

Descriptions of new species of Reptiles, collected by the U. S. Exploring Expedition under the command of Capt. CHARLES WILKES, U. S. N.

First part.—Including the species from the Western coast of America.

By SPENCER F. BAIRD and CHARLES GIRARD.

AMBLYSTOMA TENEBROSUM, B. and G. The single specimen of this species brought home by the Expedition is five inches and a half in length, of which the tapering and most compressed tail occupies two and a quarter. The head is subelliptical, and longer than broad. The limbs are proportionally stout; the third finger is the longest. The color (as preserved in alcohol) is uniformly chesnut brown, marbled with a much deeper (nearly black) brown.

This species is related to *A. macrodactylum*, Baird, but differs from it in the structure of the hind feet, in which the fourth finger is the longest; also in the vomerine band of teeth, which, in *A. macrodactylum* forms a curve convex forwards, on the middle region of the palate, while in *A. tenebrosus*, the convexity of the same curve is directed backwards.

From Oregon.

RANA AURORA, B. and G. The general aspect of this species differs greatly from that of all its congeners in North America. The length of the body and head together is three inches and a half, the head forming nearly one third of this length. The head itself is pyramidal, pointed, the nostrils situated midway between the anterior rim of the eye and the tip of the snout. Eyes of medium size, anterior limbs short; fingers rather long and slender. The body is orange red, with here and there black irregular patches.

From Puget Sound.

RANA DRAYTONII, B. and G. This species resembles very much the preceding in its external appearance. It differs, however, in having a truncated snout, the nostrils consequently nearer to its tip than to the eyes. The eyes themselves and tympanum are proportionally larger than in *R. aurora*, the limbs more developed and the tongue much narrower. The ground color is olivaceous green, maculated with black on the upper region of the body and limbs, whilst underneath the hue is unicolor, except sometimes under the head, breast and hind legs, where the brown and white mingle in circular dots.

Specimens were collected at San Francisco, California, and on Columbia River by Mr. Drayton himself, to whom we take pleasure in dedicating this species.

HYLA REGILLA, B. and G. This is a species of medium size; the largest individual observed measuring one inch and a half from the nose to the posterior extremity of the body, the head itself occupying about half of this length. The hind legs are long and slender, the web extending only to half the length of the longest toe; fingers comparatively long. The general color is green above, turning to orange yellow along the sides of the head, abdomen and legs. Two oblong, brownish black spots exist on the occiput, from which two vittæ (one pair) of the same black color extend along the dorsal region; a similar band passes from the tip of the nose, across the eye and tympanum, and along the abdomen, when it is interrupted and forms a series of black and irregular small spots. In the immature state, green is the prevailing color; a few black spots being present along the whitish abdomen.

Specimens of this species were collected on Sacramento River, in Oregon and Puget Sound. Drawings from life were made on the spot by Mr. Drayton.

BUFO BOREAS, B. and G. Upper surface of head flat, nearly even, the orbits alone being raised above it. Snout truncated. Parotids of medium size and oblong. Tympanum comparatively small. Body tuberculous or warty. Hind feet webbed to nearly the tip of the toes. The color is brownish green above, dirty white below, with blackish brown patches spread all over. There is a dorsal, narrow and yellowish stripe, extending posteriorly from behind the eyes along the whole length of the body.

Specimens were obtained on Columbia River and Puget Sound. The body of the largest one measures a little over four inches.

SCELOPORUS GRACILIS, B. and G. A pretty little species, calling to mind *Sc. graciosus* described and figured in Stansbury's Report on the great Salt Lake of Utah. It is slenderer, however, and possesses more elongated limbs and tail. The fingers and toes are likewise very slender. The head is gently conical in front; the plates which cover its upper surface resemble somewhat those in *Sc. graciosus*, although presenting good specific differences as will be shown by the figures. The scales are proportionally small and slightly carinated; larger on the tail. There are from twelve to fourteen distinct femoral pores right and left.

Above, the color is brown with a lateral and narrow yellowish stripe extending on either side from the eye to the tail, and margined by a series of elongated black dashes. On the sides of the body there is a double series of black crescents, convex backwards. The inferior part of the body is light and unicolor in the female, whilst the male is provided on the sides of the abdomen with a deep blue elongated area.

Inhabits Oregon.

