FIELDIANA · ZOOLOGY

Published by
CHICAGO NATURAL HISTORY MUSEUM

Volume 31 | FEBRUARY 23, 1951 | No. 42

AMPHIBIANS AND REPTILES OF THE HOPKINS–BRANNER EXPEDITION TO BRAZIL

KARL P. SCHMIDT
CHIEF CURATOR, DEPARTMENT OF ZOOLOGY

AND

ROBERT F. INGER
ASSISTANT CURATOR, DIVISION OF FISHES

The herpetological collections made by the Hopkins–Branner Expedition to Brazil in 1911 were purchased by the California Academy of Sciences, where they have since been stored. On the return of the senior author from the Marshall Field Brazilian Expedition in 1926, Mr. J. R. Slevin, of the California Academy of Sciences, wrote concerning the existence of this collection; and, after some delays, application was made for the loan of this material, which comes in large part from northeastern Brazil, a region of special interest for its faunal relations with Paraguay and Matto Grosso. We are much indebted to Mr. Slevin for his interest and trouble in arranging for the study of this collection. The only specimens that have been recorded from it are the *Cnemidophorus ocellifer*, reported upon by Charles E. Burt in his review of the genus (1931), and the amphisbaenas, reported in a separate paper (Schmidt, 1936). The further twenty-four year delay in the preparation of the present report results mainly from the failure of the plans for continued studies in Brazilian herpetology and mammalogy formulated by the senior author and Colin Campbell Sanborn on their return from Brazil in 1926 and 1927, which have failed of execution through causes beyond their control.

The personnel of the Hopkins–Branner Expedition consisted of Dr. Harold Heath, of Stanford University; Dr. Fred Baker, of Point Loma, California; and Dr. William M. Mann, now Director of the

United States National Zoological Garden. Their collecting stations in northeastern Brazil are shown on the accompanying map. Drs. Baker and Mann made a separate trip up the Amazon and Madeira to the Bolivian border, and their collections from this region are included in the present report. We have included notes on and comparisons with specimens of various species in the Brazilian collections of Chicago Natural History Museum.

The importance of this collection lies in its great amplification of our knowledge of the fauna associated with the chain of savannas extending from the Paraguayan Chaco and Matto Grosso to Ceará and Pernambuco—a fauna that is distinct on the one hand from the forest and mountain fauna of eastern and southeastern Brazil and on the other from that of the Amazonian forest. The senior author's attention was first drawn to the interesting connection of the fauna of the upper Paraguay with that of northeastern Brazil by his studies of the South American caimans (Schmidt, 1928, p. 224, fig. 3), in which he showed that the record of a caiman from the Parnahyba River, Piauhy, by Siebenrock is based on a specimen of *Caiman yacare*, the common species of the upper Paraguay. An even more striking clue to the faunal relation of the open country of southern South America to that of this corner of Brazil is supplied by the deduction by Mr. Colin C. Sanborn regarding the type locality of the three-banded armadillo, *Tolypeutes tricinctus* Linnaeus. He shows that it is extremely probable that this species came first from northeastern Brazil, and restricts the type locality to Pernambuco; and this conclusion is confirmed in a subsequent note (Sanborn, 1930a, p. 62, fig. 1; 1930b, p. 504). Burt's map of the distribution of *Cnemidophorus ocellifer* should have exhibited a similar distribution but by some extraordinary confusion of the records he shows the range of *C. ocellifer* as extending from Paraguay to eastern Santa Catharina (see p. 454), which misses the essential feature of the distribution of this savanna fauna. The chain of savannas is well shown in any modern phytogeographic map of South America (cf. Goode, 1943).

The species in the present collection that illustrate this faunal relation between the Paraguay–Matto Grosso region and northeastern Brazil are the following: *Bufo paracnemis, Hyla spegazzinii, Phyllomedusa hypochondrialis, Polychrus acutirostris, Philodryas nattereri, Cnemidophorus ocellifer, Xenodon merremii, Liophis genimaculata.* To these may be added *Caiman yacare* and numerous other amphibians and reptiles. Among mammals the large marsh deer is a conspicuous form with the savanna corridor distribution.

The ranges of South American amphibians and reptiles are usually stated in such vague terms that the correlation of the faunal arrangement with physical or vegetational features is obscure. As more and more ranges of individual species are plotted in detail, we feel sure that the savanna fauna of the central Brazilian area from the northeastern states to Matto Grosso will be found to constitute one of the most important of these correlations. It includes not only the great number of actively spreading savanna species of the present, for which this habitat is a highway of distribution, but also a number of relict forms that represent a western fauna of the east Brazilian highland, which may have been isolated as a distinct continental mass by transgressions of the sea in the Amazon and Tocantins basin.

The following is a list by states of the Brazilian localities at which collections were made (see also fig. 85):

Amazonas
- Itacoatiara
- Manáos
- Rio Madeira

Ceará
- Fortaleza
- Quixada

Maranhão
- Maranhão

Matto Grosso
- Guajara-Mirim Falls (233 km. above Porto Velho)
- Porto Velho

Pará
- Belém

Parahyba
- Independencia
- Parahyba

Pernambuco
- Recife [Pernambuco]

Rio Grande do Norte
- Baixa Verde
- Ceará Mirim
- Extremoz
- Natal
- Papery
- Lake Papery

The collection includes 81 species, which are distributed among higher groups as follows:

AMPHIBIA

	Number of genera	Number of species	Number of specimens
Apoda	**1**	**1**	**1**
Caecilidae	1	1	1
Caudata	**1**	**1**	**1**
Plethodontidae	1	1	1
Salientia	**8**	**19**	**189**
Bufonidae	1	3	95
Leptodactylidae	1	5	58
Hylidae	2	6	22
Dendrobatidae	1	2	3
Microhylidae	2	2	5
Ranidae	1	1	6

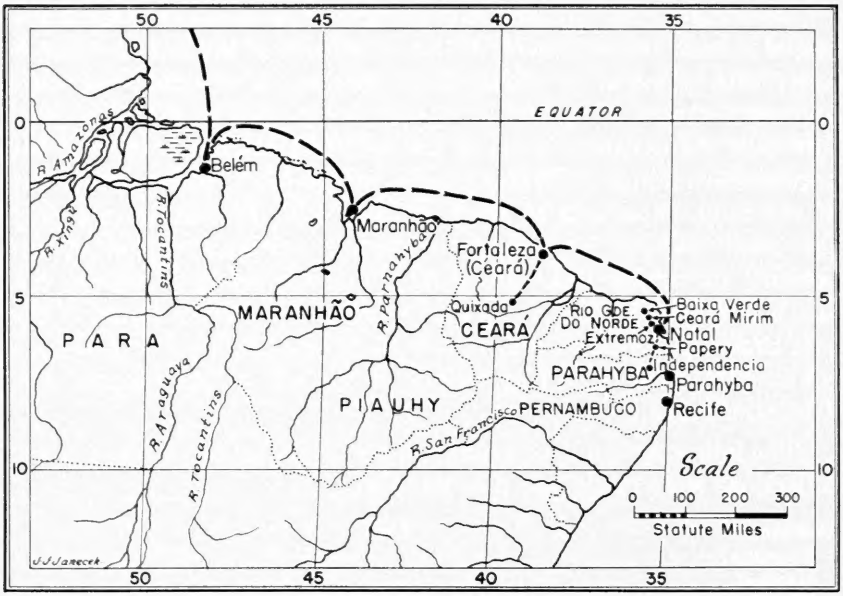

FIG. 85. Northeastern Brazil, showing the collecting stations of the Hopkins–Branner Expedition of 1911.

