



LIBRARY
OF THE
UNIVERSITY
OF ILLINOIS

590.5

FI

v. 22

BIOLOGY

NATURAL
HISTORY

JUL 25 1947

Return this book on or before the
Latest Date stamped below. A
charge is made on all overdue
books.

University of Illinois Library

NOV 17 1947

July 11

DEC 12 1951

JUL 28 1954

SEP 19 1961

DEC 26 1962

OCT 17 1967

~~OCT 19 1978~~

THE AMPHIBIANS AND REPTILES OF BRITISH HONDURAS

BY

KARL P. SCHMIDT

CHIEF CURATOR, DEPARTMENT OF ZOOLOGY

THE LIBRARY OF THE
JAN 14 1942
UNIVERSITY OF ILLINOIS



ZOOLOGICAL SERIES
FIELD MUSEUM OF NATURAL HISTORY
VOLUME XXII, NUMBER 8
DECEMBER 30, 1941
PUBLICATION 512

PRINTED IN THE UNITED STATES OF AMERICA
BY FIELD MUSEUM PRESS

FI
v. 22⁸

THE AMPHIBIANS AND REPTILES OF BRITISH HONDURAS

BY KARL P. SCHMIDT

An account of the reptiles and amphibians of British Honduras is part of a program of research on the herpetological fauna of upper Central America proposed for Field Museum on the occasion of my joining the Museum's Department of Zoology in 1922. This project was greatly furthered by the grant of a fellowship of the John Simon Guggenheim Memorial Foundation in 1932, which made possible a visit to European museums in that year. Knowing of the plan for an account of the amphibians and reptiles of British Honduras, colleagues have reserved collections from that country for my study and, while I owe them some apology for the long delay in publishing, the continued addition of specimens has made it difficult to close the manuscript. The prospect of still further additions is such that I now present only an annotated list.

Present published knowledge of the herpetological fauna of British Honduras rests on scattered information in the *Biologia Centrali-Americana* (supplemented by the references and corrections in Boulenger's catalogues of the collections in the British Museum) and on similar records of the *Mission Scientifique au Mexique*. The only paper referring specifically to the reptiles of British Honduras is Cope's brief list of the Parsons collection in the United States National Museum.

I am indebted to the authorities of the British Museum (Natural History), and especially to Mr. H. W. Parker and his aid, Mr. J. C. Battersby, for the privilege of examining their British Honduran material, amounting to about sixty specimens. Dr. Fernand Angel most kindly placed the corresponding collections at the Museum d'Histoire Naturelle in Paris at my disposal. The collection of 124 specimens from British Honduras in the United States National Museum also has been available for examination, thanks to the courtesy of Dr. Doris M. Cochran.

The Marshall Field Expedition to Central America in 1923, composed of Mr. Leon L. Walters and myself, visited British Honduras and Honduras in search of amphibians and reptiles for exhibition and study. Five weeks, from January 24 to March 1, 1923, were spent in British Honduras. Our reception by the government offi-

erals at Belize was most cordial. We are especially indebted to Mr. Robert Masson and to Dr. and Mrs. John Peach for friendly aid and advice. Through the courtesy of Mr. J. E. Freeman, Belize agent for the United Fruit Company, and Mr. J. A. Price, the Stann Creek agent, the abandoned guest house of the United Fruit Company at Middlesex was placed at our disposal. Collections amounting to 441 specimens were made principally at Middlesex, which is near the center of the colony, and in the environs of Belize, with a few specimens from Stann Creek, a few from the Forest Reserve sixteen miles from Stann Creek, and a few from Tom Owen Cay. The rediscovery of Morelet's crocodile, the existence of which as a distinct species had come to be doubted, has been reported in a previous publication (Schmidt, 1924).

Through the friendly interest of the teachers and officers of St. John's College, at Belize, 94 specimens of amphibians and reptiles were presented to Field Museum. These were the remnant of collections made by W. A. Stanton, S. J., during the years of his residence in British Honduras; a few specimens collected by him also reached the United States National Museum, and it is reasonable to suppose that the material from British Honduras in the Hurter Collection was also collected by Stanton, since he came from St. Louis and was thus doubtless acquainted with Mr. Hurter. A further addition of 93 specimens to the British Honduran collections in Field Museum is due to the efforts of Professor B. H. Bailey, of Coe College, Iowa. Professor Bailey, a student of the late S. E. Meek of the Field Museum Staff, collected at Manatee, between Belize and Stann Creek, in June, 1905.

The Mandel Caribbean Expedition of Field Museum, sailing on the yacht *Buccaneer* of Mr. Leon Mandel, passed through British Honduran waters in January, 1940, stopping at Half Moon Cay, Glover's Reef, and Turneffe Islands. The collections of reptiles obtained by Messrs. Rudyerd Boulton and D. Dwight Davis, of the Museum Staff, amount to 122 specimens. This brings the total number of specimens from British Honduras in Field Museum to 750. In the lists of specimens below, Field Museum numbers are written without initials.

Collecting expeditions to British Honduras from other institutions have added steadily to available material. Messrs. Josselyn Van Tyne and Adolph Murie collected 17 specimens in British Honduras on their trip into the Peten (primarily for birds and mammals, for the University of Michigan) in 1931; Dr. L. C. Stuart, also of the

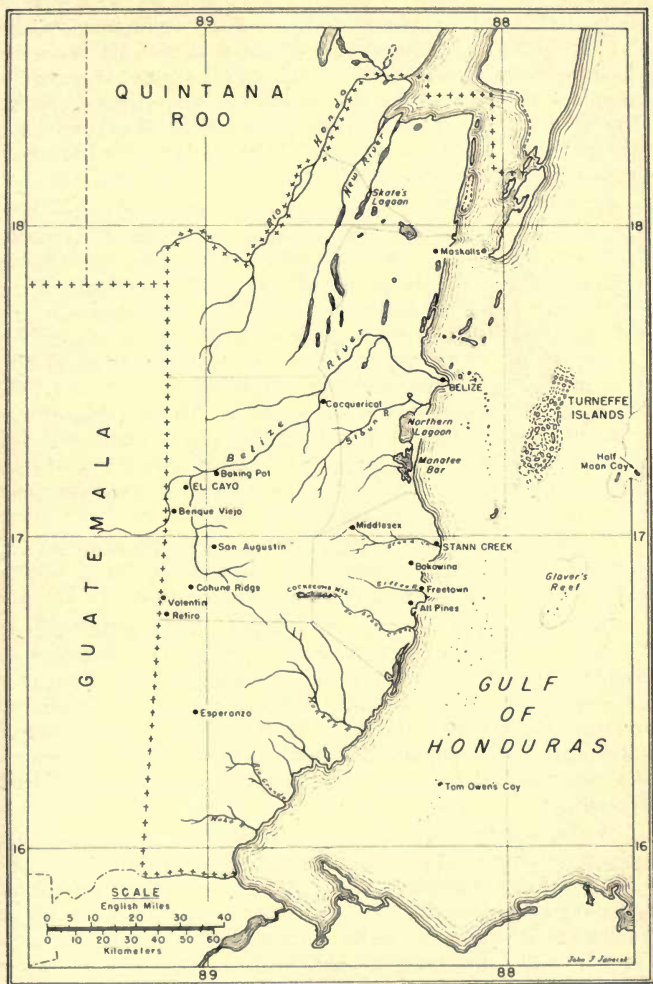


FIG. 38. Map of British Honduras, showing localities mentioned in the text.

University of Michigan, and similarly on his way to the Peten region, collected 15 specimens at Belize and Cocquericot; and Dr. C. L. Lundell supplemented this small nucleus with 177 specimens which were a by-product of his botanical field work of 1936. These collections were made available to me by Mrs. Helen T. Gaige, Curator of Reptiles of the Museum of Zoology at the University of Michigan, to whom I am also much indebted for aid in identifying the tree frogs of the collection.

Meanwhile, in 1935, Messrs. Emmet R. Blake and Charles T. Agostini made an ornithological expedition to British Honduras for the Carnegie Museum. Their objective was the Cockscomb Mountains, the highest terrain in the colony, which accordingly offered some chance of finding endemic forms. Their collection of reptiles and amphibians, made under considerable difficulties, amounts to 182 specimens. In lending this material for examination, Mr. M. Graham Netting kindly included five specimens of lizards from Half Moon Cay, off the coast of British Honduras. These specimens were collected by Mr. Ernest G. Holt in 1926, on the occasion of a visit to the island for a habitat group of man o' war birds. Two of these lizards represent the remarkable *Anolis allisoni*, a species representative of the Cuban *porcatus* group.

I am indebted to Mr. Benjamin Shreve, of the Museum of Comparative Zoology, for the list of their British Honduran reptiles, which number 10 specimens, representing five species.

Most recently, a collection of amphibians and reptiles made by Mr. Ivan T. Sanderson and his party in British Honduras has been deposited in Field Museum and made available for study in the present connection. This important collection includes 513 specimens and adds five species to the fauna hitherto known. The identifications used in the present list were supplied to Mr. Sanderson and are employed by him in his recently published book, "Living Treasure."

The accumulated collections from these varied sources thus amount to more than 1,600 specimens; this is still entirely inadequate for a knowledge of the distribution of the species within the colony, and many species are still represented by only one or two specimens. Further additions to the fauna obviously may be expected, since there are still numerous species known from adjacent Peten which have not been recorded from British Honduras (see below). The species thus far known are 98 in all: 2 salamanders, 15 frogs and toads, 8 turtles, 2 crocodilians, 33 lizards, and 38 snakes.

The faunal region to which British Honduras belongs is referred to as the Peten Province by Hobart M. Smith, in his important study of the distribution of the Mexican and Central American lizards of the genus *Sceloporus*. This province includes essentially the base and the middle portion of the Yucatan Peninsula—all of British Honduras, the Guatemalan department of Peten, and the Mexican state of Campeche and territory of Quintana Roo. The province as a whole is distinguished by high tropical rain-forest. Stuart (1935) gives a general geographic account of Peten, much of which is applicable to the region as a whole. His several papers on this adjacent region have been especially useful in the preparation of the present report. The nature of the British Honduran collection here reported upon makes it impossible to analyze the fauna ecologically as Stuart has analyzed that of Peten in his field studies of the Peten savannas. British Honduras is apparently like Peten in its extensive areas of "pine ridge" which are contrasted with the "cohune ridge" in the common observation of the mahogany cutters. It is notable that pine ridge descends to low altitudes. An analysis of the ecological correlations of the amphibians and reptiles with these two botanical formations remains to be made. The fact that *Sceloporus lundelli lundelli* and *S. teapensis* are apparently confined to the pine ridge association indicates that such a study, with the repetition of Stuart's Peten observations on habitat preference under the somewhat different conditions in British Honduras, affords field problems for the future. Additional collections are wanted, especially from the northern and southern districts of British Honduras. The writer is still of the opinion, expressed in the "Naturalist's Guide to the Americas," that British Honduras affords American zoologists exceptional opportunities for research in a rich tropical area.

The agreement of the number of species and subspecies of reptiles and amphibians known from British Honduras, totaling 98, with nearly the same number (96) known from the Guatemalan province of Peten, is fortuitous. No less than 31 forms in the Peten list are unrecorded from British Honduras, with about the same number known from British Honduras and not from Peten. While all (or at least most) of these Peten forms are to be expected in British Honduras with further exploration, the reciprocal is not true, since there are a few coastal forms in British Honduras which do not extend inland. These are especially *Crocodylus acutus*, *Aristelliger georgeensis*, *Anolis sagrei*, and *Anolis allisoni*. The total herpetological fauna of British Honduras will thus certainly exceed 125

forms. The species recorded from Peten but not yet from British Honduras are:

<i>Oedipus yucatanus</i>	<i>Cnemidophorus gularis</i>
<i>Rhinophrynus dorsalis</i>	<i>Storeria dekayi</i>
<i>Leptodactylus labialis</i>	<i>Dendrophidion dendrophis</i>
<i>Centrolene fleischmanni</i>	<i>Coluber ortenburgeri</i>
<i>Hyla underwoodi</i>	<i>Coluber mentovarius</i>
<i>Hyla venulosa</i>	<i>Ficimia olivacea</i>
<i>Hylella picta</i>	<i>Tropidodipsas sartorii</i>
<i>Tripriion petasatus</i>	<i>Conophis lineatus</i>
<i>Hypopachus inguinalis</i>	<i>Coniophanes schmidtii</i>
<i>Microhyla elegans</i>	<i>Hydrocalamus quinquevittatus</i>
<i>Thecadactylus rapicaudus</i>	<i>Tantilla moesta</i>
<i>Anolis pentapriion</i>	<i>Sibon sibon</i>
<i>Sceloporus serrifer plioporos</i>	<i>Clelia petola</i>
<i>Gerrhonotus moreletii</i>	<i>Crotalus durissus durissus</i>
<i>Gerrhonotus auritus</i>	<i>Staurotypus salvini</i>
<i>Cnemidophorus d. cozumelus</i>	

The faunal importance of British Honduras as an independent geographic area is slight, but a knowledge of its fauna is essential to the larger problem offered by that of the Yucatan Peninsula as a whole and to the delimitation of the endemic fauna of its northern part.

