

MONOGRAPH
ZOOLOGICAL SERIES
OF
FIELD MUSEUM OF NATURAL HISTORY

Volume 29 CHICAGO, FEBRUARY 23, 1944 No. 6

AMPHIBIANS AND REPTILES OF NORTHERN
COAHUILA, MEXICO

By KARL P. SCHMIDT
CHIEF CURATOR, DEPARTMENT OF ZOOLOGY

AND

DAVID W. OWENS
VOLUNTEER ASSISTANT, DIVISION OF REPTILES

During his tenure of an E. D. Farmer International Fellowship of the University of Texas, in 1938 and 1939, Mr. Ernest G. Marsh, Jr., engaged in a series of collecting trips in the northern part of the Mexican state of Coahuila, collecting (in addition to plants) fishes, amphibians, reptiles, birds, and mammals. His work was planned as a preliminary survey of the vertebrate fauna of a region with which he was already familiar from a short visit to the Sierra del Carmen made in the summer of 1936, and from botanical collecting, in previous years, in Trans-Pecos Texas. His illustrated manuscript report on the 1936 field trip, submitted to the United States National Park Service, was made available to us through the courtesy of Mr. Victor H. Cahalene, of the Fish and Wildlife Service.

The interest of the fauna of Coahuila is currently enhanced since the proposed Big Bend National Park, in southwestern Texas, is to be supplemented by a similar Mexican national park on the opposite side of the Rio Grande and adjacent to it. The combined park areas would thus form a wildlife refuge, the effectiveness of which would be greatly increased by its large area. The mountain ranges of the Big Bend area, the Chisos on the Texan side and the Carnens on the Coahuilan, are outliers of the southern Rockies, and reach a sufficient elevation to preserve extensive areas of coniferous and hardwood forest, isolated by the surrounding creosote bush desert. Such

insular areas offer interesting and important problems to the ecologist and geographer, problems that can only be solved by continued studies, with the conservation of such natural areas. We may refer to the paper by the senior author and Tarleton H. Smith on the reptiles and amphibians of the Big Bend region (1944).

The active field work in recent years of Drs. Edward H. Taylor and Hobart M. Smith in various parts of Mexico has brought our knowledge of Mexican amphibians and reptiles very nearly to the level of that of the fauna north of the border. In their expeditions, however, Coahuila has been relatively neglected, and thus still affords much opportunity for zoological exploration.

It will be noted that we have not followed Hobart M. Smith (1941a, 1941b, and 1941c) in nomenclatural changes based on secondary homonymy. This matter appears to be clarified by an opinion of the International Commission not yet in print. We follow the interpretation of the American Ornithologists' Union Code of 1908, as set forth by Harper (1942).

The collections of amphibians and reptiles from northern Coahuila made by Mr. Marsh amount to some 800 specimens and represent sixty-four species. These include eleven of frogs and toads, six turtles, twenty-two lizards, and twenty-five snakes. By agreement with Dr. E. H. Sellards, Director of the Texas Memorial Museum at Austin, and on Mr. Marsh's recommendation, these collections were deposited in Field Museum for identification and report, Field Museum to retain a share of the specimens.

It is hoped that Mr. Marsh will publish a report on the birds and mammals of his collection, together with a more complete account of his work in the field. The localities mentioned in our list of species may for the most part be found in the Atlas Geographica de La Republica Mexicana, 1919-1921.

LIST OF SPECIES

AMPHIBIA: FROGS AND TOADS

Scaphiopus couchii Baird

Scaphiopus couchii Baird, Proc. Acad. Nat. Sci. Phila., 7, p. 62, 1854—Rio Nacsa, Coahuila and Matamoros, Tamaulipas.

Thirteen specimens, collected at Cuatro Ciénegas, at Hacienda La Babia (Tanque del Tapon, 3,500 feet) in the Sierra del Carmen, and at Hda. La Encantada, Sierra de Santa Rosa.

Bufo insidiosus Girard

Bufo insidiosus Girard, Proc. Acad. Nat. Sci. Phila., 7, p. 88, 1854—Chihuahua. Seven specimens, collected at Hacienda La Mariposa near Muzquiz, at Hda. La Encantada in the Sierra de Santa Rosa, and at Hermanas.

Bufo punctatus Baird and Girard

Bufo punctatus Baird and Girard, Proc. Acad. Nat. Sci. Phila., 6, p. 173, 1852—Rio San Pedro, tributary of the Rio Grande del Norte, Texas. Forty specimens from three miles below Alameda, Santa Anna Canyon, Sierra de Santa Rosa, collected May 17, 1938.

Bufo valliceps Wiegmann

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

Twenty-two specimens, one from Tanque del Tapon, Hacienda La Babia, Sierra del Carmen; two from Hacienda La Gacha, near Muzquiz; fourteen from Cuatro Ciénegas; and five from Hda. La Mariposa, near Muzquiz.

Bufo compactilis Wiegmann

Bufo compactilis Wiegmann, Isis, 1833, p. 661, 1833—Mexico.

Fifty-three specimens, from the following localities: Piedras Negras; Ciudad Allende; Hacienda La Mariposa near Muzquiz; Hda. El Zacate in the Sierra de Santa Rosa; Hda. La Encantada in the same range, at 5,200 feet; Tanque del Lencho, in the Cañon del Colorado, in the Sierra de Los Burros; Hda. La Babia (Tanque del Tapon, 3,500 feet), Sierra del Carmen; six miles west of the same hacienda at 5,000 feet; Hda. La Gacha, near Muzquiz; Hermanas; and Cuatro Ciénegas.