REPTILIA

	Number of genera	Number of species	Number of specimens
Chelonia	**5**	**5**	**10**
Pelomedusidae	1	1	1
Chelidae	1	1	1
Kinosternidae	1	1	5
Emydidae	1	1	2
Testudinidae	1	1	1
Crocodilia	**1**	**1**	**1**
Crocodylidae	1	1	1
Sauria	**19**	**27**	**335**
Gekkonidae	4	4	27
Anguidae	1	1	2
Iguanidae	6	7	143
Teidae	5	5	127
Amphisbaenidae	2	8	24
Scincidae	1	2	12
Serpentes	**20**	**27**	**70**
Leptotyphlopidae	1	1	1
Colubridae (sens. lat.)	18	25	68
Elapidae	1	1	1

APODA

Caecilidae

Siphonops paulensis Boettger

Siphonops paulensis Boettger, 1892, Kat. Batr. Mus. Senck., p. 62.

RIO GRANDE DO NORTE: Ceará Mirim, 1 (49897).

Remarks.—Length 290 mm. (body in lateral curves); diameter 10 by 12 mm., somewhat flattened; primary rings 113 postgular, only the first incomplete ventrad, the last two incomplete dorsad; secondary rings two anteriorly.

CAUDATA

Plethodontidae

Oedipus paraensis Unterstein

Oedipus paraensis Unterstein, 1930, Zool. Anz., **87**: 271.

PARÁ: Belém, 1 (65003).

Remarks.—Toes and fingers fully webbed, the third extending into a conspicuous point. Costal grooves 13, folds between adpressed toes 4; a dorsal longitudinal groove; a slight vertical groove behind the angle of the jaw; no groove from eye. Brown above, paler beneath without sharp dividing line.

SALIENTIA

Bufonidae

Bufo marinus Linnaeus

Rana marina Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 356.
Bufo marinus Schneider, 1799, Hist. Amph., pt. 1, p. 219.

BOLIVIA: Abuna, 4 (49776–77, 49779–80).

AMAZONAS: Itacoatiara, 2 (49742, 49762); Manáos, 1 (49802); Rio Madeira, 8 (49785–92).

MARANHÃO: Maranhão, 1 (49717).

Bufo paracnemis Lutz

Bufo paracnemis Lutz, 1926, Trab. Inst. Oswaldo Cruz, p. 9.

RIO GRANDE DO NORTE: Ceará Mirim, 21 (49633 49, 49654 57).

Remarks.—A specimen from Baturité, Ceara, C.N.H.M. No. 6212, collected by R. H. Becker July 24, 1913, is a gigantic female specimen measuring 175 mm. in body length. It agrees with the specimens in the above list.

This distinct species, sharply characterized by the gland on the upper side of the tibial joint of the leg, is represented by numerous specimens in the collections of Chicago Natural History Museum

from various localities on the upper Paraguay River in Matto Grosso, from Paraguay, and from Misiones, Argentina. *Bufo marinus* does not occur in the savanna area.

The representative of *Bufo marinus* and *paracnemis* in the east Brazilian forest region is *Bufo ictericus* Spix, which is sharply distinct from both *marinus* and *paracnemis*. The type locality of *marinus* has been restricted by various authors to Surinam; the type locality of *paracnemis* is Bello Horizonte, Minas Geraes; the type locality of *ictericus* is the State of Rio de Janeiro.

Bufo granulosus Spix

Bufo granulosus Spix, 1825, Spec. Nov. Test. Ran., p. 61, pl. 21, fig. 2.

AMAZONAS: Itacoatiara, 29 (49738–41, 49743–61, 49763–68).

CEARÁ: Fortaleza, 1 (49705).

PARAHYBA: Independencia, 4 (49781–84).

RIO GRANDE DO NORTE: Baixa Verde, 2 (49720–21); Ceará Mirim, 19 (49628, 49650–53, 49658–70, 49723); Lake Papery, 1 (49857); Natal, 1 (49672).

Remarks.—The series from northeastern Brazil is to be regarded as the true *granulosus* Spix, type locality Bahia. *Bufo globulosus*, placed in the synonymy of *granulosus* by Peters, is to be considered as a strict synonym, being also from Bahia. Berg, and Parker following Berg, endeavored to reinstate *globulosus* because of page priority, which is not an acceptable reason for change, as elsewhere agreed by Parker. *Bufo marmoratus* Wagler is based exclusively on *globulosus*.

The specimens from Itacoatiara differ from the others in having the ridges of the head less sharply denticulate and often quite smooth, and in all the specimens the supra-nasal ridge is smooth; these trivial differences do not warrant nomenclatural distinction, but point to the possible existence of other characters, voice perhaps, for field investigation.

Leptodactylidae

Leptodactylus pentadactylus mattogrossensis subsp. nov.

Type.—Chicago Natural History Museum No. 9240, from manganese mine, Urucum de Corumba, Matto Grosso. Adult female, collected August 19, 1926, by Karl P. Schmidt.

Diagnosis.—Dorsal cross-bands absent, dorsal skin tuberculate, size in excess of 150 mm. Male, in the breeding season, with a large transverse denticulate horny tubercle on each side of the chest and with areas of small horny spines posterior to them. A single stout horny spine on the prepollex.

Description of type.—Body stout, almost parallel-sided; femora relatively short, heels overlapping; forearms much broader than upper arm; skin of back with small warts and elongate glandular folds; rounded or elongate larger glands on the sides; throat and belly entirely smooth; posterior face of thighs strongly granulate; toes with a trace of a web at the base, continued as a narrow ridge on the sides of the toes; inner metatarsal tubercle elongate, connected with a tarsal ridge; outer metatarsal tubercle rounded; an obscure pad between inner and outer tubercles; metacarpal tubercles very large; tympanum smaller than the eye, separated by its own diameter from the posterior edge of the orbit.

Coloration pale brown with darker mottlings; obscure dark cross-bands on the limbs and dark spotting on the yellow ventral surface.

Snout to vent 158 mm., width of head 64, length of tibia 75, tip of snout to posterior border of tympanum 53.

Male allotype.—A large male, C.N.H.M. No. 9241, collected with the type is represented by a skin and skeleton. The secondary sex characters are enormously developed. A large denticulate transverse horny tubercle is present on each side of the chest. Behind these are two areas of small horny spines, which extend on to the inner surfaces of the upper arm. The thumb has a stout black horny spine as wide as long. The forearms are greatly enlarged, as much as in *L. ocellatus*. The enlargement of the forearm is reflected in the enormous development of flanges on the humerus. The tympanum is no larger in the male than in the female.

Paratypes.—Five juvenile specimens, C.N.H.M. Nos. 9185 and 9205–8, were collected beneath the saw mill at Urucum. These exhibit the strong black reticulation of the posterior surfaces of the thighs on a red ground color, characteristic of juveniles of this species. The black reticulation extends over the ventral surfaces and the red color is present on the flanks.

A half-grown male, C.N.H.M. No. 9192, body length 131 mm., collected with the juvenile specimens at Urucum, retains the strong ventral reticulation of the juveniles. The spines of the chest are not at all developed and those of the thumb are barely distinguishable.