SCELOPORUS OCCIDENTALIS, B. and G. This species has the general appearance and shape of *Sc. undulatus*, from which we distinguish it by marked differences in the cephalic plates. The dorsal scales are more strongly carinated and their posterior point more acute, thus giving to the animal a rougher aspect. The posterior margin of the scales on the lower surface of the head and sides is on the other hand much less indented, especially in advance of the hind legs.

Inhabits California, and probably Oregon, although less numerous in the latter country where it is replaced by *Sc. gracilis* and the following species.

SCELOPORUS FRONTALIS, B. and G. The most striking character of this species consists in the rounded shape of the snout, a feature attracting immediate notice.

The occipital, vertical and frontal plates resemble more those in *Sc. undulatus*, than in *Sc. occidentalis*, but the arrangement of the supraciliaries is more like that in *Sc. occidentalis* than in *Sc. undulatus*. The scales are slightly carinated; hence a general smooth appearance which contrasts somewhat strikingly with that of *Sc. occidentalis*. The dorsal scales are nearly of the same size as in *Sc. occidentalis*, but at the origin of the tail are sensibly larger. The tail of the unique specimen before us, is broken off at about an inch from the vent.

Caught in going up Puget Sound.

ELGARIA PRINCIPIS, B. and G. Twelve longitudinal rows of smooth abdominal scales, trapezoidal on the belly. Fourteen similar rows of carinated scales on the upper part of the body, forming forty-five transversal series from immediately behind the meatus to the origin of the tail. On the tail itself the scales are the largest, smooth underneath and slightly carinated above. The body and limbs are of slender appearance. The species appears not to attain a very large size; the largest individual seen measures about nine inches from the nose to the tip of the tail.

Of the cephalic plates the vertical one is the most prominent; the shape of the frontal plates readily distinguishes this species from *E. scincicauda*.

Color uniform olivaceous brown above and below; three series (either double or single) of black spots all along the upper region from the head to the tail.

From Oregon and Puget Sound.

EDGARIA FORMOSA, B. and G. Sixteen longitudinal rows of strongly carinated scales on the upper part of the body, forming about fifty transversal series from the meatus to the origin of the tail. Abdominal scales twelve rowed. Tail very long, conical, and tapering. Color yellowish green, with numerous irregular, narrow, transverse bands of brownish black tipped posteriorly with white.

This species resembles *Gerrhonotus multicarinatus* of Blainville, (*Elgaria multicarinata*) in the slender appearance of its body and limbs; the latter how-

ever assume still more this character in *E. multicarinata*, the scales of which are considerably larger than the species here described.

From California.

ELGARIA GRANDIS, B. and G. Fourteen longitudinal rows of carinated scales on the upper part of the body; the carina on the sides is but slightly apparent. Fifty transversal series from the meatus to the origin of the tail. Tail itself one and a half times as large as the body, conical and tapering. Twelve rows of abdominal scales, subquadrangular in shape. Color olivaceous brown, with irregular, transverse and narrow bands of brownish black tipped posteriorly with white.

This species is intimately related to the preceding, from which it differs in the structure of the fronto-nasal plates and the shape of the scales generally. The limbs are also shorter.

Inhabits Oregon.

TROPIDONOTUS ORDINOIDES, B. and G. Is distinguished from *T. infernalis*, (*Coluber infernalis*, Bl.), to which it bears the closest resemblance, by a smaller and more slender head and likewise a smaller eye. There are two anterior orbitals, whilst *T. infernalis* has but one. The scales constituting the lateral row on either side of the abdomen are larger and not keeled. The scales on the upper part of the tail are likewise smooth. The general color is yellowish green with a dorsal yellow line; sometimes also there exists a lateral band of yellowish or whitish yellow, between which and the dorsal line, are two longitudinal rows of polymorphic black spots recalling to mind *T. ordinatus*.

From Puget Sound.

WENONA (Nov. gen.) Head conical, rather small and continuous with the body. Vertical plate about as broad as it is long; between it and the rostral plate are two or three pairs of frontals. Occipitals and supraorbitals rather small and nearly of equal size. Eyes very small, no loreal plate; one anterior orbital, large; the post orbitals are not to be distinguished from the temporal scales. Body cylindrical, covered with small lozenge-shaped and smooth scales. Abdominal shields narrow, one rowed under the tail behind the vent, as well as on the abdomen. Tail very short, slightly tapering towards the tip.

