

requisite color. Judging from the equal distinctness of the vessels in some of Prof. Hyrtl's preparations in his possession, he was led to believe that it is on a similar principle that these beautiful injections are made, except that turpentine is probably used as a solvent instead of ether. He was, however, not able to speak positively on this subject, since the injecting material used by Prof. Hyrtl has never been disclosed. The advantage of using ether for injections, as first directed by Dr. Goddard, instead of turpentine, is that preparations in which ether has been used are always more uniformly and more minutely injected; and by dissolving solid substances in it, Dr. Da Costa believed that equal distinctness, with perhaps greater minuteness than is even afforded in the preparations of Prof. Hyrtl, may be obtained.

June 20th.

MAJOR LE CONTE in the Chair.

Dr. Le Conte presented two papers for publication in the Proceedings, viz: "Synopsis of the Dermestidæ of the United States," and "Synopsis of the Byrrhidæ of North America," both of which were referred to Dr. Leidy, Dr. Elwyn, and Dr. Ruschenberger.

Dr. Leidy presented a paper for publication in the Journal, entitled, "Descriptions of New Fossil species from the cretaceous formation of Sage Creek, Nebraska, by John Evans, M. D., and B. F. Shumard, M. D.;" which was referred to Mr. Conrad, Mr. Charles E. Smith, and Mr. Foulke.

Mr. Cassin presented a paper for publication in the Proceedings, entitled, "Descriptions of new Birds collected between Albuquerque, New Mexico, and San Francisco, California. By S. F. Baird." Referred to Mr. Cassin, Dr. Heermann, and Col. McCall.

June 27th.

Vice President LEA in the Chair.

The Committees to which were referred papers by Dr. Hallowell, read June 6th and 13th, 1854; by Dr. Gibbons, June 13th; by Dr. J. Le Conte, read June 20th; and by Prof. Baird, read June 20th, severally reported in favor of publication in the Proceedings.

Descriptions of new Reptiles from California.

BY EDWARD HALLOWELL, M. D.

CHELONIANS.

EMYS NIGRA, *nov.*

Sp. Char.—Shell oblong-ovate, slightly compressed at the sides and emarginate, but not distinctly serrated posteriorly; latero-posterior margins of carapax everted; nuchal plate narrow, truncate anteriorly, broader posteriorly; 24 marginal plates, the two posterior more or less quadrilateral, the two adjoining pentagonal; color blackish above, the upper part of head and neck presenting numerous very small yellow spots upon a black ground; anterior extremities with a tinge of yellow; under jaw and throat yellow, with dark colored markings; plastron yellow in the middle, with large blotches of black or dark brown at the sides, and anteriorly and posteriorly; under surface of tail and extremities blackish; tail of moderate length.

Dimensions.—Length of head 1 inch; breadth $\frac{3}{4}$; length of carapax $6\frac{1}{2}$ inches, measured along curvature superiorly; breadth at middle $5\frac{1}{4}$ inches; of tail $2\frac{3}{4}$.

Habitat.—Posa Creek, Lower California, where it occurs in great numbers.

Gen. obs.—This species resembles none of the North American Emydes with which I am acquainted. Its dark color puts one in mind of, but is not so jet a black as that of *Sternotherus niger* of Madagascar.

SAURIANS.

DIPSO-SAUURUS, *Hallowell*.

Gen. char.—Head triangular, covered above and in front with tubercles; nostrils latero-superior, opening in a single scale; rostral plate vertical, triangular; jaws margined each with a series of smooth quadrilateral plates; tympanum visible, depressed; upper part of body covered with carinated scales, more or less rounded posteriorly, arranged in oblique rows; a row of scales much larger than the rest along the dorsal line, and much more strongly carinated, forming a slight dorsal crest; a gular fold; scales of abdomen quadrangular, smooth; femoral pores; tail covered with transverse rows of verticillate and carinated scales.

DIPSO-SAUURUS DORSALIS.

Syn.—*Crotaphytus dorsalis*, Baird and Girard. *Proceed. Acad. Nat. Sc.* 1852, p. 126.