The active work in progress on the Mexican herpetological fauna, especially by Hobart M. Smith, and the Guatemalan studies of L. C. Stuart, especially on the Alta Verapaz region, will affect both nomenclatorial and zoological problems in the corresponding fauna of British Honduras, a further reason for regarding the present list as provisional.

Fourteen species and subspecies, exclusive of the doubtful caecilian, *Dermophis syntremus* Cope, have been described from British Honduras, with three additions in the present paper. These are:

<i>Eleutherodactylus sandersoni</i> sp. nov.	<i>Pseustes poecilonotus poecilonotus</i>
<i>Eleutherodactylus stantoni</i> sp. nov.	Günther
<i>Kinosternon acutum</i> Gray	<i>Pliocercus elapoides semicinctus</i> subsp. nov.
<i>Coleonyx elegans</i> Gray	<i>Elaphe triaspis</i> Cope
<i>Anolis ustus</i> Cope	<i>Coniophanes bipunctatus</i> Günther
<i>Aristelliger georgeensis</i> Bocourt	<i>Leptodeira annulata polysticta</i> Günther
<i>Sceloporus lundelli lundelli</i> Smith	<i>Tantilla brevis</i> Günther
<i>Thamnophis praeocularis</i> Bocourt	<i>Micrurus affinis alienus</i> Werner
<i>Tretanorhinus lateralis</i> Bocourt	<i>Micrurus stantoni</i> Schmidt

Of these forms *Tretanorhinus lateralis* is regarded as a synonym of *T. nigroluteus* Cope, and my own *Micrurus stantoni* is referred to *M. affinis alienus*. None of the remaining twelve valid forms can be thought of as confined to British Honduras; with the exception of the coastal *Aristelliger georgeensis* and *Anolis allisoni* they are

either already known from Peten or may be expected there and in Quintana Roo.

The forms in the following list not known from Peten number 34, but with the exception of *Crocodylus acutus*, *Aristelliger georgeensis*, *Anolis sagrei*, *Anolis allisoni*, and perhaps *Tretanorhynchus nigroluteus*, they are unquestionably to be expected with further collecting. The extent of the overlap of the fauna of British Honduras with that of the Caribbean lowland of Guatemala remains to be determined.

CAUDATA

Oedipus mexicanus Duméril and Bibron

Bolitoglossa mexicana Duméril and Bibron, *Erpét. Gén.*, 9, p. 93; atlas, pl. 104, fig. 1, 1854—Dolores, Peten (restr.).

Oedipus mexicanus Schmidt, *Field Mus. Nat. Hist., Zool. Ser.*, 20, p. 146, 1936.

Benque Viejo, 1 (USNM 65131, A. Versanel); Manatee, 2 (3237-8, B. H. Bailey); Middlesex, 3 (4268-70, K. P. Schmidt and L. L. Walters); Silk Grass, 2 (ITS 451, 463, I. T. Sanderson); Stann Creek Valley, 1 (ITS 511, I. T. Sanderson).

The three specimens from Middlesex were found under boards and pieces of wood. The reasons for distinguishing the Peten and British Honduran form as *mexicanus* are set forth in my paper on the Guatemalan species of *Oedipus*, cited above.

Oedipus elongatus Schmidt

Oedipus elongatus Schmidt, *Field Mus. Nat. Hist., Zool. Ser.*, 20, p. 165, 1936—Escobas, near Puerto Barrios, Guatemala.

Bokowina, 3 (ITS 451, 463, 511, I. T. Sanderson); Double Falls, 3 (ITS 505, I. T. Sanderson).

SALIENTIA

Bufo marinus Linnaeus

Rana marina Linnaeus, *Syst. Nat.*, p. 211, 1758—America, restricted to Surinam.

Bufo marinus Schneider, *Hist. Amph.*, fasc. 1, p. 219, 1799.

All Pines, 1 (CM 9875, E. R. Blake and C. T. Agostini); Belize, 32 (USNM 5799, W. A. Stanton; 4286-4302, 4307-16, 4536-37, K. P. Schmidt and L. L. Walters; ITS 399, I. T. Sanderson); El Cayo, 1 (MZUM 70400, Adolph Murie); Kate's Lagoon, 5 (ITS 520-21, 543, 345-46, I. T. Sanderson); Middlesex, 4 (4303-06, K. P. Schmidt and L. L. Walters).

Bufo marinus was breeding at Middlesex during the period of our stay (February 2-16, 1923); its long chains of eggs were frequently seen in shallow water at the edges of Stann Creek. At Belize it was

abundant at a pig pen, on the road west of the city, under troughs and boards. The association with domestic animals and with human habitations appears to be characteristic throughout its range, and accounts to a considerable extent for the great abundance of the species. Of all toads, it appears to be the species most frequently infested with ticks.

I have retained the binomial, for I know of no indication of intergradation with *Bufo paracnemis* which characterizes the Brazilian savanna region from northeastern Brazil to Paraguay, nor of intergradation of the latter form with the east Brazilian *ictericus*.

I find no distinction between Central American specimens and specimens from British Guiana. The type locality of *marinus* may be restricted to Surinam.

Bufo valliceps Wiegmann

Bufo valliceps Wiegmann, Isis, 1833, p. 657, 1833—Mexico.

Belize, 40 (4317-41, K. P. Schmidt and L. L. Walters; ITS 400-06, 409-14, I. T. Sanderson; USNM 26067, 59938); Bokowina, 5 (ITS 417, 422, 435, 455, 460, I. T. Sanderson); Cockscomb Mountains, northern slope, 1 (CM 9874, E. R. Blake and C. T. Agostini); Cohune Ridge, 4 (MZUM 80733, C. L. Lundell); Double Falls, 2 (ITS 475-76, I. T. Sanderson); El Cayo, 3 (USNM 71278, 75119, Harry Malleis; MZUM 70393, Josselyn Van Tyne); Freetown, 2 (CM 9876-77, E. R. Blake and C. T. Agostini); Kate's Lagoon, 11 (ITS 519, 522-27, 544, 548-50, I. T. Sanderson); Manatee, 14 (3019, B. H. Bailey); Maskalls, 1 (ITS 408, I. T. Sanderson); Middlesex, 11 (4343-53, K. P. Schmidt and L. L. Walters); San Agustin, 2 (MZUM 80734, C. L. Lundell); Silk Grass, 1 (ITS 464, I. T. Sanderson).

Leptodactylus melanonotus Hallowell

Cystignathus melanonotus Hallowell, Proc. Acad. Nat. Sci. Phila., 1860, p. 485, 1860—Nicaragua.

Leptodactylus melanonotus Brocchi, Miss. Sci. Mex., Zool., pt. 3, sec. 2, livr. 1, p. 20, 1881.

Belize, 18 (4389-4405, K. P. Schmidt and L. L. Walters; USNM 57763, W. A. Stanton); Kate's Lagoon, 16 (ITS 528-39, 542, 547, 551-52, I. T. Sanderson); Manatee, 2 (4262-63, B. H. Bailey); Silk Grass, 1 (ITS 459, I. T. Sanderson).

Eleutherodactylus ranoides Cope

Lithodytes ranoides Cope, Proc. Amer. Phil. Soc., 23, p. 275, 1886—Nicaragua.

Eleutherodactylus ranoides Noble, Bull. Amer. Mus. Nat. Hist., 38, p. 327, 1918.

Bokowina, 21 (ITS 418-20, 427, 430-36, 438, 440, 445, 448-50, 452-53, 456-58, I. T. Sanderson); Cockscomb Mountains, northern slope, 1 (CM 9873, E. R. Blake and C. T. Agostini); Double Falls, 16 (ITS 466-68, 471-72, 477-81, 490-91, 496-98, 509, I. T. Sanderson); Middlesex, 1 (4407, K. P. Schmidt); Silk Grass, 1 (ITS 461, I. T. Sanderson).

Eleutherodactylus rhodopsis Cope

Lithodytes rhodopsis Cope, Proc. Acad. Nat. Sci. Phila., 1866, p. 323, 1866—Orizaba and Cordova, Vera Cruz.

Eleutherodactylus rhodopsis Noble, Bull. Amer. Mus. Nat. Hist., 38, p. 327, 1918.

Bokowina, 4 (ITS 421, 429, 442, 447, I. T. Sanderson); Cockscomb Mountains, northern slope, 1 (CM 9872, E. R. Blake and C. T. Agostini); Double Falls, 8 (ITS 469-70, 473-74, 482-83, 507-08, I. T. Sanderson); Silk Grass, 2 (ITS 462, 465, I. T. Sanderson).

Eleutherodactylus stantoni sp. nov.

Type from Valentin, British Honduras. No. 80673 Museum of Zoology, University of Michigan. Collected July 6, 1936, by C. L. Lundell.

Diagnosis.—Limbs long; head elongate, with well-defined canthus rostralis; belly smooth, with distinct fold delimiting a ventral disk; back nearly smooth, with dorsolateral glandular ridges; toes with a vestige of web at base; disks of fingers small, about equal to those of toes; vomerine teeth in rounded groups within and behind the choanae; cheeks black; posterior face of thighs without distinctive markings. Perhaps most nearly allied to *Eleutherodactylus nubilus* of Costa Rica.

Description of type.—Head a little wider than body, as wide as its length from snout to posterior border of tympanum; nostrils near the tip of the snout, which has a well-defined canthus rostralis; loreal region sloping, slightly concave, eye a little less than its distance from the nostril; tympanum large, vertically oval, nearly equal to the eye, its diameter greater than its distance from the eye; heels strongly overlapping when the limbs are placed at right angles to the body, and reaching well beyond the snout when the leg is extended along the body; disks of fingers and toes small, nearly equal; first finger distinctly longer than the second; inner metatarsal tubercle elongate, outer small but distinct; skin of back and upper surface of thighs and tibiae finely and uniformly rugose, top of head smooth; a sharp fold over the tympanum, continued along the sides of the body as a well-defined narrow fold; skin of belly smooth, with

a well-defined ventral disk; under-surfaces of thighs finely granulate posteriorly; toes with a trace of web at base; vomerine teeth in prominent rounded patches, just behind and within the choanae; tongue slightly notched behind.

Color (in alcoholic specimen) grayish brown above, almost white beneath; cheeks black to the tympani; very small light spots on the border of the lip; forearms and angles of mouth finely spotted with brown; no characteristic marking of the concealed surfaces; limbs obscurely barred.

Measurements of type.—Length from tip of snout to anus 52 mm.; from tip of snout to posterior border of tympanum, 22; width of head 22; tibia 31.6; foot from heel 43.8; leg 98.5; and arm 30.

Notes on paratype.—The single paratype, MZUM 80672, is a little darker than the type, but otherwise in extremely close agreement with it. The measurements differ slightly: body 53 mm.; length of head 22.8; width of head 23; tibia 32; length of foot from heel 42.7; leg 97.5; and arm 33.

Remarks.—I find no species in any of the adjacent regions which corresponds with this form, and it is surprisingly absent from Stuart's Peten collection, which is rich in frogs. The species is named in commemoration of the life-long interest in natural history of Father W. A. Stanton, S.J.