Bufo marinus Linnaeus

Rana marina Linnaeus, Syst. Nat., 10th ed., 1, p. 211, 1758—America (restricted to Surinam).

Bufo marinus Schneider, Hist. Amph., pt. 1, p. 219, 1799.

One specimen, from Cuatro Ciénegas, a large female measuring 192 mm.

Eleutherodactylus latrans Cope

Lithodytes latrans Cope, Bull. U. S. Nat. Mus., 17, p. 25, 1880—Helotes, Bexar County, Texas.

Eleutherodactylus latrans Stejneger and Barbour, Check List N. Amer. Amph. Rept., ed. 1, p. 34, 1917.

Eight specimens, from Sacaton, five miles south of Cuatro Ciénegas. All were caught in mouse traps. Mr. Marsh states that search for specimens by day and night failed to discover them. They apparently got into his traps just before dawn.

We are indebted to Dr. Edward H. Taylor for the verification of our identifications of these specimens as *latrans*.

Hyla arenicolor Cope

Hyla arenicolor Cope, Journ. Acad. Nat. Sci. Phila., (2), 6, p. 84, 1866—northern Sonora.

Five specimens, two from Hacienda La Encantada, and three from Buena Vista, Sierra de Santa Rosa.

Acris crepitans Baird

Acris crepitans Baird, Proc. Acad. Nat. Sci. Phila., 7, p. 59, 1854—northern states; Dunn, op. cit., 90, p. 153, 1938.

Twelve specimens, from La Lajita, Sabinas River, Rancho Golondrinas, near Muzquiz. This series, though badly preserved, is plainly identifiable as *Acris* sp., here recorded for the first time from Mexico. We place them tentatively as the inland species *crepitans*; a revisionary study of the genus *Acris* by Dr. Francis M. Harper is in preparation.

Gastrophryne olivacea Hallowell

Engystoma olivaceum Hallowell, Proc. Acad. Nat. Sci. Phila., 8, p. 252, 1856—"Kansas and Nebraska."

Gastrophryne olivacea Smith, Copeia, 1933, p. 217, 1933.

Twenty-three specimens, from Hacienda La Mariposa and Hda. La Gacha, both localities near Muzquiz.

Rana pipiens berlandieri Baird

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

Rana pipiens berlandieri Schmidt, Field Mus. Nat. Hist., Zool. Ser., 22, p. 487, 1941.

Seventy specimens: one from Rio San Rodriguez, San Carlos; twenty-three from Canyon del Colorado, Sierra de Los Burros; three from Tanque del Tapon, Sierra del Carmen; two from Hacienda La Gacha, Muzquiz; nine from Rio Salado, Lampacitas; five from Hermanas; seven from Antiojo, Cuatro Ciénegas; twelve from

Nogales, Sabinas River, near Muzquiz; and eight from headwaters of the Santa Anna Canyon, Sierra de Santa Rosa. The specimens from Hermanas come from the irrigation ditch carrying warm water from the hot spring "Ojo Caliente," whose waters are at 44° C.

The use of the name *berlandieri* is necessarily provisional; it seems to be the earliest name applied to the large southern race of lowland *pipiens* from the Rio Grande southward.

REPTILIA: TURTLES

Kinosternon flavescens flavescens Agassiz

Platylhyra flavescens Agassiz, Contr. Nat. Hist. U. S., 1, p. 430, 1857; 2, pl. 5, figs. 12-15—Texas and Arizona.

Kinosternon flavescens flavescens Hartweg, Occ. Papers Mus. Zool. Univ. Mich., 371, p. 2, 1938.

Twelve specimens, from Nava, Sabinas, Aguajita (two miles west of Sabinas), Nueva Rosita, San Juan, and Allende. The largest specimen, a male, measures 128 mm. in length of carapace.

Pseudemys troostii elegans Wied

Emys elegans Wied, Reise Nord-Amer., 1, pp. 4, 213, 1838—Fox River at New Harmony, Indiana.

Pseudemys troostii elegans Stejneger and Barbour, Bull. Mus. Comp. Zool., 93, p. 207, 1943.

Twenty-one specimens, from Hacienda Las Rusias, San Juan, and Cuatro Ciénegas.

Pseudemys gaigaeae Hartweg

Pseudemys scripta gaigaeae Hartweg, Occ. Papers Mus. Zool. Univ. Mich., 397, pp. 1-4, 1938—Boquillas, Rio Grande River, Brewster County, Texas.

Pseudemys gaigaeae Stejneger and Barbour, Bull. Mus. Comp. Zool., 93, p. 205, 1943.

Ten specimens, from Hacienda Las Rusias, San Juan, Sabinas, Hermanas, Lampacitas, and Allende.

This species is immediately distinguishable from *Pseudemys troostii elegans* by the absence of paired black blotches on the plastron. We follow the Check List in the nomenclature of *Pseudemys*, pending the appearance of a more comprehensive review of the genus by Carr.

Terrapene coahuila sp. nov.

Type from Cuatro Ciénegas, Coahuila. No. 41234 Field Museum of Natural History. Adult male. Collected August 23, 1939, by Ernest G. Marsh, Jr.

