MISCELLANEOUS PUBLICATIONS
MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN, NO. 122

A Checklist of the Herpetofauna of Guatemala

BY

L. C. STUART
Department of Zoology

ANN ARBOR
MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN
APRIL 2, 1963

MISCELLANEOUS PUBLICATIONS
MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN

The publications of the Museum of Zoology, University of Michigan, consist of two series—the Occasional Papers and the Miscellaneous Publications. Both series were founded by Dr. Bryant Walker, Mr. Bradshaw H. Swales, and Dr. W. W. Newcomb.

The Occasional Papers, publication of which was begun in 1913, serve as a medium for original studies based principally upon the collections in the Museum. They are issued separately. When a sufficient number of pages has been printed to make a volume, a title page, table of contents, and an index are supplied to libraries and individuals on the mailing list for the series.

The Miscellaneous Publications, which include papers on field and museum techniques, monographic studies, and other contributions not within the scope of the Occasional Papers, are published separately. It is not intended that they be grouped into volumes. Each number has a title page and, when necessary, a table of contents.

A complete list of publications on Birds, Fishes, Insects, Mammals, Mollusks, and Reptiles and Amphibians is available. Address inquiries to the Director, Museum of Zoology, Ann Arbor, Michigan.

List of Miscellaneous Publications on Reptiles and Amphibians

No. 8. The amphibians and reptiles of the Sierra Nevada de Santa Marta, Colombia. By Alexander G. Ruthven. (1922) 69 pp., 12 pls., 2 figs., 1 map... $1.00

No. 29. A contribution to a knowledge of the herpetology of a portion of the Savanna Region of Central Petén, Guatemala. By L. C. Stuart. (1935) 56 pp., 4 pls., 1 fig., 1 map $0.50

No. 47. A contribution to the herpetology of the Isthmus of Tehuantepec. IV. An annotated list of the amphibians and reptiles collected on the Pacific slope during the summer of 1936. By Norman Hartweg and James A. Oliver. (1940) 31 pp. $0.35

No. 49. Studies of Neotropical Colubrinae. VIII. A revision of the genus *Dryadophis* Stuart, 1939. By L. C. Stuart. (1941) 106 pp., 4 pls., 13 figs., 4 maps $1.15

No. 50. A contribution to the knowledge of variation in *Opheodrys vernalis* (Harlan), with the description of a new subspecies. By Arnold B. Grobman. (1941) 38 pp., 2 figs., 1 map $0.35

No. 56. Taxonomic and geographic comments on Guatemalan salamanders of the genus *Oedipus*. By L. C. Stuart. (1943) 33 pp., 2 pls., 1 map $0.35

No. 61. Home range, homing behavior, and migration in turtles. By Fred R. Cagle. (1944) 34 pp., 2 pls., 4 figs., 1 map $0.35

No. 69. The amphibians and reptiles of Alta Verapaz, Guatemala. By L. C. Stuart. (1948) 109 pp., 10 figs., 1 map $1.50

No. 76. Studies of the black swamp snake, *Seminatrix pygaea* (Cope), with descriptions of two new subspecies. By Herndon G. Dowling. (1950) 38 pp., 6 figs., 1 map $1.25

No. 91. A brief review of the Guatemalan lizards of the genus *Anolis*. By L. C. Stuart. (1955) 31 pp. $0.50

No. 94. The anatomy of the head of *Ctenosaura pectinata* (Iguanidae). By Thomas M. Oelrich. (1956) 122 pp., 59 figs. $1.85

No. 96. The frogs of the hylid genus *Phrynohyas* Fitzinger, 1843. By William E. Duellman. (1956) 47 pp., 6 pls., 10 figs., 4 maps $0.70

No. 97. Variation and relative growth in the plastral scutes of the turtle *Kinosternon integrum* Leconte. By James E. Mosimann. (1956) 43 pp., 1 pl., 24 figs. $0.75

(Continued on inside back cover)

MISCELLANEOUS PUBLICATIONS
MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN, NO. 122

A Checklist of the Herpetofauna of Guatemala

BY

L. C. STUART
Department of Zoology

ANN ARBOR
MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN
APRIL 2, 1963

ILLUSTRATIONS

CONTENTS

Marie-Firmin Bocourt 1819–1904
Naturalist Explorer Artist
Primogenitor of Central American Herpetology

A CHECKLIST OF THE HERPETOFAUNA OF GUATEMALA*

SOME ten years have now elapsed since the first draft of this checklist was completed. During the interim various academic duties other than research assured the accrual of a reasonably thick layer of dust upon the original manuscript. The negligence to which the initial essay was subjected proved to be a blessing. As I review it now, that primitive effort could be described only as "naive." During the course of the past ten years our knowledge of the systematics of the herpetofauna of northern Central America and of adjacent Mexico has been increased immeasurably, while herpetological explorations through the same region have produced a wealth of new information concerning the nature of faunal units and a more exacting knowledge of the distributions of lower systematic categories. Upon reviewing my original draft it becomes apparent that had its parturition occurred upon its completion, our herpetological knowledge of northern Central America would have been set back at least several decades. The version herein presented, though still deficient, has been enhanced through the delay owing not only to the great body of data that has accumulated in the meantime but also to a more thorough consideration on my part of a number of systematic and geographic problems that were posed at the moment of the earlier draft.

At the time I initiated revision of my original manuscript I toyed with the idea of presenting a checklist of the herpetofauna of all northern Central America, i. e., the Isthmus of Tehuantepec through northern Nicaragua. Such would not have entalied much additional labor. The herpetofauna of the southern states of Mexico, dealt with in the Mexican checklists of Smith and Taylor, is not greatly different from that of Guatemala. That of El Salvador has been summarized fairly recently by Mertens (Abhand. Sencken. Naturf. Gesell., 487, 1952: 1–83, pls. 1–16, map), those of Honduras and Nicaragua are so poorly known that not many additional forms would have had to be included, while the British Honduras fauna, with one or two exceptions, is essentially the same as that of northern Guatemala. I discarded this idea, however, largely because I am unfamiliar with much of the included terrain. Though I have a somewhat more than nodding acquaintance with the lands of southern Mexico, my knowledge of the other countries, especially those to the south, has been gained mostly from the literature.

The conclusions set forth in the following are based in a large measure upon collections assembled by me during the years 1933–58 and these com-

* Funds to defray the cost of publication of this checklist were derived from the income on the endowment of the Horace H. Rackham School of Graduate Studies, University of Michigan, and made available by the Executive Board of that school as Project 32.

prise approximately 10,000 specimens, exclusive of tadpoles. These are contained almost in their entirety in the Museum of Zoology, University of Michigan. Needless to say, I have studied most of the Guatemalan materials contained in other museums in this country. It is unfortunate that I have not been privileged to examine the large Guatemalan collections in several of the European institutions, especially the British Museum (Natural History), the Museum National d'Histoire Naturelle, and the Naturhistorisches Museum Basel. In addition to Guatemalan material I have studied, naturally enough, a great number of specimens from adjacent regions, particularly those stemming from the upland mass and associated lowlands between the Isthmus of Tehuantepec and Nicaragua. All in all I would hesitate to estimate the quantity of herpetological material that has contributed to my current conclusions.

Included in this checklist are only those forms (species and subspecies) known to occur within the limits of Guatemala. This list includes 319 forms distributed as follows:

CLASS AND ORDER	FAMILIES	GENERA	FORMS
AMPHIBIA	9	24	88
Gymnophiona	CAECILIIDAE	1	2
Caudata	PLETHODONTIDAE	5	21
Salientia	RHINOPHRYNIDAE	1	1
	BUFONIDAE	1	9
	LEPTODACTYLIDAE	5	18
	CENTROLENIDAE	1	1
	HYLIDAE	7	26
	MICROHYLIDAE	2	7
	RANIDAE	1	3
REPTILIA	23	91	231
Testudines	DERMATEMYIDAE	1	1
	CHELYDRIDAE	4	7
	TESTUDINIDAE	2	4
	CHELONIIDAE	4	5
	DERMOCHELYIDAE	1	1
Sauria	EUBLEPHARIDAE	1	2
	SPHAERODACTYLIDAE	2	3
	GEKKONIDAE	3	4
	XANTUSIIDAE	1	2
	IGUANIDAE	8	42
	SCINCIDAE	3	7
	TEIIDAE	3	13
	ANGUIDAE	3	7
	XENOSAURIDAE	1	1
	HELODERMATIDAE	1	1

Serpentes	BOIDAE	3	3
	LEPTOTYPHLOPIDAE	1	1
	TYPHLOPIDAE	1	1
	COLUBRIDAE	41	104
	ELAPIDAE	2	7
	VIPERIDAE	3	12
Crocodylia	ALLIGATORIDAE	1	1
	CROCODYLIDAE	1	2
GRAND TOTAL		32	115 319

The systematic scheme adopted herein certainly demands some explanation. In my research I have never dealt with the higher systematic categories and, as a result, I hold no very definite opinions regarding them. My colleague, Charles F. Walker, suggested the amphibian arrangement which is an amended edition of Noble's classic system. The reptilian classification follows no author in particular. I follow Romer (*The Osteology of the Reptiles*) in dealing with the turtles and Mertens and Wermuth (Zool. Jahrb., Syst., 83, 1955: 323–440) in the case of the crocodilians. I accept Schmidt's elevation of the lizards and snakes to ordinal rank (Evolution, 4, 1950: 79–86). I return to Romer for the family arrangement of the lizards except for the gekkos which have been studied by Underwood (Proc. Zool. Soc. London, 124, 1954: 469–492). I accept Dowling's treatment of the snake families (Copeia, 1959: 38–52). Though this scheme in its entirety is probably acceptable to no one, this display of impartiality should spare me somewhat from the full wrath of all those concerned with the higher categories. In the final analysis a checklist of a local fauna is no place to become deeply involved in such matters.

In handling the nomenclature of the various forms I have, in general, accepted the conclusions of the authority who has dealt most recently with a particular group in a comprehensive manner. I have, however, departed from this procedure in those instances in which my own investigations convince me that others' conclusions are unwarranted or in which I feel that conclusions have been based upon inadequate study. In treating wide-ranging forms displaying local diversity, I have followed a rather conservative course. It seems to me that nothing is to be gained at this time in recognizing, for example, local Mesoamerican variants of *Rana pipiens*. In my opinion recognition of local populations not based upon broad, comprehensive studies frequently confuses rather than clarifies systematic and geographic pictures. Finally, as is well known to any who have dealt with the still poorly-understood herpetofauna of Central America, recognition of certain populations as species or as subspecies must be purely subjective in

many instances. No generic changes are made herein, and I even recognize the "genus" *Trimetopon* which I have previously suggested (Proc. Biol. Soc. Washington, 62, 1949: 165) is very probably a polyphyletic assemblage. I retain it herein merely as a convenience.

In handling the mechanics of nomenclature and synonymy citations I have not followed blindly the recommendations of the *International Code of Zoological Nomenclature* adopted by the XV International Congress. I have not used parentheses to enclose authors' names in those instances in which a form has been transferred to a genus other than that of the original description. Inasmuch as the original genus-species combination is cited first in my synonymies, such procedure seems unnecessary and, furthermore, provides an excellent source of personal and typographical error. Contrary to the recommendation of the Congress, I use a comma to separate the name of a subsequent user of a scientific name from that name. In such cases it seems to me that a comma is just as serviceable a form of punctuation as is a colon, period, or dash. Recommendations regarding the problem of *i* versus *ii* in the formation of the genitive of patronomials in which the nominative ends in *ius* have been carefully avoided (except by inference) by the XV Congress. Classical Latin permitted (indeed, I believe, demanded) the contraction of the *ii* to *i*. Regardless of the form in the original description, I have utilized the classical form throughout.

Selection of material for inclusion in the synonymies has presented something of a problem. Inasmuch as I regard this checklist as merely a preliminary effort to assemble in usable form what little is known of the Guatemalan herpetofauna, I have made an effort to present as much basic data as possible and yet retain reasonable brevity. These basic data included in the synonymies are: first, citation of the original description; second, reference to all synonyms based wholly or in part upon Guatemalan materials; and third, citation of the first appearance of the genus-species (subspecies) combination utilized herein. Where necessary the synonymies include these data in the order stated and they are cited in full. In the case of synonyms the location and catalogue number of the type (s) and the type locality are enclosed in parentheses following the literature citation.

In addition to the above, I consider the following absolutely essential to the investigator working with the Guatemalan herpetofauna:

Brocchi, P. Etudes des batraciens de l'Amerique Centrale. Mission Scientifique au Mexique et dans l'Amerique Centrale, Recherches Zoologiques; Paris, Imprimerie Nationale, 1881–83: 222 pp., 21 pls.

Dumeril, A., M. Bocourt, and F. Mocquard. Etudes sur les reptiles. *Ibid.*, 1870–1909: 1012 pp., 77 pls.

Gunther, Albert C. L. G. Reptilia and Batrachia. Biologia Centrali-Americana; London, Taylor and Francis, 1885–1902: 326 pp., 76 pls.

Because I have made an effort to keep my own investigations on the Guatemalan herpetofauna in line with the work of Smith and Taylor on that of adjacent Mexico, I further consider the Mexican checklists of those authors of no less importance than the foregoing. These are:

SMITH, HOBART M., AND EDWARD H. TAYLOR. An Annotated Checklist and Key to the Snakes of Mexico. Bull. U.S. Natl. Mus., 187, 1945: 229 pp.
—. An Annotated Checklist and Key to the Amphibia of Mexico. *Ibid.*, 194, 1948: 118 pp.
—. An Annotated Checklist and Key to the Reptiles of Mexico Exclusive of the Snakes. *Ibid.*, 199, 1950: 253 pp.

The above six references are all cited in those instances in which Guatemalan materials were examined and listed by the authors or, in the case of the Smith-Taylor checklists, in which Guatemala is included in the range of forms occurring in Mexico. They are all cited in the order listed above. In order to avoid needless repetition, however, these are cited, except in the case of type descriptions, merely with author (s), date, page and plate, e.g., Brocchi, 1883: 120, pl. 21, figs. 2–2a.

It had been my intention to include in the synonymies reference to the most recent systematic treatment of the form under consideration. In many instances, however, the "most recent systematic treatment" is so antiquated as to be of little value while in other instances the modern literature is so fraught with differences of opinion, frequently based upon inadequate data and as often as not highly subjective, that its inclusion could be misleading. As a result, I concluded that such material is beyond the scope of "basic data" and ferreting it out becomes the problem of the individual investigator.

In citing literature, the volume date and the publication date frequently has caused problems. This is particularly true of certain portions of the Proceedings of the Academy of Natural Sciences of Philadelphia and of the University of Kansas Science Bulletin. Inasmuch as there is but a single instance in this checklist in which dating raises the problem of priority and since the investigator will seek a reference in the library by volume number, I have in all instances cited the date as it appears on the cover or fly-leaf of the volume.

Except as otherwise stated, e.g. "(*fide* Fulano, etc.)," every citation has been checked by me.

I have made a sincere effort to discover the location of all type material, but I have not checked the majority of such materials personally. In many instances I have drawn my information from one of the several lists of types in various museums which have appeared during the course of the past decade. Lacking such sources, I have had to rely upon the patience

and good will of curators, both domestic and foreign, for the catalogue numbers of specimens under their charges.

Museum abbreviations utilized herein are: AMNH (American Museum of Natural History); ANSP (Academy of Natural Sciences of Philadelphia); BMNH (British Museum, Natural History); CNHM (Chicago Natural History Museum); MCZ (Museum of Comparative Zoology, Harvard College); MNHN (Museum National d'Histoire Naturelle); UMMZ (Museum of Zoology, University of Michigan); USNM (United States National Museum).

In citing type localities I have made no effort to be consistent. In some instances I have given the locality as it appeared in the original description or have presented a reasonable translation thereof. In other instances I have taken liberties, but in no case have I altered the original context. The recent trend towards the restriction of type locality where the original was either very general, e.g. "Mexico," or where several localities are cited, as in the case of syntypes, I find repugnant. In the first instance restrictions have been based frequently upon inadequate evidence and/or failure on the part of the individual to undertake sound systematic and historical research. In the second instance the investigator too often restricts type locality without first having given due consideration to the syntype bearing that locale and which becomes by fiat the lectotype (lectoholotype). In cases such as this the systematist had best designate a lectotype which would perforce restrict the type locality. The late Emmett Dunn and I have commented at some length on these points (Copeia, 1951: 55–61, and Science, 113, 1951: 677–78). Smith (Systematic Zoology, 2, 1953: 37–41) has presented a reasonable defense of restriction. In some instances, where conclusions seem warranted, I have noted type locality restrictions, but I have disregarded many as too ridiculous to be preserved in the literature.

Statement of range is always a problem, and especially so in the case of Guatemala and northern Central America. In an effort to summarize ranges I find it difficult to convey direction to those not fully familiar with the region. Guatemalans orient their country with reference to the Capital which lies at 14° 30′ N, 90° 30′ W. Thus, the "north coast" refers to the lowlands facing the Bay of Amatique off the Caribbean as opposed to the "south coast," the Pacific. The bulk of the country is aligned east-west, the east facing Honduras and El Salvador, the west contacting Chiapas, Mexico. By "north" I mean the lowlands north of the mountains of Alta Verapaz, i.e., the lowlands of the Alta Verapaz and of the Peten. "South" refers to the Pacific versant. The "southwestern highlands" comprise that portion of the Guatemalan plateaus lying west of Guatemala City and south of the Sierra de los Cuchumatanes (Stuart, Contrib. Lab. Vert. Biol., Univ. Mich-

igan, 49, 1951). The "southeastern highlands" encompass the uplands to the east of Guatemala City and south of the Motagua Valley (Stuart, Contrib. Lab. Vert. Biol., Univ. Michigan, 68, 1954). The Sierra de los Cuchumatanes and its eastern piedmont comprise northwestern Guatemala. By "eastern lowlands" I mean those facing the Gulf of Honduras, the "north coast" of *Guatemaltecos*. "Central Guatemala" includes the mountains of Alta Verapaz, Baja Verapaz, and the Sierra de las Minas, or all the terrain bounded by the northern lowlands and the Motagua Valley (north and south, respectively) and by the southwestern and northwestern highlands and the eastern lowlands (west and east). Finally I make use of the geologists' definition of the Yucatan Peninsula which extends southward only to the fault line that borders Lake Peten on the north and which has a general east-west trend through central El Peten.

In describing vertical limits I have been purposely vague. The exact limits of many of the forms listed herein are unknown, though there are sufficient data on the majority to permit vertical distribution descriptions in general terms. I recognize in Guatemala four vertical belts which may be defined roughly as follows:

"LOWLANDS" or "LOW ELEVATIONS," sea level to about 600 m. The "banana belt" of some authors.

"MODERATE ELEVATIONS," 600 m. to about 1500 m. The "coffee zone" of some authors.

"INTERMEDIATE ELEVATIONS," 1500 m. to about 2700 m. On windward slopes, the "cloud forest" of some authors.

"HIGH ELEVATIONS," above 2700 m.

The vertical limits stated herein apply primarily to the distributions of the various forms in Guatemala and not necessarily extralimitally to the north or south.

Owing to the fact that a balance between scale and legibility had to be maintained, the included map is not all that it purports to be. Some localities, especially in the Lake Atitlan and Coban regions, had to be omitted. Major points of reference, however, are sufficient in number to enable the user to pinpoint locales that have not been plotted. The classification of sites as "major" or "minor" is not a quantitative measure. By "major" I mean those localities which have been studied herpetologically in some detail. For the most part these are centers at which I have worked. Some, on the other hand, were bases for earlier collectors. Among these might be mentioned Coban, visited by the Englishmen Godman and Salvin and by the Frenchmen Morelet and Bocourt; Duenas, also a Godman-Salvin locality; El Porvenir, which served as the late Karl Schmidt's base during the course of his studies on Volcan Tajumulco; and Mazatenango, from the vicinity of which was probably assembled the Bernoulli collection now housed at Basel.

Though the greater portion of Bernoulli's specimens were labelled merely "Costa Grande," i.e., the Pacific coastal plain between Retalhuleu and Escuintla, I am of the opinion that the majority of that material stemmed from the vicinity of Hacienda Chitalon just west of Mazatenango.

It seems unnecessary to comment on the keys presented herein. I have made an effort to restrict key characters to superficial structures, and this involved a certain amount of subjectivity in many instances. Nevertheless the non-professional herpetologist undoubtedly will find such characters far more usable than had girdle form, teeth, or other "deep structures" been employed. I would estimate the keys to be about on a par with one which I presented several years ago and upon which I have commented (Stuart, Misc. Publ. Mus. Zool., Univ. Michigan, 91, 1955: 10).

Throughout this checklist I have refrained from the use of diacritical marks either for Spanish place names or authors, e.g., Gunther rather than Günther. Such marks are frequent sources of personal and typographical error, and a checklist is prone to error even without this added orthographic burden.

The included index is incomplete in that variations in spellings are not all listed. Thus, the variant *Stenorhina* for *Stenorrhina* does not appear, neither do *baudinii* (*baudini*) nor *flavomaculatum* (*flavimaculatum*).

Before concluding this Introduction, I beg leave to comment briefly on several other matters. First, an apology! In the past I have expressed myself verbally in no uncertain terms on the quality of various checklists which I have had occasion to use. That, however, was before I had essayed a checklist myself. This is just a little checklist, encompassing a total number of amphibians and reptiles only slightly larger than the amphibian fauna alone of the United States or of that of Mexico. It is with due humility, therefore, that I retract and apologize for my previous unkind remarks.

Second, I wish to make it clear that this checklist is at best only a preliminary effort on my part. I wish to express herein merely my own opinion as to the status of the amphibian and reptilian faunas of Guatemala. It presents only a basic plan. It is representative of the drudgery and low productivity that characterize any initial effort. I offer it now in the hope that it may stimulate further research on the herpetofauna of northern Central America.

Finally, I know that this checklist will be subjected to remarks unkind as those I have directed at others. For those inclined to be unduly critical, I would refer them to Bairnsfather, Bruce. *Fragments from France*, G. P. Putnam's Sons, New York, 1917: [p. 15, pl. 9].

ACKNOWLEDGMENTS

During the course of compiling this checklist I have been aided by numerous investigators. Some have been specialists on the faunas of areas adjacent to Guatemala, others have established reputations through their investigations of major taxonomic groups, while still others have published or anticipate publication of systematic monographs of lower taxa. All have been most cooperative in supplying me with data (frequently unpublished) on matters in which they are far more competent than I. To list them individually would require no little research into my correspondence dating back at least several decades. I take this opportunity, therefore, to extend to them as a group my gratitude for their aid and patience and trust that none will take offense at this blanket expression of thanks. I am, further, most grateful to all those authorities in charge of collections in various European museums. They have, one and all, been most generous of their time in ferreting out type specimens and in supplying me with the catalogue numbers of the same.

I must, however, single out for special acknowledgment my indebtedness to my colleagues here at the University, Norman E. Hartweg and Charles F. Walker. On innumerable occasions I have solicited their aid and opinions on matters of systematics and geography, and they have been most generous with their assistance. I am indebted also to Floyd Downs, Fred Gehlbach, and Curtis Allen, of the University of Michigan, for the aid they have rendered in rechecking literature citations, reading proof, and in testing the keys. The included map (based upon *Mapa Preliminar de la Republica de Guatemala,* Direccion General de Cartografia, [Guatemala], 1959, 1/750,000) is the work of Miss Stanlee Lonsdale.—*L. C. Stuart, 30 June 1962.*

KEY TO THE FAMILIES OF GUATEMALAN AMPHIBIA AND REPTILIA

1. Body covered with smooth to strongly tuberculate skin; never with externally visible scales or dermal plates ..... 2 (Amphibia)
   Body covered with externally visible scales or dermal plates or encased in a shell ..... 10 (Reptilia)
2. Worm-like, lacking both fore and hind limbs ..... Caeciliidae, Gymnophiona (p. 16)
   Not worm-like, both fore and hind limbs present 3
3. Tail present in adults ..... Plethodontidae, Caudata (p. 16)
   Tail not present in adults ..... 4 (Salientia)
4. Two elongate, aligned, free-edged, spade-like tubercles on inner side of hind limb ..... Rhinophrynidae (p. 24)
   Never two such tubercles on inner side of hind limb 5

5. Dorsum warty; a conspicuous parotoid gland dorsolaterally above or just anterior to arm insertions; a symmetrical system of cranial crests on upper surface of head ..... Bufonidae (p. 24)
Dorsum smooth or warty; if warty, no parotoid glands or system of cranial crests.. 6

6. Small frogs; head very narrow; mouth very small; a distinct transverse fold across top of head posterior to eyes ..... Microhylidae (p. 42)
Size variable; head not conspicuously narrow; mouth proportionally large; no transverse fold behind eyes 7

7. Web between toes IV–V, if present, incised to well below midpoint between proximal and distal tubercles of toe V ..... Leptodactylidae (p. 27)
Web always present between toes IV–V and incised no more deeply than midway between proximal and distal tubercles of toe V 8

8. Small green frogs (white in preservative) with translucent belly wall revealing ventral body organs ..... Centrolenidae (p. 33)
Size variable; belly wall thicker and never translucent 9

9. Tips of the three fingers (as opposed to thumb) expanded to form an adhesive disc ..... Hylidae (p. 33)
Tips of the three fingers pointed or blunt; never expanded to form an adhesive disc ..... Ranidae (p. 45)

10. Body encased in a shell ..... 11 (Testudines)
Body not encased in a shell; body covered with scales or dermal plates 15

11. Limbs modified to form paddle-like structures; strictly marine turtles 12
Limbs, though feet may be fully webbed, not paddle-like; terrestrial or confined to inland waters 13

12. Shell covered by leathery skin except in juveniles in which the covering is a mosiac of numerous, plate-like bones; no claws on limbs ..... Dermochelyidae (p. 54)
Shell covered by horny scutes; limbs with claws ..... Cheloniidae (p. 52)

13. At least one scute of carapace in contact with pectoral scute .. Testudinidae (p. 50)
Scutes of carapace separated from pectoral scute of plastron either by a ligament or by one or more inframarginal scutes of bridge 14

14. At least four inframarginal scutes ..... Dermatemyidae (p. 46)
Fewer than four inframarginal scutes ..... Chelydridae (p. 47)

15. Cloacal opening (or anal opening) longitudinal .....16 (Crocodylia)
Cloacal opening transverse 17

16. Fourth madibular tooth fitting into a pit in the upper jaw and not visible when mouth is closed ..... Alligatoridae (p. 132)
Fourth mandibular tooth fitting into a notch in upper jaw and visible when mouth is closed ..... Crocodylidae (p. 132)

17. Both fore and hind limbs present ..... 18 (Sauria)
Fore limbs lacking; hind limbs, if present, reduced to mere vestigial, claw-like structures ..... 27 (Serpentes)

18. Belly covered with large, squarish, juxtaposed, plate-like scales or with large, smooth, imbricate, cycloid-like scales 19
Belly covered with numerous small, rounded or pointed, imbricate or subimbricate scales, either smooth or keeled, or with small granular scales 24

19. Except for several enlarged, plate-like supraoculars (Xenosauridae only), scales on upper surface of head numerous and either knobby or granular in appearance..20
Scales on upper surface of head relatively few in number and large and plate-like .. 21

20. Third and fourth digits of hind limb equal or subequal in length; scales on upper surface of head all identical ..... Helodermatidae (p. 83)
Fourth digit of hind limb considerably longer than third; several plate-like supraocular scales distinct from others on the upper surface of head Xenosauridae (p. 83)

21. A pair of frontonasal scales ..... Anguidae (p. 80)
Frontonasal single, not paired 22

22. Scales of dorsum like those of ventrum, cycloid-like; no femoral pores; eyelids present ..... Scincidae (p. 73)
Scales of dorsum unlike those of ventrum, granular (except in *Gymnophthalmus* which is covered with cycloid-like scales of uniform size *but which lacks eyelids*); femoral pores present (except in females of *Gymnophthalmus*)..... 23

23. Scales of dorsum uniform in size, granular or cycloid-like ..... Teiidae (p. 76)
Scales of dorsum granular, not uniform in size; some distinctly larger than others and scattered randomly among smaller ones (lateral) or arranged linearly (dorsal) ..... Xantusiidae (p. 58)

24. Upper surface of head covered with scales of variable size, some even plate-like; never granular in appearance ..... Iguanidae (p. 59)
Upper surface of head covered with minute, granular scales 25

25. Granular scales on upper surface of head of two distinct sizes, the larger scattered among and standing out prominently from the smaller .... Eublepharidae (p. 54)
Granular scales on surface of head more or less subequal in size, none prominently enlarged 26

26. Several lamellae, or at least terminal lamella, beneath toes expanded and double ..... Gekkonidae (p. 56)
Lamellae beneath toes not expanded (*Gonatodes*), or if terminal one expanded, single (*Sphaerodactylus*) ..... Sphaerodactylidae (p. 55)

27. All scales on body subequal in size or nearly so; tail round 28
Abdominal scales on body much larger than scales on middorsal region or, if subequal in size, tail flattened vertically for swimming 29

28. Fourteen longitudinal rows of scales around midbody ..... Leptotyphlopidae (p. 85)
Eighteen rows of scales around midbody ..... Typhlopidae (p. 85)

29. A deep pit between eye and nostril; a pair of erectile fangs anteriorly in upper jaw ..... Viperidae (p. 127)
No pit between eye and nostril; fangs, if present, not erectile 30

30. A pair of grooved, non-erectile fangs anteriorly in upper jaw; loreal plate never present ..... Elapidae (p. 125)
No grooved, non-erectile fangs anteriorly in upper jaw; loreal plate present or absent 31

31. Vestigial hind limbs evident as a small spur on either side of cloacal opening except in *Ungaliophis* which may be recognized readily by the single, enlarged prefrontal plate ..... Boidae (p. 84)
No vestige of hind limbs ..... Colubridae (p. 86)

Class AMPHIBIA

Order GYMNOPHIONA

Family CAECILIIDAE

Genus *Gymnopis* Peters

Gymnopis Peters, Monatsb. Akad. Wissen. Berlin, 1874: 616.
GENEROTYPE.—*Gymnopis multiplicata* Peters.

KEY TO GUATEMALAN SPECIES OF *GYMNOPIS*

Primary annuli fewer than 120 ..... *mexicana mexicana*
Primary annuli more than 120 ..... *oligozona*

Gymnopis mexicana mexicana Dumeril and Bibron

Siphonops mexicanus Dumeril and Bibron, Erpet. Gen., 8, 1841: 284; Brocchi, 1883: 120, pl. 21, fig. 2.
Gymnopis mexicanus mexicanus, Dunn, Bull. Mus. Comp. Zool., Harvard College, 91, 1942: 473.
Dermophis mexicanus, Gunther, 1901: 305.
Dermophis mexicanus mexicanus, Smith and Taylor, 1948: 4.

TYPE.—MNHN 4275. Mexico.

RANGE.—Low and moderate elevations from central Veracruz, Mexico, south to Tabasco on the Caribbean versant and from the Isthmus of Tehuantepec to Nicaragua along the Pacific.

Gymnopis oligozona Cope

Siphonops oligozonus Cope, Proc. Amer. Philos. Soc., 17, 1877: 91.
Gymnopis oligozona, Cope, Proc. Amer. Philos. Soc., 22, 1885: 171; Gunther, 1901: 309.

TYPE.—USNM 25187. Type locality unknown.

RANGE.—Only definite locality, Finca Volcan, Alta Verapaz, Guatemala (Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1947: 18). Possibly low and moderate elevations of northern Guatemala, British Honduras, and eastern Chiapas, Mexico.

Order CAUDATA

Family PLETHODONTIDAE

KEY TO GUATEMALAN GENERA OF PLETHODONTIDAE

1. More than 15 costal grooves between axilla and groin ..... *Oedipina* (p. 22)
   Fewer than 15 costal grooves between axilla and groin 2
2. Sublingual fold present 3
   No sublingual fold 4

3. A distinct white stripe across head between eyes ..... *Chiropterotriton* (p. 19)
   No white stripe between eyes ..... *Pseudoeurycea* (p. 23)
4. All phalanges of all digits enclosed in web ..... *Bolitoglossa* (below)
   At least terminal phalanx of digit III free of web (barely so in *helmrichi*)
   ..... *Magnadigita* (p. 19)

Genus *Bolitoglossa* Dumeril, Bibron, and Dumeril

Bolitoglossa Dumeril, Bibron, and Dumeril, Erpet. Gen., 9, 1854: 88 (in part).

GENEROTYPE.—*Bolitoglossa mexicana* Dumeril, Bibron, and Dumeril = *Salamandra platydactylus* Gray.

KEY TO GUATEMALAN SPECIES OF *BOLITOGLOSSA*

1. Small species, adults not exceeding 40 mm. head-body length; tail much shorter than head and body; dorsal pattern typically consisting of fine, dark streaks or peppering on a lighter background 2
   Larger species, adults well over 50 mm. head-body length; tail length variable; dorsal pattern of light marblings or light stripes on a dark background or dark stripes or spots on a light background 3
2. Maxillary teeth present ..... *occidentalis*
   Maxillary teeth absent ..... *rufescens*
3. Large and robust; tail considerably shorter than head and body; dorsal pattern of light brown marblings on a dark brown background ..... *dofleini*
   More slender; tail only slightly shorter than head and body and generally somewhat longer; dorsal pattern variable but consisting of light yellow stripes or spots on a dark background or vice versa; never brown marblings 4
4. Head anterior to eyes with yellow fleckings dorsally and/or laterally 5
   Generally no yellow markings on head anterior to eyes ..... *mulleri*
5. Dorsal body pattern of either a middorsal yellow stripe or a yellow dorsolateral stripe on either side ..... *salvini*
   Dorsal body pattern of a broad yellow stripe broken by dark spots generally to give an overall appearance of three yellow dorsal stripes with cross connections ..... *moreleti*

Bolitoglossa dofleini Werner

Spelerpes dofleini Werner, Abh. Bayer. Akad. Wissen., 22, 1903: 352.
Bolitoglossa doffleini, (*sic*) Taylor, Univ. Kansas Sci. Bull., 30, 1944: 219.
Spelerpes mulleri, Brocchi, 1883: 116 (in part).

TYPE.—Originally in Zoologische Sammlung des Bayerischen Staates; now lost. Guatemala [possibly Alta Verapaz].

RANGE.—Known only from low and moderate elevations of Alta Verapaz, Guatemala.

Bolitoglossa moreleti Smith

Bolitoglossa moreleti Smith, Herpetologica, 3, 1945: 17; Smith and Taylor, 1948: 24.

Bolitoglossa mexicana Dumeril, Bibron, and Dumeril, Erpet. Gen., 9, 1854: 93, in part (Peten specimens, MNHN 4747, two individuals mentioned in addenda to type description).[1]

Spelerpes mexicanus, Brocchi, 1883: 113 (in part).

TYPE.—USNM 116079. Vicinity of Palenque, Chiapas, Mexico.

RANGE.—Caribbean lowlands from southern Veracruz, Mexico, to northern Honduras, exclusive of the outer end of the Yucatan Peninsula.

Bolitoglossa mulleri Brocchi

Spelerpes mulleri Brocchi, Miss. Sci. Mex., Batr., 1883: 116, pl. 20, figs. 3–5.

Oedipus odonnelli Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 56, 1943: 10, pl. 2, fig. 3 (UMMZ 89096; Finca Volcan, Alta Verapaz, Guatemala; 1200 meters).[2]

Bolitoglossa mulleri, Taylor, Univ. Kansas Sci. Bull., 30, 1944: 219.

TYPE.—MNHN 6395 (four syntypes). Several localities in Alta Verapaz, Guatemala. Restricted to "mountains which dominate Coban" (Stuart, *loc. cit.*)

RANGE.—Moderate elevations in the mountains of Alta Verapaz, Guatemala.

Bolitoglossa occidentalis Taylor

Bolitoglossa occidentalis Taylor, Univ. Kansas Sci. Bull., 27, 1941: 145, fig. 1c, pl. 9, figs. 1–4; Smith and Taylor, 1948: 23.

TYPE.—USNM 111085. La Esperanza, Chiapas, Mexico; 500 feet.

RANGE.—Low and moderate elevations of southern Veracruz and eastern Chiapas, Mexico, and along the Pacific versant from Oaxaca, Mexico, south to western Guatemala.

Bolitoglossa rufescens Cope

Oedipus rufescens Cope, Proc. Acad. Nat. Sci. Phila., 21, 1869: 104.

Bolitoglossa rufescens, Taylor, Univ. Kansas Sci. Bull., 27, 1941: 147; Smith and Taylor, 1948: 23.

[1] Guibe (Catal. Types Amphib. Mus. Nat. Hist. Natur., ND: 10) lists the Peten specimens as *the* syntypes (four rather than two as stated in the type description) of *mexicana.* I suspect this to be a *lapsus* on the part of Guibe. Furthermore, considering the confusion associated with this name (Mittleman and Smith, Journ. Washington Acad. Sci., 38, 1948: 318) I retain the name *moreleti* only tentatively for the Guatemalan population.

[2] Until such a time as a thorough revision of the *platydactyla* complex between Veracruz, Mexico, and northern Honduras is forthcoming, I believe it best to relegate *Bolitoglossa odonnelli* to the synonymy of *Bolitoglossa mulleri.* Such procedure will certainly clarify the geographic picture. This leaves two lowland species on the Caribbean side, *platydactyla* to the north and west and *moreleti* to the south and east, and a single upland species, *mulleri.* The three may eventually be shown to be subspecies.

TYPE.—Originally USNM 6886; apparently lost. Orizaba, Veracruz, Mexico.

RANGE.—Lowlands and moderate elevations of the Caribbean versant from San Luis Potosi, Mexico, possibly to northern Honduras.

Bolitoglossa salvini Gray

Oedipus salvinii Gray, Ann. Mag. Nat. Hist., 2, 1868: 297.
Spelerpes attitlanensis (*sic*) Brocchi, Miss. Sci. Mex., Batr., 1883: 115, pl. 19, figs. 3–4 (MNHN 6398–99, two syntypes. Near Volcan Atitlan, Guatemala).
Bolitoglossa salvinii, Taylor, Univ. Kansas Sci. Bull., 30, 1944: 219.
Spelerpes variegatus, Gunther, 1902: 302, pl. 75, fig. B.

TYPE.—BMNH 1946.9.6.26. Guatemala.

RANGE.—Upper coastal plain and moderate elevations of the Pacific versant of southwestern Guatemala.

Genus *Chiropterotriton* Taylor

Chiropterotriton Taylor, Univ. Kansas Sci. Bull., 30, 1944: 213.

GENEROTYPE.—*Oedipus multidentata* Taylor.

Chiropterotriton bromeliacia Schmidt

Oedipus bromeliacia Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1936: 161, fig. 18.
Chiropterotriton bromeliacea, (sic) Taylor, Univ. Kansas Sci. Bull., 30, 1944: 216.

TYPE.—CNHM 21062. Volcan Tajumulco, on trail above El Porvenir, San Marcos, Guatemala; 8000 feet.

RANGE.—Known only from intermediate elevations on the south slope of Volcan Tajumulco, Guatemala. Probably more widely distributed at similar elevations on the volcanic chain to the east.

Genus *Magnadigita* Taylor

Magnadigita Taylor, Univ. Kansas Sci. Bull., 30, 1944: 218.

GENEROTYPE.—*Bolitoglossa nigroflavescens* Taylor.

KEY TO GUATEMALAN SPECIES OF *MAGNADIGITA*

1. Underside of body and especially tail very dark, with or without scattered light spottings or fleckings 2
   Underside of body and tail essentially light, with or without scattered dark fleckings or marblings 4
2. Middorsal region uniformly dark or almost so; occasionally with scattered light flecks ..... *morio*
   Middorsal region light with dark spots or dark with bold light spots or marblings.. 3

3. Tail long; equal to head-body length or almost so ..... *franklini*
   Tail short; equal to no more than distance between posterior margin of vent and eye ..... *lincolni*
4. Tail short; equal to no more than distance from posterior margin of vent to gular fold 5
   Tail long; generally equal to distance from posterior margin of vent to eye or snout 6
5. Upper surface of upper arms and legs light ..... *flavimembris*
   Upper surface of upper arms and legs dark ..... *omniumsanctorum*
6. Web between toes II–III and III–IV incised to level of articulation between proximal and middle phalanges ..... *rostrata*
   No more than distal phalanx of toe III free of web 7
7. Distal phalanx of toe III completely free of web ..... *engelhardti*
   Distal phalanx of toe III not completely free of web 8
8. Underside of tail generally immaculate light color though occasionally with scattered dark flecks ..... *helmrichi*
   Underside of tail light but with darker marblings to produce a much darker condition than is ever noted in *helmrichi* ..... *cuchumatana*

Magnadigita cuchumatana Stuart

Oedipus cuchumatanus Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 56, 1943: 14, pl. 1, fig. 2.
Magnadigita cuchumatana, Taylor, Univ. Kansas Sci. Bull., 30, 1944: 218.

TYPE.—UMMZ 89110. Two km. N Nebaj, El Quiche, Guatemala.

RANGE.—Known only from the type locality, but probably generally distributed through the eastern Sierra de los Cuchumatanes at intermediate elevations.

Magnadigita engelhardti Schmidt

Oedipus engelhardti Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1936: 156, fig. 18.
Magnadigita englehardti, (sic) Taylor, Univ. Kansas Sci. Bull., 30, 1944: 218.

TYPE.—CNHM 21605. Volcan Atitlan, Solola, Guatemala; "7000 feet above Olas de Moca" [obviously in error as *M. engelhardti* is confined to elevations 5000–6500 feet, *fide* Schmidt, *op. cit.*: fig. 15.]

RANGE.—Intermediate elevations along the Pacific versant of Guatemala from western El Salvador to the Mexican border.

Magnadigita flavimembris Schmidt

Oedipus flavimembris Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1936: 158, fig. 17.
Magnadigita flavimembris, Taylor, Univ. Kansas Sci. Bull., 30, 1944: 218.

TYPE.—CNHM 20381. Volcan Tajumulco, on trail above El Porvenir, San Marcos, Guatemala; 7200 feet.

RANGE.—Known only from intermediate elevations on Volcan Tajumulco. Probably more widely distributed at similar elevations on the volcanic chain to the east.

Magnadigita franklini Schmidt

Oedipus franklini Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1936: 159, fig. 19.
Magnadigita franklini, Taylor, Univ. Kansas Sci. Bull., 30, 1944: 218.

