

5. *Goodea gracilis*, new species

(Pl. IV, Fig. 1, holotype.)

Goodea caliente (presumably a misidentification, not *Xenendum caliente* = *Goodea atripinnis*).—Meek, 1902: 100-101; and 1903: 778 (record from San Juan del Río only).

Goodea calientis.—Regan, 1907: 91 (San Juan del Río record). Eigenmann, 1910: 459 (Panuco basin).

Goodea atripinnis (presumably a misidentification).—Meek, 1904: xxxvii, 140 (record from San Juan del Río only). Eigenmann, 1910: 459 (Panuco basin). Hubbs, 1924b: 4 (San Juan del Río only). Mayer, 1937: 97-98, 1 fig. (aquarium culture; reproduction; synonymy excepted).

Goodea gracilis.—Turner, 1937b: 496, 499 (*nomen nudum*).

Of the 3 species from the Río Panuco system referred to *Goodea*, 2 are now shown to represent distinct genera (*Ataeniobius* and *Xenoporphus*), but the third form, hitherto confounded with *Goodea atripinnis*, is apparently a true *Goodea*. This form, *G. gracilis*, seems to differ specifically from *G. atripinnis* and *G. luitpoldii* of the Río Lerma system in certain superficial characters, as outlined in the analytical key on pages 27-28.

HOLOTYPE.—An adult female 39 mm. in standard length, collected by Gordon, Whetzel, and Ross in Río Santa María, of the Río Panuco system,

at Santa María del Río, San Luis Potosí, Mexico, on March 21, 1932; U.M.M.Z. No. 108552.

The paratypes, in the same Museum, comprise 3 adult males 34 to 43 mm. long, taken with the holotype; 4 half-grown of the specimens previously identified as "*Goodea caliente*" and "*Goodea atripinnis*," collected by Meek in Río San Juan, tributary of Río Moctezuma of the Río Panuco system, at San Juan del Río, Queretaro, Mexico, May 16, 1901; and 18 young to adult specimens, 12 to 53 mm. in standard length, of the aquarium stock originally obtained at San Juan del Río, and received from the importer, C. Basil Jordan, and from Albert Greenberg and F. H. Stoye. The account and figure given by Mayer (1937) for *Goodea atripinnis* was undoubtedly based on specimens of the same stock.

Body rather slender but thick, particularly chunky and turgid just behind the head, where the width is about two-thirds the depth. Greatest depth, 3.4 (3.3 to 3.7 in paratypes). Dorsal contour rather evenly and gently curved from origin of dorsal to tip of snout, often more or less flattened on top of head. Ventral contour equally but less evenly curved, rather steep at the chin, and sometimes prominent below pectoral fin, especially in males. Dorsal base forming an angle of about 20° with the horizontal; anal base one of 20° to 25° in adult females, increasing to 40° in adult males. Edges of the caudal peduncle nearly horizontal and weakly concave. Least depth of peduncle, 1.4 (1.3 to 1.5) in length of peduncle; 2.0 (1.75 to 2.05) in head.

Length of head, 3.5 (3.2 to 3.7). Head approximately as deep as its greatest width, which enters the head length 1.55 (1.4 to 1.6) times. Least width of the moderately convex interorbital, 2.2 (2.0 to 2.3). Orbit, 1.8 (1.6 to 2.3) in interorbital; 3.7 (3.4 to 4.3) in head. Snout, 3.5 (3.3 to 3.7). Mouth moderately wide (extreme over-all width, 2.5 to 2.6, rarely 2.7 or 2.8, in head); with almost strictly transverse gape; lips rather full. Teeth, jaws, gill-rakers (39 in one paratype), and intestines as described for the genus in item 7e of analytical key (p. 27).

Fin rays: dorsal, 13 (12 to 14, usually 12 or 13); caudal, 19 (18 to 21) branched rays; anal, 16 (14 to 16, usually 15 or 16), including a minute first ray; pelvic, 6; pectoral, 15 (14 to 16, usually 15). Origin of dorsal fin slightly behind that of anal (rarely on the same vertical) in females and low males, usually directly over anal origin in well-developed males. Distance from dorsal origin to end of middle ray of caudal fin, 1.35 (1.3 to 1.4 in females, 1.25 to 1.35 in males) in distance from dorsal fin to tip of premaxillaries. Distance from caudal base to dorsal origin, 2.1 (1.9 to 2.3 in females, 1.9 to 2.1 in males) in predorsal length. Broadly rounded dorsal fin reaching about two-thirds distance to first procurrent caudal ray in females and low males, almost to the procurrent rays in high males; length

of depressed dorsal in head, 1.5 (1.3 to 1.6 in females, 1.1 to 1.3 in adult males). Posterior margin of caudal fin weakly rounded; length of fin, 1.4 (1.3 to 1.45 in females, 1.25 to 1.4 in males). Characters of pelvic fin, of anal lobe in adult male, and of swollen area between anus and genital opening all as described for the genus on p. 27).

Scales rather large, in 38 (35 to 39) transverse and 14 (12 to 16) longitudinal rows.

Sides with brown spots and blotches thickly set on a cream background, in holotype and other small adults. Larger adults are almost uniform, deep purplish brown, except on yellowish belly, breast, and throat. Young with relatively few (about 30) spots, mostly vertically elongate, scattered over sides. Middorsal dusky stripe rather indistinct; axial band on sides rather well developed in small adults, but very weak in young and in large adults; no distinct stripe on lower edge of caudal peduncle. Vertical fins dark, becoming deep dusky in adults; pectoral pale dusky; pelvic clear, mottled, or uniformly dark.

The name *gracilis* refers to the slender form.