A medium-sized female, C.N.H.M. No. 5640, from Baturité, Ceará, collected by R. H. Becker, July 24, 1913, agrees excellently with the Matto Grosso specimens.

We refer the following specimens from northeastern Brazil in the California Academy of Sciences to this subspecies:

CEARÁ: Fortaleza, 1 (49704).

RIO GRANDE DO NORTE: Ceará Mirim, 8 (49620–25, 49629, 49722); Lake Papery, 1 (49846); Papery, 1 (49707).

This series includes eight males and three females. The largest male measures 170 mm. in body length, with a head width of 75 mm. The series is very uniform in general appearance, much darkened by formalin preservation. None of the males have the horny chest tubercles but the corresponding scar is well developed. The tubercle on the thumb is large but likewise lacks the horny covering.

Comparisons.—Readily distinguished from *pentadactylus pentadactylus* (the Amazonian and Guianan form) by the absence of the dorsal cross-bands, more tuberculate dorsal skin, larger size, and much greater development of the male secondary sex characters. The relations with *p. labyrinthicus* Spix, of the southeast Brazilian forest region (Pernambuco to Rio Grande do Sul) are by no means clear, but apparently that form has a narrower head and smoother dorsum.

Remarks.—Müller (1927) has shown that the name *gigas* Spix, suggested by Lutz (1926) for specimens from Ceará, must be referred to *pentadactylus pentadactylus*, and that *labyrinthicus* Spix is applicable to the giant *Leptodactylus* of southeastern Brazil. We regard *flavopictus* Lutz as a synonym of *labyrinthicus*. There appears to be no previous name for the large form with the characteristic savanna corridor distribution from Matto Grosso to northeastern Brazil.

Leptodactylus caliginosus Girard

Leptodactylus caliginosus Girard, 1853, Proc. Acad. Nat. Sci. Phila., 6: 422.

AMAZONAS: Itacoatiara, 1 (40731).

Leptodactylus typhonius Daudin

Rana typhonia Daudin, 1803, Hist. Rain., p. 55, pl. 17, figs. 3–4.

Leptodactylus typhonius Fitzinger, 1826, Class. Rept., p. 64.

AMAZONAS: Manáos, 3 (49798–800).

Leptodactylus ocellatus Linnaeus

Rana ocellata Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 211.
Leptodactylus ocellatus Girard, 1853, Proc. Acad. Nat. Sci. Phila., **6**: 420.

AMAZONAS: Itacoatiara, 9 (49724, 49725–29, 49732, 49734–37).

CEARÁ: Fortaleza, 8 (49695–702); Quixada, 2 (49718–19).

PARAHYBA: Independencia, 4 (49678–80, 49687).

RIO GRANDE DO NORTE: Ceará Mirim, 1 (49626); Extremoz, 1 (49714); Lake Papery, 6 (49851–56); Natal, 4 (49674–77); Papery, 5 (49708–12).

Leptodactylus nanus Müller

Leptodactylus nanus Müller, 1922, Blätt. Aquar.-Terrar.-Kunde, **33**: 168.

AMAZONAS: Manáos, 1 (49801).

MATTO GROSSO: Guajara-Mirim, 2 (49771, 49845).

Hylidae

Hyla taurina Steindachner

Osteocephalus taurinus Steindachner, 1862, Arch. Zool., **2**: 77, pl. 6, figs. 1–3.
Hyla taurina Boulenger, 1882, Cat. Batr. Sal., Brit. Mus., p. 363.

BOLIVIA: Abuna, 3 (49773–5).

Hyla spegazzinii Boulenger

Hyla spegazzinii Boulenger, 1889, Ann. Mus. Genova, (2), **7**: 247, pl. 2, figs. 1 and 1, *a*.

PARAHYBA: Independencia, 5 (49686, 49688–91).

RIO GRANDE DO NORTE: Extremoz, 2 (49715–16); Papery, 2 (49713, 49850).

Remarks.—Hyla spegazzinii, described from Chaco, Argentina, is a frog extremely characteristic of the upper Paraguay Basin. Müller (1927) has referred Pernambuco specimens to this species. Our specimens differ from those of Matto Grosso only in somewhat larger average size. The senior author and H. W. Parker agreed to this allocation of these specimens in conference in 1932.

Hyla crepitans Wied

Hyla crepitans Wied, 1825, Beitr. Naturg. Bras., p. 525.

PARAHYBA: Independencia, 1 (49685).

Hyla nana Boulenger

Hyla nana Boulenger, 1889, Ann. Mus. Genova, (2), **7**: 249, pl. 2, fig. 2.

RIO GRANDE DO NORTE: Ceará Mirim, 3 (49630–32).

Hyla rubra Daudin

Hyla rubra Daudin, 1803, Hist. Rain., p. 26, pl. 9.

CEARÁ: Fortaleza, 1 (49703).

PARAHYBA: Independencia, 3 (49692–94).

Phyllomedusa hypochondrialis Daudin

Hyla hypochondrialis Daudin, 1803, Hist. Rain., p. 29, pl. 10, fig. 1.

Phyllomedusa hypochondrialis Cope, 1862, Proc. Acad. Nat. Sci. Phila., **1862**: 355.

RIO GRANDE DO NORTE: Lake Papery, 1 (49847).

"BRAZIL": 1 (49894).

Dendrobatidae

Dendrobates trivittatus Spix

Hyla trivittatus Spix, 1825, Spec. Nov. Test. Ran., p. 35, pl. 9, fig. 1.

Dendrobates trivittatus Boulenger, 1882, Cat. Batr. Sal., Brit. Mus., p. 144.

AMAZONAS: Manáos, 1 (C.A.S., no number).

Dendrobates braccatus Cope

Dendrobates braccatus Cope, 1887, Proc. Amer. Phil. Soc., **24**: 53.

MATTO GROSSO: Guajara-Mirim Falls, 2 (49770, 49844).

Microhylidae

Elachistocleis ovale Schneider

Rana ovalis Schneider, 1799, Hist. Amph., p. 131.

Elachistocleis ovale Parker, 1927, Occ. Pap. Mus. Zool., Univ. Mich., No. 187, p. 4.

AMAZONAS: Itacoatiara, 4 (49725–26, 49730, 49733).

Hypopachus incrassatus Cope

Stereocyclops incrassatus Cope, 1869, Proc. Amer. Phil. Soc., **11**: 165.

Hypopachus incrassatus Parker, 1934, Monog. Microhylidae, p. 111.

RIO GRANDE DO NORTE: Natal, 1 (49673).

Ranidae

Rana palmipes Spix

Rana palmipes Spix, 1825, Spec. Nov. Test. Ran., p. 29, pl. 5, fig. 1.

RIO GRANDE DO NORTE: Ceará Mirim, 1 (49627); Lake Papery, 2 (49848–49); Natal, 1 (49671); Papery, 1 (49706).

CHELONIA

Pelomedusidae

Podocnemis unifilis Troschel

Podocnemis unifilis Troschel, 1848, *in* Schomburgk, Reise Brit. Guiana, p. 647.

PARÁ: Belém, 1 (49288).

Chelidae

Rhinemys nasuta Schweigger

Emys nasuta Schweigger, 1914, Prod. Chel., p. 29.
Rhinemys nasuta Boulenger, 1889, Cat. Chel. Brit. Mus., p. 218.