Diagnosis.—A *Terrapene* with the characteristic plastral hinge, not evidently more closely related to any one of the known species than to others. Distinguished by its low elongate carapace, unspotted shell and soft parts, toes 5-4, and beak hooked and notched, dorsal keel vestigial.

Description of type.—Upper jaw hooked and with a strong median notch; top of head flat.

Carapace elongate, rounded in cross section except for the flat vertebral region; vertebral shields smooth, without evident growth rings on the anterior shields; vertebral keel merely indicated; second, third, and fourth vertebrals nearly flat; distance from lower border of second costal to the vertebrals much less than the combined lengths of the second and third vertebrals; plastron deeply indented in the posterior lobe, indented at the gular-humeral margin, and slightly indented on the outer borders of the anals; combined lengths of the interhumeral and interpectoral seams much longer than the humero-pectoral seam.

Toes five in front and four behind; hind foot with conspicuous interdigital webs; short webs at base of toes in front foot.

Carapace nearly uniform brown, with fine yellowish vermiculations (when examined under liquid), most evident on the vertebral shields; plastron uniform dull yellow, the sutures between the shields darker, but not dark bordered; some irregular brown flecks on the marginals and on the edge of the plastron. Limbs uniform grayish above, lighter beneath; head uniform brown, like the uniform portions of the carapace, but with small dark spots when viewed with the lens.

Sex characters.—The female allotype, No. 41235, has the shell a little more arched in lateral outline, and has the plastron smoothly convex; upper jaw less prominently hooked.

Measurements.—The measurements of the type (male) and allotype (female, in parentheses) are as follows: Length of carapace 152 (148); width of carapace 100 (98); length of plastron 144 (142); width of plastron (at hinge) 70 (70); length of anterior lobe 57 (56); length of posterior lobe 87 (86); height of shell at hinge 63 (63).

Notes on paratypes.—The eleven paratypes, six males and five females, form a very uniform series, ranging in length of carapace from 135 to 155 mm. The ratio of width to length of carapace varies only from 0.65 to 0.68, average 0.66. This compares with 0.69 to 0.76 in *Terrapene klauberi* of Sonora. The height of the shell is 0.40 to 0.45 of the length (0.40-0.43 in males, 0.42-0.45 in females), com-

pared with 0.44-0.50 in female *klauberi*. Both of these ratios are significantly lower in the new form than in *Terrapene goldmani* of lowland San Luis Potosi.

Gopherus berlandieri Agassiz

Xerobates berlandieri Agassiz, Contr. Nat. Hist. U. S., 1, p. 447, 2, pl. 3, figs. 17-19, 1857—lower Rio Grande, Texas.

Gopherus berlandieri Stejneger, N. Amer. Fauna, 7, p. 161, 1893.

Nine specimens, from ten miles south of Fuentes, two miles north of Nava, Rosita, Hermanas, Ojo Caliente, and on the highway between Hermanas and Monclova.

The smallest specimen measures 84.4 in length of carapace, and the largest, a male, 180. In the three smallest specimens, 84.4 to 101.8 mm. in length, the width of the plastron varies from 0.87 to 0.85 of the length, and this ratio is further decreased in the adult specimens (130 to 180 mm.), in which it varies from 0.84 to 0.78. In adults the males are distinguished by concavity of the posterior part of the plastron, but no sexual difference in relative breadth of shell appears in the small series at hand. Growth rings on all of our specimens are evident, but it does not appear to be probable that all of them represent annual rings.

Platypeltis emoryi Agassiz

Aspidonectes emoryi Agassiz, Contr. Nat. Hist. U. S., 1, p. 407, 2, pl. 6, figs. 4, 5, 1857—Rio Grande near Brownsville, Texas.

Platypeltis emoryi Baur, Proc. Amer. Phil. Soc., 31, p. 220, 1893.

Seven specimens, from Hacienda Los Borregos (near Juarez), San Juan, Cuatro Ciénegas, and Hda. La Gacha.

LIZARDS

Crotaphytus collaris baileyi Stejneger

Crotaphytus baileyi Stejneger, N. Amer. Fauna, 3, p. 103, pl. 12, fig. 1, 1890—Painted Desert, Arizona.

Crotaphytus collaris baileyi Stone, Proc. Acad. Nat. Sci. Phila., 55, p. 30, 1903.

Six specimens, from Villa Acuna, Pueblo Nuevo, Allende, Monclova, and Cuatro Ciénegas.

Crotaphytus reticulatus Baird

Crotaphytus reticulatus Baird, Proc. Acad. Nat. Sci. Phila., 10, p. 253, 1853—Laredo and Ringgold Barracks, Texas.

A single specimen, from two miles north of Nava, collected May 10, 1938.

Crotaphytus wislizenii Baird and Girard

Crotaphytus wislizenii Baird and Girard, in Stansbury, Howard, Expl. Surv. Vall. Great Salt Lake, p. 340, pl. 3, 1852—near Santa Fe, New Mexico.

Four specimens from Cuatro Ciénegas.

Holbrookia maculata approximans Baird

Holbrookia approximans Baird, Proc. Acad. Nat. Sci. Phila., 1858, p. 253, 1858—"Lower Rio Grande."

Holbrookia maculata approximans Stejneger, N. Amer. Fauna, 3, p. 109, 1890.

Twenty-two specimens, from Hacienda La Encantada and La Palma in the Sierra de Santa Rosa, and from Buena Vista and Hda. La Rosita.