Coloration.—Body presenting numerous lines of red upon the sides, with blotches of the same color over the shoulders, the intervening spaces numerous white spots; upper surface and sides of tail marked with red spots arranged in transverse rows; upper surface of extremities with red; throat, abdomen, under surface of extremities and tail white. The coloration, as described by Profs. Baird and Girard, appears to be taken from younger specimens, one such before me corresponding with it precisely.

Dimensions.—Length of head 7 lines; breadth 7; length of head, neck and body to vent, 8 inches, (Fr.); of tail $7\frac{1}{2}$ inch.; anterior extremities $1\frac{1}{2}$ inch.; posterior 3 inches to extremity of nail of longest toe.

Habitat.—Desert of the Colorado, to which it appears to be confined. The smaller specimen from near Fort Yuma, the large one found in the desert between Rum River and the Tejon Pass, (pronounced Tahon;) a country without water, not sandy, but arid, bearing artemisia, &c.

Gen. remarks.—This animal differs from *Crotaphytus* (Holbrook) in having the upper part of the body covered with quadrangular scales, instead of granulations, and the larger row of carinated dorsal scales giving rise to a slight crest, no trace of which exists in *Crotaphytus*, from *Leiolepis* in having tubercles, and not plates, upon the head and from *Homalo-saurus* in the form of the marginal plates of the upper jaw.

URO-SAUURUS, *Hallowell*.

Gen. char.—Body very slender, which, as well as the head, is much depressed; scales upon the back much larger than those upon the sides, and strongly carinated; nostrils superior in a single scale; head covered with plates; aural apertures very distinct; a gular fold; extremities slender; toes 5—5; tail very long and tapering, verticillate; femoral pores, but no anal ones.

URO-SAUURUS GRACIOSUS, *nov.*

Sp. char.—Head yellow, with a few brownish marks; seven longitudinal rows of scales upon the back very distinctly carinated. Color of body yellowish, mixed with brownish and black spots; extremities yellowish, with dark colored transverse bands; tail of same color above as body; under surface silvery white, with blackish spots; eleven femoral pores.

Dimensions.—Length of head $5\text{-}8\text{ths}$ inch; greatest breadth $\frac{3}{4}$ inch; length of head, neck and body to vent, $1\frac{1}{2}$ inch; of anterior extremities to extremity of

longest toe 6-8ths inch; of posterior to extremity of longest toe $1\frac{1}{2}$ inch; of tail $4\frac{1}{2}$ inches; total length.

Habitat.—Lower California.

Gen. Remarks.—The contrast between the large carinated scales upon the back, and the small ones upon the sides resembling granulations, is very striking; the long and slender tail also is remarkable. In these respects *Uro-saurus* is allied to *Tachydromus*, but the plates upon the head are very different.

SCELOPORUS, *Wiegmann.*

SCELOPORUS MAGISTER, *nov.*

Sp. char.—Larger than any known species of *Sceloporus*, and remarkable for its large and strongly carinated scales, which are very much denticulated posteriorly; anterior margin of aural apertures strongly denticulated; upper part of head, body and extremities and tail straw color, without spots or blotches; a black triangular blotch upon each side of the neck, in front of the shoulder, the base below; two large bluish green blotches upon the abdomen, one on each side and one upon the neck; the rest of the under surface light straw color; tail long, very thick at base, tapering near the point; twelve femoral pores on each side.

Dimensions.—Length of head, neck and body to vent, 4 6-8ths inches; greatest breadth of head $1\frac{1}{2}$ inch; length of head $1\frac{1}{2}$ inch; of tail 1-5th inch; of anterior extremities $1\frac{1}{2}$ inch; of anterior foot to extremity of longest toe 1 inch; of posterior extremities 1 6-8ths inch; of foot to extremity of longest toe $1\frac{1}{2}$ inch: total length 9 6-8ths inches.

Habitat.—Near Fort Yuma, at junction of Colorado and Gila, also near Tucson in Sonora, upon a rocky soil.