TYPE.—CNHM 21061. Volcan Tajumulco, on trail above El Porvenir, San Marcos, Guatemala; 5600 feet.

RANGE.—Intermediate elevations along the Pacific versant of Guatemala from Volcan Pacaya to the Mexican border.

Magnadigita helmrichi Schmidt

Oedipus helmrichi Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1936: 152, fig. 18.
Magnadigita helmrichi, Stuart, Proc. Biol. Soc. Washington, 65, 1952: 5.
? *Spelerpes morio,* Brocchi, 1883: 113.

TYPE.—CNHM 21063. Finca Samac, Alta Verapaz, Guatemala; 5000 feet.

RANGE.—Intermediate elevations of Alta Verapaz, Guatemala.

Magnadigita lincolni Stuart

Oedipus lincolni Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 56, 1943: 9, pl. 1, fig. 1.
Magnadigita lincolni, Taylor, Univ. Kansas Sci. Bull., 30, 1944: 218.

TYPE.—UMMZ 89107. Salquil Grande, El Quiche, Guatemala; 2450 meters.

RANGE.—Intermediate elevations in the eastern Sierra de los Cuchumatanes of Guatemala.

Magnadigita morio Cope

Oedipus morio Cope, Proc. Acad. Nat. Sci. Phila., 21, 1869: 103.
Spelerpes bocourti Brocchi, Miss. Sci. Mex., Batr., 1883: 111, pl. 18, fig. 2 (MNHN, type not definitely identifiable; heights of Tonicapam [*sic,* = Totonicapan], Guatemala).
Magnadigita morio, Stuart, Proc. Biol. Soc. Washington, 65, 1952: 5.

TYPE.—Originally USNM 6888; apparently lost. Mountains of Guatemala.

RANGE.—Intermediate elevations on the southwestern highlands of Guatemala.

Magnadigita omniumsanctorum Stuart

Magnadigita omniumsanctorum Stuart, Proc. Biol. Soc. Washington, 65, 1952: 4.

TYPE.—UMMZ 102285. Todos Santos, Huehuetenango, Guatemala; 2500 meters.

RANGE.—Known only from the type locality but probably widespread at intermediate elevations along the western face of the Sierra de los Cuchumatanes of Guatemala.

Magnadigita rostrata Brocchi

Spelerpes rostratum Brocchi, Miss. Sci. Mex., Batr., 1883: 112.
Magnadigita rostrata, Taylor, Univ. Kansas Sci. Bull., 30, 1944: 218.

TYPE.—MNHN, type not definitely identifiable. Heights of Tonicapam [*sic*, = Totonicapan], Guatemala.

RANGE.—High elevations of the Guatemalan Plateau.

Genus *Oedipina* Keferstein

Oedipina Keferstein, Nachr. Konig. Gesell. Wissen. Gottingen, 1868: 299, pl. 9, figs. 8–9.

GENEROTYPE.—*Oedipina uniformis* Keferstein.

KEY TO GUATEMALAN SPECIES OF *OEDIPINA*

All phalanges of all toes completely enclosed in web ..... *elongata*
At least terminal phalanx of toe III free of web ..... *taylori*

Oedipina elongata Schmidt

Oedipus elongatus Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1936: 165.
Oedipina elongata, Taylor, Univ. Kansas Sci. Bull., 30, 1944: 226.

TYPE.—CNHM 20059. Escobas, the site of the water supply for Puerto Barrios, Izabal, Guatemala.

RANGE.—Low and moderate elevations of the humid forest regions of east-central Guatemala and adjacent British Honduras.

Oedipina taylori Stuart

Oedipina taylori Stuart, Proc. Biol. Soc. Washington, 65, 1952: 2.
Oedipina ignea Stuart, Proc. Biol. Soc. Washington, 65, 1952: 1 (USNM 127959; Rio Las Brisas just south of Yepocapa, Chimaltenango, Guatemala; 1450 meters).

TYPE.—UMMZ 102281. Four km. E Hacienda La Trinidad (23 airline km. SE Chiquimulilla), Jutiapa, Guatemala; 100 meters.

RANGE.—Low and moderate elevations from south central Guatemala into El Salvador.

Genus *Pseudoeurycea* Taylor

Pseudoeurycea Taylor, Univ. Kansas Sci. Bull., 30, 1944: 209.

GENEROTYPE.—*Spelerpes leprosus* Cope.

KEY TO GUATEMALAN SPECIES OF *PSEUDOEURYCEA*

1. Undersurface of tail with light marblings on a dark groundcolor ..... *goebeli*
   Undersurface of tail light or dark, but always unicolor without marblings 2
2. Adpressed limbs never failing to overlap by at least two costal ridges.... *exspectata*
   Adpressed limbs failing to overlap to the extent of two costal ridges ..... *rex*

Pseudoeurycea exspectata Stuart

Pseudoeurycea exspectata Stuart, Proc. Biol. Soc. Washington, 67, 1954: 159.

TYPE.—UMMZ 107999. Broadleaf forest 3 km. W Aldea Miramundo (about 7 airline km. SE Jalapa), Jalapa, Guatemala; 2525 meters. [Miramundo is actually about 7 km. *southwest* of Jalapa.]

RANGE.—Known only from the type locality. Possibly occurring also at intermediate elevations on some of the isolated volcanic peaks of southeastern Guatemala.

Pseudoeurycea goebeli Schmidt

Oedipus goebeli Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1936: 163, fig. 17.
Pseudoeurycea goebeli, Taylor, Univ. Kansas Sci. Bull., 30, 1944: 209.

TYPE.—CNHM 21064. Volcan Tajumulco, on trail above El Porvenir, San Marcos, Guatemala; 8000 feet.

RANGE.—Intermediate elevations on the volcanos of the Pacific versant of Guatemala from Volcan Tajumulco to Volcan Agua.

Pseudoeurycea rex Dunn

Oedipus rex Dunn, Proc. Biol. Soc. Washington, 34, 1921: 143.
Pseudoeurycea rex, Taylor, Univ. Kansas Sci. Bull., 30, 1944: 209.

TYPE.—CNHM 1814. Sierra Santa Elena (near Tecpam), Guatemala; 9500 feet.

RANGE.—High elevations of the southwestern highlands and the Sierra de los Cuchumatanes, and probably the annectant volcanos (known definitely from Volcan Tajumulco) of Guatemala.

Order SALIENTIA

Family RHINOPHRYNIDAE

Genus *Rhinophrynus* Dumeril and Bibron

Rhinophrynus Dumeril and Bibron, Erpet. Gen., 8, 1841: 757, Atlas, 1854: pl. 91, figs. 2–2a.

GENEROTYPE.—*Rhinophrynus dorsalis* Dumeril and Bibron.

Rhinophrynus dorsalis Dumeril and Bibron

Rhinophrynus dorsalis Dumeril and Bibron, Erpet. Gen., 8, 1841: 758, Atlas, 1854: pl. 91, figs. 2–2a; Smith and Taylor, 1948: 34.

TYPE.—MNHN 743. Mexico.

RANGE.—Lowlands of Middle America from Tamaulipas, Mexico, on the east and Guerrero on the west, southward into Guatemala on the east and to Costa Rica on the west.

Family BUFONIDAE

Genus *Bufo* Laurenti

Bufo Laurenti, Synop. Rept., 1768: 25.

GENEROTYPE.—*Bufo vulgaris* Laurenti = *Rana bufo* Linnaeus.

KEY TO GUATEMALAN SPECIES OF *BUFO*

1. Tympanum concealed beneath warty skin 2
   Tympanum visible externally 3
2. Feet broadly webbed; toes II and V webbed to tip on medial side; parotoids not over twice as long as broad, their greatest length equal to no more than the distance from tip of snout to center of eye ..... *tacanensis*
   Feet not broadly webbed; web not extending to tips of toes II and V on the medial side; parotoids at least twice as long as broad; at least as long as distance from tip of snout to posterior border of eye ..... *bocourti*
3. Large toads with enormous parotoids, the greatest length of which equals distance between tip of snout and tympanum; a strong tarsal fold ..... *marinus*
   Small or medium sized toads; length of parotoids not exceeding distance between tip of snout and posterior margin of eye 4
4. Small, slender toads with poorly developed cranial crests which lack a parietal spur ..... *canaliferus*
   Cranial crests well developed with parietal spur extending posteriorly and medially from supraocular crest 5
5. Parotoids comparatively small, their greatest length not greater than distance from tip of snout to preocular ridge; a row of elongate and well differentiated warts forming a tarsal ridge on inner side of tarsus ..... *luetkeni*
   Parotoids generally as long as distance from tip of snout to anterior margin of eye; if present, row of warts on inner side of tarsus only weakly differentiated 6

6. A conspicuous dorsolateral row of enlarged, pointed warts extending from parotoids almost to groin 7
No conspicuous row of enlarged warts between parotoids and groin 8
7. Parotoid glands less than 2.5 times the length of the supratympanic crest ..... *valliceps valliceps*
Parotoid glands at least 2.5 times the length of the supratympanic crest ..... *valliceps wilsoni*
8. Surface of head between cranial crests with numerous, small pustules or warts in interocular region and on snout ..... *coccifer*
Surface of head between cranial crests in interocular region smooth or with but only a few small pustules ..... *ibarrai*

Bufo bocourti Brocchi

Bufo bocourti Brocchi, Bull. Soc. Philom., ser. 7, 1, 1877: 186; Brocchi, 1882: 84, pl. 7, figs. 1–1d (1883).

TYPE.—MNHN 6343–44, 6471 (nine syntypes).[3] Totonicapan, Guatemala.

RANGE.—Intermediate and high elevations of southwestern Guatemala and adjacent Chiapas, Mexico.

Bufo canaliferus Cope

Bufo canaliferus Cope, Proc. Amer. Philos. Soc., 17, 1877: 85; Smith and Taylor, 1948: 43.

TYPE.—USNM 30315–24 (ten syntypes). West Tehuantepec, Mexico.

RANGE.—Low and moderate elevations along the Pacific versant from Oaxaca, Mexico, possibly to El Salvador.

Bufo coccifer Cope

Bufo coccifer Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 130.

TYPE.—USNM 6490. "Arriba," Costa Rica. See Dunn and Stuart (Copeia, 1951: 57).

RANGE.—Moderate and intermediate elevations of the Central American plateaus from Costa Rica to southeastern Guatemala. Smith and Taylor (1948: 44) list this species from Mexico, but I seriously question that it is conspecific with the species herein considered. For further comments see Duellman (Univ. Kansas Publ., Mus. Nat. Hist., 15, 1961: 21–22).

Bufo ibarrai Stuart

Bufo ibarrai Stuart, Proc. Biol. Soc. Washington, 67, 1954: 162.

TYPE.—UMMZ 108000. Oak-pine zone at Aserradero San Lorenzo (about

[3] In his *Catalogue des Types,* Guibe omits No. 6471 though he supplied it to me earlier (*in litt.*).

12 airline km. slightly east of north of Jalapa), Jalapa, Guatemala; 1725 meters.

RANGE.—Moderate and intermediate elevations of central and southeastern Guatemala.

Bufo luetkeni Boulenger

Bufo luetkeni Boulenger, Ann. Mag. Nat. Hist., 8, 1891: 455.

TYPE.—Originally three syntypes (Boulenger, *loc. cit.*), now only one, BMNH 1947.2.21.67. Cartago, Costa Rica.

RANGE.—Low and possibly moderate elevations along the Pacific versant from Costa Rica to southeastern Guatemala.

Bufo marinus Linnaeus

Rana marina Linnaeus, Syst. Nat., ed. 10, 1758: 211.
Bufo marinus, Schneider, Hist. Amphib., 1799: 219; Brocchi, 1882: 82; Gunther, 1901: 249.
Bufo horribilis, Smith and Taylor, 1948: 41.

TYPE.—Originally in the Seba collection. See Kellogg (Bull. U. S. Natl. Mus., 160, 1932: 54). America. Restricted to Surinam (Schmidt, Field Mus. Nat. Hist., zool. ser., 22, 1941: 482).

RANGE.—Low and moderate elevations from Texas south through Brazil.

Bufo tacanensis Smith

Bufo tacanensis Smith, Copeia, 1952: 176, pl. 1.

TYPE.—UMMZ 88359. Volcan Tacana, Union Juarez, Chiapas, Mexico; 1500 meters.

RANGE.—Intermediate elevations along the Pacific versant of eastern Chiapas, Mexico, and western Guatemala.

Bufo valliceps valliceps Wiegmann

Bufo valliceps Wiegmann, Isis, 1833: 657; Brocchi, 1882: 79; Gunther, 1901: 252; Smith and Taylor, 1948: 44.
Bufo valliceps valliceps, Firschein and Smith, Herpetologica, 13, 1957: 219.
? *Bufo canaliferus,* Brocchi, 1882: 74, pl. 8, figs. 2–2b.

TYPE.—Zoologisches Museum Berlin 3525–32 (eight syntypes). Mexico.

RANGE.—More or less widespread at low and moderate elevations from southern United States to Nicaragua, exclusive of Pacific Mexico north of the Isthmus of Tehuantepec and the Grijalva Valley of Chiapas, Mexico, and northwestern Guatemala.

Bufo valliceps wilsoni Baylor and Stuart

Bufo valliceps wilsoni Baylor and Stuart, Proc. Biol. Soc. Washington, 74, 1961: 195, figs. 1–2.

TYPE.—UMMZ 119391. Jacaltenango (ca. 50 airline km. NW Huehuetenango), Huehuetenango, Guatemala; ca. 1525 meters.

RANGE.—Moderate elevations in the valley of the Rio Grijalva in Chiapas, Mexico, and its headwater systems in northwestern Guatemala.

Family LEPTODACTYLIDAE

KEY TO GUATEMALAN GENERA OF LEPTODACTYLIDAE

1. Vomarine teeth absent 2
   Vomarine teeth present 4
2. Warty and toad-like in appearance; a conspicuous conical tubercle at proximal termination of inner tarsal fold ..... *Engystomops* (p. 31)
   Smooth or rugose and frog-like in appearance, never warty; if inner tarsal tubercle on tarsus, no tarsal fold 3
3. Ventral disc extending onto proximal undersurfaces of femora ..... *Microbatrachylus* (p. 32)
   Ventral disc terminating anterior to femora ..... *Syrrhophus* (p. 32)
4. Legs short; distance from tip of coccyx to heel, when leg extended, not or but very slightly exceeding distance from tip of coccyx to anterior margin of eye ..... *Leptodactylus* (p. 31)
   Legs longer; distance from tip of coccyx to heel almost equal at least to that from coccyx to tip of snout ..... *Eleutherodactylus* (below)

Genus *Eleutherodactylus* Dumeril and Bibron

Eleutherodactylus Dumeril and Bibron, Erpet. Gen., 8, 1841: 620.

GENEROTYPE.—*Hylodes martinicensis* Tschudi.

KEY TO GUATEMALAN SPECIES OF *ELEUTHERODACTYLUS*[4]

1. An inner tarsal fold or tarsal tubercle present 2
   No inner tarsal fold or inner tarsal tubercle 8
2. A conspicuous inner tarsal tubercle situated at about the middle of the tarsus but no inner tarsal fold ..... *rhodopis*
   An inner tarsal fold or ridge extending from the inner metatarsal tubercle part or all the length of the tarsus 3
3. Posterior surface of thighs dark with bold, light spots 4
   Posterior surface of thighs either light with faint dark spots or very dark with or without inconspicuous, fine, light reticulations 5

[4] Not recognized herein are various "species" of the *rhodopis* complex such as *E. dorsoconcolor* Taylor and *E. venustus* Gunther. The investigations of Goin (Univ. Florida Studies, Biol. Sci. Ser., IV, 1947: 66 pp., 6 pls.) suggest that such sympatric variants are mere phenotypic differences in a single gene pool. Smith (Herpetologica, 15, 1959: 211–12) has discussed similar variations.

4. A strong inner tarsal fold; fold with free edge in males ..... *rugulosus*
   Inner tarsal fold weak, more of a ridge than a fold ..... *brocchi*
5. A conspicuous dark anal patch, frequently triangular in shape 6
   No dark anal patch 7
6. A distinct row of outer tarsal tubercles which may be fused to form a well-developed outer tarsal ridge ..... *lineatus*
   No outer tarsal tubercles or ridge ..... *rostralis*
7. A distinct dark line, diffused below, from nostril to eye ..... *stantoni*
   No dark line from nostril to eye but a conspicuous dark spot or several dark vertical bars beneath eye ..... *bocourti*
8. Ventrum, especially undersurfaces of legs, heavily mottled with black or brown; dorsum extremely rugose with pustules and glandular ridges; tympanum frequently concealed beneath thickened skin or pustules ..... *matudai*
   Ventrum light though often peppered with dark; dorsum smooth or only finely ridged 9
9. Tip of finger III dilated, forming a disc which is emarginate to give bilobed appearance 10
   Tip of finger III not strongly dilated or with bilobed appearing disc ..... *anzuetoi**
10. Distance from tip of coccyx to heel, when leg extended, greater than from tip of coccyx to tip of snout ..... *xucanebi*
    Distance from tip of coccyx to heel less than from coccyx to tip of snout .. *conspicuus*

Eleutherodactylus anzuetoi Stuart

Eleutherodactylus anzuetoi Stuart, Proc. Biol. Soc. Washington, 54, 1941: 197.

TYPE.—UMMZ 89160. Two km. N Nebaj, El Quiche, Guatemala; about 1985 meters.

RANGE.—Intermediate elevations of the highlands of Alta Verapaz and the eastern Sierra de los Cuchumatanes, Guatemala.

Eleutherodactylus bocourti Brocchi

Hylodes bocourti Brocchi, Bull. Soc. Philom., Ser. 7, 1, 1877: 130; Brocchi, 1881: 50, pl. 16, figs. 2–2c (1883).
Eleutherodactylus bocourti, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 22.

TYPE.—MNHN 6413–14 (originally eight syntypes); lectotype, 6413 (Guibe, Catal. Types Amphib. Mus. Nat. Hist. Natur., ND: 28). Mountains of Coban, Guatemala.

RANGE.—Intermediate elevations of Alta Verapaz, Guatemala.

Eleutherodactylus brocchi Boulenger

Hylodes brocchi Boulenger, *in* Brocchi, Miss. Sci. Mex., Batr. 1882: 60, pl. 15, figs. 3–3a.
Eleutherodactylus brocchi, Stuart, Proc. Biol. Soc. Washington, 54, 1941: 200.

TYPE.—Institut Royal des Sciences Naturelles de Belgique I.G. No. 2616, Reg. No. 388. Guatemala.

* Also *Eleutherodactylus greggi* Bumzahem (see Addendum, p. 134).

RANGE.—Moderate and intermediate elevations of the Caribbean versant of Guatemala.

Eleutherodactylus conspicuus Taylor and Smith

Eleutherodactylus conspicuus Taylor and Smith, Proc. U. S. Natl. Mus., 95, 1945: 567, fig. 60A; Smith and Taylor, 1948: 60.

TYPE.—USNM 116509. Piedras Negras, Guatemala, near the Mexico-Guatemala border.

RANGE.—Known only from the type locality but possibly generally distributed at low elevations through northern Guatemala and adjacent Chiapas, Mexico.

Eleutherodactylus lineatus Brocchi

Hylodes lineatus Brocchi, Bull. Soc. Philom., ser. 7, 1, 1879: 22; Brocchi, 1882: 59.

TYPE.—MNHN 4885. "Attitlan (Mexique)" [= probably vicinity of Lake Atitlan, Guatemala].

RANGE.—Intermediate elevations of the Pacific versant of Guatemala and possibly adjacent Chiapas, Mexico.

Eleutherodactylus matudai Taylor

Eleutherodactylus matudai Taylor, Univ. Kansas Sci. Bull., 27, 1941: 154, pl. 11 (specific name spelled "*matudae*" on plate and in several places in text); Smith and Taylor, 1948: 64.

TYPE.—USNM 110626. Mt. Ovando, Chiapas, Mexico.

RANGE.—Intermediate elevations of the Pacific versant from eastern Chiapas, Mexico, through western Guatemala.

Eleutherodactylus rhodopis Cope

Lithodytes rhodopis Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 323.
Eleutherodactylus rhodopis, Kellogg, Bull. U. S. Natl. Mus., 160, 1932: 112; Smith and Taylor, 1948: 66.

TYPE.—USNM 16558 (lectotype, Smith and Taylor, 1948: 67). Veracruz (Mexico), at Orizaba and Cordoba.

RANGE.—Because of the confused status of the *rhodopis* complex, it is impossible to state the range of this species with any certainty. It may range from San Luis Potosi, Mexico, south to South America; south of the Isthmus of Tehuantepec to at least Nicaragua it appears to be restricted to low and moderate elevations along the Pacific versant. I suspect that it has

been confused with *rostralis* on the Caribbean side south of southern Mexico.

Eleutherodactylus rostralis Werner[5]

Hylodes rostralis Werner, Verhand. k. k. zool.-bot. Gesell. Wien, 1896: 8.
Eleutherodactylus rostralis, Stuart, Proc. Biol. Soc. Washington, 54, 1941: 198.
? *Hylodes sallaei,* Gunther, 1900: 227 (in part).

TYPE.—Originally in the "Petersburger Museum" [? St. Petersburg = Leningrad]. To further confuse the issue, the material studied by Werner was received from one W. Schluter of Halle, Germany; present location unknown. Honduras.

RANGE.—Low elevations of the Caribbean versant possibly from southeastern Mexico south to at least northern Honduras.

Eleutherodactylus rugulosus Cope

Liyla rugulosa Cope, Proc. Amer. Philos. Soc., 11, 1869: 160.
Eleutherodactylus rugulosus, Kellogg, Bull. U. S. Natl. Mus., 160, 1932: 116; Smith and Taylor, 1948: 65.
Liohyla rugulosa, Gunther, 1900: 221 (? in part).

TYPE.—USNM 29771–72 (two syntypes). Pacific region of the Isthmus of Tehuantepec, Mexico.

RANGE.—Low and moderate elevations from southern Mexico south to possibly Nicaragua.

Eleutherodactylus stantoni Schmidt

Eleutherodactylus stantoni Schmidt, Field Mus. Nat. Hist., zool. ser., 22, 1941: 483.

TYPE.—UMMZ 80673. Valentin, British Honduras.

RANGE.—Low and moderate elevations of southern British Honduras and possibly El Peten, Guatemala, south to the uplands of Alta Verapaz.

Eleutherodactylus xucanebi Stuart

Eleutherodactylus xucanebi Stuart, Proc. Biol. Soc. Washington, 54, 1941: 199.
Hylodes brocchii, Gunther, 1900: 236, pl. 68, figs. A–B (in part).

TYPE.—UMMZ 89914. Cloud forest above Finca Volcan (49 km. airline E Coban), Alta Verapaz, Guatemala; about 1300 meters.

[5] In previous papers I have referred to this species both as *E. rhodopis* and *E. rostralis.* Following some discussion with William Duellman of the University of Kansas, I now allocate this little frog, not uncommon in the Peten of Guatemala, to *E. rostralis.* Mr. Duellman and I are agreed that it may be related to *E. gollmeri* Peters of lower Central America.

RANGE.—Known only from the type locality, but probably widespread through the Alta Verapaz uplands at moderate and intermediate elevations.

Genus *Engystomops* Jimenez de la Espada

Engystomops Jimenez de la Espada, Anal. Soc. Espana Hist. Nat., 1, 1872: 86.

GENEROTYPE.—*Engystomops petersi* Jimenez de la Espada.

Engystomops pustulosus Cope

Paludicola pustulosa Cope, Proc. Acad. Nat. Sci. Phila., 16, 1864: 180.
Engystomops pustulosus, Boulenger, Catal. Batr. Sal. Brit. Mus., ed. 2, 1882: 275; Smith and Taylor, 1948: 47.

TYPE.—Originally USNM 4339; apparently lost. Truando River, Colombia.

RANGE.—Low and moderate elevations from Veracruz and the Isthmus of Tehuantepec, Mexico, southward into South America.

Genus *Leptodactylus* Fitzinger

Leptodactylus Fitzinger, Neue Class. Rept., 1826: 38, 64.

GENEROTYPE.—*Rana typhonia* Daudin (preoccupied *Rana typhonius* Linnaeus) = *Rana sibilatrix* Wied.

KEY TO GUATEMALAN SPECIES OF *LEPTODACTYLUS*

Toes with conspicuous, lateral, dermal fringe extending to tip; males with black, horny, nuptial tuberosities on thumb ..... *melanonotus*
Toes without lateral dermal fringe; males without black, horny tuberosities on thumb ..... *labialis*

Leptodactylus labialis Cope

Cystignathus labialis Cope, Proc. Amer. Philos. Soc., 17, 1877: 90.
Leptodactylus labialis, Brocchi, 1881: 20; Smith and Taylor, 1948: 56.
Leptodactylus caliginosus, Brocchi, 1881: 17, pl. 5, figs. 1–1c.

TYPE.—USNM 31302. Probably Mexico; uncertain.

RANGE.—Low and moderate elevations from Texas and Guerrero, Mexico, south to Costa Rica.

Leptodactylus melanonotus Hallowell

Cystignathus melanonotus Hallowell, Proc. Acad. Nat. Sci. Phila., 12, 1860: 485.
Cystignathus echinatus Brocchi, Bull. Soc. Philom., ser. 7, 1, 1877: 181 (MNHN 6322–23, four syntypes; Rio Madre Nieja [Vieja], Guatemala).

Leptodactylus melanonotus, Brocchi, 1881: 20; Smith and Taylor, 1948: 57.
Leptodactylus echinatus, Brocchi, 1881: 18, pl. 5, figs. 4–4a.

TYPE.—Originally USNM 6264; now lost. Nicaragua.

RANGE.—Low and moderate elevations from southern Sonora and Tamaulipas, Mexico, south to Costa Rica.

Genus *Microbatrachylus* Taylor

Microbatrachylus Taylor, Univ. Kansas Sci. Bull., 26, 1939: 499.

GENEROTYPE.—*Eleutherodactylus hobartsmithi* Taylor.

Microbatrachylus pygmaeus Taylor

Eleutherodactylus pygmaeus Taylor, Trans. Kansas Acad. Sci., 39, 1936: 352, pl. 1, figs. 3–4.
Microbatrachylus pygmaeus, Taylor, Univ. Kansas Sci. Bull., 26, 1939: 500.

TYPE.—University of Illinois Museum of Natural History 16125. One mile N Rodriguez Clara, Veracruz, Mexico.

RANGE.—Low and moderate elevations from Guerrero and Veracruz, Mexico, southward into Guatemala where it occurs only along the Pacific versant.

Genus *Syrrhophus* Cope

Syrrhophus Cope, Amer. Nat., 12, 1878: 253.

GENEROTYPE.—*Syrrhophus marnockii* Cope.

KEY TO GUATEMALAN SPECIES OF *SYRRHOPHUS*

A small tubercle lying immediately lateral and slightly distal to the large, central, palmar tubercle ..... *pipilans nebulosus*
No such small tubercle present ..... *leprus*

Syrrhophus leprus Cope

Syrrhophus leprus Cope, Proc. Amer. Philos. Soc., 18, 1879: 268; Smith and Taylor, 1948: 51.

TYPE.—USNM 10040. Santa Efigenia, Oaxaca, Mexico.

RANGE.—Low elevations of the Isthmus of Tehuantepec region and southern Veracruz, Mexico, eastward into northern Guatemala.

Syrrhophus pipilans nebulosus Taylor

Syrrhophus nebulosus Taylor, Univ. Kansas Sci. Bull., 29, 1943: 353, pl. 27, figs. 3–5; Smith and Taylor, 1948: 51.
Syrrhophus pipilans nebulosus, Duellman, Occ. Papers Mus. Zool., Univ. Michigan, 594, 1958: 9.

TYPE.—CNHM 100095. Near Tonola, Chiapas, Mexico.

RANGE.—Low and moderate elevations of the Pacific versant of Chiapas, Mexico, and of the valley of the Rio Grijalva into northwestern Guatemala.

Family CENTROLENIDAE

Genus *Cochranella* Taylor

Cochranella Taylor, Proc. Biol. Soc. Washington, 64, 1951: 34.

GENEROTYPE.—*Centrolenella granulosa* Taylor.

Cochranella viridissima Taylor

Centrolenella viridissima Taylor, Univ. Kansas Sci. Bull., 28, 1942: 75, pl. 9, figs. 2–2b.
Cochranella viridissima, Taylor, Proc. Biol. Soc. Washington, 64, 1951: 35.
Centrolenella fleischmanni, Smith and Taylor, 1948: 68 (in part).

TYPE.—CNHM 100093. Agua del Obispo, Guerrero, Mexico.

RANGE.—Low and moderate elevations from Guerrero and Veracruz, Mexico, southward into Guatemala and probably through Honduras and El Salvador.

Family HYLIDAE

KEY TO GUATEMALAN GENERA OF HYLIDAE

1. A projecting, rudimentary prepollex ..... *Plectrohyla* (p. 38)
   No projecting prepollex 2
2. Skin of surface of head co-ossified with cranial bones ..... *Triprion* (p. 42)
   Skin of surface of head not co-ossified with cranial bones 3
3. Skin of dorsum thickened and glandular to give warty appearance; males with paired vocal sacs behind jaw angles ..... *Phrynohyas* (p. 37)
   Skin of dorsum not thickened or warty in appearance 4
4. A distinct and well developed fold extending along forearm onto finger IV; fold with free edge at elbow and frequently throughout its length *Phyllomedusa* (p. 38)
   No distinct fold extending from elbow onto finger IV; a row of tubercles or skin thickened along outer edge of forearm in some species but never free-edged ..... *Hyla, Ptychohyla, Smilisca* (below)

KEY TO GUATEMALAN SPECIES OF *HYLA, PTYCHOHYLA, SMILISCA*

1. A broad axillary web attaching to upper arm almost at elbow 2
   Axillary web absent or at most very inconspicuous 3
2. A strong, tuberculate ridge of thickened skin along outer edge of forearm ..... *Hyla loquax* (below)
   No ridge of thickened skin along forearm ..... *Hyla ebraccata* (below)
3. Upper jaw projecting strongly shelf-like over lower jaw anteriorly ..... *Hyla staufferi* (below)
   Upper jaw not projecting shelf-like over lower jaw 4

4. Greatest diameter of tympanum at least two-thirds the length of eye; thighs generally mottled, spotted, or banded 5
   Tympanum less than two-thirds, and generally less than one-half, eye-length; thighs immaculate, peppered with dark or striped 7
5. Web between toes IV and V attached to toe V not more than midway between distal subarticular tubercle and base of terminal pad ..... *Hyla bocourti* (below)
   Web between toes IV and V attached to toe V at base of terminal pad or very close to same 6
6. Posterior surface of thighs dark with numerous, small, light spots; sides, especially in groin region, with fine, dark reticulations; a distinct light stripe, bordered below by dark, along upper lip; tarsal fold weak; vocal sac of male single ..... *Smilisca phaeota cyanosticta* (p. 42)
   Posterior surface of thighs unicolor, coarsely mottled with dark, coarsely reticulated with dark or with obscure light spots on darker background; groin region of sides weakly but coarsely reticulated or spotted; if light line present on upper lip, this diffused; generally a dark spot or vertical bar beneath eye; tarsal fold strong; paired vocal sacs in males ..... *Smilisca baudini* (p. 41)
7. Web between toes IV and V attached to toe V at level of distal subarticular tubercle ..... *Hyla walkeri* (below)
   Web between toes IV and V attached to toe V well distal of distal subarticular tubercle 8
8. A dark stripe, generally with a narrow light border above, extending from eye, above or through tympanum to varying distances posteriorly on the sides 9
   No dark stripe extending posteriorly from eye 11
9. Upper surface of thighs peppered with dark (seen under lens); dorsum yellow to reddish with scattered darker spots ..... *Hyla picta* (below)
   Upper surface of thighs immaculate or with dark peppering restricted to knee region 10
10. Lateral dark streak from eye generally not extending beyond midbody; dorsum generally with fine, diffused, dark reticulations ..... *Hyla microcephala martini* (below)
    Lateral dark streak from eye generally extending to above groin; dorsum without dark reticulations but occasionally with scattered, small dark spots ..... *Hyla robertmertensi* (below)
11. Webs between fingers poorly developed, those between fingers II and III and between III and IV attached to fingers II and IV, respectively, proximal of distal subarticular tubercles; a distinct white spot or oblique white bar beneath eye; males with paired ventrolateral glands but without nuptial tuberosities on upper surface of thumb ..... *Ptychohyla schmidtorum* (p. 41)
    Webs between fingers well developed, those between fingers II and III and between fingers III and IV attached to fingers II and IV, respectively, either at level of or distal to distal subarticular tubercles; no light spot beneath eye; males with lateral or ventral glands and horny nuptial tuberosities on upper surface of thumb 12
12. Sides with brown mottlings on a lighter background; males with lateral glands and nuptial tuberosities on thumb composed of large, discrete, horny spines ..... *Ptychohyla spinipollex* (p. 41)
    Sides never mottled but frequently with light brown pepperings; males with lateral or ventral glands and nuptial tuberosities on thumb composed of many tiny spines 13

13. Posterior surface of thighs generally immaculate; border of cloacal opening darker than adjacent regions giving appearance of dark anal patch; skin of dorsum somewhat rugose; males with an unpaired chest gland .. *Hyla bromeliacea* (below)
Posterior surface of thighs generally peppered with brown; border of cloacal opening generally not darker than adjacent regions; skin of dorsum smooth; males with paired, lateral glands ..... *Ptychohyla euthysanota* (p. 40)

Genus *Hyla* Laurenti

Hyla Laurenti, Synop. Rept., 1768: 32.

GENEROTYPE.—*Hyla viridus* Laurenti = *Rana arborea* Linnaeus.

(Key to Guatemalan Species of *Hyla*, p. 33)

Hyla bocourti Mocquard

Hyliola bocourti Mocquard, Nouv. Arch. Mus. Hist. Nat., ser. 1, 4, 1899: 341.
Hyla bocourti, Gunther, 1901: 263.
Hyla regilla, Brocchi, 1881: 31, pl. 13, figs. 2–2a.

TYPE.—MNHN 1266 (2), 6370 (6), 6371 (6), 14 syntypes. Alta Verapaz, Guatemala.[6]

RANGE.—Moderate and intermediate elevations of the Caribbean slopes of the mountains of Alta Verapaz and the Sierra de los Cuchumatanes of Guatemala.

Hyla bromeliacea Schmidt

Hyla bromeliacea Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1933: 19.

TYPE.—CNHM 4718. Mountains west of San Pedro Sula, Honduras; 4500 feet.

RANGE.—Moderate and intermediate elevations on the Caribbean slopes of the mountains from western Honduras to the Sierra de los Cuchumatanes, Guatemala.

Hyla ebraccata Cope

Hyla ebraccata Cope, Proc. Acad. Nat. Sci. Phila., 26, 1874: 69; Smith and Taylor, 1948: 84.

TYPE.—ANSP 2079. Nicaragua. Original label states "Machuca"; see Dunn and Stuart (Copeia, 1951: 58).

RANGE.—Lowlands of the Caribbean versant from southern Mexico southward at least to Costa Rica.

[6] Guibe (Catal. Types Amphib. Mus. Nat. Hist. Natur., ND: 18) was in error in citing No. 98–259 (4) as the syntypes of this species (Guibe, *in litt.*) This same error led him to give Tepic, Mexico, as the type locality.

Hyla loquax Gaige and Stuart

Hyla loquax Gaige and Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 281, 1934: 1; Smith and Taylor, 1948: 84.

TYPE.—UMMZ 75446. Ixpuc Aguada, N of La Libertad, El Peten, Guatemala.

RANGE.—Lowlands of the Caribbean versant of northern Central America from Oaxaca, Mexico, into Costa Rica.

Hyla microcephala martini Smith

Hyla microcephala martini Smith, Herpetologica, 7, 1951: 187.
Hyla underwoodi, Smith and Taylor, 1948: 85.

TYPE.—University of Illinois Museum of Natural History 20965. Encarnacion, Campeche, Mexico.

RANGE.—Low and moderate elevations of the Caribbean versant of Central America and Mexico from central Veracruz, Mexico, southward probably to about Nicaragua.

Hyla picta Gunther

Hylella picta Gunther, Biol. Cent.-Amer., 1901: 286, pl. 73, fig. C.
Hyla picta, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 31; Smith and Taylor, 1948: 85.

TYPE.—BMNH 1947.2.22.62. Jalapa, Veracruz, Mexico.

RANGE.—Lowlands from San Luis Potosi, Mexico, southward through northern Guatemala.

Hyla robertmertensi Taylor

Hyla robertmertensi Taylor, Proc. Biol. Soc. Washington, 50, 1937: 43, pl. 2, figs. 3–7; Smith and Taylor, 1948: 84.

TYPE.—CNHM 100096. Near Tapachula, Chiapas, Mexico.

RANGE.—Lowlands of the Pacific versant from the Isthmus of Tehuantepec, Mexico, southward through El Salvador.

Hyla staufferi Cope

Hyla staufferi Cope, Proc. Acad. Nat. Sci. Phila., 17, 1865: 195; Smith and Taylor, 1948: 88.

TYPE.—USNM 15317. Orizaba, Mexico.

RANGE.—Generally distributed over the lowlands and at moderate elevations from Tamaulipas and Guerrero in Mexico southward into lower Central America.

Hyla walkeri Stuart

Hyla walkeri Stuart, Proc. Biol. Soc. Washington, 67, 1954: 165.

TYPE.—UMMZ 106817. Aserradero San Lorenzo (12 km., airline, slightly east of north of Jalapa), Jalapa, Guatemala; 1725 meters.

RANGE.—Intermediate elevations from the Mesa Central of Chiapas, Mexico, across the Guatemalan plateaus to southeastern Guatemala.

Genus *Phrynohyas* Fitzinger

Phrynohyas Fitzinger, Syst. Rept., 1843: 30.

GENEROTYPE.—*Hyla zonata* Spix.

KEY TO GUATEMALAN SPECIES OF *PHRYNOHYAS*

Dorsal pattern of dark blotches on lighter ground color ..... *spilomma*
Dorsal pattern of small dark spots on lighter ground color or with an unmarked, brown dorsum ..... *modesta*

Phrynohyas modesta Taylor and Smith

Acrodytes modesta Taylor and Smith, Proc. U. S. Natl. Mus., 95, 1945: 594, pl. 27, fig. 2 and pl. 28, figs. 2–3; Smith and Taylor, 1948: 74.
Phrynohyas modesta, Duellman, Misc. Pub. Mus. Zool., Univ. Michigan, 96, 1956: 25, pl. 3, fig. 2.

TYPE.—USNM 115013. Cruz de Piedra, near Acacoyagua, Chiapas, Mexico.

RANGE.—From southern Veracruz, Mexico, thence crossing the Isthmus of Tehuantepec and extending along the Pacific coastal plain south to El Salvador.

Phrynohyas spilomma Cope

Hyla spilomma Cope, Proc. Amer. Philos. Soc., 17, 1877: 86.
Hyla paenulata Brocchi, Miss. Sci. Mex., Batr., 1881: 45, pl. 14, figs. 1–1b (type originally in the Museum National d'Histoire Naturelle; now lost, *fide* Guibe *in litt.*; western [southern] versant of Guatemala).
Phrynohyas spilomma, Duellman, Misc. Pub. Mus. Zool., Univ. Michigan, 96, 1956: 28, pl. 4, figs. 1–2.
Hyla lichenosa, Brocchi, 1881: 33, pl. 14, fig. 2.
Acrodytes spilomma, Smith and Taylor, 1948: 75.

TYPE.—Probably originally in the United States National Museum; now lost. Cosamaloapam, Veracruz, Mexico.

RANGE.—Low and moderate elevations from Tamaulipas, Mexico, south to Nicaragua on the eastern versant and from the Isthmus of Tehuantepec, Mexico, to Guatemala along the Pacific.

Genus *Phyllomedusa* Wagler

Phyllomedusa Wagler, Natur. Syst. Amphib., 1830: 201.

GENEROTYPE.—*Rana bicolor* Boddaert.

KEY TO GUATEMALAN SPECIES OF *PHYLLOMEDUSA*

Ground color of dorsum extending over sides to belly and broken by several distinct, oblique, light bars ..... *callidryas taylori*
Ground color of dorsum terminating sharply at edge of dorsum, leaving sides immaculate ..... *moreleti*

Phyllomedusa callidryas taylori Funkhouser

Phyllomedusa callidryas taylori Funkhouser, Occ. Papers Nat. Hist. Mus., Stanford Univ., 5, 1957: 34, fig. 22.
Agalychnis callidryas, Smith and Taylor, 1948: 72.

TYPE.—CNHM 100166. Tierra Colorada, Veracruz, Mexico.

RANGE.—Not definitely known. Low elevations of the Caribbean versant of northern Central America from central Veracruz, Mexico, southward certainly to Honduras.

Phyllomedusa moreleti Dumeril

Hyla moreletii Dumeril, Ann. Sci. Nat., 19, 1853: 169; Brocchi, 1881: 31, pl. 13, fig. 1 (spelled *moreleti*).
Hyla holochlora Salvin, Proc. Zool. Soc. London, 1860: 460, pl. 32, fig. 2 (BMNH 1947.2.24.23; Coban, Guatemala).
Phyllomedusa moreletii, Kellogg, Bull. U. S. Natl. Mus., 160, 1932: 146, figs. 19a, 20a, 20b.
Agalychnis moreletii, Gunther, 1901: 289; Smith and Taylor, 1948: 71.

TYPE.—MNHN 767 (two syntypes). Verapaz, Guatemala.

RANGE.—Moderate elevations from central Veracruz, Mexico, to Costa Rica.

Genus *Plectrohyla* Brocchi

Plectrohyla Brocchi, Bull. Soc. Philom., ser. 7, 1, 1877: 92.
Cauphias Brocchi, Bull. Soc. Philom., ser. 7, 1, 1877: 129 (substitute name for *Plectrohyla* Brocchi 1877; generotype, *Plectrohyla guatemalensis*).

GENEROTYPE.—*Plectrohyla guatemalensis* Brocchi.

