

previously been described by the writer; the latter under the very same name which is now proposed by Dr. Günther. A detailed description of *Belone Jonesii* was published in October, 1877, in the American Journal of Science and Arts.* Dr. Günther's description of *Belone Jonesii* and my own coincide in all essential details, and, furthermore, I had the opportunity of seeing Mr. Jones's specimens on the day they were collected and before they were put in spirits. My specimens were collected within a few days of the same time, and from the same locality.

Gerres Jonesii, Gthr., is apparently identical with the species described by me in 1874 under the name *Diapterus Lefroyi*,† and subsequently referred to in the Catalogue of the Fishes of the Bermudas‡ as *Eucinostomus Lefroyi*.

This species was discovered in Cuban waters at nearly the same time by Prof. Felipe Poey, and was by him named *Eucinostomus productus*.§

DESCRIPTION OF A SPECIES OF LYCODES (*L. TURNERI*) FROM ALASKA, BELIEVED TO BE UNDESCRIBED.

By TARLETON H. BEAN.

The first species of the genus *Lycodes* known from the North Pacific is in the United States National Museum, where it was sent by Mr. Lucien M. Turner, who took it at St. Michael's, Alaska, March 28, 1876. There is no record of the depth at which it was taken. The single specimen secured is 330 millimetres (13 English inches) in length, and is well preserved. This is one of six species described as scaleless—*polaris* (Sabine), 1820, length of type 7 English inches; *mucosus*, Rich., 1855, types 7 and 11 inches; *Rossi*, Malngren, 1864, type 32 millimetres; *gracilis*, M. Sars, 1866, type 43 millimetres; *Sarsii*, Collett, 1871, type 44 millimetres, being the other five. I have brought together *polaris*, *mucosus*, *Verrillii*, and *Turneri* in a table of comparative measurements, so that the relations of the North American species may be seen at a glance. It is difficult to determine the exact relations of all the species of *Lycodes* of the Arctic and Subarctic regions, since nearly half of them were described from small individuals; but, so far as the original descriptions and measurements furnish a guide, *L. Turneri* is quite different from all the rest.

The species is dedicated to Mr. Lucien M. Turner, to whose diligence the Museum is indebted for large and valuable additions to its collections from Alaska.

*A Preliminary Catalogue of the Reptiles, Fishes and Leptocardians of the Bermudas, with Descriptions of four Species of Fishes believed to be new. < Amer. Journ. Sci. and Arts, xiv, 1877, (Oct.), pp. 289-298, (p. 295).

† Amer. Journ. Sci. and Arts, vii, 1874, (Aug.), p. 123.

‡ Catalogue of the Fishes of the Bermudas, p. 82.

§ Enumeratio Piscium Cubensium, . . . Madrid, 1875-76. p. 55.

DESCRIPTION.—The greatest height of the body is contained $8\frac{1}{2}$ times, and its width just behind the pectorals 9 times, in total length. The greatest circumference equals 3 times the height. The height at the ventrals equals the width immediately behind the pectorals. The height at the vent is contained $10\frac{1}{2}$ times in total length, and the width at the same place is contained $4\frac{1}{3}$ times in the length of the head.

The head is depressed; its greatest width equals $\frac{3}{4}$ of its length, which is contained $4\frac{1}{3}$ times in total length. The distance from the tip of the snout to the nape is nearly equal to the greatest width of the head, or $\frac{1}{6}$ of total length. The distance between the eyes equals $\frac{1}{4}$ of the distance from the snout to the nape. The nostrils are tubular, nearly as far apart as the eyes, and slightly farther from the eyes than from each other. The length of the upper jaw equals half the length of the head, the maxilla extending to the vertical through the hind margin of the orbit. The mandible is twice as long as the snout, and extends beyond the vertical through the hind margin of the orbit. On the intermaxillaries there is one full series of teeth, and in front of these a few smaller teeth form an outer imperfect series. There is a naked space at the symphysis, and the first tooth on each side of this is larger than all the rest. There is one complete series on the mandible, and in front of it, about the symphysis, are two irregular short series. A few teeth are in a cluster on the head of the vomer. The palatines have a short single series. All of the teeth are slender, slightly recurved, and a little worn at the points. The distance from the snout to the orbit is twice the length of the ventral, equals the length of the longest dorsal ray, and $\frac{1}{3}$ of the distance of the ventral from the snout. The long diameter of the eye is contained 9 times in the length of the head.

The distance from the tip of the snout to the beginning of the dorsal is $\frac{1}{4}$ of the total length. The length of the first dorsal ray is contained 5 times, and of the longest $3\frac{3}{4}$ times in the length of the head.