RIO GRANDE DO NORTE: Papery, 1 (49294).

Kinosternidae

Kinosternon scorpioides Linnaeus

Testudo scorpioides Linnaeus, 1766, Syst. Nat., 12th ed., **1**: 352.
Cinosternon scorpioides Boulenger, 1889, Cat. Chel. Brit. Mus., p. 293.

PARÁ: Belém, 4 (49286, 49291–3).

RIO GRANDE DO NORTE: Lake Papery, 1 (49892).

Emydidae

Geoemyda punctularia Daudin

Testudo punctularia Daudin, 1802, Hist. Nat. Rept., **2**: 249.
Geoemyda punctularia Siebenrock, 1909, Zool. Jahrb., Suppl., **10**: 497.

RIO GRANDE DO NORTE: Papery, 2 (49287, 49290).

Testudinidae

Testudo denticulata Linnaeus

Testudo denticulata Linnaeus, 1766, Syst. Nat., 12th ed., **1**: 352.

RIO GRANDE DO NORTE: Papery, 1 (49289).

CROCODILIA

Crocodylidae

Caiman latirostris Daudin

Crocodilus latirostris Daudin, 1802, Hist. Nat. Rept., **2**: 417.

Caiman latirostris Boulenger, 1889, Cat. Chel. Brit. Mus., p. 293.

RIO GRANDE DO NORTE: Extremoz, 1 (49285).

SAURIA

Gekkonidae

Gonatodes humeralis Guichenot

Gymnodactylus humeralis Guichenot, 1855, *in* Castelnau, Voy. Amer. Mer., Rept., p. 6, pl. 3, fig. 1.

Gonatodes humeralis Boulenger, 1885, Cat. Liz. Brit. Mus., **1**: 62, pl. 5, fig. 3.

BOLIVIA: Abuna, 1 (49890).

AMAZONAS: Manáos, 3 (49828–30).

Gymnodactylus geckoides Spix

Gymnodactylus geckoides Spix, 1825, Spec. Nov. Lacert. Bras., p. 17, pl. 18, fig. 1.

RIO GRANDE DO NORTE: Baixa Verde, 3 (49397–99); Ceará Mirim, 1 (49427); Extremoz, 1 (49607); Natal, 3 (49569–70, 49572).

Hemidactylus mabouia Moreau de Jonnès

Gecko mabouia Moreau de Jonnès, 1818, Bull. Soc. Phil. Paris, **1818**: 138.

Hemidactylus mabouia Duméril and Bibron, 1836, Erp. Gén., **3**: 362.

AMAZONAS: Manáos, 2 (49808, 49827).

PARAHYBA: Independencia, 1 (49492).

RIO GRANDE DO NORTE: Baixa Verde, 6 (49391–96); Ceará Mirim, 2 (49528–29); Extremoz, 2 (49608, 49619); Natal, 1 (49571).

Thecadactylus rapicaudus Houttuyn

Gecko rapicauda Houttuyn, 1782, Verh. Genotsch. Vlissing., **9**: 322, pl. 3, fig. 1.

Thecadactylus rapicaudus Gray, 1845, Cat. Liz. Brit. Mus., p. 146.

BOLIVIA: Abuna, 1 (49888).

Iguanidae

Polychrus acutirostris Spix

Polychrus acutirostris Spix, 1825, Spec. Nov. Lacert. Bras., p. 15, pl. 14A.

RIO GRANDE DO NORTE: Ceará Mirim, 2 (49419–20).

Plica plica Linnaeus

Lacerta plica Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 367.

Plica plica Stejneger, 1901, Proc. U. S. Nat. Mus., **24**: 182.

BOLIVIA: Abuna, 1 (49782).

Iguana iguana iguana Linnaeus

Lacerta iguana Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 206.

Iguana iguana iguana Müller, 1927, Abh. Senck. Naturf. Ges., **40**: 285.

BOLIVIA: Abuna, 1 (49783).

RIO GRANDE DO NORTE: Ceará Mirim, 1 (49411); Papery, 4 (49536–39).

Tropidurus hispidus Spix

Agama hispida Spix, 1825, Spec. Nov. Lacert. Bras., p. 12, pl. 15, fig. 2.

Tropidurus hispidus Peters, 1877, Monatsber. Akad. Wiss. Berlin, **1877**: 409.

CEARÁ: Fortaleza, 10 (49579–88); Quixada, 1 (49611).

MARANHÃO: Maranhão, 23 (49507–28, 49615).

PARAHYBA: Independencia, 13 (49453–54, 49456–66); Parahyba River, 2 (49880–81).

PERNAMBUCO: Recife, 3 (49875–77).

RIO GRANDE DO NORTE: Baixa Verde, 15 (49358–71, 49614); Ceará Mirim, 7 (49412–18); Extremoz, 3 (49604–06); Natal, 17 (49542–54, 49884–87); Lake Papery, 3 (49858–59, 49861).

Tropidurus spinulosus Cope

Microlophus spinulosus Cope, 1862, Proc. Acad. Nat. Sci. Phila., **1862**: 351.

Tropidurus (Microlophus) spinulosus Boettger, 1885, Zeitschr. f. Naturw., **58**: 216.

MATTO GROSSO: Porto Velho, 5 (49834–7, 49843).

Platynotus semitaeniatus Spix

Agama semitaeniata Spix, 1825, Spec. Nov. Lacert. Bras., p. 13, pl. 16, fig. 1.

Platynotus semitaeniatus Wagler, 1830, Syst. Amph., p. 146.

Tapinurus scutipunctatus Amaral, 1932, Mem. Inst. Butantan, 7: 65, figs. 22–25.

CEARÁ: Quixada, 3 (49609–10, 49612).

PARAHYBA: Independencia, 25 (49455, 49467–90).

RIO GRANDE DO NORTE: Baixa Verde, 5 (49386–90); Natal, 1 (49618).

Remarks.—As reported by Amaral, Mertens suspected *Tapinurus scutipunctatus* to be a synonym of *Platynotus semitaeniatus* and *Tapinurus* of *Platynotus*. There can be no question as to their generic and specific identity. The body form of this species strongly suggests the rock crevice habitat.

Urocentron azureum Linnaeus

Lacerta azurea Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 202.

Urocentron azureum Kaup, 1827, Isis, **1827**: 612.

AMAZONAS: Manáos, 1 (C.A.S., no number).

Anguidae

Diploglossus lessonae Peracca

Diploglossus lessonae Peracca, 1890, Boll. Mus. Zool. Torino, **5**, No. 77: 1.

Diploglossus tenuifasciatus Parker, 1924, Ann. Mag. Nat. Hist., (9), **13**: 586, fig.

RIO GRANDE DO NORTE: Papery, 2 (49540–41).

Remarks.—Our specimens agree excellently with the description of *lessonae* in the major character of the single large prefrontal and, in the smaller specimen, in details of coloration. They agree further in having two pairs of chin shields in contact with the lower labials, the second pair broadly so in one specimen and only narrowly so in the other. Both specimens have six upper labials on each side in front of the center of the eye, and two loreals on each side. The larger specimen differs in having the broad brown cross-bands reduced to narrow lines in a mode of pattern evolution familiar in the family Anguidae. Our two specimens thus connect the supposed *tenuifasciatus* with *lessonae*, both *lessonae* and *tenuifasciatus* having been described from single specimens. The slight differences in the arrangement of head shields seem to us to fall well within the range of probable variation and the supposed differences in color pattern likewise within limits of ontogenetic variation.