KEY TO THE GUATEMALAN SPECIES OF *PLECTROHYLA*

1. Prepollex bifid ..... *guatemalensis*
   Prepollex not bifid 2
2. An inner and outer tarsal fold; outer tarsal fold frequently only poorly developed in peripheral populations ..... *cotzicensis*
   No outer tarsal fold 3

3. Rostrum with a strong vertical keel and snout sharply pointed at junction of rostral keel and canthal edges 4
Rostrum without a strong vertical keel 5
4. Skin of tympanum smooth; limits of tympanum readily discernible ..... *sagorum*
Skin of tympanum pustulose; though position of tympanum evident, its limits not distinct ..... *quecchi*
5. Inner tarsal fold strongly developed, generally with a free edge 6
Inner tarsal fold poorly developed, more of a ridge than a fold ..... *avia*
6. Skin of dorsum strongly pustulose ..... *matudai matudai*
Skin of dorsum smooth ..... *ixil*

Plectrohyla avia Stuart

Plectrohyla avia Stuart, Proc. Biol. Soc. Washington, 65, 1952: 6.

TYPE.—UMMZ 102280. Granja Lorena (about 10 km., airline, NW Colomba), Quezaltenango, Guatemala; 1750 meters.

RANGE.—Intermediate elevations of the Pacific versant of eastern Chiapas, Mexico, and western Guatemala.

Plectrohyla cotzicensis Stuart

Plectrohyta (*sic*, = *Plectrohyla*) *cotzicensis* Stuart, Proc. Biol. Soc. Washington, 61, 1948: 17.

TYPE.—UMMZ 95902. Source of Rio Cuilco on the slopes of Cerro Cotzic about 2 km. NW Ixchiguan, San Marcos, Guatemala; about 3500 meters.

RANGE.—High elevations of the southwestern and southeastern highlands of Guatemala, and the Sierra de los Cuchumatanes.

Plectrohyla guatemalensis Brocchi

Plectrohyla guatemalensis Brocchi, Bull. Soc. Philom., ser. 7, 1, 1877: 92.
Cauphias guatemalensis, Brocchi, Bull. Soc. Philom., ser. 7, 1, 1877: 130; 1882: 62, pl. 12, figs. 3–3c.

TYPE.—MNHN 6332 (two syntypes). Pacicilla [Patzicia, Chimaltenango], Guatemala.

RANGE.—Intermediate elevations of eastern Chiapas, Mexico, Guatemala, and El Salvador.

Plectrohyla ixil Stuart

Plectrohyla ixil Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 455, 1942: 4.

TYPE.—UMMZ 89092. Finca San Francisco about 25 km. NE Nebaj, El Quiche, Guatemala; about 1175 meters.

RANGE.—Known definitely only from the immediate vicinity of the type locality.

Plectrohyla matudai matudai Hartweg

Plectrohyla matudai Hartweg, Occ. Papers Mus. Zool., Univ. Michigan, 437, 1941: 5; Smith and Taylor, 1948: 73.
Plectrohyla matudai matudai, Bumzahem and Smith, Herpetologica, 10, 1954: 63.

TYPE.—UMMZ 88863. Cloud forest on Mt. Ovando, District of Soconusco, Chiapas, Mexico; 1800 meters.

RANGE.—Intermediate elevations of the Sierra Madre of Chiapas, Mexico, the western Sierra de los Cuchumatanes, and the Pacific slopes of Guatemala.

Plectrohyla quecchi Stuart

Plectrohyla quecchi Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 455, 1942: 1.

TYPE.—UMMZ 89086. Barranca Las Palmas about 2 km. N Finca Los Alpes, 43 km., airline, E and slightly S Coban, Alta Verapaz, Guatemala; about 1015 meters.

RANGE.—Moderate and intermediate elevations of Alta Verapaz and the Sierra de los Cuchumatanes and probably of the Mesa Central of Chiapas, Mexico.

Plectrohyla sagorum Hartweg

Plectrohyla sagorum Hartweg, Occ. Papers Mus. Zool., Univ. Michigan, 437, 1941: 2, pl. 1, figs. 1–3; Smith and Taylor, 1948: 73.

TYPE.—UMMZ 88862. Cloud forest on Mt. Ovando, District of Soconusco, Chiapas, Mexico; 1800 meters.

RANGE.—Intermediate and moderate elevations along the Pacific versant of eastern Chiapas and western Guatemala.

Genus *Ptychohyla* Taylor

Ptychohyla Taylor, Univ. Kansas Sci. Bull., 30, 1944: 41.

GENEROTYPE.—*Ptychohyla adipoventris* Taylor = *Hyla leonhard-schultzei* Ahl.

(Key to Guatemalan Species of *Ptychohyla,* p. 33)

Ptychohyla euthysanota Kellogg [7]

Hyla euthysanota Kellogg, Proc. Biol. Soc. Washington, 41, 1928: 123.
Ptychohyla euthysanota, Duellman, Univ. Kansas Publ., Mus. Nat. Hist., 13, 1961: 351.

[7] My colleagues, Charles Walker and William Duellman, have both recently examined the types of *Hyla glandulosa* Boulenger (Ann. Mag. Nat. Hist., ser. 5, 12, 1883: 164; BMNH 1947.2.20.40–41, two syntypes; Guatemala). The specimens are soft and either females or immature males. They may belong to the genus *Ptychohyla* or they could be *Plectrohyla* juveniles.

TYPE.—USNM 73296. Los Esesmiles, Chalatenango, El Salvador; 6400 feet.

RANGE.—Moderate and intermediate elevations of the Pacific versant of Chiapas, Mexico, Guatemala, and El Salvador.

Ptychohyla schmidtorum Stuart

Ptychohyla schmidtorum Stuart, Proc. Biol. Washington, 67, 1954: 170.

TYPE.—CNHM 20755. Finca El Porvenir, 17 km., airline, W San Marcos, San Marcos, Guatemala; [probably 1700–2000 meters].

RANGE.—Intermediate elevations of the Pacific versant from central Chiapas, Mexico, through central Guatemala.

Ptychohyla spinipollex Schmidt[8]

Hyla spinipollex Schmidt, Proc. Biol. Soc. Washington, 49, 1936: 45.
Ptychohyla spinipollex, Duellman, Univ. Kansas Publ., Mus. Nat. Hist., 13, 1961: 351.

TYPE.—MCZ 21300. Mountains behind Ceiba, Atlantida, Honduras.

RANGE.—Moderate and intermediate elevations of the Caribbean versant from northern Honduras to at least eastern Chiapas, Mexico.

Genus *Smilisca* Cope

Smilisca Cope, Proc. Acad. Nat. Sci. Phila., 17, 1865: 194.

GENEROTYPE.—*Smilisca daulinia* Cope = *Hyla baudinii* Dumeril and Bibron.

(Key to Guatemalan Species of *Smilisca,* p. 33)

Smilisca baudini Dumeril and Bibron

Hyla baudinii Dumeril and Bibron, Erpet. Gen., 8, 1841: 564; Brocchi, 1881: 29, pl. 14, figs. 4–4b; Gunther, 1901: 270, pl. 71 (spelled *baudini* in Brocchi and Gunther).
Hyla pansosana Brocchi, Bull. Soc. Philom., ser. 7, 1, 1877: 125 (MNHN 6313; Panzos, Mexico [Guatemala]); Brocchi, 1881: 34, pl. 12, figs. 2–2a.
Smilisca baudinii, Cope, Bull. U. S. Natl. Mus., 1, 1875: 31.
Smilisca baudinii baudinii, Smith and Taylor, 1948: 75.

TYPE.—MNHN 4798. Mexico.

RANGE.—Low and moderate elevations from Texas and Sonora, Mexico, southward into South America.

[8] In 1955 I secured in a small mountain stream in the headwaters of the Rio Grijalva near the village of Jacaltenango, Huehuetenango, Guatemala, tadpoles and juveniles of what I believed to be *Hyla spinipollex.* William Duellman has recently studied this series and has concluded that they are very probably *Ptychohyla macrotympanum* Tanner (*Hyla macrotympanum* Tanner, Gt. Basin Natur., 17, 1957: 52; Brigham Young University 13752; 10 miles E Chiapa de Corzo, Chiapas, Mexico). Though very close to *Ptychohyla spinipollex,* the dark spotting or peppering on the throat, chest, and flanks which characterize that species, is absent in *Ptychohyla macrotympanum.*

Smilisca phaeota cyanosticta Smith

Hyla phaeota cyanosticta Smith, Herpetologica, 8, 1953: 150.
Smilisca phaeota, Starrett, Copeia, 1960; 303, fig. 3.
Hyla phaeota, Smith and Taylor, 1948: 88.

TYPE.—USNM 111147. Piedras Negras, El Peten, Guatemala.

RANGE.—Low elevations of the Caribbean versant from southern Veracruz, Mexico, southward through northern Guatemala possibly to Honduras.

Genus *Triprion* Cope

Triprion Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 127 (substitute name for *Pharyngodon* Cope, 1865, preoccupied).
Pharyngodon Cope, Proc. Acad. Nat. Sci. Phila., 17, 1865: 193 (preoccupied, *Pharyngodon* Diesing, 1861; Nemathelminthes).

GENEROTYPE.—*Pharyngodon petasatus* Cope.

Triprion petasatus Cope

Pharyngodon petasatus Cope, Proc. Acad. Nat. Sci. Phila., 17, 1865: 193.
Triprion petasatus, Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 127; Smith and Taylor, 1948: 70.

TYPE.—USNM 12287. Cenote Pamanche [between Merida and Progreso], near Merida, Yucatan, Mexico.

RANGE.—Lowlands of the Yucatan Peninsula south to central El Peten, Guatemala.

Family MICROHYLIDAE

KEY TO GUATEMALAN GENERA OF MICROHYLIDAE

Very small frogs, adult size rarely exceeding 25 mm. head-body length; toes without even a vestige of web; tips of toes slightly dilated ..... *Gastrophryne* (below)
Larger frogs, adult size generally exceeding 30 mm. head-body length; some or all toes joined by a definite web; tips of toes never dilated ..... *Hypopachus* (p. 43)

Genus *Gastrophryne* Fitzinger

Gastrophryne Fitzinger, Syst. Rept., 1843: 33.

GENEROTYPE.—*Engystoma rugosum* Dumeril and Bibron = *Engystoma carolinensis* Holbrook.

KEY TO GUATEMALAN SPECIES OF *GASTROPHRYNE*

Both an inner and an outer metatarsal tubercle ..... *usta gadovi*
Only an inner metatarsal tubercle ..... *elegans*

Gastrophryne elegans Boulenger

Engystoma elegans Boulenger, Catal. Batr. Sal. Brit. Mus., ed. 2, 1882: 162.
Gastrophryne elegans, Stejneger, Proc. Biol. Soc. Washington, 23, 1910: 166.
Microhyla elegans, Smith and Taylor, 1948: 93.

TYPE.—BMNH 1947.2.11.86. Cordoba, Veracruz, Mexico.

RANGE.—Low and moderate elevations of the Caribbean versant from southern Veracruz, Mexico, to central El Peten, Guatemala.

Gastrophryne usta gadovi Boulenger

Eupemphix gadovii Boulenger, Ann. Mag. Nat. Hist., ser. 7, 12, 1903: 552.
Gastrophryne usta [*gadovi*] by fiat, Stejneger, Proc. Biol. Soc. Washington, 23, 1910: 166.
Microhyla usta gadovii, Smith and Taylor, 1948: 94.

TYPE.—BMNH 1945.12.19.9–11 (three syntypes). San Mateo del Mar, near Tehuantepec, Mexico.

RANGE.—Lowlands of the Pacific versant from Oaxaca, Mexico, to El Salvador.

Genus *Hypopachus* Keferstein

Hypopachus Keferstein, Nachr. Konig. Gesell. Wissen. Gottingen, 1867: 351.

GENEROTYPE.—*Hypopachus seebachii* Keferstein = *Engystoma variolosum* Cope.

KEY TO GUATEMALAN SPECIES OF *HYPOPACHUS*

1. Inner and outer metatarsal tubercles separated by a distance equal to or almost equal to the width of the outer metatarsal tubercle at its base 3
   Inner and outer metatarsal tubercles very close together; separated by a distance equal to about only one-half the width of the outer metatarsal tubercle at its base 2
2. Web between toes II–III and III–IV of males barely visible and in females frequently seen only with aid of lens ..... *cuneus nigroreticulatus*
   Web between toes II–III and III–IV of males broad, extending to at least distal end of proximal phalanx; web much less extensive in females but always clearly visible ..... *championi*
3. Dorsum and upper surfaces of thighs or only upper surfaces of thighs pustulose 4
   Dorsum and upper surfaces of thighs smooth though often covered with tiny spicules that give skin a shagreen texture ..... *inguinalis*
4. Dorsum and upper surfaces of thighs very pustulose; web between toes III–IV of males attached to toe IV about midway up proximal phalanx (somewhat more proximally in females) ..... *barberi*
   Dorsum and upper surfaces of thighs less pustulose, pustules frequently restricted to posterior part of dorsum or confined to upper surfaces of thighs; a mere vestige of a web between toes III–IV ..... *aquae*

Hypopachus aquae Stuart

Hypopachus aquae Stuart, Proc. Biol. Soc. Washington, 65, 1952: 7.

TYPE.—UMMZ 102282. Finca San Rafael at Duenas, Sacatepequez, Guatemala; 1475 meters.

RANGE.—Known definitely only from the type locality but possibly occurring at intermediate elevations along the Pacific versant of eastern Guatemala and El Salvador.[9]

Hypopachus barberi Schmidt

Hypopachus barberi Schmidt, Field Mus. Nat. Hist., zool. ser., 24, 1939: 1, fig. 1.

TYPE.—CNHM 1812. Tecpan, Solola [*lapsus* for Chimaltenango], Guatemala.

RANGE.—Intermediate elevations on the southwestern and southeastern highlands of Guatemala.

Hypopachus championi Stuart

Hypopachus championi Stuart, Proc. Biol. Soc. Washington, 53, 1940: 19.

TYPE.—UMMZ 85533. About 1 km. S San Geronimo (= San Jeronimo), Baja Verapaz, Guatemala.

RANGE.—Moderate elevations from the Grijalva Valley of Chiapas, Mexico, through central Guatemala to southeastern Guatemala and probably El Salvador.[10]

Hypopachus cuneus nigroreticulatus Taylor

Hypopachus cuneus nigroreticulatus Taylor, Univ. Kansas Sci. Bull., 26, 1939: 518, pl. 59; Smith and Taylor, 1948: 96.

TYPE.—CNHM 100064. Encarnacion, Campeche, Mexico.

RANGE.—Lowlands of the Yucatan Peninsula and adjacent Mexico to central El Peten, Guatemala.

[9] Mertens' record of *Hypopachus aquae* from El Salvador (Abh. Senckenb. Naturf. Gesell., 487, 1952: 33, pl. 8, fig. 37) would appear from the description not to be *Hypopachus aquae* but, rather, *Hypopachus championi,* which in eastern Guatemala and apparently also in El Salvador has a darkly reticulate undersurface.

[10] In view of the tremendous variability obtaining in *Hypopachus championi,* it seems not improbable that *Hypopachus maculatus* Taylor (Univ. Kansas Sci. Bull., 26, 1939: 524, pl. 62, figs. E–F and pl. 63, figs. 2–2a; CNHM 100087; near San Ricardo, Chiapas, Mexico) is a synonym of *Hypopachus championi.* Taylor's description appeared November 15, 1940; Stuart's, February 16, 1940.

Hypopachus inguinalis Cope

Hypopachus inguinalis Cope, Proc. Amer. Philos. Soc., 11, 1869: 166; Brocchi, 1882: 91, pl. 10, figs. 3–4 (1881); Gunther, 1900: 211.

Hypopachus simus Stuart, Proc. Biol. Soc. Washington, 54, 1941: 125 (UMMZ 89095; Nebaj, El Quiche, Guatemala; about 1990 meters).[11]

TYPE.—Possibly USNM 6792. Verapaz (near Coban), Guatemala.

RANGE.—Moderate and intermediate elevations of the Caribbean versant of Chiapas, Mexico, and Guatemala to Alta Verapaz.

Family RANIDAE

Genus *Rana* Linnaeus

Rana Linnaeus, Syst. Nat., ed. 10, 1758: 210.

GENEROTYPE.—*Rana temporaria* Linnaeus.

KEY TO GUATEMALAN SPECIES OF *RANA*

1. Dorsum with elongate, gland-like ridges or folds between the prominent dorsolateral folds ..... *pipiens*
   Dorsum without elongate, gland-like ridges or folds between the prominent dorsolateral folds 2
2. Upper surface of tibia with longitudinal, gland-like ridges; tympanum very large, generally at least as broad as distance from anterior border of eye to tip of snout; no conspicuous white streak from nostril to angle of jaws ..... *palmipes*
   Upper surface of tibia smooth or shagreen, without longitudinal, gland-like ridges; tympanum smaller, generally not as broad as distance between anterior border of eye and nostril; a conspicuous white streak from nostril to angle of jaws ..... *macroglossa*

Rana macroglossa Brocchi[12]

Rana macroglossa Brocchi, Bull. Soc. Philom., ser. 7, 1, 1877: 177; Brocchi, 1881: 12, pl. 3, figs. 1–1c.

Rana maculata Brocchi, Bull. Soc. Philom., ser. 7, 1, 1877: 178 (MNHN 6412, three syntypes; Totonicapan, Mexico [Guatemala]); Brocchi, 1881: 13, pl. 3, figs. 2–2c.

[11] Material recently collected from the vicinity of Pueblo Nuevo, Chiapas, Mexico, indicates that for the present *Hypopachus simus* had best be referred to *Hypopachus inguinalis*.

[12] Smith (Herpetologica, 15, 1959: 212–16) claimed privilege of "first reviser" and selected *maculata* over *macroglossa* for this species. I reject this claim on the grounds that his article is no more revisionary in character than was the discussion of Schmidt and Stuart eighteen years previously (Field Mus. Nat. Hist., zool. ser. 24, 1941: 239–41). Inasmuch as *macroglossa* is fairly well entrenched in the literature, a change to the use of *maculata* could only create confusion. Nor do I recognize at this time *Rana maculata krukoffi* Smith (*op. cit.*, paratypic material from Finca El Naranjo, Suchitepequez, Guatemala). If a Pacific versant race of the wide-ranging upland *macroglossa* is to be recognized (on the basis of widely distributed comparative material I would also reject this idea), then *Rana melanosoma* Gunther is available as a name.

Rana melanosoma Gunther, Biol. Cent.-Amer., 1900: 203, pl. 63, fig. B, in part (BMNH 1947.2.2.14–16, three syntypes; Duenas, Guatemala, and Hacienda Rosa de Jerico; 3250 feet).

TYPE.—MNHN 6321 (three syntypes). Plateau of Guatemala.

RANGE.—Moderate and intermediate elevations from Chiapas, Mexico, through Guatemala to El Salvador and northern Honduras.

Rana palmipes Spix

Rana palmipes Spix, Animalia Nova . . . . Braziliam, 1824: 29, pl. 5, fig. 1; Gunther, 1900: 202; Smith and Taylor, 1948: 98.

TYPE.—Formerly Zoologische Sammlung des Bayerischen Staates 963/0; since destroyed. Amazon River.

RANGE.—Low elevations from southern Veracruz and the Isthmus of Tehuantepec, Mexico, to the Amazon Basin of northern Brazil.

Rana pipiens Schreber

Rana pipiens Schreber, Der Naturf. (Halle), 18, 1782: 185, pl. 4; Smith and Taylor, 1948; 98.
Rana lecontei, Brocchi, 1881: 14, pl. 4, figs. 1–1c.
Rana halecina, Brocchi, 1881: 10; Gunther, 1900: 198.

TYPE.—None designated. New York (*fide* Kauffeld, Herpetologica, 1, 1936: 11).

RANGE.—From Canada to Costa Rica. Widespread in Guatemala at low, moderate, and intermediate elevations.

Class REPTILIA

Order TESTUDINES

Family DERMATEMYIDAE

Genus *Dermatemys* Gray

Dermatemys Gray, either, Proc. Zool. Soc. London, 1847: 55, or Ann. Mag. Nat. Hist., 20, 1847: 60.[13]

GENEROTYPE.—*Dermatemys mawii* Gray.

Dermatemys mawei Gray

Dermatemys mawii Gray, either Proc. Zool. Soc. London, 1847: 55, or Ann. Mag. Nat. Hist., 20, 1847: 60;[13] Gunther, 1885: 10; Smith and Taylor, 1950: 19.
Dermatemys salvinii Gray, Proc. Zool. Soc. London, 1870: 715 (BMNH 1946.1.22.96; Guatemala).

[13] I have been unable to determine which of these articles appeared first.

TYPE.—BMNH 1947.3.4.12. South America, in error. Smith and Taylor (*loc. cit.*) suggest restriction to Alvarado, Veracruz, Mexico.

RANGE.—Lowlands of the Caribbean versant from Veracruz, Mexico, southeastward through Guatemala, exclusive of the outer end of the Yucatan Peninsula.

Family CHELYDRIDAE

KEY TO GUATEMALAN GENERA OF CHELYDRIDAE

1. Scutes of plastron and carapace separated by a ligament that crosses bridge ..... *Claudius* (below)
   Scutes of plastron and carapace separated by a series of scutes on bridge 2
2. Length of plastron at least eighty per cent that of carapace ..... *Kinosternon* (p. 48)
   Length of plastron not more than seventy-five per cent that of carapace 3
3. Carapace with three very strong, continuous keels ..... *Staurotypus* (p. 49)
   Carapace without three keels though same sometimes indicated by alignment of low keels on individual scutes ..... *Chelydra* (below)

Genus *Chelydra* Schweigger

Chelydra Schweigger, Konigsb. Arch. Natur. Math., 1, 1812: 292.

GENEROTYPE.—*Chelydra lacertina* Schweigger = *Testudo serpentina* Linnaeus.

Chelydra rossignoni Bocourt

Emysaurus rossignonii Bocourt, Ann. Sci. Nat., ser. 5, 10, 1868: 121; Dumeril and Bocourt, 1870: 18, pl. 5, fig. 2.

Chelydra rossignonii, Cope, Proc. Acad. Nat. Sci. Phila., 24, 1872: 23; Smith and Taylor, 1950: 20.

TYPE.—MNHN 1230. Panzos, near the Rio Polochic, Guatemala.

RANGE.—Lowlands of the Caribbean versant probably from southern Mexico southward at least to Costa Rica.

Genus *Claudius* Cope

Claudius Cope, Proc. Acad. Nat. Sci. Phila., 17, 1865: 187.

GENEROTYPE.—*Claudius angustatus* Cope.

Claudius angustatus Cope

Claudius angustatus Cope, Proc. Acad. Nat. Sci. Phila., 17, 1865: 187, pl. 9; Smith and Taylor, 1950: 26.

TYPE.—USNM 6518, 6525 (two syntypes). Tabasco, Mexico.

RANGE.—Caribbean lowlands from Veracruz, Mexico, through northern Guatemala and into British Honduras.

Genus *Kinosternon* Spix

Kinosternon Spix, Anim. Nova. Testud. Ranarum, 1825: 17, pl. 12.

GENEROTYPE.—*Kinosternon longicaudum* Spix = *Testudo scorpioides* Linnaeus.

KEY TO GUATEMALAN SPECIES OF *KINOSTERNON*

1. Tenth maginal scute higher than supracaudal scute at suture between them ..... *cruentatum cruentatum*
   Tenth marginal and supracaudal scutes of same height 2
2. Anterior lobe of plastron at least thirty per cent longer than middle lobe ..... *leucostomum*
   Anterior lobe of plastron not, or but very slightly, longer (usually shorter) than middle lobe ..... *acutum*

Kinosternon acutum Gray

Kinosternon scorpioides acuta Gray, Synop. Rept., 1831: 34, pl. 7, fig. 1.
Kinosternon acutum, Stejneger, Proc. U. S. Natl. Mus., 90, 1941: 491; Smith and Taylor, 1950: 23.

TYPE.—BMNH 1947.3.4.58. No type locality given. Stejneger (*loc. cit.*) suggests Honduras, which is improbable. More likely the type stemmed from British Honduras (Schmidt, Field Mus. Nat. Hist., zool ser. 22, 1941: 488).

RANGE.—Lowlands of the Caribbean versant from central Veracruz, Mexico, southward through northern Guatemala into British Honduras, but excluding the outer end of the Yucatan Peninsula.

Kinosternon cruentatum cruentatum Dumeril and Bibron

Cinosternon cruentatum Dumeril and Bibron *in* Dumeril and Dumeril, Catal. Method., 1851: 16.
Kinosternon cruentatum [*cruentatum*] by fiat, Wettstein, Sitz. Akad. Wissen. Wien, 143, 1934: 14; Smith and Taylor, 1950: 23.

TYPE.—MNHN 1759. North America.

RANGE.—Lowlands from Tamaulipas, Mexico, to northern Guatemala on the Caribbean versant and to Costa Rica along the Pacific.

Kinosternon leucostomum Dumeril and Bibron

Cinosternon leucostomum Dumeril and Bibron *in* Dumeril and Dumeril, Catal. Method., 1851: 17; Dumeril and Bocourt, 1870: 25; Gunther, 1885: 17, in part, pls. 16–17 (spelled *Cinosternum*); Smith and Taylor, 1950: 25 (spelled *Kinosternon*).

Swanka maculata Gray, Proc. Zool. Soc. London, 1869: 182 (BMNH originally eight syntypes, now five, 1946.1.22.25, 1946.1.22.71–74; Mexico, Verapaz, North America, "Papalco Apoia" [= Cosamaloapam, Mexico]).[14]

Cinosternum cobanum Gunther, Biol. Cent.-Amer., 1885: 18, pl. 18, fig. B (BMNH 1946.1.22.18–19, two syntypes; Coban and Cahabon, Guatemala).

Cinosternum effeldtii, Gunther, 1885: 16.

TYPE.—MNHN 8311, by fiat of restriction of type locality. New Orleans; Mexico; Rio Sumasinta [*sic* = Usumacinta]; North America; Magdalena Valley, Colombia. Also the unknown source of a specimen living in the zoological garden at the time and from which drawings were made and filed in the Museum Library as No. 28. Restricted to the Rio Usumacinta, El Peten, Guatemala, by Schmidt (Field Mus. Nat. Hist., zool. ser., 22, 1941: 488).

RANGE.—Low and moderate elevations of the Caribbean versant from southern Veracruz, Mexico, south to Panama, exclusive of the outer end of the Yucatan Peninsula.

Genus *Staurotypus* Wagler

Staurotypus Wagler, Natur. Syst. Amphib., 1830: 137, pl. 5, figs. 14–15.

Stauremys Gray, Proc. Zool. Soc. London, 1864: 127, originally described as a subgenus of *Staurotypus* and elevated to generic rank by Gray (Proc. Zool. Soc. London, 1869: 180); generotype, *Staurotypus (Stauremys) salvinii* Gray.

GENEROTYPE.—*Terrapene triporcata* Wiegmann.

KEY TO GUATEMALAN SPECIES OF *STAUROTYPUS*

Upper and lower jaws unicolor, olive green; top of head dark and usually unicolor; carapace dark, generally unicolor or obscurely mottled ..... *salvini*

Upper and lower jaws vertically streaked with yellow and olive green; top of head with strong light and dark reticulations; scutes of carapace brownish yellow with radiating streaks and spots of dark brown ..... *triporcatus*

Staurotypus salvini Gray

Staurotypus (Stauremys) salvinii Gray, Proc. Zool. Soc. London, 1864: 127.

Staurotypus salvini, Gunther, 1885: 11 (in part); Smith and Taylor, 1950: 27 (spelled *salvinii).*

TYPE.—BMNH 1946.1.22.79. Huamuchal, Guatemala.

RANGE.—Pacific coastal plain from the Isthmus of Tehuantepec, Mexico, into El Salvador.

[14] Miss Grandison states (*in litt.*) that the "North America" and "Papalco Apoia" specimens are now missing. This is unfortunate since the latter are lectotypes by fiat through restriction of type locality to Cosamaloapam by Smith and Taylor (*loc. cit.)* Two specimens, 1946.1.22.73–74, also from Cosamaloapam, are labelled as types, but do not fit Gray's description of type material.

Staurotypus triporcatus Wiegmann

Terrapene triporcata Wiegmann, Isis, 21, 1828: 364.
Staurotypus salvinii (*nec* Gray), Dumeril and Bocourt, 1870: 22, pl. 5, figs. 3–3a.
Claudius pictus Cope, Proc. Acad. Nat. Sci. Phila., 24, 1872: 26, name proposed for the *Staurotypus salvinii* of Dumeril and Bocourt (MNHN 1589; a tributary of the Rio Polochic, Alta Verapaz, Guatemala).
Staurotypus triporcatus, Wagler, Natur. Syst. Amphib., 1830: 137, pl. 5, figs. 14–15; Smith and Taylor, 1950: 27.

TYPE.—Zoologisches Museum Berlin 127. Rio Alvarado, Mexico.

RANGE.—Caribbean lowlands from Veracruz, Mexico, through the Yucatan Peninsula to extreme southeastern Guatemala.

Family TESTUDINIDAE

KEY TO GUATEMALAN GENERA OF TESTUDINIDAE

Chin and throat immaculate or spotted; toes weakly separated, largely enclosed in flesh with but a narrow web ..... *Geoemyda* (below)
Chin and throat with longitudinal light and dark stripes; toes, especially those of hind feet, well separated and connected by a broad web ..... *Pseudemys* (p. 51)

Genus *Geoemyda* Gray

Geoemyda Gray, Proc. Zool. Soc. London, 1834: 100.

GENEROTYPE.—*Testudo spengleri* Gmelin.

KEY TO GUATEMALAN SPECIES OF *GEOEMYDA*

Bridge between carapace and plastron immaculate yellow ..... *areolata*
Bridge dark brown and generally with lighter mottlings ..... *pulcherrima incisa*

Geoemyda areolata Dumeril and Bibron

Emys areolata Dumeril and Bibron *in* Dumeril and Dumeril, Catal. Method., 1851: 10; Dumeril and Bocourt, 1870: 13; Gunther, 1885: 8, pl. 8, fig. B.
Geoemyda areolata, Wettstein, Sitz. Akad. Wissen. Wien, 143, 1934: 18; Smith and Taylor, 1950: 30.

TYPE.—MNHN 8310. El Peten, Guatemala.

RANGE.—Lowlands of the Caribbean versant from central Veracruz, Mexico, through Guatemala.

Geoemyda pulcherrima incisa Bocourt

Emys incisa Bocourt, Ann, Sci. Nat., ser. 5, 10, 1868: 121.
Geoemyda pulcherrima incisa, Wettstein, Sitz. Akad. Wissen. Wien, 143, 1934: 18; Smith and Taylor, 1950: 30.

TYPE.—MNHN 6217. La Union, El Salvador.

RANGE.—Lowlands of the Pacific versant from the Isthmus of Tehuantepec, Mexico, through El Salvador.

Genus *Pseudemys* Gray

Pseudemys Gray, Catal. Shield Rept., 1855: 33 or Proc. Zool. Soc. London, 1855: 197.[15]

GENEROTYPE.—*Testudo concinna* Le Conte.

KEY TO GUATEMALAN SUBSPECIES OF *PSEUDEMYS*

Snout narrow and pointed; rostrum sloping backwards sharply and overhanging lower jaw; nostrils subterminal ..... *ornata grayi*

Snout broader and rounded; rostrum almost vertical, not overhanging lower jaw; nostrils almost terminal ..... *ornata ornata*

Pseudemys ornata ornata Gray

Emys ornata Gray, Synop. Rept., 1831: 30.

Emys salvinii Gunther, Biol. Cent.-Amer., 1885: 4, pls. 2–3 (BMNH 1946.1.22.76; Guatemala).

Pseudemys ornata ornata, Mertens, Muller and Rust, Bl. Aqu.-Terr.-K., Magdeburg and Stuttgart, 45, 1934: 60 (not seen, *fide* Mertens and Wermuth, Zool. Jahrb., 83, 1955: 364).

Emys venusta, Dumeril and Bocourt, 1870: 13.

Pseudemys scripta ornata, Smith and Taylor, 1950: 31 (in part).

TYPE.—BMNH 1946.1.22.40–41 (two syntypes). Mazatlan, Mexico.

RANGE.—Low elevations from Sinaloa, Mexico, southward to the Isthmus of Tehuantepec along the Pacific, thence crossing the Isthmus to the Caribbean versant and southward to Panama.

Pseudemys ornata grayi Bocourt

Emys grayi (*nec* Gunther, 1869) Bocourt, Ann. Sci. Nat., ser. 5, 10, 1868: 121; Dumeril and Bocourt, 1870: 13, pl. 3, figs. 2–2a.

Emys umbra Bocourt, Jour. Zool., 5, 1876: 26 (substitute name for *Emys grayi* Bocourt, apparently believed by Bocourt to be preoccupied by *Emys grayi* Gunther, Proc. Zool. Soc. London, 1869: 504).

TYPE.—MNHN 67–127. Embayment of the Rio Nagualate, Guatemala.

RANGE.—Low elevations along the Pacific coastal plain from about the Isthmus of Tehuantepec, Mexico, to eastern Guatemala.

[15] I have been unable to determine which of these two appeared first.

Family CHELONIIDAE[16]

KEY TO GUATEMALAN GENERA OF CHELONIIDAE

1. A single pair of prefrontal scutes ..... *Chelonia* (below)
   Two pairs of prefrontal scutes 2
2. Four pairs of lateral (costal) shields ..... *Eretmochelys* (p. 53)
   Five or more pairs of lateral (costal) shields 3
3. Bridge between plastron and carapace with four well differentiated and enlarged inframarginal scutes ..... *Lepidochelys* (p. 53)
   Bridge with but three inframarginal scutes ..... *Caretta* (below)

Genus *Caretta* Rafinesque

Caretta Rafinesque, Specchio Sci. Palermo, 2, 1814: 66 (not seen).

GENEROTYPE.—*Caretta nasuta* Rafinesque = *Testudo caretta* Linnaeus.

Caretta caretta Linnaeus

Testudo caretta Linnaeus, Syst. Nat., ed. 10, 1758: 197.
Caretta caretta, Stejneger, Rept. U. S. Natl. Mus., 1902: 715, fig. 187.
Caretta caretta caretta, Smith and Taylor, 1950: 16.

TYPE.—Unknown. American Islands.

RANGE.—Worldwide tropical and midlatitudinal marine waters, but apparently avoiding the tropical coasts of Pacific America.

Genus *Chelonia* Brongniart

Chelonia Brongniart, Bull. Sci., Soc. Philom., 2, An 8 [Fr. Rev.=1799 or 1800]: 89.

GENEROTYPE.—"les tortues de mar;" restricted to *Testudo mydas* Linnaeus by Latreille (Hist. Nat. Rept., 1, 1802: 22; not seen, *fide* Smith, Fauna Brit. India, Rept. Amphib., 1, 1931: 69).

KEY TO GUATEMALAN SUBSPECIES OF *CHELONIA*

Indentations between marginal scutes of the posterior end of the carapace ... *mydas mydas*
No indentations between marginal scutes of the posterior end of the carapace ..... *mydas agassizi*

[16] Of the marine turtles only *Chelonia mydas agassizi* Bocourt, described from the Pacific coast, is represented in museum collections by Guatemalan specimens. However, Archie Carr of the University of Florida has supplied me with the following data: Dr. Carr has personal sight records of *Chelonia* and *Eretmochelys* in the Puerto Barrios region (Caribbean) and word-of-mouth records (presumably from competent individuals) of *Dermochelys* and *Caretta* from the same locale. Pacific records in addition to *Chelonia* include *Eretmochelys, Lepidochelys,* and *Dermochelys* (all word-of-mouth). It seems not improbable, therefore, that representatives of all five genera of marine testudines visit the Guatemalan coasts at least locally and sporadically. The species and subspecies arrangement presented herein is purely arbitrary and not too consistent. It was inferred to me, as a vague suggestion, by Dr. Carr.

Chelonia mydas mydas Linnaeus

Testudo mydas Linnaeus, Syst. Nat., ed. 10, 1758: 197.
Chelonia mydas mydas, Mertens and Muller, Abh. Senckenb. Naturf. Gesell., 41, 1928: 23.
Chelonia mydas, Smith and Taylor, 1950: 17 (in part).

TYPE.—Zoologiska Institutionen Uppsala 20. The Pelagie Islands and Ascencion Island.

RANGE.—Tropical and subtropical waters of the Atlantic Ocean and its associated seas and gulfs.

Chelonia mydas agassizi Bocourt

Chelonia agassizii Bocourt, Ann. Sci. Nat., ser. 5, 10, 1868: 122; Dumeril and Bocourt, 1870: 26, pl. 6.
[*Chelonia mydas agassizi*] by fiat, Mertens and Muller, Abhand. Senckenb. Naturf. Gesell., 41, 1928: 23.
Chelonia mydas, Smith and Taylor, 1950: 17 (in part).

TYPE.—MNHN 1871–72 (two syntypes). Now misplaced. Embayment of the Rio Nagualate, Guatemala.

RANGE.—Tropical and subtropical portions of the Indo-Pacific seas.

Genus *Eretmochelys* Fitzinger

Eretmochelys Fitzinger, Syst. Rept., 1843: 30.

GENEROTYPE.—*Testudo imbricata* Linnaeus.

Eretmochelys imbricata Linnaeus

Testudo imbricata Linnaeus, Syst. Nat., ed. 12, 1766: 350.
Eretmochelys imbricata, Fitzinger, Syst. Rept., 1843: 30; Smith and Taylor, 1950: 16.

TYPE.—Unknown. American and Asiatic seas.

RANGE.—World-wide in marine waters in tropical and subtropical latitudes in the Southern Hemisphere but extending into midlatitudes in the Northern Hemisphere.

Genus *Lepidochelys* Fitzinger

Lepidochelys Fitzinger, Syst. Rept., 1843: 30.

GENEROTYPE.—*Chelonia olivacea* Eschscholtz.

Lepidochelys olivacea olivacea Eschscholtz

Chelonia olivacea Eschscholtz, Zool. Atlas Abbild. Beschreib. neuer Thier, pt. 1, 1829: 3, pl. 3.
[*Lepidochelys olivacea olivacea*] by fiat, Schmidt, Checklist N. Amer. Amphib. Rept., ed. 6, 1953: 107.

Lepidochelys olivacea, Smith and Taylor, 1950: 15.

TYPE.—Possibly originally in Dorpat (Tartu); present location unknown. Manila Bay, Philippine Islands.

RANGE.—Tropical and subtropical portions of the Indo-Pacific seas.

Family DERMOCHELYIDAE

Genus *Dermochelys* Blainville

Dermochelys Blainville, Bull. Sci., Soc. Philom., 1816: 111 (error in pagination, = 119).

GENEROTYPE.—"Tortue a cuir" = *Testudo coriacea* Linnaeus.

Dermochelys coriacea Linnaeus

Testudo coriacea Linnaeus, Syst. Nat., ed. 12, 1766: 350.
Dermochelys coriacea, Blainville, Bull. Sci., Soc. Philom., 1816: 111 (error in pagination = 119); Smith and Taylor, 1950: 13.

TYPE.—Unknown. Mediterranean and Adriatic Seas.

RANGE.—Tropical, subtropical, and midlatitudinal portions of the Atlantic Ocean and its annectant seas.

Order SAURIA

Family EUBLEPHARIDAE

Genus *Coleonyx* Gray

Coleonyx Gray, Ann. Mag. Nat. Hist., 16, 1845: 162.

GENEROTYPE.—*Coleonyx elegans* Gray.

KEY TO GUATEMALAN SPECIES OF *COLEONYX*

Claws on toes completely hidden in terminal sheath ..... *elegans elegans*
Claws on toes extruding from sheath, readily visible ..... *mitratus*

Coleonyx elegans elegans Gray

Coleonyx elegans Gray, Ann. Mag. Nat. Hist., 16, 1845: 163; Bocourt, 1873: 49, pl. 10, figs. 7–7d, 9; Gunther, 1893: 84 (in part).
Gymnodactylus scapularis A. Dumeril *in* Dumeril and Dumeril, Catal. Method., 1851: 45 (originally in MNHN, now apparently lost; Peten Province, Guatemala).
Coleonyx elegans elegans, Klauber, Trans. San Diego Soc. Nat. Hist., 10, 1945: 191; Smith and Taylor, 1950: 42.

TYPE.—BMNH 1946.8.27.7. Belize [British Honduras].

RANGE.—Low and moderate elevations from central Veracruz, Mexico, on the eastern versant and from the Isthmus of Tehuantepec on the western versant southward through northern and western Guatemala, respectively.

Coleonyx mitratus Peters

Brachydactylus mitratus Peters, Monatsb. Akad. Wissen. Berlin, 1863: 42.
Coleonyx mitratus, Schmidt, Field Mus. Nat. Hist., zool. ser., 12, 1928: 194.

TYPE.—Zoologisches Museum Berlin 4598. Costa Rica.

RANGE.—Low and moderate elevations from eastern Guatemala southward on both coasts through Costa Rica.

Family SPHAERODACTYLIDAE

KEY TO GUATEMALAN GENERA OF SPHAERODACTYLIDAE

Lamellae beneath toes more or less subequal in size, none greatly enlarged ..... *Gonatodes* (below)
Terminal lamellae of toes very much larger than other lamellae . *Sphaerodactylus* (below)

Genus *Gonatodes* Fitzinger

Gonatodes Fitzinger, Syst. Rept., 1843: 91.

GENEROTYPE.—*Gymnodactylus albogularis* Dumeril and Bibron.

Gonatodes fuscus Hallowell

Stenodactylus fuscus Hallowell, Jour. Acad. Nat. Sci. Phila., 3, 1855: 33.
Gonatodes albogularis fuscus, Boulenger, Catal. Lizards Brit. Mus., ed. 2, 1885: 59.
Gonatodes fuscus, Smith and Taylor, 1950: 45.

TYPE.—Originally in ANSP; now apparently lost. Nicaragua.

RANGE.—Lowlands of Central America from Chiapas, Mexico, southward into northern South America. Extensively introduced through the West Indies.

Genus *Sphaerodactylus* Wagler

Sphaerodactylus Wagler, Natur. Syst. Amphib., 1830: 143.

GENEROTYPE.—*Lacerta sputator* Sparrman.

