univ. Michigan Mus. Zool., vol. 8, 1922, p. 65.

Dutch Guiana.—2 specimens, Nos. 11313 and 12547, collected by C. J. Hering.

Brazil.—2 specimens, No. 28947, collected by Mr. Steere, and No. 40217, collected in Santa Catharina, by Mr. Ehrhardt.;

Paraguay.—1 specimen, No. 12402, collected by the Paraguay Expedition.

17. *CHIRONIUS VICINUS* (Boulenger)

Herpetodryas vicinus BOULENGER, Proc. Zool. Soc. London, 1915, p. 660.
(Type from Anda Goya, So. Colombia).

Ecuador.—4 specimens, as follows:

Number	Collector	Sc.	V.	A.	C.	Up. Lab.	Temp.	Length
20,619 (juv.)	Mr. Kerr	10	158	1/1	150 p.	10(4,5,6)	2+2	545 mm. (200 m. tail).
20,620	do	10	157	1/1	158 p.	9(4,5,6)	2+2	2,170 mm. (805 mm. tail).
20,621	do	10	160	1/1	148 p.	9(4,5,6)	2+2	1,520 mm. (610 mm. tail).
32,044 (juv.)	Mr. Stuart	10	159	1/1	133 p.	9(4,5,6)	2+2	540 mm. (145 mm. tail).

The dorsal scales are all smooth in Nos. 20619 and 32044 (young specimens), the vertebral pair is faintly keeled in No. 20621 and in No. 20620 (old specimen) all scales are faintly keeled but the outer row which is smooth and the vertebral pair which is strongly keeled.

The ventrals are feebly angulate laterally in all specimens. Coloration as in the type, but in No. 20619 there are no spots or streaks along the vertebral line, and no dark streak under the tail. Nos. 20620 and 20621 show a tendency to be unicolor, reddish or dark brown, only slightly blotched on the sides, with traces of a dark streak behind the eye, dark yellow beneath anteriorly with irregular blackish blotches on the sides, posteriorly dark brown.

18. *LEPTOPHIS AHAETULLA* (Linnaeus)

Coluber ahaetulla LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 225.

Leptophis liocercus JAN, Icon. Ophid., pt. 49, 1879, pl. 6, fig. 1.—BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 113.

Leptophis ahaetulla LOENNINGER, Bih. Svenska Vet. Akad. Handl., vol. 22, 1896, sec. 4, no. 1, p. 6.—ANDERSSON, Bih. Svenska Vet.-Akad. Handl., vol. 24, 1899, sec. 4, no. 6, p. 22.

Dutch Guiana.—2 specimens, No. 6116, collected by C. J. Hering.

19. *LEPTOPHIS LIOCERCA* (Berthold)

Dendrophis liocercus BERTHOLD, Abh. Ges. Wiss. Goettingen, vol. 3, 1847, p. 11.

Ahaetulla occidentalis GUENTHER, Proc. Zool. Soc. London, 1859, p. 412.

Leptophis occidentalis BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 111.

Ecuador.—4 specimens, No. 12272, from Guayaquil; No. 12352, collected in Guayaquil by F. N. Clark, and Nos. 14021 and 14039 collected by Dr. W. H. Jones.

20. *LEPTOPHIS RIVETI* Despax

Leptophis riveti DESPAX, Bull. Mus. Hist. Nat. Paris, 1910, p. 26.

Ecuador.—1 specimen: No. 62791, male, sc. 15, v. 138, a. 1, c. 109 p., t. 1 2/1 1; dorsal scales strongly keeled but the outer row; keels present from neck to tip of tail; bluish brown above, keels of scales and sides of ventrals lighter; lips, chin, and throat yellowish.

21. *LEIMADOPHIS* ³ *POECILOGYRA* (Wied)

Coluber poecilogyrus WIED, Abbild. Naturg. Brasil., 1824, p. 8.

Liophis poecilogyrus JAN, Arch. Zool. Anat. Phys., vol. 2, 1863, p. 291.—BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 131.

Brazil.—1 specimen, No. 11135, collected in Rio de Janeiro by W. Harrison.

Uruguay.—3 specimens, Nos. 65550 and 65600, collected in Minas by Dr. F. Felippone and No. 64119, collected in San Vicente, Department Rocha, by A. Wetmore.

22. *LEIMADOPHIS ALMADENSIS* (Wagler)

Natrix almadensis WAGLER, in Spix, Species Novae Serp. Brazil., 1824, p. 30, pl. 10, fig. 3.

Leimadophis almadensis FITZINGER, Syst. Rept., 1843, p. 26.

Liophis almadensis COPE, Proc. Acad. Nat. Sci. Philadelphia, 1862, p. 78.—BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 134.

Paraguay.—2 specimens, No. 12402, collected by the Paraguay Expedition.

23. *LEIMADOPHIS REGINAE* (Linnaeus)

Coluber reginae LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 219.

Liophis reginae GUENTHER, Cat. Snakes Brit. Mus., 1858, p. 46.—BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 137.

Brazil.—1 specimen, No. 28945, collected in the Lower Amazon by Mr. Steere.

³ The generic name *Leimadophis* Fitzinger, 1843 (Syst. Rept., 1843, p. 26) must be reserved for those species the type of which is *almadensis* (genus *Liophis* in Boulenger's Catalogue) while the name *Liophis* Fitzinger, 1843 (same reference) must be reserved for those species the type of which is *cobella* (genus *Rhadinaea* in Boulenger's Catalogue).

24. *LEIMADOPHIS SAGITTIFERA* (Jan)

Liopeltis sagittifer JAN, Elenco Sist., 1863, p. 82.

Rhadinaea sagittifera BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 165.

Liophis sagittifer PERACCA, Bol. Mus. Zool. Anat. Comp. Univ. Torino, 1896, no. 11, pp. 3-4.

Rhadinaea modesta KOSLOWSKI, Revista Mus. LaPlata, vol. 7, 1896, p. 453.

Leimadophis sagittifer AMARAL, Revista Mus. Paulista, vol. 14, 1924, pp. 19-21.

A revision of this species is found in Amaral's paper.

Argentina.—6 specimens, No. 12408 (2 specimens) from Buenos Aires; No. 11387 collected in Mendoza by M. Sanchez; No. 52589 collected in Mendoza by C. S. Reed; No. 52967 collected in Mendoza by R. Sanzin; No. 64130 collected in Mendoza by Dr. A. Wetmore.

25. *XENODON MERREMII* (Wagler)

Ophis merremii WAGLER, in Spix, Species Novae Serp. Brasil., 1824, p. 47, pl. 17.

Xenodon merremii BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 150.

Brazil.—1 specimen, No. 28948, collected in the Lower Amazon by Mr. Steere.

26. *XENODON NEUWIEDII* Guenther

Xenodon neuwiedii GUENTHER, Ann. Mag. Nat. Hist., ser. 3, vol. 12, 1863, p. 354, pl. 5, fig. C.—BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 148.—AMARAL, Revista Mus. Paulista, vol. 12, 1924, pp. 23-25.

Xenodon hemileucurus LUTZ and MELLO, Folha Medica, March 16, 1920.

Brazil.—1 specimen, No. 39073, collected in Alto da Serra, Sao Paulo and sent as *X. severus* by Dr. V. Brazil: sc. 21, v. 170, a. 1/1, c. 68 p.; ventrals very obtusely angulate laterally; maxillary teeth 14+2.

27. *APOROPHIS LINEATA* (Linnaeus)

Coluber lineatus LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 221.

Aporophis lineatus COPE, Proc. Amer. Philos. Soc., vol. 22, 1885, p. 191.—BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 158.

British Guiana.—1 specimen, No. 12736, collected at Demerara River by Mrs. L. Curtis. Common name "Orococo."

28. *APOROPHIS TAENIURA* (Tschudi)

Liophis taeniurus TSCHUDI, Fauna Peruv., Herp., 1845, p. 51, pl. 5.

Liophis reginae, vars. *albiventris* and *quadrilineata* JAN, Arch. Zool. Anat. Physiol., vol. 2, 1863, p. 294.

Aporophis taeniurus COPE, Proc. Amer. Philos. Soc., vol. 18, 1879, p. 277.—BOULENGER, Ann. Mag. Nat. Hist., ser. 8, vol. 1, 1908, p. 115.

Liophis taeniurus, *L. albiventris* BOULENGER, Cat. Snakes Brit. Mus., vol. 2, p. 130.

Ecuador.—1 specimen, No. 62792, collected by F. W. Goding: sc. 19, without pits, vent. 155, caud. 63 pairs, postoc. 2. Only

one lateral (black) streak from the middle of the body to the tip of the tail; belly unspotted.

Peru.—1 specimen, No. 60735; sc. 19, without pits, vent. 169, caud. 64 pairs, postoc. 2. Caudal streak present. San Miguel Bridge, ruins of Machu Pichu, Urubamba Valley, collected by E. Heller on July 2, 1916.

29. LIOPHIS SEMIAUREA (Cope)

Ophiomorphus merremii, var. *semiaureus* COPE, Proc. Acad. Nat. Sci. Philadelphia, 1862, p. 348.

Ophiomorphus fuscus COPE, Proc. Amer. Philos. Soc., vol. 22, 1885, p. 190.

Uruguay.—2 specimens, Nos. 65602 and 65604, collected in Santa Lucia, Canelones, by Dr. F. Felippone.

30. LIOPHIS OBTUSA (Cope)

Rhadinaea obtusa COPE, Proc. Acad. Sci. Philadelphia, 1863, p. 101.—BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 171.

Uruguay.—2 specimens, Nos. 65554 and 65555, collected in Cerro, Montevideo, by Dr. F. Felippone.

31. LIOPHIS ANOMALA (Guenther)

Coronella anomala GUENTHER, Cat. Snakes Brit. Mus., 1858, p. 37.

Rhadinaea anomala BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 165.—AMARAL, Revista Mus. Paulista, vol. 14, 1924, pp. 16-19.