The distance from the tip of the snout to the beginning of the anal is slightly more than $\frac{1}{2}$ of the total length; the vent is in the middle of the total length, immediately behind the third cross-band and under the 21st ray of the dorsal; the distance from the origin of the ventrals to the vent equals twice the length of the pectoral. The first anal ray is contained $5\frac{3}{4}$ times in the length of the head, and the longest, $4\frac{1}{2}$ times.

The extended pectoral reaches the 10th ray of the dorsal; the distance of its base from the snout is contained $4\frac{1}{3}$ times, and its length $6\frac{3}{4}$ times in the total length.

The distance of the ventral from the tip of the snout is 3 times the distance from the snout to the orbit, and is contained $4\frac{1}{3}$ times in the total length. The length of the ventrals is contained $6\frac{1}{2}$ times in the length of the head, and twice in the distance from the tip of the snout to the orbit; they extend to a vertical through the anterior margin of the base of the pectoral.

Radial formula: B. VI; D. (including half of caudal) 85; A. (including half of caudal) 67; P. 18; V. 3.

Color: The ground-color is light umber; abdomen grayish brown: lower parts of head cream. A band of cream on the anal extends from the origin of the rays to about their middle. A crescentic band of the same color, mottled with umber, crosses the nape, and continues behind the pectorals, blending there with the first lateral band. A streak of cream, more or less interrupted by umber, extends backwards from the eye across the cheek, almost to the end of the operculum. Ten bands of cream-color, bordered with dark umber, start from the tips of the dorsal rays and extend into the lower half of the body, becoming wider and somewhat broken below the middle of the body. These cross-bands are located at the second, ninth, seventeenth, twenty-fifth, thirty-fourth, forty-third, fifty-second, sixtieth, sixty-eighth, and seventy-seventh dorsal rays. There is, besides, a very indistinct caudal tip of cream-color.

In the table of proportions appended, a statement appears as to how many times the length of different parts of the body is contained in the total length, or in the length of the head, when that seems more convenient.

Table of Measurements.

	Lycodes mucosus.		L. Verrillii.		L. Turneri.	
Current number of specimen.....	16,930.		21,013.		21,529.	
Locality.....	Cumberland Gulf.		Off Nova Scotia.		St. Michael's, Alaska.	
	Millim.	100ths.	Millim.	100ths.	Millim.	100ths.
Length to end of middle caudal rays.....	430		127		330	
Body:						
Greatest height.....		*12 $\frac{3}{4}$		8		†12
Greatest width.....		†11		8		†11
Width at vent.....		9 $\frac{3}{4}$				5 $\frac{1}{2}$
Height at ventrals.....		13				11
Height at vent.....		8 $\frac{7}{10}$				9 $\frac{3}{4}$
Head:						
Greatest length.....		28		17 $\frac{3}{4}$		23
Distance from snout to nape.....		20				16
Greatest width.....		17 $\frac{1}{2}$		11		17
Width of interorbital area.....		4 $\frac{1}{2}$		4		4
Length of snout.....		9 $\frac{1}{2}$		6 $\frac{1}{2}$		6 $\frac{1}{2}$
Distance of nostrils from eye.....		6 $\frac{1}{2}$				
Length of upper jaw.....		16		8 $\frac{3}{4}$		11 $\frac{1}{2}$
Length of mandible.....		15				13
Distance from snout to orbit.....		9 $\frac{3}{4}$				7
Long diameter of eye.....		2 $\frac{1}{2}$		3		2 $\frac{1}{2}$
Dorsal:						
Distance from snout.....		31		26		25
Length of first ray.....		5				4 $\frac{1}{2}$
Length of longest ray.....		7				7
Anal:						
Distance from snout.....		55		35 $\frac{1}{2}$		51
Length of first ray.....		3				4
Length of longest ray.....		6 $\frac{1}{2}$				5 $\frac{1}{2}$
Pectoral:						
Distance from snout.....		28 $\frac{1}{2}$		18		24
Length.....		15		8 $\frac{3}{4}$		15
Ventral:						
Distance from snout.....		28		16 $\frac{1}{2}$		21
Length.....		2 $\frac{1}{2}$		1 $\frac{3}{4}$		3 $\frac{1}{2}$
Branchiostegals.....	VI				VI	
Dorsal.....	90		92		85	
Anal.....	71		88		67	
Pectoral.....	18		15		18	
Ventral.....	3				3	

* At pectorals.

† Near middle of body.

‡ Behind pectorals.

Table of Proportions of North American Species.

