

culum, one of which may occasionally reach the preoperculum. A few reddish orange dots, individually situated in the middle of a black spot, are occasionally observed along the middle and upper part of the flanks. Whether these dots are peculiar to the female or proper to both sexes, I am not prepared to say, from want of sufficient information, upon that point.

This species was first brought to my notice by M. Townend Glover, of Fish-kill Landing, Dutchess Co., New York, who caught it in the upper affluent of Union river, in the State of Maine, during the middle of September. I propose for it the name of *Salmo gloverii*, as a token of gratitude towards an artist whose labors, if promoted, would contribute so much to popularize natural history, and spread its benefits throughout the country.

*A list of the North American Bufonids, with Diagnoses of New Species.\**

BY CHARLES GIRARD.

1. BUFO AMERICANUS, Le Conte MS. HOLBR. N. Amer. Herp. v. 1842, 17, pl. iv.

Inhabits the Atlantic States, from Maine to Virginia, extending through the mountainous regions of the Carolinas into the valley of the Mississippi. It is likewise found in the North Western States and Canada.

2. BUFO LENTIGINOSUS, Holbr. N. Amer. Herp. v. 1842, 7, pl. i.—*Rana lentiginosa*, SHAW, Gen. Zool. iii. 1, 1803. 173. Pl. liii.—*Bufo erythronotus*, HOLBR. Ibid. 11. Pl. ii.

Ranges along the sea coast, from South Carolina to Florida, and following the gulf through Alabama and Mississippi. Scattered individuals are met with across the mountains to South Carolina.

*Bufo erythronotus* does not appear to us different from *B. lentiginosus*, since color alone cannot be taken as an exclusive guide amongst the bufonids.

3. BUFO WOODHOUSII, Girard.—*Bufo dorsalis*, HALLOW. (non Spix). Proc. Acad. Nat. Sc. Philada. vi. 1852, 181; and in *Sitgreaves Exped. Zuni and Color. Rivers*, 1853, 142. Pl. xix. Head short and thick; upper central surface but little depressed, not to say grooved; the suborbital ridge being slightly elevated. The occipito-temporal ridge is thicker, and hence a little more conspicuous. Snout rounded, nostrils terminal. Mouth wide, upper jaw emarginated. Tympanum and parotids of moderate size. Limbs rather short and stout. First finger much longer than the second. A large metacarpal disk. Toes semipalmated. Two metatarsal tubercles, a very large and a very small one. No membranous fold at the inner lower edge of the tarsus. Papillæ of medium size upon the back. Inferior surface, with rather small and crowded granular warts. Above dark brown, with numerous lines of yellow. A dorsal yellowish vitta running the whole length of the body. Transverse blotches of black upon the thighs and fore arms. Beneath ochraceous.

The affinities of this species are intermediate between *B. americanus* and *B. lentiginosus*. Its geographic range appears to be New Mexico, having so far been found in the province of Sonora, and in the San Francisco mountains.

4. BUFO COGNATUS, Say, in *Long's Exped. to Rocky Mts.* ii, 1823, 190.—HOLBR. N. Amer. Herp. v. 1842, 21. Pl. v.—B. and G. in *Marcy's Expl. Red Riv. La.* 1853. 242. Zool. Pl. xi.

A very characteristic species in the structure of the upper surface of head. Found in the territory of Nebraska, and southwards as far as the province of Coahuila, Mex.

5. BUFO SPECIOSUS, Girard.—Head moderate; its upper surface smooth and even, or with slight traces of ridges or carinæ. Snout subtruncated and rounded; nostrils subterminal. Mouth large, upper jaw slightly emarginated. Tongue

\* Specimens upon which these descriptions are based, are preserved in the museum of the Smithsonian Institution, at Washington.

small, elongate, posteriorly free for the fourth of its length. A subgular vocal bladder. Tympanum of medium size. Parotids subovoid, of stoutish appearance. Limbs of moderate development. First finger much longer than the second, which is equal to the fourth. A large subcircular metacarpal disk. Toes semipalmated. Two metatarsal spade-shaped processes, the innermost being much the largest. A membranous fold at the inner lower margin of tarsus. Skin above covered with papillæ of moderate development, and with small warts beneath. Color above greenish brown, maculated: no dorsal lighter vitta. Beneath, greenish or yellowish white, unicolor.

Allied to *B. woodhousii*, differing, however, in the form and development of the metatarsal processes. It appears to inhabit the valley of the Rio Bravo (Rio Grand del Norte), and to be not uncommon in the province of New Leon.

6. *BUFO PUNCTATUS*, B. and G. Acad. Nat. Sc. Philad. vi. 1852, 173.

A very marked species in the shape and structure of the head. Hitherto found in the valley of the Devil's river (Rio San Pedro, of Rio Grande), and in the province of Coahuila, Mex.

7. *BUFO DEBILIS*, Girard.—Upper surface of head without any crest or ridge. Snout rounded. Mouth moderate. Upper jaw emarginated. Tongue small. Tympanum small. Parotids moderate and elongated. Limbs of moderate development, femur shorter than tibia. First finger longer than the second. A large metacarpal disk. Toes slightly united at base by a web. Two metatarsal processes. No membranous fold at the inner lower margin of the tarsus. Skin above pustulous; pustules of moderate development; warts beneath very small. Color above brownish yellow, spotted. No dorsal lighter vitta. Beneath of a uniform soiled yellow.