Rhadinaea elegantissima KOSLOWSKY, Revista Mus. La Plata, vol. 7, 1895, p. 155.

A revision of this species is found in Amaral's paper.

Argentina.—2 specimens, No. 12367, from Buenos Aires.

32. LIOPHIS COBELLA (Linnaeus)

Coluber cobella LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 218.

Liophis cobella DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 698.

Rhadinaea cobella BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 166.—LOENBERG, Bih. Svenska Vet. Akad. Handl., vol. 22, 1896, sec. 4, No. 1, p. 6.—ANDERSSON, Bih. Svenska Vet. Akad. Handl., vol. 24, 1899, sec. 4, No. 6, p. 11.

Dutch Guiana.—2 specimens, Nos. 12551 and 13817, collected by C. J. Hering.

33. LIOPHIS FULVICEPS (Cope)

Rhadinaea fulviceps COPE, Proc. Amer. Philos. Soc., vol. 23, 1886, p. 279.

Panama.—1 specimen, No. 50121, in bad condition.

34. LIOPHIS ALBICEPS (Amaral)

Rhadinaea albiceps AMARAL, Journ. Washington Acad. Sci., vol. 14, 1924, No. 9, p. 200.

Ecuador.—1 specimen, No. 22446 (type). This specimen is probably from Ecuador, whence it came with a collection sent by Mark B. Kerr, in May, 1895.

35. *LYSTROPHIS SEMICINCTA* (Duméril and Bibron)

Heterodon semicinctus DUMÉRIL and BIBRON, *Erp. Gén.*, vol. 7, 1854, p. 774
Lystrophis semicinctus BOULENGER, *Cat. Snakes Brit. Mus.*, vol. 2, 1894,
 p. 153.

Argentina.—1 specimen, No. 52591, collected in Cerros de Mendoza
 by C. S. Reed.

36. *UROTHECA ELAPOIDES ELAPOIDES* (Cope)

Pliocercus elapoides COPE, *Proc. Acad. Nat. Sci. Philadelphia*, 1860, p. 253.
Pliocercus euryzonus COPE, *Proc. Acad. Nat. Sci. Philadelphia*, 1862, p. 72.
Urotheca elapoides, *U. euryzonus* BOULENGER, *Cat. Snakes Brit. Mus.*,
 vol. 2, 1894, p. 182.

Ecuador.—1 specimen, No. 32038, collected by F. L. Stuart.

37. *DIMADES PLICATILIS* (Linnaeus)

Coluber plicatilis LINNAEUS, *Syst. Nat.*, ed. 10, 1758, p. 217.
Dimades plicatilis GRAY, *Zool. Misc.*, 1842, p. 65.—BOULENGER, *Cat.*
Snakes, Brit. Mus., vol. 2, 1894, p. 186.

Paraguay.—1 specimen, No. 12,400, collected by the Paraguay
 Expedition.

38. *HYDROPS TRIANGULARIS* (Wagler)

Elaps triangularis WAGLER, in Spix, *Species Novae Serp. Brasil*, 1824, p. 5,
 pl. 2a, fig. 1.
Hydrops triangularis BOULENGER, *Cat. Snakes Brit. Mus.*, vol. 2, 1894, p.
 187.

Dutch Guiana.—1 specimen, No. 11,150, collected by C. J. Hering.

Brazil.—1 specimen, No. 6,009, collected in the Amazon Valley
 by Lieutenant Herndon.

39. *LAMPROPELTIS MICROPHOLIS* Cope

Lampropeltis micropholis COPE, *Proc. Acad. Nat. Sci. Philadelphia*, 1860,
 p. 257.—BLANCHARD, *U. S. Nat. Mus.*, Bull. 114, 1921, p. 149.
Coronella micropholis BOULENGER, *Cat. Snakes Brit. Mus.*, vol. 2, 1894, p.
 203.

Ecuador.—6 specimens, Nos. 62,809–14, collected by F. W. God-
 ing.

These specimens show all the variations in coloration referred to
 by Blanchard (p. 150).

40. *ATRACTUS ROULEI* Despax

Atractus roulei DESPAX, *Bull. Mus. Hist. Nat. Paris*, 1910, p. 30.

Ecuador.—2 specimens, Nos. 33,861–2, collected in the Alausi
 Valley by Mr. Davis:

Number	S.	V.	A.	C.	Temp.	Praeoc.	Loreal	Postoc.	Total length
33, 861	15	159	1	24	12	None--	2½ as long--	1	140 mm.
33, 862	15	157	1	22	12	None---	2½ as long--	1	130 mm.

41. PETALOGNATHUS NEBULATUS (Linnaeus)

Coluber nebulatus LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 222.

Petalognathus nebulatus DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 464.—BOULENGER, Cat. Snakes Brit. Mus., vol. 2, 1894, p. 293.

Dutch Guiana.—1 specimen, No. 11,146, collected by C. J. Her-
ing; v. 175, c. 90 pair, lab. 7 (4th and 5th), postoc. 2; chin-shields,
3 pairs.

Ecuador.—2 specimens, No. 14,035, collected by Dr. W. H. Jones:
v. 191, c. 70 pair, lab. 7 (4th and 5th), postoc. 2; chin-shields 3
pairs; No. 14038, collected by Mr. Wachusett: v. 193, c. 79 pair,
lab. 7 (4th and 5th), postoc. 2; chin-shields 3 pairs.

42. SIBYNOMORPHUS MACROSTOMUS Amaral

Sibynomorphus macrostomus AMARAL, Journ. Washington Acad. Sci., vol. 14,
1924, no. 9, p. 200.

Ecuador.—1 specimen, No. 14,047 (Type).

43. SIBYNOMORPHUS MIKANII (Schlegel)

Dipsas mikanii SCHLEGEL, Physiogn. Serp., vol. 2, 1837, p. 277.

Leptognathus mikani BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p.
453.

Leptognathus peruanus BOETTGER, Kat. Rept. Mus. Senckenberg., 1898,
pt. 2, p. 128.

Sibynomorphus mikani RUTHVEN, Miscell. Publ. Univ. Michigan Mus.
Zool., vol. 8, 1922, p. 69.

Ecuador.—7 specimens, collected in Guayaquil by F. W. Goding.

Peru.—1 specimen, collected in Puquiura, by E. C. Erdis, in June,
1915, and referred to *S. peruanus* by Barbour and Noble.⁴

The examination of this series suggested a comparative revision
of the species *S. mikanii* and *S. peruanus* (type from Santa Ana,
Cuzco, Peru) which Boettger considered a valid form, differing es-
pecially in coloration, (belly, head and lips), number and disposition
of upper labials, size of internasals, its formula being: sc. 15; v.
180; a. 1; c. 79 pairs plus 1; lab. 8 (3, 4, 5); temp. 2+3; 4 pairs
of chin-shields, anterior much longer than broad. The examination
of the specimen in the United States National Museum and another
series in the Museum of Comparative Zoology yielded the following
figures and data:

⁴Proc. U. S. Nat. Mus., vol. 58, 1920, p. 620.

Specimens of *Sibynomorphus mikanii* examined

Number	Locality	V.	C.	Lab.	Length in mm. Inter-nasals: praefrontal (ratio)	Temp.	Fraecoc.	Postoc.	Chin-shields	Coloration (head and belly)
60,718 U. S. N. M.	Puquiura, Peru.	178	78 p	9(4, 5, 6)	1, 25:2	2+3	1 above loreal	2/3	4 pairs, anterior longer than broad.	As in Boulenger's var. C.
60,006 (juv.) U. S. N. M.	Guayaquil, Ecuador.	179+1/2	83 p+	7(4, 5)/8(4, 5, 6)	1:2	2+2/1+2	None	2	3 pairs, anterior longer.	Do.
60,797 U. S. N. M.	do.	181	76 p	8(4, 5, 6)	1, 25:2	2+2/2+2	1 above loreal	2/3	4 pairs, anterior longer.	Do.
60,798 U. S. N. M.	do.	182	75 p	(Head injured)					3 pairs, anterior longer.	Do.
60,799 (juv.) U. S. N. M.	do.	174	74 p	7(4, 5)	1:2	2+3	None	3	do.	Do.
60,800 (juv.) U. S. N. M.	do.	180	84 p	7(3, 4, 5)/7(4, 5)	1, 25:2	2+3/2+4	1 above loreal	3	do.	Do.
60,801 (juv.) U. S. N. M.	do.	179	77 p	8(4, 5, 6)/8(3, 4, 5)	1, 25:2	3+3/1+3	None	2	do.	Do.
60,802 (juv.) U. S. N. M.	do.	184+1/2	86 p	8(4, 5, 6)	1:2	2+3	1 above loreal	2/3	do.	Do.
17,083 (juv.) M. C. Z.	Chan-Chan Valley, Ecuador.	171	86 p	8(4, 5, 6)	1:2	3+3/2+3	1 above loreal	4/3	do.	Do.
17,099 (juv.) M. C. Z.	do.	179	85 p	7(4, 5)	1, 25:2, 25	1+2	None	2	do.	Do.
6,542 M. C. Z.	La Concepcion, Colombia.	183	92 p	7(4, 5)	1, 25:2, 25	1+2	1	2	3 pairs, anterior much longer than broad.	Do.
17,825 M. C. Z.	S. Paulo, Brazil.	173	62 p+	7(3, 4)	1:2	1+2	None	2	3 pairs, anterior longer.	As in Boulenger's var. B, but belly powdered with black.
17,826 M. C. Z.	do.	177	66 p	7(3, 4)	1:2	1+2	None	2	do.	As in Boulenger's var. B.
17,827 M. C. Z.	do.	168	62 p	7(3, 4)	1:2	2+2/1+2	None	2	do.	Do.

The above table shows that the individuals of this species vary very much. Therefore, I am inclined to follow Boulenger and regard the differences shown by the specimens from the western side of South America only as color variations of *S. mikanii*.

44. DIPSAS INDICA Laurenti

Dipsas indica LAURENTI, Syn. Rept., 1768, p. 90.