Gen. remarks.—This species is remarkable for its large size and greatly developed spines. It is a much larger animal than the *spinusosus* of Wiegmann, and wants the quadruple series of dark colored spots that exist in that animal. The posterior margins of the scales are strongly denticulated, which is not the case in *spinusosus*, one of the characters of which is “*squamis paucidentatis.*” From *horridus*, Wieg. it differs in coloration, arrangement of plates upon the head, and in the number of femoral pores, which in the latter are 4—5.

SCELOPORUS BI-SERIATUS, *nov.*

Sp. char.—Scales of the back much larger than those upon the sides. Five frontal plates in two rows; the middle of the anterior row largest; four inter-nasals; two very small plates between the anterior row and rostral; two vertical plates; one large plate on each side of the occipital, and two in front of them; posterior border of scales not denticulated. A narrow brownish vitta across the head near the middle of the superciliary plates; coloration of head resembling that of *undulatus*; light ash grey above, with a double row of dark-colored spots upon the back on each side of the dorsal line, extending a short distance upon the tail; extremities ash colored above, banded with black; under surface silvery grey, with two blue blotches, one on each side of the abdomen, and a blue blotch upon the chin; 20 femoral pores.

Dimensions.—Length of head, neck and body to vent, 3 inches: of tail $4\frac{1}{2}$ inches; length of anterior extremities 5-8ths inch; of foot anteriorly to extremity of longest toe 5-8ths inch; of posterior extremity 1 inch; of foot posteriorly to extremity of longest toe 1 inch; total length $7\frac{1}{2}$ inches.

Habitat.—Borders of El Paso Creek and in Tejon Valley. Constantly climbing up trees, when scared, to a distance of twenty or thirty feet, running along the ground and up the trees very quickly.

Gen. remarks.—Wants the undulating lines or bars of *undulatus*, these being replaced by the spots above described; the scales upon the sides are also much smaller than those of *undulatus*. This species resembles very closely the *variabilis* of Wiegmann, and is probably the same, notwithstanding certain differences in the description. In the absence of a good drawing, or authenticated specimen, we cannot pronounce, positively, whether they be the same or not, although inclined to the former opinion. Thus the head, according to

Wiegmann, is unicolor; and the plates upon the head cannot be said to be *ruguloso carinatis*, for they are for the most part smooth in *bi-seriatus*. It wants the white lateral line beneath the spots which is observed in *scalaris*, Wiegmann. The arrangement of the plates upon the head appears to characterize this species very well, being uniform, with unimportant exceptions, in all the specimens brought by Dr. Heermann.

Var. A. *AZUREUS*.—Body uniformly blue above, mingled with brown, the blue color predominating; on the sides greenish with a metallic lustre; head brownish above; two large blue blotches upon abdomen, one on each side; rest of under surface silvery white with bluish tints, especially about the chin; scales large and strongly carinated, not denticulated posteriorly; tail stout at the base, much less tapering than in *bi-seriatus*; the plates of the head correspond precisely with those of the latter animal.

Dimensions.—Length of head, neck and body to vent, 3 2-8ths inches; of tail 3 5-8ths inches; of anterior extremities 1 inch; of anterior foot to extremity of longest toe 6-8ths inch; of posterior foot to extremity of longest toe 1 2-8ths inch; total length 6 1/4 inches.

Habitat.—Associated with *bi-seriatus*.

Var. B. *VARIEGATUS*.—Body light ash color, with transverse brownish bands and markings coalescing with each other, so as to give the whole a marbled appearance; head above ash color mingled with brown; extremities ash color, with transverse bands of brown; under surface silvery grey without bluish spots or blotches; 17 femoral pores, remarkably large; tail stout, thick at the base.

Dimensions.—Length of head neck and body 4 1/4 inches; greatest breadth of head 1 inch; length 1 inch; tail mutilated, circumference at base 1 2-8ths inch; length of anterior extremities 1 1/2 inch; of foot to extremity of longest toe 3/4 inch; of posterior extremity 2 1/2 inches; of foot, posteriorly, to extremity of longest toe 1 inch.

Habitat.—Same.

CNEMIDOPHORUS, *Dum. and Bib.*

Gen. Char.—Nostrils in the nasal plate near its posterior border; two supero-nasals; palate without teeth, with a shallow, triangular notch, posteriorly; scales smooth. (Dum. and Bibron.)