Since this description was drawn up, Dr. L. C. Stuart, after examination of the types and comparison with a larger specimen of *Eleutherodactylus* collected by himself in Alta Verapaz, writes me that he believes that *stantoni* may be the long lost *Hylodes laticeps*, known only from the type collected by Morelet in Yucatan. His conclusion is based primarily on the conspicuous development of the ventral disk, which is the most significant character in the somewhat inadequate description and figure of *laticeps*. I have allowed *stantoni* to stand in the present paper because of the striking development of its dorso-lateral folds and difference in head shape. My notes on the type of *laticeps* made in Paris in 1932 are as follows: "head very large and broad; ventral disk very distinct, perfectly smooth; posterior face of thighs toward vent granulate; first finger longer than second; tympanum nearly as large as eye; nearly smooth above." This is by no means conclusive as to the absence of dorso-lateral folds in *laticeps*, since my attention had not been drawn to the question at issue. Broadheadedness is known to develop in old male specimens of various species of *Eleutherodactylus*, and this might account for one of the differences between *stantoni* and

laticeps. Should *laticeps* be from Yucatan proper, i.e. from the northern part of the peninsula, it is probable from the general faunal relations that it is distinct from the form of the Peten Province, the forested base of the Yucatan peninsula; but Duméril's use of "Yucatan" may have been in the sense of the peninsula as a whole. Thus the matter must be left for the accumulation of further specimens and for more critical comparison of types.

***Eleutherodactylus sandersoni* sp. nov.**

Type from Double Falls, west of Stann Creek, British Honduras. No. 504 I. T. Sanderson Collection. Adult male. Collected December 17, 1939, by Ivan T. Sanderson.

Diagnosis.—Limbs relatively short; belly rugose at sides, without a distinct ventral disk; back finely rugose, with short converging ridges behind the eyes, without dorsolateral ridges; toes with a well-defined web at base; disks of fingers and toes moderate, subequal; vomerine teeth in short transverse rows, closely juxtaposed, well behind the choanae; posterior face of thighs finely mottled; perhaps most nearly allied to *Eleutherodactylus ranoides*.

Description of type.—Head as wide as body, its width equal to the distance from snout to posterior border of tympanum; nostrils near the tip of the snout, which has a well-defined canthus rostralis; loreal region sloping, with a shallow longitudinal groove; eye a little longer than its distance from the nostril; tympanum distinct, relatively small, vertically oval; heels meeting when legs are placed at right angles to the body, reaching just beyond eye when the leg is laid along the body; disks of fingers and toes moderate, nearly equal; first finger equal to second; inner metatarsal tubercle elongate, outer distinct, round; skin of back, top of head, and upper surface of thighs finely and uniformly rugose; a sharp fold over the tympanum; skin of under-surface smooth on chest, granulate laterally and posteriorly; no ventral disk; toes with well-defined webs at base; vomerine teeth in prominent transverse ridges, well behind the choanae and closely juxtaposed; tongue large, with a slight notch.

Color (in alcoholic specimen) dark above, lighter beneath, chin, sides, and sides of belly mottled with brown; bold dark spots on the lip visible under liquid; limbs obscurely barred; posterior surfaces of thighs dark, with fine yellowish punctulation.

Measurements of type.—Length from tip of snout to anus 67; tip of snout to posterior border of tympanum 26; width of head 26; tibia 34; foot from heel 44; leg 94; and arm 37.

Notes on paratypes.—Five specimens (Nos. 486–489, 495), all from the type locality and all collected by Ivan T. Sanderson, agree with the type in all essential characters. One of these, with the throat nearly immaculate, appears to be an adult female (No. 495). This specimen measures: length, 68; length of head, 25; width of head, 26; tibia, 33; hind foot, 98; arm, 37.

Remarks.—This form and *Eleutherodactylus stantoni* seem to represent a small endemic element in the fauna of the British Honduran highland, but this may well prove to be more widespread as zoological exploration progresses in Central America.

Hyla baudinii Duméril and Bibron

Hyla baudinii Duméril and Bibron, *Erpét. Gén.*, 8, p. 564, 1841—Mexico.

Belize, 7 (4384–87, K. P. Schmidt and L. L. Walters; 4153, W. A. Stanton; USNM 6065, W. A. Stanton; ITS 416, I. T. Sanderson); Bokowina, 4 (ITS 423, 443, 446, 454, I. T. Sanderson); Cohune Ridge, 15 (MZUM 80738, C. L. Lundell); Double Falls, 2 (ITS 495–500, I. T. Sanderson); Kate's Lagoon, 1 (ITS 517, I. T. Sanderson); Manatee, 4 (4264–67, B. H. Bailey); San Agustín, 1 (MZUM 80739, C. L. Lundell); Valentin, 8 (MZUM 80735–37, C. L. Lundell).

This hyla was calling loudly in Belize back yards on February 19 and 20, 1923, after rains.

Hyla ebraccata Cope

Hyla ebraccata Cope, *Proc. Acad. Nat. Sci. Phila.*, 1874, p. 69, 1874—Nicaragua.

Cohune Ridge, 10 (MZUM 80742, C. L. Lundell).

In five of the ten specimens the characteristic dark dorsal pattern is *lighter* than the ground color. The thighs are completely colorless, as are the feet and tarsal joints. The tibiae are brown, with a light crossbar at the middle, which is often incomplete. The form of the dorsal marking is variable.

Hyla loquax Gaige and Stuart

Hyla loquax Gaige and Stuart, *Occ. Papers, Mus. Zool. Univ. Mich.*, 281, p. 1, 1934—Ixpuk Aguada, north of La Libertad, Peten, Guatemala.

San Agustín, 1 (MZUM 80740, C. L. Lundell); Stann Creek Valley, 3 (ITS 513–515, Ivan T. Sanderson).

Hyla staufferi Cope

Hyla staufferi Cope, *Proc. Acad. Nat. Sci. Phila.*, 1865, p. 195, 1865—Orizaba.

Belize, 1 (4406, K. P. Schmidt and L. L. Walters); Kate's Lagoon, 1 (ITS 516, I. T. Sanderson); San Agustín, 8 (MZUM 80741, C. L. Lundell).

Our specimen was collected on the wall of the Old Cemetery, February 23, 1923.

Agalychnis callidryas Cope

Hyla callidryas Cope, Proc. Acad. Nat. Sci. Phila., 1862, p. 359, 1862—Panama.

Agalychnis callidryas Cope, Nat. Hist. Rev., 1865, p. 110, 1865.

Valentin, 6 (MZUM 80743, C. L. Lundell).

Agalychnis moreletii Duméril

Hyla moreletii Duméril, Ann. Sci. Nat., (3), 19, p. 169, 1863—Vera Paz.

Agalychnis moreletii Cope, Jour. Acad. Nat. Sci. Phila., (2), 8, p. 107, 1875.

Valentin, 15 (MZUM 80744-46, C. L. Lundell).

Rana pipiens berlandieri Baird

Rana berlandieri Baird, U. S.-Mex. Bound. Surv., 2, pt. 2, Rept., p. 27, pl. 36, figs. 7-10, 1859—southern Texas.

Belize, 13 (4410-4421, 4423, K. P. Schmidt and L. L. Walters; ITS 398, I. T. Sanderson); Big Pine Ridge, 12 miles south of El Cayo, 5 (MZUM 70406-10, Adolph Murie and Josselyn Van Tyne); El Cayo, 1 (USNM 71330, Harry Malleis); Middlesex, 2 (4422, 4424, K. P. Schmidt and L. L. Walters); San Agustin, 2 (MZUM 80730, C. L. Lundell); Stann Creek Valley, 1 (ITS 512, I. T. Sanderson); Twelve Mile Station, Stann Creek Railroad, 1 (4425, K. P. Schmidt and L. L. Walters); Valentin, 3 (MZUM 80728-29, C. L. Lundell).

Rana palmipes Spix

Rana palmipes Spix, Spec. Nov. Testud. Ranar. Brasil., p. 29, pl. 5, fig. 1, 1824—Amazon River.

Belize, 2 (4408-09, K. P. Schmidt and L. L. Walters); Bokowina, 4 (ITS 424, 437, 441, 444, I. T. Sanderson); Big Pine Ridge, 2 (MZUM 70404-5, Adolph Murie and Josselyn Van Tyne); Double Falls, 10 (ITS 484-85, 492-94, 501-03, 506, 510, I. T. Sanderson); Freetown, 8 (CM 9878-85, E. R. Blake and C. T. Agostini); Kate's Lagoon, 2 (ITS 540-41, I. T. Sanderson); Manatee, 2 (6286-87, B. H. Bailey); San Agustin, 1 (MZUM 80732, C. L. Lundell).

TESTUDINATA

Dermatemys mawii Gray

Dermatemys mawii Gray, Ann. Mag. Nat. Hist., (1), 20, p. 60, 1847—"South America."

British Honduras, 5 (4161-63, 4166, 4176, W. A. Stanton).

Staurotypus triporcatus Wiegmann

Terrapene triporcata Wiegmann, Isis, 1828, p. 364, 1828—Rio Alvarado, Mexico.

Staurotypus triporcatus Wagler, Syst. Amph., pl. 5, figs. 44–45, 1830.

British Honduras, 1 (4164, W. A. Stanton).

Claudius angustatus Cope

Claudius angustatus Cope, Proc. Acad. Nat. Sci. Phila., 1865, p. 187, 1865—Tabasco.

British Honduras, 1 (4165, W. A. Stanton).

Kinosternon acutum Gray

Kinosternon scorpioides a acuta Gray, Syn. Rept., p. 34, pl. 7, fig. 1, 1831.

Kinosternon acutum Stejneger, Proc. U. S. Nat. Mus., 90, p. 458, 1941.

The type of this species, which has long been known under the name *berendianum* Cope, is thought by Stejneger to be from "Honduras," and this could only mean British Honduras, as the species is otherwise known from Vera Cruz, Tabasco, and Peten. Curiously enough, there appears to be no other record from British Honduras.

Kinosternon cruentatum cruentatum Duméril

Cinosternum cruentatum Duméril, Cat. Méth. Rept., p. 16, 1851—North America.

Belize, 3 (4426–27, K. P. Schmidt and L. L. Walters; ITS 686, I. T. Sanderson); British Honduras, 2 (4167–68, W. A. Stanton).

Kinosternon leucostomum Duméril

Cinosternum leucostomum Duméril, Cat. Méth. Rept., p. 17, 1851—New Orleans; Mexico; Rio Sumasinta; Madalena Valley and Bogota, Colombia. Restr. to Rio Usumacinta, Peten, Guatemala.

Belize, 1 (ITS 685, I. T. Sanderson); Big Pine Ridge, 3 (MZUM 70462–64, Adolph Murie); Bokowina, 2 (735–36, I. T. Sanderson); Cohune Ridge, 1 (MZUM 80704, C. L. Lundell); San Agustin, 4 (MZUM 80705–08, C. L. Lundell); Valentin, 4 (MZUM 80727, C. L. Lundell).

Pseudemys ornata Gray

Emys ornata Gray, Syn. Rept., p. 30, 1831—Mazatlan.

Pseudemys ornata Cope, Jour. Acad. Nat. Sci. Phila., (2), 8, p. 153, 1875.

Belize, 5 (4428, K. P. Schmidt and L. L. Walters; USNM 51878, 56604–05, W. A. Stanton; ITS 684, I. T. Sanderson); Kate's Lagoon, 3 (ITS 904–06, I. T. Sanderson); Middlesex, 1 (4429, K. P. Schmidt and L. L. Walters); British Honduras, 3 (4173–75, W. A. Stanton).

Geoemyda areolata Duméril

Emys areolata Duméril, Cat. Méth. Rept., p. 10, 1851—Petén.

Geoemyda areolata Stuart, Misc. Publ., Mus. Zool. Univ. Mich., 29, p. 56, 1935.

Belize, 1 (ITS 860, I. T. Sanderson); Big Pine Ridge, 1 (MZUM 70460, Adolph Murie); Silk Grass, 2 (ITS 756, 779, I. T. Sanderson).

CROCODILIA

Crocodylus acutus Cuvier

Crocodylus acutus Cuvier, Ann. Mus. Hist. Nat. Paris, 10, p. 55, pl. 1, fig. 3, pl. 2, 1807—San Domingo.