KEY TO GUATEMALAN SPECIES OF *SPHAERODACTYLUS*

Dorsal scales granular, keeled, and juxtaposed ..... *lineolatus*
Dorsal scales flat, smooth, and imbricate ..... *glaucus glaucus*

Sphaerodactylus glaucus glaucus Cope

Sphaerodactylus glaucus Cope, Proc. Acad. Nat. Sci. Phila., 17, 1865: 192; Gunther, 1893: 82.
Sphaerodactylus glaucus glaucus, Smith, Jour. Washington Acad. Sci., 39, 1949: 34; Smith and Taylor, 1950: 53.

TYPE.—USNM 6572, 62995–96 and MCZ 13570 (four syntypes). Merida, Yucatan, Mexico.

RANGE.—Lowlands of the Caribbean versant from southern Veracruz, Mexico, southward and eastward through the Yucatan Peninsula to eastern Guatemala.

Sphaerodactylus lineolatus Lichtenstein[17]

Sphaeriodactylus (sic) lineolatus Lichtenstein, Nomen. Rept. Amphib., 1856: 6.
Sphaerodactylus lineolatus, Bocourt, 1873: 46; Smith and Taylor, 1950: 52.

TYPE.—Originally four syntypes; Zoologisches Museum Berlin 417; lectotype, 417; paratypes, 36297 (3), *fide* H. Wermuth (*in litt.*). Veragoa [presumably Veragua, Panama].

RANGE.—Low elevations from northern Guatemala and British Honduras south to northern South America. Apparently restricted to the Caribbean versant north of Costa Rica.

Family GEKKONIDAE

KEY TO GUATEMALAN GENERA OF GEKKONIDAE

1. Terminal lamellae beneath toes very much larger than other lamellae ..... *Phyllodactylus* (p. 57)
   Lamellae beneath toes more or less subequal in size though broadly expanded laterally 2
2. Dorsum covered with small granular scales of about uniform size ..... *Thecadactylus* (p. 57)
   Dorsum with some enlarged scales dispersed among smaller granular scales ..... *Hemidactylus* (below)

Genus *Hemidactylus* Oken

Hemidact.[*ylus*] Oken, Isis, 1817: 1183, see Loveridge (Bull. Mus. Comp. Zool., Harvard College, 98, 1947: 95).

GENEROTYPE.—*Gecko tuberculosus* Daudin = *Gecko mabouia* Moreau de Jonnes.

Hemidactylus frenatus Schlegel

Hemidactylus frenatus Schlegel *in* Dumeril and Bibron, Erpet. Gen., 3, 1836: 366; Smith and Taylor, 1950: 50.

TYPE.—MNHN 5135 (two syntypes). Java and Timor. Restricted to Java by Loveridge (Bull. Mus. Comp. Zool., Harvard College, 98, 1947: 127).

[17] Taylor (Herpetologica, 12, 1956: 283) and Alvarez del Toro and Smith (*ibid.*, 1962: 101) are of the opinion that *Sphaerodactylus continentalis* Werner (Verhand. k. k. zool.-bot. Gesell. Wien, 1896: 345) is the proper name for the northern Central American population. Pending complete revision, I prefer to retain *lineolatus* (auct.).

RANGE.—Endemic to parts of the Old World tropics but now widely dispersed throughout the tropics. In Guatemala the species has been collected only at Champerico.

Genus *Phyllodactylus* Gray[18]

Phyllodactylus Gray, Spicil. Zool., 1828: 3.

GENEROTYPE.—*Phyllodactylus pulcher* Gray.

KEY TO GUATEMALAN SUBSPECIES OF *PHYLLODACTYLUS*

Number of scales from rear of head to base of tail averaging 36 or fewer along median line; venter pale yellow ..... *tuberculosus tuberculosus*
Number of scales from rear of head to base of tail averaging 37 or more along median line; venter bright ocher ..... *tuberculosus magnus*

Phyllodactylus tuberculosus tuberculosus Wiegmann

Phyllodactylus tuberculosus Wiegmann, Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol., 17, 1834: 241, pl. 18, figs. 2–2a; Gunther, 1890: 80.

TYPE.—Zoologisches Museum Berlin 412 (two syntypes). "Californien." For discussion of type locality see Dixon (Herpetologica, 16, 1960: 1–11).

RANGE.—Low and moderate elevations along the Pacific versant from eastern Guatemala to Costa Rica; occurring locally in the dry basins and valleys of central Guatemala.

Phyllodactylus tuberculosus magnus Taylor

Phyllodactylus magnus Taylor, Univ. Kansas Sci. Bull., 28, 1942: 99, fig. 3.

TYPE.—CNHM 100005. Tierra Colorada, Guerrero, Mexico.

RANGE.—Low and moderate elevations along the Pacific versant from Guerrero, Mexico, into western Guatemala.

Genus *Thecadactylus* Gray

Thecadactylus Gray, Ann. Philos., 10, 1825: 198.

GENEROTYPE.—*Gekko rapicauda* Houttuyn.

Thecadactylus rapicaudus Houttuyn

Gekko rapicauda Houttuyn, Verh. Genoot. Vlissing., 9, 1782: 322, pl. 3, fig. 1.
Thecadactylus rapicaudus, Gray, Ann. Philos., 10, 1825: 198; Smith and Taylor, 1950: 49.

[18] I am indebted to James R. Dixon of the Agricultural and Mechanical College of Texas for advice on the arrangement of Guatemalan *Phyllodactylus.*

TYPE.—Originally in personal collection of Houttuyn; present location unknown (*fide* L. D. Brongersma *in litt.*). West Indies.

RANGE.—Low and moderate elevations of the Caribbean versant of Central America from the Yucatan Peninsula into South America and in the Lesser Antilles.

Family XANTUSIIDAE

Genus *Lepidophyma* A. Dumeril

Lepidophyma A. Dumeril *in* Dumeril and Dumeril, Catal. Method. 1851: 137.
Akleistops Muller, Verh. Natur. Gesell. Basel, 6, 1878: 390, pls. 1–2 (generotype, *Akleistops guatemalensis* Muller).

GENEROTYPE.—*Lepidophyma flavimaculatus* A. Dumeril.

KEY TO SUBSPECIES OF GUATEMALAN *LEPIDOPHYMA*

Femoral pores more than 12 on each side ..... *flavimaculatum flavimaculatum*
Femoral pores fewer than 12 on each side ..... *flavimaculatum smithi*

Lepidophyma flavimaculatum flavimaculatum A. Dumeril

Lepidophyma flavimaculatus A. Dumeril *in* Dumeril and Dumeril, Catal. Method., 1851: 138.
Lepidophyma flavomaculatum flavomaculatum (*sic*), Smith, Proc. U. S. Natl. Mus., 92, 1942: 379; Smith and Taylor, 1950: 152 (spelled *flavimaculata*).
Lepidophyma flavomaculatum, (*sic*) Bocourt, 1878: 306, pl. 20 F, figs. 2–2g.

TYPE.—MNHN 782. Peten [Guatemala].

RANGE.—Low and moderate elevations of the Caribbean versant from Veracruz, Mexico, south possibly to Nicaragua, excluding the outer end of the Yucatan Peninsula.

Lepidophyma flavimaculatum smithi Bocourt[19]

Lepidophyma smithii Bocourt, Jour. Zool., 5, 1876: 17 (reprint pagination); Bocourt, 1878: 309, pl. 20 F, figs. 3–3a, pl. 20 G, figs. 2–2c.
Akleistops guatemalensis Muller, Verhand. Natur. Gesell. Basel, 6, 1878: 390, pls. 1–2 (Naturhistorisches Museum Basel 3750; lectotype selected from among five syntypes by L. Focart, *in litt.*; Mazatenango, Guatemala).
Lepidophyma smithii smithii, Smith and Taylor, 1950: 152.

TYPE.—Six syntypes, MNHN 68–16 (two, Guatemala), 4323 and 76–95 (four, Tehuantepec). Tehuantepec and western Guatemala. Smith (Proc. U. S. Natl. Mus., 92, 1942: 380) suggests restriction to "western Guatemala."

RANGE.—Low elevations of the Pacific versant from eastern Chiapas, Mexico, into El Salvador.

[19] My colleague, Charles F. Walker, following considerable study of this genus, informs me that this is the proper combination.

Family IGUANIDAE

KEY TO GUATEMALAN GENERA OF IGUANIDAE

1. Femoral pores present 2
   Femoral pores absent 5
2. Dorsal and lateral surfaces of tail with whorls of enlarged scales separated by smaller granular scales 3
   Scales of tail (except middorsal row) more or less uniform in size, never conspicuous whorls of enlarged scales 4
3. A patch of enlarged, strongly keeled scales on outer surface of lower leg ..... *Enyaliosaurus* (p. 68)
   No conspicuous patch of enlarged scales on outer surface of lower leg ..... *Ctenosaura* (p. 67)
4. A well developed longitudinal chin fold ..... *Iguana* (p. 68)
   No longitudinal chin fold ..... *Sceloporus* (p. 69)
5. Head either produced posteriorly to overhang neck or with a dorsal crest (except in juveniles) 6
   Head neither produced posteriorly to overhang neck nor with any crest ..... *Anolis* (below)
6. No dorsal crest but head produced posteriorly to overhang neck .. *Laemanctus* (p. 68)
   Head with a dorsal crest which may continue onto body 7
7. Ventral scales on body large, numbering fewer than 35 between the levels of axilla and groin ..... *Corythophanes* (p. 66)
   Ventral scales smaller, numbering at least 40 between axilla and groin levels ..... *Basiliscus* (p. 66)

Genus *Anolis* Daudin[20]

Anolis Daudin, Hist. Nat. Rept., 4, An X [Fr. Rev. = 1801 or 1802]: 50.

GENEROTYPE.—*Anolis bullaris* Daudin = *Anolis carolinensis* Voigt, *fide* Stejneger and Barbour (Checklist N. Amer. Amphib. Rept., 1917: 44).[21]

[20] Not included herein are *Anolis bouvieri* Bocourt, *Anolis salvini* Boulenger, and *Anolis godmani* Boulenger. For a discussion of the first two see Stuart (Misc. Pub. Mus. Zool., Univ. Michigan, 91, 1955: 29–30). Since the Guatemalan syntypes of *Anolis godmani* were reported (Boulenger, Catal. Lizards Brit. Mus., 2, 1885: 85–86), no *Anolis* resembling that species has been secured north of Honduras. It is possible that the Guatemalan syntypes carried incorrect locality data or that they belong to some other Guatemalan species and are not conspecific with the Costa Rican syntypes of *Anolis godmani*.

[21] I have never understood the reasoning through which Stejneger and Barbour arrived at this conclusion. Daudin allocated eight species and one variety to his genus *Anolis*. Page priority could dictate *Lacerta bimaculata* Sparrman as generotype. If *bullaris*, a Linnaean (ed. 10) and not a Daudin name, is to be considered the generotype, it is inconceivable that *carolinensis* of 1832 should have priority over *bullaris* either of Linnaeus 1758 or of Daudin 1801 or 1802. I posed this question to my friend, the late Karl Schmidt. I do not believe that he would have objected to my quoting his pungent reply (*in litt.* June 9, 1954):

"If you will note p. 114 in the latest *Check List* [1953] you will see that the author (better, compiler) could not understand why *carolinensis* 1832 should be the type of *Anolis* 1803, and that he was careful to shed the responsibility in this case with the note

KEY TO GUATEMALAN SPECIES OF *ANOLIS*

1. Tail strongly compressed; middorsal scales of tail strongly keeled and forming a low crest ..... *sagrei sagrei*
   Tail round or ovoid in cross section, never strongly compressed 2
2. Lower leg[22] greatly exceeding in length the distance between the tip of snout and the auricular opening ..... *capito*
   Lower leg not or but only slightly longer than distance between tip of snout and auricular opening 3
3. Midventral scales at midbody very weakly keeled, subconical, pearl-like, or smooth and flat, never strongly keeled 4
   Midventral scales at midbody distinctly and often strongly keeled 6
4. Lower leg considerably shorter than distance between tip of snout and posterior border of eye ..... *pentaprion beckeri*
   Lower leg just short of or longer than distance between tip of snout and posterior border of eye 5
5. Loreal rows above suture between labials four and five, 7–8; chest scales with low, weak keels ..... *cobanensis*
   Loreal rows above suture between labials four and five, 5–6; chest scales smooth ..... *limifrons rodriguezi*
6. Six to twelve rows of enlarged dorsal scales strongly and abruptly differentiated from lateral scales 7
   Enlarged dorsal scales, if present, grading into laterals 10
7. Lower leg as long as distance from tip of snout to auricular opening ..... *tropidonotus tropidonotus*
   Lower leg shorter than distance from tip of snout to auricular opening 8
8. Dorsal scales about 50 per cent larger than ventrals ..... *humilis uniformis*
   Dorsal scales smaller than ventrals 9
9. Dorsal scales generally less than 48 between levels of axilla and groin ..... *crassulus crassulus*
   Dorsal scales generally more than 50 between levels of axilla and groin ..... *crassulus haguei*
10. Generally six or more longitudinal rows of enlarged dorsal scales distinctly differentiated from laterals 11
    Dorsal scales if definitely differentiated from laterals confined to but two to four longitudinal rows 12
11. Enlarged supraoculars and scales of frontal depression generally keeled or rugose ..... *sericeus*
    Enlarged supraoculars and scales of frontal depression generally smooth ..... *ustus*
12. Lower leg shorter than distance from tip of snout to posterior border of eye 13
    Lower leg at least as long as distance from tip of snout to posterior border of eye 14

'fide Stejneger and Barbour, 1917. . . . .' The problem you raise could make a nice Ph.D. thesis for a nomenclaturist (Nomenclature, divorced from Zoology), especially, if, like Stejneger, he entered zoology from the School of Law."

[22] The length of the lower leg equals the distance between the angle of the knee formed by the head of the tibia and the angle betwen ankle and foot formed at the proximal end of metatarsal V. Each of these points is readily visible externally when the tibia is bent at a right angle to the femur and the foot at a right angle to the tibia, respectively.

13. Upper head scales rugose; more than 60 scales along vertebral line between axilla and groin levels ..... *nannodes*
Upper head scales almost smooth; less than 60 scales along vertebral line between axilla and groin levels ..... *laeviventris*
14. Lower leg just equal to or barely exceeding distance between tip of snout and posterior border of eye 15
Lower leg greatly exceeding distance between tip of snout and posterior border of eye 16
15. Ventral scales between axilla and groin levels more than 60 ..... *petersi*
Ventral scales between axilla and groin levels less than 60 ..... *biporcatus*
16. Lower leg generally shorter than distance from tip of snout to auricular opening; upper head scales, especially in the frontal region, tricarinate in appearance; small species, never exceeding about 40 mm. head-body length ..... *dollfusianus*
Lower leg generally at least as long as distance from tip of snout to auricular opening; larger species, adults generally exceeding 40 mm. head-body length 17
17. Supraorbital semicircles generally in contact though occasionally separated by one or even two rows of scales ..... *lemurinus lemurinus*
Supraorbital semicircles generally separated by at least one and more frequently two rows of scales 18
18. Occipital plate generally separated from nearest scale of supraorbital semicircles by two or three scales; adults generally less than 50 mm. head-body length.... *cupreus*
Occipital plate occasionally separated from nearest scale of supraorbital semicircles by three but most frequently by four scales; adults generally more than 50 mm. head-body length ..... *lemurinus bourgeaei*

Anolis biporcatus Wiegmann

Dactyloa biporcata Wiegmann, Herpet. Mex., 1834: 47.
Anolis copei Bocourt, Miss. Sci. Mex., Rept., 1873: 77, pl. 15, figs. 10–10a (MNHN 2426; Santa Rosa de Pansos, Guatemala); Gunther, 1885: 47 (spelled *copii*).
Anolis biporcatus, Schmidt, Field Mus. Nat. Hist., zool. ser., 22, 1941: 491; Smith and Taylor, 1950: 65.

TYPE.—Zoologisches Museum Berlin 524. Mexico.

RANGE.—Low and moderate elevations of the Caribbean versant from Chiapas, Mexico, southward at least to Panama.

Anolis capito Peters

Anolis (Draconura) capito Peters, Monatsb. Akad. Wissen. Berlin, 1863: 142; Bocourt, 1873: 101, pl. 16, fig. 27 (1874).
Anolis carneus Cope, Proc. Acad. Nat. Sci. Phila., 16, 1864: 171 (BMNH 1946.8.8.40; lower Verapaz forests [lowland forests of Alta Verapaz, Guatemala]).
Anolis capito, Gunther, 1885: 52; Smith and Taylor, 1950: 65.

TYPE.—Zoologisches Museum Berlin 4684; originally two syntypes; lectotype, 4684; paratype, 36298, *fide* H. Wermuth (*in litt.*). Costa Rica.

RANGE.—Low and moderate elevations of the Caribbean versant from Tabasco, Mexico, to Panama (possibly on both versants in the south).

Anolis cobanensis Stuart

Anolis cobanensis Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 464, 1942: 6.
Anolis schiedii (*nec* Wiegmann), Bocourt, 1873: 64 (in part).

TYPE.—UMMZ 90232. Three km. S Finca Samac (6 km. airline W Coban), Alta Verapaz, Guatemala; about 1350 meters.

RANGE.—Moderate and intermediate elevations in the mountains of Alta Verapaz, Guatemala, to Chiapas, Mexico.

Anolis crassulus crassulus Cope

Anolis crassulus Cope, Proc. Acad. Nat. Sci. Phila., 16, 1864: 173; Bocourt, 1873: 82, pl. 16, fig. 17 (1874).
Anolis crassulus [*crassulus*] by fiat, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 47.

TYPE.—Originally probably seven syntypes (two subsequently sent to the British Museum, Natural History); now five lectosyntypes, ANSP 8023–27 (designated by Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 464, 1942: 2). Central Guatemala and Coban (restricted to Central Guatemala, Stuart, *loc. cit.*)

RANGE.—Intermediate elevations on the Plateau of Guatemala exclusive of Alta Verapaz.

Anolis crassulus haguei Stuart

Anolis haguei Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 464, 1942: 3.
Anolis crassulus haguei, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 47.
Anolis crassulus, Gunther, 1885: 50, pl. 27, fig. F (in part).

TYPE.—UMMZ 90226. Two km. S Finca Chichen (about 9 km. airline S Coban), Alta Verapaz, Guatemala; about 1750 meters.

RANGE.—Though known only from the type locality, this race probably occurs through the mountains of Alta Verapaz at intermediate elevations.

Anolis cupreus Hallowell

Anolis cupreus Hallowell, Proc. Acad. Nat. Sci. Phila., 12, 1860: 481; Gunther, 1885: 50 (probably in part).
Anolis macrophallus Werner, Jahr. Hamburg. Wissen. Anst., 34, 1917: 31 (holotype originally in the Zoologisches Museum Hamburg; destroyed during World War II; San Jose, Guatemala).

TYPE.—Fourteen syntypes; USNM 12211 (11), MCZ 17631–32, and University of Illinois Museum of Natural History 40733. Nicaragua.

RANGE.—Low and moderate elevations along the Pacific versant from eastern Guatemala through Costa Rica.

Anolis dollfusianus Bocourt

Anolis dollfusianus Bocourt, Miss. Sci. Mex., Rept., 1873: 84, pl. 16, figs. 19–19a (1874).

TYPE.—MNHN 2435 (four syntypes). San Agustin on slopes of Volcan Atitlan; about 1200 meters.

RANGE.—Moderate elevations along the Pacific versant from eastern Chiapas, Mexico, to western Guatemala.

Anolis humilis uniformis Cope

Anolis uniformis Cope, Proc. Amer. Philos. Soc., 22, 1885: 392; Gunther, 1885: 51 (in part).

Anolis ruthveni Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 310, 1935: 1 (UMMZ 76622; 2 miles N Santa Teresa, El Peten, Guatemala).

Anolis humilis uniformis, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 48; Smith and Taylor, 1950: 60.

Anolis humilis, Gunther, 1885: 50.

TYPE.—Twenty-four syntypes; USNM 24859 (Yucatan), and 6774 (6), 24734–48, 24750 (Guatemala), MCZ 10933 (Guatemala). Yucatan and Guatemala.

RANGE.—Lowlands from Chiapas, Mexico, through the central and southern portions of the Yucatan Peninsula and northern Guatemala to northern Honduras.

Anolis laeviventris Wiegmann

D[actyloa] (A[nolis]) laeviventris, Wiegmann, Herpet. Mex., 1834: 47.

Anolis laeviventris, Peters, Monatsb. Akad. Wissen. Berlin, 1863: 141; Smith and Taylor, 1950: 62.

TYPE.—Zoologisches Museum Berlin 525. Mexico (restricted to Jalapa, Veracruz; Smith and Taylor, *loc. cit.*: 63).

RANGE.—Moderate and intermediate elevations from central Veracruz, Mexico, through the uplands of Chiapas, Mexico, into northwestern Guatemala.

Anolis lemurinus lemurinus Cope

Anolis (Gastrotropis) lemurinus Cope, Proc. Acad. Nat. Sci. Phila., 13, 1861: 213.

Anolis lemurinus [lemurinus] by fiat, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 49.

Anolis biporcatus, Gunther, 1885: 52 (in part).

TYPE.—Originally in ANSP; now apparently lost. Veragua, Panama.

RANGE.—Low and moderate elevations of the Caribbean versant from Honduras south to Panama and along the Pacific versant from eastern Chiapas, Mexico, through El Salvador.

Anolis lemurinus bourgeaei Bocourt

Anolis bourgeaei Bocourt, Miss. Sci. Mex., Rept., 1873: 76, pl. 15, fig. 9; Gunther, 1885: 48, in part (spelled *bourgeaui*).

Anolis ustus veraepacis Barbour, Proc. New England Zool. Club, 12, 1932: 98 (MCZ 32324; Hacienda Chimoxan, Alta Verapaz, Guatemala).

Anolis lemurinus bourgeaei, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 49; Smith and Taylor, 1950: 66.

Anolis biporcatus, Bocourt, 1873: 98, pl. 15, figs. 8–8a.

TYPE.—Two syntypes; MNHN 2408 (Orizaba, Mexico) and Zoologisches Museum Berlin 6751 (Huatusco, Mexico). Orizaba and Huatusco, Veracruz, Mexico.

RANGE.—Low and moderate elevations of the Caribbean versant from central Veracruz, Mexico, to northern Honduras.

Anolis limifrons rodriguezi Bocourt

Anolis rodriguezii Bocourt, Miss. Sci. Mex., Rept., 1873: 62, pl. 13, fig. 1–1a.

Anolis aureolus Cope, Proc. Amer. Philos. Soc., 22, 1885: 390 (Guatemalan syntypes, USNM 24850–51).

Anolis limifrons rodriguezii, Stuart, Misc. Pub. Mus Zool., Univ. Michigan, 69, 1948: 49 (*spelled rodriquezii*); Smith and Taylor, 1950: 64.

TYPE.—MNHN 2411. Panzos, Guatemala.

RANGE.—Low elevations of the Caribbean versant from the Isthmus of Tehuantepec, Mexico, to Honduras.

Anolis nannodes Cope

Anolis nannodes Cope, Proc. Acad. Nat. Sci. Phila., 16, 1864: 173; Bocourt, 1873: 71, pl. 15, fig. 5.

Anolis cortezi Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 464, 1942: 8 (UMMZ 90542; Finca Los Alpes, about 35 km. E and slightly S of Coban, Alta Verapaz, Guatemala; about 1015 meters).

Anolis stuarti Smith and Taylor, Bull. U. S. Natl. Mus., 199, 1950: 63 (new name for BMNH, syntypes of *Anolis nannodes* from Coban, 1946.8.5.66–67. For discussion, see Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 91, 1955: 20).

Anolis intermedius, Gunther, 1885: 49 (in part).

TYPE.—BMNH 1946.8.5.66–67; two lectosyntypes designated by Stuart (Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 50). Coban, Alta Verapaz, Guatemala; "Arriba," Costa Rica, and Jalapa, Mexico. Restricted by fiat to Coban, Alta Verapaz, Guatemala (Stuart, *op. cit.,* 1948: 50).

RANGE.—Moderate and intermediate elevations of the Caribbean versant from possibly Chiapas, Mexico, to the mountains of Alta Verapaz, Guatemala.

Anolis pentaprion beckeri Boulenger

Anolis beckeri Boulenger, Proc. Zool. Soc. London, 1881: 921; Smith and Taylor, 1950: 62.
Anolis pentaprion beckeri, Stuart. Contrib. Lab. Vert. Biol., Univ. Michigan, 75, 1958: 21.
Anolis pentaprion, Smith and Taylor, 1950: 61.

TYPE.—Institut Royal des Sciences Naturelles de Belgique I. G. 4414, Rg. No. 877 (two syntypes). Yucatan.

RANGE.—Low elevations of the Caribbean versant from Chiapas, Mexico, to Honduras.

Anolis petersi Bocourt

Anolis petersii Bocourt, Miss. Sci. Mex., Rept., 1873: 79, pl. 13, fig. 2, pl. 15, fig. 11; Smith and Taylor, 1950: 65.
Anolis petersii bivittata Werner, Verhand k. k. zool.-bot. Gesell. Wien, 1896: 351 (Zoologische Sammlung des Bayerischen Staates 476/0; Guatemala).

TYPE.—MNHN 2479 (two syntypes). Guatemala.

RANGE.—Moderate elevations along the Caribbean versant from San Luis Potosi, Mexico, and on the Pacific from the Isthmus of Tehuantepec, Mexico, south to Honduras.

Anolis sagrei sagrei Dumeril and Bibron

Anolis sagrei Dumeril and Bibron, Erpet. Gen., 4, 1837: 149; Gunther, 1885: 45 (spelled *sagrae*).
Anolis sagrei sagrei, Oliver, Amer. Mus. Novit., 1383, 1948: 23.
Anolis sagrei mayensis, Smith and Taylor, 1950: 59 (for discussion see Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 91, 1955: 22).

TYPE.—MNHN 2430 and 6797 (five syntypes). Cuba.

RANGE.—On the mainland along the immediate coast of the Gulf of Mexico and the Caribbean Sea from Tabasco, Mexico, to South America.

Anolis sericeus Hallowell

Anolis sericeus Hallowell, Proc. Acad. Nat. Sci. Phila., 8, 1856: 227; Smith and Taylor, 1950: 67.
Anolis sallaei, Bocourt, 1873: 90, pl. 13, fig. 3 and pl. 16, figs. 21–21b (1874); Gunther, 1885: 49, pl. 27, fig. B.

TYPE.—Originally in ANSP; now apparently lost. Jalapa, Veracruz, Mexico.

RANGE.—Low and moderate elevations from Tamaulipas, Mexico, on the east and the Isthmus of Tehuantepec, Mexico, on the west south to Nicaragua. For an extended discussion of this species see Stuart (Misc. Pub. Mus. Zool., Univ. Michigan, 91, 1955: 22–27).

Anolis tropidonotus tropidonotus Peters

Anolis tropidonotus Peters, Monatsb. Akad. Wissen. Berlin, 1863: 135; Bocourt, 1873: 103, pl. 13, figs. 6–6a and pl. 16, fig. 30 (1874); Smith and Taylor, 1950: 60.
Anolis tropidonotus tropidonotus, Alvarez del Toro and Smith, Herpetologica, 12, 1956: 9.

TYPE.—Zoologisches Museum Berlin originally two syntypes; lectotype, 382; paratype, 36299, *fide* H. Wermuth (*in litt.*). Huanusco [? = Huatusco], Veracruz, Mexico.

RANGE.—Lowlands of the Caribbean versant from Veracruz, Mexico, to Honduras.

Anolis ustus Cope

Anolis ustus Cope, Proc. Acad. Nat. Sci. Phila., 16, 1864: 172; Smith and Taylor, 1950: 66.

TYPE.—BMNH 1946.8.5.60–61 (two syntypes). Belize, British Honduras.

RANGE.—The Yucatan Peninsula of Mexico and northern British Honduras, and El Peten, Guatemala.

Genus *Basiliscus* Laurenti

Basiliscus Laurenti, Synop. Rept., 1768: 50.

GENEROTYPE.—*Basiliscus americanus* Laurenti = *Lacerta basiliscus* Linnaeus.

Basiliscus vittatus Wiegmann

Basiliscus vittatus Wiegmann, Isis, 21, 1828: 373; Bocourt, 1874: 129, pl. 17, fig. 3; Gunther, 1885: 55, pl. 28; Smith and Taylor, 1950: 71.

TYPE.—Zoologisches Museum Berlin 549. Mexico.

RANGE.—Low and moderate elevations from Jalisco and Tamaulipas, Mexico, south to Panama.

Genus *Corythophanes* Boie

Corytophanes [*Corythophanes*] Boie *in* Schlegel, Isis, 20, 1827: 290.

GENEROTYPE.—*Agama cristata* Merrem.

KEY TO GUATEMALAN SPECIES OF *CORYTHOPHANES*

1. Head crest not continuous with dorsal body crest; broken over shoulders . . *hernandezi*
   Head crest continuous with dorsal body crest 2
2. Scales on upper surface of head smooth or no more than very slightly knobby . . . . . *cristatus*
   Scales on upper surface of head extremely rugose . . . . . *percarinatus*

Corythophanes cristatus Merrem

Agama cristata Merrem, Syst. Amphib., 1820: 50.
[*Corytophanes*] *cristata,* Boie *in* Schlegel, Isis, 20, 1827: 290.

Corythophanes cristatus, Bocourt, 1874: 118; Gunther, 1885: 53; Smith and Taylor, 1950: 69.

TYPE.—Unknown. Possibly Seba, I, Tab. 94, fig. 4. Ceylon (in error). Smith and Taylor (1950: 69) suggest that the type locality be restricted to Orizaba, Veracruz, Mexico.

RANGE.—Low and moderate elevations of the Caribbean versant from central Veracruz, Mexico, to Costa Rica. Apparently occurring locally on the Pacific versant in the south.

Corythophanes hernandezi Wiegmann

Chamaeleopsis hernandesii Wiegmann *in* Gray *in* Griffith, Cuvier's *Animal Kingdom,* 9, 1831: Synop. 45.

Corythophanes hernandezii, Lichtenstein, Nomen. Rept. Amphib., 1856: 8; Smith and Taylor, 1950: 68.

TYPE.—Zoologisches Museum Berlin 545. Mexico.

RANGE.—Low and moderate elevations of the Caribbean versant from central Veracruz, Mexico, through Guatemala.

Corythophanes percarinatus Dumeril

Corythophanes percarinatus Dumeril, Arch. Mus. Hist. Nat., 8, 1856: 518, pl. 20, figs. 3–3a; Bocourt, 1874: 120, pl. 17, fig. 2; Gunther, 1885: 53; Smith and Taylor, 1950: 69.

TYPE.—MNHN 2117. "Ascuintla [Escuintla] in Central America, 30 leagues from Guatemala." [23]

RANGE.—Low and moderate elevations of both the Caribbean and Pacific versants from the Isthmus of Tehuantepec, Mexico, south through northern Guatemala on the Caribbean and to El Salvador on the Pacific.

Genus *Ctenosaura* Wiegmann

Ctenosaura Wiegmann, Isis, 21, 1828: 371.

GENEROTYPE.—*Ctenosaura cycluroides* Wiegmann = *Lacerta acanthura* Shaw.

Ctenosaura similis similis Gray

Iguana (Ctenosaura) similis Gray *in* Griffith, Cuvier's *Animal Kingdom,* 9, 1831: Synop. 38.

Ctenosaura completa Bocourt, Miss. Sci. Mex., Rept., 1874: 145. According to Bocourt at least one of the four syntypes was collected in Guatemala. Guibe (Catal. Types Lezards, N.D.; 42) states that all syntypes now bear locality data, El Salvador (MNHN 2252, 2256, 6499, 6500); Gunther, 1890: 58, pls. 29–30.

[23] According to Bocourt (*op. cit.*: 121) the type was collected by Morelet at Escuintla, Guatemala. It appears, therefore, that the "30 leagues" is a *lapsus* for "30 kilometers" which is a reasonable though underestimate of the distance between Guatemala City and Escuintla.

Ctenosaura similis similis, Barbour and Shreve, Occ. Papers Boston Soc. Nat. Hist., 8, 1934: 197; Smith and Taylor, 1950: 73.

TYPE.—Location unknown. No type locality given, but restricted to Tela, Honduras, by Bailey (Proc. U. S. Natl. Mus., 73, 1928: 32).

RANGE.—Low and moderate elevations from the Isthmus of Tehuantepec, Mexico, south to Panama.

Genus *Enyaliosaurus* Gray

Enyaliosaurus Gray, Catal. Lizards Brit. Mus., 1845: 192.

GENEROTYPE.—*Cyclura quinquecarinata* Gray

Enyaliosaurus palearis Stejneger

Ctenosaura palearis Stejneger, Proc. U. S. Natl. Mus., 21, 1899: 381.
Enyaliosaurus palearis by fiat, Smith and Taylor, 1950: 76 (nominal mention).

TYPE.—USNM 22703. Gualan, Guatemala.

RANGE.—Known only from low elevations in the drier portions of the valley of the Rio Motagua in Guatemala and from the Matagalpa region of northwestern Nicaragua.

Genus *Iguana* Laurenti

Iguana Laurenti, Synop. Rept., 1768: 47.

GENEROTYPE.—*Iguana tuberculata* Laurenti = *Lacerta iguana* Linnaeus.

Iguana iguana rhinolopha Wiegmann

Iguana (Hypsilophus) rhinolophus Wiegmann, Herpet. Mex., 1834: 44.
Iguana igvana rhinolopha (sic), Van Denburgh, Proc. Acad. Nat. Sci. Phila., 49, 1897: 461; Smith and Taylor, 1950: 72.
Iguana rhinolophus, Gunther, 1885: 56.
Iguana tuberculata, Gunther, 1885: 56 (in part).

TYPE.—Originally two syntypes, Zoologisches Museum Berlin 571; lectotype 571; paratype 36300, *fide* H. Wermuth *(in litt.).* Mexico.

RANGE.—Low elevations from Sinaloa and Veracruz in Mexico south to Panama.

Genus *Laemanctus* Wiegmann

Laemanctus Wiegmann, Herpet. Mex., 1834: 16 and 45, pl. 4.

GENEROTYPE.—*Laemanctus longipes* Wiegmann.

Laemanctus deborrei Boulenger

Laemanctus deborrei Boulenger, Bull. Soc. Zool. France, 2, 1877: 465, pl. 7, fig. 1; Gunther, 1885: 54 (spelled *deborrii);* Smith and Taylor, 1950: 71.

TYPE.—Institut Royal des Sciences Naturelles de Belgique I. G. No. 1939, Reg. Nos. 869 and 869B (two syntypes). Tabasco, Mexico.

RANGE.—Low and moderate elevations from Tabasco, Mexico, to northwestern Honduras.

Genus *Sceloporus* Wiegmann

Sceloporus Wiegmann, Isis, 21, 1828: 369.

GENEROTYPE.—*Sceloporus torquatus* Wiegmann.

KEY TO GUATEMALAN SPECIES OF *SCELOPORUS*

1. A post-femoral dermal pocket 2
   No post-femoral dermal pocket 4
2. Dorsal scales (occiput to above posterior margins of thighs) usually less than 48 ..... *teapensis*
   Dorsal scales usually more than 48 3
3. Femoral pores generally totalling more than 20 ..... *variabilis variabilis*
   Femoral pores generally totalling less than 20 ..... *variabilis olloporus*
4. Dorsal pattern such as to give impression of a dorsolateral light stripe on either side 5
   Dorsal pattern extremely variable but never giving impression of a dorsolateral light stripe on either side 8
5. Femoral pores totalling more than 25 ..... *chrysostictus*
   Femoral pores totalling less than 25 6
6. Two canthal scales ..... *siniferus siniferus*
   A single canthal scale 7
7. Femoral pores totalling more than 12 ..... *carinatus*
   Femoral pores totalling fewer than 12 ..... *squamosus*
8. A dark collar on sides of neck and in some instances complete across shoulders and unbroken middorsally 9
   No dark collar; a conspicuous dark nape patch ..... *melanorhinus stuarti*
9. A single canthal on each side 10
   Two canthals on each side 11
10. Supraorbitals in two rows ..... *malachiticus smaragdinus*
    Supraorbitals in a single row ..... *acanthinus lunaei*
11. More than 35 dorsal scales between interparietal and posterior level of thighs 12
    Fewer than 35 dorsal scales between interparietal and posterior level of thighs 13
12. Supraorbitals in a single row ..... *acanthinus acanthinus*
    Supraorbitals in two rows ..... *malachiticus taeniocnemis*
13. Parietals and frequently frontoparietals separated from posterior supraorbital by row of small scales 14
    Parietals in contact with posterior supraorbitals ..... *lundelli lundelli*
14. Lower row of labiomentals extending forward to contact the second postmental ..... *prezygus*
    Lower row of labiomentals extending forward only to the third postmental ..... *serrifer serrifer*

Sceloporus acanthinus acanthinus Bocourt

Sceloporus acanthhinus (sic) Bocourt, Ann. Sci. Nat., ser. 5, 17, 1873: 24; Bocourt, 1874: 180, pl. 18, figs. 10–10b, pl. 19, figs. 4–4a (spelled *acanthinus*).
Sceloporus malachiticus acanthinus, Smith and Taylor, 1950: 108.

TYPE.—MNHN 3602 (two syntypes). San Agustin, on the western [southern] slope of Volcan Atitlan, Guatemala; 610 meters.

RANGE.—Low and moderate elevations of the Pacific versant from eastern Chiapas, Mexico, possibly to El Salvador.

Sceloporus acanthinus lunaei Bocourt

Sceloporus lunaei Bocourt, Ann. Sci. Nat., ser. 5, 17, 1873: 1; Bocourt, 1874: 184, pl. 18 bis, figs. 5–5b.

TYPE.—MNHN 3144–47 (seven syntypes). Plateau of Guatemala; 1500 meters.

RANGE.—Moderate elevations from central through eastern Guatemala, possibly to El Salvador.

Sceloporus carinatus Smith

Sceloporus carinatus Smith, Proc. Biol. Soc. Washington, 49, 1936: 89, pl. 2, figs. 2–3; Smith and Taylor, 1950: 135.

TYPE.—CNHM 32008. Near Tuxtla Gutierrez, Chiapas, Mexico.

RANGE.—Upper valley and headwater valleys of the Rio Grijalva from Chiapas, Mexico, to the headwater valleys of the Rio Negro, Guatemala.

Sceloporus chrysostictus Cope

Sceloporus chrysostictus Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 125; Smith and Taylor, 1950: 133.

TYPE.—USNM 24865–66 (two syntypes). Yucatan, Mexico.

RANGE.—The Yucatan Peninsula south to central El Peten, Guatemala, and northern British Honduras.

Sceloporus lundelli lundelli Smith

Sceloporus lundelli lundelli Smith, Field Mus. Nat. Hist., zool. ser., 26, 1939: 66, pl. 4; Smith and Taylor, 1950: 112.

TYPE.—UMMZ 80674. Cahune Ridge (20 miles SE Benque Viejo), British Honduras.

RANGE.—Central and southern portions of the Yucatan Peninsula from Campeche, Mexico, south to northern El Peten, Guatemala, and British Honduras.

Sceloporus malachiticus smaragdinus Bocourt

Sceloporus smaragdinus Bocourt, Ann. Sci. Nat., ser. 5, 17, 1873: 1; Bocourt, 1874: 186, pl. 18, figs. 6–6b, pl. 19, figs. 1–1b; Gunther, 1890: 68 (in part).
Sceloporus malachiticus smaragdinus, Smith, Proc. U. S. Natl. Mus., 92, 1942: 356.
? *Sceloporus salvini,* Gunther, 1890: 68 (in part).

TYPE.—Thirteen syntypes, MNHN 3148, 3150, 3177 (twelve) and USNM 11000. Solola, Totonicapan, and Quezaltenango, Guatemala; 2000 meters.

RANGE.—Intermediate and high elevations of the plateaus of Guatemala exclusive of Alta Verapaz and the Caribbean versant of the Sierra de los Cuchumatanes.

Sceloporus malachiticus taeniocnemis Cope

Sceloporus taeniocnemis Cope, Proc. Amer. Philos. Soc., 22, 1885: 399.
Sceloporus malachiticus taeniocnemis, Smith, Jour. Washington Acad. Sci., 39, 1949: 39; Smith and Taylor, 1950: 107.
Sceloporus formosus var. B, Bocourt, 1874: 182, pl. 18, figs. 3–3c.
Sceloporus lunaei, Gunther, 1890: 67 (in part).
Sceloporus smaragdinus, Gunther, 1890: 68 (in part).

TYPE.—USNM 24768. Guatemala. Smith (*loc. cit.,* 1949) suggests restriction to Coban, Alta Verapaz.

RANGE.—Moderate and high elevations of Alta Verapaz and the Caribbean versant of the Sierra de los Cuchumatanes, Guatemala, the Mesa Central and the Sierra Madre of Chiapas, Mexico, encircling *Sceloporus malachiticus smaragdinus* on the east, north, and northwest.

Sceloporus melanorhinus stuarti Smith

Sceloporus melanorhinus stuarti Smith, Nat. Hist. Misc. [Chicago Acad. Sci.], 20, 1948: 1; Smith and Taylor, 1950: 113.

TYPE.—UMMZ 96759. Finca Canibal, Huehuetenango, Guatemala; about 3000 feet.

RANGE.—Moderate elevations of the valley of the Rio Grijalva in Chiapas, Mexico, and headwater valleys in adjacent Guatemala.

Sceloporus prezygus Smith

Sceloporus prezygus Smith, Proc. U. S. Natl. Mus., 92, 1942: 354; Smith and Taylor, 1950: 109.

TYPE.—USNM 46861. Conjab, Chiapas (between San Bartolome and Comitan), Mexico; 5300 feet.

RANGE.—Moderate and intermediate elevations on the Mesa Central of Chiapas, Mexico, through the drier portions of the headwater valleys of the Rio Grijalva and the upper Rio Negro of Guatemala.

Sceloporus serrifer serrifer Cope[24]

Sceloporus serrifer Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 124.
Sceloporus serrifer serrifer, Smith, Field Mus. Nat. Hist., zool. ser., 26, 1939: 212; Smith and Taylor, 1950: 123.

TYPE.—USNM 24868. Yucatan, Mexico. Smith and Taylor (*loc. cit.,* 1950) suggest restriction to Merida, Yucatan, Mexico.

RANGE.—The Yucatan Peninsula south to central El Peten, Guatemala.

