

Catalogue of the Colubridæ in the Museum of the Academy of Natural Sciences of Philadelphia, with notes and descriptions of new species. Part 2.

BY E. D. COPE.

CORONELLINÆ.

TOLUCA Kennicott. Type *T. lineata*.

U. S. and Mex. Boundary Survey, ii. pt. 2, Reptiles, p. 23, 1859.

Toluca differs from *Amblymetopon Gthr.* in possessing two pairs of frontal plates instead of one, and the nasal and first upper labial are not confluent. *Gyalopion nobis* has two pairs of frontals, but the rostral is recurved and acute, and the first labial is confluent with the nasal. The contact of the post-frontals, the want of anterior prolongation of the vertical, the concavity of the rostral, and presence of anterior frontals, distinguish the latter from *Amblymetopon*. In these genera the teeth are smooth, of equal lengths and a little stouter posteriorly. In *Arrhyton* Gthr.* (Cat. Brit. Mus. p. 244) the posterior upper maxillary is longer, and separated from the anterior by an interspace, (diacranterian.) These genera possess a strong resemblance to the Calamarian type of form—where some of them have been placed by authors—but we believe them to be more nearly allied to the *Stenorhina*, *Rhinostoma* and *Cemophora*, which are not to be separated from the Coronelliform genera *Simotes*, *Lampropeltis*, etc. Indeed, comparison with such typical Calamarian forms as *Calamaria*, *Aspidura*, *Rhabdosoma*, *Carphophiops*, etc., shows a less complete want of distinction of head and body, a less degree of rigidity of the latter, and a greater resemblance to the higher types in the forms of the superciliary and labial plates. We do not think their small size at all conclusive as to their pertinence to the Calamarinæ, though an opposite opinion might be held by such herpetologists as would place the Old World "*Ablabes*," the *Diadophis* and *Tæniophis* of the New in that group.

Allied to Toluca and *Cemophora nobis*, is a genus inhabiting the southwestern regions of the United States, called *Lamprosoma* by Dr. Hallowell, (Proceed. Acad. N. S. viii. p. 311.) As this name was previously employed by Kirby for a genus of Coleoptera, we propose replacing it here by *CHIONACTIS*, given in allusion to the refulgent whiteness of the scales. The typical and only well-ascertained species is *Rhinostoma occipitale Hallow.*, (Proc. Acad. vii. 1854, p. 95.) This serpent has been erroneously stated by Dr. Günther, P. Z. S. 1858, p. 387, to be a native of West Africa. The muzzle is more depressed than in Toluca, and there is a loreal plate. The equal teeth, single nasal and more depressed head and snout, separate it from *Cemophora*.

83. *T. lineata*, Kenn. l. c. U. S. Pac. R. R. Rept. ix. Reptiles, fig. 35, pl. 8.
One sp. Toluca Valley, Mexico. Smithsonian Inst.

PARIASPIS nobis. Type *P. plumbeatra*.

Body cylindrical; tail one-eighth of total length. Head scarcely distinct, broad and swollen at the temples, in front very short and depressed. Superior maxillary bone short, its teeth gradually increasing in length posteriorly, none grooved. Pupil round. Top of head covered with the ordinary nine plates, the frontals relatively small, occipitals large. Two nasals, the nostril in the

* *Arrhyton tæniatum Gthr.* l. c.

The adult of this species measures 16 in. 10 l. in length; the tail 3 in. 7 lines. The color of the lower surface is brownish yellow, and extends upon the third row of scales. Above dark brown, with three indistinct longitudinal lines, as in Günther's description. These notes are taken from a specimen belonging to the Museum at Cambridge, Mass.

anterior, which is very small. No loreal. Preocular one, post-oculars two. Sixth upper labial touching the occipital, which latter is separated from the posterior labials by a single plate. Anal and urosteges entire. Scales smooth.

84. *P. plumbeatra nobis*.—Seven superior labials, eye over third and fourth; the first as large as the postnasal, the last three very large. Preocular small. Rostral small, rather prominent. Vertical presenting an obtuse angle in front, its lateral borders parallel and equal in length to the latero-posterior. Occipitals elongate acute, their divaricating tips separated by a small plate. Exteriorly they are bordered by one temporal and the sixth upper labial. Inferior labials seven. Genaeals two pair, the anterior broader in front, and one-third longer than the posterior. Scales in fifteen longitudinal rows, very smooth. Gastrosteges 140, an anal, urosteges 44. Total length 16 in. 8 lines; tail 2 in. 9 l.

Color above a uniform blackish lead color, paler on the head. Chin and belly yellowish, the inferior labials and gastrosteges tipped with the color of the back, the latter posteriorly spotted with the same. Under surface of tail grey.

One specimen of this interesting serpent is in the Museum of the Academy, presented by Mr. E. T. Cresson, a gentleman to whom we are also indebted for fine specimens of *Boödon virgatum*, *Dryiophis Kirtlandii*, *Boiga pulverulenta*, etc. The *Pariaspis* is a native of Liberia, in the same zoological district with the *Holuropholis*, *Dipsadoboa*, *Brachycranion*, etc., which it represents in this group.

STENORHINA Dum. & Bibr. Type *S. ventralis*.

Erpetologie Generale, vii. p. 865, 1853.

85. *S. Kennicottiana nobis*.—Form stout, thick, the head not distinct. Muzzle acute. Number of rows of scales and head shields as in *S. ventralis*, except that there are eight inferior labials instead of seven, the fourth being the largest instead of the third. The anterior genaeal plates are more elongate, the length being twice the breadth, and the posterior are more produced, and are separated by a narrow intercalary shield. The postnasal is very large, and is joined to the preocular by a suture half the length of the latter. Tail one-fifth of the total length. Gastrosteges 155; one divided anal; urosteges 39 pair. Total length 22 in. 3 l.; tail 4 in. 5 l.

Coloration. Above brown, the body crossed by thirty-six deep brown or black bands. These are irregular and very narrow, not wholly involving any scale which they cross. On the flanks they are interrupted and irregular. Chin, belly and under surface of the tail yellow, with an irregular medial line formed by adjacent spots near their extremities. Superior labials yellow, the sixth and seventh bordered above with black. Top of the head uniform brown. One sp. Isthmus of Panama. Drs. Gallaer and LeConte.

This species is dedicated to Mr. Robert Kennicott of Washington, a gentleman possessing a knowledge of North American Serpents not excelled by any other naturalist.

86. *S.* ?

We have before us two specimens of the young of what is probably an undescribed species of *Stenorhina*. Their immature age is indicated by the division of several of the gastrosteges upon the umbilical region. In both specimens the tail is only one-eighth of the total length, in the *ventralis* a little more than one-fifth. The scales in the latter are relatively larger, and the vertical plate a little broader. In a specimen of the former, from Veragua, the gastrosteges number 165, urosteges 35; in the second, collected by Dr. Sartorius in the hills west of Vera Cruz, and in the possession of the Smithsonian Institute, they are 155×32. In the *ventralis* the Erp. Gen. gives 149×44. The

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color of our specimens is light brown, crossed by numerous bands or elongated spots of deep brown bordered with paler. Sides and belly spotted with the same.

The specimen of *S. ventralis* sent to the Smithsonian Institution by Dr. Sartorius corresponds with the description in the *Erpetologie Generale* in nearly every respect. The color is, however, a very deep slate above, so that the transverse spots are scarcely visible. The gastrosteges are much clouded with slate, and the longitudinal markings are also indistinct. Chin and lower labial plates tinged with bright yellow. There is no specimen of this species in the Academy Museum.

87. *S. quinquelineata nobis*. *Microphis quinquelineatus*, Hallow. Proc. Acad. Nat. Sci. 1854, p. 97.

Two specimens.

Honduras.

Dr. S. W. Woodhouse.

This is the species figured in the *Erp. Generale*, plate 70, as *Stenorhina Freminvillei*. In that figure the loreal plate is distinctly and correctly represented, though the description of that species and diagnosis of the genus would lead one to infer its absence. Is it not possible that the specimen figured by the learned herpetologists may belong to a different species from that which they regard as typical of the *Freminvillei*?

RHINOSTOMA* Fitz. Type *R. nasum*.

Neue Classification, 1826, p. 56. Dum. & Bibr. vii. p. 992.

88. *R. nasum Wagl.*

One sp.

Surinam.

Dr. Hering

89. *R. Guntheri nobis*. Head depressed, rather wider than the neck. Posterior angle of the rostral plate a right-angle. Anterior frontals forming a short suture with each other; posterior frontals forming no suture, their tips only in contact, so that their posterior borders are diagonally continuous with the posterior borders of the anterior frontals. Vertical plate presenting a right angle anteriorly; its superciliary border shortest of all. Occipitals shorter than vertical, each bounded by one large and five small temporals.

**GYALOPION nobis*. Form stout; tail one-eighth of total length. Head slightly distinct, large, depressed. Rostral plate acute; its anterior border elevated; its upper surface concave. It is produced backwards, separating the prefrontals, not reaching the vertical. Frontals, two pair. Nasal confounded with the first labial, a groove from the nostril to the suture of the second labial. No loreal, its place supplied by the post frontal. One pre- two postoculars. Scales smooth; anal and subcaudal scutellæ divided. Teeth small, of equal lengths. Pupils round.

P. canum nobis. Prefrontals triangular, not larger than preoculars. Postoculars of equal size. Anterior border of vertical not angulated. Occipitals as broad as long, truncate posteriorly. Superior labials seven, eye over third and fourth. Inferior labials seven, fourth largest. Geniæ one pair, very short. Scales in seventeen longitudinal rows, nearly square. Gastrosteges 130; one anal; urosteges 28. Total length 7 in. 6 lin.; tail 11 lin.

Coloration. Above brownish grey, crossed by thirty-one irregular transverse brown bands. These are from one to three scales wide on the back, and extend to the gastrosteges. Anteriorly they exhibit a tendency to divide into a dorsal and two lateral series of spots. Eight transverse spots on the tail. First spot on the neck large, produced medially to the occipitals. A brown band extends from one angle of the mouth to the other across the occipitals, involving the tip of the vertical. Another brown band commences upon the upper borders of the lower labial shields, passes through the eye, and crosses the anterior parts of superciliaries and vertical, and posterior parts of postfrontals and rostral. Dirty yellowish beneath, and upon the first row of scales. One specimen (No. 4675,) in the National Museum, Washington, discovered near Ft. Buchanan, Arizona, by Dr. Irwin. It is an extraordinary serpent, resembling, at first sight, a diminutive *Heterodon*.

1860.]

Loreal acute posteriorly; preoculars two, the inferior very small. Postoculars three, nearly equal in size. Upper labials eight, fourth and fifth entering the orbit; last as small as the second. Inferior labials eight; one pair of genials. Scales in nineteen rows. Gastroteges 182. One entire anal, 67 urosteges. Total length 21 inches, 2 lines. Tail 5 inches.

The upper surface of the head and body are of a dark brown. The upper labials, chin, belly, two inferior rows of scales and the tips of many of the others, dirty white.

One specimen brought from the interior of Venezuela by Capt. Jas. Wilson. It is called by the natives "Coralilla."

We have named this species in honor of Dr. Albert Günther, the celebrated Herpetologist of London, who has done so much toward effecting a natural arrangement of the Colubridæ.

CEMOPHORA nobis. Type *C. coccinea*.