Belize, 1 (USNM 59935, H. J. Huwe); British Honduras, 2 (4156-57, W. A. Stanton).

Crocodylus moreletii Duméril

Crocodylus moreletii Duméril, Cat. Méth. Rept., p. 28, 1851—Lake Flores (=Lake Petén).

Crocodylus moreletii Schmidt, Field Mus. Nat. Hist., Zool. Ser., 12, p. 79, pl. 5, 1924.

Belize, 10 (4430-38, K. P. Schmidt and L. L. Walters; USNM 10288); Cocquericot, 1 (MZUM 75032, L. C. Stuart).

SAURIA

Coleonyx elegans Gray

Coleonyx elegans Gray, Ann. Mag. Nat. Hist., (1), 16, p. 162, 1845—Belize.

Belize, 2 (BMa, type, Dyson; 4178, W. A. Stanton); Benque Viejo, 1 (USNM 65132, A. Versanel); Kate's Lagoon, 1 (ITS 882, I. T. Sanderson); Silk Grass, 1 (ITS 757, I. T. Sanderson); Stann Creek Valley, 1 (ITS 850, I. T. Sanderson).

Sphaerodactylus glaucus Cope

Sphaerodactylus glaucus Cope, Proc. Acad. Nat. Sci. Phila., 1865, p. 192, 1865—Merida, Yucatan.

Manatee, 2 (4261, 5827, B. H. Bailey); Silk Grass, 1 (ITS 758, I. T. Sanderson); Stann Creek, 3 (BM 1890.10.24.3, 1891.3.4.1, and 1893.3.4.3, J. Robertson); British Honduras, 1 (4127, W. A. Stanton).

Sphaerodactylus lineolatus Lichtenstein

Sphaerodactylus lineolatus Lichtenstein, Nomen. Rept. Amph. Mus. Berol., p. 6, 1856—Veragoa (=Veragua), Panama.

All Pines, 1 (CM 8493, E. R. Blake and C. T. Agostini); Belize, 1 (USNM 31338, Mrs. Meehling); Cockscorn Mountains, eastern slope, 1 (CM 8484, E. R. Blake and C. T. Agostini).

Phyllodactylus lanei Smith

Phyllodactylus lanei Smith, Univ. Kans. Sci. Bull., 22, p. 125, pl. 25, fig. 3, text fig. 1B, 1935.

Belize, 2 (4449–50, K. P. Schmidt and L. L. Walters); Half Moon Cay, 7 (34030–36, D. D. Davis); North River, 1 (USNM 52310, W. A. Stanton); British Honduras, 2 (USNM 58957–58, W. A. Stanton).

Smith has set forth the case for recording this widespread species as *lanei* instead of under the familiar name *tuberculosus*. His conclusion is followed here pending the much needed revision of the genus. Our Belize specimens were collected on the walls of the Old Cemetery.

Aristelliger georgeensis Bocourt

Idiodactylus georgeensis Bocourt, Miss. Sci. Mex., Zool., pt. 3, sec. 1, livr. 2, p. 41, pl. 10, fig. 1, 1873—Saint George Cay, near Belize.

Manatee, 4 (5628–31, B. H. Bailey); Tom Owen Cay, 2 (4451–52, K. P. Schmidt and L. L. Walters).

This species has long been regarded as identical with *Aristelliger praesignis* of Jamaica. The number of subdigital lamellae in the British Honduran specimens is 14 on the fifth and 14 to 16 on the fourth digit, while in the three specimens available from Jamaica the figures are 10–12 and 13–14 respectively. Further study is required to establish the degree of distinctness of the two forms, but it appears useful to call attention to this problem by the use of Bocourt's name. In any case this gecko evidently belongs to the limited coastal and cay fauna with West Indian affinities represented also by *Anolis sagrei* and *Anolis allisoni*.

Specimens obtained on Tom Owen Cay were obtained for us by the captain of the schooner *Aurora* from the trunks of coco palms by throwing pieces of coral at them; they had apparently been in hiding under the trash on the ground. The limited land fauna of the cays affords an opportunity for an interesting ecological study of mode of dispersal, population numbers, and other environmental relations, simplified by the fewness of the species present.

Anolis aureolus Cope

Anolis aureolus Cope, Proc. Amer. Phil. Soc., 22, p. 390, 1885—Yucatan and Guatemala.

Belize (North River), 1 (USNM 58694, W. A. Stanton); Baking Pot, 1 (MCZ 18954, H. O. Rickettson); Valentin, 2 (MZUM 80688, C. L. Lundell).

Anolis beckeri Boulenger

Anolis beckeri Boulenger, Proc. Zool. Soc. Lond., 1881, p. 921, 1881—Yucatan. Belize, 1 (4483, K. P. Schmidt and L. L. Walters).

Anolis biporcatus Wiegmann

Dactyloa biporcata Wiegmann, Herp. Mex., p. 47, 1834—Mexico.

Anolis biporcatus Bocourt, Miss. Sci. Mex., Zool., pt. 3, sec. 1, livr. 2, p. 98 [excl. of text and pl.], 1873.

Bokowina, 7 (ITS 702-03, 717, 723, 743-44, 747, I. T. Sanderson); Cohune Ridge, 1 (MZUM 80681, C. L. Lundell); Double Falls, 2 (ITS 802, 820, I. T. Sanderson); San Agustin, 1 (MZUM 80682, C. L. Lundell); Silk Grass, 1 (ITS 788, I. T. Sanderson); Valentin, 1 (MZUM 80683, C. L. Lundell).

Dr. L. C. Stuart convinces me (in litt.) that Wiegmann's name *biporcatus* applies to what has become known as *Anolis copei* Bocourt, and that the *Anolis biporcatus* of authors must take the name *bourgaei* Bocourt. Briefly, he finds that the type of *biporcatus* much exceeds in size any known specimen of the form that has become known under that name, and that in the proportionate length of its limbs it corresponds well with *copei* and not at all with *biporcatus* auct., which has longer limbs. This matter will be set forth in more detail by Dr. Stuart.

Anolis bourgaei Bocourt

Anolis bourgaei Bocourt, Miss. Sci. Mex., Zool., pt. 3, sec. 1, livr. 2, p. 76, pl. 15, fig. 9, 1873—Huatusco and Orizaba, Vera Cruz.

Belize (North River), 2 (USNM 58171, 58173, W. A. Stanton); Bokowina, 6 (ITS 720, 724, 738, 746, 749, 751, I. T. Sanderson); Cocquericot, 7 (MZUM, L. C. Stuart); Freetown, 1 (CM 8595, E. R. Blake and C. T. Agostini); Grant's Works, 1 (ITS 825, I. T. Sanderson); Kate's Lagoon, 9 (ITS 862-67, 878-79, 896, I. T. Sanderson); Manatee, 1 (4260, B. H. Bailey); Middlesex, 3 (4479-81, K. P. Schmidt and L. L. Walters); Silk Grass, 18 (ITS 753-55, 760-61, 764-66, 773, 776, 782-86, 789, 791, 797, I. T. Sanderson); Stann Creek Valley, 1 (ITS 855, I. T. Sanderson).

Anolis capito Peters

Anolis (Draconura) capito Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 142, 1863—Costa Rica.

Bokowina, 2 (ITS 704, 748, I. T. Sanderson); Manatee, 1 (MCZ 19320, W. A. Stanton); Silk Grass, 2 (ITS 780-81, I. T. Sanderson); Valentin, 7 (MZUM 80683-87, C. L. Lundell).

Two specimens exhibit the extraordinary lineate pattern, which seems to be an alternative one in this species; both are females, but other female specimens have the normal pattern of irregular dark crossbands.

Anolis ruthveni Stuart

Anolis ruthveni Stuart, Occ. Papers, Mus. Zool. Univ. Mich., 310, p. 1, 1935
—Santa Teresa, Peten, Guatemala.

Bokowina, 11 (ITS 699, 705–06, 710–14, 718–19, 728, I. T. Sanderson); Cockscomb Mountains, east slope, 1 (CM 8483, E. R. Blake and C. T. Agostini); Cockscomb Mountains, northern slope, 1 (CM 8486, E. R. Blake and C. T. Agostini); Dog Creek, 3 (ITS 770–72, I. T. Sanderson); Double Falls, 7 (ITS 799, 804, 806, 810, 814–16, I. T. Sanderson); Silk Grass, 12 (ITS 692–98, 777–79, 792–93, I. T. Sanderson); Sixteen Mile Station, inland from Stann Creek, 4 (4484–87, K. P. Schmidt and L. L. Walters); Valentin, 25 (MZUM 80689–92, C. L. Lundell).

Anolis sagrei Duméril and Bibron

Anolis sagrei Duméril and Bibron, Erpét. Gén., 4, p. 149, 1837—Cuba.

Belize, 150 (4464–68, K. P. Schmidt and L. L. Walters; ITS 601–27, 629–46, I. T. Sanderson; USNM 25104–05, 26070, 26072–73, 58290–92); Glover's Reef, 199 (CM 8518–8644, E. R. Blake and C. T. Agostini; 34602–11, 34617–18, D. D. Davis); Half Moon Cay, 1 (34653, D. D. Davis); Manatee, 5 (MCZ 19315–19, W. A. Stanton); Tom Owen Cay, 12 (4478, K. P. Schmidt and L. L. Walters); Turneffe Islands, 19 (34625–26, D. D. Davis); British Honduras, 7 (4179–85, W. A. Stanton).

There appear to be slight differences between specimens from British Honduras and those from Cuba and Jamaica, such as the more frequent contact of the semicircles in the former, but these differences do not appear to warrant taxonomic distinction. I interpret the range as due to some exceptional means of dispersal, which associates this form with the geckos of the genus *Aristelliger*.

The Caracas record for this species (Boulenger, 1885, p. 41) may rest on an exchange of unnumbered specimens, since a specimen of *Anolis chrysolepis* is recorded by him from "Honduras."

Anolis sericeus Hallowell

Anolis sericeus Hallowell, Proc. Acad. Nat. Sci. Phila., 1856, p. 227, 1856—
Jalapa, Mexico.

Belize, 1 (USNM 65125); Belize (North River), 1 (USNM 58172, W. A. Stanton).

Anolis tropidonotus Peters

Anolis tropidonotus Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 135, 1863—Huanuco, Mexico.

Cohune Ridge, 1 (MZUM 80693, C. L. Lundell); El Cayo, 1 (USNM 75118, Harry Malleis); Manatee, 1 (4259, B. H. Bailey).

Anolis ustus Cope

Anolis ustus Cope, Proc. Acad. Nat. Sci. Phila., 1864, p. 172, 1864—Belize.

Belize, 2 (BM a, b); Belize (North River), 3 (USNM 58476-78, W. A. Stanton).

The trinomial form is dropped on the basis of Stuart's opinion (in litt.) that the type of *Anolis ustus veraepacis* Barbour is referable to *Anolis bourgaei* Bocourt.

Anolis allisoni Barbour

Anolis allisoni Barbour, Proc. New Engl. Zool. Club, 10, p. 58, 1928—Coxen Hole, Ruatan Island, Honduras.

Half Moon Cay, 13 (CM 4156-57, E. G. Holt; 34628-29, D. D. Davis).

The presence of this remarkably distinct representative of the Cuban *porcatus* group on Half Moon Cay contributes to our knowledge of its distribution. *A. allisoni* does not seem to occur on the Central American mainland.

Basiliscus vittatus Wiegmann

Basiliscus vittatus Wiegmann, Isis, 1828, p. 373, 1828—Mexico.