Teidae

Tupinambis teguixin Linnaeus

Lacerta teguixin Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 208.

Tupinambis teguixin Boulenger, 1885, Cat. Liz. Brit. Mus., **2**: 335.

RIO GRANDE DO NORTE: Ceará Mirim, 2 (49409–10).

Gymnophthalmus quadrilineatus Linnaeus

Lacerta quadrilineata Linnaeus, 1766, Syst. Nat., 12th ed., **1**: 371.

Gymnophthalmus quadrilineatus Merrem, 1820, Syst. Amph., p. 74.

RIO GRANDE DO NORTE: Baixa Verde, 1 (49373).

Kentropyx calcaratus Spix

Kentropyx calcaratus Spix, 1825, Spec. Nov. Lacert. Bras., p. 21, pl. 22, fig. 2.

PERNAMBUCO: Recife, 1 (49874).

Ameiva ameiva ameiva Linnaeus

Lacerta ameiva Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 202.

Ameiva ameiva ameiva Barbour and Noble, 1915, Bull. Mus. Comp. Zool., **59**: 462.

BOLIVIA: Abuna, 2 (49781, 49784).

AMAZONAS: Manáos, 18 (49803–07, 49810–17, 49820–24).

CEARÁ: Fortaleza, 6 (49573–78).

MARANHÃO: Maranhão, 12 (49499–506, 49529–32).

MATTO GROSSO: Porto Velho, 7 (49832–33, 49838–42).

PARAHYBA: Independencia, 16 (49441–52, 49495 98); Parahyba River, 1 (49883).

PERNAMBUCO: Recife, 1 (49878).

RIO GRANDE DO NORTE: Ceará Mirim, 14 (49400–08, 49430, 49432–35); Lake Papery, 2 (49860, 49869); Natal, 1 (49568).

Remarks.—The northeastern Brazilian specimens, compared with those from the Amazon basin, tend to have the lateral spots somewhat confluent vertically and fewer such vertical series. The differences between the two series seem much too slight to warrant taxonomic distinction.

Cnemidophorus ocellifer Spix

Tejus ocellifer Spix, 1825, Spec. Nov. Lacert. Bras., p. 23.

Cnemidophorus ocellifer Peters, 1877, Monatsber. Akad. Wiss. Berlin, **1877**: 414.

CEARÁ: Fortaleza, 10 (49591–600); Quixada, 1 (49613).

PARAHYBA: Independencia, 3 (49493–94, 49616); Parahyba River, 1 (49882).

PERNAMBUCO: Recife, 2 (49871, 49873).

RIO GRANDE DO NORTE: Baixa Verde, 11 (49376–85, 49617); Ceará Mirim, 6 (49431, 49436–40); Natal, 13 (49555–67).

Remarks.—We believe that this species has the characteristic distribution of the savanna corridor forms. Burt, in his revision and maps (1931, pp. 43–46, figs. 10–11), confuses this completely; the range of *ocellifer* is shown as extending along the southeastern coast of Brazil, for which there is no evidence; his detailed map (fig. 10) places a locality in Santa Catharina, for which he lists no specimen. We have no specimens from Paraguay or Matto Grosso, but have no reason to doubt the records of Cope and Peracca.

Amphisbaenidae

Amphisbaena fuliginosa Linnaeus

Amphisbaena fuliginosa Linnaeus, 1758, Syst. Nat., 10th ed., 1: 229.

AMAZONAS: Manáos, 1 (49818).

Amphisbaena alba Linnaeus

Amphisbaena alba Linnaeus, 1758, Syst. Nat., 10th ed., 1: 229.

AMAZONAS: Manáos, 2 (49825–26).

RIO GRANDE DO NORTE: Lake Papery, 1 (49535); Extremoz, 1 (49603).

Amphisbaena subocularis Peters

Amphisbaena subocularis Peters, 1878, Monatsber. Akad. Wiss. Berlin, 1878: 779, fig. 2.

RIO GRANDE DO NORTE: Lake Papery, 5 (49862, 49864–65, 49867–68).

BAHIA: Queimados, 1 (C.N.H.M. No. 5660).

Amphisbaena brachyura Amaral

Amphisbaena brachyura Amaral, 1932, Mem. Inst. Butantan, 7: 55.

RIO GRANDE DO NORTE: Extremoz, 2 (49601–2).

Amphisbaena heathi Schmidt

Amphisbaena heathi Schmidt, 1936, Herpetologica, **1**: 29.

RIO GRANDE DO NORTE: Baixa Verde, 1 (49374, type); Ceará Mirim, 1 (49424, paratype).

Amphisbaena spixi Schmidt

Amphisbaena spixi Schmidt, 1936, Herpetologica, **1**: 30.

RIO GRANDE DO NORTE: Ceará Mirim, 3 (49423, type; 49421–22, paratypes).

BRAZIL: 1 (49896, paratype).

Amphisbaena slevini Schmidt

Amphisbaena slevini Schmidt, 1936, Herpetologica, **1**: 31.

AMAZONAS: Manáos, 1 (49809, type).

Leposternon polystegoides Schmidt

Leposternon polystegoides Schmidt, 1936, Herpetologica, **1**: 31.

RIO GRANDE DO NORTE: Lake Papery, 5 (49866, type; 49375, 49533–34, 49863, paratypes).

Scincidae

Mabuya mabouya mabouya Lacépède

Lacerta mabouya Lacépède, 1788, Hist. Nat. Quadr. Ovip., **2**: 378.

Mabuya mabouya mabouya Dunn, 1935, Proc. Acad. Nat. Sci. Phila., **87**: 544.

BOLIVIA: Abuna, 1 (49889).

AMAZONAS: Itacoatiara, 1 (49769); Manáos, 1 (49819).

MATTO GROSSO: Guajara-Mirim, 1 (49772); Porto Velho, 1 (49831).

Mabuya heathi sp. nov.

Type.—California Academy of Sciences No. 49589 from Fortaleza, Ceará, Brazil. Adult male, collected by Harold Heath in 1911.

Diagnosis.—No auricular denticles; dorsal scales faintly grooved rather than keeled; six dark stripes on the body; two frontoparietals; appressed legs not overlapping; scales in 30 rows.

Description of type.—Body and head more depressed than in *Mabuya mabouya;* limbs relatively short, separated when appressed

by somewhat less than one-fourth the length of the leg; 30 scale rows around the body; supranasals in contact; prefrontals separated by the suture of the frontonasal with the frontal; two frontoparietals; parietals meeting behind the occipital; a single pair of nuchals; 4 supraoculars; superciliaries 5/4; 15 smooth lamellae beneath the fourth toe; 53 dorsal scales from a point opposite the posterior face of the hind limb to the nuchals.

General ground color grayish-yellow beneath, grayish-brown on the sides, and brown above; a sharply defined light line along the labial border enclosing the ear opening and narrowed and sharp about one-half scale width extending to the hind limb, bordered above and below by a dark brown line; the upper brown line 2 scales in width separated by about the same breadth from an obscure dorso-lateral brown line which is separated from its fellow by only two half scales; the faint dorso-lateral lines are marked at intervals by dark spots and these two lines merge on the base of the tail.

