XXX.—Descriptions of Six new Freshwater Fishes from Mexico and Central America. By C. TATE REGAN, B.A.

## Pimelodus Boucardi.

Depth of body 61 in the length, length of head 4. Breadth of head  $1\frac{1}{3}$  in its length, length of snout  $2\frac{3}{4}$ , diameter of eye 6, interorbital width 3. Lower jaw nearly as long as the upper; maxillary barbel extending to origin of adipose fin. Head covered with smooth skin; occipital process rather strong, extending 1/2 the distance from its base to the origin of dorsal. Dorsal I 6, the spine slender, the fin rounded, as high as long. Adipose fin 1 the length of the fish. Anal 14. Pectoral spine with serrated inner edge, about  $\frac{3}{5}$  the length of the fin and 1 the length of head; humeral process long, nearly reaching the middle of the fin; ventrals originating nearly below the last dorsal ray, extending more than 2 of the distance from their base to the origin of anal. Caudal deeply notched, the lobes rounded, the lower the larger. Least depth of caudal peduncle 1 the length of head. Blackish.

Hab. Yucatan (Boucard).

A single specimen, 190 mm. in total length.

## Pimelodus brachycephalus.

Depth of body  $5\frac{1}{2}$  to  $6\frac{1}{2}$  in the length, length of head  $5\frac{1}{2}$ to 54. Breadth of head  $1\frac{1}{5}$  in its length, length of snout  $2\frac{2}{3}$ to 3, diameter of eye 5 to 6, interorbital width 3 to 31. Lower jaw a little shorter than the upper; maxillary barbel extending to the basal part of pectoral. Head covered with smooth skin; occipital process short. Dorsal I 6, the spine slender, the fin rounded, as high as or higher than long. Length of adipose fin  $3\frac{1}{4}$  to  $3\frac{3}{4}$  in the length of the fish. Anal 12-13. Pectoral spine with serrated inner edge, about 3 the length of the fin and 3 the length of head; humeral process short; ventrals originating behind the dorsal, extending 1 to 3 the distance from their base to the origin of anal. Caudal moderately notched, the lower lobe rounded and rather shorter than the upper. Least depth of caudal peduncle <sup>2</sup>/<sub>3</sub> or more than <sup>2</sup>/<sub>3</sub> the length of head. Brownish.

Hab. Guatemala, Rio Nacasil (Salvin).

Six specimens, measuring up to 190 mm. in total length.

# Pimelodus Rogersi.

Depth of body 6 in the length, length of head 5. Head 13 as long as broad. Diameter of eye 6 in the length of head, interorbital width 3, length of snout 3. Head covered with smooth skin; fontanel not extending beyond the level of posterior margin of eye; occipital process short. Maxillary barbel extending to middle of pectoral fin. Dorsal I 6, the spine slender, the fin rounded, higher than long. Adipose fin as long as or a little longer than its distance from the dorsal, about  $\frac{2}{3}$  the length of the fish. Anal 12-14. Pectoral spine nearly  $\frac{2}{3}$  the length of the fin and nearly  $\frac{2}{5}$  the length of head, its inner edge with a series of rather small denticulations. Ventrals originating behind the last dorsal ray, extending  $\frac{1}{2}$  the distance from their base to the origin of anal. Caudal with a shallow notch. Least depth of caudal peduncle  $\frac{3}{5}$  the length of head. Brownish.

Hab. Costa Rica, Irazu (H. Rogers).

Four specimens, measuring up to 130 mm. in total length. Allied to *P. Salvini*, Gthr., which has a longer adipose fin ( $\frac{2}{7}$  the length of the fish), a shorter pectoral spine (less than  $\frac{1}{3}$  the length of head), a shorter anal fin with 11 rays, and the caudal more deeply notched.

