

a small area of tumbled rock, a few acres in extent," and Mr. Robert informs me that *T. laurentius* is similarly very local in its distribution. He never met with it in any of the other places where he has collected.

Thrichomys laurentius has four mammæ, one pair placed high up on the flank behind the axillæ, and a second pair 4-5 cm. further back in front of the hips. No doubt the other species are similar in this respect.

T. laurentius is most nearly allied to *T. apereoides*, but may be distinguished by its darker colour and less bushy and crested tail. *T. Fosteri*, with a tail like that of *T. apereoides*, has a rather more greyish belly, wider palatal foramina, and more complicated third molars.

XXX.—*Descriptions of new or little-known Fishes from Mexico and British Honduras.* By C. TATE REGAN, B.A.

Clupea (Opisthonema) Bulleri, sp. n.

Depth of body $3\frac{1}{5}$ - $3\frac{2}{5}$ times in the total length, length of head 4 times. Snout as long as or a little longer than eye, the diameter of which is 4 times in the length of head. Maxillary extending to below anterior $\frac{1}{4}$ of eye; lower jaw projecting. Sc. 48-50/16. D. 17. A. 20-21. Last dorsal ray elongate. Origin of dorsal in advance of ventral, a little behind the vertical from the tip of pectoral. Pectoral $\frac{5}{7}$ the length of head, extending back a little more than $\frac{3}{5}$ the distance from its base to the anal. Silvery below, darker above; a more or less distinct dark spot on the shoulder; dorsal and caudal dusky.

Total length 127 mm.

Two specimens from Las Peñas, Jalisco, Mexico, collected by Dr. Buller.

This species is closely allied to *C. thrissa*, Brouss., but is distinguished by the smaller eye, lower jaw somewhat projecting, and no rows of dark spots on the upper part of the body.

Engraulis (Stolephorus) argentivittatus, sp. n.

Depth of body about 6 times in the total length, length of head $3\frac{2}{3}$ times. Snout nearly as long as eye, the diameter of which is $4\frac{1}{3}$ - $4\frac{1}{2}$ times in the length of head. Maxillary extending about to posterior edge of præoperculum. D. 12-13,

its origin midway between nostril and base of caudal. A. 16-17, commencing a little behind the end of dorsal. Pectoral less than $\frac{1}{2}$ the length of head. Scales deciduous. A well-defined silvery lateral band as broad as the eye.

Total length 75 mm.

Three specimens from Las Peñas, Jalisco, Mexico, collected by Dr. Buller.

Allied to *E. perfasciatus*, Poey, but with longer head, smaller eye, and shorter pectoral.

Pseudoxiphophorus pauciradiatus, sp. n.

Xiphophorus bimaculatus (part.), Heck. Sitzb. Ak. Wien, 1848, p. 297, pl. ix. fig. 2.

Pseudoxiphophorus bimaculatus (part.), Woolm. Bull. U.S. Fish. Comm. xiv. 1894, p. 65; Jord. & Everm. Fish. N. Am. p. 678 (1896).

Depth of body $3\frac{1}{2}$ -4 times in the total length, length of head $3\frac{3}{4}$ - $4\frac{1}{4}$ times. Snout not longer than eye, the diameter of which is $3\frac{1}{2}$ -4 times in the length of head, and 2 - $2\frac{1}{2}$ times in the interorbital width. 29-30 scales in a longitudinal series. D. 11-13, its origin nearer to base of caudal than to tip of snout, the length of its base about 4 times in the total length. A. 9-10, commencing in advance of the dorsal in the male, and slightly behind the dorsal in the female. Pectoral $\frac{2}{3}$ - $\frac{3}{4}$ the length of head. Brownish, each scale with a darker intramarginal crescent; a black spot on the shoulder and another on the upper part of the base of caudal; dorsal with 2 series of small blackish spots.

Total length 76 mm.

Eight specimens from Orizaba, Mexico, collected by Mr. A. J. Woolman.