Paratypes.—CEARÁ: Fortaleza, 1 (49590). PARAHYBA: Independencia, 1 (49491). RIO GRANDE DO NORTE: Baixa Verde, 1 (49372); Ceará Mirim, 2 (49425–26). "BRAZIL": 1 (49893).

Comparisons.—This species is distinguished from *Mabuya guaporicola* Dunn by the following two characters: the appressed legs are separated by about one-fourth the length of the hind leg instead of one-half, and there are six dark dorsal and lateral stripes. It is distinguished from *Mabuya mabouya* by its shorter legs and dorsal stripes.

Remarks.—This distinct species may be directly related to *guaporicola* and thus represent the same distributional relation as that of *Cnemidophorus ocellifer* and the various species listed as characteristic of the savanna corridor.

SERPENTES

Leptotyphlopidae

Leptotyphlops albifrons Wagler

Stenostoma albifrons Wagler, 1824, *in* Spix, Serp. Bras., p. 68, pl. 25, fig. 3.
Leptotyphlops albifrons Amaral, 1929, Mem. Inst. Butan., **4**: 138.

RIO GRANDE DO NORTE: Lake Papery, 1 (49870).

Remarks.—This specimen may belong to true *albifrons*, the *albifrons* of authors having been shown to be a complex of quite distinct species. It has 260 scales from rostral to tail spine, 14 subcaudals,

14 scales around the body, and 10 around the tail. The total length is 135 mm., tail 6, diameter 2.2. The caudal spot involves the tail spine and one and a half scales above and five below. The arrangement of the head shields is essentially as figured by Klauber for the otherwise distinct *Leptotyphlops subcrotilla*.

Colubridae

Helicops leopardinus Schlegel

Homalopsis leopardina Schlegel, 1837, Phys. Serp., **2**: 358.

Helicops leopardinus Jan, 1865, Arch. Zool. Anat. Phys., **3**: 253.

RIO GRANDE DO NORTE: Ceará Mirim, 1 (48335).

Remarks.—Female; scales in 19 rows; ventrals 129, anal divided; caudals 54; upper labials 8; lower 10; oculars 1 3 on each side; temporals 1–2 on each side; length 190 mm.; tail 39.

Helicops angulatus Linnaeus

Coluber angulatus Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 217.

Helicops angulatus Duméril and Bibron, 1854, Erp. Gén., **7**: 746.

RIO GRANDE DO NORTE: Ceará Mirim, 6 (49324 26, 49344, 49349, 49353).

No.	Sex	Scale rows	Vent.	Caud.	S.L.	I.L.	Preoc.	Postoc.	Temp.	Total length	Tail
49324	♂	21–19–17	117	98	8	10	1	2	2/1–3/3	738	285
49325	♂	21–19–17	116	..	8	10	1	1	2/3–3	...	...
49326	♂	21–19–17	119	98	8	10	1	2	1/2–4/3	683	262
49344	♂	21–19–17	116	91+	8	10	1	2	2/3–4/3	680+	257+
49349	♀	21–19–17	121	86	8	10	1	2	1/2–3	814	260
49353	♀	23–19–17	117	84	8	10	1	2	2–3	850	275

Anals invariably two.

Helicops polylepis Günther

Helicops polylepis Günther, 1861, Ann. Mag. Nat. Hist., (3), **7**: 426.

BOLIVIA: Abuna, 1 (49778).

Remarks.—Female; scale rows 25 23 19; ventrals 127, anal divided; caudals 71; upper labials 9; lower labials 12; oculars 1 2; temporals 1–2; length 908; tail 259.

Drymobius bifossatus Raddi

Coluber bifossatus Raddi, 1820, Mem. Soc. Ital. Modena, **18**: 333.

Drymobius bifossatus Boulenger, 1894, Ann. Mag. Nat. Hist., (6), **13**: 346.

PARAHYBA: Parahyba River, 1 (49879).

Remarks.—Female; scale rows 17–15–15; ventrals 176, anal divided; caudals 67; upper labials 8; lower labials 10; oculars 1–2; temporals 2–2; total length 1440; tail 335.

Drymobius dendrophis Schlegel

Herpetodryas dendrophis Schlegel, 1837, Phys. Serp., **2**: 196.

Drymobius dendrophis Boulenger, 1894, Cat. Sn. Brit. Mus., **2**: 15.

BRAZIL: Rio Madeira, 1 (49356).

Remarks.—Female; scale rows 17; ventrals 160, anal single; caudals 69; upper labials 9; lower labials 9; oculars 1–2; temporals 2–2; total length 1090; tail 502.

Spilotes pullatus pullatus Linnaeus

Coluber pullatus Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 225.

Spilotes pullatus pullatus Amaral, 1929, Mem. Inst. Butan., **4**: 83.

RIO GRANDE DO NORTE: Natal, 1 (49303); Papery, 1 (49296).

Remarks.—C.A.S. No. 49303, male; scale rows 16–18–10; ventrals 223, anal entire; caudals 113; upper labials 9; lower labials 8; oculars 1–2; temporals 1–2; total length 2125; tail 548; oblique yellow bands 21+8. C.A.S. No. 49296, skin only; scale rows 14–16–10; ventrals 218, anal entire; caudals 117; upper labials 7; lower labials 8/9; oculars 1–2; temporals 1–1.

Drymarchon corais corais Boie

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

Drymarchon corais corais Amaral, 1929, Mem. Inst. Butan., **4**: 84.

CEARÁ: Fortaleza, 1 (49308).

Remarks.—Skin only; scale rows 19–17–15; ventrals 209, anal entire; caudals 76; upper labials 9; lower labials 8/7; oculars 1–2; temporals 2–2.

Thalerophis richardi richardi Bory St. Vincent

Coluber richardi Bory St. Vincent, 1823, Dict. Hist. Nat., **4**: 588.

Thalerophis richardi richardi Oliver, 1948, Bull. Amer. Mus. Nat. Hist., **92**: 219.

AMAZONAS: Manáos, 1 (49795).

Remarks.—Male; scale rows 15–15–11; ventrals 174, anal divided; caudals 167; upper labials 9; lower labials 11; oculars 1 2; temporals 1–2; total length 725; tail 278; scales smooth except for paravertebral rows.

Liophis cobella taeniogaster Jan

Liophis taeniogaster Jan, 1863, Arch. Zool. Anat. Phys., **2**: 292.

Liophis cobella taeniogaster Amaral, 1931, Bull. Antiv. Inst. Amer., **4**: 87.

PERNAMBUCO: Recife, 1 (49872).

Remarks.—Female; scale rows 17–15–15; ventrals 153, anal divided; caudals 51; upper labials 8; lower labials 10; oculars 1–2; temporals 1–2; total length 571; tail 101.

Liophis poecilogyrus xerophilus Amaral

Leimadophis poecilogyrus xerophilus Amaral, 1944, Pap. Avulsos Dept. Zool. Agric. São Paulo, **5**: 81.

CEARÁ: Fortaleza, 1 (49307); Quixada, 1 (49304).

PARAHYBA: Independencia, 5 (49309–13).

RIO GRANDE DO NORTE: Baixa Verde, 1 (49315); Ceará Mirim, 4 (49336, 49339, 49341–42).