Form rather slender; tail one-seventh of total length. Head scarcely distinct, very convex, elongate, acute. Plates of the head broad, normal as to number. Rostril very prominent, obtusely trihedral, produced slightly between the prefrontals. Nasals two—sometimes united,—a loreal, one pre- two postoculars. Scales smooth; anal scutella entire, urosteges divided. Pupil round. One or two posterior maxillary teeth longer than the others, smooth, and not separated by an interspace, (syncranterian).

The form of the rostral plate is the most prominent peculiarity which separates this species from *Simotes D. & B.*

90. *C. coccinea nobis.* *Coluber coccineus* Blumenb. in Licht. & Voigt. Magaz. v. 1788, pl. 5. *Heterodon coccineus* Schl. Essai, ii. p. 102. *Rhinostoma coccinea* Holbr. N. Am. Herp. 1842, p. 125, pl. 30. Baird et Girard, Catal. p. 118. *Simotes coccineus* Dum. et Bibr. vii. p. 637. Günther, Cat. Brit. Mus. p. 26.

Two sp.	South Carolina.	Dr. Holbrook.
One sp.	Georgia.	Dr. Jones.
One sp.	South Carolina.	Dr. Blanding.
One sp.	"	Philada. Mus. in Ex.
One sp.	?	Dr. Wilson.

RHINOCHILUS Bd. et Grd. Type *R. Lecontei*.

Catal. Serp. Smiths. Inst. 1852, p. 120.

In dentition this genus is isodont. The entire urosteges distinguish it from *Rhinechis*. The general form is rather that of *Cemophora*.

91. *R. Lecontei* Bd. et Grd. l. c.

One sp. Ft. Chadbourne, Texas. Smithsonian Institution.

SIMOTES Dum. & Bibr. Type *S. Russellii*.

Erpetologie Generale, vii. p. 624, 1853.

A. Form stout, calamarian; anal shield entire.

92. *S. phænochalinus nobis.* This is a small serpent, and resembles an *Oligodon* in form. The arrangement and number of cephalic plates are the same as in the *Russellii*, except that the rostral plate is higher, and not produced so far back upon the muzzle, and that the vertical is not so broad, and with lateral borders less convergent posteriorly. Superior labials seven, the third and fourth entering the orbit; inferior labials eight. Scales in seventeen rows small, rounded. Gastroteges 172, an anal, urosteges 41 pairs. Total length 7 inches 9 lines. Tail 1 inch.

The ground color is a light brown, and is crossed above by short black transverse bands, about fifteen in number, from the head to the end of the tail. These bands are wider on the back, and taper on the flanks. A transverse black band crosses the head from eye to eye on each side of the posterior

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suture of the postfrontals, and is continued beneath the eye on the suture of the fourth and fifth labials. A longitudinal black band proceeds from the transverse, passes through the middle of the vertical and along the suture of the occipitals, then widens and bifurcates on the neck. A crescentic black mark begins near the exterior border of the occipital plate, and extends a little beyond the commissure of the mouth, crossing the seventh upper labial.

One sp.

Manilla.

Dr. Barnwell.

One sp.

Philippine Islands.

Mr. Cuming, in ex.

The second of these specimens has, alternating with the cross bands, a transverse series of four separate spots; two dorsal, rounded, and one on each side, narrow.

93. *S. aphanospilus nobis*.—In this species the head and investing plates are shorter and broader than those of the last species; the sides of the vertical shields are more convergent posteriorly. As in other Simotes there are one pre- and two postoculars. Loreal a little longer than high; upper labials seven, third and fourth entering the orbit; inferior labials eight, the posterior one very small. Scales large, obtuse, imbricate, in seventeen rows. Genitals two pair, the posterior half the length of the anterior. Gastrosteges 173, anal one, urosteges 37 pairs. Length of body and tail 23 in. 5 l.; tail alone 3 in. 4 l.

The color of the upper surface of this serpent is a dull olive brown. From the neck to the base of the tail we count thirteen nearly equidistant scutcheon-shaped figures, brown bordered with black. These extend a short distance on the flanks, and are sometimes confluent with another series of smaller, similar figures on each side. In the middle of the interval between each dorsal figure is a small black spot. On the head the arrangement of markings is similar to that of the last species. They are, however, only indicated by narrow black borders enclosing the ground color. Lips and beneath dirty yellowish.

One specimen.

Philippines.

Mr. Cuming, in ex.

The two species preceding are nearly allied to the *S. purpurascens Gthr.*, but comparison with the figures of Schlegel and Dum. et Bibr. at once reveals the differences in the markings of the head. The number of labials is also different.

B. Form slender; anal divided.

94. *S. Russelli Dum. & Bibr. Erp. Gen. vii. p. 628. Russell, Ind. Serp. i. pl. 35.*

One spec.

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CORONELLA Laurenti. Type C. A u s t r i a c a.

Specimen Synopsis Reptilium 1768, p. 84. *Zacholus* Wagler, Natur. Syst. 1830, p. 190.

95. *C. Austriaca Laurenti. Zacholus Austriacus* Wagler. *Coronella lævis* Schlegel, Essai 1837, ii. 65.

Fourteen spec.

Italy.

Dr. Wilson (Bp. Coll.)

Five

"

Sicily.

"

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Two

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Europe

Gard. Plants (in ex.)

96. *C. Girondica Dum. & Bibr. Coluber Girondicus* Daudin, 1804. *Col. Riccioli* Metaxa, Monograf. p. 40, 1823. Bp. Fauna Italica.

Ten spec.

Italy.

Dr. Wilson (Bp. Coll.)

MACROPROTODON Guichenot. Type M. c u c u l l a t u s.

Expédition d'Algérie, Rept. p. 22, No. 2.

97. *M. cucullatus nobis. Coluber cucullatus* Is. Geoff. St. Hilaire, 1827. *Macroprotodon mauritanicus* Guichen. loc. cit. 1846. *Lycognathus cucullatus* Dum. & Bibr. 1853. *Coronella cucullata* Gthr. 1858. ? *Zacholus bitorquatus* Bonap.

1860.]

The long anterior and isolated grooved posterior maxillary teeth appear to us to separate this species from *Coronella*.

One spec.

Algiers.

Gard. Plants, (in ex.)

Two "

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Dr. Wilson, (Bp. Coll.)

PSAMMOPHYLAX Fitz. Type *P. rhombeatus*.

Systema Reptilium 1843, p. 26. *Trimerorhinus* Smith, Zoöl. S. Africa, p. ? 1849.

98. *P. rhombeatus* Fitz. *Coluber rhombeatus* Linn. *Coronella rhombeata* Boie, Schlegel. *Coelopeltis rhombeata* Wagl. *Trimerorhinus rhombeatus* Smith. *Dipsas rhombeata* D. & B.

One spec.

Cape of Good Hope.

Gard. Plants, (in ex.)

TARBOPHIS Fleischmann. Type *T. vivax*.

Dalmat. Nov. Serp. Genera p. 18, 1831. *Trigonophis* Eichwald, 1831. *Ailurophus* "Fitz." Bp. 1832.

99. *T. vivax* Dum. & Bibr. *Coluber vivax* Fitz., 1826. *Tarbophis fallax* Fleisch. 1831. *Trigonophis Iberus* Eich. 1831. *Dipsas fallax* Schleg. Essai ii. 295. *Tachymenis vivax* Gthr. 1858. *Ailurophus vivax* Bp. Fauna Italica.

One spec.

Italy.

Dr. Wilson.

HYPSIGLENA nobis. Type *H. ochrorhynchus*.

Dentition diacranterian; i. e. a long, smooth, posterior superior maxillary tooth, separated from the anterior by an edentulous space. Pupil elliptic, erect, body cylindrical. Head distinct, broad posteriorly, shortly conic anteriorly, much depressed. Cephalic shields normal. Two nasals, nostril between; one loreal; two pre- and two postoculars. Scales smooth. Gastrosteges not angulated. Anal and subcaudal scutellæ divided. Tail less than one fourth the total length.

This curious genus has points of resemblance to *Sibon Fitz.*, *Hemidipsas Gthr.*, *Tachymenis Wieg.*; while the general appearance is not unlike that of *Coronella Laur.* A perusal of the above diagnosis, cannot fail to convince the herpetologist that it possesses characters strongly distinguishing it from all, uniting as it does, in its general aspect, peculiarities of certain tropical and northern forms.

100. *H. ochrorhynchus nobis*.—Muzzle shortly conic; rostral plate prominent, encroaching a little on the pre-frontals. Nasal plates indistinctly separated, equal, their upper and lower borders parallel. Loreal longer than high. Lower preocular small, bounded anteriorly by the third upper labial. Eight upper labials, fourth and fifth entering the orbit; sixth and seventh very large. Vertical plate twice as long as broad; lateral borders slightly convergent. Superciliaries narrow; occipitals as long or longer than vertical, rounded posteriorly. Inferior labials eleven, sixth largest. Geniæ two pair, the posterior acute. Scales in twenty-one rows. Gastrosteges 168, urosteges 48 pair. Total length, 12 in. 4 lines, tail 2 in. 3 lines.

Coloration. The upper surface light grey, with a series of large brown spots, separated by intervals of one scale wide. These spots are about forty-eight in number, upon the body; they extend transversely from the seventh to the fifteenth rows of scales, and are three or four scales in length. On the posterior part of the body they sometimes divide longitudinally, their moieties alternating or becoming confluent into a zig-zag band.

Alternating with these on each side, is a series of small spots formed by the brown borders of scales of the fifth and sixth rows. Another series of small spots opposite to the dorsal row, is formed by the shading of the adjacent borders of the fourth and fifth rows with the same color. Many of the scales of

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the second row are also tipped with brown. There is a large brown spot on each side of the neck, sometimes confluent with an elongate central one, which extends to the occipital plates. A brown stripe passes from the eye to the neck spot, entirely covering the last upper labial. Top of the head brownish grey, indistinctly spotted with pale brown. Labial plate paler; frontals and rostral ochreous. Beneath yellowish-white, immaculate.

One specimen in the Academy, and numerous others in the National Museum, Washington, received from Mr. John Xantus, from Cape St. Lucas, California.

101. *H. chlorophaea nobis*.—Number of labials and rows of scales the same as in the last species. The scales of the body are, however, more elongate, and partly on this account are arranged in rows more oblique in an antero-posterior direction. The vertical plate is a little broader, and the head is narrower in proportion to its length. The body is rather more slender.

The color is a greenish ash, much darker than in the preceding species. The dorsal spots, instead of being brown, are black, and separated by intervals of two scales in width. They are much smaller, occupying only the space from the ninth to the thirteenth longitudinal rows, and are one scale and a half long. They frequently divide and alternate, and their number on the body amounts to from fifty-eight to sixty-six. Two rows of smaller alternating spots appear on the sides, one upon the sixth and seventh rows of scales, the other on the fourth. The distribution of colors on the head and neck is much as in the last species, except that the neck spots are a little longer. The brown is, however, replaced by black, and the ochreous by olivaceous. The crown and muzzle are thickly punctulated with black. Beneath pale olivaceous. Gastrosteges 167, urosteges 55. Total length, 15 in. 6 l., of tail 2 in. 3 l.

Two specimens from the National Museum, there received with others from Fort Buchanan, Arizona, where they were collected by Mr. Irwin.

TACHYMENIS Wiegmann. Type *T. Peruviana*.

Nova Acta, Acad. Caes. Leopold. Carol. xvii. 1834, p. 251.

102. *T. Chilensis* Girard, U. S. Naval and Astronomical Exp. 1855, ii. p. 213, Günther, Cat. Brit. Mus. 1858, p. 34, *Coronella Chilensis* Schlegel. Guichenot, Hist. Chili, ii. p. 79. *Dipsas Chilensis* Dum. & Bibr. vii. p. 1159.