Dipsas bucephala BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 461.

Peru.—1 specimen: No. 60734, from the Comerciato River, collected by E. Heller.

45. IMANTODES CENCHOA (Linnaeus)

Coluber cenchoa LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 226.

Imantodes cenchoa DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 1065.

Himantodes cenchoa BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 84.

Colombia.—2 specimens: No. 4300, sent from New Grenada by Mr. Schott: 1 praeocular; 2+3 postoculars; 3+3 temporals. No. 11270, sent from Madina River by Dr. Ruth.

Ecuador.—4 specimens: No. 14036, collected by Dr. W. H. Jones: 1 praeocular; 2 postoculars; 2+3 temporals. No. 20614: 1 praeocular; 2 postoculars; 2+3 temporals; and No. 20615: 1 praeocular; 3 postoculars; 3+3 temporals, both collected by Mark B. Kerr. No. 56320 from Napo: 1 praeocular; 2 postoculars; 2+3 temporals.

Trinidad.—4 specimens: No. 14496, collected by A. H. Riise: 1 praeocular; 1 postocular; 2+2/2+1 temporals. Nos. 14498 and 17499: 1 praeocular; 2 postoculars; 2+2 temporals; and No. 17450: 1 praeocular; 2 postoculars; 1+2 temporals; all collected by Mr. Wayman.

46. LEPTODEIRA ANNULATA (Linnaeus)

Coluber annulatus LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 224.

Coluber albofuscus LACÉPÈDE, Hist. Nat. Serp., vol. 2, 1789, p. 94.

Leptodeira annulata GUENTHER, Cat. Colubr. Snakes Brit. Mus., 1858, p. 166.

Leptodeira albofusca GUENTHER, Cat. Colubr. Snakes Brit. Mus., 1858, p. 166.

Leptodira annulata BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 97.

Leptodira albofusca BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 95.

Leptodeira annulata GRIFFIN, Ann. Carnegie Mus., vol. 11, 1917, p. 321.

Panama.—8 specimens: Nos. 54160, 54161, 54077, 54078, 53829, 54227, 45567, and 54266.

Colombia.—2 specimens: No. 11272 collected at Madina (?) River by Dr. Ruth. No. 32277, collected at Truando (?).

Ecuador.—1 specimen: No. 22444, collected by Mark B. Kerr.

Peru.—2 specimens: Nos. 28295 and 28296, sent from Ignitas by Mr. Carter.

Dutch Guiana.—8 specimens: Nos. 11149, 11154, 11156, 11158, 11160, 11161, 11162, and 12549; all collected by C. J. Hering.

47. PSEUDOBOA PETOLA (Linnaeus)

Coluber petola LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 225.

Coluber petolarius LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 225.

Oxyrhopus petolarius BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 101.

Clelia peruwiana GRIFFIN, Mem. Carnegie Mus., vol. 7, 1915, p. 204.

Pseudoboa petola AMARAL, Rev. Mus. Paulista, vol. 14, 1924, p. 13.

Panama.—2 specimens: Nos. 50111 and 65867.

Ecuador.—3 specimens: No. 22445, collected by Mark B. Kerr.
Nos. 32036 and 32037, collected by Mr. Stuart.

48. PSEUDOBOA TRIGEMINA (Duméril and Bibron)

Oxyrhopus trigeminus DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 1013.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 104.

Pseudoboa trigemina AMARAL, Rev. Mus. Paulista, vol. 14, 1924, p. 12.

Paraguay.—2 specimens: No. 12381 (1 and 2), collected by the Paraguay Expedition.

49. PSEUDOBOA RHOMBIFERA (Duméril and Bibron)

Oxyrhopus rhombifer DUMÉRIL and BIBRON, Erp. Gén., 1854, p. 1018.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 103.

Pseudoboa rhombifera AMARAL, Rev. Mus. Paulista, vol. 14, 1924, p. 12.

Uruguay.—1 specimen: No. 65610 sent from Cerro Largo, by Dr. Florentino Felippone.

50. PSEUDOBOA MACULATA (Boulenger)

Oxyrhopus maculatus BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 110.

Argentina.—1 specimen, No. 11388: sc. 19–21–19–17; v. 245; a. 1; c. 52 pairs; anterior chin-shields a little longer than posterior; total length 1,850 mm.; tail 230 mm. Female sent from Mendoza by Dr. Day.

This specimen has a very high number of ventrals and is the largest ever recorded in collections.

51. PSEUDOBOA RUSTICA (Cope)

Oxyrhopus rusticus COPE, Proc. Amer. Philos. Soc., vol. 17, 1877, p. 92.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 111.

Pseudoboa rustica AMARAL, Rev. Mus. Paulista, vol. 14, 1924, p. 12.

Argentina.—1 specimen, No. 64129, sent from Tafi Viejo, Tucuman, by Dr. Alexander Wetmore.

52. PSEUDOBOA FITZINGERI (Tschudi)

Siphlophis fitzingeri TSCHUDI, Fauna Peruv., Herpet., 1846, p. 56, pl. 8.

Oxyrhopus fitzingeri JAN, Elenco Sist., 1863, p. 93.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 108.

Peru.—2 specimens. No. 48552 sent from Piura by C. H. T. Townsend; male, sc. 19; v. 203, c. 73 pairs.

The lesser number of ventrals of this specimen, as compared with Boulenger's figures (232-236), may be related to the sex. No. 51512 sent from Canon Verruga, by C. H. T. Townsend; female, sc. 19; v. 227; c. 79 pairs.

53. PSEUDOBOA CLOELIA (Daudin)

Coluber cloelia DAUDIN, Hist. Nat. Rept., vol. 6, 1803, p. 330, pl. 78.

Oxyrhopus cloelia GUENTHER, Cat. Snakes Brit. Mus., 1858, p. 189.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 108.

Pseudoboa cloelia AMARAL, Rev. Mus. Paulista, vol. 14, 1924, pp. 11-12.

Ecuador.—1 specimen, No. 20622, collected by Mark B. Kerr, lab. 7 (3, 4); t. 2+3; sc. 19; c. 91 pairs plus 3.

Venezuela.—1 specimen, No. 32218, sent from Caracas by Capt. G. Wayright.

Brazil.—2 specimens No. 39061 sent as *Rhachidelus brazili* from Butantan, Sao Paulo, by Dr. V. Brazil: lab. 7 (3, 4), t. 2+2; sc. 19. No. 11,384 sent from Rio by J. R. Moran: lab. 7 (3, 4), t. 2+2; sc. 19.

This specimen as well as No. 20622 shows that the disposition of the subcaudals is variable and consequently does not warrant the division of the genus *Pseudoboa* into *Pseudoboa* and *Cloelia* as accepted by most of the North American herpetologists.

54. PSEUDOBOA NEUWIEDII (Duméril and Bibron)

Scytale newwiedii DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 1001 (part).

Pseudoboa newwiedii COPE, Proc. Acad. Nat. Sci. Philadelphia, 1860, p. 260.

Oxyrhopus newwiedii BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 112.

Pseudoboa robinsoni STEJNEGER, Proc. U. S. Nat. Mus., vol. 24, 1902, p. 190.

Venezuela.—1 specimen, No. 22532, sent from La Guaira by Capt. Wirt Robinson.

This is Stejneger's type of *Pseudoboa robinsoni* which, as I have published elsewhere⁵ I consider only as an anomalous specimen of *Pseudoboa newwiedii*.

55. PSEUDOBOA GUERINI (Duméril and Bibron)

Rhinosimus guerini DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 991, pl. 72.

Oxyrhopus guerini BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 113.

Pseudoboa guerini AMARAL, Rev. Mus. Paulista, vol. 14, 1924, p. 12.

Paraguay.—1 specimen, No. 12414, collected by the Paraguay Expedition.

56. BARBOURINA EQUATORIANA Amaral.

Barbourina equatoriana AMARAL, Journ. Washington Acad. Sci., vol. 14, 1924, no. 9, p. 201.

Ecuador.—1 specimen, No. 62790 (type), sent from Guayaquil by F. W. Goding in April, 1920.

⁵Rev. Mus. Paulista, vol. 14, 1924, p. 26.

57. TACHYMENIS PERUVIANA Wiegmann

Tachymenis peruviana WIEGMANN, Nova Acta Acad. Leopold. Carol., vol. 17, 1835, pt. 1, p. 252, pl. 20, fig. 1.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 118.

Ecuador.—1 specimen, No. 12277, from Guayaquil.

58. THAMMODYNASTES PALLIDUS (Linnaeus)

Coluber pallidus LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 221.

Coluber strigilis THUNBERG, Mus. Acad. Upsal., 1788, pt. 1, p. 22.

Coluber nattereri MIKAN, Delic. Flor. Faun. Brasil., 1820, pl., fig. 1.

Thammodynastes nattereri BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 116.

Thammodynastes punctatissimus BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 117.

Thammodynastes strigilis LOENNINGER, Bih. Svenska Vet. Akad. Handl., vol. 22, 1896, sec. 4, no. 1, p. 38.

Thammodynastes pallidus ANDERSSON, Bih. Svenska Vet. Akad. Handl., vol. 24, 1899, sec. 4, no. 6, p. 17.—AMARAL, Rev. Mus. Paulista, vol. 14, 1924, pp. 27—29.

A revision of this species is found in Amaral's paper.

Colombia.—1 specimen, No. 14717, sent by V. O. King.

Paraguay.—1 specimen, No. 11260, sent by Dr. Palmer.

59. PHILODRYAS VIRIDISSIMUS (Linnaeus)

Coluber viridissimus LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 226.

Philodryas viridissimus GUENTHER, Cat. Colubr. Snakes Brit. Mus., 1858, p. 123.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 129.

Dutch Guiana.—1 specimen, No. 11157, collected by C. J. Hering.

60. PHILODRYAS OLFERSII (Lichtenstein)

Coluber olfersii LICHTENSTEIN, Verz. Doubl. Berlin Mus., 1823, p. 104.