No.	Sex	Scale rows	Vent.	Caud.	S.L.	I.L.	Preoc.	Postoc.	Temp.	Total length	Tail
49304	♀	19–19–15	152	52	8	10	1	2	1–2	209	36
49310	♀	19–19–15	156	47	8	10	1	2	1–2	193	30
49311	♀	19–19–15	157	52	8	10	1	2	1–2	205	33
49312	♀	19–19–15	154	52	8	10	1	2	1–2	175	29
49313	♀	19–19–15	154	51	8	11/10	1	2	1–2	205	34
49336	♀	19–19–15	153	52	8	10	1	2	1–2	264	45
49339	♀	19–19–15	152	51	8	10	1	2	1–2	172	28
49341	♀	19–19–15	157	53	8	10	1	2	1–2	182	31
49342	♀	19–19–15	152	46	8	10	1	2	1–2	200	30
49315	♂	19–19–15	155	..	8	10	1	2	1–2	...	..
49309	♀	19–19–15	152	52	8	9/10	1	2	1–2	475	85
49307	♀	19–19–15	156	53	8	10	1	2	1–2	660	118

Anals invariably two.

Remarks.—No. 49307 has a uniform light belly; all others are spotted or cross-barred with black. We have followed Dunn in referring this species to *Liophis* (cf. Dunn 1944).

Liophis genimaculata Boettger

Liophis genimaculata Boettger, 1885, Zeits. Ges. Naturw., **58**: 229.

RIO GRANDE DO NORTE: Papery, 1 (49295).

Remarks.—Juvenile; scale rows 17–17–15; ventrals 201, anal divided; caudals 59; upper labials 8; lower labials 9/10; oculars 1–2; temporals 1–2; total length 181; tail 33.

Liophis viridis Günther

Liophis viridis Günther, 1862, Ann. Mag. Nat. Hist., (3), **9**: 58, pl. 9, fig. 2.

RIO GRANDE DO NORTE: Ceará Mirim, 1 (49320).

Remarks.—Male; scale rows 19–19–17; ventrals 192, anal divided; caudals 77; upper labials 8; lower labials 10; oculars 1–2; temporals 1–2/1; total length 247; tail 53.

Liophis reginae Linnaeus

Coluber reginae Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 219.

Liophis reginae Duméril and Bibron, 1854, Erp. Gén., **7**: 704.

AMAZONAS: Manáos, 1 (49796).

Remarks.—Female; ventrals 142, anal divided; caudals 65; upper labials 8; lower labials 10; oculars 1–2; temporals 1–2; total length 164; tail 37.

Lygophis lineatus Linnaeus

Coluber lineatus Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 221.

Lygophis lineatus Cope, 1862, Proc. Acad. Nat. Sci. Phila., **1862**: 76.

RIO GRANDE DO NORTE: Ceará Mirim, 3 (49334, 49340, 49343).

No.	Sex	Scale rows	Vent.	Caud.	S.L.	I.L.	Preoc.	Postoc.	Temp.	Total length	Tail
49343	juv.	19–19–15	168	65	8	9	1	2	1–2	192	40
49340	♀	19–19–15	173	70	8	10	1	2	1–1	450	103
49334	♀	19–19–15	172	72	8	10	1	2	1–½	525	125

Anals invariably two.

Xenodon merremii Wagler

Ophis merremii Wagler, *in* Spix, 1825, Spec. Nov. Serp. Bras., p. 47, pl. 17.

Xenodon merremii Boulenger, 1894, Cat. Sn. Brit. Mus., **2**: 150.

RIO GRANDE DO NORTE: Baixa Verde, 3 (49316–17, 49319); Ceará Mirim, 6 (49321–22, 49327, 49329, 49348, 49350).

No.	Sex	Scale rows	Vent.	Caud.	S.L.	I.L.	Preoc.	Postoc.	Temp.	Total length	Tail
49319	♀	19–19–17	153	36	7	10	2	3	1–2	...	...
49317	♀	19–19–17	147	39	7	10	1	3	1–2	982	133
49316	♀	19–19–17	151	36	7	10	1	3	1–2	...	...
49327	♂	19–19–17	140	44	7	11	1	2	1–½	638	110
49329	♂	19–19–17	138	47	7	10	1	3	1–2	599	113
49322	♂	19–19–17	142	43	7	11	1	3	1–1	...	...
49321	♂	19–19–17	142	43	7	11/10	1	3	1–2	...	...
49348	♂	19–19–17	145	46	7	11	1	3	1–2	...	...
49350	♂	19–19–17	148	44	7	11/10	1	2	1–½	611	103

Anals divided except in No. 49319.

Atractus badius Boie

Brachyorrhos badius Boie, 1827, Isis, p. 540.

Atractus badius Boulenger, 1894, Cat. Sn. Brit. Mus., **2**: 308.

AMAZONAS: Manáos, 1 (49797).

Remarks.—Female; scale rows 17–17–17; ventrals 166, anal entire; caudals 30; upper labials 7; lower labials 8; oculars 0–2; temporals 1–2; total length 133; tail 15; prefrontals greatly enlarged; internasals small; loreal elongate, narrowly entering eye on one side, excluded on the other; one pair of oval chin shields. This specimen falls within the usual diagnosis of *A. badius*, which, with the genus *Atractus* in general, is in need of detailed study.

Sibynomorphus mikanii fasciatus Amaral

Sibynomorphus mikanii fasciatus Amaral, 1930, Bull. Antiv. Inst. Amer., **4**: 28.

RIO GRANDE DO NORTE: Papery, 1 (49301).

Remarks.—Female; scale rows 15–15–13; ventrals 162, anal entire; caudals 48; upper labials 7; lower labials 7; oculars 0–2; temporals 1–2; total length 355; tail 60.

Pseudoboa guerini Duméril and Bibron

Rhinosimus guerini Duméril and Bibron, 1854, Erp. Gén., **7**: 991, pl. 72.

Pseudoboa guerini Amaral, 1929, Mem. Inst. Butan., **4**: 40.

RIO GRANDE DO NORTE: Ceará Mirim, 1 (49338).

Remarks.—Scale rows 19–19–17; ventrals 211, anal entire; caudals 84; upper labials 8; lower labials 8; oculars 1–2; temporals 1 3; total length 356; tail 72.

Oxyrhopus trigeminus Duméril and Bibron

Oxyrhopus trigeminus Duméril and Bibron, 1854, Erp. Gén., **7**: 1013.

RIO GRANDE DO NORTE: Ceará Mirim, 1 (49330).

Remarks.—Female; scale rows 19–19–17; ventrals 194, anal entire; caudals 60; upper labials 8; lower labials 10; oculars 1–2; temporals 2–3; total length 338; tail 50; triads 2/3+15+2/3.

Philodryas olfersii Lichtenstein

Coluber olfersii Lichtenstein, 1823, Verz. Doubl., p. 104.

Philodryas olfersii Boulenger, 1894, Cat. Sn. Brit. Mus., **3**: 129.

PARAHYBA: Independencia, 1 (49314).

RIO GRANDE DO NORTE: Ceará Mirim, 7 (49329, 49331–33, 49337, 49346–47); Papery, 1 (49300).