Var. near the third of Dum. & Bibr.

Belly as in the ordinary variety, but the upper surface of the body of a light rufous brown, more deeply shaded on the fourth and ninth rows of scales.

One specimen.

Quinquina Id.

Dr. Ruschenberger.

Variety fourth, nobis.

Coloration of the upper surface as usual, but upon each gastrostegite there is a single central, oblong, spot. These form a medial, unbroken, black band, from near the chin to the anus.

One specimen.

Talcahuano, Chili.

Dr. Ruschenberger.

103. *T. hypoconia nobis*.—The head of our single specimen is mutilated, hence a detailed description of the plating cannot be given. The shields seem, however, to differ but little from those of the preceding species; the prefrontals are relatively smaller, and the superciliaries larger. There are eight superior labial shields, the eye resting on the fourth and fifth; the sixth and seventh are disproportionately large. Nine inferior labials. Scales large, in nineteen rows, the exposed part of those of the first row higher than long. Body stout; gastrosteges 140, one divided anal; urosteges 52, relatively more numerous than in *T. Chilensis*.

Coloration.—The upper surface of the head, body and tail, is of a wood brown, many of the scales black at their bases. The first, second, third and 1860.]

fourth rows of scales are densely punctulated with black, thus forming an indistinct band upon each side. The punctulations are more numerous upon the fourth row, hence the band is better defined upon its dorsal margin. A pair of dark bands commence upon the occipital plates, and extend a short distance upon the back, enclosing a light vitta. The dark bands send off upon each side two branches, one to the middle of the superciliary plate, and one to the superior suture of the upper postocular. From the inferior suture of the same plate, a deep brown vitta extends to the angle of the of the mouth; this continued in front of the orbit as far as the nostril. The superior labial shields are paler than the crown, are punctulated, and have upon their postero-superior angle a triangular brown mark. Belly yellowish-grey, densely punctulated with black, (whence the name.) On each side, the gastrosteges are crossed near their extremities by a narrow black band, which is continuous from the throat to the end of the tail. Anteriorly the punctulations arrange themselves in two series of indistinct V-shaped marks within the bands but they are quite ill defined, and in some specimens will probably be absent.

One specimen.

Buenos Ayres.

Dr. A. Kennedy.

CONIOPHANES Hallowell, MSS. Type *C. fissidens*. *

This genus consists of coronelliform serpents with grooved teeth, of rather a slender habit, having a distinct, depressed head, conic muzzle, one preocular and a divided anal plate. Perhaps the *Coronella bipunctata* of Günther belongs to it.

It differs from *Dromicus* in the grooved maxillary tooth, and the less lanceolate head. *Philodryas* has a much more elongate body and tail. A peculiarity in the coloration of the species consists in the numerous punctulations of the upper and under surface, whence probably the name (*κοινος pulverulentus*.)

104. *C. punctigularis* nobis.—Scales thin, lanceolate, in twenty-one longitudinal rows. Head broad posteriorly, muzzle rather shortly conic. Prefrontals equal in size to the fourth superior labial; post-nasal larger than prenasal; loreal as high as long; preocular not reaching the vertical. Vertical elongate, its sides parallel; occipitals moderate, each bounded by two large, and two small temporals. Postoculars two; superior labials eight; eye over the fourth and fifth. Symphyseal unusually broad; inferior labials nine. Gastrosteges 121, one divided anal, urosteges 44, (tail mutilated.) Total length 14 in. 6 l. Tail 3 in. 4 l. (was probably nearly two inches longer.)

Coloration.—Above, dark chestnut-brown, shaded with grey on the top of the head. On each side of the neck, three scales behind the terminal superior labial, a whitish line commences. These widen, assume a pale ferruginous hue, and extend to the tip of the tail. They cover the sixth, seventh and half of the fifth and eighth rows of scales on each side, and enclose a brown dorsal band five scales wide. Upon the neck the brown of the sides is very deep, and extends forward as a band to the orbit. It is bordered beneath with white. Lips and throat yellowish-white, densely punctulated with brown. Gastrosteges also yellowish-white, punctulated irregularly at their tips.

One specimen.

Honduras.

Mr. J. S. Hawkins & Dr. J. L. Le Conte.

C. fissidens Hallow. differs from the present species in several points. The body is more elongate, there being 140 gastrosteges instead of 121. The head is more depressed, and the muzzle more prominent, since the prefrontal plates are in the plane of the occipitals. This form, together with the dark

**Coronella fissidens* Gthr. Cat. Brit. Mus. p. 36.

color, and the narrow light band on the upper borders of the labials, is suggestive of certain genera of venomous snakes, as *Hypnale*. The lateral borders of the vertical plate in *fissidens* are not so long nor so nearly parallel as in *punctigularis*. The whole head is relatively narrower. The colors of the former are deeper, the longitudinal bands being very indistinct. The throat is not so thickly punctulated.*

TÆNIOPHIS Girard. Type *T. tantillus*.

U. S. Astronomical Expedition, ii. p. 215. 1855.

105. *T. vermiculaticeps nobis*. Size small; form slender; tail one-third the total length. Head distinct, elongate ovoid; the muzzle short and the eye large and far forward. The last superior maxillary tooth is longer than those preceding it, and smooth. As in the other species of the genus, there are two postoculars, one preocular, and a divided postabdominal scutella. Scales in seventeen longitudinal rows. Frontal plates small, superciliaries and vertical elongate, the latter with its anterior border nearly straight, the lateral slightly convergent. Nostril principally in the prenasal; postnasal higher. Loreal as high as long; preocular narrow and high, not reaching the vertical. Superior postocular twice as long as the inferior. Superior labials eight, fourth and fifth entering the orbit. Inferior labials ten. Geneials two pair, the posterior one-third longer than the anterior, divaricating. Gastrosteges 117, one anal, urosteges 79. Total length of the largest specimen 13 in. 8 lin. Tail 4 in. 7 lin.

Coloration. The ground color of the upper surface of the body is a rich yellowish brown—where the epidermis is lost, of a brownish straw color. A pair of deep brown bands begin, one at the externo-posterior angle of each superciliary shield, and converge upon the neck. There each narrows to a width of one scale, and enclosing a vitta of the ground color one scale in width, extends to the origin of the tail. Here they unite, and extend to the extremity of that member as a median band. A second pair of brown bands commences one at each nostril. It passes through the eye to beyond the angle of the mouth, where its inferior border becomes ill defined, and continues so throughout its whole length. The upper border is clearly defined to the end of the tail. The medial light dorsal vitta bifurcates on the neck, and extends as far as the superciliary plates. The intermediate space is irregularly vermiculated with delicate marks of the same color. Upper and lower labials whitish, nar-

* The following is the description of a third species of this genus, a single specimen of which is in possession of the National Museum, Washington. It was discovered by Sr. R. M. De Oca in the vicinity of Jalapa, Mexico.

C. proterops nobis.—Size rather small. Scales in nineteen longitudinal rows, thin, elongate, obtuse. Head scarcely distinct, short profile of muzzle not elevated. Anterior plates of the head small; loreal a little longer than high. One pre- two postoculars. Superior labials seven, third and fourth entering the orbit. Vertical plate elongate, lateral borders convergent, posterior angle acute. Occipitals long. Inferior labials nine; geneials two pairs, nearly equal. Gastrosteges 130, anal one, divided, urosteges? (tail badly mutilated.) Head and body 9 in. 7 lin. in length. The stump of the tail appears tetragonal in section.

Coloration. Above light brown, every scale densely punctulated with darker, especially near the margins. From the first to the fourth row of scales this is deeper, giving the sides a darker shade. The vertebral row of scales, from the occipitals to the end of the tail is also darker. Top of the head densely and obscurely vermiculated and punctulated. The dark shade on the fourth row of scales becomes a band anteriorly, and is bordered above and below with white on the neck. The lower white border is continued to the eye, and is bordered above on the labials with black. The upper white border is discontinued on the neck, but reappears as a spot, three scales back of the occipitals. Inferior half of rostral, upper and lower labials, chin, throat and belly, light brownish yellow, densely punctulated with brown. Each labial with a darker spot in the centre. Fewer punctulations on the urosteges.

rowly edged with brown. Chin and belly yellowish white, each gastrostege with a deep brown dot at each end near the posterior border.

This very elegant species was discovered in Veragua, New Grenada, by Mr. R. W. Mitchell, who presented two specimens to the Academy. We also possess a third specimen, native country unknown. It is nearly allied to *T. tantillus* Girard, l. c., but in that the vertical plate is narrower, the sides subconcave, and in contact anteriorly with the preocular. The coloration is also quite different.

DIADOPHIS Baird & Girard. Type *D. punctatus*.

Catalogue North Amer. Rept. in Smiths. Inst. 1852, p. 112. *Spiletes* (i. e. *Spilotes*) "Wagler." Swainson, not Wagler.

106. *D. decoratus nobis*. *Coronella decorata* Gthr. Cat. Brit. Mus. p. 35.

One of our specimens has two preocular plates, another three. In neither do we find the upper maxillary teeth materially longer behind. Nevertheless, our placing this serpent in *Diadophis* is altogether provisional; in the unusual length of tail, as well as in distribution of colors, it differs from this genus. We will not give a detailed description at present, as the color of our specimens has been altered by the loss of the epidermis. The four bright yellow spots on the occiput and nape render this a very distinct as well as beautiful species.

One spec.	Veragua, N. Grenada.	Mr. R. W. Mitchell.
One "	?	?

107. *D. occipitalis nobis*. *Ablabes occipitalis* Günther, Cat. Brit. Mus. p. 29.

We have strong doubts of the validity of this species. Seven upper labial shields are occasionally found in the *punctatus*, and the nuchal interruption of the yellow collar occurs in the *pulchellus* B. & G. We have, however, never seen a *Diadophis* with eight upper labials and an interrupted collar.

We have two specimens corresponding with the *occipitalis* Gthr., one the locality unknown, the other believed to have been obtained in central Kansas. Presented by Mr. Henry Yarrow.

108. *D. punctatus* Bd. & Gird. *Coluber punctatus* Linn., Holbrook, etc. *Homalosoma punctatum* Wagl. *Spiletes punctatus* Swains. *Calamaria punctata* Schleg. *Ablabes punctatus* Dum., Bibr., Günther, Hallowell.

Three spec.	S. Carolina.	Dr. Holbrook.
One "	Morris Co., N. Jersey,	Dr. J. C. Fisher.
One "	Bucks Co., Penn.	?
Two "	?	Dr. Bache.
One* "	New Jersey.	Mr. Tiffany.
Four "	?	Dr. Hallowell & Smiths. Inst.
One† " (young)	Allegheny Co., Pa.	Mr. D. C. Trout.
Two "	?	Dr. T. B. Wilson.
Five " (young)	?	?

Var. *pallidus nobis*. In the number of rows of scales and labial plates and collar, similar to *punctatus*; but the color is a light olive brown, shaded with bluish towards the gastrosteges, which it borders. There is no central series of spots on the belly.

One spec.	California.	Dr. Heermann.
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Var. *stictogenys nobis*. This may possibly be specifically distinct from the *punctatus*, but it is more probable that in a large suite of specimens

* This specimen has but seven upper labials, eye resting on third and fourth.