All Pines, 3 (CM 8491-92, 8494, E. R. Blake and C. T. Agostini); Belize, 71 (4496-4529, K. P. Schmidt and L. L. Walters; ITS 592-97, 651-54, 666-67, 670-71, 676, 680-81, 687, I. T. Sanderson; USNM 24914-15, 26358, 51885-86, 56788-801); Big Pine Ridge, 1 (MZUM 70425, Adolph Murie); Bokowina, 4 (ITS 742-45, I. T. Sanderson); Double Falls, 1 (ITS 800, I. T. Sanderson); El Cayo, 1 (USNM 71374, Harry Malleis); Freetown, 13 (CM 8497-8500, 8502-10, E. R. Blake and C. T. Agostini); Grant's Works, 1 (ITS 822, I. T. Sanderson); Kate's Lagoon, 6 (ITS 868-69, 871, 880, 886, 902, I. T. Sanderson); Manatee, 8 (5824, 6769-71, B. H. Bailey); Middlesex, 2 (4530-31, K. P. Schmidt and L. L. Walters); San Agustin, 5 (MZUM 80679, C. L. Lundell); Silk Grass, 1 (ITS 787, I. T. Sanderson); Stann Creek, 19 (4532-35, K. P. Schmidt and L. L. Walters; ITS 827-35, 838-43, I. T. Sanderson); British Honduras, 2 (4186, USNM 26066, W. A. Stanton).

Laemanctus deborrei Boulenger

Laemanctus deborrei Boulenger, Bull. Soc. Zool. France, 1877, p. 460, 1877—
Tabasco.

Middlesex, 1 (4488, K. P. Schmidt).

Corythophanes cristatus Merrem

Agama cristata Merrem, Tent. Syst. Amph., p. 50, 1820—Ceylon (in errore).

Corythophanes cristatus Gray, Griffith's Animal Kingdom, 9, (Synopsis), p. 55,
1831.

Cohune Ridge, 1 (MZUM 80678, C. L. Lundell); Manatee, 1
(5826, B. H. Bailey); Silk Grass, 2 (ITS 796, 809, I. T. Sanderson).

Corythophanes hernandesii Wiegmann

Chamaeleopsis hernandesii Wiegmann, Isis, p. 298, 1831—tropical Mexico.

Corythophanes hernandesii Boulenger, Cat. Liz. Brit. Mus., 2, p. 103, 1885.

Silk Grass, 2 (ITS 752, 767, I. T. Sanderson).

Iguana iguana rhinolopha Wiegmann

Iguana rhinolopha Wiegmann, Herp. Mex., p. 44, 1834—Mexico.

Iguana iguana rhinolopha Van Denburgh, Proc. Acad. Nat. Sci. Phila., 1897,
p. 461, 1897.

Belize, 1 (4489, K. P. Schmidt and L. L. Walters); Half Moon
Cay, 2 (CM 7658, E. G. Holt; 34624, D. D. Davis).

Ctenosaura similis Gray

Iguana (Ctenosaura) similis Gray, Griffith's Animal Kingdom, 9, (Synopsis),
p. 38, 1831—no locality.

Belize, 15 (4490-93, K. P. Schmidt and L. L. Walters; ITS 598,
647, 655-57, 672-75, I. T. Sanderson; BM no No.); Freetown, 1 (CM
8513, E. R. Blake and C. T. Agostini); Glover's Reef, 11 (CM 8517,
E. R. Blake and C. T. Agostini; MCZ 22088, L. L. Mowbray; 34612-
16, 34619-22, D. D. Davis); Half Moon Cay, 3 (CM 4154-55, E. G.
Holt; 34623, D. D. Davis); Stann Creek, 2 (4495-96, K. P. Schmidt
and L. L. Walters); British Honduras, 1 (4187, W. A. Stanton).

It is surprising to find this heavy-bodied species a regular inhabitant of the offshore cays. It is known in British Honduras under the singular common name of "wish-willy."

Sceloporus chrysostictus Cope

Sceloporus chrysostictus Cope, Proc. Acad. Nat. Sci. Phila., 1866, p. 125, 1866
—Yucatan.

Belize (North River), 1 (USNM 57005, W. A. Stanton); Kate's
Lagoon, 7 (ITS 882, 892-95, 899-900, I. T. Sanderson).

Sceloporus teapensis Günther

Sceloporus teapensis Günther, Biol. Centr.-Amer., Zool., Rept. Batr., fasc. 10, p. 75, 1890—Teapa, Tabasco.

Big Pine Ridge, 3 (MZUM 70423-24, Josselyn Van Tyne and Adolph Murie); San Agustin, 16 (MZUM 80676-77, C. L. Lundell).

Sceloporus lundelli lundelli Smith

Sceloporus lundelli lundelli Smith, Field Mus. Nat. Hist., Zool. Ser., 26, p. 66, fig. 8, pl. 4, 1939—Cohune Ridge, British Honduras.

Belize River at El Cayo, 1 (MZUM 80675, paratype, C. L. Lundell); Cohune Ridge, 1 (MZUM 80674, type, C. L. Lundell).

Lepidophyma flavimaculatum Duméril

Lepidophyma flavimaculatum Duméril, Cat. Méth. Rept., p. 137, 1851—Peten.

Baking Pot, 2 (MCZ 18952-53, H. O. Rickettson); Bokowina, 10 (ITS 707-09, 715, 726, 730-31, 733, 741, 750, I. T. Sanderson); Double Falls, 2 (ITS 798, 808, I. T. Sanderson); Middlesex, 1 (4455, K. P. Schmidt and L. L. Walters); Twelve-mile Station (Stann Creek Railroad), 2 (4453-54, K. P. Schmidt and L. L. Walters).

Celestus steindachneri Cope

Diploglossus steindachneri Cope, Proc. Acad. Nat. Sci. Phila., 1864, p. 179, 1864—Orizaba, Mexico.

Celestus steindachneri Cope, idem, 1868, p. 123, 1868.

Bokowina, 1 (ITS 734, I. T. Sanderson).

Ameiva undulata Wiegmann

Cnemidophorus undulatus Wiegmann, Herp. Mex., p. 27, 1934—Mexico.

Ameiva undulata Gray, Cat. Liz. Brit. Mus., p. 20, 1845.

Belize, 20 (4461-63, K. P. Schmidt and L. L. Walters; 4188-89, W. A. Stanton; USNM 26069, 51879-80, 59936, W. A. Stanton and H. J. Huwe; ITS 599-600, 658-64, 678-79, I. T. Sanderson); El Cayo, 2 (USNM 71372-73, Harry Malleis); Kate's Lagoon, 5 (ITS 670, 672-75, I. T. Sanderson); Manatee, 3 (6766-68, B. H. Bailey); Maskalls, 1 (ITS 650, I. T. Sanderson); Stann Creek Valley, 1 (ITS 836, I. T. Sanderson).

The geographic variation of this species is being studied in detail by Dr. L. C. Stuart.

Ameiva festiva Lichtenstein

Cnemidophorus festivus Lichtenstein, Nomen. Rept. Amph. Mus. Berol., p. 13, 1856—Veragoa.

Ameiva festiva Bocourt, Miss. Sci. Mex., Zool., pt. 3, livr. 4, p. 260, pl. 20, fig. 2, pl. 20A, fig. 10, pl. 20D, fig. 6, 1874.

Bokowina, 3 (ITS 700-01, 725, I. T. Sanderson); Double Falls, 1 (ITS 801, I. T. Sanderson); Middlesex, 2 (4459-60, K. P. Schmidt and L. L. Walters).

Mabuya mabouya mabouya Lacépède

Lacertus mabouya Lacépède, Hist. Nat. Quad. Ovip. Serp., 2, p. 378, pl. 24, 1788—Lesser Antilles (restr.).

Mabuya mabouya mabouya Dunn, Proc. Acad. Nat. Sci. Phila., 87, p. 544, 1936.

Belize, 17 (4457-58, K. P. Schmidt and L. L. Walters; 4190-95, W. A. Stanton; USNM 26074, 58161, 58373-78, 59936, W. A. Stanton and H. J. Huwe); Cockscomb Mountains, northern slope, 2 (CM 8487-88, E. R. Blake and C. T. Agostini); Manatee, 1 (4258y, B. H. Bailey); Silk Grass, 1 (ITS 759, I. T. Sanderson); Sixteen-mile Station, Stann Creek Railroad, 1 (4456, K. P. Schmidt and L. L. Walters); Stann Creek Valley, 4 (ITS 844, 847, 852-53, I. T. Sanderson).

Eumeces sumichrasti Cope

Plistodon sumichrasti Cope, Proc. Acad. Nat. Sci. Phila., 1866, p. 321, 1866—Orizaba [corrected to Potrero, near Cordoba].

Eumeces sumichrasti Bocourt, Miss. Sci. Mex., Zool., pt. 3, sec. 1, livr. 6, p. 422, 1879.

Cohune Ridge, 1 (MZUM 80702, C. L. Lundell); Retiro, 1 (MZUM 80701, C. L. Lundell).

Eumeces schwartzei Fischer

Eumeces schwartzei Fischer, Abh. Naturw. Ver. Hamburg, 8, Abt. 1, No. 3, p. 3, pl. 7, fig. 1, 1884—Island in Laguna de Terminos, Campeche.

Cockscomb Mountains, eastern slope, 1 (CM 8482, E. R. Blake and C. T. Agostini).

Leiopisma assatum Cope

Lampropholis assatus Cope, Proc. Acad. Nat. Sci. Phila., 1864, p. 179, 1864—Volcan Isalco, Guatemala.

Leiopisma assatum Schmidt, Field Mus. Nat. Hist., Zool. Ser., 12, p. 199, 1928.

Bokowina, 3 (ITS 722, 727, 739, I. T. Sanderson); Double Falls 3 (ITS 803, 807, 817, I. T. Sanderson); Silk Grass, 2 (ITS 690-91, I. T. Sanderson).

SERPENTES

Constrictor constrictor imperator Daudin

Boa imperator Daudin, Hist. Nat. Rept., 5, p. 150, 1803—Colombian Choco.

Constrictor constrictor imperator Ruthven, Zool. Jahrb., Syst., 32, p. 323, 1912.

Belize, 3 (USNM 26063, W. A. Stanton; MZUM 74922, L. C. Stuart; ITS 561, I. T. Sanderson); Cocquericot, 1 (MZUM 74926, L. C. Stuart); El Cayo, 1 (USNM 71359, Harry Malleis); Turneffe Islands, 1 (34627, D. D. Davis); British Honduras, 1 (BM no No., C. D. Godman).

The common boa of British Honduras appears to agree in every way with specimens from adjoining faunal areas.

Sibynophis annulatus annulatus Duméril and Bibron

Enicognathus annulatus Duméril and Bibron, *Erpét. Gén.*, 7, p. 355, pl. 80, fig. 1, 1854—Coban, Alta Verapaz, Guatemala.

Sibynophis annulatus annulatus Schmidt, *Proc. Biol. Soc. Wash.*, 49, p. 48, 1936.

Belize, 1 (USNM 35598); Stann Creek Valley, 1 (ITS 857, I. T. Sanderson).

The specimen from Belize is a male with 139 ventrals, 141 caudals, upper labials 9, lower labials 10, oculars 1-2, and temporals 1-2 on one side and 1-1-2 on the other; Mr. Sanderson's specimen is a female, with 156 ventrals, tail incomplete.

Ninia sebae sebae Duméril and Bibron

Streptophorus sebae Duméril and Bibron, *Erpét. Gén.*, 7, p. 515, 1854—Mexico (restr. to Vera Cruz).

Ninia sebae sebae Schmidt and Andrews, *Field Mus. Nat. Hist., Zool. Ser.*, 20, p. 170, 1936.

Baking Pot, 1 (MCZ 18951, H. O. Rickettson); Belize, 10 (USNM 24909-10, 56433-34, W. A. Stanton; ITS 589-91, 665, 858, I. T. Sanderson; BM 51-10-11-36); Bokowina, 2 (ITS 729, 732, I. T. Sanderson); Grant's Works, 1 (ITS 824, I. T. Sanderson); Manatee, 16 (8483, 7008-22, B. H. Bailey); Middlesex, 2 (4439-40, K. P. Schmidt and L. L. Walters); Silk Grass, 3 (ITS 762-63, 769, I. T. Sanderson); Stann Creek, 4 (USNM 26062, W. A. Stanton; ITS 845, 849, 854, I. T. Sanderson); British Honduras, 5 (BM no No.).