Philodryas olfersii GUENTHER, Cat. Colubr. Snakes Brit. Mus., 1858, p. 123.

Philodryas olfersii, var. *reinhardtii* (Guenther) BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 129.

Paraguay.—1 specimen, No. 12327, collected by the Paraguay Expedition.

61. PHILODRYAS SCHOTTII (Schlegel)

Xenodon schottii SCHLEGEL, Physiogn. Serp., vol. 2, 1837, p. 91, pl. 3, figs. 8 and 9.

Philodryas schottii GUENTHER, Cat. Colubr. Snakes Brit. Mus., 1858, p. 125.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 130.

Paraguay.—1 specimen, No. 11261 collected by Dr. Palmer.

Argentina.—3 specimens; No. 16423, collected in Rosario by the La Plata Expedition. No. 52588, collected at Rio Negro by Dr. Carlos S. Reed, length 1,580 mm., tip of tail missing. No. 63947 collected by Dr. Alexander Wetmore.

62. PHILODRYAS ELEGANS (Tschudi)

Lygophis elegans TSCHUDI, Faun. Peruv., Herp., 1845, p. 53, pl. 6.

Philodryas elegans BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 133.

Chile.—1 specimen, No. 64121 collected in Valparaizo, by Dr. Carlos S. Reed.

63. PHILODRYAS PSAMMOPHIDEUS Guenther

Philodryas psammophideus GUENTHER, Ann. Mag. Nat. Hist., ser. 4, vol. 9, 1872, p. 23, pl. 4, fig. A.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 132.

Philodryas bolivianus BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 132.

Philodryas borellii PERACCA, Boll. Mus. Zool. Anat, Univ. Torino, vol. 12, 1897, no. 274, p. 14.

Philodryas psammophideus AMARAL, Rev. Mus. Paulista, vol. 14, 1924, p. 31.

A revision of this species is found in Amaral's paper.

Argentina.—3 specimens: Nos. 52593 (sc. 19; v. 196; c. 87 p.); 52594 (sc. 19; v. 196; c. 86 p.); 52595 (juv. sc. 19; v. 190; c. 90 p.) all collected in Mendoza by Dr. Carlos S. Reed.

64. PHILODRYAS BURMEISTERI (Jan)

Dryophylax burmeisteri JAN, in Burmeister, Reise La Plata, vol. 2, 1861, p. 529.

Philodryas burmeisteri BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 135.

Argentina.—3 specimens: No. 7304 (c. 123) sent from Uspallata, by Mr. M'Lae, No. 52961 sent from Mendoza, by Renato Sanzin. No. 63945 (loreal fused with the praefrontal on both sides), collected at General Roca, Rio Negro, by Dr. Alexander Wetmore.

65. OXYBELIS ACUMINATUS (Wied)

Coluber acuminatus WIED, Isis, 1824, pt. 6, June, p. 667.

Oxybelis acuminatus STEINDACHNER, Novara Exped., Rept., 1867, p. 72.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 192.

Numerous specimens from various localities in Central and South America.

66. OXYBELIS ARGENTEUS (Daudin)

Coluber argenteus DAUDIN, Hist. Nat. Rept., vol. 6, 1803, p. 336.

Oxybelis argenteus DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 815.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 190.

Dutch Guiana.—1 specimen, No. 11153 sent by C. J. Hering.

67. OXYBELIS BREVIROSTRIS (Cope)

Dryophis brevirostris COPE, Proc. Acad. Nat. Sci. Philadelphia, 1860, p. 555

Oxybelis brevirostris BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 190.

Ecuador.—3 specimens: Nos. 20616, 20617, and 20618.

68. *ERYTHROLAMPRUS AESCULAPII* (Linnaeus)

Coluber aesculapii LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 220.

Erythrolamprus aesculapii DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 845.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 200.

Panama.—1 specimen, No. 65881.

Colombia.—1 specimen, No. 11273 collected at Madina (?) River, by Dr. Ruth.

69. *ERYTHROLAMPRUS LABIALIS* Werner

Erythrolamprus labialis WERNER, Mitt. Naturh. Mus. Hamburg, vol. 26, 1909, p. 237.

Ecuador.—2 specimens: No. 62793: sc. 17, v. 169; a. 1/1; c. 79 p.; t. 1+2; total length 185 mm.; 4 lower labials in contact with the anterior chin-shields which are a little shorter than the posterior; 2d light lateral strip on the 5th scale row, instead of on the 4th as in the type. No. 62794: sc. 17; v. 159; a. 1/1; c. 97 p.; t. 1+1; lower labials and chin-shields as in the preceding; 2d light lateral strip on the suture of the 4th and 5th scale rows.

70. *TANTILLA MELANOCEPHALA* (Linnaeus)

Coluber melanocephalus LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 218.

Tantilla melanocephala COPE, Proc. Acad. Nat. Sci. Philadelphia, 1861, p. 74.

Hololocranium melanocephalum BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 215.

Uruguay.—2 specimens: No. 65537, collected in Cerro Largo by Dr. Florentino Felippone. No. 65549, collected in Paysandu, by the same.

71. *STENORHINA DEGENHARDTII* (Berthold)

Calamaria degenhardtii BERTHOLD, Abh. Ges. Wiss. Goettingen, vol. 3, 1846, p. 8, pl. 1, figs. 3-4.

Stenorhina degenhardtii JAN, Arch. Zool. Anat. Physiol., vol. 2, 1862, p. 63.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 229.

Panama.—1 specimen, No. 66586.

72. *APOSTOLEPIS CEARENSIS* Gomes

Apostolepis cearensis GOMES, Ann. Paulistas Med. Cirurg., vol. 4, 1915, p. 6, p. 122 (type from Ceará, Brazil).

Brazil.—1 specimen, No. 56401 collected in Ceará (J. Hurter collection), in August, 1893, and identified with *A. dorbignyi*: v. 232; c. 27 pairs; portion of the rostral visible from above $\frac{2}{3}$ of the prefrontal suture; total length 285 mm.

73. *ELAPOMORPHUS LEMNISCATUS* Duméril and Bibron

Elapomorphus lemniscatus DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 840.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 242.

Uruguay.—2 specimens, Nos. 65552 and 65599, both collected in Minas, by Dr. Florentino Felippone.

The internasals are broadly contiguous in No. 65552 and touch each other only by their inner angle in No. 65599. The degree of contiguity of the internasals is very variable among all the specimens of *Elapomorphus* having a single prefrontal, according to my experience. Boulenger's key for the differentiation of these species, which is based on this character, is therefore quite unreliable.

74. ELAPOMORPHUS SUSPECTUS Amaral

Elapomorphus suspectus AMARAL, Journ. Washington Acad. Sci., vol. 14, no. 9, 1924, p. 202.

Argentina.—1 specimen, No. 48939 (type) sent from Pilar, near Cordoba, by Dr. C. C. Craft.

75. PELAMYDRUS PLATURUS (Linnaeus)

Anguis platura LINNAEUS, Syst. Nat., ed. 12, vol. 1, 1766, p. 391.

Hydrus platurus BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 267.

Pelamydrus platurus STEJNEGER, Proc. U. S. Nat. Mus., vol. 38, 1910, p. 111.

Ecuador.—3 specimens, all from the coast of Guayaquil: No. 12347 (1st): 1 praeocular; 2 postoculars; 2 suboculars; 9/8 upper labials; (2nd): 1 praeocular; 2 postoculars; no subocular; 8 (4, 5) upper labials. No. 59433: 1 praeocular; 2 postoculars; 1 subocular; 10/9 upper labials.

76. MICRURUS SURINAMENSIS (Cuvier)

Elaps surinamensis CUVIER, Règne Anim., vol. 2, 1817, p. 84.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 414.

For the use of *Micrurus* instead of *Elaps* as a generic name for these Neotropical and Nearctic species see Stejneger and Barbour.⁶

Dutch Guiana.—1 specimen, female No. 66144 sent from Moengo by Mr. C. Bonne and identified with *M. fulvius*: lab. 7 (4th) v. 181; c. 29 p.; 7 sets of 3 black annuli on the body, 1 on the occiput, 1 on the anal region, and 1 on the tail; total length 1,220 mm.

77. MICRURUS HEMPRICHII (Jan)

Elaps hemprichii JAN, Rev. Mag. Zool., 1858, p. 523.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 421.

Dutch Guiana.—1 specimen, female, No. 64633, sent from Moengo, by Mr. C. Bonne: eye $\frac{2}{3}$ its diameter from mouth; v. 181; c. 27 p.; black above with pinkish annuli, the black distributed in 8 triads of subequal annuli on the body and 1 on the tail; total length 805 mm.

78. MICRURUS TSCHUDII (Jan)

Elaps tschudii JAN, Rev. Mag. Zool., 1858, p. 524.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 422.

Peru.—1 specimen, female, No. 38588, sent by R. E. Coker; v. 207; c. 23 pairs + 5 single; total length 310 mm.; snout obtusely pointed;

⁶ Check-List N. A. Amph. Reptiles, 1917, p. 106, and Amaral Rev. Mus. Paulista, vol. 14, 1924, p. 3.

black annuli disposed more or less regularly in 11 sets of threes, the middle annulus $\frac{1}{3}$ as wide as the outer ones; ground color of back yellowish-white; 1st set of rings on the occiput; head as in Jan's figure,⁷ but the black part shows yellow sutures.

79. *MICRURUS HETEROZONUS* (Peters)

Elaps heterozonus PETERS, Sitz. Ber. Ges. Naturf. Freunde, Berlin, 1881, p. 52.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 417.

Peru.—1 specimen, female, No. 60701, collected at the Cosireni River, 4,000 feet altitude, on September 10, 1915, as referred to by Barbour and Noble.⁸ Female, v. 213; c. 17 pairs + 4 single; 16 black rings along the body more or less disposed in threes which character has not been emphasized by previous authors; the rings are narrower than their interspaces, which are a little lighter between two neighboring triads than those between internal rings of one triad; 2 rings on the tail; head coloration as described by Boulenger; total length 580 mm.

