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NEW SPECIES OF FISHES FROM TROPICAL AMERICA

BY

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A large, abstract, black and white graphic resembling a stylized, dense forest or a complex network of lines and dots, possibly representing a map or a data visualization. The graphic is composed of numerous small, dark, irregular shapes and lines that form a dense, interconnected pattern. The overall shape is roughly rectangular, with a slightly irregular, organic edge. The internal structure is highly complex, with many small, dark, irregular shapes and lines that form a dense, interconnected pattern. The background is white, and the graphic is centered on the page.

NEW SPECIES OF FISHES FROM TROPICAL AMERICA

BY SETH EUGENE MEEK

During the past year the Museum has received a few small collections of fishes from Tropical America, among which the following appear to be undescribed:

Rhamdia nasuta sp. nov.

Type No. 6480, F. M. N. H.; length, 125 mm.; Buenos Aires de Terraba, Costa Rica.

Head 3.65; depth 5.20; D. I, 6; A. 11.

Body elongate, moderately robust; top of head flat, interorbital 3 in head; occipital process short, about twice as long as broad at base; upper jaw the longer; mouth moderate, its greatest breadth 2.40 in head; eye 5.20; snout 2.68; maxillary barbels nearly reaching adipose fin; dorsal spine weak, its length 3.80 in head; pectoral spine strong, its margins retrorse dentate, its length 2.70 in head; fontanelle large, from between posterior nostrils to pupil; length of tubes bearing anterior nostrils greater than diameter of pupil; adipose fin well developed, its distance from dorsal 2.19 in head; length of adipose fin 3.26 in body, height of adipose fin 5.70 in head; tip of snout to dorsal spine 2.68 in body; least depth of caudal peduncle 2.38 in head; caudal fin deeply forked, its lobes pointed.

Color olivaceous, sides with an obscure dark lateral band.

One specimen, the type. Collected by Mr. M. A. Carriker.

Astyanax regani sp. nov.

Type No. 6257, F. M. N. H.; length, 130 mm.; Las Cañas, Costa Rica.

Head 4.66; depth 3.33; D. 11; A. 27; scales 8-39-6.

Body elongate, heavy anteriorly, the head short and blunt; pre-ventral area broadly rounded, without a median series of scales; postventral area broadly rounded; predorsal area rounded, with a partially complete series of ten median scales; occipital process $\frac{1}{2}$ its distance from the dorsal, bordered by 3 scales on the side; inter-

orbital very convex, 2.5 in head; frontal fontanelle $\frac{1}{3}$ as long as the parietal; snout short and blunt; maxillary not quite equal to length of eye; diameter of eye 3.5 in head; second suborbital leaving a naked space equal to $\frac{1}{3}$ its own width; premaxillary with four teeth in each series; maxillary with 3 teeth; dentary with four large graduated teeth in front and several smaller ones similar to the last of the four larger on the sides; gill-rakers short, about 6+11; dorsal a little nearer snout than caudal, its height about $\frac{1}{2}$ in the length; caudal about equal to length of head; origin of anal below the tip of the last dorsal ray; ventrals below the second scale in front of dorsal, reaching a little more than half way to anal; pectorals reaching $\frac{2}{3}$ to ventrals; scales thin, cycloid, rather irregularly placed on the belly; no interpolated scales on the sides; an exceedingly low anal sheath; caudal naked; a very short and broad axillary scale; lateral line but little decurved.

Color silvery, an obscure vertical humeral spot; a plumbeous lateral band; a caudal spot; middle caudal rays dark.

Named for Mr. C. T. Regan of the British Museum.

One specimen, the type. Collected by Dr. A. Alfaro.

Cyprinodon dearborni sp. nov.

Type No. 6484, F. M. N. H.; length, 44 mm.; Willemstad, Curacao, Dutch West Indies.

Head 2.7 to 2.9; depth 2.1 to 2.5; D. 10; A. 10; scales 12-24.