This genus is related to *Tortrix*, and will probably include the *T. Bottæ* of Blainville.

WENONA ISABELLA, B. and G. Vertical plates broader than long. Two pairs of frontal ones. A small plate between the post-frontal pair and the vertical. Length about sixteen inches, of which about two belong to the tail. Of a uniform deep isabel color, lighter on the belly.

From Puget Sound.

WENONA PLUMBEA, B. and G. Vertical plate broader than long. Three pairs of frontal plates; the anterior pair extending on the side of the snout in advance of the nostrils as in the preceding species. The second pair extends likewise down and occupies the place of the loreal, which may sometimes appear as an independent plate. Lower jaw much shorter than the upper one. A double row of plates along the upper jaw; length about eighteen inches. The tail two and a half inches and slightly tapering. Shield under the tail narrower and more elongated than in the preceding species. Of a uniform bluish lead color above, whitish beneath.

From Puget Sound.

CALAMARIA TENUIS, B. and G. General form slender; about eight inches in length from the tip of the snout to the end of the tail. Head somewhat detached from the body. Tail short and conical, one inch and a quarter in length. Occipital plates elongated, elliptical in form; vertical one subpentagonal. Two pairs of frontals, an odd and elliptical small plate in advance of the vertical, between the posterior frontals. Eyes proportionally large. Scales smooth and subelliptical in form. Color of a uniform brown, lighter beneath.

From Puget Sound.

CROTALUS LUCIFER, B. and G. Head subcircular or elliptical, nearly one inch and a quarter in length, covered on the vertex with very small and polygonal scales, elliptical and slightly carinated on the occipital region. One large supra orbital scutella obliquely striated. Eyes proportionally small, ten large anterior orbital plates; the upper one, which is the longest, is polygonal, whilst the lower one is triangular. The rostral plate is rather small, pointed above, higher than broad and pentagonal in form. The general color is reddish brown above, deeper along the dorsal line than on the sides, yellowish beneath. For two-thirds of the length there exists on the back a series of subcircular white rings lined internally with a narrow, black line. There are on the sides a series of irregular blotches which extend to the belly. The posterior third of the body is alternately semi-annulated above with black and yellow, the yellow, however, being much narrower than the black.

From Oregon and California.

EMYS MARMORATA, B. and G. The shape of the shell seen from above is regularly elliptical, slightly concave anteriorly, with a small notch behind. It is rather depressed and provided with a slight dorsal keel. Ventral shield rounded in front, openly concave behind. The tail is very slender and tapering. The posterior nails are stouter than the anterior ones and very much arched. The color is yellowish brown marbled with black.

The largest specimen under examination measures four inches in length from the tip of the snout to the end of the tail; the shell itself being only two inches and three-eighths in length and a little over two inches in width.

From Puget Sound.

The Committee on Dr. Hallowell's descriptions of new Reptiles, reported in favor of publication in the Proceedings.

Descriptions of new Species of Reptiles inhabiting North America.

BY EDWARD HALLOWELL, M. D.

TROPIDONOTUS RHOMBIFER.

Sp. Char. Head elongated, depressed, slightly swollen at the temples; a series of dark colored rhomboid spots upon the back, presenting the form of triangles, their apices posteriorly and anteriorly touching each other; a row of dark colored transverse bars upon the sides, uniting with the lateral inferior extremities of the rhomboid spots upon the back; a series of dark colored bands upon the tail; abdomen and under part of tail more or less maculated; scuta very strongly carinated: 25 rows of carinated scales; abdominal scuta 142; sub-caudal 70.

Dimensions. Length of head $1\frac{1}{2}$ inches (Fr.); greatest breadth posteriorly 10 lines; length of body 2 ft.; of tail $6\frac{1}{2}$ inches; total length 2 ft. 8 inches.

Habitat. Arkansas river and its tributaries, near the northern boundary of the Creek Nation; found abundantly on the borders of streams. Dr. Woodhouse observed one with many young on one of the sand banks of the Arkansas river.

TROPIDONOTUS TRANSVERSUS.