CNEMIDOPHORUS UNDULATUS,* *nob.*

Sp. char.—Body of moderate size; tail very long; head brownish above; upper part of body with three or four longitudinal bands of black with irregular margins; interspaces yellowish, with a tinge of red in some specimens; sides margined with black and white or light yellow; tail black and light yellow, presenting numerous transverse rows of rhomboidal carinated scales; upper part of extremities same color as sides of body; under surface silvery grey, with a number of minute black spots upon the abdomen, throat and chin; tail round, moderately thick at base, tapering to a point; 20 pores very distinct; 8 rows scales upon the abdomen.

Dimensions.—Length of head 1 inch; greatest breadth posteriorly half an inch; of head, neck and body 3 1/2 inches; of anterior extremities 3/4 inch; of foot to extremity of longest toe half an inch; of posterior extremities 1 1/2 inch; of foot to extremity of longest toe 1 inch; of tail 7 1/2 inches; total length 11 1/2 inches.

Habitat.—Near Fort Yuma, in San Joachim Valley.

Gen. observ.—*Cnemidophorus perplexus*, according to Profs. Baird and Girard, has seven longitudinal yellowish lines along the back; in all the specimens above described, five in number, there are but four. Profs. Baird and Girard state that in some specimens of *Cnemidophorus tigris*, "four longitudinal yellow stripes may be seen extending from the occiput to the base of the tail, and occasionally a little distance on the latter. In the young state the black patches predominate, unite, and form as it were the ground color, and the yellow constitutes irregular small spots."—Vide *Stansbury's Report*, Appendix C. p. 339.

* From the undulating longitudinal dark lines along the back.

The total length of Say's *Ameiva tessellata* is 1 foot, tail $8\frac{1}{2}$ inches,—in this respect corresponding very well with the above, but none of the specimens present the tessellated appearance described by Say, the "transverse lines dividing the whole surface in a tessellated manner."

EUMECES, *Wiegmann*.

Sp. char.—Two supero-nasals contiguous; internasal much more extended in the lateral than antero-posterior direction, its internal margins in contact with the anterior frenal; two fronto-nasal, contiguous, lateral border in contact with the posterior frenal; frontal hexagonal, elongated, broader anteriorly; fronto-parietal rhomboidal, placed obliquely; inter-parietal broad, with an acute angle in front, passing in between the fronto-parietals; parietals oblong, quadrilateral; four supra-orbitals; a small naso-frenal; an anterior and posterior frenal, the latter much larger; twelve rows of smooth hexagonal scales upon the back, beginning with those marked by the lateral vitta.

Color.—Shining black or brown above, with four bluish vittæ, the two internal broader than the others, commencing about midway upon the sides of the head immediately over the eyes, and extending along the back and terminating upon the tail; the lateral ones commence at the anterior margin of the orbit, and passing beneath it, extend upon the sides and are lost upon the tail; chin and throat whitish; abdomen and under part of tail slate color; under surface of extremities whitish.

Dimensions.—Length of head $\frac{3}{8}$ inch; breadth $\frac{1}{4}$ inch; length of body and tail $4\frac{1}{2}$ inches; of tail $2\frac{3}{8}$ inches; of anterior extremities $\frac{1}{4}$ inch; of posterior $\frac{3}{8}$ inch.

Habitat.—Lower California, near Mohave River, and in San Bernardino Valley.

OPHIDIANS.

RHINOSTOMA OCCIPITALE, *nov.*

Char.—Teeth of equal length, posterior ones not channelled; head depressed, eyes small; a rostral, two anterior and two posterior frontals; one anterior and two posterior oculars; a vertical; two occipitals; a small frenal; nostrils in a single plate; seven superior labials, the eye resting on the third and fourth. *Abdom.* scuta, 158; subcaud. 34.

Coloration.—Milk white above with 41 transverse black bands, including seven upon tail and one upon posterior part of head; six complete rings upon tail; throat and abdomen white; under part of tail white, with transverse bands continuous with those upon back of tail; 15 rows of smooth quadrangular scales.