No.	Sex	Scale rows	Vent.	Caud.	S.L.	I.L.	Preoc.	Postoc.	Temp.	Total length	Tail
49331	♂	19–19–15	181	114	8/9	12	1	2	½–½	680	209
49337	♂	19–19–15	185	114	7	9/10	1	2	1–1	460	134
49332	♂	19–19–15	193	115	8	10	1	2	1–2	620	180
49347	♂	19–19–15	187	125	8	9	1	2	1–1	980	310
49300	♂	19–19–15	190	119	8	10	1	2	1–1	364	106
49329	♀	19–19–15	199	100+	8	10	1	2	1–2/1	...	...
49346	♀	19–19–15	197	108	8	10	1	2	1–½	1185	332
49333	♀	19–19–15	198	...	8/7	10	1	2	1–2/1	...	...
49314	♀	19–19–15	196	106	8	10/11	1	2	1–½	1160	308

Anals divided.

Remarks.—The material at hand consists of formalin-preserved specimens in which coloration is entirely obscured. We are thus unable to offer an opinion as to geographical subdivision of this species.

Philodryas nattereri Steindachner

Philodryas nattereri Steindachner, 1870, Sitzb. Akad. Wien, **62**: 345, pl. 7, figs. 1–3.

CEARÁ: Quixada, 1 (49305).

RIO GRANDE DO NORTE: Baixa Verde, 1 (49318); Ceará Mirim, 4 (49323, 49351–52, 49354); Natal, 1 (49302).

No.	Sex	Scale rows	Vent.	Caud.	S.L.	I.L.	Preoc.	Postoc.	Temp.	Total length	Tail
49305	♂	21–21–16	209	131	8	11	1	2	2–2	1237	403
49318	♀	21–21–17	215	117	8/7	11/12	1	2	2–3/2–6	....	...
49351	♀	21	...	123	8	11	1	2	2–2	....	...
49323	♀	21	215	...	8	10/11	1	2	2–3	....	...
49352	♂	21–21–17	209	116	8	11	1	2	2–2	1055	313
49354	♂	21	209	130	8	11	1	2	2–3/3–4	....	...
49302	♂	21–21–15	210	138	8	11/12	1	2	2–2	461	141

Anals invariably two.

Oxybelis aeneus Wagler

Dryinus aeneus Wagler, *in* Spix, 1824, Serp. Bras., p. 12, pl. 3.

Oxybelis aeneus Bogert and Oliver, 1945, Bull. Amer. Mus. Nat. Hist., **83**: 382.

AMAZONAS: Manáos, 2 (49793–94).

RIO GRANDE DO NORTE: Ceará Mirim, 1 (49345).

No.	Sex	Scale rows	Vent.	Caud.	S.L.	I.L.	Preoc.	Postoc.	Temp.	Total length	Tail
49345	♂	17–17–13	190	160	9	9/10	1	2	1–2	1517	586
49793	♀	17–17–13	199	156	9	10	1	2	1–2	1202	467
49794	♀	17–17–13	196	185	9	9/8	1	2	1–2	1339	542

Anals invariably two.

Remarks.—Bogert and Oliver have satisfactorily clarified the nomenclatural problems involved in the designation of this species.

Oxybelis argenteus Daudin

Coluber argenteus Daudin, 1803, Hist. Nat. Rept., **6**: 336.

Oxybelis argenteus Duméril and Bibron, 1854, Erp. Gén., **7**: 815.

BRAZIL: Rio Madeira, 1 (49355).

Remarks.—Male; scale rows 17–17–15; ventrals 198, anal divided; caudals 185; upper labials 6; lower labials 8/7; oculars 1–2; temporals 1–2; total length 854; tail 431.

Erythrolamprus aesculapii Linnaeus

Coluber aesculapii Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 220.

Erythrolamprus aesculapii Duméril and Bibron, 1854, Erp. Gén., **7**: 845.

BRAZIL: Rio Madeira, 1 (49357).

Remarks.—Female; scale rows 15–15–15; ventrals 179, anal divided; caudals 44; upper labials 7/8; lower labials 8; oculars 1–2; temporals 1–2; total length 264; tail 31; black rings on body ½+ 8+½, on tail ½+2.

Homalocranium melanocephalum Linnaeus

Coluber melanocephalum Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 218.

Homalocranium melanocephalum Duméril and Bibron, 1854, Erp. Gén., **7**: 859.

RIO GRANDE DO NORTE: Papery, 1 (49306).

Remarks.—Female; 15–15–15; ventrals 150, anal divided; caudals 26+(tail broken); upper labials 7; lower labials 7; oculars 1–2; temporals 1–1; no loreal; length exclusive of tail 241.

Elapidae

Micrurus lemniscatus Linnaeus

Coluber lemniscatus Linnaeus, 1758, Syst. Nat., 10th ed., **1**: 224.

Micrurus lemniscatus Amaral, 1925, Proc. U. S. Nat. Mus., **67**: 27.

RIO GRANDE DO NORTE: Papery, 1 (49297).

Remarks.—Amaral recognizes the form in northeastern Brazil as distinct, but subspecifically related to *lemniscatus*. Our specimen and two additional females (C.N.H.M.) collected by Rupert Wenzel at Recife agree in having ventrals more than 250 and caudals 30 or more, which takes them sharply out of the normal variation range of *ibiboboca*, in which both ventrals and caudals average distinctly lower than in Amazonian *lemniscatus*. The occurrence of three specimens with scale counts typical of *lemniscatus* within the presumed range of *ibiboboca* presents a problem requiring additional material and more accurate field notes for its solution. We have accordingly not followed Amaral (1944, p. 89) in his subspecific partition of this species.

REFERENCES

AMARAL, A. DO

1944. Notas sobre a ofiologia neotropica e Brasilica. XI. Subespecies de *Micrurus lemniscatus* (L.) e suas afinidades com *M. frontalis* (Dm. e Bibr.). Pap. Avulsos Dept. Zool., São Paulo, **5**, pp. 83–94.

BURT, C. E.

1931. A study of the teiid lizards of the genus *Cnemidophorus*, with special reference to their phylogenetic relationships. Bull. U. S. Nat. Mus., **154**, pp. 1–286, figs. 1–38.

DUNN, E. R.

1944. A revision of the Colombian snakes of the genera *Leimadophis*, *Lygophis*, *Liophis*, *Rhadinaea*, and *Pliocercus*, with a note on Colombian *Coniophanes*. Caldasia, **2**, pp. 479–495.

GOODE, J. P.

1943. Goode's school atlas.... Rev. ed. New York, Rand McNally. xvi+ 286 pp.

LUTZ, ADOLPHO

1926. New species of Brasilian batrachians. Preliminary note. Trab. Inst. Oswaldo Cruz, **1926**, pp. 1–16.

MÜLLER, LORENZ

1927. Amphibien und Reptilien der Ausbeute Prof. Breslau's in Brasilien 1913–14. Abhandl. Senck. Naturf. Ges., **40**, pp. 259–304.

SANBORN, C. C.

1930a. Distribution and habits of the three-banded armadillo (*Tolypeutes*). Jour. Mamm., **11**, pp. 61–68, pl. 4.

1930b. Further notes on *Tolypeutes*. Jour. Mamm., **11**, p. 504.

SCHMIDT, K. P.
1928. Notes on South American caimans. Field Mus. Nat. Hist., Zool. Ser., **12**, pp. 205–231, pls. 16–21.
1936. Notes on Brazilian amphisbaenians. Herpetologica, **1**, pp. 28–32, pl. 3.