† The vertical shield is as broad as long in this specimen.

the distinctions would not be borne out. The number of rows of scales is fifteen; the superior labials are seven, eye resting on third and fourth, as is sometimes the case in *punctatus*. Color above light brownish olive, a broad yellow collar, bordered with black as in *punctatus*. Each gastros-tege has a brown dot at its extremity, and the central part of the margin the same color, forming a series of transversely elongated spots. Fifth and sixth upper labials each with a brown dot. Symphyseal and lower labials with a brown dot in the centre of each, two on each anterior geneial, one at the posterior end of postgeneials and of all the throat scales.

One specimen, locality and donor unknown.

109. *D. dysops nobis*. Scales in 15 rows; superior labials eight, eye resting on the fourth and fifth; inferior labials eight. Color above olivaceous slate blue, beneath light yellowish brown, with three longitudinal rows of spots. A very narrow yellow collar involving a part only of each scale that it crosses, and bordered with blackish. Upper borders of superior labials (not temporals) black. It is in the form of the head that it differs from the *punctatus* most strikingly. The muzzle is very short, rounded and depressed; hence the rostral, frontals and anterior labials are very small. The loreal is a little smaller than the upper postocular. The vertical is small, the lateral borders convergent. Superciliaries short and broad, occipitals long, bordered by five temporal plates on each side. Breadth of the head at the angle of the mouth but little less than the length anterior to the same point.

One specimen, locality and donor unknown.

Size equal to that of an adult *punctatus*. Though small, this serpent has a malignant expression, hence the name.

CONTIA Bd. & Grd. Type *C. mitis*.

Catalogue Rept. Smiths. Inst. Serpents, p. 110, 1862.

This genus is allied to *Tæniophis Girard*, but is of a stouter and more depressed form, and has but one nasal plate. The teeth are minute and equal.

110. *C. mitis* Bd. & Grd. l. c.

One specimen,

Petaluma, Cal.

Smiths. Institution.

111. *C. episcopa nobis*. *Lamprosoma episcopum* Kennicott, U. S. and Mex. Bound. Survey, ii. pt. ii. p. 22, 1859, pl. xxi. fig. 1.

It is now the opinion of Mr. Kennicott that this small serpent does not belong to the *Lamprosoma* of Hallowell. We concur with him in this, and believe that it cannot be generically distinguished from the species just preceding. It resembles certain Calamarian genera, but were its size quadrupled the similarity would probably disappear.

One sp.

Rio Seco, Texas,

Smiths. Inst.

LIOPHIS Wagler. Type *L. reginae*.

Natur. Syst. Amphib. p. 187, 1830. Dum. et Bibr. vii. 697, 1854. Günther, Cat. Colubr. Brit. Mus. 42, 1858. *Dromicus* (Bibron) Dum. Bibr. vii. 646 et Gthr. l. c. 126, pars. *Lygophis* (Fitz.) Tschudi pars.

We have included in this genus the *Dromicus melanonotus* and *D. lineatus* of modern authors. It appears to us impossible to establish any generic distinction between these species and the *L. reginae*, while their comparatively short tails will separate them from the slender *Dromicus fugitivus* and congeners. It is here that the coronelline form seems to pass into the true colubrine.

112. *L. cobella* Wagl. Dum. et Bibr. Gthr. locis citatis.

Seven specimens

Surinam.

Mr. C. Hering.

Three

"

"

Dr. Hering.

One

"

"

Dr. Colhoun.

1860.]

One specimen	?	Dr. Wilson.
One " "	Para.	Col. Abert.
Two " (young)	Surinam.	Mr. Wood.
Two " (young)	"	Dr. Colhoun.

Three of the young specimens have a pair of white dots on the occipital plates, as in the *Tropidonotes*. The transverse, band-like disposition of the small white C-like marks, apparent in specimens of this age, remains during adult age in some, thus affording a transition to the

Var. A. <i>Gthr.</i> With distinct transverse light bands.		
One sp.	Para.	Col. Abert.

113. *L. breviceps nobis*. Head short, not very distinct from the body. Plates of the head similar to those of *L. cobbella* except that the occipital plates are shorter; the vertical is broader, its lateral borders measuring less than the anterior; the rostral is broader; and there are but seven superior labials, the third and fourth entering the orbit. The sixth superior labial widens upwards, and supports nearly the whole length of the temporal. In *L. cobbella* the upper margin of this plate is shorter than the lower. Two postoculars, both in contact with the first temporal. Second temporal large, one or two other small ones. One preocular; loreal small. Eight inferior labials, fifth largest, anterior part in contact with posterior geneials (sixth and seventh in *cobbella*). Scales in seventeen rows. Gastrosteges 154, a bifid anal, urosteges 54 pair. Total length 17 in. 5 lines. Tail 3 in. 2 lin.

Color above, a deep brown without a trace of the small white marks of the *cobbella*, becoming darker posteriorly, and reaching to the gastrosteges. It is crossed by very indistinct darker bands, formed by a single dark scale in every other longitudinal row. These bands are two or three scales apart, and unite on the flanks, into the black transverse bands of the belly, which are irregular and broad, almost excluding the yellow ground in some places.

One spec.	Surinam.	Dr. Hering.
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Obs.—Comparison with our specimens of *L. cobbella* has induced us to consider this distinct on account of: First, the comparative smallness of the head; second, the shortness of the head shields; third, the less number of labials; fourth, the form of the sixth superior labial; lastly, the color; which, however, is of but little importance considered alone. It recalls the genus *Helicops*.

114. *L. Merremii Dum. and Bibr. L. miliaris, poecilogyrus et doliatus* Wagler. *Coluber Merremii, poecilogyrus et doliatus* Neuwied, Beitr. und Abbild. Bras. Lief. 8.

Var. A. <i>Gthr.</i> Cat. Brit. Mus. 44.		
Three spec.	S. America.	?

Var. <i>poecilogyrus</i> Neuw. l. c.		
One sp.	S. America.	Capt. J. Jameson.

Our specimen is evidently an adult.

Var. *subliceatus nobis*. Olive brown, irregularly varied with black, which forms posteriorly an irregular band on each side, as in *L. reginae*, with a bright one above it.

One spec. (half grown)	Bueno's Ayres.	Mr. Kennedy.
Young, <i>Col. doliatus</i> Neuw. l. c.	"	"
One spec.		
One spec.	Brazil.	Garden of Plants.

115. *L. reginae* Wagl. l. c. *Coluber reginae* Linn. *Col. graphicus* Shaw. *Natrix reginae* Merr. *Coronella reginae* Schl. Essai, ii. p. 61. *Lygophis reginae* Tschudi, Reise in Peru.

Two sp.	Surinam.	Dr. Hering.
One sp.	Para.	Col. Abert.

[June,

- Var. without temporal spot.
 One sp. Para. Col. Abert.
 Var. without temporal spot or tail streak.
 One sp. Buenos Ayres. Mr. Kennedy.
 Young, muzzle short, neck with transverse blotches.
 One sp. Surinam. Dr. Colhoun.
 One sp. Panama. Dr. Ruschenberger.
116. *L. conirostris* Gthr. Cat. Brit. Mus. p. 46.
 The longitudinal dorsal bands are indistinct anteriorly.
 One sp. ? Dr. Wilson.
 One sp. Buenos Ayres. Mr. Kennedy.
117. *L. melanotus nobis*. *Coluber melanotus* Shaw, Zool. p. 534, 1802.
Coronella melanotus Boie, Isis, 1827, 532, and *C. bilineata* ditto. p. 525. ? *Col.*
vaninus Bonnat. *Col. vittatus* Hall. Proc. Acad. Nat. Sci. ii. 242, 1845. *Lio-*
phis vittatus Cope, l. c. 1859, p. 297.
 Ten sp. Near Caraccas. Dr. S. Ashmead.
 One sp. West Indies. Mr. Engstrom.
118. *L. lineatus nobis*. *Coluber lineatus* Linn. *Coronella lineata* Boie.
Lygophis lineatus Fitz. *Herpetodryas lineatus* Schl. Ess. ii. 191. *Dromicus*
lineatus D. & B. vii. p. 655. Gthr. Cat. Brit. Mus. 134.
 Two sp. Surinam. Dr. Hering.
 Two sp. " Dr. Calhoun.

PLIOCERCUS nobis. Type *P. elapoides*.

Body cylindrical; head scarcely distinct; tail two-fifths of the total length. Cephalic plates normal: two pre-, two postoculars, one loreal, two nasals. Anal scute bifid. Scales smooth. Dentition as in *Lampropeltis*; i. e. the posterior superior maxillaries not isolated, longer, much recurved and smooth.

The great length of the tail separates this genus from *Lampropeltis* and *Erythrolamprus*: it unites the dentition of the former with the preanal scute of the latter. *Coronella* and *Phimothyra nobis* have comparatively short tails. In *Coniophanes* the head is more distinct, the body more slender and not so firmly cylindrical.

119. *P. elapoides nobis*.

Rostral plated just visible from above: prefrontals one third the size of the postfrontals. Length and breadth of the vertical plate equal to the suture of the occipitals. The latter are oval, and rounded behind. Five marginal temporals on each side. Upper preocular large, not reaching the vertical; inferior one very small, partially between the third and fourth superior labials. Height and length of loreal equal. Eight superior labials, fourth and fifth entering the orbit. Inferior labials eight, the last three times as long as the seventh, sixth largest; these three plates border within a large shield which diverges from the outer posterior extremity of the posterior genual. Two equal pairs of elongated genuals. Scales in seventeen longitudinal rows. Gasterosteges 131; urosteges 89 pair. Total length of adult, 19 in. 9 l., tail 7 in. 6 l.

Coloration.—The ground color is brilliant red, which encircles the body above and below in bands of from four to six scales in width. These are separated by triads of black rings including yellow intervals,—ten or eleven on the body, one at the anus, and six or seven on the tail. The outer ring of each triad is one and a half scales wide, and is not continued on the belly; the yellow interval is of the same width, and the central black ring is three and a half or four scales wide. The first triad is upon the head and neck; the central black ring is seven or eight scales wide and does not extend upon the neck, but involves the ends of the occipitals and the last upper labial. The anterior yellow ring crosses the occipitals, and involves one and a half tempo-
 1860.]

rals, the sixth, seventh and half the eight upper labials. All the head anterior to this is lustrous black, except a narrow oral border of yellow. Chin immaculate. Many of the scales of the body are tipped with brown, many with black.

This beautiful species resembles in the distribution of its colors certain Elapses—particularly *decoratus* and *Dumerilii*. It is a beautiful example of analogy of coloring. We have four specimens, one adult, one half grown, and two young, which were obtained through the liberality of John Cassin, Esq., from Sr. R. M. De Oca who collected them near Jalapa, Mexico.

LAMPROPELTIS Fitzinger. Type *L. Sayi*.

Systema Reptilium, 1843, p. 25, et *Sphenophis* eâd. loc. *Ophibolus* Baird and Girard, *Catal. Serp. Smiths. Inst.* 1852, p. 82. *Coluber*, *Pseudoëryx*, *Coronella* et *Ablabes* sp. auctorum.

This group was first defined, and its species enumerated by Profs. Baird and Girard, in their "Catalogue." In structural peculiarities it fulfils all the requisites of a strictly natural group. It represents in America the *Coronella* of the Old World, from which it differs in possessing an undivided postabdominal scutella, and a peculiar form of posterior upper maxillary teeth. These are closely set, stout, much compressed and trenchant, with their anterior borders rather abruptly curved backwards. It also approaches *Erythrolamprus*, which may be distinguished by the grooved superior maxillaries, and divided postabdominal scutella. In geographical range it extends from Maine (*L. triangularis*) to Panama (*L. micropholis*.)