Sceloporus siniferus siniferus Cope

Sceloporus siniferus Cope, Proc. Amer. Philos. Soc., 11, 1869: 159.
Sceloporus siniferus siniferus, Smith and Taylor, 1950: 134.

TYPE.—Nineteen syntypes; USNM 30453–56 and 30458–71, University of Illinois Museum of Natural History 40730. Pacific side of the Isthmus of Tehuantepec, Mexico.

RANGE.—Low and moderate elevations of the Pacific versant from Guerrero, Mexico, to western Guatemala. In Guatemala found only at very low elevations along the Pacific coastal plain.

Sceloporus squamosus Bocourt

Sceloporus squamosus Bocourt, Miss. Sci. Mex., Rept., 1874: 212, pl. 18 bis, figs. 7–7c, pl. 19, fig. 3; Smith and Taylor, 1950: 135.

TYPE.—MNHN 3180–82 (eight syntypes). Guatemala [? City] and Antigua, 1500 meters, and the embayment of the Rio Nagualate [all in Guatemala].

RANGE.—Low and moderate elevations from eastern Chiapas, Mexico, along the Pacific versant to Costa Rica. In Guatemala and possibly Honduras, in the dry valleys on the Caribbean versant and also on the southeastern highlands of the former.

Sceloporus teapensis Gunther

Sceloporus teapensis Gunther, Biol. Cent.-Amer., 1890: 75; Smith and Taylor, 1950: 130.
Sceloporus variabilis var. B, Bocourt, 1874: 200, in part (identification of figures questionable).

TYPE.—BMNH 1946.8.9.92–98 (seven syntypes). Teapa, Tabasco, Mexico.

[24] Specimens of *Sceloporus serrifer plioporus* Smith recorded from La Primavera, Alta Verapaz, Guatemala, and reported upon by Smith (*loc. cit.,* 1939), Stuart (Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 53) and Martin (Occ. Papers Mus. Zool., Univ. Michigan, 543, 1952: 1–7) prove to be *Sceloporus prezygus. Sceloporus serrifer plioporus* has not been taken in Guatemala and is hardly to be expected.

RANGE.—Low and moderate elevations along the Caribbean versant from southern Veracruz, Mexico, to eastern Guatemala, exclusive of the outer end of the Yucatan Peninsula.

Sceloporus variabilis variabilis Wiegmann

Sceloporus variabilis Wiegmann, Herpet. Mex., 1834: 51.
Sceloporus variabilis variabilis, Smith, Proc. Biol. Soc. Washington, 47, 1934: 128; Smith and Taylor, 1950: 130.

TYPE.—Zoologisches Museum Berlin, originally two syntypes, 650, 652; lectotype, 650, *fide* H. Wermuth (*in litt.*). Mexico. Smith and Taylor (*loc. cit.,* 1950) suggest restriction to Veracruz, Mexico.

RANGE.—Low, moderate and intermediate elevations from Tamaulipas and Queretaro, Mexico, southward on the plateau and on the Caribbean versant to the Isthmus of Tehuantepec, thence through the valley of the Rio Grijalva in Chiapas, Mexico, through the headwater valleys of the same in Guatemala.

Sceloporus variabilis olloporus Smith

Sceloporus variabilis olloporus Smith, Occ. Papers Mus. Zool., Univ. Michigan, 358, 1937: 11.
Sceloporus variabilis var. B, Bocourt, 1874: 200, in part (identification of plates questionable).
Sceloporus variabilis, Gunther, 1890: 75 (in part).

TYPE.—UMMZ 80458. San Juanillo, Costa Rica.

RANGE.—Low and moderate elevations from the dry basins of central Guatemala into northern and central Honduras and southward along the Pacific versant to Costa Rica.

Family SCINCIDAE

KEY TO THE GUATEMALAN GENERA OF SCINCIDAE

1. Supranasals or internasals (depending on interpretation) absent .. *Leiolopisma* (p. 74)
   Supranasals present 2
2. Enlarged and well differentiated scales between eye and auricular opening ..... *Eumeces* (below)
   Scales of temporal region not enlarged or well differentiated, similar to lateral body scales ..... *Mabuya* (p. 75)

Genus *Eumeces* Wiegmann

Eumeces Wiegmann, Herpet. Mex., 1834: 36 (subgenus of *Euprepes* Wiegmann).

GENEROTYPE.—*Scincus pavimentatus* Geoffroy, definitely so indicated by Wiegmann (Arch. Natur., 2, 1835: 288).

KEY TO GUATEMALAN SPECIES OF *EUMECES*

Middorsal scales much broader than those of paravertebral regions ..... *schwartzei*
Middorsal scales not conspicuously larger than those of paravertebral regions ..... *sumichrasti*

Eumeces schwartzei Fischer

Eumeces schwartzei Fischer, Abh. Natur. Ver. Hamburg, 8, 1885: 3 (reprint pagination), pl. 7, fig. 1; Smith and Taylor, 1950:162.

TYPE.—Zoolgisches Museum Hamburg; originally three syntypes, two since destroyed; remaining type, 810. A small island in Laguna de Terminos, Campeche, Mexico.

RANGE.—The Yucatan Peninsula south to central El Peten, Guatemala, and adjacent Tabasco, Mexico.

Eumeces sumichrasti Cope

Plistodon sumichrasti Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 321.
Eumeces sumichrasti, Bocourt, 1879: 422; Smith and Taylor, 1950: 164.

TYPE.—USNM 6601. Potrero, Veracruz, Mexico; 590 meters. See Smith and Taylor (*loc. cit.*).

RANGE.—Low elevations of the Caribbean versant from central Veracruz, Mexico, through Guatemala.

Genus *Leiolopisma* Dumeril and Bibron

Leiolopisma Dumeril and Bibron, Erpet. Gen., 5, 1839: 742.

GENEROTYPE.—*Scincus telfairii* Desjardins (not seen).

KEY TO GUATEMALAN SPECIES OF *LEIOLOPISMA*

1. Adpressed fore and hind limbs failing to meet in adults 2
   Adpressed limbs strongly overlapping in adults 3
2. Twenty-eight or more scale rows around midbody; dorsal scales between parietals and level of anus generally more than 65 ..... *assatum assatum*
   Twenty-eight or less (generally 26) scale rows around midbody; dorsal scales generally fewer than 65 ..... *incertum*
3. Twenty-eight or less scale rows around midbody; generally fewer than 60 dorsal scales between parietals and level of anus ..... *cherriei ixbaac*
   Thirty or more scale rows around midbody; dorsal scales generally more than 60 ..... *cherriei cherriei*

Leiolopisma assatum assatum Cope

Lampropholis assatus Cope, Proc. Acad. Nat. Sci. Phila., 16, 1864: 179.
Leiolopisma assatum [*assatum*] by fiat, Oliver, Occ. Papers Mus. Zool., Univ. Michigan, 360, 1937:12.

Lygosoma (Mocoa) assata, Bocourt 1881: 450, ? pl. 22F, figs. 7–7c (in part).
Scincella assata assata, Smith and Taylor, 1950: 160.

TYPE.—ANSP 9465. Volcan Izalco, El Salvador.

RANGE.—Low and moderate elevations of the Pacific versant from eastern Chiapas, Mexico, through El Salvador.

Leiolopisma cherriei cherriei Cope

Mocoa cherriei Cope, Proc. Amer. Philos. Soc., 31, 1893: 340.
Lygosoma assatum brevis Werner, Abh. Akad. Wissen., 22, 1903: 345 (apparently originally in Zoologische Sammlung des Bayerischen Staates, now lost or destroyed; Coban, Guatemala).
Leiolopisma cherriei cherriei, Smith, Herpetologica, 3, 1946: 111.
Lygosoma (Mocoa) assata, Bocourt, 1881: 450, ? pl. 22F, figs. 7–7c (in part).
Mocoa assata, Gunther, 1885: 31 (in part).
Scincella cherriei cherriei, Smith and Taylor, 1950: 157.

TYPE.—AMNH 9551. Palmar, Costa Rica.

RANGE.—Low and moderate elevations from Tabasco, Mexico, on the Caribbean versant, and probably Nicaragua on the Pacific versant, south into Panama, exclusive of the outer end of the Yucatan Peninsula.

Leiolopisma cherriei ixbaac Stuart

Lygosoma assatum ixbaac Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 421, 1940: 8.
Leiolopisma cherriei ixbaac, Smith, Herpetologica, 3, 1946: 111.
Scincella cherriei ixbaac, Smith and Taylor, 1950: 158.

TYPE.—UMMZ 80820. Chichen Itza, Yucatan, Mexico.

RANGE.—Lowlands of the Yucatan Peninsula south to about central El Peten, Guatemala.

Leiolopisma incertum Stuart

Lygosoma incertum Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 421, 1940: 10.
Leiolopisma incertum, Smith, Herpetologica, 3, 1946: 111.

TYPE.—CNHM 20307. Volcan Tajumulco, Guatemala; 5500 feet.

RANGE.—Known only from moderate and intermediate elevations of the Pacific versant of southwestern Guatemala and from the mountains of Alta Verapaz, Guatemala.

Genus *Mabuya* Fitzinger

Mabuya Fitzinger, Neue Class. Rept., 1826: 23 and 52.

GENEROTYPE.—*Mabuya dominicensis* Fitzinger = [*Lacerta*] *mabouya* Lacepede.

Mabuya mabouya Lacepede

[*Lacerta*] *mabouya* Lacepede, Hist. Nat. Quad. Ovip. Rept., 1, 1788: 378, pl. 24 (in part).
Mabuya mabouya by fiat, Fitzinger, Neue Class, Rept., 1826: 52.
Mabuya agilis, Bocourt, 1879: 395, pl. 22B, figs. 2–2d.
Mabuya mabouya mabouya, Smith and Taylor, 1950: 156.

TYPE.—Unknown. World-wide materials mentioned in original description. Smith and Taylor (*loc. cit.*) suggest restriction of type locality to St. Vincent, B. W. I.

RANGE.—Low and moderate elevations of the New World tropics from central Mexico to Brazil. Several subspecies have been recognized recently by various authors.

Family TEIIDAE

KEY TO GUATEMALAN GENERA OF TEIIDAE

1. Body covered with cycloid scales more or less uniform in size ..... *Gymnophthalmus* (p. 79)
   Body with granular scales dorsally and rows of plate-like scales ventrally 2
2. A single row of enlarged scales (brachials) on anterior surface of upper arm ..... *Ameiva* (below)
   Three or more rows of enlarged scales on anterior and dorsal surfaces of upper arm ..... *Cnemidophorus* (p. 78)

Genus *Ameiva* Meyer

Ameiva Meyer, Synop. Rept., 1795: 27.

GENEROTYPE.—*Lacerta americana* Gmelin = *Lacerta ameiva* Linnaeus.

KEY TO GUATEMALAN SPECIES OF *AMEIVA*

1. Scales of lateralmost row of ventrals conspicuously narrower than scales of other ventral rows ..... *festiva edwardsi*
   Scales of all rows of ventrals of about equal size 2
2. Median gular scales not conspicuously enlarged or if so, grading gradually into smaller gular scales 3
   Median gular scales distinctly and abruptly enlarged 4
3. Vertical light bars on sides (often reduced to a series of dorsolateral spots) generally 10 or less ..... *undulata hartwegi*
   Vertical light bars on sides generally 11 or more ..... *undulata gaigeae*
4. Two interparietals ..... *chaitzami*
   A single interparietal 5
5. Generally two rows of granules between third supraocular and supraciliaries; third supraocular generally separated from frontoparietal over most of its length ..... *undulata parva*
   Generally a single row of granules between third supraocular and supraciliaries; third supraocular generally strongly in contact with adjacent frontoparietal ..... *undulata thomasi*

Ameiva chaitzami Stuart

Ameiva chaitzami Stuart, Proc. Biol. Soc. Washington, 55, 1942: 143.

TYPE.—UMMZ 90638 (listed as 90368 in type description). Along Cahabon-Coban trail about 2 km. N Finca Canihor (about 38 km. airline ENE Coban), Alta Verapaz, Guatemala.

RANGE.—Known only from the vicinity of the type locality.

Ameiva festiva edwardsi Bocourt

Ameiva edwardsii Bocourt, Ann. Sci. Nat., ser. 5, 17, 1873: 2 pp. (reprint).
Ameiva festiva edwardsii, Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 471, 1943: 21, figs. 6–7; Smith and Taylor, 1950: 174.
Ameiva festivus, Bocourt, 1874: 26, pl. 20, fig. 2 (1878), pl. 20A, figs. 10–10d, pl. 20D, figs. 6–6b.
Ameiva festiva, Gunther, 1885: 24.

TYPE.—MNHN 5480. Yzabal and Panzos, Guatemala.

RANGE.—Low and moderate elevations of the Caribbean versant from the Isthmus of Tehuantepec, Mexico, southeastward into northern Honduras, exclusive of the outer end of the Yucatan Peninsula.

Ameiva undulata gaigeae Smith and Laufe

Ameiva undulata gaigeae Smith and Laufe, Univ. Kansas Sci. Bull., 31, 1946: 37, fig. 1C, pl. 2C; Smith and Taylor, 1950: 172.

TYPE.—CNHM 100030. Progreso, Yucatan, Mexico.

RANGE.—Lowlands of the Yucatan Peninsula southward to northern El Peten, Guatemala.

Ameiva undulata hartwegi Smith

Ameiva undulata hartwegi Smith, Proc. Biol. Soc. Washington, 53, 1940: 55; Smith and Taylor, 1950: 171.
Ameiva undulata var. A, Bocourt, 1874: 258, pl. 20A, fig. 8.
Ameiva undulata, Gunther, 1885: 23 (in part).

TYPE.—USNM 108600. Chiapas, Mexico, across the Rio Usumacinta from Piedras Negras, Guatemala.

RANGE.—Low and moderate elevations of the Caribbean versant from extreme southeastern Mexico through northern Guatemala to northern Honduras.

Ameiva undulata parva Barbour and Noble

Ameiva undulata parva Barbour and Noble, Bull. Mus. Comp. Zool., Harvard College, 59, 1915: 476; Smith and Taylor, 1950: 173.
Ameiva undulata, Bocourt, 1874: 254, pl. 20A, figs. 7–7e, pl. 20, fig. 1 (1878); Gunther, 1885: 23 (in part).

TYPE.—MCZ 5831. Guatemala. Smith and Laufe (Univ. Kansas Sci. Bull., 31, 1946: 51) suggest restriction to Mazatenango, Guatemala.

RANGE.—Low and moderate elevations of the Pacific versant from the Isthmus of Tehuantepec, Mexico, to Costa Rica.

Ameiva undulata thomasi Smith and Laufe

Ameiva undulata thomasi Smith and Laufe, Univ. Kansas Sci. Bull., 31, 1946: 70, pl. 1A; Smith and Taylor, 1950: 173.

TYPE.—CNHM 100006. La Libertad, Chiapas, Mexico, near the Rio Cuilco, where it crosses the Guatemalan border.

RANGE.—Moderate elevations of the upper valley of the Rio Grijalva, Chiapas, Mexico, and its headwater valleys in Guatemala.

Genus *Cnemidophorus* Wagler

Cnemidophorus Wagler, Syst. Amphib., 1830: 154.

GENEROTYPE.—*Seps murinus* Laurenti.

KEY TO GUATEMALAN SPECIES OF *CNEMIDOPHORUS*

1. Parietals and interparietals totalling five ..... *lemniscatus lemniscatus*
   Parietals and interparietals totalling three 2
2. Supraoculars normally 3 3
   Supraoculars normally 4 4
3. Frontoparietals separated from parietals by one or more accessory scutes ..... *deppei cozumela*
   Frontoparietals in contact with parietals ..... *deppei deppei*
4. Body pattern consisting of three dorsolateral stripes on either side, these well marked to above groin ..... *angusticeps*
   Body pattern of light spots on a darker background; if dorsolateral stripes present (juveniles), uppermost stripe not extending posteriorly to above groin .... *motaguae*

Cnemidophorus angusticeps Cope

Cnemidophorus angusticeps Cope, Proc. Amer. Philos. Soc., 17, 1877: 95.
Cnemidophorus sackii angusticeps, Smith and Taylor, 1950: 183.

TYPE.—Probably six syntypes; USNM 24876–77 and probably 12284 (2) and 24879, MCZ 46945. Yucatan, Mexico.

RANGE.—Lowlands of the Yucatan Peninsula south to central El Peten, Guatemala, and British Honduras.

Cnemidophorus deppei deppei Wiegmann

Cnemidophorus deppii Wiegmann, Herpet. Mex., 1834: 28; Bocourt, 1878: 281, pl. 20, fig. 3, pl. 20D, figs. 1–1b, pl. 20C, figs. 5–5d (1874).
Cnemidophorus deppei [*deppei*] by fiat, Gadow, Proc. Zool. Soc. London, 1906: 309, fig. 71 (D–G), fig. 72 (A–G); Smith and Taylor, 1950: 178 (spelled *deppii*).

TYPE.—Zoologisches Museum Berlin 882. Mexico. Smith and Taylor (*loc. cit.*) suggest restriction to Tehuantepec, Oaxaca, Mexico.

RANGE.—Low and moderate elevations from Guerrero, Mexico, along the Pacific versant to Costa Rica and from Veracruz, Mexico, through the valley of the Rio Grijalva in Chiapas through the dry basins of central Guatemala to Honduras and El Salvador.

Cnemidophorus deppei cozumela Gadow

Cnemidophorus deppei cozumela Gadow, Proc. Zool. Soc. London, 1906: 316; Smith and Taylor, 1950: 179 (spelled *deppii cozumelus*).

TYPE.—BMNH 1951.1.8.24–27 (four syntypes). Cozumel Island, east coast of Yucatan [Peninsula], Mexico.

RANGE.—Lowlands of the Yucatan Peninsula south to central El Peten, Guatemala (excluding the dry outer end of the peninsula), and some of the coastal islands off Quintana Roo, Mexico.

Cnemidophorus lemniscatus lemniscatus Linnaeus

Lacerta lemniscata Linnaeus, Syst. Nat., ed. 10, 1758: 209.
Cnemidophorus lemniscatus [*lemniscatus*] by fiat, Ruthven, Occ. Papers Mus. Zool., Univ. Michigan, 16, 1915: 1.

TYPE.—Naturhistoriska Riksmuseet, Stockholm 126 (2), 127. Guiana.

RANGE.—Low elevations from extreme southeastern Guatemala southward to Brazil. A coastal form in northern Central America.

Cnemidophorus motaguae Sackett

Cnemidophorus motaguae Sackett, Notulae Naturae, Acad. Nat. Sci. Phila., 77, 1941: 1, figs. 1–3.
Cnemidophorus sexlineatus mexicanus, Bocourt, 1878: 281, pl. 20C, fig. 7 (1874).
Cnemidophorus sackii bocourti, Smith and Taylor, 1950: 181 (in part).

TYPE.—ANSP 22143. Motagua River Valley, 10 km. NE Zacapa, Dept. Zacapa, Guatemala.

RANGE.—Low and moderate elevations from Oaxaca, Mexico, through the Grijalva Valley of Chiapas and the dry valleys and basins of central Guatemala, across the southeastern lowlands of Guatemala to El Salvador and Honduras.

Genus *Gymnophthalmus* Merrem

Gymnophthalmus Merrem, Syst. Amphib., 1820: 74.

GENEROTYPE.—*Lacerta quadrilineata* Linnaeus = *Lacerta lineata* Linnaeus.

KEY TO GUATEMALAN SUBSPECIES OF *GYMNOPHTHALMUS*

Prefrontals separated from loreals ..... *speciosus birdi*
Prefrontals in contact with loreals ..... *speciosus sumichrasti*

Gymnophthalmus speciosus birdi Stuart

Gymnophthalmus birdi Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 409, 1939: 1, pl. 1, figs. 1–2.
Gymnophthalmus speciosus birdi, Mertens, Abh. Senckenb. Naturf. Gesell., 487, 1952: 56.

TYPE.—UMMZ 84057. Desert flats of the Salama Basin 2 km. S San Geronimo (= San Jeronimo), Baja Verapaz, Guatemala.

RANGE.—Low and moderate elevations in the dry basins and valleys of central Guatemala, across the southeastern highlands of Guatemala to El Salvador.

Gymnophthalmus speciosus sumichrasti Cope

Epaphelus sumichrastii Cope, Jour. Acad. Nat. Sci. Phila., 8, 1876: 115.
[*Gymnophthalmus speciosus sumichrasti*], Mertens, Abh. Senckenb. Naturf. Gesell., 487, 1952: 56 (combination not used but statement to effect).
Gymnophthalmus sumichrasti, Bocourt, 1881: 471, pl. 22H, figs. 2–2i; Smith and Taylor, 1950: 192.

TYPE.—USNM 30245–46 (two syntypes). Western Tehuantepec, Mexico [near Ventosa Bay]. See Stuart (Occ. Papers Mus. Zool., Univ. Michigan, 409, 1939: 6).

RANGE.—Low and moderate elevations along the Pacific versant from the Isthmus of Tehuantepec through western Guatemala.

Family ANGUIDAE

KEY TO GUATEMALAN GENERA OF ANGUIDAE

1. Body covered with finely striated cycloid scales of more or less uniform size ..... *Celestus* (p. 81)
   Body covered with plate-like scales 2
2. Subocular separated from lower anterior temporal by dorsal extension of a posterior supralabial ..... *Abronia* (below)
   Subocular in contact with lower anterior temporal ..... *Gerrhonotus* (p. 82)

Genus *Abronia* Gray

Abronia Gray, Ann. Mag. Nat. Hist., 1, 1838: 389.

GENEROTYPE.—*Gerrhonotus deppii* Wiegmann. Designated by Tihen (Amer. Midl. Nat., 41, 1949: 587).

KEY TO GUATEMALAN SPECIES OF *ABRONIA*

Postmental paired ..... *aurita*
Postmental unpaired ..... *vasconcelosi*

Abronia aurita Cope

Gerrhonotus auritus Cope, Proc. Acad. Nat. Sci. Phila., 20, 1868: 306.
Gerrhonotus (Abronia) auritus, Bocourt, 1878: 337, pl. 21, fig. 2 (1879), pl. 21A, figs. 7–7a.
Barissia fimbriata Cope, Proc. Amer. Philos. Soc., 22, 1885: 171, designation of Bocourt's *auritus* as type (MNHN 1189; pine forests of Alta Verapaz, Guatemala).[25]
Abronia aurita, Tihen, Amer. Midl. Nat., 41, 1949: 591.

TYPE.—USNM 6769. "Forests of Verapaz [Guatemala], in the neighborhood of the ancient cities of Peten and Coban."

RANGE.—Known only from moderate elevations in the mountains of Alta Verapaz, Guatemala.

Abronia vasconcelosi Bocourt

Gerrhonotus vasconcelosii Bocourt, Nouv. Arch. Mus., 7, 1872: 107.
Abronia vasconcelosii, Tihen, Amer. Midl. Nat., 41, 1949: 591.
Gerrhonotus (Abronia) vasconcelosii, Bocourt, 1878: 334, pl. 21, fig. 3 (1879), pl. 21A, figs. 8–8a.

TYPE.—MNHN 2017. Argueta, Guatemala, above 2000 meters.

RANGE.—Known only from the type locality but very probably occurring at intermediate elevations along the Pacific versant of western Guatemala and possibly eastern Chiapas, Mexico.

Genus *Celestus* Gray

Celestus Gray, Ann. Mag. Nat. Hist., 2, 1839: 288.

GENEROTYPE.—*Celestus striatus* Gray.

KEY TO GUATEMALAN SPECIES OF *CELESTUS*

Frontal not in contact with first supraorbital ..... *atitlanensis*
Frontal in contact with first supraorbital ..... *rozellae*

Celestus atitlanensis Smith and Taylor[26]

Diploglossus (Celestus) steindachnerii (nec Cope) Bocourt, 1879: 383, pl. 22, figs. 3–3c (in part).
Celestus atitlanensis, Smith and Taylor, Bull. U. S. Natl. Mus., 199, 1950: 195, designation of Bocourt's *steindachneri* as type.

TYPE.—MNHN 5206. Atitlan, Guatemala [probably San Lucas Atitlan].

RANGE.—Known only from the type.

[25] I find it difficult to believe that two species of *Abronia* exist sympatrically in Alta Verapaz. Tihen (Amer. Mus. Novitates, 1687, 1954: 22) also expresses skepticism as to the validity of *fimbriata.*

[26] I am extremely skeptical of this species. I am of the opinion that there was a mixup in Bocourt's data. Until further material may prove otherwise, the occurrence of *Celestus* on the Pacific versant of Guatemala and Chiapas, Mexico, must be viewed as questionable.

Celestus rozellae Smith

Celestus rozellae Smith, Proc. U. S. Natl., Mus., 92, 1942: 372; Smith and Taylor, 1950: 195.
Diploglossus (Celestus) steindachnerii, Bocourt, 1879: 383, pl. 22, figs. 3–3c (in part).
Diploglossus steindachneri, Gunther, 1885: 34, pl. 22, fig. A (in part).

TYPE.—USNM 113526. Vicinity of Palenque, Chiapas, Mexico.

RANGE.—Low elevations probably from the Tehuantepec isthmian region of southern Mexico through the Peten of Guatemala and into British Honduras.

Genus *Gerrhonotus* Wiegmann

Gerrhonotus Wiegmann, Isis, 21, 1828: 379.
Mesaspis Cope, Proc. Amer. Philos. Soc., 17, 1877:96 (generotype, *Gerrhonotus moreleti moreleti* Bocourt; designated by Tihen, Amer. Midl. Nat., 41, 1949: 596).

GENEROTYPE.—*Gerrhonotus tessellatus* Wiegmann = *Gerrhonotus liocephalus* Wiegmann.

KEY TO GUATEMALAN SUBSPECIES OF *GERRHONOTUS*

1. Upper postnasal separated from lower postnasal by anterior loreal ... *moreleti rafaeli*
   Upper postnasal in contact with lower postnasal 2
2. Belly generally with scattered, squarish, dark spots; third infralabial frequently not in contact or just barely in contact with chin shields ..... *moreleti fulvus*
   Belly generally immaculate; third infralabial generally broadly in contact with chin shields ..... *moreleti moreleti*

Gerrhonotus moreleti moreleti Bocourt

Gerrhonotus moreleti Bocourt, Nouv. Arch. Mus., 7, 1872: 102; Bocourt, 1878: 349, pl. 21, fig. 1 (1879), pl. 21B, figs. 5–5a, and Gunther, 1885: 41, pl. 24, fig. C, in part (both spelled *moreletii*).
[*Gerrhonotus moreletii moreletii*] by fiat, Dunn and Emlen, Proc. Acad. Nat. Sci. Phila. 84, 1932: 28.

TYPE.—MNHN 1188, 1267–68 (six syntypes). Peten and pine forests of Alta Verapaz, Guatemala; 1440 meters.

RANGE.—Moderate and intermediate elevations in the mountains of Alta Verapaz, Guatemala. El Peten record undoubtedly in error.

Gerrhonotus moreleti fulvus Bocourt

Gerrhonotus fulvus Bocourt, Nouv. Arch. Mus., 7, 1872: 104; Bocourt, 1878: 352, pl. 21B, figs. 6–6a.
Gerrhonotus moreletii fulvus, Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 471, 1943: 20.
Gerrhonotus moreletii, Gunther, 1885: 41, pl. 24, fig. C (in part).

TYPE.—MNHN 2006–07 (six syntypes). Pine forest of Totonicapan on the west [south] slopes of the Cordillera; 2460 meters.

RANGE.—Intermediate and high elevations on the Plateau of Guatemala with the exception of the mountains of Alta Verapaz.

Gerrhonotus moreleti rafaeli Hartweg and Tihen

Gerrhonotus moreleti rafaeli Hartweg and Tihen, Occ. Papers Mus. Zool., Univ. Michigan, 497, 1946: 8.
Barisia moreleti rafaeli, Smith and Taylor, 1950: 199.

TYPE.—UMMZ 88228. Sixteen km. S Siltepec, Chiapas, Mexico; 2300 meters.

RANGE.—Intermediate and high elevations of the Sierra Madre of Chiapas, Mexico, into extreme southwestern Guatemala.

Family XENOSAURIDAE

Genus *Xenosaurus* Peters

Xenosaurus Peters, Monatsb. Akad. Wissen. Berlin, 1861: 453.

GENEROTYPE.—*Xenosaurus fasciatus* Peters = *Cubina grandis* Gray.

Xenosaurus rackhami Stuart

Xenosaurus rackhami Stuart, Proc. Biol. Soc. Washington, 54, 1941: 47; Smith and Taylor, 1950: 208.

TYPE.—UMMZ 89072. Finca Volcan (49 km. due E Coban), Alta Verapaz, Guatemala; 4000 feet.

RANGE.—Moderate and intermediate elevations of the Caribbean versant from the mountains of Alta Verapaz, Guatemala, into Chiapas, Mexico.

Family HELODERMATIDAE

Genus *Heloderma* Wiegmann

Heloderma Wiegmann, Isis, 22, 1829: 624 (substitute name for *Trachyderma* Wiegmann 1829; preoccupied).
Trachyderma Wiegmann, Isis, 22, 1829: 421 (preoccupied, *Trachyderma* Latreille 1829; Arthropoda, Insecta).

GENEROTYPE.—*Trachyderma horridum* Wiegmann.

Heloderma horridum alvarezi Bogert and Martin del Campo

Heloderma horridum alvarezi Bogert and Martin del Campo, Bull. Amer. Mus. Nat. Hist., 109, 1956: 32, pls. 3–4.

TYPE.—An unnumbered specimen in the collections of the Instituto de Biologia, Universidad Nacional Autonoma, Mexico. Immediate vicinity of Tuxtla Gutierrez, Chiapas, Mexico.

RANGE.—Moderate elevations in the valley of the Rio Grijalva, Chiapas, Mexico, and in headwater tributaries in extreme southwestern Guatemala. Known definitely in Guatemala only from the Rio Lagartero Depression.

Order SERPENTES

Family BOIDAE

KEY TO GUATEMALAN GENERA OF BOIDAE

1. Dorsal surface of head covered with small subequal scales, no enlarged plates ..... *Boa* (below)
   Dorsal surface of head with two or more enlarged plates 2
2. A single large prefontal plate ..... *Ungaliophis* (p. 85)
   Two prefrontals and two distinct internasals ..... *Loxocemus* (below)

Genus *Boa* Linnaeus

Boa Linnaeus, Syst. Nat., ed. 10, 1758: 214.

GENEROTYPE.—*Boa constrictor* Linnaeus.

Boa constrictor imperator Daudin

Boa imperator Daudin, Hist. Nat. Rept., 5, An X [Fr. Rev. = 1801 or 1802]: 105; Bocourt, 1882: 519, pl. 30, figs. 8–8c; Gunther, 1895: 181.
Boa constrictor imperator, Forcart, Hepetologica, 7, 1951: 199.
Constrictor constrictor imperator, Smith and Taylor, 1945: 24.

TYPE.—In MNHN, but not definitely identifiable, *fide* J. Guibe (*in litt.*). Type locality not definitely stated, but mention made of specimens from Mexico, Cartagena, Colombia, and the Choco of Colombia.

RANGE.—Low and moderate elevations from Tamaulipas and Sonora in Mexico southward into northern South America.

Genus *Loxocemus* Cope

Loxocemus Cope, Proc. Acad. Nat. Sci. Phila., 13, 1861: 76.

GENEROTYPE.—*Loxocemus bicolor* Cope.

Loxocemus bicolor Cope

Loxocemus bicolor Cope, Proc. Acad. Nat. Sci. Phila., 13, 1861: 77; Smith and Taylor, 1945: 27.

TYPE.—Originally USNM 4948; apparently lost. La Union, El Salvador.

RANGE.—Lowlands of the Pacific versant from central Mexico southward at least through El Salvador.

Genus *Ungaliophis* Muller

Ungaliophis Muller, Verhand. Natur. Gesell. Basel, 7, 1882: 142 (a predescription of this appears as an unknown genus of the Peropodes, i.e., boids, in Muller, *op. cit.*, 6. 1878: 652, pl. 1).

Peropodum Bocourt, Miss. Sci. Mex., Rept., 1882: 522 (generotype, *Peropodum guatemalensis* Bocourt, based on Muller's predescription, *loc. cit.*).

GENEROTYPE.—*Ungaliophis continentalis* Muller.

Ungaliophis continentalis Muller

Ungaliophis continentalis Muller, Verhand. Natur. Gesell. Basel, 7, 1882: 142 (predescription as "Nov. gen. Boid. Affin. Ungal[ia]. Spec. guatemalensis," name used, Muller, *op. cit.*, 6, 1878: 591; full description, Muller, *op. cit.*, 1878: 652, pl. 1); Smith and Taylor, 1945: 26.

Peropodum guatemalensis, Bocourt, Miss. Sci. Mex., Rept., 1882: 523, pl. 31, figs. 5–5b (based on Muller's predescription, *loc. cit.*).

TYPE.—Naturhistorisches Museum Basel 426. Retalhuleu, Guatemala.

RANGE.—Low elevations from eastern Chiapas, Mexico, to Nicaragua along the Pacific versant.

Family LEPTOTYPHLOPIDAE

Genus *Leptotyphlops* Fitzinger

Leptotyphlops Fitzinger, Syst. Rept., 1843: 24.

GENEROTYPE.—*Typhlops nigricans* Schlegel.

Leptotyphlops phenops phenops Cope

Stenostoma phenops Cope, Jour. Acad. Nat. Sci. Phila., 8, 1876: 128.

Leptotyphlops phenops phenops, Smith, Proc. U. S. Natl. Mus., 93, 1943: 444; Smith and Taylor, 1945: 24.

Stenostoma dulce, Bocourt, 1882: 506, pl. 29, figs. 8–8c.

TYPE.—Nine syntypes, USNM 12444, 30289–95 (Tehuantepec), and 6760 (Coban). Tehuantepec, Mexico, and Coban, Guatemala.

RANGE.—Low and moderate elevations along the Caribbean versant from Veracruz, Mexico, to Central Guatemala and from the Isthmus of Tehuantepec, Mexico, to El Salvador along the Pacific.

Family TYPHLOPIDAE

Genus *Typhlops* Schneider

Typhlopes Schneider, Hist. Amphib., fac. 2, 1801: 339 (apparently emended, *Typhlops* Oppel, Ord. Rept., 1811: 54, not seen; *fide* Smith, Fauna Brit. India, 3, 1943: 43).

GENEROTYPE.—*Anguis lumbricalis* Linnaeus.

Typhlops tenuis Salvin

Typhlops tenuis Salvin, Proc. Zool. Soc. London, 1860: 454; Gunther, 1893: 86.
Typhlops perditus, Bocourt, 1882: 499, pl. 29, figs. 3–3c, pl. 30, fig. 3.

TYPE.—BMNH 1946.1.11.71. Coban, Guatemala.

RANGE.—Known only from moderate elevations in Alta Verapaz, Guatemala.

Family COLUBRIDAE

KEY TO GUATEMALAN GENERA OF COLUBRIDAE

1. Dorsal scales disposed over body in an even number of rows ..... *Spilotes* (p. 116)
   Dorsal scales disposed over body in an odd number of rows 2
2. Anal plate entire 3
   Anal plate divided 16
3. Number of dorsal scale rows not reduced between about midbody and level of anus 4
   More dorsal scale rows at midbody than at level of anus 8
4. Dorsal scales disposed in 15 longitudinal rows ..... *Sibon* (p. 115)
   Dorsal scales disposed in 17 to 19 longitudinal rows 5
5. Generally more than 195 abdominal scutes ..... *Clelia* (p. 89)
   Generally fewer than 195 abdominal scutes 6
6. Dorsal scales disposed in 19 longitudinal rows ..... *Ninia* (p. 106)
   Dorsal scales disposed in 17 longitudinal rows 7
7. Body pattern of light and dark annuli, the dark sometimes fused dorsally to give appearance of saddles ..... *Tropidodipsas* (p. 123)
   Body unicolor dorsally or with pattern of stripes ..... *Geophis* (p. 99)
8. Dorsal scales keeled over all or part of body 9
   Dorsal scales all smooth 12
9. Maximum number of dorsal scale rows less than 21 10
   Maximum number of dorsal scale rows more than 21 11
10. Dorsal scale row formula 19–17 or 19–17–15 ..... *Thamnophis* (p. 120)
    Dorsal scale row formula 17–15 ..... *Dendrophidion* (p. 93)
11. Dorsal scales disposed obliquely over anterior part of body; maximum number of dorsal scale rows generally 25 ..... *Pseustes* (p. 111)
    Dorsal scale rows not disposed obliquely over anterior part of body; dorsal scale rows generally 27 or more ..... *Pituophis* (p. 109)
12. Dorsal scale row formula 17–15 ..... *Drymarchon* (p. 95)
    Dorsal scale row formula generally greater than 17–15 13
13. Dorsal scale formula generally higher than 19–21–19 ..... *Lampropeltis* (p. 102)
    Dorsal scale formula 19–17 14
14. Abdominals fewer than 150 ..... *Xenodon* (p. 124)
    Abdominals more than 150 15
15. Dorsal body pattern of light and dark annuli ..... *Oxyrhopus* (p. 109)
    Dorsal body pattern unicolor or somewhat spotted ..... *Clelia* (p. 89)
16. Number of dorsal scale rows greater at about midbody than at level of anus 17
    Number of dorsal scale rows not reduced between about midbody and level of anus 29

17. Some or all of dorsal scales keeled[27] 18
    All dorsal body scales smooth 23
18. Dorsal scale row formula 15–11 ..... *Leptophis* (p. 104)
    Dorsal scale row formula greater than 15–11 19
19. Maximum number of dorsal scale rows 17 20
    Maximum number of dorsal scale rows 21 or more 21
20. No loreal, prefrontals in contact with supralabials ..... *Oxybelis* (p. 108)
    A loreal shield present ..... *Drymobius* (p. 96)
21. Dorsal scale row formula 21–19–17 ..... *Tretanorhinus* (p. 121)
    Dorsal scale row formula exceeding 21–19–17 22
22. Loreal shield broken into two or more small scales ..... *Trimorphodon* (p. 122)
    A single loreal shield ..... *Elaphe* (p. 97)
23. Dorsal scale row formula not exceeding 17–15 24
    Dorsal scale row formula exceeding 17–15 27
24. A small subocular below preocular 25
    No subocular below preocular 26
25. Supralabials 7; abdominals more than 180 ..... *Masticophis* (p. 105)
    Supralabials 8; abdominals less than 170 ..... *Coluber* (p. 90)
26. A pair of dark paravertebral stripes ..... *Leptodrymus* (p. 104)
    No dark paravertebral stripes ..... *Dryadophis* (p. 94)
27. Dorsum of body either unicolor or striped 28
    Dorsal body pattern of spots, blotches, saddles, or annuli ..... *Leptodeira* (p. 103)
28. A single anterior temporal ..... *Coniophanes* (p. 90)
    Two or three anterior temporals ..... *Conophis* (p. 93)
29. Dorsal scales strongly keeled ..... *Storeria* (p. 117)
    Dorsal scales all smooth (occasionally very feebly keeled) 30
30. Maximum number of dorsal scale rows 15 31
    Maximum number of dorsal scale rows 17 or more 33
31. Both a loreal and preocular shield present ..... *Scolecophis* (p. 114)
    Only a single scale (loreal or preocular depending upon interpretation) between nasal shield and eye 32
32. Abdominals fewer than 120 ..... *Tantillita* (p. 119)
    Abdominals more than 120 ..... *Adelphicos* and *Tantilla* (below)
33. Rostral upturned anteriorly with a sharp, free edge and in contact with frontal ..... *Ficimia* (p. 99)
    Rostral normal and not in contact with frontal 34
34. Dorsum with light and dark bands at least anteriorly on body 35
    Dorsal pattern of spots, stripes, blotches or saddles, or unicolor 36
35. Bands confined to anterior part of body; posteriorly small spots arranged in longitudinal rows ..... *Scaphiodontophis* (p. 113)
    Bands present throughout entire length of body ..... *Pliocercus* (p. 109)
36. Head much broader than neck; abdominals generally more than 215, subcaudals more than 120 ..... *Imantodes* (p. 100)
    Head not greatly broadened; abdominals less than 215, subcaudals fewer than 120 37

[27] In both *Elaphe* and *Trimorphodon* the keeling is very weak and is frequently restricted to scales of the middorsal region on the posterior part of the body and on the tail.

37. Tail very short, subcaudals fewer than 50 ..... *Stenorrhina* (p. 116)
Tail longer, subcaudals more than 50 38
38. Only a single shield (loreal or preocular depending upon interpretation) between nasal shield and eye ..... *Enulius* (p. 98)
Both a loreal and preocular shield present 39
39. Belly uniformly very dark ..... *Amastridium* (p. 89)
Belly not uniformly very dark, at most only outer ends of ventrals darkened ..... *Rhadinaea* and *Trimetopon* (p. 112)

Genus *Adelphicos* Jan

Adelphicos Jan, Arch. Zool., 2, 1862: 18.

GENEROTYPE.—*Adelphicos quadrivirgatum* Jan.

KEY TO GUATEMALAN SPECIES OF *ADELPHICOS* AND *TANTILLA*

1. Chin shields bordering lip; no third infralabial *Adelphicos quadrivirgatus sargi* (below)
Chin shields separated from border of lip by labials 2
2. Third or second and third infralabials reduced in width, very narrow and confined to lip border ..... *Adelphicos quadrivirgatus visoninus* (below)
No infralabials reduced in width, all normal in shape and size 3
3. Dorsal body pattern of longitudinal dark and/or light stripes 4
Dorsum unicolor though occasionally middorsal scale row may be somewhat lightened 7
4. Subcaudals more than 60 ..... *Tantilla taeniata* (p. 119)
Subcaudals fewer than 60 5
5. Abdominals with dark anterior borders, entire ventral surface very dark ..... *Adelphicos veraepacis veraepacis* (below)
Except sometimes laterally, ventral surface light 6
6. A light middorsal stripe, at least anteriorly ..... *Tantilla jani* (p. 118)
A dark middorsal stripe, at least anteriorly ..... *Tantilla mexicana* (p. 118)
7. Ventral surface very dark ..... *Tantilla moesta* (p. 119)
Ventral surface light 8
8. A light collar on back of head and nape 9
No light collar on back of head or nape ..... *Tantilla canula* (p. 118)
9. Abdominals more than 150 ..... *Tantilla bairdi* (p. 118)
Abdominals fewer than 150 ..... *Tantilla schistosa schistosa* (p. 119)

Adelphicos quadrivirgatus sargi Fischer

Rhegnops sargii Fischer, Jahrb. Wissen. Anst. Hamburg, 2, 1885: 92.
Adelphicos quadrivirgatus sargii, Smith, Proc. Rochester Acad. Sci., 8, 1942: 192, fig. 4; Smith and Taylor, 1945: 31.