Holbrookia texana Troschel

Cophosaurus texanus Troschel, Arch. Naturg., 16, p. 389, pl. 6, 1850—the German colony of Neubraunfels, on the Guadalupe River in western Texas, lat. 28° N.

Holbrookia texana Baird and Girard, Proc. Acad. Nat. Sci. Phila., 6, p. 124, 1852.

Fifty specimens, from Hacienda La Mariposa, Sierra de Santa Rosa, Hda. Golondrinas, Villa Acuna, Hda. Las Rusias, Hda. La Gacha, Hda. Los Borregos, Hermanas, Allende, and Cuatro Ciénegas.

Uta stansburiana stejnegeri Schmidt

Uta stansburiana stejnegeri Schmidt, Amer. Mus. Nat. Hist., Nov., No. 15, p. 2, 1921—mouth of Dry Cañon, Alamogordo, Otero County, New Mexico.

Forty-four specimens, from Hermanas and Cuatro Ciénegas.

Sceloporus poinsettii Baird and Girard

Sceloporus poinsettii Baird and Girard, Proc. Acad. Nat. Sci. Phila., 6, pp. 126-127, 1852—Rio San Pedro of the Rio Grande del Norte, and the province of Sonora.

Twenty-five specimens from Palau, Tanque de Santo Domingo in the Sierra del Carmen, Buena Vista, La Palma, and Hacienda La Encantada in the Sierra de Santa Rosa, Hacienda Los Borregos, Sabinas, and the Sierra de La Gloria near Monclova.

Sceloporus merriami annulatus Smith

Sceloporus merriami annulatus Smith, Proc. Biol. Soc. Wash., 50, p. 83, 1937—east slope of the Chisos Mountains, Brewster County, Texas.

Thirty-three specimens, all from Cuatro Ciénegas.

Sceloporus magister magister Hallowell

Sceloporus clarkii Baird and Girard, Proc. Acad. Nat. Sci. Phila., 6, p. 127, 1852—Fort Yuma, California.

Sceloporus magister *magister* Linsdale, Univ. Calif. Publ., Zool., 38, p. 365, 1932.

Four specimens, from Cuatro Ciénegas.

Sceloporus microlepidotus disparilis Stejneger

Sceloporus dispar Bailey, N. Amer. Fauna, 25, p. 42, 1905—Lomita Ranch, six miles north of Hidalgo, Texas.

Sceloporus microlepidotus disparilis Dunn, Proc. Acad. Nat. Sci. Phila., 88, p. 472, 1936.

Eleven specimens, from Buena Vista, La Palma in the Sierra de Santa Rosa, and the Sierra de La Gloria (near Monclova).

Sceloporus undulatus consobrinus Baird and Girard

Sceloporus consobrinus Baird and Girard, in Marcy, Expl. Red River, 1854, p. 208, pl. 10, figs. 5-12, 1854—Beckham County, Oklahoma, near confluence of North Fork of the Red River and Snyder Creek.

Sceloporus undulatus consobrinus Burt, Papers Mich. Acad. Sci., 22, p. 537, 1936 (1937).

Twelve specimens, from Allende, Nava, Palau, Hacienda Golondrinas, Tanque de Santo Domingo (Sierra del Carmen), Hermanas, and Monclova.

Sceloporus variabilis marmoratus Hallowell

Sceloporus marmoratus Hallowell, Proc. Acad. Nat. Sci. Phila., 6, p. 178, 1852—San Antonio, Texas.

Sceloporus variabilis marmoratus Smith, Proc. Biol. Soc. Wash., 47, p. 121, 1934.

Twelve specimens, from Hacienda La Mariposa, Villa Acuna, Hda. La Gacha, Sierra de Santa Rosa (La Palma), Hda. Las Rusias, Lampacitas, and Allende.

Sceloporus olivaceus Smith

Sceloporus olivaceus Smith, Trans. Kans. Acad. Sci., 37, p. 277, 1934—near Rio Grande City, Texas.

Twenty-three specimens, from Hacienda La Mariposa, Muzquiz, Nava, Palau, Hda. Golondrinas, San Juan, San Carlos, Villa Acuna, Hda. Las Rusias, Sabinas, and Allende.

Sceloporus couchii Baird

Sceloporus couchii Baird, Proc. Acad. Nat. Sci. Phila., 10, p. 254, 1858—Santa Caterina, Nuevo Leon, Mexico.

Four specimens, from La Palma, Sierra de Santa Rosa, and from the Sierra de La Gloria, near Monclova.

Phrynosoma modestum Girard

Phrynosoma modestum Girard, in Stansbury, Howard, Expl. Surv. Vall. Great Salt Lake, pp. 361, 365, pl. 6, figs. 4-8, 1852—the Rio Grande west of San Antonio, Texas, and from between San Antonio and El Paso.

Eleven specimens, from Allende, Hermanas, Palau, and Cuatro Cienegas.

Phrynosoma cornutum Harlan

Agama cornuta Harlan, Journ. Acad. Nat. Sci. Phila., 4, p. 299, pl. 20, 1825—Great Plains east of the Rocky Mountains.

Phrynosoma cornutum Gray, Griffith's Anim. Kingd., Syn. Rept., 1831, p. 9, 1831.

Nineteen specimens, from Hacienda La Mariposa, Allende, Muzquiz, Hda. El Zacate, San Juan, Villa Acuna, Hda. La Babia (Sierra del Carmen), and Buena Vista (Sierra de Santa Rosa).