This form has been distinguished by E. W. Andrews and myself from its ally in Yucatan, *Ninia sebae morleyi*, primarily on account of different ventral and caudal scale counts. The extremes and averages of ventrals and caudals in the above specimens are shown in the following table:

Sex	No. of specimens	VENTRALS		No. of specimens	CAUDALS	
		Extremes	Averages		Extremes	Averages
Male.....	20	133-145	138	20	51-71	59
Female.....	24	137-147	142	22	42-60	50

The cross-mark for the average of caudals in British Honduran female specimens in fig. 21, in our discussion of *Ninia sebae morleyi* (Schmidt and Andrews, 1936, p. 170), is set at 57, which is obviously in error. The correction does not greatly alter the relation of the two subspecies.

Thamnophis sauritus rutiloris Cope

Eutaenia rutiloris Cope, Proc. Amer. Phil. Soc., 22, p. 388, 1885—Cozumel Island, Yucatan.

All Pines, 1 (CM 8490, E. R. Blake and C. T. Agostini); Belize, 8 (BM no No., J. Smith; 4228-33, W. A. Stanton; 4441, K. P. Schmidt and L. L. Walters; ITS 648, I. T. Sanderson); British Honduras, 1 (USNM 26357).

Dr. Dunn calls my attention to the fact that *Prymniodon chalcus* Cope (1860) is based on a *Thamnophis sauritus* with the low ventral count characteristic of the Central American representatives of the species. I have provisionally retained *rutiloris* for the British Honduran snake since its type locality is near-by, and since it is clear that a more thorough-going analysis of the Central American *sauritus* is desirable.

All our specimens have the anterior upper labials immaculate, while the last two labials tend to be invaded by the dark adjacent color of the neck. This appears to exclude the possibility that Bocourt's species *praeocularis* could be referred here. It seems evident that *Thamnophis arabdotus* Andrews, of Yucatan, is either closely allied to *praeocularis* or a synonym of it. Further specimens from British Honduras are required to throw light on this problem.

The ventrals in seven male specimens range from 142 to 153, and in three female specimens from 146 to 156. Only six specimens have a complete tail, one of which is a juvenile female with 97 caudals. The caudals of five male specimens range from 85 to 101. The dorsal scales are uniformly 19 at mid-body; the upper labials are uniformly 8, and the lower 10; the preocular is single; postoculars 3, except on one side in one specimen in which they are 2; temporals uniformly 1-2. The largest specimen available measures only 500 mm., of which the tail accounts for 155 mm.

Thamnophis praeocularis Bocourt

Eutaenia praeocularis Bocourt, Le Naturaliste, 14, p. 278, 1892—Belize.

This species is still known only from the type, unless *Thamnophis arabdotus* Andrews of Yucatan should prove referable to it, as Drs. Dunn and H. M. Smith (in litt.) suspect.

Tretanorhinus nigroluteus Cope

Tretanorhinus nigroluteus Cope, Proc. Acad. Nat. Sci. Phila., 1861, p. 298, 1861—Greytown, Nicaragua.

Belize, 2 (USNM 26057, 56369, W. A. Stanton).

In No. 26057, a male, the ventrals number 142 and the caudals 56; in No. 56369, a female, these are respectively 138 and 60. The dorsal scale formula in the male is 21-19-17, in the female 21-19. The female specimen measures 770, tail 170.

Dryadophis melanolomus melanolomus Cope

Masticophis melanolomus Cope, Proc. Acad. Nat. Sci. Phila., 1868, p. 105, 1868—Yucatan.

Dryadophis melanolomus melanolomus Stuart, Misc. Publ., Mus. Zool. Univ. Mich., 49, p. 88.

San Agustin, 1 (MZUM 80714, C. L. Lundell); Silk Grass, 1 (ITS 775, I. T. Sanderson).

The single female specimen at the University of Michigan has 172 ventrals and 110 caudals; in Mr. Sanderson's male specimen they are 176 and 117. Specimens from British Honduras and Peten are regarded by Stuart as intermediate between the typical *melanolomus* of Yucatan and *Dryadophis melanolomus laevis* of Alta Verapaz.

Drymobius margaritiferus Schlegel

Herpetodryas margaritiferus Schlegel, Physion. Serp., 2, p. 184, 1837.

Drymobius margaritiferus Cope, Proc. Acad. Nat. Sci. Phila., 1860, p. 561, 1860.

Belize, 6 (4198-99, W. A. Stanton; USNM 24904, 24971, 26353, Parsons and Bennett; BM 1893-4-27-2); Belize, 40 miles inland, 3 (BM 1924-2-18-3, 4, 5, H. B. Newham); Manatee, 1 (3482, B. H. Bailey); Middlesex, 1 (4442, K. P. Schmidt and L. L. Walters).

In five males the ventrals range from 146 to 156, average 151, while in six females the range is from 143 to 153, average 148. Only one female has a complete tail, with 106 caudals; in four males the caudals range from 111 to 125. The largest specimen (with an incomplete tail) measures 980 mm.

Pseustes poecilonotus poecilonotus Günther

Spilotus poecilonotus Günther, Cat. Colubrine Snakes, p. 100, 1858—Honduras.

San Agustin, 1 (MZUM 80720, C. L. Lundell); Valentin, 1 (MZUM 80719, C. L. Lundell).

It may be suspected that the type of this species, in the British Museum, came from British Honduras. In the two specimens examined, both female, the ventrals are 208 and 218, and the caudals,

in the one specimen with a complete tail, 126; the dorsal scale rows at mid-body number 23.

***Spilotes pullatus mexicanus* Laurenti**

Cerates mexicanus Laurenti, Syn. Rept., p. 83, 1768—Mexico [by implication].

Spilotes pullatus mexicanus Amaral, Mem. Inst. Butantan, 4, p. 282, 1929.

Belize, 1 (BM no No.); Cocquericot, 2 (MZUM 74906-07, L. C. Stuart); Kate's Lagoon, 1 (ITS 861, I. T. Sanderson); Stann Creek, 2 (BM 1890-10-24-4, 1891-3-4-5, J. Robertson); British Honduras, 2 (4205-06, W. A. Stanton).

Ventrals in two males are 206 and 212; in two females they are 213 and 217; the caudals in males are 127 and 132, and in the three females 125, 130, and 131. The dorsal scale rows reduce to 15 in one, to 14 in one, and to 13 in three. The temporals are 1-1 in three specimens and 2-1 in two.

***Drymarchon corais melanurus* Duméril and Bibron**

Spilotes melanurus Duméril and Bibron, Erpét. Gén., 7, p. 224, 1854—Mexico and Central America.

Drymarchon corais melanurus Stejneger and Barbour, Check List N. A. Rept. Amph., p. 85, 1917.

Bokowina, 1 (ITS 740, I. T. Sanderson); Freetown, 3 (CM 8511, 8514-15, E. R. Blake and C. T. Agostini); Stann Creek, 1 (BM 1891-3-4-4, J. Robertson).

The five specimens examined are remarkably uniform in scale characters. The ventrals in three male specimens number 195, 195, and 199, and the caudals 73, 79, and 77; in the single female these counts are 201 and 80. One of the specimens from Freetown has two loreals on each side. The largest specimen measures 2,525 mm., of which the tail occupies 370 mm.

***Elaphe triaspis* Cope**

Coluber triaspis Cope, Proc. Acad. Nat. Sci. Phila., 1866, p. 128, 1866—Belize.

Elaphe triaspis Amaral, Mem. Inst. Butantan, 4, p. 159, 1929.

This species, now recorded in some numbers from Yucatan, is known from British Honduras only from the type. The type specimen had dorsal scales 33, ventrals 266, caudals 118. The species is well known from Yucatan. The status of the specimens recorded from other parts of Central America is uncertain, since it appears to be unknown in Peten. The distinctions between this and the following form still require study.

Elaphe flavirufa flavirufa Cope

Coluber flavirufus Cope, Proc. Acad. Nat. Sci. Phila., 1866, p. 319, 1866—Yucatan.

Elaphe flavirufa flavirufa Smith, Copeia, 1941, p. 132, 1941.

The British Museum specimen recorded from Belize by Boulenger (1894, p. 39) is the only *flavirufa* known from British Honduras. The specimen in question is a juvenile male, with dorsal scales in 33 rows (not 31 as reported by Boulenger); ventrals 263; caudals 116.

Leptophis mexicanus Duméril and Bibron

Leptophis mexicanus Duméril and Bibron, Erpét. Gén., 7, p. 536, 1854—Mexico.

Belize, 5 (BM no No., J. Smith; USNM 24907, 26056, 56149, W. A. Stanton and Parsons; ITS 682, I. T. Sanderson); Cohune Ridge, 1 (MZUM 80709, C. L. Lundell); Manatee, 2 (3479, 5633, B. H. Bailey); Stann Creek, 2 (BM 1890-6-18-2 and 1890-10-24-7, J. Robertson); British Honduras, 1 (USNM 26356, Bennett).

The above series of specimens includes eight male specimens and three females. The ventrals in the males range from 154 to 164, averaging 159; they number 165 in two females, 162 in a third. The caudals in males range from 158 to 173, averaging 164, and number 156, 152, and 162 in the females.

Leptophis occidentalis occidentalis Günther

Ahaetulla occidentalis Günther, Proc. Zool. Soc. Lond., 1859, p. 412, 1859—Guayaquil, Ecuador.

Leptophis occidentalis occidentalis Stuart, Occ. Papers, Mus. Zool. Univ. Mich., 292, p. 15, 1934.

Cohune Ridge, 1 (MZUM 80713, C. L. Lundell); Stann Creek, 1 (BM 1892-1-4-2, J. Robertson); British Honduras, 2 (BM 1894-6-4-1, 1895-2-21-4, F. D. Godman and Colonial Exhibition).

The two males have ventrals 172 and 177, and caudals 169 and 167; in the two females these counts are 181 and 185, and 176 and 170. Upper labials in the four specimens are 9-9, 8-8, 9-8, and 9-8.

Stuart is followed in the use of the trinomial; the genus is obviously in need of revisionary study.

Xenodon rabdocephalus mexicanus Smith

Xenodon mexicanus Smith, Proc. Biol. Soc. Wash., 53, p. 57, 1940—Piedras Negras, Guatemala.

Belize, 1 (4257, B. H. Bailey); Kate's Lagoon, 2 (ITS 881, 883, I. T. Sanderson); Silk Grass, 2 (ITS 768, 790, I. T. Sanderson); British Honduras, 2 (BM 1894-4-27-1, 2).

***Pliocercus elapoides semicinctus* subsp. nov.**

Type from Double Falls, west of Stann Creek, British Honduras. No. 805 I. T. Sanderson Collection. Adult female. Collected December 13, 1939, by Ivan T. Sanderson.

Diagnosis.—A *Pliocercus* with narrow black saddles open ventrally (instead of rings), accessory saddles reduced to merest trace, and a low number of saddles, nine on body, six to eight on tail; most directly allied to *Pliocercus elapoides laticollaris* Smith, which has rings complete, 13 to 18 on the body, and 10 to 12 on the tail.

Description of type.—Body cylindrical, head a little wider than body, somewhat depressed, tail slender. Rostral just visible from above; internasals half as long as prefrontals; frontal five-sided, the lateral sides parallel, its length equal to its distance from the end of the snout, and to the length of the parietal suture; nasal divided; loreal quadrangular; two preoculars, the lower small; two postoculars; temporals 1-1 on each side, the anterior elongate; upper labials eight, the fourth and fifth entering the eye; lower labials 10; chin shields large, subequal. Dorsal scales smooth, without pits, in 17 rows throughout; ventrals 130; anal divided; caudals 105.

Upper part of snout black, extending to the posterior edge of the supraoculars, and extending downward to the upper half of the upper labials; tip of snout light; yellow band across parietals with a forward projecting point on the tip of the frontal; a black nuchal saddle extending across the tips of the parietals, and across the first five dorsal scales behind them; seven additional black saddles on the body two to three scale-lengths in width, extending downward to the first scale row or to the tips of the ventrals, narrower ventrad, bordered on each side by a yellow band about a scale length in width; scales of the red zones between the black and yellow saddles with black tips; these black tips slightly concentrated to form a narrow accessory black crossband adjacent to the last two saddles and on the six caudal black rings (which are closed ventrad); belly without black markings, the yellow probably extending across it in life.

Length 657, tail 263.

Notes on paratype.—A male specimen in the British Museum, No. 1894-12-28-25, has dorsals 17-17-15, ventrals 124, caudals 114, head scales as in the type, and black rings 948. My notes do not state whether or not the "rings" are open ventrally as in the type.