In the *Neue Classification der Reptilien* of Fitzinger, (1826) p. 55, we find that the seventh genus of the nineteenth family of that author, *Colubroidea*, is *Pseudoëryx* Fitz. There are seven species enumerated, and the *Coluber doliatus* of Linné is the first. Where there is no possibility of ascertaining what species an author assigns as the type of his genus, it is the practice of naturalists to regard as such that which stands first in his enumeration. Adopting that rule in the present instance, we should have to employ *Pseudoëryx* in place of *Lampropeltis* of later date—a substitution by no means to be desired. Fortunately, however, we believe that Fitzinger did indicate with sufficient clearness what type of form he intended to characterize. On page 29 of the same work he thus characterizes *Pseudoëryx*: "Abdomen scutatum. Cauda non compressa. Oculi verticales. Rostrum rotundatum." This diagnosis at once shows that he considered the third* species on the list—*P. Daudinii* (*Dimades plicatilis* Gray,)—as the true representative of the genus; and for it, the name *Pseudoëryx* is not inappropriate. This supposition is confirmed by the fact that in his *Systema Reptilium*, published in 1843, he retains the genus, and distinctly assigns *P. plicatilis* as the type.

120. *L. Sayi nobis*. *Herpetodryas getulus* Schlegel, *Essai*, ii. p. 198, 1837, (not *Col. getulus* Linn). *Lampropeltis getulus* Fitz. l. c. *Coluber Sayi* Dekay, *New York Fauna, Reptiles*, 41, 1842.

Coronella Sayi Holbr. *N. Amer. Herp.* iii. p. 99, 1842. *Dum. Bibr.* vii. p. 619, 1853. *Günther Cat. Brit. Mus.* p. 41, 1858. *Ophibolus Sayi* Bd. & Grd. *Catal.* p. 71, 1852.

Two spec.	?	?
One "	Louisiana,	Dr. Hallowell.
One "	?	Dr. Bache.
One " (half grown)	Missouri,	Gard. of Plants in ex. (as <i>Herpetodryas getulus</i>).
Two " (young)	?	Dr. Hammond.

* The diagnosis is equally applicable to the second species *P. pyrrhogrammus*, if that be the *Col. erythrogrammus* of Daudin. The fifth species is *P. schistosus*, a la homalopsides.

121. *L. splendida nobis. Ophibolus splendidus* Bd. & Girard. Catal. p. 83, 1852. Mex. Boundary Survey, Vol. ii. pt. ii. pl. 14.

One sp. Ft. Buchanan, Arizona, Smithsonian Institution.

122. *L. getula nobis. Coluber getulus* Linn., Harlan, Peale, Günther, l. c. p. 249. *Pseudoelaps getulus* Fitz., Neue Class. 1826, p. 56 (not the type.) *Coronella getula* Holbr. Herp. iii. 75. 1842, Dum. Bibr. vii. p. 616. *Ophibolus getulus*, Bd. & Grd. l. c. 72.

One sp. S. Carolina, Dr. Holbrook.

Three " New Jersey, Messrs. Benj. Badger and Peter Doyle.

Two " (young) ? ?

The posterior supermaxillary teeth are but little longer than the anterior, but are much stouter, and strongly compressed, as in other species of the genus. The young may be distinguished from the young of *P. Sayi* by the less number of the transverse bands. In *getula* they number from 30 to 45, in *Sayi* from 70 to 80, they are also more irregular in the latter.

123. *L. Boylii nobis. Ophibolus Boylii* Bd. & Girard, Catal. p. 69, 1852. *Coronella balteata* Hallow. Proc. Acad. Nat. Sci. 1853, p. 236, U. S. Pac. R. R. Exped. Williamson's Expl. p. 14, pl. 5.

A fine species, representing the *getula* in California.

Three sp. California, Dr. Heermann.

One " Cape St. Lucas, Cal. Smithsonian Institution.

In this specimen the vertical plate is more elongate than usual, and almost trigonal in outline. Many of the scales in the light transverse bands are black at their bases.

124. *L. calligaster nobis. Coluber calligaster* "Say," Harlan, Med. and Phys. Res. 122, 1835. *Ablabes triangulum* var. *calligaster* Hallowell, Proc. Acad. Nat. Sci. 1856, p. 244. *Ophibolus Evansii* Kenn. Proc. Acad. 1859, p. 99.

This species is attributed to Say by Harlan and others, but after a most careful examination of Long's Expedition to the Rocky Mountains, we have failed to discover any allusion to it by that author.

In the second volume of that work, p. 330, it is stated that such of the specimens collected by the expedition as arrived in Philadelphia, were deposited in the Philadelphia museum. It was from specimens of the present species in that collection that Harlan drew up his description; and the same are alluded to by Dr. Holbrook, N. Amer. Herp. iii. p. 72, where he asserts their identity with the *Coluber eximius*. One of these, a stuffed skin, presented to the Academy by Dr. Holbrook, and labelled by Dr. Hallowell "original specimen," is now before us. We can assert its identity with the *Ophibolus Evansii* of Kennicott both from his description and from comparison with specimens collected by Dr. Hammond in Kansas, and described by Hallowell l. c. They all have twenty-five rows of smooth scales.

As to the *Scotophis calligaster* of Kennicott, l. c., which belongs to a genus different from the present, we believe it is a serpent distinct from the *Coluber calligaster* of Harlan, although in the description of the former author we read "there can be no hesitation in referring this species to the *Coluber calligaster* of Say." In order to avoid the confusion which must result from the possession of the same specific name by two serpents closely resembling each other, and inhabiting the same section of country, we propose for the species of Mr. Kennicott the appellation *rhinomegas*.

Three sp. Kansas, Dr. Hammond.

One " Missouri, Dr. Holbrook.

125. *L. rhombomaculata nobis. Coronella rhombomaculata* Holbrook, N. Amer. Herp. iii. p. 103. 1842. *Ophibolus rhombomaculatus* Bd. & Grd. l. c. p. 73, 1852.

One sp. Georgia, Dr. Holbrook.

1860.]

126. *L. triangula nobis*. Le Triangle, Lacep. Hist. Serp. ii. 331, 1789, *Coluber triangulum* Boie, Isis, 1827, p. 537. *Col. eximius* Dekay, New York Fauna, pl. 12, fig. 25, 1842. Harlan, Storer, Holbrook, Günther. *Pseudoelaps* Y. Berthold. 1843. *Ophibolus eximius* Baird et Girard, Catalogue, p. 87, 1852. *Ablabes triangulum* Dum. Bibr. Erp. Gen. vii. 315, 1853. Do. vars. *clericus* et *eximius* Hallowell, Proc. Acad. Nat. Sci. 1856, 245-6.

The dentition of this species is not different from that characteristic of the genus. The posterior upper maxillary teeth are longer and stronger than the anterior, though not so much so as in *L. Sayi*. They are thickly set, so compressed as to give them a great antero-posterior diameter, and have a rather abrupt posterior curvature. This species cannot be arranged in the same genus as *Lycodonomorphus rufulus* Fitz. (type of *Ablabes* Dum. & Bibr.) which, according to Schlegel and Smith, has the anterior maxillary teeth a little longer than the posterior. The tail is one fourth or fifth of the total length, while in all the species of *Lampropeltis* before us, that member is very short, being never more than one seventh or one eighth of the total length. The arrangement of this species with the *Coluber guttatus* is simply the result of a mistaking of analogy for affinity.

We have seen no second specimen which corresponds with the type of Profs. Baird and Girard's *Ophibolus clericus* in the form of the head and position and size of the eye. The specimen alluded to by Dr. Hallowell, l. c., from New Jersey, approximates remotely in these respects, though resembling it much in the number and size of the dorsal spots. We incline to think that no characters of specific value can be deduced from these; there are specimens intermediate, as respects their size and number, between the highest in *eximius* to the lowest in *clericus*, as defined in Baird and Girard's catalogue. And there are indifferently one or two rows of spots on the sides. What the true *clericus* is, more specimens alone can show.

A. Spots as in "*eximius*."

One spec.	?	Dr. Bache.
" "	Berks Co., Penna.	?
Two "	?	?
One "	"S. Carolina."	"Mr. Jas. Reade."

B. Spots as in "*clericus*."

One spec.	Near Trenton, N. J.	Mr. C. C. Abbott.
One "	Near Haddonfield, N. J.	Dr. G. Watson.
One "	New Jersey.	Mr. S. Ashmead.
Three spec.	Near Philadelphia.	Dr. E. Hallowell.
One "	S. Carolina.	?
Three "	?	Dr. Wilson.
One "	?	Dr. Blanding.
Two "	?	?

127. *L. doliata nobis*. *Coluber doliatus* Linn. *Coronella doliata* Holbr., N. Am. Herp. iii. 105, 1842, pl. 24. Do. var. B, Günther, Cat. Brit. Mus. p. 42. *Ophibolus gentilis* Bd. et Girard, Catal. p. 77. Marcy, Expl. Red Riv. p. 229 pl. 8.

In the true *Coronella doliata* of the Eastern States the black rings forming each pair, separate on the flanks, and become more or less confluent with the adjacent ring of the next pair. The belly is also irregularly varied with black. These peculiarities are well represented in Holbrook's figure. The only constant difference observable between eastern specimens and those from Kansas, which agree closely* with the descriptions and figure of *Oph. gen-*

* Dr. Hallowell (Proc. Acad. 1856, p. 248) speaks of the difference between these specimens and Baird & Girard's descriptions as considerable; to us they appear very slight.

tilis Bd. & Grd., is, that in the former the whole of the occipital shields are included in the black of the crown, in the latter the tips of those shields are crossed by the first yellow band. We do not feel satisfied that this is of specific value.

One sp.	Delaware.	J. Green.
" "	"	Mr. Drexler.
" "	Washington, D. C.	Dr. Burt, U. S. N.
" "	?	?
Four sp.	Kansas.	Dr. Hammond.
One "	Creek Boundary.	Dr. S. W. Woodhouse.

128. *L. coccinea nobis*. *Coronella coccinea* Schleg., Ess. ii. p. 57, 1837. *Sphenophis coccinea* Fitz. Syst. Rept. 1843, p. 25. *Ophibolus doliatus* Bd. et Grd. l. c. p. 76, 1852. *Calamaria elapsoidea* Holbr. N. Am. Herp. iii. p. 119, 1842, et *Osceola elapsoidea* Bd. & Grd. col. p. 133, (founded upon specimens in which the loreal plate is abnormally absent.)

This species is closely allied to the preceding, but may be distinguished by the following peculiarities: The scales are in seventeen and nineteen rows instead of twenty-one. The pairs of rings are fewer in number, (thirteen to seventeen on the body,) and do not become confluent on the flanks. The belly is not varied with black. From the anterior part of the occipital plates to the muzzle the color is red, not white or yellow, and without black punctulations. The muzzle is depressed, and the superciliary plates are very small, giving the eyes a greater vertical field than in the *doliata*. The tips of the occipitals are crossed by the first yellow ring.

Many of these peculiarities are alluded to in the very accurate description of Herr Schlegel, and to us it is perfectly plain that he had the present species before him when writing it. The species is probably southern in its distribution.

One sp.	Mobile.	Dr. Nott.
" "	Georgia.	Maj. Le Conte.
" "	?	?