Gerrhonotus infernalis Baird

Gerrhonotus infernalis Baird, Proc. Acad. Nat. Sci. Phila., 10, p. 255, 1858—Devil's River, Texas.

Five specimens from Sierra de La Gloria, near Monclova.

Cnemidophorus tessellatus tessellatus Say

Ameiva tessellata Say, Long's Exp. Rocky Mts., 2, p. 50, 1823—Arkansas River, near Castle Rock Creek, Colorado.

Cnemidophorus tessellatus tessellatus Cope, Ann. Rept. U. S. Nat. Mus., 1898, p. 575, fig. 407, 1900.

Nineteen specimens, from Hermanas, Monclova, and Cuatro Cienegas. These resemble specimens from west Texas in every way.

Cnemidophorus inornatus Baird

Cnemidophorus inornatus Baird, Proc. Acad. Nat. Sci. Phila., 10, p. 255, 1858—"New Leon"—Pescuieria Grande, Nuevo Leon, fide Burt.

Four specimens from Cuatro Cienegas have a uniform coloration, and give the appearance of exceptionally faded *Cnemidophorus tessellatus*. That they are unrelated to *tessellatus* is shown by the

abruptly enlarged postantebrachials. A large adult male has sharply defined black spots on the throat and chin. The smallest specimen has obscure light longitudinal lines, visible only with attentive examination. We have little hesitation in referring our specimens to this species, which occurs in association with *tessellatus* at Cuatro Cienegas.

Cnemidophorus gularis Baird and Girard

Cnemidophorus gularis Baird and Girard, Proc. Acad. Nat. Sci. Phila., 6, p. 128, 1852—Indianola and San Pedro River, Texas.

Thirty-seven specimens, from Muzquiz, Villa Acuna, Hacienda Las Rusias, Juarez, Hermanas, Allende, and Monclova.

Cnemidophorus ocellineatus Baird

Cnemidophorus ocellineatus Baird, Proc. Acad. Nat. Sci. Phila., 10, p. 255, 1858—Pescuieria Grande, Nuevo Leon.

Three specimens, from the Cañon del Colorado, Sierra de Los Burros, are referred to *ocellineatus*, after comparison with the series from the Chisos Mountains in Field Museum (see Schmidt and Smith, 1944, p. 85). The smallest of these, measuring only 30 mm. in body length, has eight nearly equally developed light lines with the darker bands between the lines unspotted; the largest specimen, measuring 88 mm. in body length, is an adult male. It has seven stripes, like the minority of the Chisos series; the third specimen, measuring 87 mm., has six stripes. These agree in having two series of enlarged postantebrachial scutes.

Eumeces obsoletus Baird and Girard

Plestiodon obsoletum Baird and Girard, Proc. Acad. Nat. Sci. Phila., 6, p. 129, 1852—valley of the Rio San Pedro, tributary of the Rio Grande del Norte, Texas.

Eumeces obsoletus Cope, Bull. U. S. Nat. Mus., 1, p. 45, 1875.

Two specimens, from Cuatro Cienegas.

Leiopisma laterale Say

Scincus lateralis Say, Long's Exp. Rocky Mts., 2, p. 234, 1823—Mississippi River, below Cape Girardeau, Missouri.

Leiopisma laterale Jordan, Man. Vert. Northern U. S., ed. 8, p. 201, 1899.

A single specimen, collected at Nogales, Sabinas River, near Muzquiz, March 23, 1937. This appears to be the first record of this species from Mexico.

Leptotyphlops humilis segregus Klauber

Leptotyphlops humilis segregus Klauber, Trans. San Diego Soc. Nat. Hist., 9, p. 67, 1939.—Chalk Draw, Brewster County, Texas.

Two specimens, from El Capoline, Sierra de Santa Rosa, and Hacienda La Babia, Sierra del Carmen. These are paratypes of *segregus*.

Natrix erythrogaster transversa Hallowell

Tropidonotus transversus Hallowell, Proc. Acad. Nat. Sci. Phila., 6, p. 177, 1852.—"Creek boundary, found near the banks of the Arkansas and its tributaries."

Natrix erythrogaster transversa Taylor, Sci. Bull. Univ. Kans., 19, p. 53, 1929.

Thirteen specimens, eleven from the Sabinas River near Muzquiz, one from Hermanas, and one from Cuatro Ciénegas, are uniform in coloration and scale characters. No sexual difference is evident in number of ventrals or of caudals, which range from 140 to 148 and 67 to 83 in nine males, and from 145 to 147 and 67 to 78 in four females.

Natrix rhombifera rhombifera Hallowell

Tropidonotus rhombifer Hallowell, Proc. Acad. Nat. Sci. Phila., 6, p. 177, 1852.—Arkansas River and its tributaries near the northern boundary of the Creek Nation.

Natrix rhombifera rhombifera Clay, Ann. Carnegie Mus., 27, pp. 251–253, 1938.

Fifteen specimens, all from Hacienda Las Rusias. In the four males the ventrals range from 143 to 152 and the caudals from 70 to 76. In the eleven females the ventral range is 141–146 and the caudals vary from 57 to 64. These specimens appear to be intermediate in ventral coloration between *r. rhombifera* and *r. blanchardi*. The dorsal pattern is well developed.