Remarks.—The appearance of Hobart Smith's revision of the Mexican forms of *Pliocercus* (1941, p. 119) makes it clear that the form in British Honduras is distinguishable from *laticollaris* of

Tabasco and Campeche, and thus from *P. elapoides elapoides*, though it must be admitted that additional material of both *laticollaris* and *semicinctus* is required for a more definitive description.

Lampropeltis triangulum polyzona Cope

Lampropeltis polyzona Cope, Proc. Acad. Nat. Sci. Phila., 1860, p. 258, 1860—Quatupe, near Jalapa, Vera Cruz.

Lampropeltis triangulum polyzona Dunn, Occ. Papers, Mus. Zool. Univ. Mich., 353, p. 1, 1937.

Belize, 2 (4200, W. A. Stanton; BM 1893-2-21-10).

The two specimens available, both males, have dorsals 23, ventrals 234 and 230, and caudals 59 and 56. They are thus clearly distinct from the Yucatecan *L. t. blanchardi* and agree with Peten specimens.

Adelphicos visoninus Cope

Rhegnops visoninus Cope, Proc. Acad. Nat. Sci. Phila., 1866, p. 128, 1866—Honduras.

Adelphicus visoninus Cope, Bull. U. S. Nat. Mus., 32, p. 85, 1887.

Silk Grass 1 (ITS 794, I. T. Sanderson); British Honduras, 1 (BM 1845-10-25-33, Dyson).

It is believed that all of the Dyson collection in the British Museum, labeled only "Honduras," should be referred to British Honduras. The Dyson specimen, a male, has 126 ventrals and 43 caudals, while the Sanderson specimen, a female, has 122 ventrals and 49 caudals. These are much the lowest ventral counts on record, while the female specimen recorded by Stuart from Peten (with 149 and 41) has the highest. Dr. Hobart M. Smith writes me that *Adelphicos quadrivirgatus* of authors includes several distinct forms. The above name for the species in British Honduras is tentatively supplied by him.

Sibynomorphus brevifacies Cope

Tropidodipsas brevifacies Cope, Proc. Acad. Nat. Sci. Phila., 1866, p. 127, 1866—Yucatan.

Sibynomorphus brevifacies Amaral, Mem. Inst. Butantan, 4, p. 196, 1929.

British Honduras, 1 (4234, W. A. Stanton).

The single specimen known from British Honduras consists of a head only.

Sibynomorphus sanniolus Cope

Mesopeltis sanniolus Cope, Proc. Acad. Nat. Sci. Phila., 1866, p. 318, 1866—Yucatan.

Sibynomorphus sanniolus Amaral, Mem. Inst. Butantan, 4, p. 199, 1929.

British Honduras, 1 (4247, W. A. Stanton).

The single specimen available has dorsals 15, ventrals 153, caudals 67, upper labials 9-9, lower labials 10-10, oculars 1-2 and 1-3, and temporals 1-2; the total length is 234, tail 66.

Coniophanes bipunctatus Günther

Coronella bipunctata Günther, Cat. Colubrine Snakes, p. 36, 1858—no locality.

Coniophanes bipunctatus Cope, Proc. Acad. Nat. Sci. Phila., 1866, p. 128, 1866.

Belize, 4 (USNM 24902, 26061, 55860, Parsons and W. A. Stanton; BM no No.); Belize, 40 miles inland, 1 (BM 1924-2-18-9, H. B. Newham); Stann Creek, 3 (BM 1890-6-18-1, 1890-10-24-6, 1891-3-4-5, J. Robertson); British Honduras, 3 (4235-37, W. A. Stanton).

The above series includes five males and six females; the dorsal scales number 21-21-17 in all; in males the ventrals range from 135 to 142, average 138, and in females from 135 to 147, average 140; the caudals in four males range from 89 to 94, and in the only two females with a complete tail number 72 and 85. It is extremely likely that the type actually came from Belize, which thus may be designated the type locality.

Coniophanes fissidens fissidens Günther

Coronella fissidens Günther, Cat. Colubrine Snakes Brit. Mus., p. 56, 1858—Mexico.

Coniophanes fissidens fissidens Bailey, Occ. Papers, Mus. Zool. Univ. Mich., 362, p. 5, 1937.

Bokowina, 1 (ITS 721, I. T. Sanderson); Cockscomb Mountains, northern slope, 1 (CM 8485, E. R. Blake and C. T. Agostini); Cohune Ridge, 1 (MZUM 80710, C. L. Lundell); Double Falls, 3 (ITS 811, 813, 808, I. T. Sanderson); Manatee, 1 (5825, B. H. Bailey); Silk Grass, 1 (ITS 689, I. T. Sanderson).

In four male specimens the ventrals range from 120 to 124 and the caudals from 80 to 85; in three female specimens the ventrals range from 129 to 132 and the caudals from 72 to 76.

Coniophanes imperialis clavatus Peters

Dromicus clavatus Peters, Monatsber. Akad. Wiss. Berlin, 1864, p. 388, 1864—Mexico.

Coniophanes imperialis clavatus Bailey, Occ. Papers, Mus. Zool. Univ. Mich., 362, p. 6, 1937.

Belize, 6 (4444-45, K. P. Schmidt and L. L. Walters; USNM 26064, 26355, Stanton and Bennett; ITS 859, I. T. Sanderson; BM

no No.); Kate's Lagoon, 1 (ITS 901, I. T. Sanderson); Stann Creek, 6 (USNM 50623, J. P. Lyman; ITS 856, I. T. Sanderson; BM 1890-5-12-2, 1890-5-13-1, 1890-10-24-5, 1891-2-4-2); British Honduras, 10 (4239-45, W. A. Stanton; BM 1894-12-28-26 to 28).

These specimens agree excellently with *clavatus* in Bailey's recent careful diagnosis of the forms of *imperialis* (Bailey, 1939).

Imantodes cenchoa Linnaeus

Coluber cenchoa Linnaeus, Syst. Nat., p. 226, 1758—America.

Imantodes cenchoa Duméril and Bibron, Erpét. Gén., 7, p. 1065, 1854.

Double Falls, 1 (ITS 819, I. T. Sanderson); Silk Grass, 1 (ITS 799, I. T. Sanderson).

Leptodeira annulata polysticta Günther

Leptodira polysticta Günther, Biol. Centr.-Amer., Zool., Rept. Amph., fasc. 22, p. 172, pl. 55, fig. A, 1895—Jalapa, Vera Cruz; Yucatan; Honduras; Belize; Panama.

Leptodeira annulata polysticta Smith, Proc. Biol. Soc. Wash., 54, p. 115, 1941—type loc. restr. to Belize.

Belize, 1 (BM no No., F. D. Godman); Belize, 40 miles inland, 1 (BM 1924-2-18-8, H. B. Newham); Cohune Ridge, 1 (MZUM 80717, C. L. Lundell); Grant's Works, 1 (ITS 823, I. T. Sanderson); Manatee, 1 (3481, B. H. Bailey); Northern Lagoon, 1 (BM 1845-8-5-24, Dyson); Stann Creek, 1 (USNM 26058, W. A. Stanton); British Honduras, 5 (4248, 4250-53, W. A. Stanton).

The dorsal scales vary from 19-21-15 to 21-23-17; ventrals in six males 198 to 211, average 205; in six females 190 to 206, average 200 (the reverse of the normal sex difference); caudals in six males 87 to 104, average 97; in six females 68 to 90, average 82.

L. a. polysticta is readily distinguished from *Leptodeira yucatanensis malleisi*, the only other species of the genus in British Honduras, in its smaller and more numerous dorsal spots, which number about 50 on the body, as compared with 25 to 40 larger blotches in *malleisi*.

Leptodeira yucatanensis malleisi Dunn and Stuart

Leptodeira yucatanensis malleisi Dunn and Stuart, Occ. Papers, Mus. Zool. Univ. Mich., 313, p. 1, 1935—Tuxpena, Campeche.

Belize, 10 (4446-47, K. P. Schmidt and L. L. Walters; USNM 24901, 24908, 26354, 52309, 56010-12, Parsons, Bennett, and W. A. Stanton; ITS 668, I. T. Sanderson); Kate's Lagoon, 2 (ITS 884-85, I. T. Sanderson); Manatee, 1 (3481, B. H. Bailey); British Honduras, 1 (4249, W. A. Stanton).

In these specimens the dorsal scales vary from 19–21–15 to 21–23–17; ventrals in seven males 177–188, average 182, in seven females 173–188, average 182; caudals in seven males 73–84, average 79, in seven females 67–80, average 72.

Clelia clelia Daudin

Coluber clelia Daudin, Hist. Nat. Rept., 6, p. 330, pl. 78, 1803—Surinam.

Clelia cloelia Stejneger, Proc. U. S. Nat. Mus., 45, p. 547, 1913.

Middlesex, 1 (4448, K. P. Schmidt and L. L. Walters).

Oxybelis acuminatus Wied

Coluber acuminatus Wied, Beitr. Naturg. Brasil., 1, p. 322, 1825—Espírito Santo River, Brazil.

Oxybelis acuminatus Steindachner, Reise Novara, Zool., 1, Rept. 1, p. 72, 1867.

Belize, 1 (USNM 55805, W. A. Stanton); Cohune Ridge, 1 (MZUM 80712, C. L. Lundell); San Agustín, 1 (MZUM 80711, C. L. Lundell); Stann Creek Valley, 1 (ITS 846, I. T. Sanderson).

Ventrals in two males 186, 193, and caudals 169, 174; in two females 195, 195, and 181, 189.

Oxybelis fulgidus Daudin

Coluber fulgidus Daudin, Hist. Nat. Rept., 6, p. 352, pl. 80, 1803—Surinam.

Oxybelis fulgidus Duméril and Bibron, Erpét. Gén., 7, p. 187, 1854.

Freetown, 1 (CM 8501, E. R. Blake and C. T. Agostini); British Honduras, 1 (BM 1895–2–21–5).

Both specimens are females with incomplete tails; the ventrals number 209 and 217.

Tantilla brevis Günther

Homalocranium breve Günther, Biol. Centr.-Amer., Zool., Rept. Amph., fasc. 19, p. 150, 1895—British Honduras.

British Honduras, 1 (BM 1890–4–24–35, type, Osbert Salvin).

The type of this species is still the only known specimen. It appears to me to be a female, and I count 108 ventrals instead of 111 as stated by Boulenger (1896, p. 226).

Stenorhina degenhardtii Berthold

Calamaria degenhardtii Berthold, Abh. Ges. Wiss. Göttingen, 3, p. 8, pl. 1, figs. 3–4, 1846—Mexico and Central America.

Stenorhina degenhardtii Jan, Arch. Zool. Anat. Physiol., 2, p. 63, 1862.

British Honduras, 1 (4218, W. A. Stanton).

This specimen, a female, has 175 ventrals and 33 caudals, and is uniform in coloration at a length of 490 mm.

The variability in color pattern of this snake, in its wide range from Ecuador to Mexico, is well known. It is not yet certain to what extent this may depend on ontogenetic change or on color dimorphism. The specimens from the Yucatan Peninsula have a notably higher number of ventrals in both sexes, 162–169 in males and 168–178 in females, as compared with the average in other parts of Central America. The specimen from Jalapa, Vera Cruz, recorded by Boulenger (1896, p. 230) may well be directly allied to this series; but a specimen from Zacapa, Guatemala, and one from Cartago, Costa Rica, with (respectively) 171 ventrals are anomalous. Yucatan specimens are uniform in coloration; but Stuart reports of the Peten series collected by himself that they are dimorphic, either quinquelineate or uniform. The type of *quinquelineatus* Hallowell, a specimen said to be from "Honduras," with ventrals 170, may be from British Honduras. It seems evident that it will be possible to partition this interesting form into subspecies when more material is available.

Micrurus affinis alienus Werner

Elops alienus Werner, Zool. Anz., 26, p. 249, 1903—no locality.

Micrurus affinis alienus Schmidt, Field Mus. Nat. Hist., Zool. Ser., 20, p. 212, 1936.

Micrurus affinis stantoni Schmidt, Field Mus. Nat. Hist., Zool. Ser., 20, p. 36, 1933.