TYPE.—Originally three syntypes in the Staatslich Museum fur Naturkunde, Stuttgart. One subsequently exchanged to the British Museum (Natural History) and designated lectotype by Smith and Taylor (*loc. cit.*). It is No. 1946.1.6.28. Guatemala.

RANGE.—Moderate elevations of the Pacific versant from eastern Chiapas, Mexico, into western Guatemala.

Adelphicos quadrivirgatus visoninus Cope

Rhegnops visoninus Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 128.
Adelphicos quadrivirgatus visoninus, Smith, Proc. Rochester Acad. Sci., 8, 1942: 186, fig. 2; Smith and Taylor, 1945: 31.

TYPE.—USNM 24899. Belize [British Honduras].

RANGE.—Low and moderate elevations from Tabasco, Mexico, along the Caribbean versant into northern Honduras with the exception of the outer end of the Yucatan Peninsula.

Adelphicos veraepacis veraepacis Stuart

Adelphicos veraepacis Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 452, 1941: 5.
Adelphicos veraepacis veraepacis, Smith, Proc. Rochester Acad. Sci., 8, 1942: 180.
Adelphicos quadrivirgatum, Bocourt, 1883: 554, pl. 32, figs. 11–11e.

TYPE.—UMMZ 89073. Cloud forest above Finca Samac, 7 km. W Coban, Alta Verapaz, Guatemala; about 1500 meters.

RANGE.—Intermediate elevations of Alta Verapaz and very probably the Sierra de los Cuchumatanes of Guatemala.

Genus *Amastridium* Cope

Amastridium Cope, Proc. Acad. Nat. Sci. Phila., 12, 1860: 370.
Mimometopon Werner, Abh. Bayer. Akad. Wissen., 22, 1903: 349, pl. 1, figs. 3–5 (genero-type, *Mimometopon sapperi* Werner).

GENEROTYPE.—*Amastridium veliferum* Cope.

Amastridium sapperi Werner

Mimometopon sapperi Werner, Abh. Bayer. Akad. Wissen., 22, 1903: 349, pl. 1, figs. 3–5.
Amastridium sapperi, Dunn, Proc. U. S. Natl. Mus., 65, 1924: 2; Smith and Taylor, 1945: 31.

TYPE.—Originally in the Zoologische Sammlung des Bayerischen Staates; now either lost or destroyed. Guatemala.

RANGE.—Poorly known. Recorded from the Atlantic versant from Nuevo Leon, Mexico, south to Alta Verapaz, Guatemala, and from several localities on the Pacific versant of Chiapas, Mexico.

Genus *Clelia* Fitzinger

Clelia Fitzinger, Neue Class. Rept., 1826: 31 and 55.

GENEROTYPE.—*Coluber clelia* Daudin on page 31 (*op. cit.*). and *Clelia daudinii* [= *Coluber clelia* Daudin] on page 55 (*loc. cit.*).

KEY TO GUATEMALAN SPECIES OF *CLELIA*

Dorsal scales disposed in 17 longitudinal rows ..... *scytalina*
Dorsal scale row formula 19–17 ..... *clelia clelia*

Clelia clelia clelia Daudin

Coluber clelia Daudin, Hist. Nat. Rept., 6, An XI [Fr. Rev. = 1802 or 1803]: 330, pl. 78.
Clelia clelia clelia, Smith, Proc. U. S. Natl. Mus., 92, 1942: 394.
Oxyrrhopus plumbeus, Gunther, 1885: 167.

TYPE.—Originally in MNHN; at present not definitely identifiable, *fide* J. Guibe (*in litt.*). Surinam.

RANGE.—Low and moderate elevations of the Caribbean versant from northern Guatemala and British Honduras southward into South America.

Clelia scytalina Cope[28]

Scolecophis scytalinus Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 320.
Oxyrhopus proximus Bocourt, Miss. Sci. Mex., Rept., 1897: 856, pl. 67, figs. 3–4 (seven syntypes, MNHN 7871, 99–54, 99–55, six individuals, and Instituto Butantan 17743; western [southern] slope of Volcan Atitlan, Guatemala).
Clelia clelia clelia, Smith and Taylor, 1945: 36 (in part).

TYPE.—USNM 6581. Near Tabasco, Mexico.

RANGE.—Poorly understood. Low and moderate elevations from Veracruz and Tabasco in Mexico, crossing the Isthmus of Tehuantepec and southward along the Pacific versant into South America, but apparently extremely disjunct.

Genus *Coluber* Linnaeus

Coluber Linnaeus, Syst. Nat., ed. 10, 1758: 216.

GENEROTYPE.—*Coluber constrictor* Linnaeus.

Coluber constrictor stejnegerianus Cope

Zamenis stejnegerianus Cope, Amer. Nat., 29, 1895: 678.
Coluber ortenburgeri Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 284, 1934: 1 (UMMZ 75588; Kalto Sabana, 3 mi. W La Libertad, El Peten, Guatemala).
Coluber constrictor stejnegerianus, Muliak and Muliak, Copeia, 1942: 14; Smith and Taylor, 1945: 37.

TYPE.—USNM 17065. Cameron County Texas.

RANGE.—Low elevations from southern Texas southward on the Gulf Coastal Plain of eastern Mexico into northern Guatemala.

Genus *Coniophanes* Hallowell

Coniophanes Hallowell *in* Cope, Proc. Acad. Nat. Sci. Phila., 12, 1860: 248.

GENEROTYPE.—*Coronella fissidens* Gunther.

[28] Dr. Joseph R. Bailey of Duke University informs me that this is a valid species.

KEY TO GUATEMALAN SPECIES OF *CONIOPHANES*[29]

1. Dorsal scales disposed in 23 to 25 longitudinal rows ..... *schmidti*
   Dorsal scales in no more than 21 longitudinal rows 2
2. A maximum of 19 dorsal scale rows ..... *imperialis clavatus*
   Dorsal scales disposed in 21 longitudinal rows 3
3. A large, dark, rounded spot on the outer edge of each abdominal scute 4
   Abdominal scutes immaculate or infringed upon laterally by the dorsal ground color or with very fine, dark punctations; if with lateral spots, these very small .. 5
4. Abdominals more than 150 ..... *quinquevittatus*
   Abdominals fewer than 150 ..... *bipunctatus bipunctatus*
5. Generally a very small, dark spot on outer edges of most of the abdominal scutes ..... *fissidens fissidens*
   Abdominals without dark spots arranged on outer edges but with fine, dark punctations scattered over abdomen ..... *fissidens punctigularis*

Coniophanes bipunctatus bipunctatus Gunther

Coronella bipunctata Gunther, Catal. Colub. Snakes Brit. Mus., 1858: 36.
[*Coniophanes bipunctatus bipunctatus*] by fiat, Smith, Proc. Biol. Soc. Washington, 53, 1940: 59.

TYPE.—BMNH 1946.1.9.58. Type locality unknown. Schmidt (Field Mus. Nat. Hist., zool. ser., 22, 1941: 504) was of the belief that the type probably came from British Honduras, and I concur with this opinion.

RANGE.—Humid lowlands from southern Veracruz, Mexico, eastward through northern El Peten, Guatemala, into British Honduras and northern Spanish Honduras.

Coniophanes fissidens fissidens Gunther

Coronella fissidens Gunther, Catal. Colub. Snakes Brit. Mus., 1858: 36.
Coniophanes fissidens fissidens, Bailey, Occ. Papers Mus. Zool., Univ. Michigan, 362, 1937: 5 (in part); Smith and Taylor, 1945: 39.
Coniophanes fissidens punctigularis, Bocourt, 1886: 652.
Coniophanes proterops, Bocourt, 1886: 654.
Tachymenis fissidens, Gunther, 1895: 161 (in part).

TYPE.—BMNH 1946.6.1.8.16–21, 1946.1.9.61, and 1946.1.3.2–3 (nine syntypes). Mexico.

RANGE.—Low elevations of the Caribbean versant from southern Veracruz, Mexico, southward into northern South America.

[29] Guatemala is bracketed by *Coniophanes piceivittis* to the north and south, but the species has never been taken within the country. Inasmuch as the species is restricted to drier environments, it is not to be expected along the fairly humid Pacific versant. It may occur, however, in the subhumid corridor of Stuart (Contrib. Lab. Vert. Biol., Univ. Michigan, 65, 1954: 1–26, pls. 1–6). Essential data on this species is: *Coniophanes piceivittis* Cope, Proc. Amer. Philos. Soc., 11, 1870: 149 (USNM 30264–65, two syntypes; Chihuitan, Tehuantepec, Mexico). It is related closely to *Coniophanes schmidti* from which it may be differentiated by its much broader lateral stripe (4–5 scales wide in *piceivittis,* ½–1½ in *schmidti*).

Coniophanes fissidens punctigularis Cope

Coniophanes punctigularis Cope, Proc. Acad. Nat. Sci. Phila., 12, 1860: 248.
Dromicus chitalonensis Muller, Verhand. Natur. Gesell. Basel, 6, 1878: 407 (Naturhistorisches Museum Basel 2112, lectotype, *fide* L. Forcart, *in litt.*; Hacienda Chitalon, near Mazatenango, Guatemala).
Coniophanes fissidens punctigularis, Smith, Proc. U. S. Natl. Mus., 91, 1941: 107; Smith and Taylor, 1945: 40.
Coniophanes fissidens, Bocourt, 1886: 650, pl. 41, figs. 3–3d.
Tachymenis fissidens, Gunther, 1895: 161 (in part).

TYPE.—ANSP 3742. Honduras. Probably from the Pacific versant (Smith, *loc. cit.*: 108).

RANGE.—Low and moderate elevations of the Pacific versant from Tehuantepec, Mexico, to Costa Rica.

Coniophanes imperialis clavatus Peters

Dromicus (Dromicus) clavatus Peters, Monatsb. Akad. Wissen. Berlin, 1864: 388.
Coniophanes imperialis clavatus, Bailey, Occ. Papers Mus. Zool., Univ. Michigan, 362, 1937: 6; Smith and Taylor, 1945: 40.
Tachymenis fissidens, Gunther, 1895: 161 (in part).

TYPE.—Zoologisches Museum Berlin 5106. Mexico.

RANGE.—Low elevations of the Caribbean versant from Veracruz, Mexico, into northern Honduras.

Coniophanes quinquevittatus Dumeril, Bibron, and Dumeril

Homalopsis quinque-vittatus Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 975.
Coniophanes quinquevittatus, Bailey, Papers Michigan Acad. Sci., Arts, Letters, 24, 1938: 26, pl. 1, fig. 6; Smith and Taylor, 1945: 42.
Hydrocalamus quinquevittatus, Bocourt, 1895: 811, pl. 55, figs. 6–6f (1893), pl. 60, figs. 3–3a.

TYPE.—MNHN 516. Type locality unknown. Two specimens from El Peten, Guatemala, mentioned in type description.

RANGE.—Caribbean lowlands from southern Veracruz, Mexico, into northern Guatemala.

Coniophanes schmidti Bailey

Coniophanes schmidti Bailey, Occ. Papers Mus. Zool., Univ. Michigan, 362, 1937: 1; Smith and Taylor, 1945: 42.

TYPE.—UMMZ 73043. Chichen Itza, Yucatan, Mexico.

RANGE.—Lowlands of the Yucatan Peninsula southward into central El Peten, Guatemala.

Genus *Conophis* Peters[30]

Conophis Peters, Monatsb. Akad. Wissen. Berlin, 1860: 519.

GENEROTYPE.—*Conophis vittatus* Peters.

KEY TO GUATEMALAN SPECIES OF *CONOPHIS*

Anteriorly on body both the vertebral and paravertebral scale rows without dark markings, either lines or spots ..... *lineatus dunni*
Anteriorly on the body, of the middorsal scale rows only the vertebral row without dark markings ..... *pulcher*

Conophis lineatus dunni Smith

Conophis lineatus similis Smith, Jour. Washington Acad. Sci., 31, 1941: 123.
Conophis lineatus dunni Smith, Proc. U. S. Natl. Mus., 92, 1942: 395 (substitute name for *Conophis lineatus similis* Smith, preoccupied by *Conophis pulcher similis* Bocourt, 1886).
Conophis lineatus concolor, Smith and Taylor, 1945: 43 (in part).

TYPE.—USNM 79963. Managua, Nicaragua.

RANGE.—Low and moderate elevations from the Cuilco valley in northwestern Guatemala and from El Peten, Guatemala, and British Honduras south into Honduras along the Caribbean versant and to Costa Rica along the Pacific.

Conophis pulcher Cope

Conophis pulcher Cope, Proc. Acad. Nat. Sci. Phila., 20, 1868: 308; Bocourt, 1886: 646, pl. 38, figs. 6–6g.
Conophis pulcher similis, Bocourt, Miss. Sci. Mex., Rept., 1886: 647 (MNHN 6090; Guatemala by inference); Smith and Taylor, 1945: 43.
Conophis lineatus, Gunther, 1895: 165.

TYPE.—USNM 6751 (2) and 6803 (three syntypes). "Near Peten, Verapaz" [Guatemala].

RANGE.—Low and moderate elevations from Chiapas, Mexico, south to the southeastern highlands of Guatemala along the Pacific versant and the dry valleys of eastern and central Guatemala into Honduras along the Caribbean.

Genus *Dendrophidion* Fitzinger

Dendrophidion Fitzinger, Syst. Rept., 1843: 26.

GENEROTYPE.—*Herpetodryas dendrophis* Schlegel.

[30] I am indebted to John Wellman of the University of Kansas for suggesting this arrangement of Guatemalan *Conophis.*

Dendrophidion vinitor Smith

Dendrophidion vinitor Smith, Proc. Biol. Soc. Washington, 54, 1941: 74; Smith and Taylor, 1945: 46.
Dendrophidion dendrophis, Bocourt, 1890: 730, pl. 49, figs. 4–4e (in part).
Drymobius dendrophis, Gunther, 1894: 127 (in part).

TYPE.—USNM 110662. Piedras Negras, Guatemala.

RANGE.—Low and moderate elevations of the Caribbean versant from Veracruz, Mexico, south to Panama.

Genus *Dryadophis* Stuart

Dryadophis Stuart, Copeia, 1939: 55 (substitute name for *Eudryas* Fitzinger, 1843, preoccupied).
Eudryas Fitzinger, Syst. Rept., 1843: 26 (preoccupied, *Eudryas* Boisduval, 1836; Arthropoda, Insecta).

GENEROTYPE.—*Coluber boddaerti* Sentzen.

KEY TO GUATEMALAN SPECIES OF *DRYADOPHIS*

1. A narrow, dark middorsal stripe ..... *dorsalis*
   No dark middorsal stripe 2
2. Each dorsal scale outlined finely with black to give a reticulate appearance to dorsal pattern ..... *melanolomus melanolomus*
   Dorsal pattern not reticulate in appearance; a lateral light stripe on either side most conspicuous feature of pattern 3
3. Subcaudals generally more than 112 ..... *melanolomus laevis*
   Subcaudals generally fewer than 112 ..... *melanolomus tehuanae*

Dryadophis dorsalis Bocourt

Drymobius (Eudryas) dorsalis Bocourt, Miss. Sci. Mex., Rept., 1890: 724, pl. 51, figs. 2–2d.
Dryadophis dorsalis, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 49, 1941: 95, pl. 1, fig. 6, pl. 4, fig. 5.

TYPE.—MNHN 7391 and 91–257 (two syntypes). Plateau of Guatemala.

RANGE.—Moderate and intermediate elevations from the Pacific versant of southeastern Guatemala into Nicaragua.

Dryadophis melanolomus melanolomus Cope

Masticophis melanolomus Cope, Proc. Acad. Nat. Sci. Phila., 20, 1868: 134.
Dryadophis melanolomus melanolomus, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 49, 1941: 88, pl. 4, fig. 4; Smith and Taylor, 1945: 52.
Drymobius boddaertii, Gunther, 1894: 125 (in part).

TYPE.—USNM 24985. Yucatan, Mexico.

RANGE.—Lowlands of the Yucatan Peninsula south into central El Peten, Guatemala.

Dryadophis melanolomus laevis Fischer

Herpetodryas laevis Fischer, Arch. Natur., 47, 1881: 227, pl. 11, figs. 4–6.
Dromicus coeruleus Fischer, Jahrb. Hamburg Wissen. Anst., 2, 1885: 103, pl. 4, fig. 7 (type originally Naturhistorisches Museum Brunswick 5030b, present status unknown; Coban, Guatemala).
Drymobius boddaerti modesta Werner, Abh. Bayer, Akad. Wissen., 22, 1903: 346 (Zoologische Sammlung des Bayerischen Staates 1627/0; Coban, Guatemala).
Dryadophis melanolomus laevis, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 49, 1941: 86.
Drymobius (Eudryas) laevis, Bocourt, 1890: 722, pl. 51, figs. 6–6d.
Drymobius (Eudryas) caeruleus, Bocourt, 1890: 727, pl. 51, figs. 4–4d.
Drymobius boddaertii, Gunther, 1894: 125 (in part).

TYPE.—Originally Staatslich Museum fur Naturkunde Stuttgart 2032; present status unknown. Guatemala.

RANGE.—Low and moderate elevations in the mountains of Alta Verapaz, Guatemala.

Dryadophis melanolomus tehuanae Smith

Dryadophis melanolomus tehuanae Smith, Proc. U. S. Natl. Mus., 93, 1943: 420; Smith and Taylor, 1945: 53.

TYPE.—USNM 110917. Cerro Guengola, Oaxaca, Mexico.

RANGE.—Low and moderate elevations from Nayarit, Mexico, along the Pacific versant south to western Guatemala.

Genus *Drymarchon* Fitzinger

Drymarchon Fitzinger, Syst. Rept., 1843: 26.

GENEROTYPE.—*Coluber corais* Boie.

KEY TO GUATEMALAN SUBSPECIES OF *DRYMARCHON*

1. Entire dorsum black as is posterior portion of belly and underside of tail ..... *corais rubidus*
   Dorsum light brown anteriorly, posteriorly light brown to black 2
2. Entire dorsum light brown, not darker posteriorly than anteriorly .... *corais unicolor*
   Dorsum light brown anteriorly becoming darker posteriorly and end of tail black ..... *corais melanurus*

Drymarchon corais melanurus Dumeril, Bibron, and Dumeril

Spilotes melanurus Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 224.
Drymarchon corais melanurus, Stejneger and Barbour, Checklist N. Amer. Amph. Rept., ed. 1, 1917: 85 (in part); Smith and Taylor, 1945: 55.
Spilotes corais melanurus, Bocourt, 1888: 687, pl. 44, figs. 1–1e (in part).
Spilotes corais, var. 1, Gunther, 1894: 116 (in part).

TYPE.—MNHN 63–335. Mexico.

RANGE.—Low and moderate elevations from Veracruz, Mexico, on the Caribbean versant and from Nicaragua on the Pacific versant south into northwestern Colombia.

Drymarchon corais rubidus Smith

Drymarchon corais rubidus Smith, Jour. Washington Acad. Sci., 31, 1941: 474; Smith and Taylor, 1945: 56.

TYPE.—USNM 46430. Rosario, Sinaloa, Mexico.

RANGE.—Low and moderate elevations of the Pacific versant from Sinaloa, Mexico, south to the Isthmus of Tehuantepec and apparently through the valley of the Rio Grijalva of Chiapas, Mexico, into extreme southwestern Guatemala.

Drymarchon corais unicolor Smith

Drymarchon corais unicolor Smith, Jour. Washington Acad. Sci., 31, 1941: 470; Smith and Taylor, 1945: 56.

Spilotes corais, var. 1, Gunther, 1894: 116 (in part).

TYPE.—USNM 110865. Finca La Esperanza, near Escuintla, Chiapas, Mexico.

RANGE.—Low and moderate elevations from Chiapas, Mexico, along the Pacific versant into Nicaragua.

Genus *Drymobius* Fitzinger

Drymobius Fitzinger, Syst. Rept., 1843: 26.

GENEROTYPE.—*Herpetodryas margaritiferus* Schlegel.

KEY TO GUATEMALAN SPECIES OF *DRYMOBIUS*

1. Dorsal ground color green without lighter markings ..... *chloroticus*
   Dorsal ground color green but each scale with a light (yellow) streak to produce a speckled pattern 2
2. All or great majority of abdominal scutes with a dark posterior border ..... *margaritiferus margaritiferus*
   Except occasionally on their outer ends, abdominal scutes without dark posterior borders ..... *margaritiferus occidentalis*

Drymobius chloroticus Cope

Dendrophidium chloroticum Cope, Proc. Amer. Philos. Soc., 23, 1886: 278.

Drymobius chloroticus, Cope, Bull. U. S. Natl. Mus., 32, 1887: 69; Bocourt, 1890: 718, pl. 50, figs. 7–7e; Smith and Taylor, 1945: 57.

TYPE.—USNM 6755. Guatemala. Cope indicated later (*loc. cit.,* 1887) that the type was collected at Coban, Alta Verapaz.

RANGE.—Imperfectly known. Literature records indicate that it inhabits moderate elevations from San Luis Potosi, Mexico, along the Caribbean versant south to Honduras and from the Isthmus of Tehuantepec, Mexico, south to Costa Rica along the Pacific.

Drymobius margaritiferus margaritiferus Schlegel

Herpetodryas margaritiferus Schlegel, Ess. Phys. Serp., 1837: 184.
Drymobius margaritiferus [*margaritiferus*], Bocourt, 1890: 716, pl. 49, figs. 2–2d.
Drymobius margaritiferus, Gunther, 1894: 125 (in part).
Drymobius margaritiferus margaritiferus, Smith and Taylor, 1945: 57.

TYPE.—MNHN 7309. New Orleans (in error). Smith (Proc. U. S. Natl. Mus., 92, 1942: 383) suggests restriction to Veracruz, Mexico.

RANGE.—Low and moderate elevations from Texas southward along the Caribbean versant possibly to northern South America. Said to occur also in the region of Tonala, Chiapas, Mexico, on the Pacific side (Smith and Taylor, *loc. cit.*).

Drymobius margaritiferus occidentalis Bocourt

Drymobius margaritiferus occidentalis Bocourt, Miss. Sci. Mex., Rept., 1890: 718; Smith and Taylor, 1945: 57.
Drymobius margaritiferus, Gunther, 1894: 125 (in part).

TYPE.—MNHN 7395. Western [southern] versant of Guatemala near Volcan Atitlan.

RANGE.—Low and moderate elevations of the Pacific versant of eastern Chiapas, Mexico, eastward into El Salvador.

Genus *Elaphe* Fitzinger

Elaphe Fitzinger *in* Wagler, Descrip. Icon. Amphib., 3, 1833: text to pl. 27 (not seen, *fide* Dowling, Copeia, 1958: 38).

GENEROTYPE.—*Elaphe parreysii* Fitzinger = *Coluber quatuorlineata* Lacepede.

KEY TO GUATEMALAN SPECIES OF *ELAPHE*

1. Supralabials generally 9 ..... *flavirufa pardalina*
   Supralabials generally 8 2
2. Median frontoparietal band with a small, rounded opening at about middle of suture between parietals; band not opening anteriorly ..... *triaspis triaspis*
   Median frontoparietal band with an elongate opening along suture between parietals; band generally opening anteriorly, thus forming a bident ... *triaspis mutabilis*

Elaphe flavirufa pardalina Peters

Elaphis pardalinus Peters, Monatsb. Akad. Wissen. Berlin, 1868: 642.
Elaphis rodriguezi Bocourt, Le Natur., ser. 2, 14, 1887: 168, fig. (MNHN 88–154; Panzos, Guatemala); Bocourt, 1888: 683, pl. 46, figs. 1–1e.
Elaphe flavirufa pardalina, Dowling, Occ. Papers Mus. Zool., Univ. Michigan, 540, 1952: 9, pl. 1, fig. d.
Elaphe flavirufa flavirufa, Smith and Taylor, 1945: 59 (in part).

TYPE.—Zoologisches Museum Berlin 3790. Type locality unknown.

RANGE.—Caribbean lowlands from eastern Guatemala to Nicaragua (Corn Island).

Elaphe triaspis triaspis Cope

Coluber triaspis Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 128.
[*Elaphe triaspis triaspis*] by fiat, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 68.
Elaphe triaspis, Smith and Taylor, 1945: 60 (in part).

TYPE.—USNM 24903. Belize [British Honduras].

RANGE.—Lowlands of the Yucatan Peninsula south to central El Peten, Guatemala.

Elaphe triaspis mutabilis Cope[31]

Coluber mutabilis Cope, Proc. Amer. Philos. Soc., 22, 1885: 175.
Elaphe triaspis mutabilis, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 68.
Scotophis mutabilis, Bocourt, 1888: 680, pl. 46, figs. 2–2f.
Coluber triaspis, Gunther, 1894: 115 (in part).
Elaphe triaspis, Smith and Taylor, 1945: 60 (in part).

TYPE.—USNM 6745. Verapaz, Guatemala.

RANGE.—Moderate elevations from northern Guatemala south to Costa Rica.

Genus *Enulius* Cope

Enulius Cope, Proc. Amer. Philos. Soc., 11, 1870: 558.

GENEROTYPE.—*Enulius murinus* Cope = *Liophis flavitorques* Cope.

Enulius flavitorques Cope

Liophis flavitorques Cope, Proc. Acad. Nat. Sci. Phila., 20, 1868: 307.
Enulius flavitorques, Dunn, Proc. Acad. Nat. Sci. Phila., 89, 1937: 415; Smith and Taylor, 1945: 61 (nominal mention).

[31] Dowling (Zoologica, 45, 1960: 66–67, 75) considers the Pacific versant population of this species in Guatemala to be *mutabilis-intermedia* intergrades. To include *intermedia* herein would be a senseless multiplication of the Guatemalan snake fauna. On the other hand, *Elaphe flavirufa matudai* Smith (Copeia, 1941: 132; USNM 110303; Salto de Agua, 1200 ft., Mt. Ovando, 10 km. NW Escuintla, Chiapas [Mexico]) is to be expected along the Pacific versant of western Guatemala. In this subspecies the dorsal blotches at midbody extend laterally down to the second or third scale row, whereas in *Elaphe flavirufa pardalina* Peters the blotches do not extend beyond the fifth row.

TYPE.—ANSP 3695. Magdalena River, Colombia.

RANGE.—Low and moderate elevations of the Pacific versant from western Guatemala to Colombia.

Genus *Ficimia* Gray

Ficimia Gray, Catal. Snakes Brit. Mus., 1849: 80.

GENEROTYPE.—*Ficimia olivacea* Gray.

Ficimia publia publia Cope

Ficimia publia Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 126; Smith and Taylor, 1945: 63 (in part).
Ficimia publia publia, Smith, Jour. Washington Acad. Sci., 37, 1947: 411.

TYPE.—USNM 16427–28 (two syntypes). Yucatan, Mexico.

RANGE.—Low elevations from Tabasco, Mexico, to Honduras along the Caribbean versant and from Guerrero, Mexico, to eastern Guatemala along the Pacific.

Genus *Geophis* Wagler

Geophis Wagler, Natur. Syst. Amphib., 1830: 342 (substitute name for *Catostoma* Wagler, 1830, to avoid confusion with *Catostomus* Lesueur, 1817; Chordata, Osteichthyes).
Catostoma Wagler, Syst. Amphib., 1830: 194 (generotype, *Catostoma chalybeum* Wagler).
Colophrys Cope, Proc. Acad. Nat. Sci. Phila., 20, 1868: 130 (generotype, *Colophrys rhodogaster* Cope).

GENEROTYPE.—*Catostoma chalybeum* Wagler.

KEY TO GUATEMALAN SPECIES OF *GEOPHIS*

1. Some or all dorsal scales keeled 2
   Dorsal scales all smooth 3
2. Subcaudals more than 40; abdominal scutes with very dark posterior margins *carinosus*
   Subcaudals fewer than 40; abdominal scutes immaculate or with but faintly darkened posterior magins ..... *nasalis*
3. A small supraocular present ..... *dubius*
   No supraocular ..... *rhodogaster*

Geophis carinosus Stuart

Geophis carinosus Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 452, 1941: 3.

TYPE.—UMMZ 89082. Finca San Francisco, 27 km. NE Nebaj, El Quiche, Guatemala; about 1175 meters.

RANGE.—Moderate elevations along the Caribbean versant of Chiapas, Mexico, and the Sierra de los Cuchumatanes of Guatemala.

Geophis dubius Peters

Geophidium dubium Peters, Monatsb. Akad. Wissen. Berlin, 1861: 923.
Geophis dubius, Bocourt, 1883: 532, pl. 31, figs. 9–9c; Smith and Taylor, 1945: 67.

TYPE.—Zoologisches Museum Berlin 4064. Type locality unknown. According to Bocourt (*op. cit.*: 533) the type series (two individuals) was collected at Tehuantepec, Mexico.

RANGE.—Poorly known. Recorded from moderate elevations in Veracruz, Mexico, and from intermediate elevations on the Pacific versant of Guatemala in addition to the questionable Tehuantepec individuals.

Geophis nasalis Cope

Catostoma nasale Cope, Proc. Acad. Nat. Sci. Phila., 20, 1868: 131, fig.
Geophis nasalis, Smith, Smithson. Misc. Coll., 99, 1941: 4; Smith and Taylor, 1945: 69.
Geophis chalybaeus, Bocourt, 1883: 530, pl. 31, figs. 11–11c.
Geophis chalybaea, Gunther, 1893: 87 (in part).

TYPE.—ANSP 3319–21 (three syntypes). Near Guatemala City, Guatemala.

RANGE.—Moderate elevations along the Pacific versant from eastern Chiapas, Mexico, through western Guatemala.

Geophis rhodogaster Cope

Colophrys rhodogaster Cope, Proc. Acad. Nat. Sci. Phila., 20, 1868: 130, fig.
Geophis rhodogaster, Bocourt, 1883: 531, pl. 31, figs. 12–12d.
Geophis chalybaea, Gunther, 1893: 87 (in part).

TYPE.—Two and possibly three syntypes, ANSP 3316–17 and possibly USNM 12425. Neighborhood of Guatemala City, Guatemala.

RANGE.—Intermediate elevations on the plateau of southwestern Guatemala.

Genus *Imantodes* Dumeril[32]

Imantodes Dumeril, Mem. Acad. Sci., 23, 1853: 507.

GENEROTYPE.—*Coluber cenchoa* Linnaeus.

KEY TO GUATEMALAN SPECIES OF *IMANTODES*

1. Subcaudals more than 140 ..... *cenchoa leucomelas*
   Subcaudals fewer than 140 2
2. Blotches on dorsum of body generally fewer than 45, fifty per cent complete laterally ..... *gemmistratus gemmistratus*
   Blotches on dorsum of body more than 45, less than fifty per cent complete laterally ..... *gemmistratus oliveri*

[32] The varieties of *Imantodes* described as *Dipsas cenchoa* v. *rhombeata* and v. *reticulata* by Muller (Verhand. Natur. Gesell. Basel, 7, 1882: 151), because of their very poor descriptions, cannot be allocated properly at this time. The types are Naturhistorisches Museum Basel 1830–31 and 1832–37, respectively; type locality of both, "Guatemala." Collected by Bernoulli, the bulk of whose material stemmed from the south coast of Guatemala, either or both could conceivably be earlier names for *Imantodes gemmistratus oliveri* Smith or synonyms of *Imantodes gemmistratus gemmistratus* Cope as conceived herein.

Imantodes cenchoa leucomelas Cope

Himantodes leucomelas Cope, Proc. Acad. Nat. Sci. Phila., 13, 1861: 296.
Imantodes cenchoa leucomela, Smith, Proc. U. S. Natl. Mus., 92, 1942: 384, pl. 37, fig. 1; Smith and Taylor, 1945: 75.
Dipsas cenchoa, Gunther, 1895: 175 (in part).
Himantodes cenchoa, Mocquard, 1908: 914.

TYPE.—USNM 25035–36 (two syntypes). Mirador, Veracruz, Mexico.

RANGE.—Low and moderate elevations from Veracruz, Mexico, to northern Honduras on the Caribbean versant and from eastern Chiapas, Mexico, into southern Guatemala along the Pacific.

Imantodes gemmistratus gemmistratus Cope

Himantodes gemmistratus Cope, Proc. Acad. Nat. Sci. Phila., 13, 1861: 296.
Imantodes gemmistratus gemmistratus, Peters, Occ. Papers Mus. Zool., Univ. Michigan, 554, 1954: 24.
Dipsas gemmistratus, Gunther, 1895: 175 (in part).
Imantodes gemmistratus, Smith and Taylor, 1945: 75.

TYPE.—Originally in ANSP; now apparently lost. "San Salvador, Central America." Cited as of "near Isalco (*sic*), San Salvador" by Cope (Proc. Acad. Nat. Sci. Phila., 12, 1860: 265).

RANGE.—Low and moderate elevations of the Pacific versant from eastern Guatemala southward but southern limits unknown. The race occurs also in the Motagua Valley on the Caribbean versant of Guatemala and may extend across the southeastern highlands.

Imantodes gemmistratus oliveri Smith[33]

Imantodes splendidus oliveri Smith, Proc. U. S. Natl. Mus., 92, 1942: 388; Smith and Taylor, 1945: 77.
Imantodes gemmistratus oliveri, Peters, Occ. Papers Mus. Zool., Univ. Michigan, 554, 1954: 24.

TYPE.—MCZ 27800. Tapanatepec, Oaxaca, Mexico.

RANGE.—Low and moderate elevations from Oaxaca, Mexico, into western Guatemala.

[33] Previous investigators have apparently been unaware of the true character of *Imantodes gemmistratus gemmistratus* Cope and as a result have considered the Chiapas, Mexico, population of the species as typical. With the typical race at hand there can be no question that the populations from the Tehuantepec region and Chiapas, Mexico, as well as from western Guatemala, are definitely *Imantodes gemmistratus oliveri* Smith, which is very different from the typical populations known from eastern Guatemala and El Salvador.

Genus *Lampropeltis* Fitzinger

Lampropeltis Fitzinger, Syst. Rept., 1843: 25.

GENEROTYPE.—*Coluber getulus* Linnaeus.

KEY TO GUATEMALAN SUBSPECIES OF *LAMPROPELTIS*

1. Black annuli expanded middorsally to pinch out intervening light (yellow) annuli ..... *doliata abnorma*
   Black annuli not expanded middorsally; light annuli complete middorsally 2
2. Light (yellow) annuli numbering more than 18 on body; scales of red annuli with darker tips in adults ..... *doliata polyzona*
   Light annuli on body numbering 17 or less; scales of red annuli without darker tips ..... *doliata oligozona*

Lampropeltis doliata abnorma Bocourt

Coronella formosa anomala, Bocourt, Miss. Sci. Mex., Rept., 1886: 614.
Coronella formosa abnorma Bocourt, Miss. Sci. Mex., Rept., 1886: pl. 39, figs. 4–4c (substitute name for *Coronella formosa anomala* Bocourt, 1886; preoccupied, *Coronella anomala* Gunther, 1858).
Lampropeltis doliata abnorma, Klauber, Copeia, 1948: 11.
Coronella annulata, Gunther, 1893: 109 (in part).

TYPE.—MNHN 88–129. Alta Verapaz, Guatemala.

RANGE.—Low and moderate elevations in central Guatemala.

Lampropeltis doliata oligozona Bocourt

Coronella formosa oligozona Bocourt, Miss. Sci. Mex., Rept., 1886: 614, pl. 39, figs. 8–8d.
Lampropeltis doliata oligozona, Klauber, Copeia, 1948: 11.
Coronella annulata, Gunther, 1893: 109 (in part).
Lampropeltis triangulum oligozona, Smith and Taylor, 1945: 84.

TYPE.—MNHN 88–126–128, 4428, 6083 (five syntypes). Western [southern] slope of Guatemala and Isthmus of Tehuantepec.

RANGE.—Low and moderate elevations of the Pacific versant from the Isthmus of Tehuantepec, Mexico, southward at least through El Salvador.

Lampropeltis doliata polyzona Cope

Lampropeltis polyzona Cope, Proc. Acad. Nat. Sci. Phila., 12, 1860: 258.
Lampropeltis doliata polyzona, Klauber, Copeia, 1948: 11.
Lampropeltis triangulum polyzona, Smith and Taylor, 1945: 84.

TYPE.—ANSP 9770. Quatupe [= Cuatupe], near Jalapa, Mexico.

RANGE.—Low and moderate elevations of the Caribbean versant from Veracruz, Mexico, through Nicaragua with the exception of the outer end of the Yucatan Peninsula and the mountains of central Guatemala.

Genus *Leptodeira* Fitzinger

Leptodeira Fitzinger, Syst. Rept., 1843: 27.

GENEROTYPE.—*Coluber annulata* Linnaeus.

KEY TO GUATEMALAN SPECIES OF *LEPTODEIRA*

1. Dark body blotches generally fewer than 20 ..... *nigrofasciata*
   Dark body blotches generally more than 20 2
2. Abdominals generally more than 190 ..... *septentrionalis polysticta*
   Abdominals generally fewer than 190 3
3. A distinct postorbital dark stripe which contacts the first dark body blotch ..... *frenata malleisi*
   No distinct postorbital dark stripe or, if such is present, not contacting first dark body blotch ..... *annulata rhombifera*

Leptodeira annulata rhombifera Gunther

Leptodira rhombifera Gunther, Ann. Mag. Nat. Hist., ser. 4, 9, 1872: 32; Gunther, 1895: 173, pl. 54, fig. C.

Leptodeira annulata rhombifera, Duellman, Bull. Amer. Mus. Nat. Hist., 114, 1958: 39, pls. 4–6.

TYPE.—BMNH 1946.1.9.92. Rio Chisoy [= Chixoy or Negro], near the town of Cubulco [Baja Verapaz], Guatemala.

RANGE.—Low and moderate elevations from central Guatemala south into Panama.

Leptodeira frenata malleisi Dunn and Stuart

Leptodeira yucatanensis malleisi Dunn and Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 313, 1935: 1; Smith and Taylor, 1945: 90.

Leptodeira frenata malleisi, Duellman, Bull. Amer. Mus. Nat. Hist., 114, 1958: 62, pl. 14.

TYPE.—UMMZ 73230. Tuxpena, Campeche, Mexico.

RANGE.—Central portion of the Yucatan Peninsula from Campeche and Chiapas in Mexico through northern Guatemala into British Honduras.

Leptodeira nigrofasciata Gunther

Leptodira nigrofasciata Gunther, Ann. Mag. Nat. Hist., ser. 4, 1, 1868: 425.

TYPE.—BMNH 1946.1.8.37. Nicaragua.

RANGE.—Low and moderate elevations from Guerrero, Mexico, south along the Pacific versant and apparently through the dry basins and valleys of Chiapas, Mexico, central Guatemala and Honduras, and south along the Pacific versant of Central America to Costa Rica.

Leptodeira septentrionalis polysticta Gunther

Leptodira polysticta Gunther, Biol. Cent.-Amer., 1895: 172, pl. 55, fig. A.
Leptodeira septentrionalis polysticta, Duellman, Bull. Amer. Mus. Nat. Hist., 114, 1958: 72, pl. 17.
Leptodeira personata, Mocquard, 1908: 903, pl. 73, figs. 1–1b.
Leptodeira annulata polysticta, Smith and Taylor, 1945: 87.

TYPE.—Originally seven syntypes; lectotype by fiat (see below) BMNH 1946.1.8.45. Mexico: Jalapa, Oaxaca, Yucatan; British Honduras: Belize; Honduras; Panama. Restricted to Belize, British Honduras, by Smith and Taylor (*loc. cit.*).

RANGE.—Low and moderate elevations (occasionally higher) from Nayarit, Mexico, on the Pacific side and from Veracruz, Mexico, on the east southward through Central America to Costa Rica.

Genus *Leptodrymus* do Amaral

Leptodrymus do Amaral, Bull. Antiv. Inst. Amer., 1927: 28.

GENEROTYPE.—*Leptodrymus clarki* do Amaral = *Masticophis pulcherrimus* Cope.

Leptodrymus pulcherrimus Cope

Masticophis pulcherrimus Cope, Proc. Acad. Nat. Sci. Phila., 26, 1874: 65.
Zamenis bitaeniatus Boettger, Kat. Rept.-Samm. Senckenb. Natur. Gesell. Frankfurt, 2, 1898: 42 (Senckenbergischen Naturforschenden Gesellschaft Frankfurt 18130; Ratalhuleu, Guatemala).
Leptodrymus pulcherrimus, Dunn, Copeia, 1931: 163.

TYPE.—ANSP 5199 and 14688 (two syntypes). Western side of Central America.

RANGE.—Low elevations of the Pacific versant from Guatemala to Nicaragua and along the Caribbean from Honduras to Costa Rica.

Genus *Leptophis* Bell

Leptophis Bell, Zool. Jour., 2, 1825: 328.

GENEROTYPE.—*Coluber ahaetulla* Linnaeus.

KEY TO GUATEMALAN SPECIES OF *LEPTOPHIS*

Loreal present	*mexicanus mexicanus*
Loreal absent	*ahaetulla praestans*

Leptophis ahaetulla praestans Cope

Thrasops praestans Cope, Proc. Acad. Nat. Sci. Phila., 20, 1868: 309.
Thrasops (Ahaetulla) sargii Fischer, Arch. Natur., 47, 1881: 229, pl. 11, figs. 7–9 (originally Staatslich Museum fur Naturkunde Stuttgart 2022, present status unknown; Coban, Guatemala).
Leptophis ahaetulla [praestans] by fiat, Inter. Comm. Zool. Nomen., Opinion 524, 1958: 270.
Leptophis occidentalis praestans, Smith and Taylor, 1945: 91.

TYPE.—USNM 6754 (two syntypes). "Near El Peten, Guatemala."

RANGE.—Low and moderate elevations from central Veracruz, Mexico, southward on the Caribbean versant into northern Honduras.