Dimensions.—Length of head 4 lines, breadth $2\frac{1}{2}$ lines; of body 9 inches 9 lines; of tail, 1 inch 7 lines; total length, 9 inches.

Hab.—Mohave Desert.

Gen. Remarks.—This serpent resembles no other as yet figured in N. America, and is therefore easily recognized. In the genus *Sonora* of Prof. Baird and Girard, there are, according to them, three postoculars, and two nasal plates on each side with the nostril between them. In *Sonora semiannulata* there are twenty-five transverse black bands upon the body, and six complete rings upon the tail. The rings in *Col. (Zacholus) zonatus* of Blainville completely surround the body. The nostrils, according to Blainville, open between two plates, but Wagler has them each in a single plate, "in medio scutelli sitis," in his definition of *Zacholus*. Wagler, however, cites *Col. Riccioli, Metaxa Serp. Rom.* as appearing to belong to this genus, "scheint als gattung zu gehoren," but C. Bonaparte represents the nostrils as placed in the commissure between two scuta "gli narici sono situate alla commissura di duo scutelli nasali." Blainville represents two black half rings upon the head. *Zacholus zonatus* is probably allied to *Coronella balteata*.

CROTALUS CERASTES, *nov.*

Sp. Char.—Head covered with polygonal tubercles, larger in front, the latter in three rows; two small quadrangular plates on each side, between the nostril and the vertical rostral; two quadrangular internasals; external border of supra-

ciliary plates developed, so as to present two horn-like processes, one on each side of the head at their middle; nostrils small; pits between the eyes and nostrils large; twenty rows of carinated scales, the inferior rows near the abdomen smooth; body slender, much compressed; tail very short, with three or four rattles.

Coloration.—Head ash color above, a black band running from the posterior margin of the orbit to within a line of the occiput; a series of forty-one transverse brownish bands, yellow in the centre, along the back; general color of animal above light yellow; several transverse bands upon the tail; under surface light yellow, slightly clouded with spots near the external margin of the abdomen; abdom. scut. 146; two rows of bifid post-abdom. scutell.; 14 single caudal scuta; three inferior rows bifid.

Dimensions.—Length of head 5 lines; greatest breadth 4 lines; length of body 8 and 3-8th inches; of tail, $\frac{3}{4}$; total length $9\frac{1}{2}$ inches.

Hab.—Borders of the Mohave river, and in the desert of the Mohave,—always in the dry sandy soil, with no vegetation whatever. Maximum size one foot and a half; occurs in large numbers, and is also seen in the Desert of the Colorado, but is much less abundant, Dr. Heermann not having observed it there. The river Mohave spreads itself out in the desert and there loses itself, and upon the floating sand hills near it these animals are found. The *Crotalus Lecontei* is never seen with them. The Mohave empties into a salt lake about 15 miles in extent.

Gen. Remarks.—I supposed that this animal might be the young of *Crotalus Lecontei*, but Dr. Heermann informs me that the *Lecontei* is never found with it, and that it never attains to more than a foot and a half in length, and always presents the horn-like processes above described. It would appear to be the representative of the *Vipera Cerastes* of Africa, and is found, like that serpent, in desert and sandy regions, and is also slow and sluggish in its movements. The genus *Cerastes*, proposed by Wagler and adopted by Dumeril and Bibron, it would appear should be dropped and *Vipera* substituted.

BATRACHIANS.

RANA NIGRICANS, nob.

Sp. char.—Remarkable for its size; color uniform, dark brown, with numerous small black spots, and large blotches interspersed over the surface; sides somewhat lighter, marked with black; anterior extremities dark brown, or ash color above, blotched with black; posterior of same color, with numerous transverse black bands; chin, throat and abdomen straw color, shaded with brown; under surface of extremities yellowish, marked with black.

Dimensions.—Length of head, neck and body, $4\frac{1}{2}$ inches; greatest breadth of head, $1\frac{3}{4}$ inches; length of anterior extremities, $1\frac{3}{4}$ inches; of foot anteriorly to extremity of longest toe, 1 inch; of posterior extremity, 5 inches; length of hind foot, $1\frac{1}{2}$ inches; of foot posteriorly to distal end of longest toe, $2\frac{1}{2}$ inches.