80. *MICRURUS DISSOLEUCUS* (Cope)

Elaps dissoleucus COPE, Proc. Acad. Nat. Sci. Philadelphia, 1859, p. 345.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 422.

Venezuela.—1 specimen of this rare and poorly described species. No. 59865, female, collected by Mr. Curran. Snout obtusely pointed; eye much shorter than its distance from the mouth; rostral broader than deep; frontal narrow and elongate, about twice as long as broad, shorter than the parietals which are very elongate and longer than their distance from the internasals; one prae and two postoculars; seven upper labials, third a little larger than fourth, and both entering the orbit, seventh well developed; temporals 1+1; three lower labials in contact with anterior chin-shields which are a little shorter than posterior; v. 199; a. 1/1; c. 22 p. Coloration: Six sets of 3 black rings, the middle one-third as wide as the outer; head black above with a yellow transverse band posteriorly situated and covering the posterior half of the frontal, supraocular, and 5th labial, all the upper postocular, 6th labial and anterior temporal, the anterior half of the 7th labial and all the posterior temporals and parietals. Total length, 450 mm.

81. *MICRURUS MIPARTITUS* (Duméril and Bibron)

Elaps mipartitus DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 1220.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 431.

Elaps microps BOULENGER, Proc. Zool. Soc. London, 1913, p. 1036, pl. 108, fig. 2.

Ecuador.—2 specimens: No. 62795, female, sent by Mr. Goding: Eye small; t. 1+1, anterior very narrow; 4 lower labials in contact

⁷ Icon. Gén., pt. 42, 1872, pl. 6, fig. 1.

⁸ Proc. U. S. Nat. Mus., vol. 58, 1920, p. 619.

with the anterior chin-shields which are a little shorter than the posterior; 3d upper labial very large but 4th the largest; v. 267; c. 29 p.; black with 61 yellowish-white cross-bars widening on the belly which is barred with black and yellowish-white; white dorsal scales usually with a black spot; tail yellowish with 3 black rings; head as Boulenger's description for both *mipartitus* and *microps*; total length, 740 mm.

No. 62796, female, also sent by Mr. Goding: The same head shield disposition; v. 274; c. 29 pairs + 1 single; coloration the same, 62 cross bars on the body and 4 on the tail; total length, 545 mm.

82. MICRURUS FILIFORMIS (Guenther)

Elaps filiformis GUENTHER, Proc. Zool. Soc. London, 1859, p. 86, pl. 18 fig. B.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 430.

Colombia.—1 specimen, No. 4338, from Truando, New Granada, in bad condition.

83. MICRURUS ANCORALIS (Jan)

Elaps marcegravi, var. *ancoralis* JAN, Icon. Ophid., pt. 42, 1872, pl. 4, fig. 2.
Elaps ancoralis BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 432.

Ecuador.—1 specimen, No. 12267, female, collected in Guayaquil: v. 253, c. 32 p.; body with 15 triads of black rings, one on the tail and one near the nape; a very defined anchor-shaped marking on the occiput and nape; symphysial separated from anterior pair of chin-shields by 1st pair of lower labials, which is exceptional in this species; total length, 488 mm.

84. MICRURUS NARDUCCI (Jan)

Elaps narducci JAN, Arch. Zool. Anat. Physiol., vol. 2, 1863, p. 222 (type from Bolivia).—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 433.

Ecuador.—2 specimens, sent from Macas, Provincia d'El Oriente, by M. Madira: No. 65473, female; v. 320; c. 20 p.; black above with 52 transversely oval spots all yellow, some extending as irregular blotches down to the sides; 2 yellow rings on the tail as in Jan's figure;⁹ total length 585 mm. No. 65474, male; v. 275; c. 23 p.; coloration as in No. 65473, with 43 oval yellow spots; yellow beneath, 1½ yellow rings on the tail; total length 497 mm.

85. MICRURUS FRONTALIS (Duméril and Bibron)

Elaps frontalis DUMÉRIL and BIBRON, Erp. Gén., vol. 7, 1854, p. 1223 (part).—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 427.

Argentina.—1 specimen, No. 52592, collected in Mendoza by Dr. Carlos S. Reed: 7 sets of 3 rings, the middle about 2 to 3 times as wide as the center.

⁹ Icon. Gén., 1872, p. 42, pl. 6, fig. 5.

86. MICRURUS CORALLINUS (Wied)

Elaps corallinus WIED, Nova Acta Acad. Leopold. Carol., vol. 10, pt. 1, 1820, p. 108; Abbild. Naturg. Brasil., pt. 6, 1824, pl. 4.

Elaps dumerilii JAN, Rev. Mag. Zool., 1858, p. 522; Icon. Ophid., pt. 42, 1872, pl. 1, fig. 3.

Elaps risei JAN, Rev. Mag. Zool., 1858, p. 525, pl. B.; Icon. Ophid., pt. 42, 1872, pl. 6, fig. 3.

Elaps corallinus BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 420.

The United States National Museum has 29 specimens of this very widespread species. Having carefully examined this material I was led into comparing it with those specimens in the Museum of Zoology of the University of Michigan and in the Carnegie Museum at Pittsburgh as well as those in the Museum of Comparative Zoology, supplemented with a few specimens recently received from both the Instituto do Butantan and the Museu Paulista. The total number of specimens examined was 101, distributed as follows:

United States National Museum.....	29
University of Michigan Museum of Zoology.....	2
Carnegie Museum (Griffin's material).....	8
Museum of Comparative Zoology (Inst. Butantan and Mus. Paulista).....	62
Total.....	101

The countries to which those specimens belong were the following:

Trinidad.....	21
Venezuela.....	1
Colombia.....	13
Ecuador.....	7
Peru.....	6
Brazil.....	51
South America.....	1
Unknown.....	1
Total.....	101

The most important characteristics of those specimens may be tabulated as follows:

Specimens of *Micrurus corallinus* examined

Locality	No.	Museum	Sex	Temp.	V.	C.	Black annuli		
							Body	Tail	Outer annuli
Trinidad	5586	U. S. N. M.	♀	1+1	193	31 p.	25	6	None.
Do	5586-1	do	♀	1+1	202	33 p.	23	6	Slight.
Do	5586-2	do	♀	1+1	180	44 p.	27	9	None.
Do	5586-3	do	♀	1+1	194	30 p.+2.	29	6	Slight.
Do	5586-4	do	♀	1+1	198	30 p.+2.	31	8	None.
Do	5586-5	do	♀	1+1	197	31 p.	27+ $\frac{1}{2}$	6	Slight.
Do	5586-6	do	♀	1+1+1	181+ $\frac{1}{2}$	38 p.+5.	25+ $\frac{1}{2}$	10	Marked.
Do	5586-7	do	♀	1+1	183	41 p.+2.	25	9	Slight.
Do	5586-8	do	♀	1+1/1	198	29 p.+2.	29+ $\frac{1}{2}$	7	None.
Do	5586-9	do	♀	1+1	187	44 p.	25	12	Marked.
Do	5586-10	do	♀	1+1	195	29 p.+3.	22	6	None.
Do	5586-11	do	♀	1+1	186	44 p.+2.	26	All black.	Do.
Do	7481-1	do	♀	1+1	199	34 p.	27+ $\frac{3}{4}$	7	Do.
Do	7481-2	do	♀	1+1	185	43 p.+1.	25	11	Slight.
Do	17736	do	♀	1/1	198	31 p.	29	8	None.
Do	17737	do	♀	1/1+1	181	37 p.+10	30	11	Slight.
Do	17738	do	♀	1+1	185	46 p.	29	All black.	Do.
Do	17739	do	♀	1+1	186	47 p.	26	10	None.
Do	6123-1	M. C. Z.	♀	1/1	185	27 p.+14	29	9	Marked.
Do	6123-2	do	♀	1+1	182	45 p.+2.	26	10	Slight.
Do	6123-3	do	♀	1/1	182	46 p.	25	10	Do.
Venezuela	9996	do	♀	1+1	178	44 p.	25	9	None.
Colombia	54339	U. S. N. M.	♀	1+1	190	53 p.	16	7	Marked.
Do	45548	Univ. Mich.	♀	1+1	199	49 p.	10	5	Do.
Do	47796	do	♀	1+1	180	49 p.	12	11	Do.
Do	197	Carn. Mus.	♀	1+1	207	33 p.	13	5	Do.
Do	198	do	♀	1+1	206	35 p.+1.	12	4	Do.
Do	2031	do	♀	1+1	185	43 p.	12	6	Slight.
Do	199	do	♀	1+1	191	47 p.	14	7	Faded.
Do	2033	do	♀	1+1	205	33 p.	14	5	Marked.
Do	6535	M. C. Z.	♀	1+1	186	46 p.	10	6	Do.
Do	6536	do	♀	1+1	183+ $\frac{1}{4}$	44 p.	11	6	Do.
Do	6537	do	♀	1+1/1+2	179	45 p.+1.	12	6	Slight.
Do	6582	do	♀	1+1	198	32 p.	15	4	Marked.
Do	13302	do	♀	1+1	209	38 p.	16	6	Slight.
Ecuador	20624	U. S. N. M.	♀	1+1	211	38 p.	19	6	None.
Do	22413	do	♀	1+1	198	56 p.	17	7	Do.
Do	59432	do	♀	1+1	206	43 p.	16	5	Marked.
Do	62808	do	♀	1+1	198	56 p.	19	8	None.
Do	8399	M. C. Z.	♀	1+1	209	45 p.	15	6	Marked.
Do	3559	do	♀	1+1	201	48 p.	18	6	Do.
Do	3569	do	♀	1+1	213	34 p.	19	4	Do.
Peru	17384	do	♀	1/1	198	27 p.	18	4	None.
Do	17385	do	♀	1+1	190	33 p.+8.	26	7	Do.
Do	17386	do	♀	1+2	207	45 p.	25	9	Do.
Do	17387	do	♀	1/1	199	28 p.	27	5	Do.
Do	17388	do	♀	1+1	200	30 p.	25	5	Do.
Do	17389	do	♀	1+1	202	27 p.	27	4	Do.
Brazil	2915-1	do	♀	1+1	217	27 p.	20	4	Do.
Do	2915-2	do	♀	1+1	219	25 p.+5.	21	4	Do.
Do	17855	do	♀	1+1	216	31 p.	24	5	Do.
Brazil (Esp. Santo)	17856	do	♀	1+1	216	30 p.	18+ $\frac{1}{2}$	4	Do.
Brazil (Rio)	53362	U. S. N. M.	♀	1+1	211	27 p.	20	4	Do.
Do	53363	do	♀	1+1	193	42 p.	17+ $\frac{3}{4}$	6	Do
Do	53364	do	♀	1+1	195	42 p.	17+ $\frac{1}{2}$	7	Do.
Do	2923-1	M. C. Z.	♀	1+1	216	26 p.	22	4	Do.
Do	2923-2	do	♀	1+1	198	42 p.	17	7	Do.
Do	3003	do	♀	1+1	217	30 p.	22	5	Do.
Do	3205-1	do	♀	1+1	207	29 p.	20	4	Do.
Do	3205-2	do	♀	1+1	196	43 p.	19	8	Do.
Do	² 1194	do	♀	1+1	?	?	20	4	Do.
Do	1374-1	do	♀	1+1	214	29 p.	18	4	Do.
Do	1374-2	do	♀	1+1	196	44 p.+2.	17	7	Do.
Do	1374-3	do	♀	1+1	199	43 p.+2.	17	7	Do.
Do	1374-4	do	♀	1+1	210+ $\frac{1}{2}$	28 p.	21+ $\frac{1}{2}$	4	Do.
Do	1374-5	do	♀	1+1	196	45 p.+2.	15+ $\frac{3}{4}$	7	Do.
Do	1374-6	do	♀	1+1	212	29 p.	20+ $\frac{1}{2}$	4	Do.
Do	1374-7	do	♀	1+1	211	27 p.	22	4	Do.
Do	2648-1	do	♀	1+1	209	27 p.	18	4	Do.
Do	2648-2	do	♀	1+1/1+2	196	40p.+2+ $\frac{1}{2}$	17	6	Do.
Do	2648-3	do	♀	1+1	209+ $\frac{1}{2}$	28 p.	19+ $\frac{1}{3}$	5	Do.
Do	2648-4	do	♀	1+1	206	28 p.	19	4	Do.
Do	2648-5	do	♀	1+1	209	30 p.	21	4	Do.
Do	2648-6	do	♀	1+1	207	23 p.+1.	18+ $\frac{1}{2}$	4	Do.
Do	2648-7	do	♀	1+1	209	27 p.	21	4	Do.