Leptophis mexicanus mexicanus Dumeril, Bibron, and Dumeril

Leptophis mexicanus Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 536; Gunther, 1894: 129 (in part); Bocourt, 1897: 831, pl. 64, figs. 4–4g.
Ahaetulla modesta Gunther, Ann. Mag. Nat. Hist., ser. 4, 9, 1872: 26, pl. 26, fig. C (BMNH 1946.1.21.50; Rio Chisoy [= Chixoy or Negro] below the town of Cubulco [Baja Verapaz], Guatemala).
Leptophis mexicanus mexicanus, Oliver, Occ. Papers Mus. Zool., Univ. Michigan, 462, 1942: 10; Smith and Taylor, 1945: 91.
Leptophis modestus, Gunther, 1894: 129, pl. 48; Bocourt, 1897: 833, pl. 65, figs. 1–1g.

TYPE.—MNHN 3453 and 3455 (two syntypes). Mexico.

RANGE.—Low and moderate elevations from Tamaulipas, Mexico, into Costa Rica (with the exception of the outer end of the Yucatan Peninsula) on the Caribbean versant and from the Isthmus of Tehuantepec, Mexico, into Guatemala along the Pacific.

Genus *Masticophis* Baird and Girard

Masticophis Baird and Girard, Catal. N. Amer. Rept., 1853: 98.

GENEROTYPE.—*Masticophis ornatus* Baird and Girard.

Masticophis mentovarius mentovarius Dumeril, Bibron, and Dumeril

Coryphodon mento-varius Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 187.
Bascanion suboculare Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 319 (USNM 6753 and 6762, two syntypes; between Coban and Chisec, Guatemala).
Masticophis mentovarius mentovarius, Smith, Copeia, 1942: 87; Smith and Taylor, 1945: 96.
Zamenis flavigularis, Gunther, 1894: 120 (in part).

TYPE.—MNHN 3199 and 3331 (two syntypes). Mexico.

RANGE.—Low and moderate elevations from San Luis Potosi, Mexico, to Honduras on the Caribbean versant and from Guerrero, Mexico, to Costa Rica along the Pacific.

Genus *Ninia* Baird and Girard[34]

Ninia Baird and Girard, Catal. N. Amer. Rept., 1853: 49.

GENEROTYPE.—*Ninia diademata* Baird and Girard.

KEY TO GUATEMALAN SPECIES OF *NINIA*

1. Belly immaculate or with dark fleckings or peppering 2
   Belly with bold, dark checks or spots 4
2. Dorsum immaculate without dark spotting or crossbanding or almost so ..... *sebae morleyi*
   Dorsum with dark crossbands or heavily spotted with black 3
3. Dorsum generally with dark crossbands ..... *sebae sebae*
   Dorsum generally with irregularly arranged dark spots ..... *sebae punctulata*
4. Supralabials 7; belly with irregular dark checks ..... *maculata pavimentata*
   Supralabials 6; belly with rounded or crescent-shaped spots generally regularly arranged 5
5. Dark midbelly spots rounded; abdominals 132–145 in males, 138–150 in females ..... *diademata labiosa*
   Dark midbelly spots crescent-shaped; abdominals 127–131 in males, 130–137 in females ..... *diademata nietoi*

Ninia diademata labiosa Bocourt

Streptophorus labiosus Bocourt, Miss. Sci. Mex., Rept., 1883: 550, pl. 32, figs. 6–6f.
Ninia diademata labiosa, do Amaral, Mem. Inst. Butantan, 4, 1930: 151.

TYPE.—MNHN 5944. Guatemala.

RANGE.—Moderate elevations of the Pacific versant from Oaxaca, Mexico, into Guatemala.

Ninia diademata nietoi Burger and Werler

Ninia diademata nietoi Burger and Werler, Univ. Kansas Sci. Bull., 36, 1954: 657, fig. 1.
Ninia diademata diademata, Smith and Taylor, 1945: 99 (in part).

TYPE.—University of Illinois Museum of Natural History 2851. San Andres Tuxtla, Veracruz, Mexico.

[34] The arrangement of *Ninia* presented herein differs in several details from those of authors who have dealt recently with the genus, notably Burger and Werler (Univ. Kansas Sci. Bull., 36, 1954: 643–72) and Schmidt and Rand (Fieldiana, Zool., 39, 1957: 73–84). Such characters as have been utilized to distinguish between the several races of *Ninia sebae* especially are subject to wide variation. The nature of the dorsal markings and the amount of reduction of the same are particularly so. It has been my experience to note that dry-land populations of *Ninia sebae* in Honduras, Guatemala, and El Salvador approach in loss of dorsal markings the condition noted in *Ninia sebae immaculata* Schmidt and Rand, and which those authors do not extend north of Nicaragua. Dark dorsal crossbanding as opposed to dark dorsal spotting, which has been used to separate *Ninia sebae sebae* from *Ninia sebae punctulata,* is, furthermore, only an average condition at best. Rather than make any drastic changes in the arrangement of *Ninia sebae,* which could well produce greater confusion than that which now exists, I have followed a moderate course.

RANGE.—Low and moderate elevations of the Caribbean versant from southern Veracruz, Mexico, into Honduras, avoiding the outer end of the Yucatan Peninsula.

Ninia maculata pavimentata Bocourt

Streptophorus maculatus pavimentatus Bocourt, Miss. Sci. Mex., Rept., 1883: 549, pl. 32, figs. 8–8d, pl. 33, fig. 2.
Ninia maculata pavimentata, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 75.

TYPE.—MNHN 1192. Alta Verapaz, Guatemala.

RANGE.—Known only from moderate elevations in the mountains of Alta Verapaz, Guatemala.

Ninia sebae sebae Dumeril, Bibron, and Dumeril

Streptophorus sebae Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 515.
Ninia sebae sebae, Schmidt and Andrews, Field Mus. Nat. Hist., zool. ser., 20, 1936: 170; Smith and Taylor, 1945: 100 (in part).
Streptophorus sebae collaris, Bocourt, 1883: 547.
Streptophorus atratus sebae, fasciatus, drozii, collaris, Gunther, 1893: 101–02 (all in part).

TYPE.—MNHN 7303. Mexico. Restricted to Veracruz, Mexico, by Schmidt and Andrews (*op. cit.*: 170).

RANGE.—Low and moderate elevations of the Caribbean versant from Veracruz, Mexico, south through Honduras, avoiding the outer end of the Yucatan Peninsula.

Ninia sebae morleyi Schmidt and Andrews

Ninia sebae morleyi Schmidt and Andrews, Field Mus. Nat. Hist., zool. ser., 20, 1936: 169; Smith and Taylor, 1945: 100.

TYPE.—CNHM 20619. Chichen Itza, Yucatan, Mexico.

RANGE.—Lowlands of the Yucatan Peninsula, south into British Honduras and northern El Peten, Guatemala.

Ninia sebae punctulata Bocourt

Streptophorus sebae punctulatus Bocourt, Miss. Sci. Mex., Rept.,1883: 547.
Ninia sebae punctulata, Schmidt and Rand, Fieldiana, Zool., 39, 1957: 79.
Streptophorus atratus punctulatus, Gunther, 1893: 102.
Ninia sebae sebae, Smith and Taylor, 1945: 100 (in part).

TYPE.—MNHN 1894–95–96 (two syntypes). Guatemala. Schmidt and Rand (*op. cit.*: 79) suggest restriction to "vicinity of Quezaltenango on the Pacific slope of southern Guatemala."

RANGE.—Low and moderate elevations of the Pacific versant from Oaxaca, Mexico, into El Salvador.

Genus *Oxybelis* Wagler

Oxybelis Wagler, Natur. Syst. Amphib., 1830: 183.

GENEROTYPE.—*Dryinus aeneus* Wagler.

KEY TO GUATEMALAN SPECIES OF *OXYBELIS*

1. Dorsal ground color green ..... *fulgidus*
   Dorsal ground color gray or pinkish gray 2
2. Diameter of eye greater than internasal length ..... *aeneus aeneus*
   Diameter of eye less than internasal length ..... *aeneus auratus*

Oxybelis aeneus aeneus Wagler

Dryinus aeneus Wagler *in* Spix, Serp. Brasil., 1824: 12, pl. 3.

Oxybelis aeneus aeneus, Bogert and Oliver, Bull. Amer. Mus. Nat. Hist., 83, 1945: 391, figs. 10–12.

Oxybelis acuminatus, Bocourt, 1897: 838, pl. 65, figs. 4–4f; Smith and Taylor, 1945: 102 (in part).

Dryiophis acuminata, Gunther, 1895: 177 (in part).

TYPE.—Zoologisches Museum Berlin, apparently an individual in a series numbered 2376–2384, *fide* H. Wermuth (*in litt.*). Near Ega [Brazil]. According to Bogert and Oliver (*loc. cit.*), Teffe is the modern name of Ega and is "on the south bank of the Amazon River near the junction of the Rio Teffe, almost in the center of the state of Amazonas."

RANGE.—Low and moderate elevations of northern, eastern, and southern Guatemala southward to Brazil and Bolivia.

Oxybelis aeneus auratus Bell

Dryinus auratus Bell, Zool. Jour., 2 ,1825: 324, pl. 12.

Oxybelis aeneus auratus, Bogert and Oliver, Bull. Amer. Mus. Nat. Hist., 83, 1945: 381, figs. 10–12.

Oxybelis acuminatus, Smith and Taylor, 1945: 102 (in part).

TYPE.—Unknown. Mexico.

RANGE.—Low and moderate elevations from extreme southwestern United States southward through Mexico to the Isthmus of Tehuantepec, into the Grijalva Valley of Chiapas, and into northwestern Guatemala.

Oxybelis fulgidus Daudin

Coluber fulgidus Daudin, Hist. Nat. Rept., 6, An XI [Fr. Rev. = 1803 or 1804]: 352, pl. 80.

Oxybelis fulgidus, Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 817; Smith and Taylor, 1945: 102.

TYPE.—MNHN, not definitely identifiable, *fide* J. Guibe (*in litt.*). Santo Domingo (in error). Schmidt (Field Mus. Nat. Hist., zool. ser., 22, 1941: 506) suggests Surinam.

RANGE.—Generally distributed at low and moderate elevations from the Isthmus of Tehuantepec, Mexico, to Argentina.

Genus *Oxyrhopus* Wagler

Oxyrhopus Wagler, Natur. Syst. Amphib., 1830: 185.

GENEROTYPE.—*Coluber petola* Linnaeus.

Oxyrhopus petola aequifasciatus Werner

Oxyrhopus doliatus aequifasciata Werner, Mitt. Natur. Mus. Hamburg, 24, 1909: 231.
Oxyrrhopus (sic) petolarius, Gunther, 1895: 167 (in part).

TYPE.—Originally in the Zoologisches Museum Hamburg; since apparently destroyed. Coban, Guatemala.

RANGE.—Low and moderate elevations of the Caribbean versant probably from extreme southern Mexico through Guatemala.

Genus *Pituophis* Holbrook

Pituophis Holbrook, N. Amer. Herpet., ed. 2, 4, 1842: 7.

GENEROTYPE.—*Coluber melanoleucus* Daudin.

Pituophis lineaticollis gibsoni Stuart

Pituophis deppei gibsoni Stuart, Proc. Biol. Soc. Washington, 67, 1954: 172.
Pituophis lineaticollis gibsoni, Duellman, Univ. Kansas Pub., Mus. Nat. Hist., 10, 1960: 608.
Pituophis lineaticollis, Gunther, 1894: 124, pl. 47.
Pituophis deppei lineaticollis, Smith and Taylor, 1945: 108 (in part).

TYPE.—UMMZ 107060. Vicinity of Yepocapa, Dpto. Chimaltenango, Guatemala; 1430 meters.

RANGE.—Imperfectly known but recorded from moderate and intermediate elevations of the Pacific versant of western Guatemala and from the Caribbean versant of the Sierra de los Cuchumatanes.

Genus *Pliocercus* Cope

Pliocercus Cope, Proc. Acad. Nat. Sci. Phila., 12, 1860: 253.

GENEROTYPE.—*Pliocercus elapoides* Cope.

KEY TO GUATEMALAN SPECIES OF *PLIOCERCUS*

1. Annuli on body alternating red and black only ..... *euryzonus aequalis*
   Annuli on body of red, black, and yellow, the black most frequently arranged in triads 2
2. Primary black annuli on body fewer than 12 ..... *elapoides diastemus*
   Primary black annuli on body more than 12 ..... *elapoides salvini*

Pliocercus elapoides diastemus Bocourt

Liophis elapoides diastema Bocourt, Miss. Sci. Mex., Rept., 1886: 636, pl. 41, fig. 8.
Pliocercus elapoides diastemus, Smith, Proc. Biol. Soc. Washington, 54, 1941: 120; Smith and Taylor, 1945: 111.
Elapochrus deppii, Gunther, 1893: 106.

TYPE.—MNHN 88–132–133 (two syntypes). Plateau of Guatemala.

RANGE.—Low and moderate elevations of the Pacific versant from Chiapas, Mexico, into El Salvador.

Pliocercus elapoides salvini Muller[35]

Pliocercus salvinii Muller, Verhand. Natur. Gesell. Basel, 6, 1878: pl. 2A (explanation, p. 709).
Pliocercus elapoides salvinii, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 71.
Liophis elapoides aequalis, Bocourt, 1886: 637, pl. 41, figs. 7–7e (possibly in part).
Pliocercus elapoides laticollaris, Smith and Taylor, 1945: 111.

TYPE.—Naturhistorisches Museum Basel 1495. Verapaz, Guatemala.

RANGE.—Low and moderate elevations of central and northern Guatemala.

Pliocercus euryzonus aequalis Salvin

Pliocercus aequalis Salvin, Proc. Zool. Soc. London, 1861: 227; Smith and Taylor, 1945: 110 (in part).
?*Pliocercus sargii* Fischer, Arch. Natur., 47, 1881: 225, pl. 11, figs. 1–3 (originally Staatslich Museum fur Naturkunde Stuttgart 2012, present status unknown; Coban, Guatemala).
Pliocercus euryzonus aequalis, Stuart, Misc. Pub. Mus. Zool., Univ. Michigan, 69, 1948: 72.
Liophis elapoides aequalis, Bocourt, 1886: 637, pl. 41, figs. 7–7e (in part).
Elapochrus aequalis, Gunther, 1893: 106, pl. 36, fig. A (in part).

TYPE.—BMNH 1946.1.1.4. San Geronimo and the mountains of [Baja] Verapaz, Guatemala.

[35] Several races of *Pliocercus elapoides* have been named from the Caribbean versant of northern Central America and southern Mexico. The basis for these names of various populations has been pretty largely the number of black annuli on the body, width of the various annuli, and whether or not the annuli are complete ventrally. There appears to be considerable variation in these characters, though there is a definite cline in the number of black annuli between Veracruz, Mexico, and central Guatemala. I am inclined to recognize only the two end populations nomenclatorially for the present.

RANGE.—Known only from low and moderate elevations of the Caribbean versant of central Guatemala, but possibly extending into Mexico.

Genus *Pseustes* Fitzinger

Pseustes Fitzinger, Syst. Rept., 1843: 27.

GENEROTYPE.—*Dipsas dieperinkii* Schlegel = *Natrix sulphurea* Wagler.

KEY TO GUATEMALAN SUBSPECIES OF *PSEUSTES*

A pair of paravertebral stripes on body ..... *poecilonotus poecilonotus*
No paravertebral stripes; body markings of scattered dark spots and oblique lines
..... *poecilonotus argus*

Pseustes poecilonotus poecilonotus Gunther

Spilotes poecilonotus Gunther, Catal. Colubr. Snakes Brit. Mus., 1858: 100; Gunther, 1894: 117, pl. 43 (in part).
Pseustes [poecilonotus poecilonotus] by fiat, Brongersma, Zool. Meded., 20, 1937: 5–6; Smith and Taylor, 1945: 114.
Spilotes lunulatus, Bocourt, 1888: 694, pl. 42, figs. 1–1e.

TYPE.—BMNH 1946.1.7.41. Honduras; Mexico. Apparently restricted to Honduras.[36]

RANGE.—The Yucatan Peninsula south through eastern El Peten and British Honduras into northern Honduras.

Pseustes poecilonotus argus Bocourt

Spilotes argus Bocourt, Miss. Sci. Mex., Rept., 1888: 692, pl. 48, figs. 10–10f (1890).
Pseustes [poecilonotus argus] by fiat, Brongersma, Zool. Meded., 20, 1937: 5–6; Smith and Taylor, 1945: 114.

TYPE.—Institut Royal des Sciences Naturelles de Belgique, I. G. No. 9.422, Reg. No. 510, Reg. types No. 2.060. Mexico.

RANGE.—Low and moderate elevations from San Luis Potosi, Mexico, southward on the Gulf of Mexico side into northwestern El Peten, Guatemala, and occurring locally on the Pacific versant in the neighborhood of the Isthmus of Tehuantepec.

[36] *Spilotes poecilonotus* was actually based upon two specimens, one from Honduras and the other from Mexico. Boulenger (Catal. Snakes Brit. Mus., 2, 1894: 20) recognized the Honduranian specimen as the type of the species and placed the Mexican specimen under *Phrynonax lunulatus* Cope, since considered a synonym of *poecilonotus*. In so doing Boulenger apparently selected a lectotype and restricted the type locality. Schmidt (Field Mus. Nat. Hist., zool. ser. 22, 1941: 499) suggested that the "Honduranian" specimen may actually have been collected in British Honduras.

Genus *Rhadinaea* Cope[37]

Rhadinaea Cope, Proc. Acad. Nat. Sci. Phila., 15, 1863. 100.

GENEROTYPE.—*Taeniophis vermiculaticeps* Cope.

KEY TO GUATEMALAN SPECIES OF *RHADINAEA* AND *TRIMETOPON*

1. Dorsal scales disposed in 17 longitudinal rows 2
   Dorsal scales disposed in more than 17 rows 7
2. Supralabials 7 ..... *Trimetopon posadasi* (p. 122)
   Supralabials 8 3
3. Two postoculars 4
   A single postocular 6
4. More than 150 abdominal scutes ..... *Rhadinaea lachrymans* (below)
   Fewer than 150 abdominal scutes 5
5. More than 135 abdominals, fewer than 85 subcaudals .. *Trimetopon veraepacis* (p. 122)
   Fewer than 135 abdominals, more than 85 subcaudals .... *Rhadinaea decorata* (below)
6. More than 160 abdominal scutes ..... *Trimetopon pilonaorum* (p. 122)
   Fewer than 160 abdominal scutes ..... *Trimetopon hannsteini* (p. 122)
7. Dorsal scutes in 21 longitudinal rows ..... *Rhadinaea godmani* (below)
   Dorsal scutes in 19 longitudinal rows 8
8. Fewer than 175 abdominals, more than 85 subcaudals ..... *Rhadinaea hempsteadae* (below)
   More than 175 abdominals, fewer than 85 subcaudals .. *Rhadinaea stadelmani* (below)

Rhadinaea decorata Gunther

Coronella decorata Gunther, Catal. Colub. Snakes Brit. Mus., 1858: 35.

Erythrolamprus longicaudus Werner, Abh. Bayer. Akad. Wissen., 22, 1903: 348 (originally Zoologische Sammlung des Bayerischen Staates 216/0, since lost or destroyed; Guatemala).

Rhadinaea decorata, Cope, Proc. Acad. Nat. Sci. Phila., 15, 1863: 101; Smith and Taylor, 1945: 116.

TYPE.—BMNH 1946.1.9.3–4 (two syntypes). Mexico.

RANGE.—Low and moderate elevations from Veracruz, Mexico, into Panama on the Caribbean versant and locally on the Pacific side in western Chiapas, Mexico.

Rhadinaea godmani Gunther

Dromicus godmanni Gunther, Ann. Mag. Nat. Hist., ser. 3, 15, 1865: 94.

Rhadinaea godmanii, Cope, Jour. Acad. Nat. Sci. Phila., 8, 1876: 139.

Henicognathus godmanii, Bocourt, 1886: 631, pl. 40, figs. 5–5d.

Coronella godmani, Gunther, 1893: 110, pl. 39, fig. B.

[37] For the past several years there has been a movement afoot to bring *Rhadinaea* into the synonymy of *Urotheca*. The matter has been considered by Dunn (Caldasia, 2, 1944: 65; Copeia, 1957: 77) and Rose (Breviora, 88, 1958: 4–5). Although, in general, I believe the evidence in support of this move to be sound, I hesitate to further confuse the issue until such a time as a complete consideration of the interrelationships of the species involved has been presented.

TYPE.—BMNH 1946.1.9.14–17 (four syntypes). Duenas, Guatemala.

RANGE.—Intermediate elevations on the southwestern highlands of Guatemala into El Salvador.

Rhadinaea hempsteadae Stuart and Bailey

Rhadinaea hempsteadae Stuart and Bailey, Occ. Papers Mus. Zool., Univ. Michigan, 442, 1941: 2, fig. 1.

TYPE.—UMMZ 89080. Cloud forest zone (ca. 5700 feet) above Finca Chichen, Alta Verapaz, Guatemala.

RANGE.—Intermediate elevations in the mountains of Alta Verapaz, Guatemala.

Rhadinaea lachrymans Cope

Lygophis lachrymans Cope, Proc. Amer. Philos. Soc., 11, 1869: 154.
Rhadinaea lachrymans, Cope, Jour. Acad. Nat. Sci. Phila., 8, 1876: 140; Smith and Taylor, 1945: 118.

TYPE.—ANSP 5539. Type locality unknown. Bailey (Occ. Papers Mus. Zool., Univ. Michigan, 412, 1940: 7) suggested Chiapas, Mexico.

RANGE.—Moderate and intermediate elevations of the Pacific versant of Chiapas, Mexico, and Guatemala.

Rhadinaea stadelmani Stuart and Bailey

Rhadinaea stadelmani Stuart and Bailey, Occ. Papers Mus. Zool., Univ. Michigan, 442, 1941: 4, fig. 1.

TYPE.—UMMZ 89078. Todos Santos, Huehuetenango, Guatemala; 8000 feet.

RANGE.—Intermediate elevations on both the eastern and western flanks of the Sierra de los Cuchumatanes of Guatemala.

Genus *Scaphiodontophis* Taylor and Smith

Scaphiodontophis Taylor and Smith, Univ. Kansas Sci. Bull., 29, 1943: 302.

GENEROTYPE.—*Enicognathus annulatus* Dumeril, Bibron, and Dumeril.

KEY TO GUATEMALAN SPECIES OF *SCAPHIODONTOPHIS*

1. No more than three sets of black-yellow-black rings on anterior part of body ..... *carpicinctus*
   Five or more sets of black-yellow-black rings on anterior part of body 2
2. A single black band on nape intervening between black head cap and first black-yellow-black series ..... *zeteki nothus*
   No dark band on nape between first black-yellow-black series and black head cap ..... *annulatus annulatus*

Scaphiodontophis annulatus annulatus Dumeril, Bibron, and Dumeril

Enicognathus annulatus Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 335, pl. 80 (anticipatory mention, Dumeril, Mem. Acad. Sci., 23, 1853: 454).
Scaphiodontophis annulatus annulatus, Taylor and Smith, Univ. Kansas Sci. Bull., 29, 1943: 311.
Henicognathus annulatus, Bocourt, 1886: 626 (in part); Gunther, 1893: 107 (in part).

TYPE.—MNHN 7283. Coban, Alta Verapaz, Guatemala.

RANGE.—Low and moderate elevations from central El Peten, Guatemala, and British Honduras southward into Alta Verapaz, Guatemala.

Scaphiodontophis carpicinctus Taylor and Smith[38]

Scaphiodontophis carpicinctus Taylor and Smith, Univ. Kansas Sci. Bull., 29, 1943: 315, fig. 6, pl. 22, fig. 1; Smith and Taylor, 1945: 29.

TYPE.—USNM 110411. Piedras Negras, Guatemala.

RANGE.—Known only from the type locality and Tikal, El Peten, Guatemala, and probably restricted to the forests of the base of the Yucatan Peninsula.

Scaphiodontophis zeteki nothus Taylor and Smith

Scaphiodontophis nothus Taylor and Smith, Univ. Kansas Sci. Bull., 29, 1943: 320, fig. 8, pl. 23, fig. 2.
Scaphiodontophis zeteki nothus, Alvarez del Toro and Smith, Herpetologica, 14, 1958: 17.
Henicognathus annulatus, Bocourt, 1886: 626, pl. 40, figs. 6–6e (in part).
Scaphiodontophis albonuchalis, Smith and Taylor, 1945: 28.

TYPE.—USNM 110412. Potrero Viejo, Veracruz [Mexico].

RANGE.—Low and moderate elevations from the Isthmus of Tehuantepec, Mexico, probably to about Nicaragua along the Pacific versant and from Veracruz, Mexico, into Tabasco on the Gulf of Mexico side.

Genus *Scolecophis* Fitzinger

Scolecophis Fitzinger, Syst. Rept., 1843: 25.

GENEROTYPE.—*Calamaria atrocincta* Schlegel.

Scolecophis atrocinctus Schlegel

Calamaria atrocincta Schlegel, Ess. Phys. Serp., 1837: 47.
Scolecophis atrocincta, Fitzinger, Syst. Rept., 1843: 25; Bocourt, 1883: 577, pl. 37, figs. 2–2e (1886); Gunther, 1895: 156.

[38] For a comment concerning the probable *annulatus-carpicinctus* relationships see Alvarez del Toro and Smith (Herpetologica, 14, 1958: 17).

TYPE.—In MNHN but not definitely identifiable, *fide* J. Guibe (*in litt.*). Chile (undoubtedly in error).[39]

RANGE.—Known only from moderate elevations along the Pacific versant from eastern Guatemala to Nicaragua.

Genus *Sibon* Fitzinger

Sibon Fitzinger, Neue Class. Rept., 1826: 31.

GENEROTYPE.—*Coluber nebulatus* Linnaeus.

KEY TO GUATEMALAN SPECIES OF *SIBON*

1. A pair of lower labials in contact behind mental shield ..... *nebulata nebulata*
   All anterior pairs of lower labials separated by an azygous scale lying behind mental..2
2. Dorsal saddles with light centers which contrast strongly with darker borders ..... *dimidiata dimidiata*
   Dorsal saddles without light centers ..... *dimidiata grandoculis*

Sibon dimidiata dimidiata Gunther

Leptognathus dimidiatus Gunther, Ann. Mag. Nat. Hist., ser. 4, 9, 1872: 31; Mocquard, 1908: 893.

Petalognathus multifasciatus Jan *in* Bocourt, Bull. Soc. Philom., ser. 7, 8, 1884: 139 (MNHN 3433; Verapaz, Guatemala); credited by Bocourt to Jan as a manuscript name.

Sibon dimidiata dimidiata, Peters, Misc. Pub. Mus. Zool., Univ. Michigan, 114, 1960: 182, pl. 7b.

Dipsas dimidiatus, Smith and Taylor, 1945: 50.

TYPE.—BMNH 1946.1.20.97. Mexico.

RANGE.—Low and moderate elevations of the Caribbean versant from southern Veracruz, Mexico, southward through northern Guatemala and Honduras into Nicaragua.

Sibon dimidiata grandoculis Muller

Leptognathus (Asthenognathus) grandoculis Muller, Verhand. Natur. Gesell. Basel, 8, 1890: 271, pl. 1, fig. 2.

Sibon dimidiata grandoculis, Peters, Misc. Pub. Mus. Zool., Univ. Michigan, 114, 1960: 185, pl. 7a.

Dipsas grandoculis, Smith and Taylor, 1945: 50 (suggestion that this may be a valid form).

TYPE.—Naturhistorisches Museum Basel 2342. Mazatenango, Guatemala.

[39] I have long entertained some doubts as to whether this name is properly applied to a Central American rather than a South American species. It seems inconceivable that specimens of so rare a species should have reached European museums before 1837, some 15 years prior to the appearance of even the commonest species of northern Central America in those same museums.

RANGE.—Low and moderate elevations of the Pacific versant of western Guatemala.

Sibon nebulata nebulata Linnaeus

Coluber nebulatus Linnaeus, Syst. Nat., ed. 10, 1758: 222.
Sibon nebulata nebulata, Peters, Misc. Pub. Mus. Zool., Univ. Michigan, 114, 1960: 199.
Petalognathus nebulatus, Mocquard, 1908: 881, pl. 72, figs. 3–3b.
Sibon nebulatus, Smith and Taylor, 1945: 126.

TYPE.—Naturhistoriska Riksmuseet Stockholm 60 (lectotype, Andersson, Bihang Till K. Vet.-Akad. Handl., 24, 1899: 19). America.

RANGE.—Widespread at low and moderate elevations from Jalisco and Veracruz, Mexico, southward through Central America into South America.

Genus *Spilotes* Wagler

Spilotes Wagler, Natur. Syst. Amphib., 1830: 179.

GENEROTYPE.—*Coluber pullatus* Linnaeus.

Spilotes pullatus mexicanus Laurenti

Cerastes mexicanus Laurenti, Synop. Rept., 1768: 83.
Spilotes salvini Gunther, Ann. Mag. Nat. Hist., ser. 3, 9, 1862: 125, pl. 9, fig. 5 (BMNH 1946.1.12.92; Yzabal, Guatemala); Gunther, 1894: 116, pl. 42.
Spilotes microlepis Werner, Abh. Bayer. Akad. Wissen., 22, 1903: 346 (originally Zoologische Sammlung des Bayerischen Staates, now either lost or destroyed; Guatemala).
Spilotes pullatus mexicanus, do Amaral, Bull. Inst. Butantan, 4, 1929: 282, fig. 6; Smith and Taylor, 1945: 131.
Spilotes auribundus, Bocourt, 1888: 689, pl. 44, figs. 5–5f.

TYPE.—Probably based on Seba plate (II, 20, 1), *fide* J. Eiselt (*in litt.*). No type locality given but name implies Mexico.

RANGE.—Generally distributed at low and moderate elevations from Tamaulipas and Oaxaca, Mexico, to Honduras.

Genus *Stenorrhina* Dumeril

Stenorrhina Dumeril, Mem. Acad. Sci., 23, 1853: 490.

GENEROTYPE.—*Stenorhina ventralis* Dumeril, Bibron, and Dumeril. Anticipatory mention, Dumeril (*op. cit.*: 499) = *Calamaria degenhardtii* Berthold.

KEY TO GUATEMALAN SPECIES OF *STENORRHINA*

Abdominals more than 160; dorsal body pattern of stripes or unicolor ..... *freminvillei*
Abdominals fewer than 160; dorsal body pattern mottled or spotted ..... *degenhardti*

Stenorrhina degenhardti Berthold

Calamaria degenhardtii Berthold, Abh. Konig. Gessel. Wissen. Gottingen, 1846: 8, pl. 1, figs. 3–4.
Stenorhina ventralis Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 867 (MNHN 3697; Coban, Alta Verapaz, Guatemala). Anticipatory mention, Dumeril (Mem. Acad. Sci., 23, 1853: 499).
Stenorhina degenhardtii, Cope, Jour. Acad. Nat. Sci. Phila., 8, 1876: 142.
Stenorhina degenhardtii kennicottiana, Bocourt, 1886: 595, pl. 37, figs. 9–9b.
Stenorhina degenhardti, degenhardtii and *ocellata,* Gunther, 1895: 158.
Stenorrhina degenhardtii mexicana, Smith and Taylor, 1945: 132.

TYPE.—Zoologisches Institut and Museum Gottingen 44/256. Popayan Province, Colombia.

RANGE.—Low and moderate elevations from southern Veracruz, Mexico, southward into South America. In northern Middle America the species appears to be restricted to the Caribbean drainage.

Stenorrhina freminvillei Dumeril, Bibron, and Dumeril[40]

Stenorhina freminvillii Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 868, pl. 70, figs. 1–2; Bocourt, 1886: 596, pl. 37, figs. 8–8a (spelled *freminvillei).*
Stenorhina quinquelineata, Bocourt, 1886: 597, pl. 37, figs. 11–11c.
Stenorrhina freminvillii apiata and *lactea,* Smith and Taylor, 1945: 133.

TYPE.—MNHN 816. Mexico.

RANGE.—Low and moderate elevations from Guerrero, Mexico, on the Pacific and from the Isthmus of Tehuantepec on the Caribbean southward at least to Panama. In northern Middle America this species appears to be restricted to less humid environments.

Genus *Storeria* Baird and Girard

Storeria Baird and Girard, Catal. N. Amer. Rept., 1853: 135.

GENEROTYPE.—*Tropidonotus dekayi* Holbrook.

Storeria tropica tropica Cope

Storeria tropica Cope, Proc. Amer. Philos. Soc., 22, 1885: 175.
Storeria tropica tropica, Anderson, Amer. Midl. Nat., 66, 1961: 244.
Storeria dekayi, Bocourt, 1893: 742, pl. 53, figs. 1–2.
Ischcognathus dekayi, Gunther, 1894: 136 (in part).

TYPE.—USNM 6759. El Peten, Guatemala.

[40] I suggest that those individuals who insist on recognizing geographic races of this species in northern Middle America examine the series, Nos. 74859–68, from La Libertad, El Peten, Guatemala, in the Museum of Zoology, University of Michigan. They will find therein representatives of all described races as well as several pattern and color phases which have not been described.

RANGE.—Low and moderate elevations of the Caribbean versant of northern and central Guatemala into northern Honduras.

Genus *Tantilla* Baird and Girard

Tantilla Baird and Girard, Catal. N. Amer. Rept., 1853: 131.

GENEROTYPE.—*Tantilla coronata* Baird and Girard.

(Key to Guatemalan Species of *Tantilla,* p. 88)

Tantilla bairdi Stuart

Tantilla bairdi Stuart, Occ. Papers Mus. Zool., Univ. Michigan, 452, 1941: 1.

TYPE.—UMMZ 89223. Two km. NE Finca Chichen (10 km. S Coban, airline) on Chemelco trail, Alta Verapaz, Guatemala; about 1550 meters.

RANGE.—Known only from the type locality.

Tantilla canula Cope

Tantilla canula Cope, Jour. Acad. Nat. Sci. Phila., 8, 1876: 144; Smith and Taylor, 1945: 137.

TYPE.—USNM 24881–82 (two syntypes). Yucatan, Mexico.

RANGE.—Lowlands of the Yucatan Peninsula south to northern El Peten, Guatemala, and possibly British Honduras.

Tantilla jani Gunther

Homalacranium jani Gunther, Biol. Cent.-Amer., Rept. Batr., 1895: 148, pl. 52, fig. D.
Tantilla jani, Smith, Zoologica, 27, 1942: 36; Smith and Taylor, 1945: 139.

TYPE.—Originally two syntypes, BMNH 1946.1.8.68 (Guatemala), 1946.1.8.71 (Nicaragua); lectotype 1946.1.8.68, by fiat of type locality restriction. Guatemala and Nicaragua (Matagalpa, 3200 ft.); restricted to Guatemala (Smith, *op. cit.*: 37).

RANGE.—Low and moderate elevations of the Pacific versant from the Isthmus of Tehuantepec, Mexico, into Guatemala.

Tantilla mexicana Gunther[41]

Elapomorphus mexicana Gunther, Ann. Mag. Nat. Hist., ser. 3, 9, 1862: 57, pl. 9, fig. 1.
Homalocranion melanocephalum fuscum Bocourt, Miss. Sci. Mex., Rept., 1883: 589 (MNHN 6059; Guatemala).

[41] In the *melanocephala* group of *Tantilla* there appears to be a clinal reduction in the number of abdominals from south to north along the Pacific versant of Central America. It is not improbable that the Guatemalan population will eventually be shown to represent intergrades between *Tantilla armillata* to the south and *Tantilla mexicana* in the north. For the time being, however, I prefer not to recognize subspecies in this most difficult group.

Tantilla mexicana, Smith, Zoologica, 27, 1942: 37; Smith and Taylor, 1945: 139.
Homalocranium armillatum, Gunther, 1895: 149, pl. 52, fig. C (in part).

TYPE.—BMNH 1946.1.8.58. Mexico.

RANGE.—Moderate elevations along the Pacific versant from Chiapas, Mexico, into Guatemala.

Tantilla moesta Gunther

Homalocranium moestum Gunther, Ann. Mag. Nat. Hist., ser. 3, 12, 1863: 352; Gunther, 1895: 152, pl. 52, fig. E.
Tantilla moesta, Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 126; Smith and Taylor, 1945: 139.
Homalocranion moestum, Bocourt, 1883: 583, pl. 36, figs. 9–9d (1886).

TYPE.—BMNH 1946.1.9.74. El Peten, Guatemala.

RANGE.—Lowlands of the Yucatan Peninsula south into central El Peten, Guatemala.

Tantilla schistosa schistosa Bocourt

Homalocranion schistosum Bocourt, Miss. Sci. Mex., Rept., 1883: 584, pl. 36, figs. 10–10e (1886).
Tantilla phrenitica Smith, Zoologica, 27, 1942: 39, in part (paratype, USNM 38134; Semacock [=Semacoch], Guatemala); Smith and Taylor, 1945: 140 (in part).
Tantilla schistosa schistosa, Smith, Herpetologica, 18, 1962: 15.
Homalocranium schistosum, Gunther, 1895: 152.

TYPE.—MNHN 83–506 by fiat through restriction of type locality (Smith, 1942:39). Alta Verapaz, Guatemala.

RANGE.—Moderate elevations from southern Veracruz, Mexico, to Panama.

Tantilla taeniata Bocourt

Homalocranion taeniatum Bocourt, Miss. Sci. Mex., Rept., 1883: 587, pl. 37, figs. 3–3e (1886).
Homalocranium trivittatum Muller, Verhand. Natur. Gesell. Basel, 7, 1885: 678 (Naturhistorisches Museum Basel 2119; Guatemala).
Tantilla taeniata, Cope, Bull. U. S. Natl. Mus., 32, 1887: 83.

TYPE.—MNHN 1666. Guatemala.

RANGE.—Imperfectly known. Recorded only from Guatemala and Bonacca Id., Honduras. The Museum of Zoology, University of Michigan, has a specimen from Progreso, Honduras, which may represent this species.

Genus *Tantillita* Smith

Tantillita Smith, Jour. Washington Acad. Sci., 31, 1941: 117.

GENEROTYPE.—*Tantilla lintoni* Smith.

Tantillita lintoni Smith

Tantilla lintoni Smith, Proc. Biol. Soc. Washington, 53, 1940: 61, fig. 1.
Tantillita lintoni, Smith, Jour. Washington Acad. Sci., 31, 1941: 117; Smith and Taylor, 1945: 142.

TYPE.—USNM 108603. Piedras Negras, El Peten, Guatemala.

RANGE.—Known only from the type locality.

Genus *Thamnophis* Fitzinger[42]

Thamnophis Fitzinger, Syst. Rept., 1843: 26.

GENEROTYPE.—*Coluber saurita* Linnaeus.

KEY TO GUATEMALAN SPECIES OF *THAMNOPHIS*

1. Subcaudals more than 85 2
   Subcaudals fewer than 85 ..... *cyrtopsis sumichrasti*
2. Abdominals more than 152 ..... *sauritus rutiloris*
   Abdominals fewer than 152 ..... *cyrtopsis salvini*

Thamnophis cyrtopsis salvini Smith, Nixon, and Smith[43]

Thamnophis sumichrasti salvini Smith, Nixon, and Smith, Linn. Soc. Jour., 41, 1950: 579.
Tropidonotus ordinatus, Gunther, 1894: 131 (in part).

TYPE.—BMNH 1946.1.23.62. "Rio Chixoy below the town of Cubules (? Cubilguitz), Guatemala." "Cubules" is obviously Cubulco in Baja Verapaz, a locale that is cited several times in the *Biologia Centrali-Americana.* Lying in the dry, interior basin country, it is ecologically very different from Cubilguitz in the very wet foothill region of Alta Verapaz.

RANGE.—Known only from the type locality.

Thamnophis cyrtopsis sumichrasti Cope

Eutaenia sumichrasti Cope, Proc. Acad. Nat. Sci. Phila., 18, 1866: 306.
Eutaenia cyrtopsis fulvus Bocourt, Miss. Sci. Mex., Rept., 1893: 777, pl. 57, figs. 2–2d (MNHN 94–94; Alta Verapaz, Guatemala).
Thamnophis sumichrasti cerebrosus Smith, Zoologica, 27, 1942: 111 (USNM 12734; Escuintla, Guatemala).
Thamnophis cyrtopsis sumichrasti, Milstead, Texas Journ. Sci., 5, 1953: 365.
Eutaenia cyrtopsis sumichrasti, Bocourt, 1893: 775, pl. 57, figs. 3–3d.

[42] I am indebted to Douglas Rossman of the University of North Carolina for advice on the arrangement of *Thamnophis* adopted herein. He suggests that, in view of the systematic chaos now obtaining in the Central American garter snakes, a conservative treatment be retained at this time.

[43] The resurrection of the name *dorsalis* of Baird and Girard for this species (Fitch and Milstead, Copeia, 1961: 112) is held invalid by the 1961 International Code of Zoological Nomenclature, Article 23 (b). Smith (Herpetologica, 18, 1962: 11–13) has discussed this matter. I accept the race *salvini* as valid only tentatively.

Tropidonotus ordinatus, Gunther, 1894: 131 (in part).
Thamnophis sumichrasti sumichrasti and *fulvus,* Smith and Taylor, 1945: 168.

TYPE.—USNM 26501—02 (two syntypes). Orizaba, Veracruz, Mexico (probably in error, *fide* Smith, *op. cit.*: 110).

RANGE.—Moderate, intermediate, and high elevations from Guerrero, Mexico, south to eastern Guatemala.

Thamnophis sauritus rutilorus Cope

Eutaenia rutilorus Cope, Proc. Amer. Philos. Soc., 22, 1885: 388.
Thamnophis saurita faireyi, Bocourt, 1893: 758, pl. 56, figs. 3–3b.
Thamnophis sauritus chalceus, Smith and Taylor, 1945: 166 (in part).

TYPE.—USNM 13906. Cozumel Island, Quintana Roo, Mexico.

RANGE.—Poorly understood. Known from the lowlands and highlands (except in Guatemala where it is strictly lowland) from southern Mexico to Costa Rica on the Caribbean versant and from the Isthmus of Tehuantepec to Guerrero, Mexico, along the Pacific.

Genus *Tretanorhinus* Dumeril, Bibron, and Dumeril

Tretanorhinus Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 348.

GENEROTYPE.—*Tretanorhinus variabilis* Dumeril, Bibron, and Dumeril.