	Lycodespolaris.	L. mucosus.	L. Verrillii.	L. Turneri.
Current number of specimen.....		10,930.	21,013.	21,529.
Locality		Cumberland Gulf.	Off Nova Scotia.	St. Michael's, Alaska.
	Times in total length.	Times in total length.	Times in total length.	Times in total length.
Length to end of middle caudal rays..	"7 inches "	430 ^{mm}	127 ^{mm}	330 ^{mm}
Body:				
Greatest height	8	8	12 ⁷ / ₁₀	8 ¹ / ₂
Greatest width	9	9	12 ¹⁰ / ₁₀	9
Width at vent	(in head) 8	(in head) 8	(in head) 3 ¹ / ₂	(in head) 4 ¹ / ₂
Height at ventrals	8	8	13 ¹ / ₂	9
Height at vent.....	11 ¹ / ₂	11 ¹ / ₂	14 ¹ / ₂	10 ¹ / ₂
Head:				
Greatest length	3 ¹ / ₂	3 ¹ / ₂	5 ³ / ₂	4 ¹ / ₂
Distance from snout to nape	5	5	8 ¹ / ₂	6
Greatest width	5 ⁵ / ₂	5 ⁵ / ₂	9	6
Width of interorbital area	(in head) 6	(in head) 6	(in head) 4 ² / ₂	(in head) 5 ³ / ₄
Length of snout	(in head) 3	(in head) 3	(in head) 2 ⁷ / ₄	(in head) 3 ¹ / ₂
Distance of nostrils from eye	(in head) 4 ¹ / ₃	(in head) 4 ¹ / ₃	(in head) 5	(in head) 5
Length of upper jaw	(in head) 1 ² / ₃	(in head) 1 ² / ₃	(in head) 2	(in head) 2
Length of mandible	6 ³ / ₂	6 ³ / ₂	12	7 ³ / ₂
Distance from snout to orbit	10 ¹ / ₂	10 ¹ / ₂	21	14 ² / ₂
Long diameter of eye	(in head) 10 ² / ₂	(in head) 10 ² / ₂	(in head) 5 ¹ / ₂	(in head) 9
Dorsal:				
Distance from snout	3 ¹ / ₂	3 ¹ / ₂	4	4
Length of first ray	(in head) 5 ² / ₂	(in head) 5 ² / ₂	(in head) 5	(in head) 5
Length of longest ray	(in head) 4	(in head) 4	(in head) 3 ¹ / ₂	(in head) 3 ² / ₂
Anal:				
Distance from snout	1 ⁰ / ₁₁	1 ⁰ / ₁₁	2 ⁴ / ₂	2
Length of first ray	(in head) 9	(in head) 9	(in head) 6 ¹ / ₂	(in head) 5 ² / ₂
Length of longest ray	(in head) 4 ¹ / ₃	(in head) 4 ¹ / ₃	(in head) 4	(in head) 4 ¹ / ₂
Pectoral:				
Distance from snout	3 ¹ / ₂	3 ¹ / ₂	5 ¹ / ₂	4 ¹ / ₂
Length	(*)	6 ² / ₂	11 ¹ / ₂	6 ³ / ₂
Ventral:				
Distance from snout	3 ² / ₂	3 ² / ₂	6	4 ¹ / ₂
Length	(in head) 11	(in head) 11	(in head) 11	(in head) 6 ¹ / ₂
Scales	None.	None.	(†)	None.
Dorsal		90	92	85
Anal		71	88	67
Pectoral		18	15	18
Ventral	2 spines (?)	3	5	3

* Exceeds twice its breadth.

† Upper part of dorsal and all of anal naked; the rest scaly.

DESCRIPTIONS OF NEW SPECIES AND RACES OF AMERICAN BIRDS,
INCLUDING A SYNOPSIS OF THE GENUS TYRANNUS, CUVIER.

By ROBERT RIDGWAY.

I.—Synopsis of the Genus *Tyrannus*, Cuvier.

Genus TYRANNUS, Cuvier.

Tyrannus, "Cuv., Leçons Anat. Comp. 1799, 1800" (Agassiz). Type, *Lanius tyrannus*, Linn. ?—VIEILL., Ois. Am. Sept. I, 1807, 73.—SWAINS., Classif. B. II, 1837, 225.—(=) BAIRD, B. N. Am. 1858, 170.—(>) CABAN. & HEINE, Mus. Hein. II, 1859, 79 (restricted to *T. carolinensis*; includes also *Pitangus caudifasciatus*!).—(=) GRAY, Hand-list, I, 1869, 364.—(=) B. B. & R., Hist. N. Am. B. II, 1874, 314.

"*Drymonax*, GLOGER, 1827" (*Cabanis & Heine*).

"*Myiarchus*," BURM. 1850" (nec Caban. 1844).