129. *L. annulata* Kennicott, MSS. This, perhaps the most beautiful species of the genus, resembles *doliata*, but the scales are very broad, and the gastrosteges opposite to the red interval of the back are totally black. The confluence of the black rings bordering the red does not take place on the scales of the sides. For a more detailed description we refer to Kennicott's forthcoming article.

One sp.	Texas.	Capt. J. P. McCown.
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130. *L. micropholis nobis*. Scales in twenty-one longitudinal rows, small, short and obtuse. Temporal region swollen, giving the depressed head an appearance of distinctness. Plates of the head much as in *doliata*; the superciliaries and vertical are however larger, and the longitudinal line of suture of the occipitals is only three-fourths the length of the latter plate. The outer borders of the occipitals present two posterior divaricating angles, and one on each side at the end of the first temporal. Upper labials seven, third and fourth entering the orbit. Inferior labials nine, the seventh twice as large as the last two together. Other particulars as in *doliata*. Gastrosteges 219; one entire anal; urosteges 43 pair. Total length 16 in. 11 l.; tail 2 in.

The color is a delicate red with a black tip upon each scale. The body is completely encircled by ten pairs of jet black rings, which are anteriorly ten scales apart, posteriorly seven. The space included in each pair is three or four scales wide, and is red—not yellow—each scale having a black tip. The tail is ornamented with two pair of black rings and a black tip. Eighteen scales anterior to the first pair of rings, a black collar four scales wide encircles the neck, scarcely touching the tips of the occipitals. The superciliary

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vertical, except its anterior border, and the occipitals within a line drawn diagonally from the posterior termination of their suture to the lower post-ocular, are black. A spot below the eye, one on the chin, and the posterior borders of most of the other plates of the head are black.

One sp.

Panama.

Dr. John L. Le Conte.

131. *L. polyzona nobis*. Size larger than the three preceding species, body firmly cylindrical; scales large, lanceolate, in twenty-one or twenty-three rows. Head scarcely distinct. Greatest length of vertical plate a little greater than breadth, which latter is a little greater than length of occipital suture. Rostral large, full, postfrontals large, occipitals more elongate than in *micropholis*. One pre- two postoculars, loreal longer than high; upper labials seven, eye over the third and fourth, first in contact with loreal.* Inferior labials nine.

Gastrosteges (1) 214, (2) 215; an anal; urosteges (1) 49, (2) 41. Total length (1) 3 ft. 5 in., (2) 3 ft. 3 in. 6 l.; tail (1) 6 in. (2) 5 in. 9 l.

The ground color above and below is bright red; the scales are largely tipped with black. In specimen No. 1 there are twenty-seven pairs of black rings on the body and tail. In a few instances the double rings become confluent, forming an elongate annular spot. The gastrosteges are irregularly spotted with black, and are almost entirely of that color where the rings cross the belly. Specimen No. 2, which we take to be more typical, is ornamented with twenty-eight pairs of rings only three or four scales apart, and perfect on the belly. In both the pairs include a space but one and a half scales wide, of a pale reddish above, more yellow below. A black collar involves the tips of the occipitals and the last superior labial. In front of this a yellow band crosses the occipitals. The rest of the head is black, a few scales with pale borders, which hue predominates on the chin.†

(2) one sp. Quatupe, near Jalapa, Mex.

Mr. Pease.

(1) " Jalapa.

Jno. Cassin, (De Oca coll.)

Var. A. Scales in the rings of the ground color without black tips. Nineteen pairs of rings on the body.

One sp. Mexico.

Mr. Keating.

The var. C of *Coronella doliata*, in Brit. Mus. Catalogue, p. 42, may belong to this species.

ERYTHROLAMPRUS Boie. Type *E. venustissimus*,

Isis von Oken 1826, p. 981.

* This may not be a constant character; in *doliata* it occurs occasionally, but not at all in our specimens of *coccinea*.

† In another specimen of this species, taken in the hills west of Vera Cruz by Dr. Sartorius, and sent to the Smithsonian Institution, Washington, there are 13 rows of scales, and twenty pairs of black rings not separated the width of one scale.

Another specimen in the Museum Smiths. Inst. resembles our var. A—having the scales in twenty-one rows without black tips, and twenty-one pairs of black rings on the body. It differs from it in having no yellow marking whatever upon it, and in the black rings being but one scale and a half wide instead of three, and in the smaller size. The first black ring does not touch the occipital plates, in this resembling the *coccinea*, which differs in having nineteen rows of scales, and yellow rings. The head and plates are broad and short, the scales as in *doliata*, and more lanceolate than in *annulata* Kenn. Though loth to add another to the already difficult series of red *Lampropetes*, the more we have thought of it the more are we impressed with the belief that this is deserving of recognition as a species. Unite it with any species with which we are acquainted, and the characters which distinguish all the species in the series from *triangulara* to *micropholis* are invalidated. We propose that it be called *L. amaura*. Locality unknown.

For the opportunity of examining and describing these and other specimens noticed in this paper, in the National Museum of the Smithsonian Institute, Washington, we are indebted to the liberality of its distinguished officers Profs. Henry and Baird.

132. *E. intricatus* Dum. and Bibr. vii. p. 855.

Var. scales of the white (red or yellow) spaces without black tips.

One sp.

S. America,

Dr. Neill.

133. *E. venustissimus* Boie, l. c. *Coronella venustissima* Schl. Essai ii. p. 53. *Erythr. venustissimus* Dum. Bibr. vii. 851. Günther Cat. Brit. Mus. 47.

Var. B. Dum. Bibr.

Two sp.

S. America,

Mr. Cuming in ex.

Var. ? Head black from a single collar forward, except anterior halves of upper labials, which are red. The vertical plate appears to be broader anteriorly than ordinarily, but the specimen is not in sufficiently good state of preservation to offer distinct characters.

One sp.

S. America,

Dr. Strain.

134. *E. Aesculapii* Wagler, Nat. Syst. Amphib. 187. Dum. et Bibr. vii. p. 845. *Coronella venusta* Schleg. Essai, i. p. 135.

Var. D. Dum. Bibr. l. c. p. 849.

One sp.

Surinam,

Dr. Hering.

In this specimen twenty-two pairs of reddish brown rings encircle the body from head to tail. These bands are three and a half scales wide and are separated by equal light spaces of one scale in width. It is only on the belly that the former appear in pairs. Head as in the true *Aesculapii*. A species ?

Var. *E. nobis*.

The distribution of colors on the head as usual. Twelve pairs of black rings, those of each pair becoming confluent on the middle of the back. The broad interspaces are shaded with brown, which is deeper on the tip of each scale.

This variety (a species ?) resembles the C of Dumeril & Bibron, where the rings composing the pairs are separated by a very narrow interval, and the spaces between the pairs are very dark.

One spec.

Surinam,

Dr. Colhoun.

135. *E. albostolatus nobis*.

Number of the plates of the head the same as in the *venustissimus*. In form, the fifth and sixth upper labials are narrower and higher; and the formulas, vertical, and superciliaries, are broader. The eye is larger, the temporal region more swollen, and the whole head deeper and more obtuse. Rows of scales fifteen. Gastrosteges, 167; one divided anal; urosteges, 48.

The ground color of the upper and under surface of this serpent is white, as a note made by Mr. Samuel Ashmead, its discoverer, at the time of its capture, informs us. This is crossed on the body, by ten or thirteen black single rings four or five scales wide, and from seven to twelve scales apart. Another ring crosses at the anus, and there are two *double* rings on the tail. The scales in the white intervals are broadly tipped with black. The distribution of color on the head, much as in *E. venustissimus*. There is a broad black collar which crosses the tips of the occipitals and does not encircle the throat. The fifth and sixth upper labials, the first temporal, the tips of the plates adjoining them posteriorly, and a spot on the occipitals, are white. The rostral, first two labials, nasals and loreal are bordered with the same, the rest of the head is black. Chin immaculate.

One specimen.

Jijuca, near Rio Janeiro,

Mr. S. A. Ashmead.

One

"

?

?

SCOLECOPHIS Fitz. Type *S. atrocinctus*.

Systema Reptilium, 1842, p. 25. *Homalocranion* Dum. & Bibr. viii. 855. Günther, Cat. Brit. Mus. 18.

136. *S. zonatus nobis*. *Elaps zonatus* Hallowell, Journ. Acad. Nat. Sci. New Series, vol iii. p. 35.

This species is very similar to the *S. atrocinctus* of Chili. It differs 1860.]

in having the seventh superior labial larger than the sixth, and in having four large temporals on each side, of equal size, one smaller above the last labial, and two still smaller at the end of each occipital. The breadth of the head at the temples is equal to the length from the muzzle to the extremity of the occipital suture. There are forty-five black rings on the body and tail, which leave white interspaces, wider upon the back than the flanks. Only the white scales on the latter region are tipped with black. The anal scute is divided.

One specimen.

Honduras,

Dr. S. W. Woodhouse.

PSEUDOBIA Schneider. Type *P. coronata*.

Hist. Amphib. Fasc. ii. p. 286, 1801. *Scytale* Boie, Isis, 1826, 981, (not of Merrem.) Wagler, Natur. Syst. 187. Dum. & Bibr. vii. p. 996. Günther, Cat. Brit. Mus. 187. *Olisthenes*, Cope, Proc. Acad. Nat. Sci. 1859, p. 296.

Schneider's name for this genus possesses the right of priority over that of Merrem. The almost universal acceptance of the latter by herpetologists, is also the more to be regretted as the type is not known. The relative number of the gastro- and urosteges in the *Scytale anguiformis* of Merrem renders its identity with *Erythrolamprus venustissimus* very improbable.

137. *P. coronata* Schneider. *Scytale coronatum* Boie. Wagler, Dum. & Bibr. Günther, etc. *Lycodon cloelia*, var. Schl.

One specimen.

Caraccas,

Mr. W. G. Bolton.

One " "

Panama,

Drs. Gallaer and LeConte.

138. *P. Neuwiedii nobis*. Dum. & Bibr., vii. p. 1001, *Olisthenes enphaeus* Cope, l. c.

One specimen.

S. America,

Ed. D. Cope.

OXYROPUS Wagler. Type *O. petolarius*.

Natur. Syst. Amphib., 1830, p. 185. *Hydroscopus* et *Deiropeda* Fitz. Syst. Rept. 1843, p. 26, *Brachyruton* Dum. & Bibr. vii. p. 1004, 1854.

139. *O. plumbeus* Gthr. *Coluber plumbeus* Wied. Abbild. xii. pl. 6. *Duberria* (1824) et *Hydroscopus* (1843) *plumbeus* Fitz. *Brachyruton plumbeum*, D. et B.

One specimen.

Cayenne,

Gard. plants in ex.

One " "

Surinam,

Dr. Hering.

One " "

?

Dr. Wilson.

One " "

Trinidad,

Dr. Watson.

140. *O. melanocrotaphus nobis* This serpent resembles the *O. cloelia*, but may be distinguished from it, first, by the form of the head and the distribution of colors on it (second), and third, by the relative length of the tail.

The profile of the muzzle is very rounding and obtuse, and its sides nearly plane; the head is deep. Eight upper labial plates, third, fourth and fifth, entering the orbit. Loreal large, as high as long. Anterior border of the vertical plate not greater than the length of the lateral borders. The latter are slightly concave, and scarcely or not at all convergent. Three temporals on the exterior border, the first twice as large as the second, and bounding the sixth and seventh upper labials. Preocular large; one narrow postocular, which will probably be found to be divided in other specimens. Inferior labials eight. Genials two pair, broad. Scales in nineteen longitudinal rows. Gastrosteges 161, one entire anal, urosteges 45. Total length 25 in. 9 lines. Tail 4 in. 1 l., less than one sixth of total length; in *cloelia* it is a little more than one fifth.