KEY TO GUATEMALAN SUBSPECIES OF *TRETANORHINUS*

Scale rows 1–2 light in color; generally two loreals on each side . . . *nigroluteus nigroluteus*
Scale rows 1–2 dark in color; only a single loreal on each side . . . . . *nigroluteus lateralis*

Tretanorhinus nigroluteus nigroluteus Cope[44]

Tretanorhinus nigroluteus Cope, Proc. Acad. Nat. Sci. Phila., 13, 1861: 298.
Tretanorhinus nigroluteus nigroluteus, Dunn, Copeia, 1939: 216.

TYPE.—USNM 5568. Greytown, Nicaragua (in error, "probably Aspinwall, Panama," Dunn, *loc. cit.*)

RANGE.—Low elevations of the Caribbean versant from Panama to extreme eastern Guatemala.

Tretanorhinus nigroluteus lateralis Bocourt

Tretanorhinus lateralis Bocourt, Le Natural., ser. 2, 101, 1891: 122.
Tretanorhinus nigroluteus lateralis, Dunn, Copeia, 1939: 216; Smith and Taylor, 1945: 145.

TYPE.—MNHN 91–280–281 (two syntypes). Belize, British Honduras.

[44] William Duellman who has collected recently in the vicinity of Puerto Barrios, Guatemala, informs me that he secured a specimen of this race in the vicinity of the port. I have not examined the individual.

RANGE.—Lowlands from Tabasco, Mexico, through northern Guatemala into British Honduras.

Genus *Trimetopon* Cope

Trimetopon Cope, Proc. Amer. Philos. Soc., 22, 1885: 177.

GENEROTYPE.—*Ablabes gracilis* Gunther.

(Key to Guatemalan Species of *Trimetopon,* p. 112)

Trimetopon hannsteini Stuart

Trimetopon hannsteini Stuart, Proc. Biol. Soc. Washington, 62, 1949: 165.

TYPE.—UMMZ 98756. Finca La Paz (18 km., airline, N Coatepeque), Department of San Marcos, Guatemala; 1450 meters.

RANGE.—Moderate elevations of western Guatemala along the Pacific versant.

Trimetopon pilonaorum Stuart

Trimetopon pilonaorum Stuart, Proc. Biol. Soc. Washington, 67, 1954: 176.

TYPE.—UMMZ 102635. Finca La Gloria (about 12 km., airline, NE Chiquimulilla), Dpto. Santa Rosa, Guatemala; about 950 meters.

RANGE.—Known only from the type locality.

Trimetopon posadasi Slevin

Trimetopon posadasi Slevin, Proc. Calif. Acad. Sci., 23, 1936: 79.

TYPE.—California Academy of Sciences 66964. Southern slope of Volcan Zunil, Suchitepequez, Guatemala.

RANGE.—Known only from immediate vicinity of the type locality.

Trimetopon veraepacis Stuart and Bailey

Rhadinaea veraepacis Stuart and Bailey, Occ. Papers Mus. Zool., Univ. Michigan, 442, 1941: 9.

Trimetopon veraepacis, Stuart, Proc. Biol. Soc. Washington, 62, 1949: 167.

TYPE.—UMMZ 89077. Pine zone at Finca Chichen, Alta Verapaz, Guatemala; 5100 feet.

RANGE.—Known only from the type locality.

Genus *Trimorphodon* Cope

Trimorphodon Cope, Proc. Acad. Nat. Sci. Phila., 13, 1861: 297.

GENEROTYPE.—*Lycodon lyrophanes* Cope.

Trimorphodon biscutatus quadruplex Smith

Trimorphodon biscutatus quadruplex Smith, Proc. U. S. Natl. Mus., 91, 1941: 157.
Trimorphodon biscutatus, Gunther, 1895: 174 (in part).

TYPE.—USNM 89476. Esteli, Nicaragua.

RANGE.—Low and moderate elevations of the Pacific versant from Guatemala into Costa Rica.[45]

Genus *Tropidodipsas* Gunther

Tropidodipsas Gunther, Catal. Colub. Snakes Brit. Mus., 1858: 180.

GENEROTYPE.—*Tropidodipsas fasciata* Gunther.

KEY TO GUATEMALAN SPECIES OF *TROPIDODIPSAS*

1. Infralabials normally 8 or more 2
   Infralabials normally 7 ..... *kidderi*
2. Dark annuli on body fewer than 25 3
   Dark annuli on body more than 25 ..... *fischeri*
3. Light annuli red in life and at least several (frequently all) incomplete ventrally ..... *sartori sartori*
   Light annuli yellow in life and generally all complete ventrally .... *sartori annulatus*

Tropidodipsas fischeri Boulenger

Virginia fasciata Fischer, Jahrb. Hamburg Wissen. Anst., 2, 1884: 95.
Tropidodipsas fischeri Boulenger, Catal. Snakes Brit. Mus., 2, 1894: 296 (substitute name for *Virginia* [*Tropidodipsas*] *fasciata* Fischer, preoccupied by *Tropidodipsas fasciata* Gunther, 1858); Smith and Taylor, 1945: 150.
Tropidoclonium annulatum, Bocourt, Le Natural., 1892: 132 (MNHN 94–97; Godinez, NE Volcan Atitlan, Guatemala; 2151 meters); Bocourt, 1893: 738, pl. 54, figs. 3–3e.

TYPE.—Staatslich Museum fur Naturkunde Stuttgart 2454 (originally two syntypes); one exchanged to British Museum (Natural History), now 1946.1.1.81; status of Stuttgart syntype unknown. Guatemala.

RANGE.—Intermediate elevations on the plateau of southwestern Guatemala, the Sierra de los Cuchumatanes, and probably adjacent Chiapas, Mexico.

Tropidodipsas kidderi Stuart

Tropidodipsas kidderi Stuart, Proc. Biol. Soc. Washington, 55, 1942: 177.

TYPE.—UMMZ 91065. Finca Samac, Alta Verapaz, Guatemala; about 1500 meters.

RANGE.—Known only from the type locality.

[45] I find it difficult to accept a record of this form from Lanquin, Alta Verapaz, Guatemala, collected by Salvin and cited by both Gunther (*loc. cit.*) and Boulenger (Catal. Snakes Brit. Mus., 3, 1896: 55). There are, however, several faunal peculiarities about this general region which lies nestled in a relatively dry valley among the wet mountains of Alta Verapaz.

Tropidodipsas sartori sartori Cope

Tropidodipsas sartorii Cope, Proc. Acad. Nat. Sci. Phila., 15, 1863: 100; Mocquard, 1908: 873, pl. 70, figs. 4–5 (in part).

Leptognathus semicinctus Bocourt, Bull. Soc. Philom., ser. 7, 8, 1884: 139 (MNHN 84–99; Alta Verapaz, Guatemala).

Leptognathus (Tropidodipsas) cuculliceps Muller, Verhand. Natur. Gesell. Basel, 8, 1890: 273, pl. 1, fig. 4 (Naturhistorisches Museum Basel 1648; Verapaz, Guatemala).

Tropidodipsas sartorii sartorii, Smith, Proc. U. S. Natl. Mus., 93, 1943: 494; Smith and Taylor, 1945: 152.

Tropidodipsas dumerilii, Gunther, 1894: 140, pl. 50, fig. A (in part).

Tropidodipsas semicincta, Mocquard, 1908: 874, pl. 71, fig. 1–1e.

TYPE.—Originally in USNM, now lost. Mirador, Veracruz, Mexico.

RANGE.—Low and moderate elevations of the Caribbean versant from San Luis Potosi, Mexico, southward through Guatemala.

Tropidodipsas sartori annulatus Peters

Geophis annulatus Peters, Monats. Akad. Wissen. Berlin, 1870: 643, pl. 1, fig. 2.

Leptognathus sexscutatus Bocourt, Bull. Soc. Philom., ser. 7, 8, 1884: 137 (MNHN 7845; Atitlan, Guatemala).

Leptognathus (Tropidodipsas) bernoullii Muller, Verhand. Natur. Gesell. Basel, 8, 1890: 272, pl. 1, fig. 3 (Naturhistorisches Museum Basel 1646 [lectotype of L. Forcart, *in litt.*]; Chitalon, Guatemala).

Tropidodipsas sartorii annulatus, Smith, Proc. U. S. Natl. Mus., 93, 1943: 495; Smith and Taylor, 1945: 152.

Tropidodipsas sartorii, Mocquard, 1908: 873, pl. 70, figs. 4–5 (in part).

TYPE.—Zoologisches Museum Berlin 6947. "Probably South America"; in error.

RANGE.—Low and moderate elevations of the Pacific versant of Chiapas, Mexico, and Guatemala.

Genus *Xenodon* Boie

Xenodon Boie *in* Schlegel, Isis, 1827: 293 (complete description, Boie, *op. cit.*: 520 and 540).

GENEROTYPE.—*Coluber severus* Linnaeus.

Xenodon rabdocephalus mexicanus Smith

Xenodon mexicanus Smith, Proc. Biol. Soc. Washington, 53, 1940: 57; Smith and Taylor, 1945: 153.

Xenodon rabdocephalus mexicanus, Schmidt, Field Mus. Nat. Hist., zool. ser., 22, 1941: 501.

Xenodon severus angustirostris, Bocourt, 1886, 638, pl. 38, figs. 3–3e.

Xenodon rhabdocephalus, Gunther, 1894: 114 (in part).

TYPE.—USNM 108596. Piedras Negras, Guatemala.

RANGE.—Low and moderate elevations from Guerrero, Mexico, on the Pacific and Veracruz, Mexico, on the Caribbean side south through Guatemala.

Family ELAPIDAE

KEY TO GUATEMALAN GENERA OF ELAPIDAE

Tail strongly flattened laterally ..... *Pelamis* (below)
Tail round ..... *Micrurus* (below)

Genus *Pelamis* Daudin

Pelamis Daudin, Hist. Nat. Rept., 7, An XI [Fr. Rev. = 1802 or 1803]: 357.

GENEROTYPE.—*Pelamis bicolor* Daudin = *Anguis platura* Linnaeus.

Pelamis platurus Linnaeus

Anguis platura Linnaeus, Syst. Nat., ed. 12, 1766: 391.
Pelamis platurus, Gray, Ann. Philos., 10, 1825: 207; Smith and Taylor, 1945: 176.

TYPE.—Apparently lost. Type locality unknown.

RANGE.—Pacific Ocean and associated seas. In the Americas spottily distributed from the Gulf of California to Ecuador.

Genus *Micrurus* Wagler

Micrurus Wagler *in* Spix, Serp. Brasil., 1824: 48.

GENEROTYPE.—*Micrurus spixii* Wagler.

KEY TO GUATEMALAN SPECIES OF *MICRURUS*

1. Black body bands in triads ..... *elegans veraepacis*
   Black bands not in triads, occurring singly 2
2. Dorsal body pattern of black, yellow, and red bands, the black narrowly bordered by the yellow 3
   Dorsal body pattern of black and red bands only ..... *affinis apiatus*
3. Fewer than 10 black bands on body ..... *latifasciatus*
   More than 10 black bands on body 4
4. Scales of red bands never distinctly black tipped though frequently diffused with dark ..... *nigrocinctus zunilensis*
   Scales of red bands distinctly black tipped and red bands generally with dark blotches or spots 5
5. Snout generally with light markings; black bands on body generally more than 17 ..... *affinis alienus*
   Snout without light markings; black bands on body generally fewer than 17 ..... *wagneri*

Micrurus affinis alienus Werner[46]

Elaps alienus Werner, Zool. Anz., 26, 1903: 249.

Elaps fulvius sapperi Werner, Abh. Bayer. Akad. Wissen., 22, 1903: 350 (originally in the Zoologische Sammlung des Bayerischen Staates, now either lost or destroyed; Guatemala).

Micrurus affinis alienus, Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1936: 212; Smith and Taylor, 1945: 171.

TYPE.—Institut Royal des Sciences Naturelles de Belgique, I.G. 9422, Reg. No. 737. "Probably Ecuador or Venezuela" (in error).

RANGE.—Caribbean lowlands from extreme southern Mexico south to southeastern Guatemala exclusive of the outer end of the Yucatan Peninsula.

Micrurus affinis apiatus Jan

Elaps apiatus Jan, Rev. Mag. Zool., 1858–59: 522, pl. A.

Elaps guatemalensis Ahl, Zool. Anz., 70, 1927: 251 (Zoologisches Museum Berlin 8160; Guatemala).

Micrurus affinis apiatus, Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1933: 37; Smith and Taylor, 1945: 172.

Elaps fulvius, Gunther, 1895: 182 (in part).

Elaps aglaeope, Gunther, 1895: 184 (in part).

TYPE.—MNHN 3920. "Veracruz." Apparently a *lapsus* for "Verapaz" [Guatemala].

RANGE.—Moderate elevations of the Caribbean versant from Chiapas, Mexico, through central Guatemala.

Micrurus elegans veraepacis Schmidt

Micrurus elegans verae-pacis Schmidt, Field Mus. Nat. Hist., zool., ser., 20, 1933: 32.

Elaps elegans, Gunther, 1895: 186 (in part); Mocquard, 1909: 922.

TYPE.—Zoologische Sammlung des Bayerischen Staates 2247a. Campur, Alta Verapaz, Guatemala.

RANGE.—Moderate elevations of the Caribbean versant of Alta Verapaz and the Sierra de los Cuchumatanes. Intergrading with *Micrurus elegans elegans* Jan in the region of the Mexican border.

[46] I recognize this race only tentatively. Study of material of this species convinces me that between Mexico and Honduras there is a clinal increase in the number of black rings on the body and a clinal decrease in the dark spotting in the red bands. When all materials have been assembled and studied intensively, I believe that *Micrurus affinis affinis* Jan will be applicable to the northern populations and *Micrurus affinis aglaeope* Cope (and its probable synonym *Micrurus affinis hippocrepis* Peters) for the southern. Northern Guatemalan material will probably prove to be intergrades. *Micrurus affinis mayensis* Schmidt and *Micrurus affinis apiatus* Jan of the outer end of the Yucatan Peninsula and of Alta Verapaz, respectively, of course, do not enter into this problem. Essential data relating to *hippocrepis* are: *Elaps hippocrepis* Peters, Monatsb. Akad. Wissen. Berlin, 1861: 925 (Zoologisches Museum Berlin 4065; Santo Tomas [Puerto Matias de Galvez], Guatemala).

Micrurus latifasciatus Schmidt

Micrurus latifasciatus Schmidt, Field Mus. Nat. Hist., zool. ser., 20, 1933: 35; Smith and Taylor, 1945: 175.

TYPE.—MCZ 22135. Finca El Cipres, Suchitepequez, Guatemala.

RANGE.—Moderate elevations of the Pacific versant from Chiapas, Mexico, into western Guatemala.

Micrurus nigrocinctus zunilensis Schmidt

Micrurus nigrocinctus zunilensis Schmidt, Proc. Calif. Acad. Sci., 20, 1932: 266; Smith and Taylor, 1945: 175.
Elaps fulvius, Gunther, 1895: 182 (in part).

TYPE.—California Academy of Sciences 66001. Finca El Cipres, lower slopes of Volcan Zunil (near Samayas, near Mazatenango), Suchitepequez, Guatemala.

RANGE.—Low, moderate, and intermediate elevations of the Pacific versant from Chiapas, Mexico, into El Salvador.

Micrurus wagneri Mertens[47]

Micrurus nigrocinctus wagneri Mertens, Senckenb., 23, 1941: 216, fig. 1.

TYPE.—Senckenbergischen Naturforschenden Gesellschaft Frankfurt 34198. Finca Germania, in the Sierra Madre, Chiapas, Mexico; 400–1300 meters.

RANGE.—Moderate elevations of the Pacific versant of eastern Chiapas, Mexico, and western Guatemala.

Family VIPERIDAE

KEY TO GUATEMALAN GENERA OF VIPERIDAE

1. Tail terminating in a rattle ..... *Crotalus* (p. 131)
   Tail not terminating in a rattle 2
2. Upper surface of head covered with nine regularly arranged plates, typically colubrid in form ..... *Agkistrodon* (below)
   Upper surface of head with fewer than nine large plates; posterior head surface covered with small scales ..... *Bothrops* (p. 128)

[47] The relationships of this species remain confused. One fact is certain, it is not a subspecies of *Micrurus nigrocinctus.* I have collected both it and *Micrurus nigrocinctus zunilensis* Schmidt within a few feet of each other at Finca La Paz, San Marcos, Guatemala. I suggest that it is related to *Micrurus nuchalis nuchalis* Schmidt to the north with which it appears to have much in common.

Genus *Agkistrodon* Beauvois

Agkistrodon Beauvois, Trans. Amer. Philos. Soc., 4, 1799: 381 (spelled [typographical error] *Agkishodon,* Beauvois, *op. cit.*: 370).

GENEROTYPE.—*Agkistrodon mokasen* = *Boa contortrix* Linnaeus.

Agkistrodon bilineatus bilineatus Gunther

Ancistrodon bilineatus Gunther, Ann. Mag. Nat. Hist., ser. 3, 12, 1863: 364; Gunther, 1895: 186, pl. 58, figs. A–B.

Agkistrodon bilineatus bilineatus, Burger and Robertson, Univ. Kansas Sci. Bull., 34, 1951: 214.

Agkistrodon bilineatus, Smith and Taylor, 1945: 177.

TYPE.—BMNH 1946.1.19.97. Pacific coast of Guatemala.

RANGE.—From southern Mexico to British Honduras (probably largely coastal in Yucatan and British Honduras) along the Caribbean versant and from Sonora, Mexico, to Nicaragua along the Pacific lowlands.

Genus *Bothrops* Wagler

Bothrops Wagler *in* Spix, Serp. Brasil., 1824: 50.

Thamnocenchris Salvin, Proc. Zool. Soc. London, 1860: 459 (generotype, *Thamnocenchris aurifer* Salvin).

GENEROTYPE.—*Coluber megaera* Shaw = *Coluber atrox* Linnaeus.

KEY TO GUATEMALAN SPECIES OF *BOTHROPS*

1. Two or three small, pointed, accessory, supraocular scales with free edges overhanging eye to give "horned" appearance ..... *schlegeli*
   No such small supraocular scales 2
2. Ground color of dorsum green; tail prehensile 3
   Ground color of dorsum not green; tail not prehensile 4
3. Scales on upper surface of snout keeled ..... *bicolor*
   Scales on upper surface of snout not keeled ..... *nigroviridis aurifer*
4. Tip of snout with a free "flap" which is produced dorsally to give appearance of an upturned snout ..... *nasutus*
   Snout without free "flap," not or only slightly upturned 5
5. Supraocular long and narrow or undifferentiated 6
   Supraocular large and broad; well differentiated 7
6. Lateral spots vertically elongate and many fused with dorsal blotches ..... *nummifer nummifer*
   Lateral spots rounded and very few fused with dorsal blotches ..... *nummifer affinis*
7. Abdominal scutes more than 200 ..... *atrox asper*
   Abdominal scutes fewer than 200 8
8. Maximum number of longitudinal dorsal scale rows 23 or more ..... *ophryomegas*
   Maximum number of longitudinal dorsal scale rows 21 or less ..... *godmani*

Bothrops atrox asper Garman

Trigonocephalus asper Garman, Mem. Mus. Comp. Zool., Harvard College, 8, 1883: 124 (also distributed under cover of Kentucky Geological Survey).

B.[othrops] atrox septentrionalis Muller, Verhand. Natur. Gesell. Basel, 7, 1885: 699 (Naturhistorisches Museum Basel, originally seven syntypes now only four; lectotype 2558, *fide* L. Forcart *in litt.*; Costa Grande, Guatemala).

Bothrops atrox asper, Smith and Taylor, 1945: 180.

Bothrops atrox, Gunther, 1895: 187.

Trimeresurus atrox, Mocquard, 1909: 940.

TYPE.—MCZ 2718. Obispo, Panama.

RANGE.—Low and moderate elevations from Tamaulipas and Oaxaca, Mexico, southward to South America.

Bothrops bicolor Bocourt

Bothrops bicolor Bocourt, Ann. Sci. Nat., ser. 5, 10, 1868: 202; Smith and Taylor, 1945: 181.

Bothrops (Bothriechis) bernoullii Muller, Verhand. Natur. Gesell. Basel, 6, 1877: 399, fig. 3a (Naturhistorisches Museum Basel 2629; slope of [Volcan] Atitlan, Guatemala).

Trimeresurus bicolor, Mocquard, 1909: 948, pl. 76, figs. 1–1a.

TYPE.—MNHN 1362, 6137 (two syntypes). Mocquard (*loc. cit.*) states that there were four syntypes. San Agustin on the west [south] slope of the cordillera, Solola [Department], Guatemala.

RANGE.—Moderate and intermediate elevations of the Pacific versant of eastern Chiapas, Mexico, and western Guatemala.

Bothrops godmani Gunther

Bothriechis godmanni Gunther, Ann. Mag. Nat. Hist., ser. 5, 12, 1863: 364, pl. 6, fig. G; Gunther, 1895: 190, pl. 57, fig. A (spelled *godmani*).

Bothrops brammianus Bocourt, Ann. Sci. Nat., ser. 5, 10, 1868: 201 (MNHN 1596–97, two syntypes; Mocquard, 1909: 943, infers four; San Lucas, Guatemala; 1558 meters).

Bothriechis scutigera Fischer, Arch. Natur., 1880: 218, pl. 8, figs. 8–9 (Staatslich Museum fur Naturkunde Stuttgart 1943, present status unknown; Guatemala).

Bothriechis trianguligera Fischer, Osterprog. Akad. Gymnas. Hamburg, 1883: 13 (Zoologisches Museums Hamburg 1045; Guatemala).

Bothrops (Bothriopsis) godmanii, Muller, Verhand. Natur. Gesell. Basel, 6, 1877: 402, pl. 3, fig. B.

Trimeresurus godmani, Mocquard, 1909: 942.

Bothrops godmani, Smith and Taylor, 1945: 181.

TYPE.—BMNH 1946.1.18.80. "Duenas and other parts of the tableland of Guatemala."

RANGE.—Moderate, intermediate, and high elevations from Chiapas, Mexico, to Panama.

Bothrops nasutus Bocourt

Bothrops nasutus Bocourt, Ann. Sci. Nat., ser. 5, 10, 1868: 202; Smith and Taylor, 1945: 182.
Bothrops lansbergii, Gunther, 1895: 190 (in part).
Trimeresurus brachystoma, Mocquard, 1909: 945, pl. 75, figs. 4–4a (in part).

TYPE.—MNHN 1592. Panzos, on the banks of the Rio Polochic, Guatemala.

RANGE.—Low elevations of the Caribbean versant from southern Mexico to Ecuador.

Bothrops nigroviridus aurifer Salvin

Thamnocenchris aurifer Salvin, Proc. Zool. Soc. London, 1860: 459, pl. 32, fig. 1.
Bothrops nigroviridus aurifera, Barbour and Loveridge, Bull. Antiv. Inst. Amer., 3, 1929: 1; Smith and Taylor, 1945: 182 (spelled *aurifer*).
Bothriechis aurifera, Gunther, 1895: 189.
Trimeresurus aurifer, Mocquard, 1909: 950.

TYPE.—BMNH 1946.1.17.71. Coban, Alta Verapaz, Guatemala.

RANGE.—Moderate and intermediate elevations of the Caribbean versant from Chiapas, Mexico, through Guatemala.

Bothrops nummifer nummifer Ruppel

Atropos nummifer Ruppel, Verz. Sencken. Mus., 1845: 313 (not seen; *fide* Burger, *v. i.*).
Atropos mexicanus Dumeril, Bibron, and Dumeril, Erpet. Gen., 7, 1854: 1521, pl. 83 bis, figs. 1–2 (MNHN 6712; Coban, [Alta] Verapaz, Guatemala).
Bothriechis nummifera notata Fischer, Arch. Natur., 46, 1880: 222, pl. 8, figs. 10–12 (Staatslich Museum fur Naturkunde Stuttgart 1967, present status unknown; Coban, Alta Verapaz, Guatemala).
Bothrops nummifer nummifer, Burger, Bull. Chicago Acad. Sci., 9, 1950: 62.
Bothriechis nummifera, Gunther, 1895: 191 (in part).
Trimeresurus nummifer, Mocquard, 1909: 941 (in part).
Bothrops mexicanus, Smith and Taylor, 1945: 182.

TYPE.—Senckenbergischen Naturforschenden Gesellschaft Frankfurt 21196. Type locality unknown. Burger (*loc. cit.*) suggests restriction to Teapa, Tabasco, Mexico.

RANGE.—Low, moderate, and intermediate elevations from extreme southern Mexico to Panama along the Caribbean versant.

Bothrops nummifer affinis Bocourt[48]

Bothrops affinis Bocourt, Ann. Sci. Nat., ser. 5, 10, 1868: 201.
Trimeresurus nummifer, Mocquard, 1909: 941.

[48] Intergradation between *Bothrops nummifer nummifer* Ruppel and *Bothrops nummifer affinis* Bocourt has not yet been demonstrated but may be anticipated.

TYPE.—MNHN 1194–96 (three syntypes). San Agustin, on the west [south] slope of the mountains, Guatemala; 610 meters.

RANGE.—Moderate and intermediate elevations along the Pacific versant possibly from eastern Chiapas, Mexico, into El Salvador.

Bothrops ophryomegas Bocourt

Bothrops ophryomegas Bocourt, Ann. Sci. Nat., ser. 5, 10, 1868: 201.
Trimeresurus ophryomegas, Mocquard, 1909: 944, pl. 75, figs. 3–3a.

TYPE.—MNHN 1539. Hot lands on the western [southern] side of the mountains at Escuintla, Guatemala.

RANGE.—Low and moderate elevations of the Pacific versant of Central America from western Guatemala to Panama. The species also occurs in some of the dry valleys of Guatemala and Honduras on the Caribbean side.

Bothrops schlegeli Berthold[49]

Trigonocephalus schlegelii Berthold, Abh. Konig. Gesell. Wissen. Gottingen, 1846: 13, pl. 1, figs. 5–6.
Bothrops schlegeli, Jan, Elenco Sist. Degli Ofidi, 1863: 127; Smith and Taylor, 1945: 183 (spelled *schlegelii*).
Bothriechis schlegeli, Gunther, 1895: 189.

TYPE.—Zoologisches Institut and Museum Gottingen 121/261. Popayan Province, Colombia.

RANGE.—Low elevations of Central America and northern South America from British Honduras and northern Guatemala southward; apparently restricted to the Caribbean versant in the north.

Genus *Crotalus* Linnaeus

Crotalus Linnaeus, Syst. Nat., ed. 10, 1758: 214.

GENEROTYPE.—*Crotalus horridus* Linnaeus.

KEY TO GUATEMALAN SUBSPECIES OF *CROTALUS*

Abdominals usually fewer than 179 in males and 185 in females; first supralabial usually not divided transversely ..... *durissus durissus*
Abdominals generally more than 180 in males and 186 in females; first supralabial normally divided transversely ..... *durissus tzabcan*

[49] Owing to the uncertainty of the relationships between *Bothrops schlegeli* Berthold and *Bothrops schlegeli supraciliaris* Taylor from Costa Rica, it seems best to accord the two specific status for the moment.

Crotalus durissus durissus Linnaeus

Crotalus durissus Linnaeus, Syst. Nat., ed. 10, 1758: 214.
Crotalus durissus durissus, Klauber, Occ. Papers San Diego Soc. Nat. Hist., 1, 1936: 4; Smith and Taylor, 1945: 190 (in part).

TYPE.—Unknown. America.

RANGE.—Low and moderate elevations of Middle America from Michoacan and Veracruz in Mexico southward to Costa Rica.

Crotalus durissus tzabcan Klauber

Crotalus durissus tzabcan Klauber, Bull. Zool. Soc. San Diego, 26, 1952: 71.
Crotalus durissus durissus, Smith and Taylor, 1945: 190 (in part).

TYPE.—CNHM 36168. Kantunil, Yucatan, Mexico.

RANGE.—Yucatan Peninsula south into northern El Peten, Guatemala, and British Honduras.

Order CROCODYLIA

Family ALLIGATORIDAE

Genus *Caiman* Spix

Caiman Spix, Animal. Nova Lacert., 1825: 3.

GENEROTYPE.—*Caiman fissipes* Spix = *Crocodilus latirostris* Daudin.

Caiman crocodilus fuscus Cope

Perosuchus fuscus Cope, Proc. Acad. Nat. Sci. Phila., 20, 1868: 203.
Caiman crocodilus [*fuscus*] by fiat, Muller and Hellmich, Wissensch. Ergebn. Deutsch. Gran-Chaco Exped., Amph. Rept., pt. 1, 1936: 110; Smith and Taylor, 1950: 212.
Alligator punctulatus, Gunther, 1885: 21.

TYPE.—ANSP 9720. Magdalena River, Colombia.

RANGE.—Lowlands from southern Mexico southward to Colombia but restricted to the Pacific versant north of Nicaragua.

Family CROCODYLIDAE

Genus *Crocodylus* Laurenti

Crocodylus Laurenti, Synop. Rept., 1768: 53.

GENEROTYPE.—*Crocodylus niloticus* Laurenti.

KEY TO GUATEMALAN SPECIES OF *CROCODYLUS*

Breadth of snout at level of tenth maxillary tooth equal to at least three quarters of the distance from base of tenth maxillary tooth to tip of snout ..... *moreleti*

Breadth of snout at level of tenth maxillary tooth equal to not more than seventy per cent of the distance from base of tenth maxillary tooth to tip of snout ..... *acutus*

Crocodylus acutus Cuvier

Crocodilus acutus Cuvier, Ann. Mus. Hist. Nat., 10, 1807: 55, pl. 1, figs. 3, 14, pl. 2, fig. 5.

Crocodilus pacificus Dumeril and Bocourt, Miss. Sci. Mex., Rept., 1870: 31, pl. 9, figs. 5–5b (MNHN 7816; Nagualate embayment, western Guatemala).

Crocodilus americanus acutus, Gunther, 1885: 19.

Crocodylus acutus acutus, Smith and Taylor, 1950: 210.

TYPE.—Originally in MNHN, now lost. Santo Domingo [i.e. Hispaniola].

RANGE.—On the mainland from Tamaulipas and Sinaloa in Mexico southward on both coasts into South America; also on some of the Caribbean Islands and southern Florida. The species is essentially coastal in northern Central America.

Crocodylus moreleti Dumeril and Bocourt

Crocodilus moreletii Dumeril and Bocourt *in* Dumeril and Dumeril, Catal. Method., 1851: 28; Dumeril and Bocourt, 1873: 37, pl. 9, figs. 2–3 (1870); Smith and Taylor, 1950: 211 (spelled *Crocodylus*).

TYPE.—MNHN 7520. Lake Peten, Guatemala.

RANGE.—Lowlands from Tamaulipas, Mexico, southward on the Caribbean versant to British Honduras and southeastern Guatemala. This species is both coastal and inland.

Accepted for publication August 14, 1962

ADDENDUM

Eleutherodactylus greggi Bumzahem[50]

Eleutherodactylus greggi Bumzahem, Copeia, 1955: 118.

TYPE.—CNHM 20876. Volcan Tajumulco, near San Marcos, Guatemala.

RANGE.—Moderate and intermediate elevations along the Pacific versant of eastern Chiapas, Mexico and western Guatemala.

[50] Though I would hesitate even to infer relationship, this species keys out to *Eleutherodactylus anzuetoi* Stuart (p. 28). The two species are readily separable on the basis of leg length. In *anzuetoi* the distance from tip of coccyx to heel is equal to or barely exceeds the distance from tip of coccyx to tip of snout. In *greggi* the distance from tip of coccyx to heel is at least 25 per cent greater than the distance from tip of coccyx to tip of snout. In the final analysis it appears that *Eleutherodactylus greggi* is nothing more than a very long-legged population of the *Eleutherodactylus mexicanus* complex.

INDEX

Except in rare instances subspecies are listed without specific designation under genera. Furthermore, subspecies are not cross indexed by species. Under species and subspecies names some generic combinations included in the synonymies have been omitted wherever possible, and only currently recognized generic designations are included.

B

C

F

G

H

M

N

O

P

Q

R

T

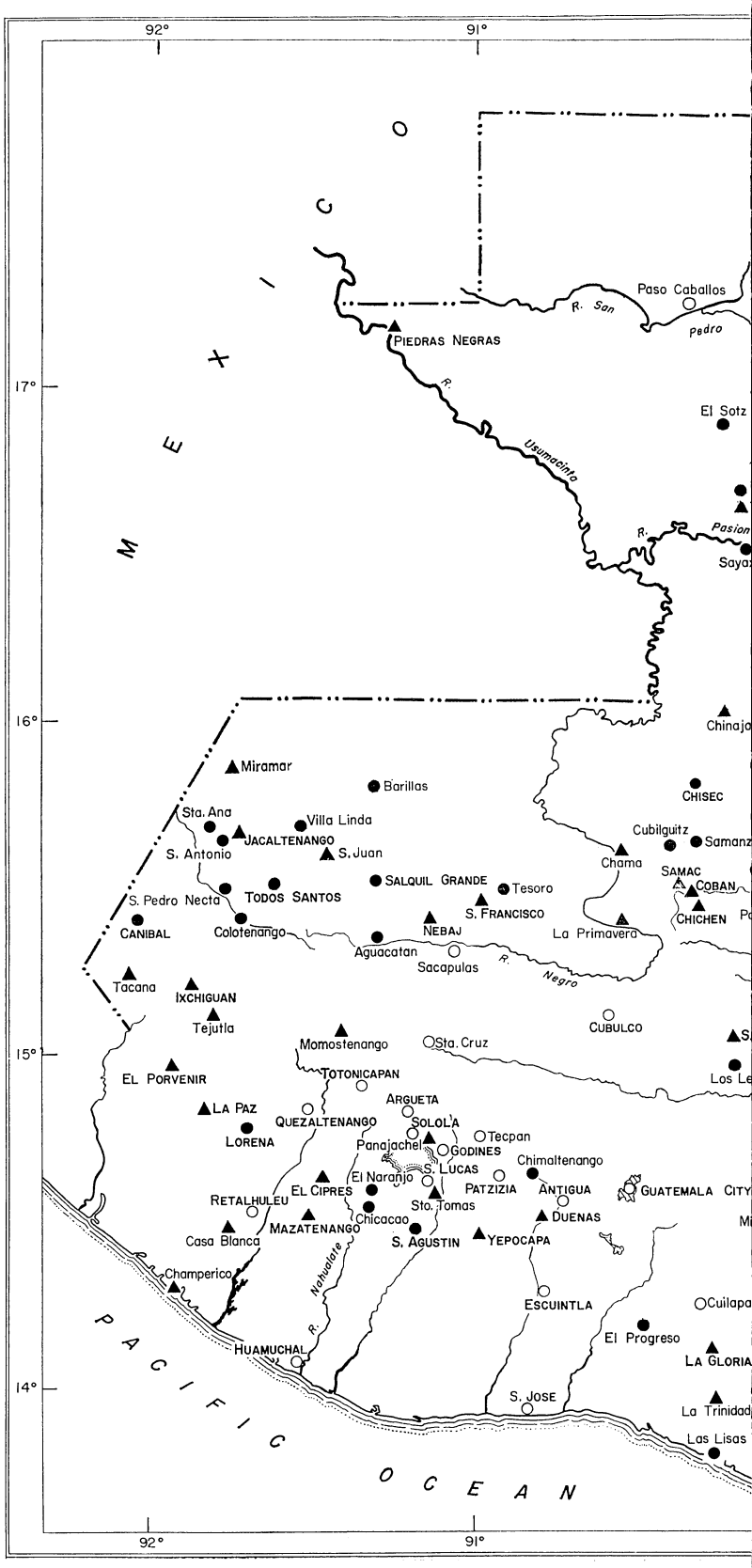
U

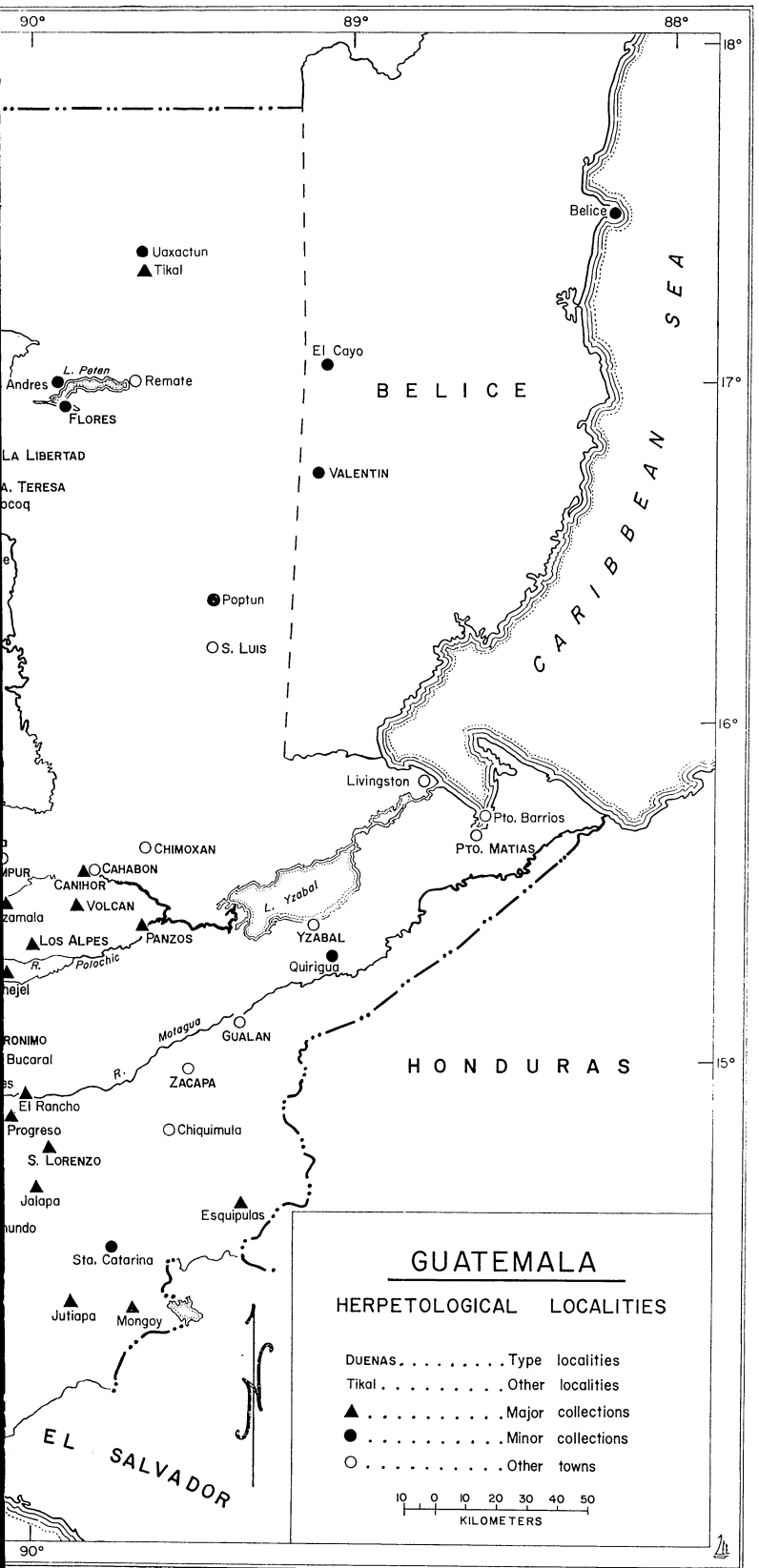
V

W

X

Z


92°
91°
17°
16°
15°
14°
MEXICO
PACIFIC OCEAN
Paso Caballos
R. San Pedro
PIEDRAS NEGRAS
R. Usumacinta
El Sotz
R. Pasion
Chinaja
Miramar
Barillas
CHISEC
Sta. Ana
Villa Linda
JACALTENANGO
S. Antonio
S. Juan
Cubilguitz
Samanz
Chama
SAMAC
COBAN
SALQUIL GRANDE
Tesoro
S. Pedro Necta
TODOS SANTOS
S. FRANCISCO
CHICHEN
CANIBAL
Colotenango
NEBAJ
La Primavera
Aguacatan
Sacapulas
R. Negro
Tacana
IXCHIGUAN
Tejutla
CUBULCO
Momostenango
Sta. Cruz
EL PORVENIR
TOTONICAPAN
Los Le
ARGUETA
LA PAZ
QUEZALTENANGO
SOLOLA
LORENA
Tecpan
Panajachel
GODINES
S. LUCAS
Chimaltenango
El Naranjo
EL CIPRES
PATZIZIA
ANTIGUA
GUATEMALA CITY
RETALHULEU
Sto. Tomas
Chicacao
DUENAS
MAZATENANGO
Casa Blanca
S. AGUSTIN
YEPOCAPA
Nahualate
Champerico
ESCUINTLA
Cuilapa
El Progreso
LA GLORIA
HUAMUCHAL
S. JOSE
La Trinidad
Las Lisas



GUATEMALA

HERPETOLOGICAL LOCALITIES

DUENAS . . . . . Type localities
Tikal . . . . . Other localities
▲ . . . . . Major collections
● . . . . . Minor collections
○ . . . . . Other towns

10 0 10 20 30 40 50
KILOMETERS

No. 101. A biogeography of reptiles and amphibians in the Gómez Farías Region, Tamaulipas, México. By PAUL S. MARTIN. (1958) 102 pp., 7 pls., 7 figs., 4 maps $1.50

No. 110. Descriptions of tadpoles of Middle American frogs. By PRISCILLA STARRETT. (1960) 38 pp., 1 pl., 33 figs. $1.10

No. 111. A systematic study of the lizards of the *deppei* group (Genus *Cnemidophorus*) in México and Guatemala. By WILLIAM E. DUELLMAN AND JOHN WELLMAN. (1960) 80 pp., 1 pl., 16 figs. $1.75

No. 112. A Revision of the Ecuadorian Snakes of the Colubrid Genus *Atractus*. By JAY M. SAVAGE. (1960) 86 pp., 11 figs. $2.00

No. 114. The Snakes of the Subfamily Dipsadinae. By JAMES A. PETERS. (1960) 228 pp., 8 plates, 11 figs., 12 maps. $3.75

No. 122. A checklist of the herpetofauna of Guatemala. By L. C. STUART (1963) 150 pp., frontis., 1 map $2.75