Thamnophis eques cyrtopsis Kennicott

Eulaenia cyrtopsis Kennicott, Proc. Acad. Nat. Sci. Phila., 12, p. 333, 1860.—Rinconada, Coahuila, Durango and Gila River; here restricted to Rinconada, Coahuila.

Thamnophis eques cyrtopsis Smith, Zoologica, 27, p. 108, 1942.

Two specimens, from the Sierra del Carmen (collected by Mr. Marsh in 1936) and from the Sierra de La Gloria, near Monclova.

Thamnophis marcianus Baird and Girard

Eulaenia marciana Baird and Girard, Cat. N. Amer. Rept., pt. 1, p. 36, 1853.—"Red River, Arkansas," Oklahoma.

Thamnophis marcianus Ruthven, Bull. U. S. Nat. Mus., 61, p. 58, 1903.

Eighteen specimens, from Fuentes, Palau, Hacienda La Mariposa, Hermanas, Sierra de La Gloria (near Monclova), and from Tanque del Tapon, Hda. La Babia, Sierra del Carmen. In ten males the ventrals range from 152 to 160, average 155.4, and in eight females from 143 to 155, average 149. Caudals in the same series range from 60 to 78 in males and 64 to 71 in females.

Thamnophis sauritus proximus Say

Coluber proximus Say, Long's Exp. Rocky Mts., 1, p. 187, 1823.—stone quarry on west side of Missouri River, three miles above the mouth of Boyer's River.

Thamnophis sauritus proximus Ruthven, Bull. U. S. Nat. Mus., 61, p. 98, 1903.

Twenty-one specimens of this species, which is everywhere abundant (near water) in the lower Rio Grande drainage. The localities represented are San Carlos, Sabinas River north of Muzquiz, and the Hacienda El Zacate.

Heterodon nasicus kennerlyi Kennicott

Heterodon kennerlyi Kennicott, Proc. Acad. Nat. Sci. Phila., 12, p. 336, 1860.—Rio Grande and Sonora.

Heterodon nasicus kennerlyi Cope, Ann. Rep. U. S. Nat. Mus., 1898, p. 773, 1900.

A single male specimen, from San Juan, collected May 9, 1938, has scale rows 23–23–19, ventrals 128, anal divided, caudals 40, upper labials 8, lower labials 10, and temporals 4–5 and 4–4. Total length 338, tail 59. The type locality, cited in the Check List of North American Amphibians and Reptiles as "Rio Grande, Sonora," is not so written by Kennicott; it appears as:

Rio Grande. Dr. Kennerly.
Sonora.

The type locality is here restricted to Rio Grande, Texas.

Masticophis taeniatus schottii Baird and Girard

Masticophis schottii Baird and Girard, Cat. N. Amer. Rept., pt. 1, p. 160, 1853.—Eagle Pass, Texas.

Masticophis taeniatus schottii Gloyd and Conant, Occ. Papers Mus. Zool. Univ. Mich., 287, p. 4, 1934.

Two specimens, obtained by Mr. Marsh in the Sierra del Carmen in 1936 and presented by him to Field Museum, are included in our list. These specimens, a male and a female, have dorsal scales 15–15–12, ventrals 199 and 198, upper labials 8, lower labials 9 and 10.

oculars 2-3 and 2-2 and temporals 2-2. The larger specimen measures 1,193 mm., tail incomplete.

The subspecies in the Chisos area across the river from the Carmen Mountains is *Masticophis taeniatus ornatus*. Additional collections are required to trace the area of intergradation between *schottii* and *ornatus* in Coahuila.

Masticophis flagellum testaceus Say

Coluber testaceus Say, Long's Exp. Rocky Mts., 2, p. 48, 1823.

Thirteen specimens, from the vicinity of Muzquiz, Hermanas, and Cuatro Ciénegas. These closely resemble specimens from the Big Bend region of Texas. The range in ventrals is 189-195 in ten males and 188-192 in three females.

Drymarchon corais obsoletus Baird and Girard

Georgia obsoleta Baird and Girard, Cat. N. Amer. Rept., pt. 1, p. 158, 1853—Eagle Pass, Texas.

Five specimens, from Hacienda La Gacha, north of Muzquiz and Guerrero. These specimens raise the maximum of ventrals given by Smith for this subspecies (Smith, 1941c, p. 478); our four male specimens have ventrals 192, 192, 195, and 195, and the single female has 196. Four of our specimens have dorsals 17-14, one 17-15. Our largest specimen, a male from Guerrero, measures 2,342 mm., tail 324.

Salvadora lineata Schmidt

Salvadora lineata Schmidt, Field Mus. Nat. Hist., Zool. Ser., 24, p. 148, 1940—Kingsville, Kleberg County, Texas.

A single specimen, from eight miles south of Fuentes, collected May 10, 1938, is a female measuring 799 mm., tail 195. The dorsal scales are 19-17-15, ventrals 190, caudals 88, upper labials 8, lower labials 9, oculars 3-2, and temporals 2-3-4.

Elaphe laeta laeta Baird and Girard

Scolophis laetus Baird and Girard, Cat. N. Amer. Rept., pt. 1, p. 77, 1853—Red River, Arkansas.

Elaphe laeta laeta Woodbury and Woodbury, Proc. Biol. Soc. Wash., 55, p. 139, 1943.

Two specimens, one from Monclova and one from Tanque del Tapon, Hacienda La Babia, Sierra del Carmen. Both are males,

with ventrals respectively 217, 213, caudals 78, 75, and dark dorsal blotches on body and tail 36+13. The larger specimen measures 913 mm., tail 173.