¹ This specimen is now No. 11855 M. C. Z.² Under surface in bad condition.

Specimens of *Micrurus corallinus* examined—Continued

Locality	No.	Museum	Sex	Temp.	V.	C.	Black annuli		
							Body	Tail	Outer annuli
Brazil (Rio)	2648-8	M. C. Z.	♂	1+1	196	40 p.+2.	16+½	6	None.
Do	2648-9	do	♂	1+1	199	44 p.	18	7	Do.
Do	2648-10	do	♀	1+1	206	29 p.	22	4	Do.
Do	3498	do	♂	1+1/1+2	195	42 p.+4.	16	8	Do.
Do	2653	do	♂	1+2/1+2	195	30 p.+4+	16+½	5+	Do.
Do	2678	do	♀	1+1	211	30 p.	19	5	Do.
Brazil (Mina- nas).	5568	do	♀	1+1	183+½	31 p.+9.	14	5	Do.
Brazil (Go- yaz).	3489	do	♀	1+1	212	28 p.	20	5	Do.
Brazil (S. Paulo).	12695	do	♂	1+1	207	44 p.+1.	19	7	Do.
Do	12696	do	♀	1+1	213	28 p.	16+½	4	Do.
Do	16675	do	♂	1+1	207	46 p.	18+½	7	Do.
Do	17857	do	♂	1+1	215	27 p.	20+½	4	Do.
Do	17859	do	♀	1+2/1+1	213	30 p.	18	5	Do.
Do	17858	do	♂	1+2	198	44 p.	18	7	Do.
Do	17860	do	♂	1+2/1+1	203	43 p.	20	7	Do.
Brazil (Pa- raná).	17861	do	♀	1+1	213	28 p.	17+½	4	Do.
Brazil (Sta. Cath.).	17755	do	♀	1+2/1+1	213	28 p.	20	4	Do.
Do	17756	do	♀	1+1	213	29 p.	20	4	Do.
Do	17757	do	♀	1+1/1+2	200	45 p.	18	8	Do.
Do	17758	do	♀	1+1	217	30 p.	19	4	Do.
Do	40218	U. S. N. M.	♀	1+1	221	30 p.	20	4	Do.
Do	40219	do	♀	1+1	217	30 p.	20	6	Do.
Do	40220	do	♀	1+1	217	30 p.	21	4	Do.
Brazil (M. Grosso).	341	Carn. M.	♀	1+1	213	29 p.	24	6	Do.
So. America.	261	do	♂	1+1	200	43 p.	16	6	Do.
Unknown.	1236	do	♀	1+1	195	44 p.	15	6	Do.

³ From the S. Sebastião Island.

⁴ From the Victoria Island.

Now, in summarizing the above figures according to both the sex and the geographical distribution of the various specimens, excluding the two that have no definite data, the averages are found to be as follows:

Locality	Number of specimens	Sex	Ventrals	Caudals	Black annuli		
					Body	Tail	Outer annuli
1. Trinidad	12	♂♂	180-187	41-47	25-30	9-12	} Sometimes present.
2. Venezuela	9	♂♀	193-202	31-34	22-31	6-8	
3. Colombia	1	♂	178	44	25	9	} None.
4. Ecuador	8	♂♂	179-199	43-53	10-16	5-11	
5. Peru	5	♂♂	198-209	32-38	12-16	4-6	} Always present.
	3	♂♀	198-209	45-56	15-19	6-8	
6. Brazil	4	♂♀	201-213	34-48	16-19	4-6	} Frequently present.
	2	♂♀	190-207	41-45	25-26	7-9	
6. Brazil	4	♂♀	198-202	27-30	18-27	4-5	} Never present.
	18	♂♂	186-207	40-47	14-20	5-8	
	33	♀	206-221	24-31	17½-24	4-6	} Never present.

Having thus examined a rather large series of Colombian and Ecuadorian specimens that, as a rule, showed outer rings on their body and so looked very much like *M. dumerilii* (Jan) as represented in Jan's figure ¹⁰ and as described in Boulenger's Catalogue, ¹¹ I was

¹⁰ Icon. Ophid., 1872, pt. 42, pl. 1, fig. 3.

¹¹ Cat. Snakes Brit. Mus., pt. 3, 1896, p. 419.

led to compare *M. dumerilii* with *M. corallinus* in order to ascertain whether the former were to be considered a valid species or not.

As represented in Boulenger's catalogue these two species can be distinguished from each other only by the following characteristics:

	Frontal	Caudals	Outer black annuli
<i>M. dumerilii</i>	as long as the parietals.....	50-53	Present as to form triads, the median ones being much broader.
<i>M. corallinus</i>	a little shorter than the parietals....	30-47	Not present.

As far as the proportional length of the frontal is concerned, I have found it to be a very poor character. The ratio of frontal to parietal is 3:4.5 to 3:4.75 for specimens from Colombia and Ecuador, consequently from the same zoogeographical region as the type of *M. dumerilii* (Cartagena, Colombia), while for specimens from other regions the ratio is 3.25:3.75 to 4.5:6.5.

As regards the number of subcaudals the series examined shows them to vary from 32 to 56 in specimens from Colombia and Ecuador, thus agreeing with the figures assigned by Boulenger to specimens of his *M. corallinus* collected elsewhere.

Finally, the presence of outer rings in specimens from Colombia and Ecuador can not be taken as a specific difference firstly because Boulenger, himself, included in the synonymy of his *M. corallinus* Jan's *M. bocourti* that has marked outer rings as seen in Jan's figure,¹² secondly, because such rings are sometimes found in specimens from Trinidad.

On the strength of these data, I have decided to consider the specimens from Colombia and Ecuador as belonging to a local race. Likewise those from Trinidad and probably those from Venezuela must be given subspecific rank, as they can be distinguished from the typical form by the number of ventrals and by the disposition of rings. I consequently recognize the following subspecies:

1. MICRURUS CORALLINUS CORALLINUS (Wied)

Diagnosis.—Body red with single black annuli edged with whitish yellow; 14-26 annuli on the body in males and 17½-27 in females; 5-9 annuli on the tail in males and 4-6 in females; ventrals 186-207 in males and 198-221 in females.

Type locality.—San Francisco, Cabo Frio, and Parahyba, Brazil.

Distribution.—Found in southern, southeastern and central Brazil as well as in Uruguay, Argentina, Paraguay, Peru, and Venezuela.

¹² Icon. Gen., 1872, pt. 42, pl. 6, fig. 2.

2. MICRURUS CORALLINUS RIISEI (Jan)

Diagnosis.—Body red with black annuli edged with whitish-yellow and sometimes also black (outer annuli), tail very dark so that the annuli become almost invisible; 25–30 annuli on the body in males and 22–31 in females; 9–12 annuli on the tail in males and 6–8 in females; ventrals 180–187 in males and 193–208 in females; anterior temporal with a marked tendency to disappear.

Type locality.—Trinidad.

Distribution.—Found in Trinidad and Venezuela. There is no evidence that it occurs in the islands of St. Vincent and St. Thomas as stated by Boulenger (p. 420).