Hab.—El Paso Creek.

Gen. Observations.—This species is remarkable for the great length of its posterior extremities; allied to *Rana Draytoni*, Baird and Girard, but the posterior extremities appear to be longer.

HYLA NEBULOSA, nob.

Sp. char.—Uniform light grey upon the upper part of the body and sides; snout light ash; a considerable number of dark colored subcircular spots about a line in diameter, scattered over the upper part of the body and upon the sides; extremities ash color above, with greyish spots; abdomen greenish yellow; chin light yellow; under surface of extremities orange colored; abdomen and under surface of extremities granulated.

Dimensions.—Length of head, neck and body, $1\frac{7}{8}$ inches; greatest breadth of head, $\frac{3}{4}$ inch; length of anterior extremities, $1\frac{1}{2}$ inches; of posterior extremities 2 and 3-8th inches to extremity of longest toe.

Hab.—Tejon Pass.

Gen. Remarks.—Is a much smaller animal than *Hyla versicolor*, and the markings are very different. The back is much less abundantly covered with warts, and the superciliary ridges which are so much developed in *versicolor*, are but slightly so in this species. The extremities are much more slender in the latter, and the tibia is of nearly equal length with the thigh, but in *versicolor* it is about a line shorter.

HYLA SCAPULARIS, nob.

Var. HYPOCHONDRIACA.

Char.—Of a uniform pale olive, color above without spots, paler toward the sides; numerous small, elevated smooth points upon the surface, resembling tubercles; upper surface of extremities pale olive; a narrow dark colored vitta, extending from the anterior margin of the eye to the snout; another much broader from the posterior margin of the eye to the shoulder; margin of upper jaw of same color as the vitta; posterior part of abdomen and under surface of extremities orange colored; chin and throat whitish; abdomen thickly granulated.

Dimensions.—Length of head and body, 1½ inches; of head ¾; breadth ¾; length of anterior extremities, ¾; of posterior, 1½.

Hab.—Tejon Pass.

Gen. Remarks.—It will be observed that it wants the squalus toothed mark upon the head, and the markings upon the back, which belong to *scapularis*.

The specimens above described, with numerous others already known, and a large number of rare fishes, birds and plants, and many insects, were collected by Dr. Heermann, Naturalist to the Government Expedition for the exploration of a route for the Pacific Railroad, and afford the best evidence of the zeal and untiring industry of our esteemed fellow member. Through his efforts in great part the Herpetology of California is now almost, if not quite, as well known as that of Pennsylvania.

On a genus and species of Serpent from Honduras, presumed to be new.

By EDWARD HALLOWELL, M. D.

MICROPHIS.

Char.—Head of moderate size, short, depressed in the middle, covered with nine plates; snout rounded; nostrils between the nasal and anterior frontal plates; a frenal; one antocular; two posterior oculars; seven superior labials, the eye resting on the third and fourth; eyes of moderate size, pupil round; supraciliary plate not projecting over the eye; tail of moderate length.

MICROPHIS QUINQUELINIATUS, nob.

Sp. char.—Head, body and tail above ash color; five dark blue stripes extending from the occiput to the base of the tail, the three intermediate ones broader than the lateral; the other stripes prolonged upon the tail, the middle one to near its extremity; 17 rows of smooth quadrangular scales; 170 abdom. scuta; two bifid preabdom.; 33 subcaudal.

Dimensions.—Length of head 6-8ths inch; breadth posteriorly 4-8ths inch; length of body 17 inches; of tail 2 inches 5-8ths; circumference 1 inch 3-8ths; total length 1 foot 8 inch 3-8ths.

Habitat.—Honduras, South America. Two specimens presented to Museum of the Academy, by Dr. Woodhouse.

Gen. Remarks.—This serpent has the general characters of *Coronella*, but the nostrils open between the anterior frontal and nasal plates, instead of the nasal and internasal, the two being fused into one plate. We have, therefore, proposed for it the generic name given above, although not disposed to attach much importance to minor considerations of this kind in the determination of genera.