Elaphe subocularis Brown

Coluber subocularis Brown, Proc. Acad. Nat. Sci. Phila., 51, p. 492, pl. 29, 1901—Davis Mountains, Jeff Davis County, fifty miles south of Pecos, Texas.

Elaphe subocularis Stejneger and Barbour, Check List N. Amer. Amph. Rept., ed. 1, p. 84, 1917.

A single specimen, from Cuatro Ciénegas, a female, has dorsal scales 33-35-24, ventrals 269, caudals 75, upper labials 11, lower labials 14-15, and temporals 3-4 and 3-5. The total length is 1,351 mm., tail 204.

Arizona elegans elegans Kennicott

Arizona elegans Kennicott, in Baird, U. S.-Mex. Bound. Surv., 2, p. 18, pl. 13, 1859—Rio Grande, Texas, and between Arkansas and Cimarron, Oklahoma.

Arizona elegans elegans Blanchard, Occ. Papers Mus. Zool. Univ. Mich., 150, p. 1, 1924.

Three specimens, from Hacienda Las Rusias and Cuatro Ciénegas. One of these lacks the head, and another has the tail incomplete. They agree most closely with the diagnosis of the typical subspecies. The perfect specimen, from Hda. Las Rusias, is a male with dorsal scales 29-31-21, ventrals 204, caudals 54, upper labials 8, lower labials 13, oculars 1-2, and temporals 3-3 and 2-3. It measures 788 mm., tail 118.

Pituophis sayi sayi Schlegel

Coluber sayi Schlegel, Essai Physion. Serp., 2, p. 157, 1837—Missouri.

Pituophis sayi sayi Stull, Bull. U. S. Nat. Mus., 175, p. 91, 1940.

Four specimens, from Allende, Cuatro Ciénegas, Hermanas, and Conejo Station in the Sierra del Carmen.

Lampropeltis alterna Brown

Ophibolus alternus Brown, Proc. Acad. Nat. Sci. Phila., 52, p. 612, 1902—Davis Mountains, Jeff Davis County, Texas.

Lampropeltis alterna Stejneger and Barbour, Check List N. Amer. Amph. Rept., ed. 1, p. 87, 1917.

A specimen of this rare snake, apparently the fifth to reach a museum collection, was obtained at Cuatro Ciénegas, August 16,

1939. It has dorsal scale rows 23-25-19, ventrals 215, caudals 62, upper labials 7, lower labials 11, oculars 1-2, and temporals 3-4. Total length 757 mm., tail 124. It thus agrees essentially with the specimen recorded from Saltillo, Coahuila, by Smith (1941, p. 112). It differs from the specimens thus far known in the absence of the red color in the black bands; but the general arrangement of the bands is almost exactly like that figured by Murray (1939, p. 10).

Lampropeltis triangulum annulata Kennicott

Lampropeltis annulata Kennicott, Proc. Acad. Nat. Sci. Phila., 2, p. 329, 1860.—Matamoros, Mexico.

Lampropeltis triangulum annulata Blanchard, Occ. Papers Mus. Zool. Univ. Mich., 87, p. 5, 1920.

A single specimen, from Paso de Los Tablos, Sabinas River, near Muzquiz, a male, has dorsal scales 21-21-19, ventrals 193, caudals 51, upper labials 7, lower labials 9, oculars 1-2, and temporals 2-2 and 2-3. The white rings on body and tail are 18+6. Total length 774 mm., tail 112.

Rhinocheilus lecontei tessellatus Garman

Rhinocheilus lecontei var. *tessellatus* Garman, Mem. Mus. Comp. Zool., 8, No. 3, p. 74, 1893.—Monclova, Coahuila, Mexico.

Rhinocheilus lecontei tessellatus Klauber, Trans. San Diego Soc. Nat. Hist., 9, p. 302, 1941.

A single female specimen comes from Villita Fuente, near Rio Fuente. It has dorsal scales 23-23-19, ventrals 200, caudals 46, upper labials 8, lower labials 9, oculars 1-2, and temporals 2-3. Total length 447 mm., tail 60.

Hypsigena ochrorhynchus Cope

Hypsigena ochrorhynchus Cope, Proc. Acad. Nat. Sci. Phila., 12, p. 246, 1860.—Cape St. Lucas, Lower California.

A single specimen, a female, from Cuatro Ciénegas, has dorsal scales 23-21-17, ventrals 173, caudals 48, upper labials 8, lower labials 10, oculars 2-2, temporals 1-2. Total length 254 mm., tail 46. Stomach contents a full-grown *Uta stansburiana stegneri*.

Tantilla atriceps Günther

Homalocercium atriceps Günther, Biol. Centr.-Amer., Rept., p. 146, pl. 52, fig. B, 1895.—Nuevo Leon, Mexico.

Tantilla atriceps Blanchard, Field Mus. Nat. Hist., Zool. Ser., 26, p. 372, 1938.

A single male specimen from Allende has dorsal scales 15, ventrals 126, caudals 58, upper labials 7, lower labials 6, oculars 1-2, tem-

porals 1-1. Total length 199 mm., tail 56. The number of ventrals is four less than the minimum in Blanchard's table, but is within the range given by Smith (1942a, p. 34), who discusses the variation in this species.