3. MICRURUS CORALLINUS DUMERILII (Jan)

Diagnosis.—Body red with black annuli edged with yellow; outer black annuli practically always present; 10–19 annuli on the body in males and 12–19 in females; 5–11 annuli on the tail in males and 4–6 in females; ventrals 179–209 in males and 198–213 in females; posterior temporal with a tendency to be subdivided.

Type locality.—Cartagena, Colombia.

Distribution.—Found in Colombia and Ecuador.

87. MICRURUS LEMNISCATUS (Linnaeus)

Coluber lemniscatus LINNAEUS, Syst. Nat., ed 10., vol. 1, 1758, p. 224.

Elaps lemniscatus BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 430.

Micrurus lemniscatus AMARAL, Rev. Mus. Paulista, vol. 14, 1924, p. 3.

Elaps ibiboboca MERREM, Tent. Syst. Amph., 1820, p. 142.

Elaps marcgravi WIED, Nova Acta Acad. Leopold. Carol., vol. 10, pt.

1, 1820, p. 109.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 428.

Micrurus ibiboboca AMARAL, Revista Mus. Paulista, vol. 14, 1924, p. 4.

Very recently I revised¹³ the nomenclatorial aspect of the mooted question regarding the names *M. lemniscatus* and *M. ibiboboca*. I am able now to say that the latter is a strict synonym of the former.

If we compare Boulenger's description of both his *M. lemniscatus* (*E. lemniscatus*) and *M. ibiboboca* (*E. marcgravi*) we find that the only point of distinction between these species consists in the number of ventrals and in the corresponding number of sets of black annuli. Boulenger's figures are as follows:

	Ventrals	Sets of annuli
<i>M. lemniscatus</i> -----	241–262	11–14
<i>M. ibiboboca</i> -----	210–240	6–10

¹³ Revista Mus. Paulista, vol. 14, 1924, pp. 3–6.

I believe that these figures are so definite because Boulenger had at his disposal only 23 specimens, which, of course, constitute a relatively small series. I, myself, having studied 13 specimens in the United States National Museum, was afterwards able to examine and compare 31 specimens in the Museum of Comparative Zoology and the large collection of the Instituto do Butantan, which I received in the meantime. The latter collection consisted of 58 specimens, thus making a total of 102 specimens. As a result I have ascertained that as a rule the female specimens have a larger number of ventrals, due to the fact that they have a larger number of dorsal vertebrae than the males, and that at the same time they usually have a larger number of annuli. This condition is particularly evident in large series of specimens, as, for instance, in that from Sao Paulo, Brazil, which is tabulated below.

The 102 specimens examined were as follows:

Museum	No.	Locality	Sex	V.	C.	Triads of annuli	
						Body	Tail
U. S. N. M.	1405	So. America	♀	235	25 p.+	7	1+
Do.	5444	Brazil	♀	267	37 p.	13	1½
Do.	6006	Brazil (Amazonas)	♀	249	39 p.	10	1½
Do.	13823	Dutch Guiana	♀	237	38 p.	14	1½
Do.	39074	Brazil (S. Paulo)	♀	234	30 p.	12	1½
Do.	5585-1	Trinidad	♀	230	33 p.	10	1½
Do.	5585-2	do	♀	220	35 p.+2.	10	1½
Do.	5585-3	do	♀	214	32 p.+3.	12	1½
Do.	7342	do	♀	241	27 p.+7.	10	1½
Do.	15234	do	♀	225	34 p.+3.	10	2
Do.	17740	do	♀	220	30 p.+6.	11	1½
Do.	55959	do	♀	230	26 p.	8	1½
Do.	60652	do	♀	221	27 p.+5.	10	2
M. C. Z.	6122	do	♀	220	30 p.	10	1½
Do.	6755	do	♀	222	34 p.+2.	10	1½
Do.	945-1	So. America	♀	234+½	40 p.	11	1½
Do.	945-2	do	♀	234+½	36 p.+2.	10	1½
Do.	5066	do	♀	213	24 p.+3.	9	1½
Do.	9978	Venezuela	♀	208	29 p.	12	1½
Do.	12428	Peru	♀	246	36 p.	9	1½
Do.	9885	Brazil (Amazonas)	♀	235	42 p.	12	1½
Do.	1208	Brazil (Para)	♀	221	35 p.	9	1½
Do.	3216	Brazil (Pernambuco)	♀	236	22 p.+2.	7	1½
Do.	1459	do	♀	226	27 p.	8	1½
Do.	3663-1	Brazil (Bahia)	♀	241	41 p.	11	1½
Do.	3663-2	do	♀	224	24 p.	10	1½
Do.	1190-1	do	♀	226	24 p.	9	1½
Do.	1190-2	do	♀	207	17 p.+5.	8	1½
Do.	1357	do	♀	220+½	22 p.+2.	10	1½
Do.	1375	Brazil (Rio)	♀	233+½	26 p.	10	1½
Do.	3298	Brazil (Esp. Santo)	♀	231	5 p.+18.	11	1½
Do.	16433	Brazil (Rio)	♀	233	25 p.	7	1½
Do.	1192-1	do	♀	214	18 p.+6.	9	1½
Do.	1192-2	do	♀	227	23 p.	8	1½
Do.	16683	Brazil (S. Paulo)	♀	235	33 p.+1.	11	1½
Do.	2580	Brazil (Para)	♀	224	36 p.	8	1½
Do.	2612	do	♀	221+½	12 p.+12	7	1½
Do.	2955-1	Brazil (Bahia)	♀	232	26 p.+1.	7	1½
Do.	2955-2	do	♀	227	25 p.	7	1½
Do.	2976	Brazil (Amazonas)	♀	218	13 p.+8.	6	1½
Do.	17762	Brazil (Minas)	♀	232	36 p.	12	1½
Do.	17761	do	♀	258	28 p.	12	1½
Do.	17851	Brazil (Bahia)	♀	224	25 p.	8	1½
Do.	17852	Brazil (Minas)	♀	235	27 p.+3.	11	1½
Inst. Butantan.	1308	Brazil (S. Paulo)	♀	241	30 p.	15	2
Do.	1593	do	♀	240	35 p.	12	1½
Do.	937	do	♀	225	32 p.	12	1½
Do.	1528	do	♀	226	31 p.	11	2
Do.	1544	do	♀	230	27 p.+2.	13	2
Do.	1728	Brazil (Amazonas)	♀	246+½	41 p.	10	1½

The 102 specimens examined were as follows—Continued

Museum	No.	Locality	Sex	V.	C.	Triads of annuli	
						Body	Tail
Inst. Butantan	1706	Brazil (S. Paulo)	♂	233	32 p.	11	1½
Do	1220	do.	♀	254	28 p.+1	16	2
Do	1613	do.	♂	233	32 p.	13	1½
Do	1592	do.	♂	234	36 p.	13	2
Do	900	do.	♀	230+½	31 p.	13	2
Do	1020	do.	♀	256	32 p.	12	2
Do	598	Brazil (Minas)	♀	241	30 p.	11	1½
Do	1221	Brazil (S. Paulo)	♀	253	33 p.	17	2
Do	1198	do.	♂	234	28 p.	13	2
Do	1044	do.	♂	233	38 p.	13	2
Do	382	do.	♀	264	30 p.	18	2
Do	381	do.	♀	251	30 p.	15	1½
Do	869	Brazil (Bahia)	♀	247	41 p.	12	2
Do	965	do.	♀	259	28 p.	11	1½
Do	1300	Brazil (S. Paulo)	♂	234	33 p.	12	2
Do	409	do.	♂	234	33 p.	12	2
Do	1821	do.	♀	246	32 p.+3	14	2
Do	1182-A	do.	♂	230	33 p.	12	1½
Do	1354	Brazil (Bahia)	♂	226	23 p.+4	10	1½
Do	1729	Brazil (Amazonas)	♂	226	28 p.+	8	1+
Do	1050	Brazil (Ceara)	♂	231	26 p.	9	1½
Do	969	Brazil (Bahia)	♂	227	24 p.	9	1½
Do	485	Brazil (Piauhy)	♂	232	26 p.	10	1½
Do	1281	do.	♂	238	26 p.	9	1½
Do	484	do.	♀	233	20 p.+4	9	1½
Do	498	do.	♂	236	22 p.	8	1½
Do	508	do.	♂	232	22 p.+3	9	1½
Do	1663	do.	♂	234	24 p.	9	1½
Do	1311	Brazil (Ceara)	♂	222	24 p.	9	1½
Do	75	Brazil (Bahia)	♀	229	18 p.+6	9	1½
Do	1753	do.	♀	230	24 p.	11	1½
Do	982	do.	♂	226	24 p.	9	1½
Do	981	do.	♂	230	24 p.	11	1½
Do	986	do.	♂	219	24 p.	9	1½
Do	1410	do.	♂	213	22 p.+4	9	1
Do	1850	Brazil (S. Paulo)	♂	205	13 p.+10	9	1½
Do	3040	Brazil (Bahia)	♀	263	37 p.	11	1½
Do	3041	Brazil (S. Paulo)	♀	226+½	35 p.	11	1½
Do	3042	do.	♀	234	34 p.	13	1½
Do	3043	do.	♀	234	30 p.+2	14	2
Do	3044	do.	♀	255	30 p.	14	1½
Do	3045	do.	♀	243	32 p.	16	2
Do	3046	do.	♀	238	35 p.	14	2
Do	3047	do.	♀	235	28 p.+4	16	2
Do	3048	do.	♀	219	30 p.+2	14	2½
Do	3049	do.	♀	252	27 p.	13	2
Do	3050	do.	♀	229	30 p.+2	12	2
Do	3051	do.	♀	260	30 p.	14	1½
Do	3052	do.	♀	233	33 p.	12	2
Do	3053	do.	♂	243	29 p.	11	1½
Do	3054	do.	♀	260	(Injured tail.)	14	?
Do	3055	Brazil (Minas)	♂	238	29 p.	14	2

Summarizing the above data according to both sex and geographical distribution of the various specimens, the following averages have been found:

Locality	Number of specimens	Sex	V		C	Triads of annuli		
						Body	Tail	
1. So. America.....	3	♂♂	213	-234+½	27-40 p..	9-11	1½	
	1	♀		235	25 p.+		1+	
2. Trinidad.....	10	♂♂	214	-241	26-40 p..	8-12	1½-2	
3. Venezuela.....	1	♂		208	29 p.....		1½	
4. Dutch Guiana.....	1	♀		237	38 p.....		1½	
5. Peru.....	1	♀		246	36 p.....		1½	
6. Brazil.....	1	♀		267	37 p.....		1½	
(a) Amazonas.....	3	♂♂	218	-235	21-42 p..	6-12	½-1½	
	2	♀♀		246½	-249	39-41 p..	10-14	1½-1½
(b) Para.....	3	♂♂	221	-224	24-36 p..	8-9	½-1½	
(c) Piauhy.....	4	♂♂	232	-238	24-26 p..	9-10	1½	
	2	♀♀	233	-236	22-24 p..	8-9	1½	
(d) Ceara.....	2	♂♂	222	-231	24-26 p..	9	1½	
(e) Pernambuco.....	2	♀♀	226+½	-236	24-27 p..	7-8	1½	
(f) Bahia.....	12	♂♂	207	-247	22-41 p..	7-12	1-2	
	7	♀♀	226	-263	24-41 p..	9-11	1½-1½	
(g) Esp. Santo.....	1	♂		231	23 p.....		1½	
(h) Rio.....	3	♂♂	214	-233+½	23-26 p..	8-10	1½-1½	
	1	♀		233	25 p.....		7	
(i) Minas.....	4	♂♂	232	-241	29-36 p..	11-14	1½-2	
	1	♀		258	28 p.....		12	
(j) S. Paulo.....	20	♂♂	205	-243	23-41 p..	9-14	1½-2½	
	17	♀♀	234	-264	27-35 p..	12-18	1½-2	
General average.....	66	♂♂	205	-247	21-42 p..	5-14	½-2½	
	36	♀♀	226	-267	22-41 p..	7-18	1½-2	

On the basis of the study of these 102 specimens I am now able to redescribe the species as follows:

MICRURUS LEMNISCATUS (Linnaeus)

Eye about two to three fifths its distance from the oral margin. Rostral wider than deep; frontal as wide as or much wider than the supraocular, once and a half to twice as long as wide, as long as its distance from the end of the snout, shorter than the parietals, which are longer than their distance from the internasals; one pre- and two postoculars; temporals 1+1, anterior usually much longer and narrower than posterior; seven upper labials, third much larger than fourth, third and fourth entering the orbit; four lower labials in contact with the anterior chin-shields which are about as long as the posterior. Scales in 15 rows. Ventrals 205-247 in males, 226-267 in females; anal divided; subcaudals 21-42. Body red with triads of black annuli, subequal or the middle a little wider; 6-14 triads on the body in males, 7-18 in females; usually 1-2 triads on the tail; black annuli separated by light yellow ones which may be spotted or dotted with black or only have black-edged scales; head red (yellow sometimes in preserved specimens), with two transverse black bands, one on the snout and another across the frontal region; sometimes one or two small spots on the occiput or head-shields black, edged with yellow.

Total length—1450 mm.¹⁴; tail 100 mm.

Found in Tropical South America: Trinidad, Venezuela, Guianas, Ecuador, Bolivia, Peru, N. Paraguay, N. Argentina ¹⁵, and especially in Brazil, where, however, it never occurs in the south beyond the State of Sao Paulo.

88. **BOTHROPS ATROX** (Linnaeus)

Coluber atrox LINNAEUS, Syst. Nat., ed. 10, vol. 1, 1758, p. 222.

Lachesis lanceolatus BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 535 (in part).—BRAZIL, La Défence contre l'Ophidisme, 1914, p. 84 (part).

Lachesis atrox BOULENGER, p. 537 (part).—BRAZIL, La Défence contre l'Ophidisme, 1914, p. 84.—AMARAL, Ann. Mem. Inst. Butantan, vol. 1, pt. 1, 1921, pp. 34 and 78.

Bothrops atrox AMARAL, Copeia, No. 126, 1924, p. 19; Rev. Mus. Paulista, vol. 14, 1924, p. 39.

Panama.—3 specimens.

Colombia.—1 specimen.

Ecuador.—A large series of specimens all having short and high keels on the scales.

Peru.—1 specimen.

Martinique.—5 specimens.

Santa Lucia.—4 specimens.

Tobago.—2 specimens.

Trinidad.—5 specimens.

French Guiana.—1 specimen.

Brazil.—5 specimens.

Paraguay (accidentally).—1 specimen.

All these specimens will be referred to in a more elaborate report I am at present writing on the differences between the 3 species of Neotropical Crotalidae, *B. atrox* (Linnaeus, 1758), *B. jararaca* (Wied, 1824) and *B. jararacussu* Lacerda, 1884.

89. **BOTHROPS JARARACA** (Wied)

Cophias jararaca WIED, Isis, 1824, pt. 2, p. 1103; Abbild. Naturg. Brasil., 1824, p. 7.

Lachesis lanceolatus BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 535 (part).

Lachesis jararaca AMARAL, Ann. Mem. Inst. Butantan, vol. 1, pt. 1, 1921, p. 34.

Bothrops jararaca AMARAL, Copeia, vol. 126, 1924, pp. 19 and 78.

Brazil.—1 specimen, No. 40216 collected in Santa Catharina by Mr. Ehrhardt.

¹⁴ Specimen No. 1308 Inst. Butantan, sent alive, from the locality Ventania, State of S. Paulo, in July, 1917, by Goncalves de Freitas.

¹⁵ Serie in his "Catalogo de los Ofidios Argentinos" states that this species is found from the Rio Negro and Central Pampa to the North.

90. *BOTHRUPS PICTA* (Tschudi)

Lachesis picta TSCHUDI, Fauna Peruv., Herp., 1845, p. 61, pl. 10.

Bothrops pictus JAN, Elenco Sist., 1863, p. 126.

Lachesis pictus BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 540.

Peru.—1 specimen, No. 49992 collected in Lima by C. H. T. Townsend on April 26, 1913: lab. 9, 2d entering the loreal pit; sc. 25; v. 167; c. 47 p.

91. *BOTHRUPS NEUWIEDI* Wagler

Bothrops neuwiedi WAGLER, in Spix, Species Novae Serp. Brasil., vol. 56, 1826, pl. 22, fig. 1.

Lachesis neuwiedii BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 542.

Argentina.—1 specimen, No. 12380, collected at Rio Vermejo, by the La Plata Expedition.

92. *BOTHRUPS LEPTURA* Amaral

Bothrops leptura AMARAL, Proc. New England Zool. Club, vol. 8, 1923, p. 102 (type from Cana, Eastern Panama).

Ecuador.—2 specimens, both collected by M. B. Kerr: No. 20629, sc. 27; v. 201; c. 82 p.; no scale separating the internasals from each other; upper head scales rugose; tail unspotted beneath, light posteriorly and with a few dark blotches anteriorly; total length 430 mm.; tail 75 mm. No. 20630: sc. 28; v. 198; c. 87 p.; head scales as in No. 20629; tail, anteriorly slightly blotched with dark above and powdered with dark beneath, posteriorly light, unspotted; total length 1,120 mm.; tail 185 mm.

93. *BOTHRUPS LANSBERGII* (Schlegel)

Trigonocephalus lansbergii SCHLEGEL, Mag. Zool., 1841, Rept., pl. 1.

Bothrops lansbergi JAN, Elenco Sist., 1863, p. 127.

Lachesis lansbergii BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 546.

Venezuela.—1 specimen, female, No. 61225, collected at the Sierra de Perija, by Theo. de Booy: sc. 25; v. 154; c. 29; rostral $1\frac{1}{2}$ as deep as wide.

94. *BOTHRUPS BRACHYSTOMA* (Cope)

Teleuraspis castelnaui, var. *brachystoma* COPE, Proc. Acad. Nat. Sci., Philadelphia, 1859, p. 339.

Bothrops brachystoma BOCOURT, Journ. Zool., vol. 5, 1876, p. 410.

Lachesis brachystoma BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 547.

Ecuador.—5 specimens, all collected by M. B. Kerr:

U. S. N. M. number	Sex	Sc.	V.	C.	Rostral (depth by width)
20,625.....	♂	23	133	34	2×1
20,626.....		23	131	34	2×1
20,627.....		24	135	28	2×1
20,628.....		23	134	28	2×1
22,442.....		23	128	29	2×1

95. **BOTHROPS SCHLEGELII** (Berthold)

Trigonocephalus schlegelii BERTHOLD, Abh. Ges. Wiss. Goettingen, vol. 3, 1846, p. 13, pl. 1, figs. 5-6.

Bothrops schlegelii JAN, Elenco Sist., 1863, p. 127.

Lachesis schlegelii BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 567.

96. **CROTALUS TERRIFICUS** (Laurenti)

Caudisona terrifica LAURENTI, Syn. Rept., 1768, p. 93.

Crotalus terrificus COPE, Proc. U. S. Nat. Mus., vol. 14, 1892, p. 688.—

BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1896, p. 574.

Paraguay.—4 specimens, No. 11262 (head) and 3 young ones, No. 11258, all collected by Dr. E. Palmer.

97. **LACHESIS MUTUS** (Linnaeus)

Crotalus mutus LINNAEUS, Syst. Nat., ed. 12, vol. 1, 1766, p. 373.

Lachesis mutus DAUDIN, Hist. Nat. Rept., vol. 5, 1803, p. 351.—BOULENGER, Cat. Snakes Brit. Mus., vol. 3, 1898, p. 534.

Lachesis stenophrys COPE, Journ. Acad. Nat. Sci. Philadelphia, ser. 2, vol. 8, 1875, p. 534.

Ecuador.—1 specimen (head), No. 20635, sent by Mark B. Kerr.