Two species have been confounded under the name of *P. bimaculatus*, and it seems probable that the specimens described and figured by Heller as females belong to the one described above. *P. bimaculatus* (of which *P. reticulatus*, Trosch., is a synonym) must be restricted to the species of which Heckel described and figured a male specimen and which has been redescribed by Steindachner. It differs from *P. pauciradiatus* in having a longer head and longer snout, and in the dorsal fin with 14-16 rays commencing midway between tip of snout and base of caudal, its base about $\frac{1}{3}$ of the total length.

Zoogoneticus maculatus, sp. n.

Depth of body $3\frac{1}{3}$ - $3\frac{3}{4}$ times in the total length, length of head 3 times. Snout as long as eye, the diameter of which

is $4-4\frac{1}{2}$ times in the length of head, interorbital width $2\frac{1}{2}-2\frac{2}{3}$ times. Mouth moderate, oblique, the lower jaw prominent. Sc. 36-38. D. 13-14, its origin about equidistant from posterior edge of præoperculum and base of caudal, its longest ray (the fourth or fifth) a little longer than the base of the fin, which is $\frac{1}{2}$ the length of head or less. A. 15, commencing a little behind the dorsal, the first six rays, in the male, short, stiff, and of equal length. Pectoral $\frac{3}{5}-\frac{2}{3}$ the length of head. Ventrals extending to the vent. Caudal truncate. Caudal peduncle $1\frac{2}{3}-2$ times as long as deep. Brownish above, silvery below, with dark spots which are most conspicuous posteriorly; fins immaculate.

Total length 84 mm.

Three specimens from the Rio Santiago, Mexico, collected by Dr. A. C. Buller.

Z. pachycephalus, Gthr., and the very closely allied *Z. quitzeoensis* and *Z. robustus* of Bean, agree with this species in the number of dorsal and anal rays, but have a shorter and broader head and the caudal peduncle about as long as deep.

Dr. Meek includes *Fundulus guatemalensis*, Gthr., and *F. labialis*, Gthr., in *Zoogoneticus*, but in neither of them is there any differentiation of the anterior anal rays in the male. In the former the anal fin is similar in both sexes, in the latter it is larger in the female, and from the specimens in the British Museum one would judge that these species are not viviparous.

Characodon Geddesi, sp. n.

Depth of body $2\frac{2}{3}-3$ (males) or about $2\frac{1}{2}$ (pregnant females) times in the total length, length of head $3\frac{3}{4}-4$ times. Snout as long as eye, the diameter of which is $4-4\frac{1}{4}$ times in the length of head, interorbital width about $2\frac{1}{3}$ times. About 17 rather short gill-rakers on anterior arch. Sc. 39-42. D. 18-20, its origin nearly equidistant from posterior margin of operculum and base of caudal. A. 21-23, commencing a little behind the dorsal, not modified in the male. Pectoral nearly $\frac{2}{3}$ length of head. Ventrals extending to the vent. Caudal truncate. Caudal peduncle $1\frac{1}{2}-1\frac{3}{4}$ times as long as deep. Olivaceous, silvery below, with several darker narrow vertical bands on the upper half of the body.

Total length 70 mm.

Numerous examples of this viviparous species from Lake Tezcoco, Southern Mexico, collected by Mr. P. Geddes.

Heros (Cichlasoma) octofasciatus.

Heros octofasciatus, Regan, Revue Suisse Zool. xi. 1903, p. 417, pl. xiii. fig. 1.

Depth of body $2\frac{2}{3}$ times in the total length, length of head $2\frac{2}{3}$ –3 times. Snout nearly as long as or a little longer than the eye, the diameter of which is $3\frac{1}{3}$ – $4\frac{1}{3}$ times in the length of head, interorbital width about 3 times. Maxillary extending to vertical from anterior margin of eye; breadth of præorbital $\frac{1}{2}$ – $\frac{4}{5}$ diameter of eye; cheek with 5 or 6 series of scales; fold of lower lip interrupted in the middle. Sc. 28–31 $\frac{4\frac{1}{2}-5\frac{1}{2}}{12-14}$. $3\frac{1}{2}$ –4 scales between the upper lateral line and the scaly sheath at the base of the soft dorsal. D. XVII–XIX 8–10. A. VIII–X 7–8. Dorsal commencing above or a little before the axil of pectoral, the spines increasing in length to the sixth or seventh, which is $2\frac{2}{3}$ – $3\frac{1}{2}$ times in the length of head, thence subequal; soft dorsal and anal pointed; pectoral $\frac{3}{4}$ – $\frac{4}{5}$ length of head; ventrals extending to the base of fourth or fifth anal spine; caudal rounded; caudal peduncle $1\frac{3}{4}$ – $2\frac{1}{4}$ times as long as deep. In the young dark cross-bands on the body, which become indistinct in the adult; a dark blotch on the middle of the side below the lateral line and another on the upper half of the base of the caudal, this latter often ocellated; in the adult a dark band running from the eye to the blotch on the side; usually some light blue spots on the head and one on each scale of the side of the body; vertical fins with small dark spots.