Body robust; dorsal region elevated; head large; interorbital flat, 2.6 to 2.8 in head; snout 3.0 to 3.3; diameter of eye 3.2 to 3.4; lower jaw stronger and longer than the upper; teeth tricuspid; dorsal fin inserted slightly behind ventrals, its distance from snout 1.7 to 1.8 in body; pectorals 1.3 to 1.5 in head; ventrals 2.8 to 2.9; caudal peduncle 1.5 to 1.7 in males to 2.0 in females; humeral scale enlarged.

Color, dark olive to nearly black; males plain, the fins, except dorsal, tipped with black; females variegated with darker with tendency to form bars; a narrow dark bar at base of caudal rays; dorsal and anal with black ocellus on middle of last rays; none of the fins tipped with black. This fish resembles *Cyprinus riverendi* Poey, from which it differs in having a larger head, more slender body, and darker coloration. It is also a smaller fish.

Willemstad, Curacao, Dutch West Indies (9♂), 36 to 44 mm. and (4♀), 34 to 38 mm.

Collected by Dr. N. Dearborn, for whom the species is named.

Girardinus vandepolli (Van Lidth de Jude).

Poecilia Vandepolli Van Lidth de Jude, Lyden Museum, IX, 137, 1887, Freshwater Curacao.

Head 3.3 to 3.5; depth 3.3 to 3.5; D. 8; A. 8; scales 34 to 46.

Body robust; top of head flat; interorbital 1.8 to 2.1 in head; jaws weak; teeth pointed, in one series; snout 4.3 to 4.6 in head; diameter of eye greater than length of snout, 3.3 to 3.6 in head; origin of dorsal nearer base of caudal than tip of snout, its distance from tip of snout 1.6 in body; origin of dorsal slightly in advance of that of anal; caudal peduncle deep, 1.6 to 1.8 in head; pectoral 1.3 to 1.4 in head; modified anal of male 1.1 to 1.2 in head.

Color olivaceous, dorsal with a faint dark bar. Very abundant in fresh water pools; eggs with eye spots formed, 12 to 16 eggs in adult females.

Estate of Dr. Van Lier, Curacao, Dutch West Indies (100), 20 to 40 mm. This species is reported by Dr. N. Dearborn, who collected it, to be very abundant in a small brook on the Van Lier estate which is about 7 miles west of Willemstad.

Poecilia caudata sp. nov.

Type (♀) No. 6360, F. M. N. H.; length, 88 mm.; Turrubares, Costa Rica.

Head 3.9 to 4.1; depth 2.9 to 3.3; D. 9 or 10; A. 9; scales 10-29.

Body robust, compressed, the dorsal region slightly elevated; top of head flat, interorbital 1.7 to 1.9 in head; snout 3.7 to 3.9; diameter of eye 3.4 to 3.7; origin of dorsal slightly in advance of anal and much nearer base of caudal than tip of snout, its distance from tip of snout 1.6 to 1.7 in body; dentition weak; free edge of dorsal slightly convex; its base 1.9 to 2.1 in head, its longest ray 1.7 to 1.8; pectoral 1.1 to 1.2 in head; ventral 1.8 to 2.0; longest anal rays 1.6 to 1.8; caudal peduncle 1.2 to 1.3.

A single male in the collection shows the following measurements: Head 3.64 in length of body; depth 2.60; tip of snout to dorsal 1.72; eye 3.16 in head; snout 3.60; interorbital 1.80; pectoral 1.15; ventral 1.63; modified anal 1.50; base of dorsal 1.57; longest dorsal ray 0.70; depth of caudal peduncle 1.12; tips of dorsal rays reach base of caudal when the fin is deflexed.

Color olivaceous; scales with faint dark centers, forming obscure lines along rows of scales; a dark blotch at base of dorsal rays; a blotch on base of caudal rays made up of a number of irregular blotches; the lower half of dorsal fin of male with many small black

dots; anterior half of caudal with a large black blotch made up of many small irregular black spots; other fins plain.

