

**Article X.**—NOTES ON MEXICAN FISHES OBTAINED  
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**Ptychocheilus lucius** *Girard.*

Head,  $4\frac{1}{3}$ ; depth,  $4\frac{1}{2}$ ; eye,  $6\frac{1}{2}$  in head. D. 9; A. 9; V. 9; P. 15; scales, 26–90–13; teeth, 2, 4–5, 2. Least depth of caudal penduncle,  $3\frac{7}{8}$  in head. Maxillary reaching slightly past front of eye. Eye 2 in snout, which is 3 in head. Nape slightly elevated. Lateral line strongly decurved. Intestines robust; eggs numerous. Example from locality 45 (N. Sonora, F. Robinette), with *Catostomus bernardini*. Length of specimen,  $12\frac{1}{2}$  inches; head,  $2\frac{7}{8}$ ; depth,  $2\frac{3}{4}$ ; snout,  $1\frac{5}{8}$ ; eye,  $1\frac{7}{8}$ .

A smaller individual,  $8\frac{3}{4}$  inches long, from N. Sonora, F. Robinette, with two examples of a *Catostomus*, shows the following:

MEASUREMENTS.

Length (tail imperfect).....	$8\frac{3}{4}$ in.
Head.....	2 in.
Depth.....	$1\frac{3}{4}$ in.
Least depth of caudal peduncle.....	$\frac{5}{8}$ in.
Snout.....	$1\frac{1}{2}$ in.
Upper jaw.....	$\frac{3}{4}$ in.
Eye.....	$\frac{3}{8}$ in.
Postorbital part of head.....	1 in.
Distance from snout to dorsal.....	4 in.
Length of dorsal base.....	1 in.
Length of longest dorsal ray.....	$1\frac{5}{8}$ in.
Length of last dorsal ray.....	$\frac{5}{8}$ in.
Distance from snout to ventral.....	$3\frac{7}{8}$ in.
Length of ventral.....	$1\frac{1}{8}$ in.
Distance from snout to anal.....	$5\frac{1}{2}$ in.
Length of anal base.....	$\frac{7}{8}$ in.
Length of longest anal ray.....	$1\frac{1}{8}$ in.
Length of last anal ray.....	$\frac{9}{16}$ in.

D. iii, 8; A. ii, 9; V. i, 8; P. i, 16; scales, 24–87–12; maxillary not quite reaching front of eye.

<sup>1</sup> For a report on the Mammals and Birds of the Lumholtz Collection, see this Bulletin, Vol. V, 1893, pp. 27–42.—ED.

**Leuciscus niger** (Cope).

Head,  $3\frac{5}{8}$ ; depth, 4; eye,  $5\frac{1}{3}$  in head. D. ii, 8; A. ii, 7; V. i, 8; P. i, 15; scales, 17-83-11, about 41 rows from occiput to origin of dorsal; teeth, 2, 5-4, 1, the first three hooked, all with grinding surface, last two on left side worn off at the point; the right side appears to have dropped one tooth of inner row and one of outer. Gill-membranes broadly attached to isthmus. Upper jaw equal to snout and to interorbital width. Eye,  $5\frac{1}{3}$  in head,  $1\frac{1}{8}$  in snout. Intestine shorter than body. The ventral extends almost to vent. The example is a female; with three smaller ones it was taken at San Diego, Chihuahua, in the summer of 1891, by Dr. Lumholtz.

## MEASUREMENTS.

Length to base of middle caudal rays.....	$7\frac{1}{4}$ in.
Depth of body.....	$1\frac{3}{4}$ in.
Least depth of caudal peduncle.....	$\frac{3}{4}$ in.
Length of head.....	2 in.
Length of upper jaw.....	$\frac{5}{8}$ in.
Length of snout.....	$\frac{5}{8}$ in.
Diameter of eye.....	$\frac{3}{8}$ in.
Distance between eyes.....	$\frac{5}{8}$ in.
Distance from snout to dorsal.....	4 in.
Length of dorsal base.....	$1\frac{1}{8}$ in.
Length of longest dorsal ray.....	$1\frac{1}{8}$ in.
Length of last dorsal ray.....	$\frac{5}{8}$ in.
Distance from snout to ventral.....	$3\frac{7}{8}$ in.
Length of ventral.....	$1\frac{1}{8}$ in.
Distance from snout to anal.....	$5\frac{1}{8}$ in.
Length of anal base.....	$\frac{3}{4}$ in.

The smaller examples measure from  $4\frac{1}{2}$  to 6 inches to the end of the scales.

**Catostomus bernardini** Girard.

Mouth inferior, but well advanced, the lips well developed, profusely and minutely papillose, the papillæ in about five rows. The individual is a female with numerous, very small eggs. The lateral line continuous and extending almost to the end of the scales.