Micrurus fulvius tener Baird and Girard

Elops tener Baird and Girard, Cat. N. Amer. Rept., pt. 1, p. 22, 1853.—San Pedro de Rio Grande and New Braunfels, Texas.

Micrurus fulvius tener Schmidt, Field Mus. Nat. Hist., Zool. Ser., 20, p. 40, 1933.

A single specimen, from Hacienda Las Rusias, near Muzquiz, a female, has ventrals 226, caudals 30, upper and lower labials 7, oculars 1-2 and temporals 1-1. Total length 788 mm., tail 64.

Agkistrodon bilineatus Günther

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

Agkistrodon bilineatus Amaral, Mem. Inst. Butantan, 4, p. 241.

A single specimen from south of Linares, Nuevo Leon, collected March 15, 1938. This is recorded in the present paper in order to correct the Coahuila record published by Gloyd and Conant (1943, p. 163), derived through an error in Field Museum catalogue by which a large block of specimens was recorded as from Muzquiz, while inspection of the field catalogue shows that they come from various localities in Coahuila; specimens collected en route in Tamaulipas and Nuevo Leon were unfortunately included in this lot.

The specimen apparently represents the northernmost record for the species. It is a male with dorsal scales 23-23-19, ventrals 133, caudals 50, upper labials 8, and lower labials 10. Total length 675 mm., tail 122.

Crotalus lepidus lepidus Kennicott

Caudisona lepidus Kennicott, Proc. Acad. Nat. Sci. Phila., 13, p. 206, 1861.—Presidio and Eagle Pass, Texas.

Crotalus lepidus lepidus Gloyd, Occ. Papers Mus. Zool. Univ. Mich., 337, p. 4, 1936.

Two snake specimens of this rattlesnake were collected in the Sierra de La Gloria, near Monclova, August 5, 1939. They agree closely, with dorsal scales 23-23-17, ventrals 168 and 165, and caudals 29 and 23. The larger specimen measures 700 mm., tail 59. These specimens are topotypes of *Crotalus palmeri* Garman.

Crotalus molossus molossus Baird and Girard

Crotalus molossus Baird and Girard, Cat. N. Amer. Rept., pt. 1, p. 10, 1853
—Fort Webster, New Mexico.

Crotalus molossus molossus Klauber, Trans. San Diego Soc. Nat. Hist., 8,
p. 249, 1936.

A single specimen from the Sierra de Santa Rosa, south of Mesa de Fresno, at 6,500 feet altitude. This specimen, a female, has dorsal scales 31-27-22, ventrals 193, caudals 25, upper labials 18-17, and lower labials 18-17.

Crotalus atrox Baird and Girard

Crotalus atrox Baird and Girard, Cat. N. Amer. Rept., pt. 1, p. 5, 1853—San
Pedro, Texas.

Six specimens, from Hacienda La Babia, Sierra del Carmen, Guerrero, and Juarez. These specimens are in close agreement with Gloyd's diagnosis of *atrox*.

Crotalus viridis viridis Rafinesque

Crotalus viridis Rafinesque, Amer. Month. Mag. Crit. Rev., 4, p. 41, 1818—
Missouri River.

Crotalus viridis viridis Klauber, Trans. San Diego Soc. Nat. Hist., 8, p. 241,
fig. 85, 1936.

A single headless specimen from Allende, collected April 19, 1938, extends the range of this subspecies into Coahuila. It is not known from the Big Bend region of Texas.

REFERENCES

- GLOYD, H. K., and CONANT, ROGER
1943. A Synopsis of the American Forms of *Ambystoma* (copperheads and moccasins). Bull. Chicago Acad. Sci., 7, pp. 147-170, figs. 1-16, 2 maps.
- GLOYD, H. K., and SMITH, H. M.
1942. Amphibians and Reptiles from the Carmen Mountains, Coahuila. Idem, 6, pp. 211-215.
- HARPER, FRANCIS
1942. The Status of *Scincus lateralis* Say. Copeia, 1942, p. 180.
- MARSH, E. G., JR.
1937. Biological Survey of the Santa Rosa and Del Carmen Mountains of Northern Coahuila, Mexico. MS., 73 pp., 22 photos, 1 map. (National Park Service)
- MURRAY, L. T.
1939. Annotated List of Amphibians and Reptiles from the Chisos Mountains. Contr. Baylor Univ. Mus., 24, pp. 1-16, 2 figs.

SCHMIDT, K. P., and SMITH, T. F.

1944. Amphibians and Reptiles of the Big Bend Region of Texas. Field Mus. Nat. Hist., Zool. Ser., 29, pp. 75-86.

SMITH, HOBART M.

1941. *Lampropeltis alterna* from Mexico. Copeia, 1941, p. 112.

1941a. Notes on Mexican Snakes of the Genus *Elaphe*. Idem, 1941, pp. 132-136, figs. 1-2.

1941b. Notes on Mexican Snakes of the Genus *Masticophis*. Journ. Wash. Acad. Sci., 31, pp. 388-398, 1 map, 1 fig.

1941c. A Review of the Subspecies of the Indigo Snake (*Drymarchon corais*). Idem, 31, pp. 466-481, 9 tables, 2 figs.

1942. Remarks on the Mexican King Snakes of the Triangulum Group. Proc. Rochester Acad. Sci., 8, pp. 196-207, 1 fig., 1 pl., 1 table.

1942a. A Résumé of Mexican Snakes of the Genus *Tantilla*. Zoologica, 27, pp. 33-42.