#### Gambusia annectens.

Depth of body 3 to  $3\frac{1}{2}$  in the length, length of head  $3\frac{1}{2}$  to  $3\frac{3}{4}$ . Snout as long as or shorter than eye, the diameter of which is 3 to  $3\frac{2}{3}$  in the length of head; interorbital width equal to the distance from middle or posterior part of eye to free edge of operculum. 28 to 31 scales in a longitudinal series. Dorsal 10-12; origin equidistant from tip of snout and middle or posterior part of caudal; free edge of the fin convex. Anal 9-10, pointed, originating a little in advance of the dorsal. Pectoral about  $\frac{3}{4}$  the length of head. Caudal rounded or subtruncate. Least depth of caudal peduncle about  $\frac{2}{3}$  the length of head. Scales with dark edges, forming series of spots on the lower part of the side; a series of dark spots on the lower part of the dorsal fin.

Hab. Costa Rica, Carrullo and Juan Veñas (Underwood); Irazu (Rogers).

Numerous specimens, measuring up to 70 mm. in total length.

This species is very close to G. episcopi, Steind., from Panama, which has only 8 or 9 dorsal rays and also differs in having a blackish spot on the anal fin. It is also close to G. terrabensis, Regan, and G. Jonesii, Günther \*, and with them forms a series from G. episcopi to G. (Pseudoxiphophorus) bimaculata, Heck., so that the genus Pseudoxiphophorus can no longer be maintained.

### Gambusia terrabensis.

Depth of body  $3\frac{1}{4}$  to  $3\frac{1}{2}$  in the length, length of head  $3\frac{1}{2}$  to  $3\frac{4}{3}$ . Snout shorter than eye, the diameter of which is 3 to  $3\frac{1}{3}$  in the length of head; interorbital width equal to the distance from posterior margin of pupil to free edge of operculum. 29 to 31 scales in a longitudinal series. Dorsal 12-14; origin equidistant from tip of snout and base of caudal or a little nearer the latter. Anal 9-10; origin below or a little in advance of the middle of dorsal. Pectoral nearly  $\frac{3}{4}$  the length of head. Caudal subtruncate. Least depth of caudal peduncle nearly  $\frac{2}{3}$  the length of head. Scales of the upper part of the body with dark edges; an interrupted dark lateral stripe; dorsal fin with a basal series of vertically expanded blackish spots and with a second series of smaller spots; anal dark at the base and also distally; posterior part of caudal dusky.

Hab. Costa Rica, Rio Grande de Térraba, Pacific Slope (H. Pittier).

Six specimens, measuring up to 48 mm. in total length.

### Sicydium Pittieri.

Depth of body 6 in the length, length of head  $5\frac{1}{3}$  to  $5\frac{2}{3}$ . Diameter of eye  $5\frac{1}{2}$  to 6 in the length of head, interorbital width 4 to  $4\frac{1}{2}$ . Snout obtuse; mouth subterminal, with horizontal cleft, extending to below the middle of eye; upper teeth bicuspid; teeth of the outer series in the lower jaw sometimes concealed. Occipital region covered with small scales; 75 to 80 scales in a longitudinal series; abdomen with a median naked area or strip. Dorsal VI, I 10; rays of first dorsal (in the males) produced into filaments, the longest, when laid back, nearly reaching the end of the base of second dorsal; longest rays of second dorsal a little longer than the head. Anal I 10; origin equidistant from eye and base of caudal. Pectoral longer than the head, twice as long as the ventrals. A dark spot on each scale; dorsal fins with dark vermiculations; anal with a dark edge.

Hab. Costa Rica, Rio Grande de Térraba (H. Pittier).

Two specimens (males), 120 and 135 mm. in total length.

This species is nearest to S. Salvini, Grant, from Panama and Western Ecuador.

\* Mollienisia Jonesii, Gthr. = Pseudoxiphophorus pauciradiatus, Regan.



Regan, C. Tate. 1907. "Descriptions of six new freshwater fishes from Mexico and Central America." *The Annals and magazine of natural history; zoology, botany, and geology* 19, 258–260.

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