Head, equal to depth, 4; least depth of caudal peduncle, 12; postorbital part of head, 10; eye,  $2\frac{1}{2}$  in snout,  $5\frac{3}{4}$  in head; width of isthmus,  $3\frac{2}{3}$  in head. D. i, 11 to 12; A. i, 7; V. i, 9; P. 15; scales, 11 to 12-70 to 72-12; margin of lips cordate.

## MEASUREMENTS.

	♀ N. Sonora, F. Robinette.	
Extreme length.....	$13\frac{3}{4}$ in.	$13\frac{1}{2}$ in.
Length of caudal fin.....	$2\frac{1}{4}$ in.	2 in.
Length of head.....	$2\frac{7}{8}$ in.	3 in.
Depth of body.....	$2\frac{5}{8}$ in.	$2\frac{5}{8}$ in.

Least depth of caudal peduncle . . . . .	1 in.	1 in.
Length of snout . . . . .	1 $\frac{1}{4}$ in.	1 $\frac{3}{8}$ in.
Diameter of eye . . . . .	$\frac{1}{2}$ in.	$\frac{7}{8}$ in.
Distance between the eyes . . . . .	1 $\frac{1}{4}$ in.	1 $\frac{1}{4}$ in.
Length of postorbital part of head . . . . .	1 $\frac{1}{8}$ in.	—
Distance from snout to dorsal origin . . . . .	5 $\frac{5}{8}$ in.	5 $\frac{7}{8}$ in.
Length of dorsal base . . . . .	1 $\frac{7}{8}$ in.	1 $\frac{1}{8}$ in.
Length of longest dorsal ray . . . . .	1 $\frac{3}{4}$ in.	1 $\frac{3}{4}$ in.
Length of last dorsal ray . . . . .	$\frac{7}{8}$ in.	$\frac{1}{8}$ in.
Distance from ventral origin to vent . . . . .	2 $\frac{1}{2}$ in.	—
Distance from snout to ventral origin . . . . .	—	6 $\frac{1}{4}$ in.
Length of anal base . . . . .	$\frac{7}{8}$ in.	$\frac{7}{8}$ in.
Length of longest anal ray . . . . .	2 $\frac{1}{4}$ in.	2 in.
Length of last anal ray . . . . .	—	1 $\frac{1}{8}$ in.
Distance from end of anal to caudal base . . . . .	1 $\frac{5}{8}$ in.	—
Length of pectoral . . . . .	2 $\frac{1}{8}$ in.	—
Length of ventral . . . . .	1 $\frac{3}{4}$ in.	1 $\frac{3}{4}$ in.

The ventral originates under the middle of the dorsal base. The female was taken in company with a *Ptychocheilus lucius*, 12 $\frac{1}{2}$  inches long, at locality 45, N. Sonora, F. Robinette. The second, of which measurements are given, was collected with a *Ptychocheilus lucius*, 8 $\frac{3}{4}$  inches long, in N. Sonora, by F. Robinette. A smaller individual, 8 $\frac{1}{2}$  inches long, is evidently of the same species.

### ***Pantosteus plebeius* (B. & G.).**

Head, 4 $\frac{1}{2}$ ; depth, 4%; eye, 5 $\frac{1}{2}$  in head. Ventrals reaching to vent. Dorsal inserted midway between snout and upper caudal rays. Caudal moderately emarginate. Color, in spirits, dark brown above; belly and under surface of head pale; anal and ventrals paler than body. D. 9-10; A. 7; V. 9; scales, 84 to 90-28 to 30.

Three examples, varying in length from 6 $\frac{3}{8}$  to 6 $\frac{1}{2}$  inches, were taken associated with four individuals of *Leuciscus niger* at San Diego, Chihuahua, in the summer of 1891, by Dr. Lumholtz. Two of them have numerous small tubercles developed on the anal, caudal and caudal peduncle, especially upon the lower caudal lobe, and the third has a few tubercles on the anal and the lower portion of the caudal peduncle.

A specimen of *Pantosteus plebeius*, No. 168, U. S. Nat. Mus., from Rio Mimbres, J. H. Clark, 4 $\frac{3}{4}$  inches long, has D. 10; A. 7; scales 27-90. Ventral not quite reaching vent; head, 4; depth, 5; eye, 4 in head.

**Ameiurus dugèsi** *Bean.*

A single individual,  $8\frac{7}{8}$  inches long, agreeing with the description of the above species, was taken at camp No. 25, Feb. 23, 1892, in the Rio Verde. It was killed with dynamite, and is not in good condition for study.

**Cyprinodon eximius** *Girard.*

Two examples of this species, the larger  $1\frac{7}{8}$  inches long, are from locality No. 39, San Diego, Chihuahua, F. Robinette. D. 11; A. 10; scales, 11-28.