Turrubares, Costa Rica, (1♀) 88 mm.; Turrubales, Costa Rica (1♂) 89 mm.; San Jose, Costa Rica (1♀) 55 mm.; Patarra, Costa Rica, (6♂), 63 to 80 mm. Collected by Dr. A. Alfaro.

***Cichlasoma punctatum* sp. nov.**

Type No. 6478, F. M. N. H.; length, 98 mm.; Buenos Aires de Terrada, Costa Rica.

Head 3.2 to 3.3; depth 2.4 to 2.6; D. XVI to XVII, 9 or 10; A. IV or V, 8; scales 33.

Body moderately elongate and compressed; profile steep, convex, snout blunt; mouth small, its gape nearly horizontal; margin of upper lip below eye, a distance nearly equal to diameter of eye; teeth pointed, subequal, the lateral ones gradually becoming smaller; maxillary not reaching vertical from anterior margin of orbit, 3.3 to 3.4 in head; mandible 2.5 to 2.7; preorbital deep, 3.5 to 3.6 in the head; postorbital 2.2 to 2.3; cheek deep and narrow, its depth equal to postorbital; eye small, its diameter 3.9 to 4.1 in head; interorbital convex; dorsal fin rather low, its last spine 2.6 in head; last anal spine 2.5 in head; pectoral fins short not reaching anal, about 1.2 in head; ventral reaching vent 1.3 in head; $5\frac{1}{2}$ scales between lateral line and origin of dorsal fin, least depth of caudal peduncle 2 in head.

Color olivaceous, side with indistinct lateral band more or less broken into 7 or 8 dark bars; snout black which may continue on profile and on spinous dorsal fin; some scales with black centers, these forming stripes along rows of scales; these stripes much more prominent on some individuals than on others; no caudal spot; no lateral spot.

Buenos Aires, Costa Rica (12), 85 to 100 mm. Collected by M. A. Carriker.

***Cichlasoma frontale* sp. nov.**

Type No. 6358, F. M. N. H.; length, 147 mm.; Turrubales, Costa Rica.

Head 3.1 to 3.3; depth 2.3 to 2.4; D. XVI or XVII, 13; A. V, 9; scales $5\frac{1}{2}$ -35-11 $\frac{1}{2}$.

Body moderately elongate, compressed; profile rather steep, the snout blunt; mouth small, maxillary not reaching vertical from front of eye, its length 3.5 to 3.8 in head; lower jaw the shorter, mandible

2.8 to 2.9 in head; eye 3.5 to 3.7; snout 2.2 to 2.4; fold of the lower lip interrupted; preorbital deep, 3.6 to 3.8 in head; postorbital 2.4 to 2.5; interorbital strongly convex, 2.5 to 2.7 in head; eye to lower preopercular margin 2.3 to 2.5; origin of dorsal fin to tip of snout 2.5 to 2.6 in body, its spines, except first, 3 or 4, subequal, the length of the last spine 2.3 to 2.4 in head; last anal spine 2.5 to 2.5 in head; pectorals not reaching vent, their length 1.2 to 1.3 in head; ventrals 1.2 or 1.3; least depth of caudal peduncle 2.2 to 2.3 in head; its length 1.9 to 2.0; gill-rakers short 3+6; caudal fin rounded, its middle ray slightly shortened.

Color light grayish olive; a dark lateral band broken more or less into 6 or 7 irregular blotches or bars; a dark streak from upper margin of eye across forehead; a similar streak or band on forehead from eye downward and forward; vertical fins plain or with indistinct dots.

This fish resembles *Cichlasoma underwoodi* Regan, also described from Costa Rica. It, however, differs from that species in the interrupted fold of the lower lip, the fewer gill-rakers, in having a blunter snout, and in the normal position of the ventral fins.

Turrabales, Costa Rica (1), 147 mm.; Turrubares, Costa Rica (1), 128 mm. Collected by Dr. A. Alfaro.

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