Coloration. The whole upper surface of the body and tail is of a pale yellowish or brownish gray, many scales with one or two borders pure white.

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The plates of the head and chin are of a deeper tint, possibly red in life. Parts of the post-ocular and sixth and seventh superior labials, the whole of the eighth labial and the temporals, are covered by a black spot on each side, which unites upon the nape of the neck with that of the opposite side. One specimen, locality and donor unknown.

141. *O. cloelia* *Gthr.* *Coluber cloelia* Daudin. *Clelia Daudinii* Fitz. 1826. *Cloelia occipitalis* Wagl. 1830. *Deiropeda cloelia* Fitz. 1843. *Brachyruton cloelia* Dum. & Bibr. 1853.

One sp.	Surinam.	Dr. Hering.
One "	Cocuyas de Veraguas N. Grenada.	Mr. R. W. Mitchell.
One "	Isth. of Panama.	Drs. Gallaer and LeConte.
One "	Caraccas.	Dr. Morris.

142. *O. immaculatus* *Dum. & Bibr.* vii. 1029.
Two sp. S. America. Capt. Jameson.

143. *O. petolaris* *Wagler.* *Dum. & Bibr.* vii. 1033.
One sp. Surinam. Dr. Hering.
One " (young) ? ?

Var. The black bands occasionally dividing, alternating and becoming confluent on the back. The loreal plate entering the orbit.

One half grown spec. Is. of Panama. Drs. Gallaer and LeConte.

144. *O. trigeminus* *Dum. & Bibr.* vii. 1013. *Lycodon formosus* Schl.
One sp. Bahia. Gard. Plants in ex.
One " S. America. Dr. Wilson, (Bp. Coll. pres. by Dr. DeKay.)

LYCODONTINÆ.

Boödon *Dum. & Bibr.* Type *B. unicolor*.

Erpetologie Generale, vii. p. 357, 1854.

145. *B. virgatus nobis.* *Coelopeltis virgata* Hallowell, *Proc. Acad. Nat. Sci.* vii. p. 98, 1854. *Boödon nigrum* Fischer, *Abhandl. aus dem Gebiete der Naturwissensch.* Hamburg, iii. 91, 1856. ? *Boödon capense* A. Duméril, *Rev. et Mag. de Zoologie* 1856, 464. *Boödon quadrivirgatum* Hallow. *Proc. Phila. Acad.* 1857, p. 56.

Four sp.	Gaboon.	Dr. Ford.
One "	Liberia.	Mr. E. T. Cresson.

Our specimens correspond exactly with the description of Dr. J. G. Fischer, so that we have no doubt as to their belonging to the same species. Prof. Duméril loc. sup. cit. identifies the *Coelopeltis virgata* of Hallowell with the *Boödon capensis* D. & B., and there is a possibility that the specimen received by him from the Acad. Mus. belongs to the latter species. Our specimens, however, presented by Dr. Ford, and subsequently described by Dr. Hallowell as *B. quadrivirgatum*, and stated by him to be identical with his *C. virgata*, cannot be identified with the *B. capense*. The former has twenty one and twenty-three longitudinal rows of scales, the later twenty-nine or thirty-one.

146. *B. quadrivittatus* *Hallowell*, *Proc. Acad. Phila.* 1857, p. 54.
One sp. Isles de Los (off Sierra Leon.) Dr. Burt, U. S. N.

A fine species, resembling probably the *Capense*, but with twenty seven rows of scales and a different disposition of the bands on the muzzle.

Lycophidion Fitz. Type *L. Horstokii*.

Syst. der. Rept. p. 27.

147. *L. laterale* *Hallowell*, *Proc. Acad. Nat. Sci.* 1857, p. 58.

A *Lycophidion* with the coloration of a *Boödon*. The pupil is round; the anterior nasal plate almost reaches the edge of the lip, and wants but little of meeting its fellow over the rostral.

One sp.	Gaboon.	Dr. H. A. Ford.
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HORMONOTUS Hallowell. Type *H. audax*.

Proc. Acad. Nat. Sci. Phila. 1857, p. 56.

A genus agreeing with *Lamprophis* Fitz., in having a larger series of vertebral scales, but differing in the elongated compressed body, and angular gastrosteges.

148. *H. audax* Hallow. l. c.

One sp.

Gaboon.

Dr. H. A. Ford.

The form of the body, and color of this species, bear some analogy to those of the *Boiga pulverulenta*, just as the *Boödon*s and *Lycophidion*s resemble the *Brachycranion* and *Atractaspis*. The subject of the prevalence of peculiar shades and arrangement of colors, throughout certain geographical districts, is one of much interest to the zoologist. The smoky and fuscous colors of the serpents just alluded to are repeated among birds in the *Nectarinia fuliginosa*, the genera *Andropadus*, *Drymoeca*, *Artemyias*, etc. The *Euprotodon* (*Lycodon*) of the East Indies in the distribution and often in the shade of its colors, resembles very much the venomous *Bungarus* and *Elaps* (*Calliophis*) of the same countries.

The *Elaps* of South America is represented in the same region by the black and red-ringed *Oxyrhopes*, the *Erythrolamprus*, *Pliocercus*, *Lampropeltis* etc.

? *LYCODON* Boie. Type *L. aulicus*.

Isis, 1827, p. 551, num p. 521? Schlegel (pars) Ess. ii. p. 106. Fitzinger, Neue Class. p. 29. Dum. et Bibr. vii. p. 367. Günther l. c. p. 201.

We have strong doubts of the propriety of retaining the name *Lycodon* for this genus, inasmuch as Boie first proposed it for the *Colubar audax* Linn. a species of widely different affinities. Fitzinger in the "Neue Classification" removed this species to the genus *Dipsas*, rightly estimating the differences between it and those for which he retained the name *Lycodon*. He afterwards ("Systema Reptilium," p. 29,) made the same species the type of his genus *Siphlophis*. Duméril l. c. p. 354, follows Fitzinger in the application of the name *Lycodon*, and quotes Boie's original diagnosis as more particularly appropriate to the *C. aulicus* and congeners. As however Boie says "dentes colubринi" of the *Psammophis* and *Dipsas*, it must be equally appropriate to the *C. audax*. This latter species is the type of *Lycognathus* Dum., fam. *Anisodontiens*, *Opisthoglyphes*.

In deference to authority we propose no change; but if herpetologists should ever see fit to apply the name *Lycodon* to the *Lycognathus scolopax* (= *audax*) of Duméril, the present genus might be appropriately called *Euprotodon*, and the subfamily *Euprotodontinæ*.

149. *L. aulicus* Boie l. c. Dum. & Bibr. vii. p. 369. *L. hebe* Schleg.

Var. A., Dum. & Bibr.

One sp.

?

Mr. R. Oakford.

Var. B., Dum. & Bibr.

One sp.

India.

Dr. Burroughs.

One "

"

Gard. of Plants in ex.

Var. F., Dum. & Bibr.

One sp.

Java.

Dr. Ruschenberger.

Seven sp.

Philippine Is.

Mr. Cuming in ex.

EUMESODON nobis. Type *E. semicarinatus*.

Palatine teeth of equal length. Mandibular teeth in a continuous series, much longer and stronger anteriorly. Superior maxillary teeth in two slightly separated series, those of the anterior long, but increasing regularly in length posteriorly; the posterior small in front, but terminating in one or two very long, trenchant, smooth teeth.

Form elongate, stout; tail short; gastrosteges bent on the flanks. Head

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distinct, the shields broad; muzzle prominent. Two nasals, two postoculars, one preocular, the loreal sometimes reaching the orbit beneath it. Scales either smooth or partially carinate. Pupil elliptical.

The serpents for which we propose this name are colubrine in form, but possess a peculiar dentition, most resembling that of *Dinodon* and *Odontomus Dum. & Bibr.* From both these forms they differ in having the anterior palatines no longer than the posterior (*i. e.* pterygoids), and the posterior superior maxillaries abruptly longer than the three or four which precede them.

150. *E. semicarinatus nobis.* Head depressed, conic, the width at the eighth labial plate less than half the length. Muzzle rounded conic, prominent, acute in profile. Pupil? Body cylindrical, tail one-fourth of total length. Scales short, obtuse, in seventeen longitudinal rows; anteriorly smooth, near the middle of the body three or four rows, and finally seven or eight, having distinct keels on the anterior half of each scale. Those of the tail smooth. No larger vertebral series. Rostral plate exhibiting a large crescentic inferior surface; superior surface large, presenting an obtuse angle between the prefrontals. Postfrontals three times the size of the prefrontals. Vertical broad, short, pentagonal, the anterior border greater than the lateral, and equal to the greatest length of the plate. Superciliaries not acute in front. Occipitals elongate, not bifurcate, bordered by two large temporals on each side. The anterior of these is narrow, and separated from the sixth and seventh labials by a broader and shorter plate, both in contact with the postoculars. The posterior is broad, and bordered by two others on its postero-inferior border.

Superior labials eight, third, fourth and fifth entering the orbit. Two post-one preocular. Loreal low, elongate, acute behind, not reaching the orbit. Nasal plates two, nostril large. Inferior labials ten, geneials two pair.

Coloration. Above yellowish brown, crossed by forty-two large black spots. The scales which fall in the border of each spot are absolutely black, but those enclosed have a large central spot of the ground-color. The latter appears above as light transverse bands one scale wide. There are seventeen spots on the tail, darker than those of the body. Head above brownish black, continuous with the first dorsal spot. From the posterior extremity of each occipital plate a yellowish band proceeds outwards and backwards, uniting with an area of the same color which extends from the throat upon the sides of the neck. In the centre of this area is a brownish black spot. Spottings of yellowish on the temporal plates form an irregular postocular band, and another equally indefinite and irregular extends from the eye round the muzzle. Superior labials (except their edges) chin, throat, belly and under surface of tail brownish yellow. The ends of the gastrosteges on the flanks, partly included in a series of spots which alternate with the larger ones of the back. Urosteges spotted with blackish. Gastrosteges 221; one entire post-abdominal; urosteges 92 pair. Total length, 37 inches; the tail 9 in. 3 lines. One specimen, captured by Mr. Heine of the U. S. Japan expedition at Loo Choo, presented by the Smithsonian Inst.

151. *E. striatus nobis.* *Coronella striata* Hallowell, Proc. Acad. Nat. Sci. 1856, p. 152.

This serpent resembles the preceding in many points—remarkably in the dentition—yet presents differences which may at some time be regarded as generic. The entrance of the loreal plate into the orbit, the smooth scales, with the vertebral series slightly larger, and the elliptic pupil, approximate it to the *Dinodon cancellatum Dum. & Bibr.* In the palatine and superior maxillary teeth the differences are of a kind which would be considered generic by the authors of the *Erpetologie Generale*. In specific characters there is much resemblance, but our serpent has fewer urosteges, there being 70 to 193 gastrosteges; in the *Dinodon* 168 to 194. The spots above are reddish brown, not black; and the belly is not punctulated posteriorly.

We at one time thought that our specimen belonged to the *Lycodon ruf-*
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zonatus Cantor, Ann. et Magaz. Nat. Hist. 1842, p. 483, and that long immersion in spirits had destroyed the lighter colors. We now believe the animals to be distinct, but nearly allied.
Two specimens and head. Ningpo. Dr. McCartee.