Belize, 5 (4204, W. A. Stanton; USNM 24906, 56611, Parsons and W. A. Stanton; BM no Nos., J. Gegg and Osbert Salvin); Belize River, 50 miles above Belize, 1 (MZUM, L. C. Stuart); Cocquericot, 1 (MZUM 74911, L. C. Stuart); Corozal Island, 1 (Munich 1922–81); Silk Grass, 1 (ITS 688, I. T. Sanderson); Stann Creek, 6 (USNM 26059, W. A. Stanton; BM 1890–9–8–5, 1891–3–4–6, J. Robertson; ITS 837, 848, 851, I. T. Sanderson); Valentin, 1 (MZUM 80721, C. L. Lundell); British Honduras, 12 (4201–03, 4254, W. A. Stanton; BM 1895–2–21–1 and 2, 6 no No.).

The ventrals and caudals in the above series in sixteen male specimens range from 199 to 214 and from 47 to 59; in ten females from 212 to 226 and 37 to 42. The temporals are 1–2 in all but two of the male specimens; 1–1 in two, 1– $\frac{1}{2}$ in one, and 1–2 in seven of the females. The black rings range from 18+4 to 44+7 in females and from 18+6 to 29+9 in males; there is a tendency to a light mark on the snout; undivided caudals are somewhat more uniformly present in male specimens (in 13 out of 16 specimens), averaging 15; in female specimens they average 6.

The reasoning by which the name *alienus* is allocated to this form has been set forth elsewhere. The differences between the present form and its nearest ally, *M. affinis mayensis*, lie principally in its conspicuously more numerous black rings, in the tendency to irregularity of the rings, and in a higher average of ventrals in both sexes. To the west it can be traced into Peten and Campeche, presumably intergrading in Vera Cruz with *a. affinis*, in Alta Verapaz with *a. apiatus*, and in the Guatemalan coastal strip perhaps with *a. hippocrepis*, or with the form, as yet unknown, which may inhabit the Lake Izabal Valley. This hypothetical intergradation in four directions would be of considerable theoretic interest; it is unfortunately not yet demonstrated by specimens from the critical areas.

Certain specimens in the above list are difficult to interpret. BM 1895-2-21-1 to 4, with no locality except British Honduras, and BM 1891-3-4-6, from Stann Creek, together with the specimens of the Sanderson collection, have relatively few black rings. The problem raised by their non-agreement with the great majority of specimens from the area can be solved only by additional material.

A specimen in the Zoologisches Museum, Berlin, falls entirely outside the definition of *alienus*. It is said to be from Corozal Island, British Honduras, with no source stated except "Wien." There is a normal specimen in the Munich Museum from this locality. The Berlin specimen is a good-sized male with very well-developed supra-anal tubercles, which are otherwise wholly absent in the coral snakes of this area. Some confusion of data is suspected.

Agkistrodon bilineatus Günther

Ancistrodon bilineatus Günther, Ann. Mag. Nat. Hist., (3), 12, p. 364, 1863—
Pacific coast of Guatemala.

Belize, 1 (BM b, P. L. Sclater); British Honduras, 1 (4196, W. A. Stanton).

Trimeresurus atrox Linnaeus

Coluber atrox Linnaeus, Syst. Nat., p. 22, 1758—Asia [in error].

Trimeresurus atrox Schmidt and Andrews, Field Mus. Nat. Hist., Zool. Ser.,
20, p. 182, 1936.

Bokowina, 1 (ITS 737, I. T. Sanderson); Freetown, 1 (CM 8512, E. R. Blake and C. T. Agostini); Kate's Lagoon, 1 (ITS 877, I. T. Sanderson); Stann Creek, 2 (USNM 50622, J. P. Lyman; BM 1891-3-4-7, J. Robertson); Valentin, 1 (MZUM 80726, C. L. Lundell); British Honduras, 1 (4197, W. A. Stanton).

Trimeresurus nummifer nummifer Rüppel

Atropos nummifer Rüppel, Mus. Senck., 3, p. 21, 1845—Mexico.

Trimeresurus nummifer nummifer Dunn, Proc. Biol. Soc. Wash., 52, p. 165, 1939.

Cohune Ridge, 1 (MZUM 80724, C. L. Lundell); Double Falls, 2 (ITS 812, 821, I. T. Sanderson); Esperanza, 1 (MZUM 80722, C. L. Lundell); Valentin, 1 (MZUM 80723, C. L. Lundell).

In four female specimens the ventrals number 126, 128, 130, and 131, and the caudals 32, 34, 32, and 31. The single male specimen known from the colony has ventrals 121, caudals 34.

Trimeresurus yucatanicus Smith

Trimeresurus yucatanicus Smith, Zoologica, 26, p. 62, 1941—Chichen Itza, Yucatan.

Benque Viejo, 1 (U.S.N.M. 61781, A. Versanel).

With only a single specimen of the *lansbergii* group available from British Honduras it is preferable to refer it to the nearest geographically related form.

Trimeresurus schlegelii Berthold

Trigonocephalus schlegelii Berthold, Abh. Ges. Wiss. Göttingen, 3, p. 13, pl. 1, figs. 5, 6, 1846—Colombia.

Valentin, 1 (MZUM 80725, C. L. Lundell).

REFERENCES

BAILEY, J. R.

1939. A Systematic Revision of the Snakes of the Genus *Coniophanes*. Papers Mich. Acad. Sci., 24, pp. 1-48, pls. 1-3.

BOULENGER, G. A.

1885. Catalogue of the Lizards in the British Museum (Natural History). London, Printed by Order of the Trustees. 1, pp. xii+436, pls. 1-32.

1885. Idem, 2, pp. xiii+497, pls. 1-23.

1887. Idem, 3, pp. xii+575, pls. 1-40.

1893. Catalogue of the Snakes in the British Museum (Natural History). London, Printed by Order of the Trustees. 1, pp. xiii+448, pls. 1-28.

1894. Idem, 2, pp. xi+382, pls. 1-20.

1896. Idem, 3, pp. xiv+727, pls. 1-25.

BROCCHI, PAUL

1881-83. Etude des Batraciens de l'Amérique-Centrale. Miss. Sci. Mex., Zool., 3, sec. 2, pp. 1-122, pls. 1-21.

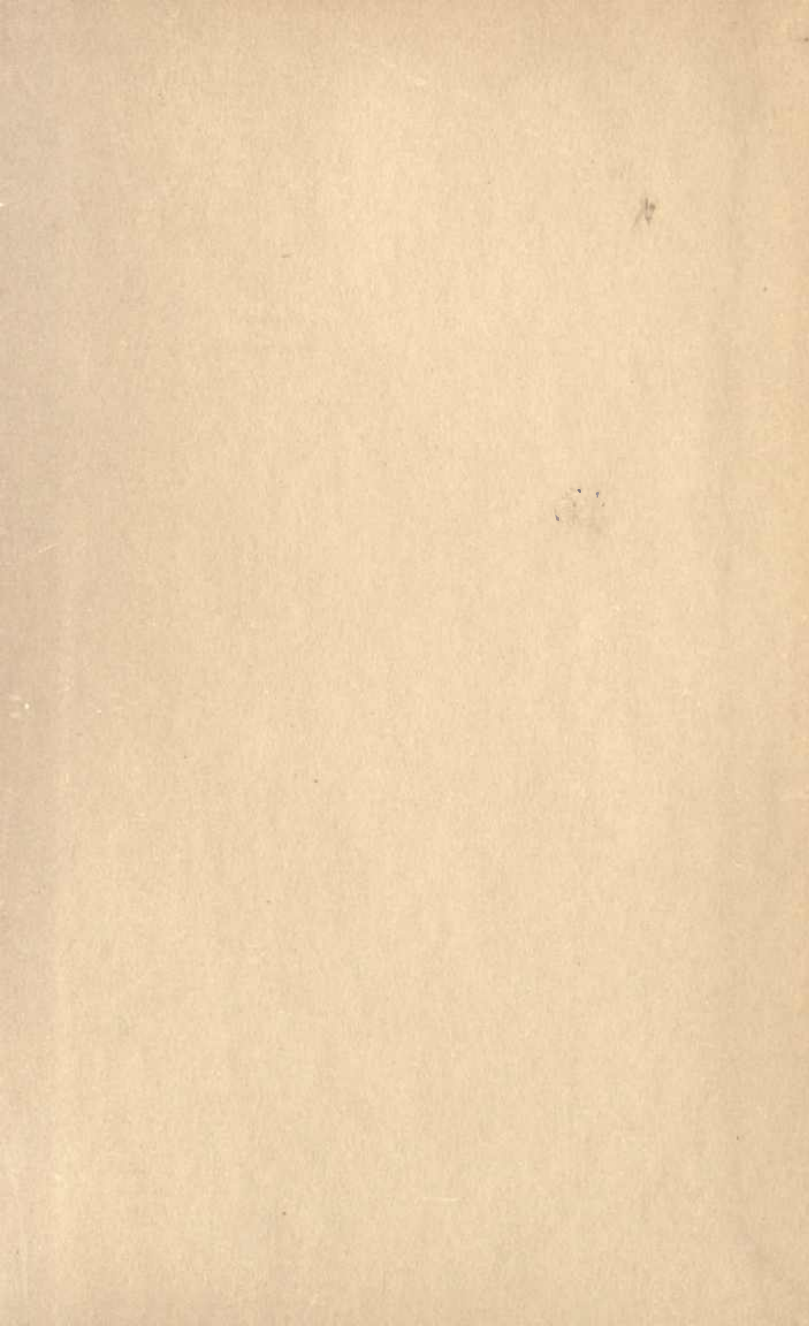
COPE, E. D.

1860. Catalogue of the Colubridae in the Museum of the Academy of Natural Sciences of Philadelphia. Part 3. Proc. Acad. Nat. Sci. Phila., 1860, pp. 553-566.

1866. Fourth Contribution to the Herpetology of Tropical America. Proc. Acad. Nat. Sci. Phila., 1866, pp. 123-132.

510 FIELD MUSEUM OF NATURAL HISTORY—ZOOLOGY, VOL. XXII

- DUMÉRIL, AUGUSTE, BOCOURT, MARIE-FIRMIN, and MOCQUARD, FRANÇOIS
1870-1909. *Etudes sur les Reptiles et les Batraciens*. *Miss. Sci. Mex., Zool.*,
3, sec. 1, pp. xiv+1012, pls. 1-77.
- GÜNTHER, ALBERT
1885-1907. *Reptilia and Batrachia*. *Biol. Centr.-Amer.*, pp. 1-326, pls. 1-76.
- SANDERSON, IVAN T.
1941. *Living Treasure*. Viking Press, New York, 290 pp., 32 pls.
- SCHMIDT, KARL P.
1924. Notes on Central American Crocodiles. *Field Mus. Nat. Hist., Zool. Ser.*, 12, pp. 79-92, pl. 5.
1933. Preliminary Account of the Coral Snakes of Central America and Mexico. *Field Mus. Nat. Hist., Zool. Ser.*, 20, pp. 29-40.
1936. Notes on Central American and Mexican Coral Snakes. *Field Mus. Nat. Hist., Zool. Ser.*, 20, pp. 205-216.
- SMITH, H. M.
1939. The Mexican and Central American Lizards of the Genus *Sceloporus*. *Field Mus. Nat. Hist., Zool. Ser.*, 26, pp. 1-397, pls. 1-31.
1941. On the Mexican Snakes of the Genus *Pliocercus*. *Proc. Biol. Soc. Wash.*, 54, pp. 119-124.
- STEJNEGER, LEONHARD
1941. Notes on Mexican Turtles of the Genus *Kinosternon*. *Proc. U. S. Nat. Mus.*, 90, pp. 457-459.
- STUART, L. C.
1935. A Contribution to a Knowledge of the Herpetology of a Portion of the Savanna Region of Central Peten, Guatemala. *Misc. Publ., Mus. Zool. Univ. Mich.*, 29, pp. 1-56, pls. 1-4, 1 map.



UNIVERSITY OF ILLINOIS-URBANA

590.5F1 C001
FIELDIANA, ZOOLOGY\$CHGO
22 1936-42



3 0112 009379519