Total length 130 mm.

Several examples from British Honduras, collected by the Rev. J. Robertson.

I am glad to be able to give a more complete account of this species, which was originally described from a little example of 50 mm. It is closely allied to *H. multispinosus*, Gthr., which has much stronger and longer dorsal spines, and to *H. nigrofasciatus*, Gthr., which has a broader præorbital and only $2\frac{1}{2}$ scales between the upper lateral line and the sheath at the base of the soft dorsal fin.

Heros (Heros) callolepis, sp. n.

Depth of body about $2\frac{2}{3}$ times in the total length, length of head 3 times. Eye nearer to posterior edge of operculum than to end of snout, its diameter $3\frac{1}{2}$ times in the length of head and equal to the interorbital width. Maxillary not extending to below the eye; breadth of præorbital equal to the diameter of eye; cheek with 4 or 5 series of scales; lower

lip with a strong continuous fold. Sc. 28-29 $\frac{4\frac{1}{2}}{12}$, $1\frac{1}{2}$ -2 between upper lateral line and base of soft dorsal. L. lat. 18-20 + 10. D. XV 9-10. A. VI-VII 7-8. Dorsal commencing behind axil of pectoral, the spines rather weak, the last $2\frac{1}{2}$ - $2\frac{3}{4}$ times in the length of head and not longer than the last of the anal; soft dorsal and anal pointed; pectoral about $\frac{3}{4}$ the length of head; ventral extending beyond origin of anal; caudal weakly emarginate; caudal peduncle as long as deep. Brownish, with small light blue spots on the head and one at the base of each scale on the body; a dark blotch on the lateral line below the 13th-15th dorsal spines.

Total length 100 mm.

Two specimens from Santo Domingo de Guzman, Mexico, collected by Dr. A. C. Buller.

Heros aureus, Gthr., is distinguished by the deeper body (depth $2\frac{1}{4}$ - $2\frac{1}{3}$ in the total length), smaller scales ($33\frac{6}{13}$), and longer dorsal spines (the last $\frac{1}{2}$ the length of head).

XXXI.—*Descriptions of Holocentrum osculum, Poey, and of a new Fish of the Genus Centropomus.* By C. TATE REGAN, B.A.

AMONGST the fishes collected by Dr. R. Bowdler Sharpe in the West Indies are several examples of a *Holocentrum* which I have no doubt is the little-known *H. osculum* of Poey, and as such I describe it below. I also take the opportunity to describe a new *Centropomus* from the West Indies.

Holocentrum osculum.

Holocentrum osculum, Poey, *Memorias*, ii. p. 156 (1860).

Holocentrum perlatum, Poey, t. c. p. 157.

Depth of body 3 - $3\frac{2}{5}$ times in the total length (without caudal) and nearly equal to the length of head (opercular spine included). Snout equal in length to the interorbital width, $\frac{2}{3}$ - $\frac{2}{3}$ the diameter of eye, which is 3 times in the length of head. Maxillary extending to below anterior edge of pupil, the width of its distal extremity $\frac{2}{5}$ the diameter of eye. Opercular spine strong, with 1 or 2 more or less distinct much shorter spines below; præopercular spine extending back far beyond the subopercular margin; præorbital strongly serrated and with an anterior downwardly directed spine. 15-16 gill-rakers on the lower part of anterior arch.



Regan, C. Tate. 1904. "Descriptions of new or little-known fishes from Mexico and British Honduras." *The Annals and magazine of natural history; zoology, botany, and geology* 13, 255–259.

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