DIPSADINÆ.

Boiga Fitzinger. Type *B. irregularis*.

Neue Class. der Reptilien, pp. 29, 60, 1826. *Triglyphodon* Duméril, Prodrome de la Class. Ophid. p. 111, 1852. Erp. Gen. vii. p. 1069, 1854. *Dipsas* Schleg. Essai, ii. p. 257, 1837. Fischer, Abhdl. aus Gebiete Wissensch. Hamb. iii. p. 81, 1856. Günther, Cat. Brit. Mus. p. 169, 1858, (not of Laurenti, 1768.) *Gonyodipsas*, *Cephalophis* et *Macrocephalus* Fitz. Syst. Rept. 27, 1843. *Toxicodryas* Hallow. Proc. Acad. Nat. Sci. Phil. 1857, p. 60.

This is the genus *Dipsas* as understood by Günther l. c. We have, however, not followed this author in the application of a name, since that employed by him was given to another and allied form, long previously. Some time subsequent to the first use of *Dipsas*,* the present genus received the barbarous appellation of *Boiga* (!). This we would gladly resign in favor of *Triglyphodon* Duméril, but dates are inexorable. *Vae senioribus*.

152. *B. dendrophila nobis*. Dum. Bibr. l. c. p. 1086. *Dipsas dendrophila* Reinw. et auctorum.
One sp. Java. Garden of Plants.

153. *B. Blandingii nobis*. *Dipsas Blandingii* Hallowell, Proc. Acad. Nat. Sci. Phila. ii. p. 170, 1844. *Triglyphodon fuscum* Dum. Bibr. vii. p. 1101, 1854, (not *B. fusca*. = *Dendrophis fusca* Gray, Zool. Misc. 1842, p. 54). *Dipsas valida* Fischer, loc. cit. 1856. Gthr. loc. cit. p. 172, 1858. *Toxicodryas Blandingii* Hallow. loc. cit. p. 60, 1857. Our specimens of this fine and interesting dipsadien agree very nearly with the description and figures of Fischer. The two preoculars and divided anal shield are striking characters,* and it exhibits a relationship to *Ophiodon* Dum. and Bibr. in its elongate anterior maxillaries. On these peculiarities, but especially from the fact that our specimens have but a single grooved tooth on each side, Dr. Hallowell proposed his genus *Toxicodryas*. The latter character is, however, inconstant, for Fischer states that his specimen had two such teeth on each side, and Duméril, that his had three. The elongation of the anterior maxillary and palatine teeth does not appear to us sufficiently distinctive to afford generic characters, nor are the other peculiarities of sufficient importance.

154. *B. pulverulenta nobis*. *Dipsas pulverulenta* Fischer, Abhandl. der Naturwissensch. in Hamburg, ii. p. 81. Taf. iii. f. 1. Günther, Cat. Brit. Mus. p. 173.
One sp. Liberia. Mr. E. T. Cresson.

A beautiful specimen, having the lateral spots obsolete anteriorly. There is in this species, also, but one grooved superior maxillary.

155. *B. multimaculata nobis*. *Dipsas multimaculata* Reinw. et Auctorum. Erp. Gen. vii. p. 1139.
One sp. Java. ?

HIMANTODES Dum. & Bib. Type *H. cenchoa*.

Erp. Gen. vii. p. 1064. *Dipsas* Boie, Isis, 1827, p. 521. Fitzinger, Syst. Rept. 27, 1843.

This genus unites the short, flat head of the true *Dipsas*, (*Leptognathus* D. & B. Gthr.) with the dentition of the preceding genus. The tail is very long and slender.

156. *H. cenchoa* Dum. & Bibr. vii. p. 1065. *Coluber cenchoa* Linn. *Dipsas*

* Also possessed by *Boiga globiceps* = *Dipsas globiceps* Fisch. l. c.

cenchoa Wied. Boie, Wagler, Günther l. c. p. 174. *Dipsas Weigeli* Schleg. ii. p. 278. Fitz. Syst. Rept., p. 27.

One sp. Near Isalco, San Salvador. Capt. J. M. Dow.

Our specimen has the preoculars united, which peculiarity appears to be not uncommon. The dorsal spots connected by a narrow, often irregular brown vitta.

TRIPANURGUS Fitz. Type *T. leucocephalus*.

Systema Reptilium. 1843, p. 27.

157. *T. leucocephalus* Fitz. *Coluber leucocephalus* Mikan. *Col. compressus* Oppel. *Dipsadomorphus compressus* Fitz. *Dipsas leucocephalus* Schleg. *Lycognathus leucocephalus* Dum. & Bibr. *Eudipsas leucocephalus* Gthr.

One sp.

?

?

DIPSAS Laurenti. Type *D. Indica*.

Specimen Synopsis Reptilium, p. 89, 1768. *Dipsadomorus*, *Petalognathus* et *Leptognathus* Dum. & Bibr. vii. pp. 463, 477, 1854. *Leptognathus* Günther, Cat. Brit. Mus., p. 177, 1858. *Pholidolæmus Sibynomorphus* et *Sibynon* Fitz. Syst. Rept., 27, 1843.

The genus *Dipsas* has been variously understood and defined by herpetological authors. As four distinct groups have been designated by this name, in order to avoid further confusion we have employed it for that to which it was first applied. In the Synopsis Reptilium of Laurenti, which bears date 1768, the name was first proposed, with an appropriate "character," and *D. Indica Laur.* was indicated as the typical and only species. In 1852 Duméril made the same species the type of his genus *Dipsadomorus*, and in 1858 Günther placed it in *Leptognathus Dum.* We next find the genus *Dipsas* characterized at length by Boie in his invaluable contribution to herpetology, in the Isis von Oken for 1827, and *D. cenchoa* assigned as the type. This species is the *Himantodes* of Duméril, 1852. In the Regne Animal, 1829, we find the genus as proposed by Laurenti retained, and of all modern authors Cuvier is the only one who does so. In 1830 the *Natürlich System der Amphibien* of Wagler appeared. Here *Dipsas dendrophila Rein.* is considered typical of the genus; and in this he is followed by the great ophiologist Schlegel, in the "Essai," in 1837. The group of which this species is a typical example was named *Triglyphodon* by Duméril in 1852, but is the *Boiga* of Fitzinger, 1826.

Fitzinger, in the Systema Reptilium, 1843, cites *Dipsas cenchoa*, ("Weigeli") as the type of the genus, following Boie. Philippo de Philippi, in the Catalogue of Serpents in the Museum of the University of Pavia, 1849, follows Wagler and Schlegel.

In the Prodrôme de la Classification des Reptiles Ophidiens, vol. xxiii. of the memoirs of the French Academy, 1852, and afterward in the *Erp. Generale*, Duméril considers *Dipsas trigonata* the type of the genus. In 1843, Fitzinger proposed *Dipsadomorphus* for the same species. Finally, in 1858, in the Catalogue of Colubrine Snakes in the British Museum, Dr. Günther places *D. multimaculata* first among the species, and so characterizes the genus as to be nearly coextensive with *Triglyphodon*, Duméril, including also *Himantodes* of the latter.

Believing the genera of *Dipsadinae* as defined by Günther, to be, on the whole, more natural than those of other authors, we have adopted them here, simply employing the name *Dipsas* for that called by him *Leptognathus*, and *Boiga* for his *Dipsas*.

158. *D. nebulata* Boie, l. c. *Coluber nebulatus* Linn. 1754, *Col. variegatus* Hallow. Proc. Acad. Nat. Sci. Phila. ii. p. 244, 1845. *Dipsas nebulata* Schleg. Essai, ii. p. 275. *Sibynon nebulata* Fitz. l. c. *Petalognathus nebulatus* Dum. & Bibr., l. c. *Leptognathus nebulatus* Günther, l. c.

One specimen.

Surinam,

Dr. Hering.

One "

"

Dr. Colhoun.

Two "

Near Caraccas,

Mr. Ashmead.

1860.]

159. *D. pavonina* Cuvier, MSS., Schlegel, Essai, ii. p. 280. *Leptognathus pavoninus* Dum. & Bibr. vii. p. 474, Günther, l. c. 179.

One specimen, S. America. ?

160. *D. brevis nobis*. *Leptognathus brevis* Dum. & Bibr. vii. p. 476.
One specimen. Cocuyas de Veraguas, New Grenada, R. W. Mitchell.

Our specimen of this rare species has but one preocular plate; its form too, is no less slender than that of our *D. pavonina*, which, however, may not be fully grown. Otherwise it coincides with the description cited. The dark brown of the upper surface of the head is marked with small, irregular spots of white.

SIBON Fitzinger. Type *S. annulata*.

Neue Classification der Reptilien, 1826, p. 60. *Leptodeira* Fitz., Systema Reptilium, 27, 1843. Günther, Cat. Brit. Mus. p. 165.

161. *S. annulata* Fitz. l. c. *Coluber annulatus* Linn. *Dipsas annulata* Schleg. Essai, ii. p. 294, Dum. & Bibr., vii. 1141. *Leptodeira annulata* Fitz. et Gthr. l. c.

Scales in nineteen or twenty-one rows.

a. With an undulating dorsal band. Var. A. Dum. & Bibr.

Six specimens. Surinam, Dr. Hering.

b. With isolated, sometimes geminate spots. Var. B. Dum. & Bibr.

Five specimens. Caraccas, Mr. Ashmead.

One " " W. G. Bolton.

One " Isth. Panama. Dr. LeConte.

Four " S. America, Mr. H. Cuming, in ex.

Scales in twenty-three rows.

Two specimens. Honduras, J. S. Hawkins & Dr. LeConte.

One " Near Volcano Isalco, San Salvador, Capt. John M. Dow.

One " Xalapa, John Cassin, Esq. (De Oca coll.)

Two " ? ?

There is much difference in the appearance of the specimens of this species which come from the extreme points of distribution represented in our collection, viz. Surinam and Xalapa. As has been observed by authors, those from the more southern localities, have more slender bodies and tails, and hence, fewer longitudinal rows of scales, and the head is more distinct. The whole "physiognomy" is more that of the arborial *Dipsadiens*. This is more striking in a specimen where the vertebral rows of scales in places is slightly, but distinctly larger than the others. From the Stomach of a Surinam specimen we took an adult *Hyla*; from one from Caraccas, a *Thecadachylus rapicaudus*.

Specimens from Mexico exhibit a stouter, heavier form of body, a greater number of longitudinal rows of scales, and a shorter tail. They seldom, if ever, have the dorsal spots confluent into a *band*, strictly speaking, as in the var. A. Dum. & Bibr. Their aspect is that of a terrestrial species.

That these forms are really distinct species, is possible, but it could only be demonstrated with large series of specimens from carefully ascertained localities, if at all. Some of the specimens from Caraccas and Panama, are very intermediate as respects the peculiarities mentioned.

Dipsas septentrionalis Kennicott, (Mexican Boundary Survey, ii. Reptiles, p. 16, pl. viii. fig. 1,) belongs to this genus. The grooving of the posterior upper maxillaries is not represented in the fig. 2, pl. 22, l. c. It seems to resemble northern forms of *S. annulata*; but has the nasals and prefrontals differently proportioned, etc. It has three preoculars but we not unfrequently find one or more supplementary preoculars in the *annulata*.



Cope, E. D. 1860. "Catalogue of the Colubridae in the Museum of the Academy of Natural Sciences of Philadelphia, with notes and descriptions of new species. Part II." *Proceedings of the Academy of Natural Sciences of Philadelphia* 12, 241–266.

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