Sp. Char. Head large, swollen at the temples, convex posteriorly, flattened between the orbits, depressed in front; a series of subquadrate dark colored blotches, thirty-six or thirty-seven in number, along the back; a transverse row of oblong bars along the sides, their upper margins alternating with the inferior margins of the dorsal blotches; scales strongly carinated, 23 rows; abdominal scuta 144; sub-caudal 78.

Dimensions. Length of head 12 lines; greatest breadth 7; length of body 1 ft. (Fr.) 5 inches 7 lines; length of tail 6 inches; total length 2 ft.

Habitat. Creek boundary, found near the banks of the Arkansas and its tributaries.

result of an attempt to arrange them, and to reconcile their synonymes, in a second edition of my catalogue of *Strigidae* in our collection.

Of the interesting little bird at present described, two specimens, male and female, are in a collection made principally on the coasts of Angola and Benguela, during a recent voyage of the U. S. brig Perry, and presented to the Academy by A. A. Henderson, M. D., Surgeon U. S. Navy, who was attached to that vessel as a medical officer. I have taken the liberty of dedicating it to Dr. Henderson as a slight testimonial to his profound and varied scientific acquirements, and as a memento of our long-continued and pleasant friendship.

7. *Larus Heermanni*, nobis.

Form. Bill rather long and slender, wings very long, extending beyond the tail, first primary slightly longest; tail truncate or slightly emarginate.

Dimensions. Total length of skin from tip of bill to end of tail about $17\frac{1}{2}$ inches, wing $13\frac{1}{2}$, tail $5\frac{1}{2}$, bill from the angle of the mouth to the tip $2\frac{1}{2}$ inches.

Colors. Bill red, both mandibles tipped with black; feet and legs dark; head white, which color gradually fades into an ashy lead color, enveloping the entire body above and below; darker above and on the wings, and paler beneath. Secondaries tipped with white, which forms an oblique bar of white on the wing.

Superior coverts of the tail pale cinereous, nearly white. Quills and tail brownish black, the latter tipped with white. Shafts of the two first primaries white on the inferior surface of the wing.

Young. Rather smaller, total length about 16 inches, wing 13, tail 5, bill from the angle of the mouth 2 inches. Entire plumage brown, dark on the head and paler on the under surface of the body, quills and tail feathers brownish black, the latter narrowly edged at the tip with white.

Hab. Coast of California at San Diego, discovered by A. L. Heermann, M.D.

Obs. This beautiful gull appears to belong to a group of species comprising *Larus Belcheri*, Vigors, *L. erythrorhynchus*, Gould, and others, all of which inhabit the shores of the Pacific ocean. It is most nearly related to *L. Belcheri*, but is not so large, and has the head pure white, which is not the case in that species. In the description of the latter (in Zool. Jour. iv. p. 328,) the rump is described as white; in the present bird the rump is dark ashy, but the superior coverts of the tail nearly white, and in the young bird they are dark brown.

I have dedicated this handsome species to my friend Dr. Heermann, as a token of acknowledgment due to his accomplishment as a naturalist, and his great perseverance and success as a scientific traveller.

8. *Mergus americanus*, nobis. Wilson's Am. Orn. viii. pl. 68. Aud. B. of Am. pl. 331.

Obs. I propose this name for the common bird which has hitherto been regarded as identical with the European species well known as *Mergus merganser*, Linn. It is, however, specifically quite distinct. In the American bird the prolonged feathers of the head are almost restricted to the occiput and neck behind, but in that of Europe they commence almost at the base of the bill, and are erectile and crest-like. On the large wing coverts in the American species there is always an exposed and conspicuous bar of black, which, in the European species, is entirely concealed by the lesser coverts. This character is sufficient for the purpose of the practical recognition of the two species in all the specimens that I have ever examined, and may be observed on comparing any plates of the two species that I have seen, but especially Wilson Am. Orn. viii. pl. 68; Aud. B. of Am. pl. 331; Selby, Ill. pl. 57; Gould B. of Eur. v. pl. 39; and Korner Skandinaviska Foglar pl. 57.

9. *Anser parvipes*, nobis.

Form. Generally resembling *A. canadensis*, Linn., but not so large, and with the bill and feet much smaller, the latter being not much more than half the size of that species. Upper mandible not so strongly serrated on its edges, tarsi slender, tail rather fully developed. Possibly a *Bernicla*.