Allied to *B. speciosus*; found in the lower part of the valley of the Rio Bravo (Rio Grande del Norte), and in the province of Tamaulipas.

8. *BUFO NEBULIFER*, Girard.—*Bufo granulatus*, B. and G. (non Spix). Proc. Acad. Nat. Sc. Philad. vi. 1852, 173.

This species is strongly suggestive of *B. marinus*, Schn. (*B. aqua Daud*); it is, however, easily distinguished from it upon a comparison of individuals of both species. It inhabits Texas, the valley of the Rio Bravo (Rio Grande del Norte), the provinces of Tamaulipas and New Leon, Mexico.

9. *BUFO COLUMBIENSIS*, B. and G. Proc. Acad. Nat. Sc. Philad. vi. 1853, 378.

This is possibly the largest species of North American toads; it is common in the valley of the Columbia River, Oregon Territory, where it was first observed by the naturalists of the U. S. Exploring Expedition under Capt. C. Wilkes.

10. *BUFO BOREAS*, B. and G. Proc. Acad. Nat. Philad. vi. 1852, 311.

So far the most northern bufonid; it is not uncommon about Puget Sound, where it was collected many years ago by the naturalists of the U. S. Exploring Expedition.

11. *BUFO HALOPHILA*, B. and G. Proc. Acad. Nat. Sc. Philada. vi. 1853, 311.

Since this species was first described an adult individual has been secured, which has enabled me to give the following diagnosis:

Upper surface of head without either crests or grooves. Skin thick and adhering to skull. Snout rounded. Parotids of medium size. Eyes moderate. Tympanum small. Tongue lanceolated, broadest posteriorly. Upper jaw emarginated. Inner finger longer than the second. Two metacarpal disks. A membranous fold along the tarsus. Toes semipalmated; two metatarsal tubercles. A narrow yellowish dorsal vitta. Ground color greenish yellow, with numerous black spots and dots, distributed all over the upper parts and sides of body, head and limbs. Beneath unicolor of a dingy yellow.

Inhabits the western coast, frequenting the sea margin; hitherto observed only in California.

12. *BUFO QUERCINUS*, Holbr. N. Amer. Herp. v. 1842, 13. Pl. iii.

This quite small species appears to be restricted to very narrow geographical limits, having so far been found only in the neighborhood of Charleston, S. C.

13. *BUFO INSIDIOR*, Girard.—Upper surface of head plane and smooth. Snout subacute, protruding. Mouth moderate, upper jaw slightly emarginated. Tongue elongated, tapering towards both ends. Tympanum inconspicuous. Parotids large and elongated, situated obliquely upon the shoulder. Limbs moderate. First finger equal to the second in length. A metacarpal disk, and a tubercle. Toes slightly webbed at base. Two metatarsal tubercles. Skin papillous above, warty beneath. Above of a bluish slate hue, with black markings. Beneath unicolor, dingy yellow.

Small specimens, perhaps immature, were collected in Chihuahua by Dr. Thos. H. Webb, attached to Comm. Bartlett's party in the survey of the U. S. and Mex. boundary line.

14. *ENGSTOMA CAROLINENSE*, Holbr. N. Amer. Herp. First ed. i. 1836; 83. Pl. xi., and 2d ed. v. 1842, 23. Pl. vi.—DUM. and B. Erp. gen. viii., 1841, 743.

Found in South Carolina, Georgia, Florida, Louisiana and Mississippi.

15. *ENGSTOMA RUGOSUM*, Dum. and B. Erp. gen. viii., 1841, 744.

Said to occur in the same regions as the preceding species. Have never observed it, and therefore cannot endorse it as a North American species.

The following amendments to the By-Laws were adopted :

*Chapter viii., Art. 1.* No specimen of Natural History contained in the collections of the Academy shall be loaned from the Hall, under any pretence, or for any purpose whatever.

*Chapter xii., Art. 2.* Every proposition to alter or amend these By-laws shall be submitted, in writing, at a meeting for business, and if adopted by the affirmative votes of two thirds of the members present, it shall be read at the meeting for business next succeeding; and then, if adopted by the affirmative votes of two-thirds of the members present, it shall be again read at the next succeeding meeting for business, and on receiving the affirmative votes of two-thirds of the members present, it shall become a part of these By-Laws; *Provided*, that at least twelve members be present at each of the three readings.

The following Article was added to Chap. XII :

*Chapter xii., Art. 3.* No one, or more, of the By-Laws of this Academy shall be suspended.

#### ELECTION.

Dr. William S. M'Ilhenny and Job R. Tyson, Esq., of Philadelphia, were elected *Members*.

June 6th.

Vice-President LEA in the Chair.

Letters were read—

From the Royal Saxon Society of Sciences, dated Leipzig, 27th Feb., 1854;

From the Royal Academy of Sciences of Vienna, dated Jan. 18 and Jan. 28th, 1854 :